

STR Vision CPM

STR Vision CPM is a complete software characterized by flexibility and modularity, capable of meeting all operators' requirements in the building sector: Professionals, Engineering companies, SMEs, Large companies, General contractors, Public administration, Utilities.

Support services

The following services are at your disposal:

ONLINE SUPPORT

You can receive online support at the following address: www.strvision.it/visionline.htm

TECHNICAL ASSISTANCE

Tel.: + 39 376 552.501-2

Fax: + 39 376 552.270

e-mail: Tecnici.tss@teamsystem.com

Our Call Center is at your disposal on working days from 8.30 a.m. to 1.30 p.m. and from 2.30 p.m. to 6.00 p.m.

Please consult the Tutorial

Main subjects are:

- [L'interfaccia di STR Vision](#)
- [I documenti di lavoro](#)
- [Le funzioni generali](#)
- [Impostazioni di sistema](#)
- [Listini e prezzi](#)
- [Progetti e commesse](#)
- [Preventivazione](#)
- [Contabilità Lavori](#)
- [Contabilità subappalti](#)
- [Vision per le imprese](#)
- [Registrazioni di cantiere](#)
- [Controllo commessa](#)
- [Piani di manutenzione](#)
- [Capitolato](#)
- [Giornale lavori](#)
- [Piani di Sicurezza](#)

[STR Vision CPM interface](#)

↓ [What you need to know to start](#)

- [Interface elements](#)
 - [STR Vision CPMstart page](#)
 - [Starting STR Vision](#)
-

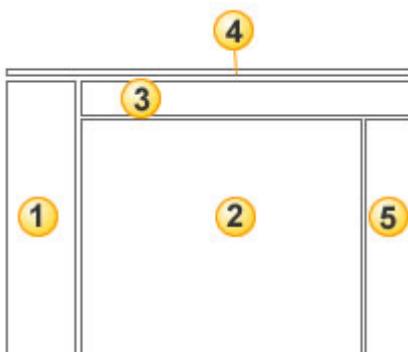
The workspace of STR Vision is flexible and dynamic .

It enables the user to access the system functions quickly and efficiently; task panes are flexible and dynamic and allow STR Vision interface to be customized according to the user's requirements .

In addition, contextual tools are only activated when necessary, so that the workspace is maximized

[Interface elements](#)

1. [Navigation pane](#)
2. [Workspace](#)
3. [Multifunction bar](#)
4. Title bar
5. [Help pane](#)



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[STR Vision start page](#)

It contains:

- RSS channels of STR
- Link to the site: www.STR.it

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[Starting STR Vision](#)

When starting a work session , the user will find the settings left when closing the application .

STR Vision immediately shows the current document in the [Title bar](#).

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[Image bg_g.jpg]

Navigation pane

Navigation pane structure

The Navigation pane allows the user to access all STR Vision functions; it is docked on the left side of the work window.

The Navigation pane is divided into:

1. [Folders](#)
2. [List of project documents](#)

Folders

The folder buttons are in the lower part of the navigation pane.

Each folder allows the user to access a specific series of [work documents](#) ([worksheets](#) or [folders](#)) which are displayed in the [List of project documents](#).

EXAMPLE: Select the folder "Lists and pricelists" to have lists, prices and rates displayed in the List of project documents (you will retrieve them for the different jobs).

The main Folders are:

- System settings** : general settings of the system, independently of the specific project.
- Lists and pricelists** : lists, prices and rates to be retrieved for the different jobs.
- Projects** : information on companies and professional companies using STR Vision, list of projects and general data on the current project.
- Estimation** : all estimates available in STR Vision system.
- Jobs accounting** : all accountings available in STR Vision system.

How to show/hide the folder buttons

The buttons can be shown as icons or in extended form.

Click and choose one of the following options:

- show more buttons** : to show an additional button in the extended form.
- show less buttons** : to remove a button from the visualization in extended form and add it as an icon in the bar underneath.
- add or remove buttons** : to select one of the buttons and add or remove it from the folder list (in this way it is removed both from the extended and icon visualization).

To display more [or less] buttons quickly, place the pointer on the splitter bar and drag the horizontal split bar upwards [or downwards] when the pointer becomes a double arrow.

By dragging the horizontal split bar downwards, the large buttons will change into small ones and appear on a single row in the lower part of the pane.

TIP : To increase the space reserved to the List of project documents, drag the horizontal split bar downwards, then use the small buttons to go from a Folder to another .

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[List of project documents](#)

The List of project documents shows the hierarchical structure of the working documents (worksheets or folders)

- concerning the selected Folder; therefore it is contextual (displayed elements depend on the context you are working in).
- The [Working documents](#) are organized in folders and subfolders
- To open a working document double-click
- To view the content of a folder click ; to collapse the content of a folder click .

If a new working documents is not displayed in the List of project documents , right-click and select **Update**.

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[Image bg_g.jpg]
Workspace interface

Data loading grid

- [Data loading grid structure](#)
- [Viewing contents of Work documents](#)
- [Removing, adding and moving columns](#)
- [Changing column display](#)

Detail folders

- [Detail folders](#)

Navigation tree

- [Collapse/expand the navigation tree of the current document](#)
- [How to order and filter using the Navigation tree](#)

↓ **Features**

- [Customize tree function](#)
- [Tree Property](#)
- [Tree groups function](#)

[Workspace structure](#)

The workspace is characterized by a dynamic interface (that can be customized by the user and is contextual to the management in course) and consists of:

1. [Data loading grid structure](#)
2. [Detail folders](#)
3. [Navigation tree](#)

Each Work document always consists of a [Data loading grid](#); [Detail folders](#) and the [Navigation tree](#) are only available in some types of document.

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[Data loading grid structure](#)

The Data load grid is the main grid where archive data are displayed. It consists of cells quite similar to Excel™. The rows contain archive registrations and the columns the following fields: code, description, price, etc.

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[Viewing contents of Work documents](#)

- Use the navigation buttons to select the document rows.
- Use the scroll bar to scroll the document pages.

[Removing, adding and moving column](#)

- To remove a column drag the column heading downwards until the mouse cursor turns into an **X**.
- To add a column:
 1. Right-click the column heading.
 2. Select **Select columns**.
 3. Select the column to be added in the window 'Customize' and drag it into the data load grid.
- To move a column, click the column heading and drag it to the left or to the right . Reach the desired position and release the mouse button .

[Changing column display](#)

Some settings of column view can be changed as follows: right-click the column heading and select one of the items.

Ascending order: Data are arranged from the lowest to the highest one.

Descending order: Data are arranged from the highest to the lowest one.

Remove order: The order principle applied to the current column is removed.

Select columns: It gives access to the window "Customize": here the column fields that can be added to the grid are listed.

Autofit: The width of the selected column is automatically sized to data.

Remove filter: It removes the filter applied.

Filter editor: It enables the advanced filter function.

Autofit columns: All columns are automatically sized to data.

Not fixed: The column width can be changed by dragging both its left and right margins.

Left fixed: The left column margin is fixed in its current position.

Right fixed: The right column margin is fixed in its current position.

[Detail folders](#)

Detail folders concern the open work document and allow the user to view, modify and create additional information.

Detail folders are contextual to the current document (i.e. the elements displayed depend on the context you are working in).

NOTE: Detail folders are only available for some kinds of Working documents

[Navigation tree](#)

The navigation tree allows the user to filter and order the data of the current work; it is only available in some

kinds of work document and
(i.e. displayed elements depend on the context you are working in).

The navigation tree is docked on the left of the workspace and can operate in floating mode (i.e. it opens and closes in the forefront of the workspace, according to the cursor movement on it), or in docked mode (i.e. once docked, the pane is left open even when working outside of it).

[Collapse/expand the navigation tree of the current document](#)

Floating mode: to open the Navigation tree place the mouse cursor on the title bar Tree.
In this mode the pane closes automatically as soon as the mouse goes out of it.

Docked mode: To block the navigation tree in open position, click the "drawing pin" on the horizontal title bar, in the upper right corner.

To leave a larger room on the screen for other panes, have the Navigation tree collapse automatically: remove the drawing pin by clicking it and resume the floating mode.

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■ [How to order and filter using the Navigation tree](#)

The navigation tree can be used to filter the data shown in the Grid. The Tree offers a start view of folders and sheets (see paragraph [Customize" function](#)): by selecting one of these elements, the display conditions can be changed .

1. Select the tab **Tree** in the navigation tree.
2. Select the desired item: folder or sheet.
3. The data load grid will only display the entries concerning the element selected in the navigation tree.

ATTENTION: always check the total rows indicator to verify the exact quantity of filtered elements.

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Features

[Customize tree function](#)

1. Select the tab **Customize** in the navigation tree.
2. Select a field in the list Available values  and drag it into the upper display area . Select 'Default' to set the current customization as a default setting.



1. You can create a new hierarchical custom structure : select and drag the fields to change their hierarchical level.
2. Save the new structure, possibly with a new name.
3. The new navigation tree is ready.

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Tree Properties function

You can customize the code structure of each archive code in STR Vision equipped with the 'Tree' tab .
The code structure can be:

- Structured, alphanumeric** : Under this option, entries require a precise code structure as set in the "properties" panel. In this way, besides checking that the codes entered are correct, you can obtain a parent-child structure among archive entries automatically, and consequently order and group the items to be displayed and printed.
- Numeric with step value** : Under this option the code is numeric with set step value.
- Free** : Under this option the code is free and unchecked. However parent-child connections can be set.

NOTE: Code setting is only possible if the archive is empty, that is before entries are made.

Max. code length: 50 characters.

When a specific code structure is required, codes are checked every time they are entered .

Details:

- [Alphanumeric](#)

Alphanumeric

The fields necessary to describe the code rules are enabled .

The 'separator' field defines the separation character of the different levels .



The 'hierarchy' field enables the creation of parent-child connections .



EXAMPLE: The "parent" is associated with code '1.1' on the basis of the upper level, i.e. code '1'.

The structure can be organized on more levels using the following characters (the legend is enabled by pressing the button ).

x	Carattere alfanumerico
0	Cifra
z	Lettera
A	Lettera maiuscola
a	Lettera minuscola
*	Qualsiasi (escluso il separatore)
.	Separatore
\	Prima di usare un preciso carattere
[]	Alternativa tra tipi diversi

x: both number and letter, capital or small

0: only number

z: letter, both capital and small

A: capital letter

a: small letter

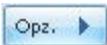
*: any character save the separator

.: separating element

\: use before a definite character

[]: enables the use of more alternative characters

EXAMPLE: if you want to use code type A.123, set the structure as A.000, or x.xxx

The button  enables the advanced function of codes management . For each section code you can specify the minimum number of characters required .



□ [Numeric with step value](#)

[Numeric with step value](#)

This option enables codes to be assigned to entries automatically . Specify the step value.

Example: if you set the step value 10, the automatic codes will be 10, 20, 30, etc.



Use the field  to set the step value.

□ [Free](#)

This option enables free codes to be assigned to entries. Max code length: 50 characters . Entries are all displayed at the same level.



[Custom fields tree](#)

All STR Vision archives can be supplemented with tabular grouping fields, to be freely set by means of the Tree Custom fields function.

Examples:

Projects data – projects can be supplemented with geographical area or work type.

Estimate – estimate rows are subdivided according to lot, or map, or work.

Price catalog and list – a product or other criteria (useful for printing or searching) can be associated.

Custom fields can be associated with archives according to the following *view* levels:

- System - it can be used by any system archive (all lists, estimates, price catalogs, accountings).
- Company – it can be used by all company archives (all estimates, UPCs, company accounting).
- Project – it can be used by all project archives (estimates, UPCs, accounting of current project).
- Archive – it can only be used in a specific archive (estimate, or UPC, or list, or accounting).

How to create a new custom field

On the management tree and select the folder Custom Fields (bottom page)

1. Place the mouse on the field of available custom fields; reach the desired level, right-click and select **Add**.
2. Type the custom field name in the field.
3. Drag the custom field into the pane 'Associated custom fields' to use it in the current archive.



How to associate values with the custom field

To associate values with the custom field:

place the mouse cursor on it and right-click 'Edit',

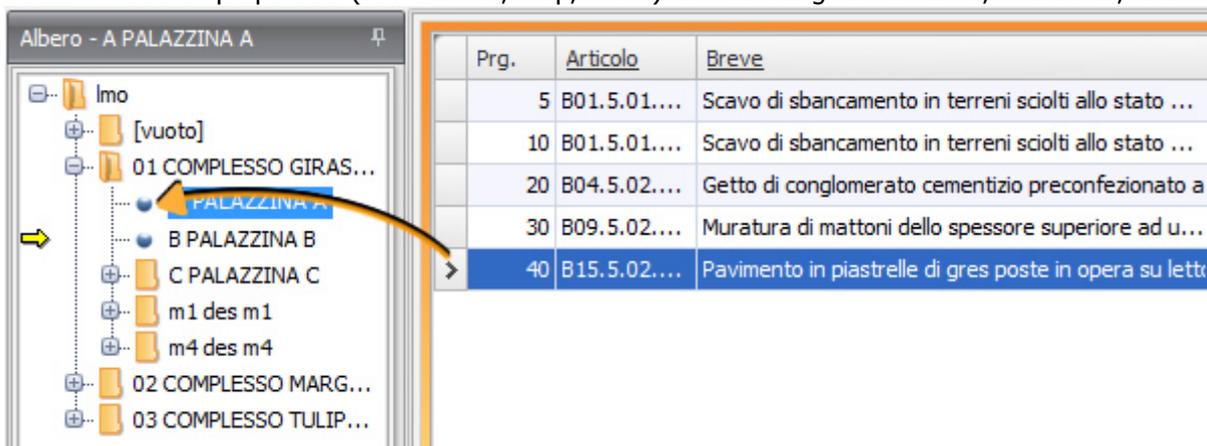
or select the custom field by means of the custom field button on the Multifunction bar .

Custom fields can be used in the displayed selection (in the grid or on the tree), in prints, data analysis, etc.

NOTE: Each custom field consists of codes and description. The code field can be structured

Drag & drop function

Custom fields or properties (such as Lot, Map, Work) can be assigned to items, measures, etc.



To carry out this operation select one or more rows and drag them onto a Node of the navigation tree. The drag function can be used to:

- MOVE the selected rows. The properties of the node will be assigned to the dragged items/measures.
- COPY the selected rows by dragging them and keeping the **Ctrl** key (on the keyboard) pressed. New items/measures with the properties of the node where they have been copied will be created.

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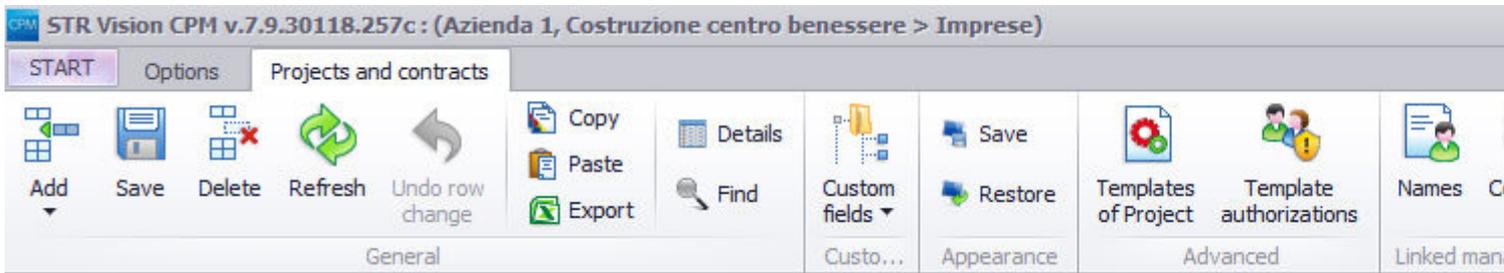
Vedere anche

- [Modificare l'impostazione dell'interfaccia](#)
- [I documenti per la gestione dei dati](#)

[Image bg_g.jpg]
Ribbon bar

Structure of the Ribbon Bar

The Ribbon bar offers a quick access to the commands necessary for the current Work document. The commands are divided into groups and tabs; each tab concerns a certain type of operations. To optimize the available room, the tabs are only displayed when necessary.



As the Ribbon bar is contextual, its buttons vary according to the activity being carried out.

The only tab which can be found in all activities in STR Vision system is the **Options tab**:

This contextual tab is available in all activities in STR Vision, because it contains the commands necessary to use the system independently of the folder you are working in.

The groups available in this tab are:

Available styles: In this drop-down menu you can select the desired colours/shapes for bars and buttons among 24 skins, to customize STR Vision appearance. The skin can be selected at any time with no effects on the program being used.

Layout: Thanks to these 5 icons you can arrange or close automatically all work documents opened in the multifunction bar; the same can be done manually using buttons .

Cascade : All open work documents are put one on another in opening order, so that their titles can be seen.

Tile horizontally : All open work documents are tiled horizontally.

Tile vertically : All open work documents are tiled vertically.

Maximize : The active document reaches its maximum size in the workspace.

Close all tabs: All work documents are closed.

Options

Start page: Start page is reopened.

Settings : It gives access to license activation procedure window 'Custom Vision'

Import SIX: Building data can be imported in SIX format. For further information see paragraph Import Six.

Export data in SIX format: Building data can be exported in SIX format.

For further information see paragraph Export Six.

[Reducing the Ribbon bar to an icon](#)

Reducing the Ribbon bar to an icon: Double click the active tab.

Using the Ribbon bar reduced to an icon: To use the Ribbon bar when it is reduced to an icon, click the tab you want to use and select the desired option or command.

The Ribbon bar disappears as soon as the button is selected.

Restoring the Ribbon bar: Double click one of the tabs to have the bar always visible at all work stages.

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[[Image bg_g.jpg]]
Task pane

The Task pane consists of the following elements:



- ① **Title bar:** it shows the activated help function. Click the double arrow to expand/collapse the Task pane.
- ② **Contents area:** when the pane is collapsed, it shows the help function activated.
- ③ **Horizontal split bar:** it resizes the contents area and shows/hides the buttons.
- ④ **Buttons:** to start the help functions.
- ⑤ **Configure buttons:** to access button configuration.

[Help functions](#)

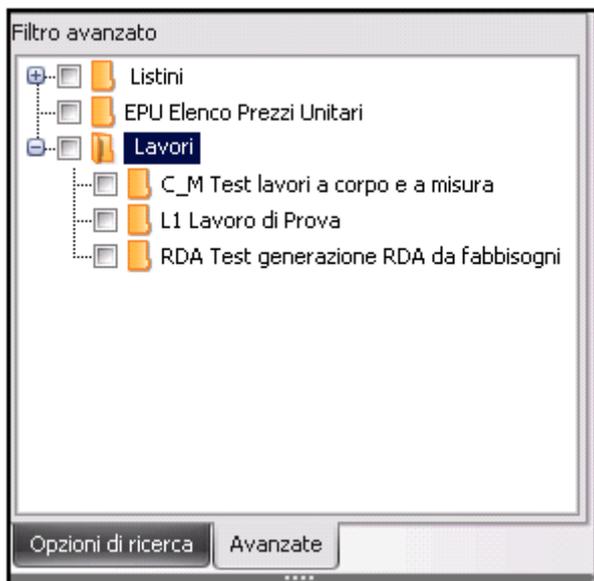
The Task pane can be customized by the user and is contextual to the management in course.

In addition it contains important elements to help the user:

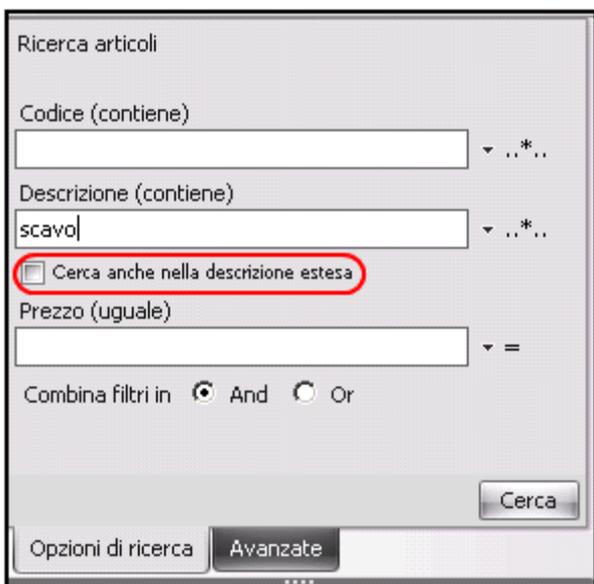
- [Cross finder](#)
- [Price catalog](#)
- [Price lists](#)
- [Features](#)

[Cross finder](#)

In the management 'Lists and price catalog' you can search both in lists and price catalogs (previously you could only search in lists).



As an option, you can also search in the detailed item description.



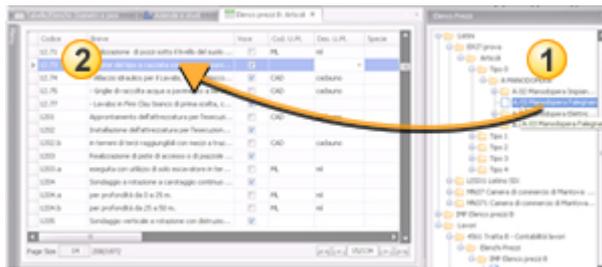
To use the 'Cross Finder' from the work document, select the button  in the Task pane on the left side of the document.

Price catalog

By selecting the button "Price catalog" the Price catalog concerning the current estimate or accounting is shown in grid format, so that a price catalog item can be dragged and copied in the grid.

Select a price catalog item and:

- double click to have it on the current row;
- drag it to the grid to create a new row.



- ① Price catalog (Task pane)
- ② Data load grid

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Price lists

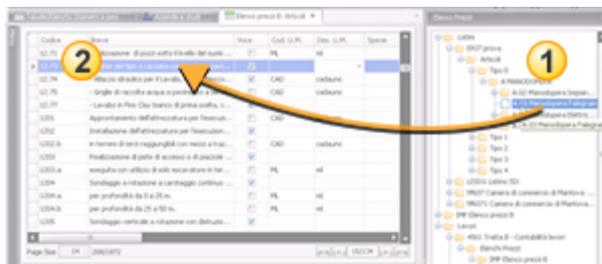
By selecting the button 'Lists and price catalog' the following elements are displayed in tree format:

1. all lists available in STR Vision;
2. the current price catalog;
3. the price catalogs of all jobs of the current company.

A price catalog item can be dragged and copied into the grid.

Select a price catalog item and:

- double click to have it on the current row;
- drag it into the grid to create a new row.



- ① Price lists (task pane)
- ② Data loading grid

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Expanding/collapsing the Task pane

The Task pane can be set as docked (*left open even when working outside of it and placed on the same level as the workspace*) or floating (= it opens or closes according to the cursor movement on it, remaining in a non-interfering position).

- **How to expand/collapse a docked Task pane:** The Task pane can be collapsed to optimize the workplace. When collapsed, it looks like a vertical bar on the right of the work window. To expand the Task pane click and to close it.
- **How to expand/collapse a floating Task pane:** To expand a floating Task pane place the mouse pointer in the middle of the bar-shaped collapsed pan.

(by default it is in the right part of the work window): when the area changes color, left-click. The Pane content window will open with no title bar and no buttons. As soon as an operation outside the Task pane is carried out, it will close automatically.

- **How to access the Help functions keeping the Task pane in collapsed mode:** Click  and choose the desired item.

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[Image bg_g.jpg]
Change interface setting

STR Vision interface consists of two panes that can be resized, collapsed or expanded according to the working needs.

Resizing a pane

1. Place the mouse pointer on the split bar (i.e. the horizontal/vertical bar separating two panes)
2. When the mouse pointer becomes a double arrow, drag it upwards or downwards [rightwards or leftwards in case of a vertical split bar] to resize the pane.

Collapsing/expanding a floating pane

Some panes, like the Task pane and the Tree menu pane, are floating (they expand when clicking the mouse). When a floating pane is open, it is in the forefront of the workspace.

Collapsing/expanding a pane in docked mode: Click  to open or  to close.

Expanding a Help pane in floating mode: Place the mouse pointer in the middle of the pane . When the area changes color, left-click. The Pane content window will open with no title bar and no buttons. As soon as an item is selected outside the Help pane, it will close automatically.

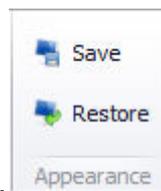
Reducing the multifunction bar to an icon

The multifunction bar cannot be eliminated; however it can be reduced to an icon to obtain a larger free room on the screen.

- **Reducing the multifunction bar to an icon**
Double click the active tab.
- **Using the multifunction bar reduced to an icon**
To use the multifunction bar when it is reduced to an icon, click the tab you want to use and select the desired option or command. The Multifunction bar disappears automatically as soon as the button is selected.
- **Restoring the multifunction bar**
Double click one of the tabs to have the bar always visible during all work stages.

Saving interface setting

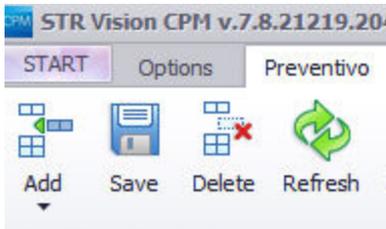
A modified interface setting can be saved in order to be used in the same condition on a later access.



Press the button 'Save appearance' in the Multifunction bar.

STR Vision CPM START

The main utility and help functions are collected in a series of panels as it generally happens on all Office applications .
Press START to open these functions.



Open

Here you can open your favorite management or the management used recently (projects, estimates, safety plans). To add a management to the favorite ones, right-click the corresponding node on the tree and select "Add to Favorites".

Change project

Here you can look for a project and set it as current; the current project is indicated on the left.

New

Here you can create a new management. Select the type and a pre-defined or a custom template .

Export

Here you can export a file in SIX or VIS format. Select the object and press the desired export button in the lower part of the panel.

Import

Here you can import a file from SIX, VIS or other special formats (for example in the Estimate section you can import from XCA format).

Examples and databases

In some management types you can import examples and specific databases.

Example: in Safety plans there are many databases concerning special works that can be imported to provide the module with more information.

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Templates

Here you can import a large number of new documents, reports, first pages and specific templates for any work field.

Example: if you import a safety template, a lot of report templates will be listed.

In this page you can create a text template: select one or more templates and press the Import button.

Video

Here you can find video courses on STR Vision CPM modules. They can be looked for by description or tag-filtered.

The current content will be continuously increased. Please contact us for specific requirements.

Online contents

Here you can find a technical support provided by STR, such as free pricelists and BIM.

Information

Here you can find information on installation.

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[Options](#)

Options

Here you can customize settings, activate new licenses and select the packages you are going to use. In addition you can find the settings for the system languages.

Some new options are available starting from this release:

Simplified interface

Starting from the 2016 release, STR Vision CPM is even more user-friendly thanks to a new simplified version of interfaces and active functions.

For example: when the START interface is activated, the grids just show the main fields for data entry and in the lower part there are only the most useful panels.

Select 'Use START interfaces'.

After selecting the option, a symbol is displayed in the lower part of the management navigation tree. Click the symbol to restore the standard interface.

Demo modules available without license

Starting from this release you can try the demo modules of STR Vision CPM even without the corresponding license.

Select 'Show demo modules'.

To activate additional modules restart STR Vision CPM.

Automatic closing of open managements

Starting from this release, when you close a STR Vision CPM session all open managements are closed automatically.

Recent documents will be available in the section 'Recent' of the START page, section 'OPEN'.

If you want to leave the managements open when you quit and find them open on opening the next time, select 'Reopen closed managements'.

STR Vision CPM

Working with STR Vision CPM

[Image bg_g.jpg]

Working documents

Working documents can be of the following types:

- [Data management](#) 
- [Dashboards](#) 
- [Text document with variables](#) 
- [Prints](#) 

The Working documents are displayed in the Workspace where you can create, modify and search for data contained in any STR Vision archive.

STR Vision CPM Working with STR Vision CPM

[Image bg_g.jpg]

Data organization in Archives

- [STR Vision CPM archives](#)
 - [System settings](#)
 - [Lists and Price lists](#)
 - [Projects](#)
 - [Estimation](#)
 - [Jobs accounting](#)
-

STR Vision CPM archives

In STR Vision CPM data are grouped in archives stored inside the system. Each Workbook in the [Navigation pane](#) allows the user to access a specific group of archives organized by functionality. The main archives are:

- System settings
- Lists and pricelists
- Projects
- Estimation
- Jobs accounting

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System settings

This archive contains the general settings of the system, independently of the specific project:

- Archive of users, roles and access permissions
- General tables such as SOA categories, diameters and weights, master data, town master data
- Percentages and formulas to be used in calculations

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Pricelists

This archive contains lists, pricelists and rates to be retrieved for the different jobs. They can be created directly by STR Vision CPM or imported from external sources, for example from specially created sites (<http://prezzari.str.it>).

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[Projects](#)

It contains:

- List of companies or professional firms using STR Vision CPM
- List of projects
- General data of the current project, in particular price catalogs, units of measure, formulas or percentages of projects .

Please note that: STR Vision CPM has a default with a current company and project .

Set current Company [or Project]

1. Select 'Companies and professional firms' [or 'Projects'] in the [List of project documents](#).
2. In the [Data load grid](#) select the row corresponding to the Company [or Project] to be set as current.
3. Select button **Set as current** in the group 'Company' in the tab 'Companies and professional firms'.

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[Estimating](#)

STR Vision CPM is of multi-estimate type, *you can work with more estimates*; in the working document 'Estimation' all estimates stored in the system are displayed.

For each estimate the following functions are available :

- Measures – Management of estimate rows
- UPC – Management of associated price catalog
- Available sums – Management of available sums
- Jobs planning – Management of jobs planning
- Estimate dashboard and Comparison dashboard – Dashboard for data analysis Documents - Text documents with variables
- Prints - List of prints

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[Accountings](#)

STR Vision CPM is of multi-accounting type, *you can work with more accountings*; in the section 'Jobs accounting' all active accountings in the system are displayed. Accountings can be:

- Measure book
- UPC associated with accounting Iron book
- List of time and material works
- List of JPS
- List of payment certificates
- Tables such as: notes and suspensions, submission deeds, etc.
- Data analysis dashboards
- Text documents with variables
- List of prints

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[Image bg_g.jpg]
Workspace

In the Workspace you can create, modify and search for data contained in any STR Vision archive. A work document must be started before enabling any STR Vision function.

Workspace – Basics

- To activate a work document double-click the desired item in the [List of project documents](#). The document will be displayed in the workspace .
- The Workspace is of multi-document type, i.e. more documents (even if belonging to different projects) can be kept open simultaneously. The Workspace structure and the [Multifunction bar](#) are contextual to the current Work document type.
- Each document is identified by a [tab](#) showing the *document name* and the *document type* icon. When a large number of worksheets are open, all tabs may not be visible. <0} {0> <}100{> Use the scroll arrows to view all tabs. To close a Work document click X on the document tab.

 [Top](#)

Saving changes to a document

- STR Vision is set to save changes to data automatically any time a row is changed (arrow upwards, arrow downwards) or the mouse cursor reaches a different cell. In some cases (when a work document is closed and when a work document item is eliminated) the user is asked to confirm or undo the change.
- To change above setting and have the system ask for saving every change made:
 - Select **the option Settings and then Customize**.
 - Nella finestra 'Personalizza Vision' selezionare l'opzione **Chiedi conferma ogni salvataggio** e quindi premere il pulsante 'Salva
- In the window 'Customize Vision' select the option '**Ask for confirmation on each saving**', then press 'Save'.

When changes are made in the work document (for example: a new estimate is added to the document 'All estimates'), an asterisk * appears in the tab showing that some data in the document have been changed/added and all estimates must be saved. To save the document click **Save** in the Grid group of the ribbon bar.

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Symbols of the data loading grid

Some symbols on the left part of the grid supply the user with information on the operation in course :

 means that the row has been modified and will be saved.

 means that there are errors or warning messages in the row, such as:

 a new element has been inserted and will be added to the archive (the symbol will disappear on

saving the change);

 a wrong element has been inserted and it must be corrected before going on. Place the mouse on the symbol to have the error type displayed.

 means that the item price (at least in one of its price classes) results from an [analysis](#) composition .

 [Top](#)

[Image bg_g.jpg]

Documents for data management

In the Workspace you can create, modify and search for data contained in any STR Vision archive. A work document must be started before enabling any STR Vision function.

- [Management guidelines](#)
- [How to add a new entry](#)
- [How to modify an entry](#)
- [How to save changes](#)
- [How to delete entries](#)
- [How to search for loaded entries \(column filter fields\)](#)
- [How to order according to a field value](#)
- [How to enable Advanced filter functions](#)
- [List of values from management](#)

[Management guidelines](#)

Each management allows its main data (for example measurements for estimates) and the associated archives (for example a price catalog item) to be modified both directly and indirectly. Any time a field in an associated table is created or modified, the icon appears, indicating that a new element has been entered and that it will be added to the corresponding archive. The icon disappears on saving the change).

[↑ Top](#)

[Add a new row](#)

Select the button **Add** from the ribbon bar. Otherwise right-click the data load grid and select **Add** in the contextual menu.

[↑ Top](#)

[Edit a row](#)

Click the field in the grid where there is the value to be changed. Type the change and move to another cell. The change is saved automatically. An arrow on the right of a field means that you can access a selection window. From any column you can access the Help pane to import a price catalog item into the grid. Select a price catalog item and double click to have it on the current row, drag it into the grid to create a new row.

[↑ Top](#)

[Save changes](#)

■ Select the button **Save** from the ribbon bar. Changes are saved automatically when the mouse is moved to another cell [or the TAB key is used].

Delete rows

- Select the button **Delete** from the ribbon bar. Otherwise right-click the value to be modified and select **Delete** on the selection window.

Search for loaded entries (column filter fields)

You can use the column filter fields to search for data in the grid.

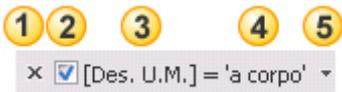
■ Setting a filter

1. Click the funnel-shaped icon in the heading of the column where you want to apply the filter.
2. Select the desired item.
3. The fields where filters have been applied have the funnel-shaped icon in the column heading.

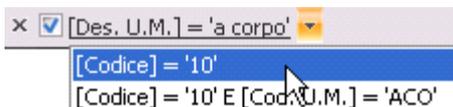
NOTE: Filters can be activated on more fields.

■ Changing a filter

It is possible to view the current filter [or filters] indicated in the wording on the bottom left of the data load grid.



- ① All available filters are cancelled permanently
- ② The filter is cancelled permanently by unticking.
- ③ Shows the field where the filter is applied.
- ④ Shows filter applied.
- ⑤ Shows other filters present. To modify the filter criterion, select an item in the list.



To edit the current filter select the button **Edit filter** on the bottom right of the Data load grid.

How to order according to a field value

Click the column heading once to order the data from the highest to the lowest value; an upward arrow appears on the column heading.

Click the column heading a second time to order the data from the lowest to the highest value; a downward arrow appears on the column heading.

Using the SHIFT key (on the keyboard) together with a mouse click, you can apply a multiple-field order.

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[Enable the Advanced filter functions](#)

Filter conditions can be customized according to the user's working needs.

- Right-click the column heading and select **Filter editor**, or select **Change filter** on the bottom right of the Data load grid.
- In the window 'Filter builder' set the following options:

E: select this symbol to set logic filter criteria:

- **AND**: intersection between two or among more conditions.
- **Or**: union of two or more conditions.
- **Exclude AND**: excludes the result of the intersection between two or among more conditions.
- **Exclude Or**: excludes the result of the union between two or more conditions.
- **Add condition**: adds a condition.
- **Add group**: adds a nested condition.
- **Delete all**: deletes all conditions applied.

+: adds the set condition to the group

[Data]: Select the field where the filter shall be applied from the selection window.

[Equal]: Select the filter criterion from the selection window.

<enter value>: type the value to be applied to the filter

×: removes the condition from the group.

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[List of values from management](#)

You can access the window 'List of values from management' by right-clicking the grid fields referring to a table (for example 'MU code.', 'MU Descr.', 'Ref. Art.', etc.).

This function allows the user to access the list of values associated with the selected management; in this window you can use the activated functions for the current management.

NOTE: The window structure can be customized by displaying or hiding details, commands and navigation trees. The command **Save** in the command group 'Appearance' allows the user to save the layout of each window 'List of management values': the layout saved will be displayed on next reopening.

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[Image bg_g.jpg]

[Data analysis dashboards](#)

Dashboards are used to view, analyze and display correlated work data. Each dashboard consists of an upper part showing the data matrix and a lower part supplying a graphic representation of data.

- [Building the dashboard](#)
- [Using filters](#)
- [Charts](#)
- [Adding row and column totals](#)
- [Displaying detail rows](#)
- [How to print](#)
- [How to export](#)
- [Saving a dashboard template](#)
- [Pivot operations](#)

[Building the dashboard](#)

To load data into the dashboard, select Data request in the tab 'Data' of the Multifunction bar, then select the element where the data shall be imported from.

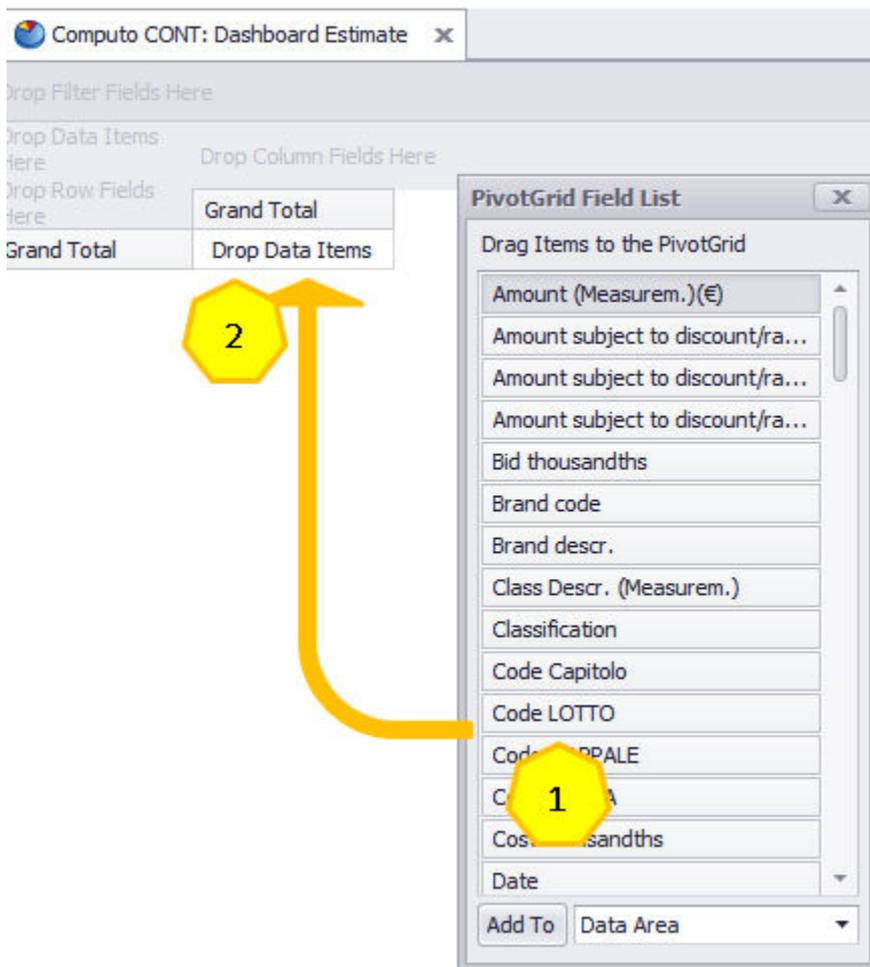
program to process the data (see the progress bar on the bottom left of the work window.

When the data are loaded, you can build the analysis dashboard using the fields available in the window "List of Pivot grid fields".

Should the window 'List of Pivot grid fields' not be visible, press the button Show field list in the group 'Pivot operations' of the Multifunction bar.

To build the dashboard select the fields you are going to use in the window 'Pivot grid fields' **1** and drag them into the data matrix **2**.

NOTE: More fields can be dragged into the different matrix areas.



The matrix consists of:

- Row fields
- Column fields
- Data area
- Filter fields

■ To remove a field from the grid, select it and drag it downwards. When an X appears, release the mouse button. Alternatively right-click the column heading and then **Hide**.

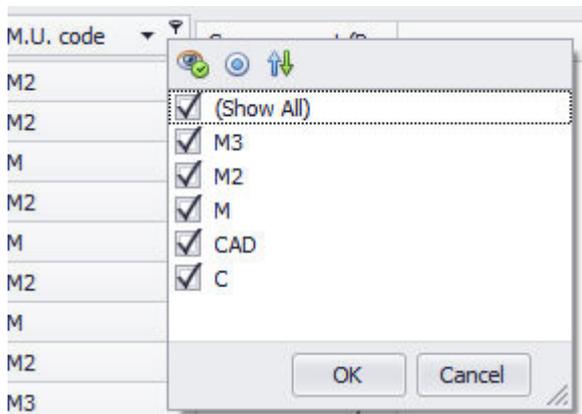
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Using filters

A filter criterion can be applied to each field in the dashboard. Filters allow the user to view a data subset in the best way. ■ Per applicare un filtro fare click sull'icona a imbuto che appare quando ci si posiziona sulla cella di intestazione del campo.

Articolo 

- To apply a filter click the funnel-shaped icon that appears when the cursor is on the field heading cell.



NOTE: To apply a filter criterion to all data in the matrix, drag a field into the area “**Move filter fields here**”.

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Charts

Charts show the values selected in the Data area.



- ① Data selected in the data matrix
- ② Chart created by data in the data matrix.

■ To create a chart select the data in the Data area of the matrix (left-click and drag to select data): the chart will be displayed in the lower part of the workspace.

If the chart is not displayed, press **Show Chart** in the tab 'Chart' of the ribbon bar

- Chart settings can be changed by selecting the options shown in the tab 'Chart' of the ribbon bar.

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Adding row and column totals

Totals and subtotals can be inserted into the matrix (in case there are nested items in the data used).

Select one of the following options in the group Totals of the Pivot tab of the [Multifunction bar](#):

- Totals of Aggregates column
- Totals of Subtotals column
- Totals of Aggregates row
- Totals of Subtotals row

Place the 'Totals' at the end or the beginning , selecting the item in the drop-down list in the 'Totals' group of the 'Pivot' tab of the Ribbon bar' .

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[Displaying detail rows](#)

You can view the list of entries included in a value.

- Double click the value for which you want detailed information .
- The window 'Composition details" gives access to a grid (read only) where you can: apply filters, modify field order, delete fields, etc .

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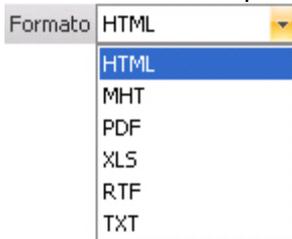
[How to print](#)

- Select **Print preview** in the group 'Print/Export' of the 'Pivot' tab.
- A new document of Print preview opens in the workspace. Select **Print** in the group 'Print' of the 'Print preview' tab.

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[How to export](#)

The data can be exported in the following formats :



- HTML:Hyper Text Mark-Up Language is a formatting language used to describe hypertext documents in the WEB.
 - MHT: WEB archive file that can be viewed using Internet Explorer.
 - PDF: Portable Document Format is a format used to represent documents independently of the software used to generate or display them.
 - XLS: generates a document with .xls extension. This extension indicates the files that can be used by Excel TM.
 - RTF: Rich Text Format. Most text editors can read and write RTF documents.
 - TXT: generic extension for text files destined to reading.
- Click Export in the command group 'Print/Export', Specify the file saving path and press **Save**.
 - To export the pivot table in Excel format (as processed in CPM), select XLS format, press the button 'Export grouped Excel' and then Export.

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Saving a dashboard template

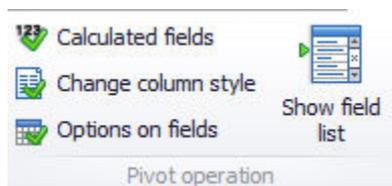
After creating a dashboard for data analysis, its settings can be saved for a later use.

1. Create the dashboard.
2. Type a name to be associated with the dashboard template in the box "Template" and press **Save**.



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Pivot operations



Calculated fields

Select the command 'Calculated fields' to access the corresponding window where you can assign or create new calculation functions (different from the default *adding* functions), to be used for the 'Data load grid' values.

■ **Assigning a calculation function to a field**

1. Press the button Calculated fields
2. Press New Field
3. Type a name
4. Select a format in the drop-down list 'Format'
5. Select a calculation function in the drop-down list 'Summary type'
6. Form the expression using functions (select a function in the window 'Available functions list' - to be accessed by pressing) and operators (sign or symbol specifying the calculation to be carried out in an expression).
7. Click Confirm

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[Image bg_g.jpg]

[Text documents with variables](#)

Text documents with variables offer the possibility to retrieve the data stored in STR Vision. These documents are used both as an integral part of spreadsheets (e.g. estimate cover, accounting cover, etc.) and independent prints (certificate of payment).

To handle documents with variables, double click the icon  in the List of project documents in the Navigation pane.

- [Opening and modifying an existing document](#)
- [How to import fields from the Help pane](#)
- [Creating a new document](#)
- [Text formatting options](#)
- [Paragraph formatting options](#)
- [Inserting images into the document](#)
- [Tables](#)
- [How to import a text](#)
- [How to export a text](#)
- [How to attach a cover to a print](#)

[Opening and modifying an existing document](#)

The management of documents with variables enables the user to create a large variety of document templates.

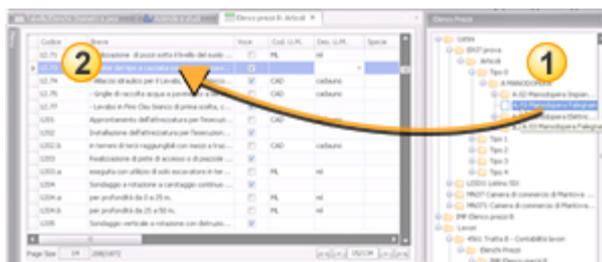
1. Double click and select the document in the 'List of project documents'.
2. In the Workspace select the item concerning the document to be opened.
3. Click **Edit** to view it.
4. The text editor is opened to load, edit and print Documents: STR Vision supplies the typical options of a RTF (*Rich Text Format*) document.

 [Top](#)

[How to import fields from the Help pane](#)

You can use the [Help pane](#) to insert the variables set for the current project into the current document. To insert a field:

- double-click to populate the current row;
- drag the item into the grid to create a new row.



1 Task pane

② Data load grid

NOTE: In all text documents with variables, the fields marked with  are single-value fields; the fields marked with  are multi-value fields suitable for table-type print.

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[Creating a new document](#)

To create a document template select the button **Add** and one of the items in the list. STR Vision supplies a list of all types of document for the current archive.

Once created, a document can be modified by selecting the button **Edit**.

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[Text formatting options](#)

To change the text style you can use the commands in the group Font.



1. To change font: to make the change in an existing document, select the document text and then select the desired font in the drop-down list.
2. To change font and highlight color.
3. To show paragraph marks and other text format symbols.
4. To change font size.
5. To enlarge/shrink font.
6. To apply above formatting to the selected text.

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[Paragraph formatting options](#)

To change paragraph style use the commands in the group Paragraph.



1. To align the text left, center, right, or to justify.
2. To start numbered, bullet or multilevel lists.
3. To decrease/increase the indent.

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[Inserting images into the document](#)

1. Select the button **Image** in the group Documents. Enter
2. Select the image to be inserted or type its path.
3. Click **Open**.

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[Tables](#)

1. Select the button **Insert Table** in the button group 'Table'.
2. Specify the number of rows and columns.
3. Click **Ok**.

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[How to import a text](#)

You can import a text document to be used in the STR Vision document.

1. Select **Open** in the command group 'File'.
2. Select the file name. **ATTENTION**: should the file you want to import not be in the list, it may have been saved in a format different from the one indicated in box "File type". Open the drop-down list to select a different format.
3. Click **Open**.

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[How to export a text](#)

The current document can be exported for use in other applications .

1. Select 'Export' in the command group 'File'.
2. Select an item from the list
3. Select the target location of the file in the window 'Save as'.
4. Click **Save**.

 [Top](#)

[How to attach a cover to a print](#)

1. Create a cover (if not available).
2. Select the print document requiring the cover.
3. In the detail folder 'General' select a cover from the drop-down menu **Cover**



STR Vision CPM Working with STR Vision CPM

[Image bg_g.jpg]

Reporting

The work document 'Reporting' enables the user to access the print list for the current archive; the list will be displayed in the workspace.

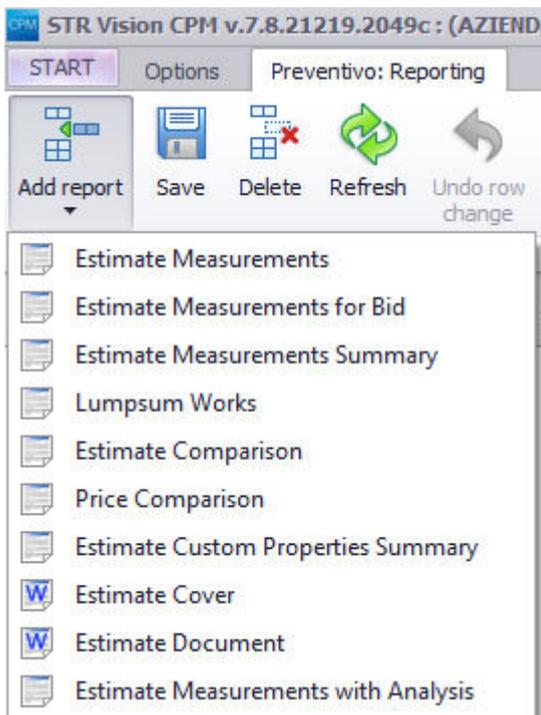
To enter the 'Reporting' management, double click the icon 

- [Add a new report](#)
- [Print a report](#)
- [Stop a report](#)
- [Commands of the Reporting tab](#)

The Reporting management allows the user to create a large variety of prints from the available report types.

Add a new report

1. Select the button **Add report**
2. Select one of the available report type items in the drop-down list.



 [Top](#)

[Print a report](#)

1. Select the document from the grid and press the button **Print** on the ribbon bar.
2. NOTE: The current report is printed by the default printer set in the tab 'Print' of the 'Detail folders'. For additional information see [Detail folders of a print document](#).
3. The bar on the bottom left shows the print progress status.

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[Stop a report](#)

Click Stop **button** on the ribbon bar.

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[Command s of the Reporting tab](#)

Printing, the ribbon bar shows the following buttons:

- [Print](#): The report is sent to the default printer without any changes .
| Il documento viene inviato alla stampante di default senza modificarlo.
- [Preview](#): When the process has been completed, the preview is displayed in the workspace;
| Il documento viene renderizzato per essere visualizzato a video come anteprima di stampa.
Fare clic su **Anteprima** per iniziare la preparazione e attendere l'avanzamento.
Una volta terminato il processo l'anteprima sarà visualizzata nell'area di lavoro e si potranno applicare, tramite la scheda contestuale di [Anteprima di stampa](#), le opportune personalizzazioni.
- [Stop](#): click to stop printing or preview in course.
| Interrompe la stampa o l'anteprima di stampa in corso.

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[Image bg_g.jpg]

Detail of a printing document

- [General](#)
- [Options](#)
- [Custom fields and filters](#)
- [Signatures](#)
- [Stampa](#)
- [Colonne](#)

Detail folders of print documents allow the user to customize a number of options available for the current document. Detail folders are [contextual](#) (*displayed* elements depend on the context you are working in); not all [print documents](#) have the same detail folders.

- Spreadsheets (e.g. an 'Estimate' print) have the following folders:
 - General
 - Options
 - Aggregators and filters
 - Signatures
 - Print Columns

- Text documents with variables (e.g. the print of an 'Estimate cover') have the following folders:
 - Options
 - Signatures
 - Print

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General

In the tab 'General' you can define the general page settings for the current print.

Setting and Title

- **Title:** Enter the document title that will be used during printing.
- **Date/Time:** Select time and date using the pop-up calendar .
- **Title font:** Set title font.

Style and Format

- **Cover:** Select the document that will be attached as cover during printing.
NOTE: Should no document be available in the current archive, create one.
 1. Close the current window.
 2. Click Documents with variables concerning the current archive in the [List of project documents](#)
 3. Select the button **Add** in the tab 'Grid' of the 'Multifunction bar'.
- **Background color:** To set the background colour of the page.
- **Report style:** To set the text style used for the aggregator .
- **Outer borders - Thickness:** To set colour and thickness of the outer borders of the table.

- Alternative color: To set the background color of the page heading row. To have the color applied in alternated rows, select the option **Rows with alternated color** .
- Inner borders - Thickness: To set the color and thickness of the inner borders of the table.
- Column heading background: To set the background of the column heading cells.
- Column heading style: To set the character style for the column headings.
- Heading border color: To set the color of the border of the column heading cells.
- Heading border thickness: To set the thickness of the border of the column heading cells.

Report totals

- Null value management: To define the option to be used in case of null values in print totals.
- Indent: To set the indent for print totals alignment .
- Recalculation: To select the option of totals recalculation before printing .

Footer

- Number format: To select the format of page numbers.
- Initial page number: Type the starting value of page numbers.
- Footer style: To set the character style of the footer.

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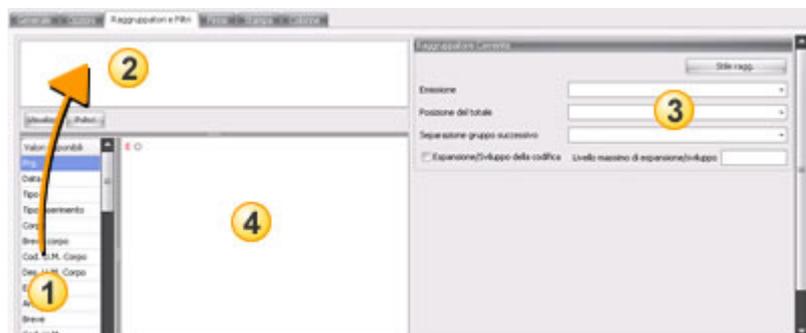
Options

'Options' folders have different structure and fields for each type of 'Print document' (e.g. the 'Options' folder of a print document 'List' is different from the 'Options' folder of a print document 'Unit price catalog'); for this reason you can find their description in the section concerning each individual type of Document .

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Custom fields and filters

The folder 'Custom fields and filters' allows the user to order print data.



Using Custom fields

1. Select an item in the list 'Available values' **1** .

2. Drag the value into the upper pane ② .

...↑ Codice
...↑ Breve

NOTE: You can drag more Custom fields and obtain a hierarchical structure for print data order and viewing .

Current Custom field

This form ③ allows the user to define some options for the order field selected .

Custom field style: To set the character style of the current Custom field.

View: This drop-down list allows the user to select the display mode for the current Custom field.

Total position: To select total position.

Separation from next group: To select the element separating the groups of data.

Code expansion/development: When selected, this item allows the user to view all items making up the code.

Max. expansion/development: To set the max number of elements viewed in the expanded code.

Filters

This window ④ allows the user to set the viewing conditions of print data by means of filter criteria . PLEASE NOTE that Filters are used independently of the Custom fields.

- **E**: select this symbol to set the logic filter criteria:
 - AND**: intersection between two or among more conditions.
 - Or**: union of two or more conditions.
 - Exclude AND**: excludes the result of the intersection between two or among more conditions.
 - Exclude Or**: excludes the result of the union between two or more conditions.
 - Add condition**: adds a condition.
 - Add group**: adds a nested condition.
- **+**: to add the set condition to the group.
- **[Data]**: select the field where the filter shall be applied from the selection window. **[Equal]**: select the filter criteria from the selection window.
- **<enter value>**: type the value to be applied to the filter.
- **✖**: to remove the condition from the group.

EXAMPLE: If, when printing a List, you want to view the items with price > 100 only, set the filter as follows:

E +
[Prezzo] Uguale 100,00 ✖

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Signatures

The document print can be so set as to leave a space in one or more pages for the approval signatures .

1. Select the option **Signature issue**.
2. Enter 'Place' and 'Date'.
3. Select the button **Style** to set the character style.
4. Enter the signer's title (e.g.: *Engineer*).
5. Enter the signer's name (e.g. *John Brown*).

6. Select the option 'on every page' if you want a space to be left on every page; otherwise it will be only available on the last page.

in case of more signatures, repeat steps 4 - 6.

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Print

Here you can set the printer options .

1. Select one of the printers in the drop-down list.
2. Set the margins, that is the room left at page borders .
3. Specify number of copies and paper format. Should a non-standard sized support be used, select **Custom size** and enter the corresponding values in the fields 'Paper height' and 'Paper width'.
4. Set paper orientation.

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Columns

The folder 'Columns' allows the user to set the structure of the columns to be viewed in the document print. The 'Column structure' consists of a 'Main body' (with the list of columns available for the document) and a 'Summary' (with the list of columns available for data summary) .

- To tick/untick the columns to be printed, click the box before the column name.



- To set the width of each column, change the value at row end.
- To change column order:
 1. Click  near the column you want to move.
 2. Drag it to the desired position and release the mouse button. Per modificare l'ordine delle colonne:

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[Image bg_g.jpg]
Print preview

Print preview allows the user to view the document before printing it on paper, make searches into the text and change document pagination .

- [Print preview](#)
- [Searching into print preview](#)
- [Edit page settings](#)
- [Printing a document from Print preview](#)
- [Export](#)
- [Commands of the print preview tab](#)

[Print preview](#)

- Select the button **Preview**
- The system prepares a new preview document. The bar on the bottom left shows the progress state.
- The print preview is displayed in the Workspace.

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[Searching into print preview](#)

Searches into print preview can be made in two ways:



1. Click Find

Type the text or the word you are looking for, then click the button Find next. You can check the following check boxes:

- Capital/small letters: only the text where capital/small letters exactly correspond to the string written in the box 'Find' will be found.
- Whole words: a specific word will be found, ignoring it when it is part of another word.
- Find up: the search will be made upwards, i.e. from the end to the beginning of the module.

The bar at the bottom of the window 'Find' supplies information on the search results.

The search result is shown in the document in colour grey.

2. Use the Document Map to navigate through the content

The Navigation tree supplies a 'Document map': select one of the items to have the corresponding row highlighted in Print preview .

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[Edit page settings](#)

The page setup of the current document can be changed using the command group 'Page setup'.

- **Heading/Footer** : to change the document heading and footer .
- **Ratio** : to proportion the page content to a percentage of its current format.
- **Orientation** : to select the page orientation (vertical or horizontal).
- **Format** : to select the paper format to print the document .

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[Printing a document from Print preview](#)

You can print a document directly from Print preview.

- Use the button **Print** to open the window 'Print', where a printer and the corresponding options can be selected.
- Use the button **Direct Print** to send the document directly to the printer.
NOTE: The document is sent to the printer set in the tab 'Print' of the 'Detail folders'.

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[Export](#)

The option **Export as** allows the user to save the print document in different formats.



To access the format list press the arrow **1**; to export directly in the format indicated on the button (e.g. PDF) press the left side of the button **2**.

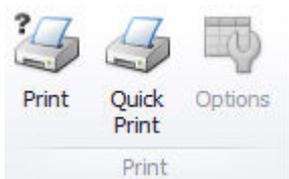
The available formats are:

- **PDF**: Portable Document Format is a format used to represent documents independently of the software used to generate or display them.
- **HTML**: Hyper Text Mark-Up Language is a formatting language used to describe hypertext documents in the WEB.
- **MHT**: WEB archive file that can be viewed using Internet Explorer.
- **RTF**: Rich Text Format. Most text editors can read and write RTF documents.
- **Excel**: generates a document with .xls extension. This extension identifies the text files formatted by this software.
- **CSV**: Comma Separated Values = Values separated by a comma. This format is for text-only files; it is used to store data in spreadsheets and in databases.
- **Text file**: generic extension for text files destined to reading. Image Image files: formats for files containing images.

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[Commands of the tab Print Preview](#)

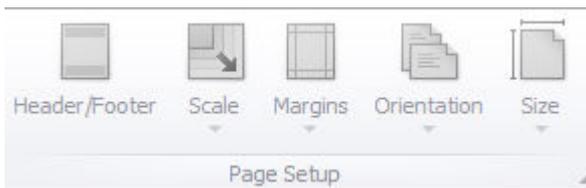
Print



- **Print**: The button **Print** is used to select one of the printers where the document will be sent, to specify the number of copies and which pages will be printed. After selecting the printer, use the button **Preferences** to open a control panel where you can set paper format and print quality, as well as select options (each printer has its own preferences control panel).

- **Direct print:** The document is sent to the default printer without any changes.
- **Options:**
 - Click 'Options' to open the Print components editor that allows the user to page the chart in three possible ways:
 - None: the document will be printed as displayed.
 - Stretch: the document will be stretched to max size, both horizontally and vertically.
 - Zoom: the document will be fit to max page size without distortions.
 - Then click Apply to update the preview and Ok to confirm.
 - NOTE: This icon is only active to print charts.

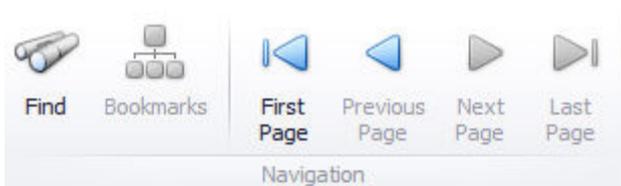
Page setup



- **Header/Footer:** Heading and footer are areas in the top and bottom margins of each document page, where text and graphics can be placed. For example you can add: page number, date and time, company's logo, document title or name and author's name.
To change the heading or footer, use the options in the tab Heading and Footer.
Three panes are available both for heading and footer, where text/images can be placed: on the right, on the left, in the middle.
After inserting the text/image into the panes, they can be formatted by choosing font (style and body) and alignment (page bottom, top or middle).
You can also insert texts with special functions (page number, total pages, print date, print time, user's name or an image) using pre-compiled macros.
After compiling headings and/or footer, click Ok to update the preview [or Undo to cancel the settings made].
- **Scale:** The document layout can be modified by selecting an increase/decrease percentage of the normal view, or the whole document can be fitted in a specified number of pages.
- **Orientation:** The orientation of the whole document can be modified into horizontal or vertical.
- **Size:** You can choose the print format in a list based on the formats supported by the printer selected.

NOTE: The icon on the bottom right in the group 'Page setup' enables the user to view the window 'Page setup', where the main options for page setup can be set directly.

Navigation



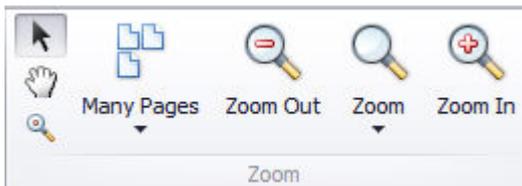
- **Find:** It displays the search window by which a specific word or sentence can be looked for in the document. Click 'Find next' to continue the search. The search can be restricted by checking the variables 'Capital/small letters' or 'Whole words', or it can be repeated backwards by 'Find up'.
- **Bookmarks:** It opens the document map and allows the user to navigate through the document structure.
Select the document title by means of the vertical scroll bar: the print preview will be placed on the

corresponding page highlighting the desired item.

By means of buttons  you can make the bookmarks bar docked or floating, or you can close it.

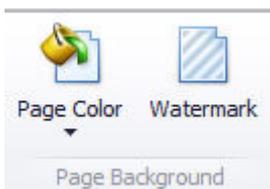
- **First page**: To preview the first page of the document.
- **Previous page**: To preview the previous page of the document.
- **Nextpage** : To preview the next page of the document.
- **Last page**: To preview the last page of the document.

■ Zoom



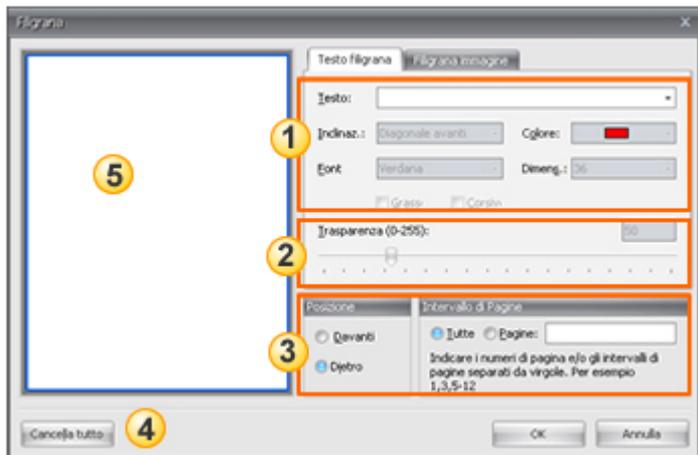
- **Mouse pointer**: To show and enable the mouse pointer.
- **Hand tool**: To scroll the pages manually.
- **Automatic magnifier** : To enable the tool 'Automatic magnifier'. By clicking the document once the single page is zoomed and becomes totally visible; by clicking once again the page is displayed 100% its normal format.
- **Many pages** : To select the number of pages to be displayed simultaneously in a preview window. Keep the mouse left-clicked and move left/downwards: you can view up to 35 pages (five rows and seven columns). The displayed pages are highlighted in blue.
- **Zoom out**: To reduce the visualization of the document pages.
- **Zoom** : To have the document displayed according to page or text width, to view one or two pages, to select a zoom percentage or enter a custom percentage.
- **Zoom in**: To increase the visualization of the document pages.

Page Background



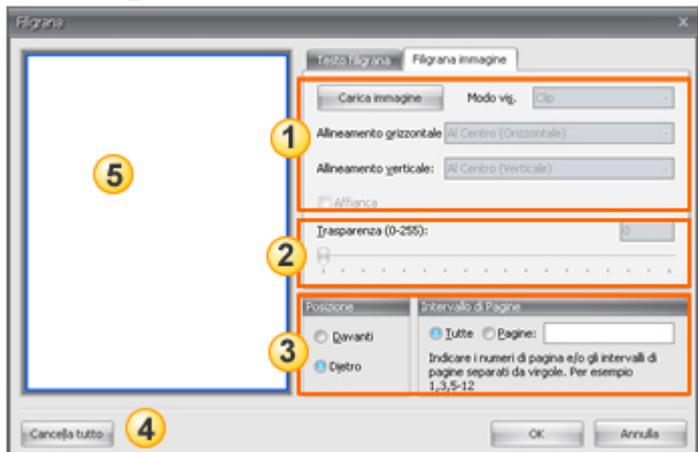
- **Background color**: You can select the background color of the document. Three color pallets are available: 'Custom', 'Web' and 'System'.
- **Watermark**: Watermarks are elements (images and/or text) displayed behind the document text to emphasize it or to indicate its state (e.g. Draft). Watermarks can be previewed and shown in printed documents. You can fade a watermark text or an image partially or completely so that it doesn't interfere with the document text. When a text is used as watermark, a preset sentence or a custom sentence (to be entered) can be selected.

Watermark text



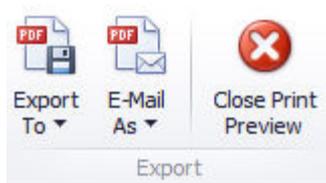
- ① **Entering and formatting a text:** you can enter a pre-set text or type a custom one and then apply slant, color, font, size, style (bold and italic).
- ② **Transparency:** move the cursor or enter a value to make the watermark more or less visible.
- ③ **Position and Page range:** to place the text on the Front or Behind the document text and select the pages where the watermark will be present.
- ④ **Delete all:** to cancel formatting.
- ⑤ **Preview pane.**

Image watermark



- ① **Entering and paging an image.** Click **Load Image** to load an image from your own archive. After loading, the image can be viewed in three different Display modes:
 - **Clip** (the image is inserted without any resizing).
 - **Fit** (the image is distorted and stretched to fill the page).
 - **Zoom** (the image is fitted to the page without being distorted).
 - Check **Tile** to repeat the image both horizontally and vertically, to cover the whole page.
- ② **Transparency.** Move the cursor or enter a value to make the watermark more or less visible.
- ③ **Position and Page range:** to place the text on the Front or Behind the document text and select the pages where the watermark will be present.
- ④ **Delete all:** to cancel formatting.
- ⑤ **Preview pane.**

Export



-
- **Export to... Send e-mail as...:** the document can be prepared to be saved on a disk or to be sent by e-mail in the following formats :
 - PDF file (Portable Document Format)
 - Image file (BMP,GIF,JPEG,PNG,TIFF,EMF,WMF)
 - Both formats have a control panel where different options can be selected, such as image quality or page range to be exported .
- **Close print preview :** to close the window 'Print preview' of the current document.

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STR Vision CPM

Working with STR Vision CPM

[Image bg_g.jpg]

General functions

The general functions are independent from the current work document .

- [License activation](#)
- [Customize Vision](#)
- [Import/Export](#)
- [Multilanguage management](#)
- [Notes with colored rows](#)

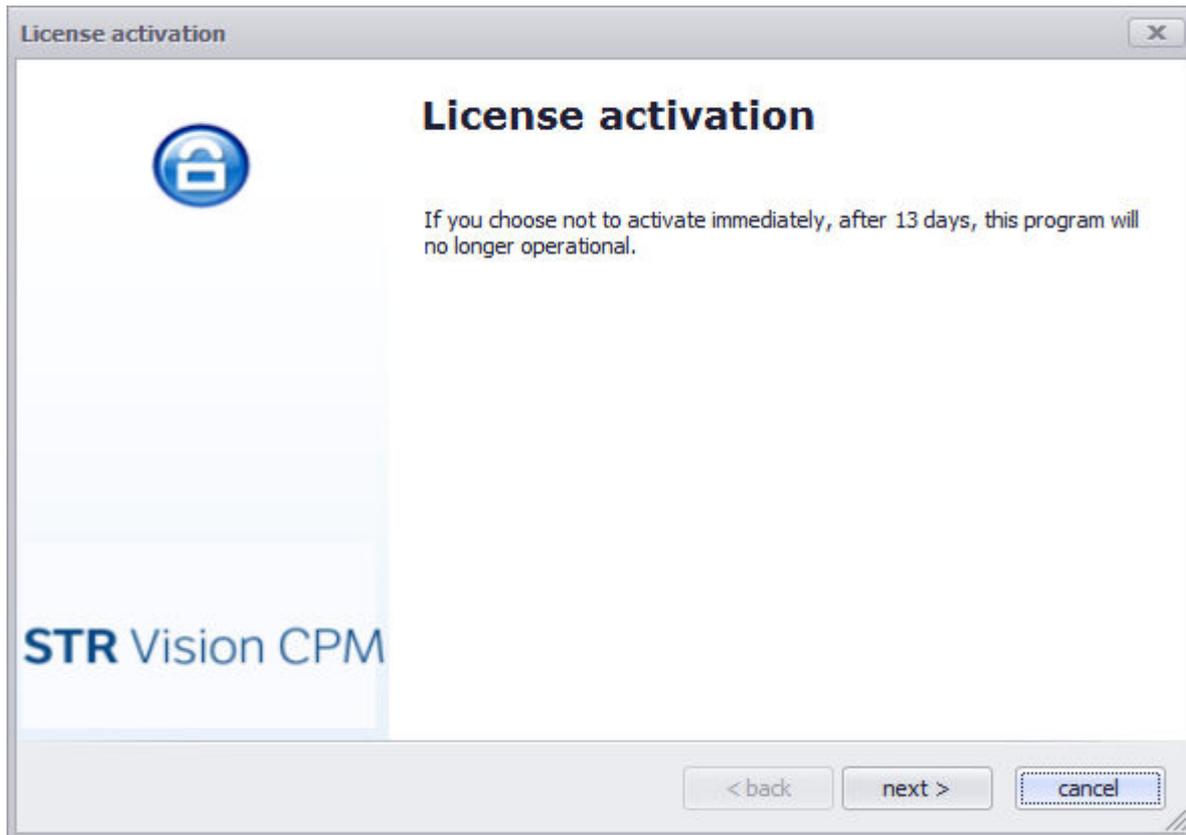
To access these functions select the corresponding buttons in the tab "Options" of the ribbon bar.

STR Vision CPM Working with STR Vision CPM

[Image bg_g.jpg]

License activation

To register the product, follow the wizard.



Enter the User and License ID received by e-mail.

License activation X

VISION
User and license code

User code: License:

User code: a numeric code that is provided to identify the customer.
License: is the code which identifies the license of the product.

At the end of the procedure a message will confirm that it has been completed successfully. If not, the product can be used as a demo for 40 days.

The product can be registered later using the button 'Licence activation' (tab START > Options, License activation).



Open

Change Project

New

Options

 Customize

License activation

STR Vision CPM Working with STR Vision CPM

[Image bg_g.jpg]

Customize Vision

Some settings in STR Vision CPM can be customized. Click **START > Options > Customize**



General instructions

To set the system so that it asks for an explicit confirmation on every saving (to prevent undesired overwriting), check the option '**Ask for confirmation on every save**'.

Check '**Ask for confirmation on drag&drop**' so that confirmation is asked for every time you drag&drop.

Shortcuts

The window 'Shortcuts' shows the default shortcuts of the system.

Shortcuts can be customized by assigning keyboard shortcuts or key combinations to frequently used commands.

To change keys or combinations of keys:

1. Place the cursor in the column 'Shortcuts' on the command you want to activate.
2. Check one of the options in the drop-down window.
3. Click **Save**.

STR Vision CPM Working with STR Vision CPM

Import / Export

STR Vision CPM allows data from other programs or whole STR Vision CPM archives to be imported, exported and shared with other users.

[Import from Excel™](#)

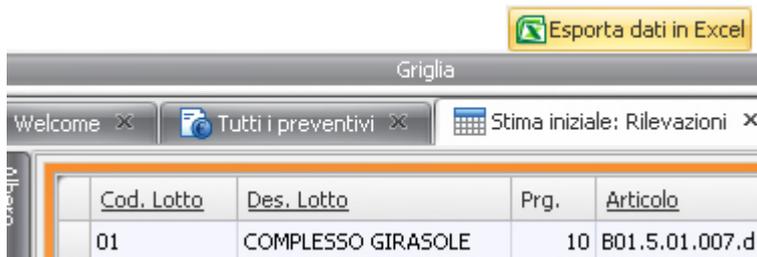
STR Vision CPM allows the user to import data in Excel™ 2003 or Excel™ 2007 formats.

Data are transferred by means of the clipboard, by using 'Copy' in Excel™ and 'Paste' in any working document of STR Vision CPM.

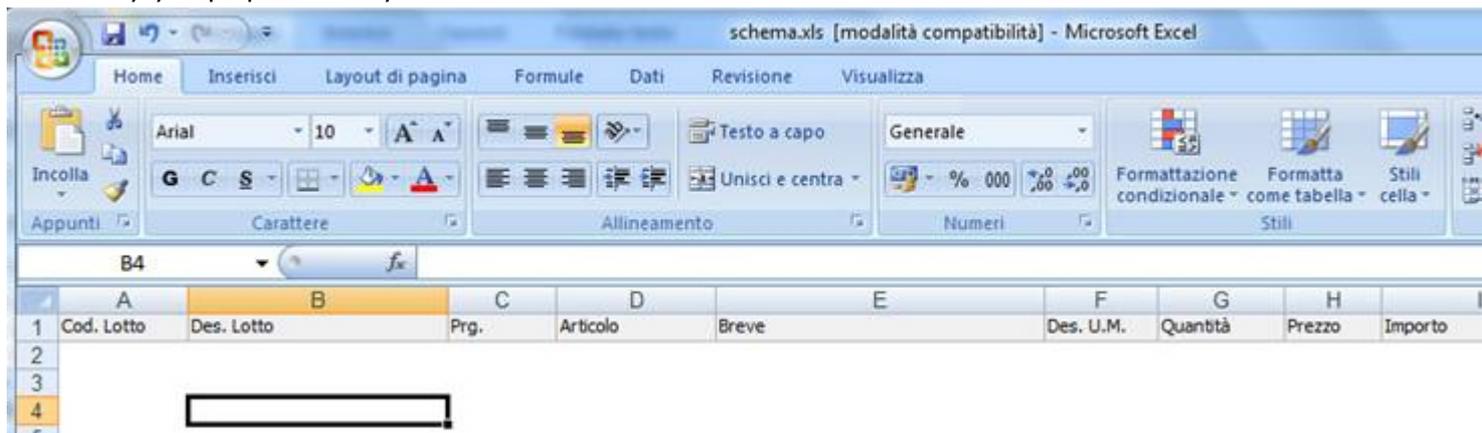
Import fields are identified by the field description text in the grid (e.g. 'Lot code', 'Item...'); the first row in the Excel™ sheet must have exactly the same text. Column position or a perfect match with the columns in the working document are not necessary.

To prepare a sheet for data import, we recommend to export the grid fields so that the first row of the Excel™ sheet is populated automatically. A possible procedure can be the following:

1. Export the grid of the working document to Excel™.



In this way you prepare the layout of the Excel™ sheet.



Fill in the columns on the sheet (manually or by copying from other files), then check all the data you want to import – first row included - using '**Copy**' in Excel™.

Click 'Paste' in the Ribbon Bar, group 'General', of the STR Vision CPM working document; the button is enabled only when the 'Clipboard' contains data that can be imported correctly.

The data are pasted in STR Vision CPM.

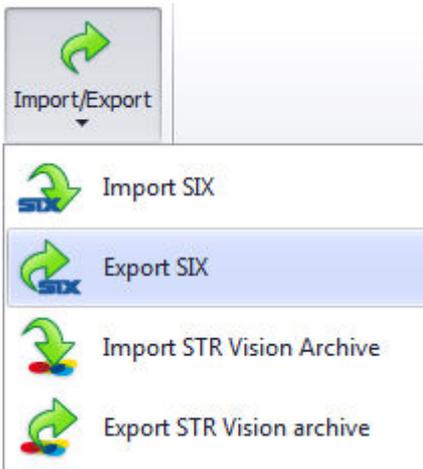
STR Vision CPM fills in all entries according to the rules set in the system. In particular:

- All available tables are populated: estimate row, UPC item, 'Lot' custom field, measure unit table, etc.
- Code fields are structured according to the rules set in the software.
- Calculated fields are not imported but re-calculated in STR Vision CPM (e.g. estimate row amount).

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[Import from SIX format](#)

Check the tab 'Options' and then the button Import/Export to start the import function for data in SIX format in the drop-down menu



You can import pricelist or work data.

▪ **How to import data in SIX format**

1. Click to check a SIX file (.xml extension).
2. Check the file in .XML format you want to import.
3. Check the file type Work or Pricelist.
4. The option **Validate SIX** checks that the file is correct: in case of anomalies the file will not be imported.
5. Check a template as an import template.
6. Check the calculation method for the safety charges.
7. Click Start Import.

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[Export data in SIX format](#)

To export a price list open the folder Price list > All lists and check the pricelist you want to export in the workspace.

Check the tab 'Options' and then the button Import/Export to start the export function for data in SIX format in the drop-down menu

▪ **How to export data in SIX format**

1. In the box 'File name' specify the name of the new file you are going to create.

2. Click **Browse**.
3. Check the folder or the unit where the file will be saved.
4. Use the option **Compress exported SIX** to zip the file.
5. Click **Export**.

To export work data place the cursor on 'Projects' and follow the same procedure.

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[Import STR Vision CPM archive](#)

This function can be activated from:

- All pricelists
- Projects
- All estimates
- All accountings

Check the tab 'Options' and the button Import/Export to start the import function of STR Vision CPM archive in the drop-down menu.

In the window 'Import...' operate as follows:

1. In the field 'Archive to import' specify the file name (with extension .vis or .zip) or click **Browse** and check the folder or the unit where the file will be saved.

2. Click **Start Import**.

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[Export STR Vision CPM archive](#)

This function can be activated from:

- All pricelists
- Projects
- All estimates
- All accountings

Check the tab 'Options' and the button Import/Export to start the export function of STR Vision CPM archive in the drop-down menu.

1. In the box File name specify the name of the new file.
2. Click **Browse** .
3. Check the folder or the unit where the file will be saved .
4. Activate the option **Compress exported data** to obtain a zip file.
5. Click **Export** to finish the operation.

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[Image bg_g.jpg]

Multilanguage Management

STR Vision CPM offers the possibility of handling data and (interface or report) texts in more languages. **ATTENTION**: To activate the management 'Multilanguage' you need the corresponding license.

Activation of the multilanguage module

Operate as follows:

1. In STR Vision CPM check that the Multilanguage license is active: START > Information, check the tab 'Server' and check that the Multilanguage module has a green tick.
2. Close STR Vision CPM application and Start the application 'Configurator' from the STR menu.
3. Activate the management 'Multilanguage': in the menu 'Utilities' check 'Enable advanced'
4. Check 'Advanced' in the pane 'Settings'
5. Enable the management 'Dictionary': tick the option '**Enable dictionary management** (interface and report languages). In this way it will be possible to modify the texts displayed in the application interface (titles of grid columns, navigation tree labels, texts to be printed).
6. Restart the service: access the section 'Windows Service' and press the button '**Install/Update Services**'.

NOTE: In case of company installation, STR Vision CPM client must be published after activating the option 'Enable dictionary management'. To publish the new client version with active multilanguage management, access the section 'Client publishing' of the Configurator and click '**Publish**' without changing the options checked before.

7. Enable the management to enter the data in different languages by checking the option '**Enable data entry in different languages**'. In this way descriptions and/or extended texts can be entered in more languages (among those available in the system).

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Setting dictionaries and languages for data

In STR Vision CPM press START > Options > Language Settings to set interface and data languages.

Activating interface and report languages

The interface and report language is used in displayed and report texts (labels, messages, report titles and columns, grid column names, etc.). To add a new interface language reach the desired language in the list 'Available Windows interface and report languages' and press the button '**Add**'.

Customizing interface and report languages

To customize the activated dictionaries operate as follows:

1. Check the desired language in the window 'Active interface and report languages'.
2. Press the button '**Customize dictionary**'.
3. In the column 'Translation' type the words you want to use instead of the ones listed in the column 'Text to translate'.

To search for the texts to customize you can use the filter functions in the column heading and use the button 'Change filter' (on the bottom right) to modify the filter options.

4. Press '**Save**' to save the changes made to the dictionary.

Activating data languages

The data language is used for the texts entered by the user (descriptions, detailed fields). To add a new data language reach the desired language in the list 'Available Windows data languages' and press the button 'Add'.

Customizing data languages

To customize data languages operate as follows:

1. Check the desired language in the list 'Active data languages'.
2. Press the button '**Customize drop-down lists**';
3. In the column 'Translation' type the words you want to use instead of the ones listed in the column 'Text to translate'.

To search for the texts to customize you can use the filter functions in the column heading and use the button 'Change filter' (on the bottom right) to modify the filter options.

4. Press '**Save**' to save the changes made to the dictionary .

User preferences

You can check the main and secondary languages in the drop-down lists. This option is available for the interface and report language, as well as for the data language.

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Setting languages for users

It is possible to set the system dictionary to be assigned to the users accessing STR Vision CPM.

In 'System settings' check 'Access control' and then 'Users'.

Check the desired user in the grid, then set the main and secondary languages for interface and reporting as well as for data.

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Using data languages

Management 'Languages' and entering texts by means of the Task pane

Texts in the previously activated languages can be entered into the working documents using the '[Task pane](#)'.

1. Go to the desired entry in the grid.
2. Press **Translations WD** in the Task pane.



3. In the Task pane check the desired language in the drop-down list.



4. Fill in the fields with the translated text. **NOTE:** the fields for translated text vary according to the activated management.
5. Click **Save**.

Inserting detail texts

Texts in the activated languages can be inserted into the detail tabs of the working documents, in particular into the measure detail.

1. Go to the field "Comment" in the detail tab "Measures" and right-click .
2. Check 'Languages' in the contextual menu.
3. In the form 'Insert translated text' check one of the languages in the drop-down list; then enter the translated text in the corresponding field.
4. Click 'Save'

Inserting texts into the navigation tree

■ You can insert the names of the navigation templates into the section 'Customize' of the [Navigation tree](#), checking one of the activated languages.

1. Open the section 'Customize' in the navigation tree.
2. Go to the field 'Templates' and right-click.
3. Check 'Languages' in the contextual menu.
4. In the form 'Insert translated text' check one of the languages in the drop-down list; then enter the translated text into the corresponding field.
5. Click '**Save**'.

■ The translated names of the available custom fields can be inserted into the section 'Custom fields' of the [Navigation tree](#).

1. Open the section 'Groups' in the Navigation tree.
2. Go to the custom field to be re-named and right-click.
3. Check 'Languages' in the contextual menu .

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[Reporting](#)

In the 'Reporting' management you can set the 'Data language' and the 'Text language' that will be used in reports.

1. After starting the 'Reporting' management, check the document to be printed in the grid.
2. Open the detail tab 'General'.
3. Check the languages that will be used for data and texts in the corresponding drop-down lists.

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[Image bg_g.jpg]

System settings

- Access Control
 - [Users](#)
 - [Roles](#)
 - Tables/Lists
 - [Diameters and weights](#)
 - [SOA categories](#)
 - [Nominatives](#)
 - [Towns](#)
 - [Percentages and formulas](#)
 - [Currencies](#)
-

[Image bg_g.jpg]

Users

User identification modes

There are 2 different identification modes:

- 1. Domain users:** These users just need to have their ID defined in the system (domain/username). In this way, when a new work session starts, STR Vision CPM checks that the user belongs to the authorized users without asking for his name and password. This mode is called single sign-on (SSO): thanks to this special system the user needs to log in only once; after that he can access all information resources he is allowed to).
- 2. Explicit users:** This mode should be used when the STR Vision CPM user is not a user of the system hosting the application. This is the case with users connecting from peripheral offices, external professional firms, etc. These users shall be registered in management 'Users' without specifying the field Operative system user; when a new work session starts, if STR Vision CPM does not recognize the current system user, the form to enter user and password will be displayed.

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Main fields in management Users

They are:

- **Code**: internal ID.
- **Description**: descriptive text (e.g. name and surname).
- **Operative system user**: to enable the domain user activation (case 1) indicate "domain\username".
- **Password**
- **Name**: user name for login with explicit user (case 2).
- **E-mail**: used for service sessions.
- **Tel.**: used for service sessions.
- **Active Yes/No**: access to the system can be disabled without cancelling the user from the archive permanently.

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Detail folders

■ User folder

The detail folder 'User' contains the fields to enter the current user's data.

{It alIt also shows the Company checked to access the system (field 'Company code').

■ Roles folder

The detail folder 'Roles' identifies the list of roles which the current user is associated with (see

[management `Roles`](#)).

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[Image bg_g.jpg]

Roles

The management 'Roles' is a document of [data management](#) type. It is used to define roles, that is the groups of users that will be allowed to access STR Vision CPM data and functions.

STR Vision CPM offers 2 roles natively:

1. **Administrator** : user with all privileges on any archive.
2. **Everyone** : users without any special privilege.

NOTE: further roles can be added and associated with the users.

STB Vision CPM System settings

[Image bg_g.jpg]

Tables/Lists

The tables described in this section are shared by all Projects and Companies in the database. They belong to the general settings and are:

- [Diameter s and weights](#)
- [SOA categorie s](#)
- [Nominatives](#)
- [Towns](#)
- [Percentages and formulas](#)
- [Currencies](#)
- [Document categorie s](#)

STB_Vision_CPM System settings

[Image bg_g.jpg]

Diameters and weights

This working document is of data management type.

It allows the user to manage the specific weights of the different materials (iron rods, electrowelded nets, etc.) and to use them in the details of estimates and measurements- see the working document Estimate Measurements ('iron' or 'electrowelded net' or Iron measurement).

In addition to the code and description fields, there is the 'specific weight' field (specify the value per material unit).

STB_Vision_CPM
System settings

[Image bg_g.jpg]

Categorie SOA

This working document is of data management type.

Works are classified according to the code structure provided for by enclosure A, decree D.P.R. 34/2000.

You can add further codes or change the existing ones.

[Image bg_g.jpg]

Nominatives

It manages the lists of the following name types: Company, Body, Internal personnel and External personnel. Such names can be retrieved into the different STR Vision CPM managements (accounting heading, price management, price analysis, etc.)

■ Grid

The Nominatives allows the user to describe each name by means of the following fields:

- Name type
- Code
- Description
on Place
- Tel.
- Mobil
- Fax
- VAT number
- Tax number
- Address
- Town
- Province
- e-mail
- Website

■ Detail folders

In Detail folders there are the same fields and the following information:

- text field with additional **Notes** – free field
- further references in addition to the main reference:
 - reference type (headquarters, subsidiary, etc.)
 - code and description (for example the name of a person in the body or in the professional firm)
 - address, place, town (ref. to towns table)
 - tel, fax, mobile
 - e-mail and website
- Activity** catalog – free description fields
- SOA categories**
assigned: with
corresponding max. jobs
amount: certificate
number
 - category amount
 - code and category
description certify

- ng company
- certificate
number certif
icate issue
date
- expiry date

STB Vision_CPM
System settings

[Image bg_g.jpg]

Towns

It manages the list of towns described by province, ZIP code and land register code.

[Image bg_g.jpg]

Percentages and formulas

Function types

'Percentages and formulas' are used to manage a list of numerical values that can be retrieved into the pricelists and jobs in STR Vision CPM. Entries are of the following types:

Formula: Customizable calculation formula. It can be retrieved both into analyses and into estimates or measurements.

Numerical parameter : Fixed numerical value. It can be retrieved both into analyses and into estimates or measurements.

Percentage : Values expressed in percentage. They are retrieved especially into the sections 'Analysis footer' (overhead expenses and business profit).

Text: Free text.

For each function the fields 'code' (that will be retrieved into calculations) and 'description' must be specified. You can also add a drawing to facilitate the identification of formulas.

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Specific fields of each function

You can fill in the specific fields of each function in the Detail tabs.

- Formula
 - Expression: it contains the calculation formula with reference to formula parameters.
 - Parameter list: it contains the expression parameters, separated by ';' (semicolon).
 - Value: do not consider.
- Numerical parameter
 - Expression: do not consider.
 - Parameter list: do not consider.
 - Value: enter the parameter value.
- Percentage
 - Expression: do not consider.
 - Parameter list: do not consider.
 - Value: enter the percentage value (without the symbol %).
- Text
 - Expression: enter the text.
 - Parameter list: do not consider. Value: do not consider.

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Where Percentages and formulas can be entered

STR Vision CPM offers different points where percentages and formulas can be entered.

- Folder 'System settings': it contains the basic percentages and formulas for the whole system, that can

be used by any management, 'Pricelists and projects' included.

- Folder 'Pricelists' (individual pricelist): it contains the values that can only be seen from the current pricelist.
- Folder 'Projects' (individual project): it contains the values that can only be seen from the current project.

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STB_Vision_CPM System settings

[Image bg_g.jpg]

Currencies

It allows you to manage the different international currencies used for prices and amounts. Fill in the fields 'code', 'description' and 'currency symbol'. All prices and amounts will be automatically accompanied by the currency symbol assigned to the project

[Image bg_g.jpg]

Document categories

Document categories are defined at system level. They are the document types (Supplier's Transport document, Active Transport document, giro, etc...) that can be managed

15 categories are pre-set during installation:

In particular:

- Movement type**: it shows how all operations belonging to a category will be considered in calculations.
 - a. Loading a qty – Loading an amount = positive
 - b. Unloading a qty – Unloading an amount = negative
- Category value type**: it shows where the value of a specific resource (item) will be retrieved from for an operation. **Tipo valorizzazione categoria** : indica sostanzialmente da quelle classe di prezzo verrà preso il valore di una determinata risorsa (articolo) in fase di movimentazione.

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[Image bg_g.jpg]

Price lists

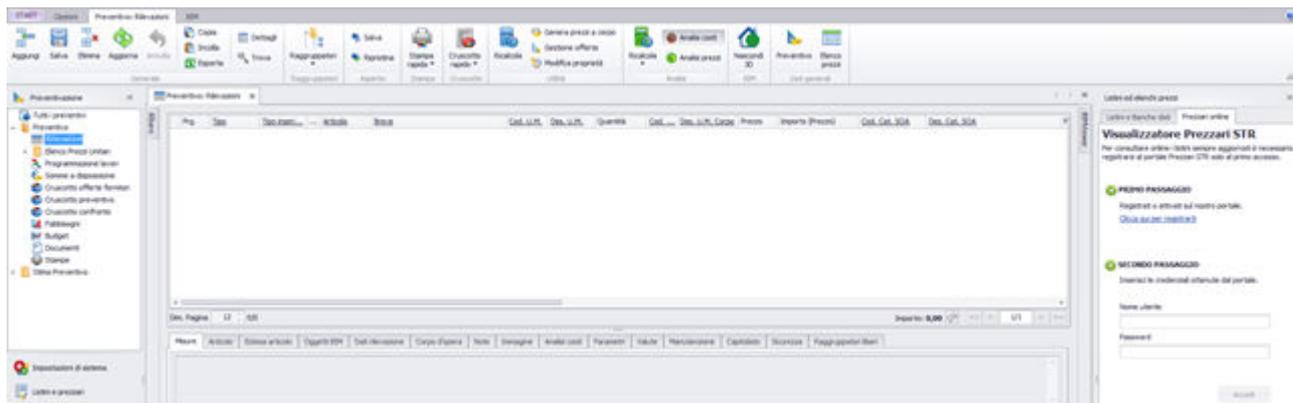
- [Price lists](#)
- [Products](#)
- [Analysis](#)
- [Measurements unit](#)
- [Rounding](#)
- [Price range](#)
- [Percentages and formulas](#)
- [Reporting](#)

STR Vision CPM Price lists

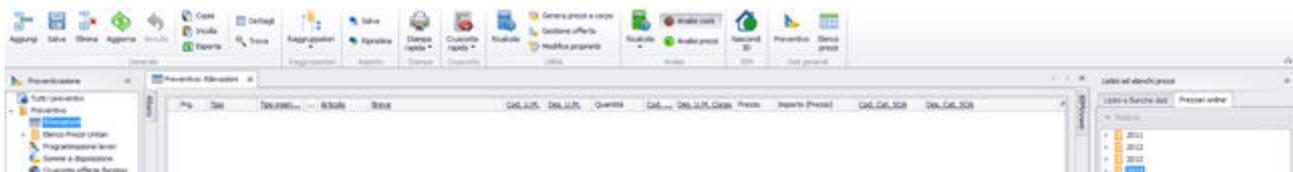
[Image bg_g.jpg]

Online Price lists directly available in STR Vision CPM

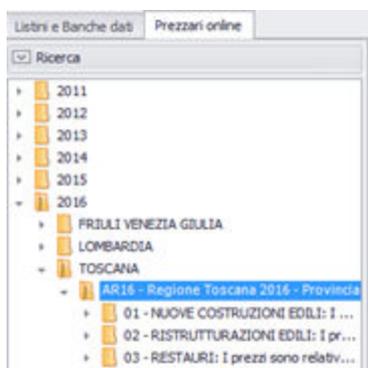
In STR Vision CPM you can consult directly the Price lists available in our portal. Here you can always find an updated pricelist database, organized by year and area. When the drag&drop function is available (for example in estimates and accounting measurements), press Online Price lists in the Task pane on the right.



You will be asked for logging in only when accessing our portal for the first time. As a first step, click the link indicated for registration and then follow the wizard on our portal. After obtaining your credentials, type them in the corresponding fields. From the following access on, you will have the content displayed directly, with no need for login.



To perform a search, check the pricelist you want to search in and expand the search options in the upper part of the window.



You can enter the items found directly into the estimate or the measurements by using the drag&drop function.

[[Image bg_g.jpg]]
Price lists

From the button Price lists you can activate the management All price lists.

This working document is used to manage and import price lists, as well as to create new ones. Price lists are common to all projects in STR Vision CPM.

Fields of All Price lists

The grid has the following fields:

- Code:** enter a code identifying the Price list.
- Description:** describe the Price list.
- Pricelist type:** you can check a Price list type among: Pricelist, Company, Supplier and ERP Integrated.
- Code and class description:** in the drop-down menu check the code and description of the price class associated with the Price list (see [Price classes](#)).
- Safety management type:** you can check the type of Safety incidence among: incidence on total price without separation, incidence on net price with separation and percent markon on price (additional).
- Currency code, description and symbol:** in the Price list in System settings (see the [Tree property function](#)) you can check the code that will retrieve description and symbol of the currency applied to the Price list.

Detail tabs

General data

This tab contains the same fields as the grid.

Data for reporting

This tab contains the fields available in reporting preview:

- No heading:** the Price list report preview has no heading.
- No logo:** the Price list heading has no image.
- Heading descr. left 1,2,3, and right 1,2:** heading fields can be filled in on more lines, both on the left and on the right, that can be displayed in report preview.
- On the right, the third line is reserved to the current date.
- Footer description:** you can fill in the footer field. It will be centered just above the page number.
- Logo:** right-click to load an image/logo. It will be displayed on the top left of the Price list page.

Creating a new price list with the wizard

To create a new Price list:

1. Click **Add**.
2. The wizard to create a new Price list opens.
3. Enter Code and Description, then press Next.
4. Check a standard or a custom template.
 - **Standard:** check one of the items in the drop-down list 'Standard Templates'.
 - **Custom :** check choosecustomtemplate and then one of the items in the list. To create a custom template, read the following paragraph.
5. Press **End**.

Creating a new price list template

New Price list templates can be created and used for later creations.

1. Check the Price list to be used as a template in the grid.
2. Click **Price list templates**.
3. The wizard to create a new Price list opens.
4. Enter Code and Description, then press **Create Template**.
5. A new custom template is now available in the Price list.
6. Close the window using the upper right **X**.

[Image bg_g.jpg]

Special functions

The following function are available in the ribbon bar:

Update codes

The button 'Update codes' allows the user to adjust the internal codes (used by the software to order the lists) to the codes viewed by the user. This operation may be necessary when there are problems in ordering or grouping entries. (For example, after importing data generated by other programs).

Change prices

The function '**Change prices**' allows the user to change the prices of Measurement products by applying a change percentage on the start price.

To start 'Change prices' press the button in the Ribbon Bar, on the command group 'Utilities'.

In the management 'Change prices':

1. Set the price class you want to use as 'Start price list', where the change percentage will be applied.
2. In 'Target price list' set the price class you want to obtain after applying the percentage.
3. Type the change percentage.
4. Use 'Filter setting' to apply possible filters when checking the products to be subjected to the price change. For further information on filter criteria, see paragraph How to activate advanced filter functions.
 - Check 'Also change fixed or subcontract prices' to change the prices with flag 'Fixed or 'Subcontract' set as active.
 - Check 'Also change analyzed prices keeping analyses but fixing price' to change the prices of the products checked without changing their Price analysis, if available.
5. After setting above fields, press 'Check prices'.
6. In the lower part of the workspace the list of the products with changed price will be displayed. You can use the group, order and filter functions by right-clicking the column heading.
7. Press 'Save prices' to save the changes.

Copy analysis

The utility 'Copy analysis' allows the user to copy the analysis concerning a price (Base, for example) to apply it to a different price class (Bid, for example).

1. Press **Copy analysis**
2. Specify if you want to copy from a different Price catalog, from the same Price catalog or from another Price list .
3. Set the price class of the analysis you are going to copy.
4. Set the price class of the target analysis.
5. Check one of the three copy options:
 - 'Copy for checked product': to copy the analysis of the checked product exclusively.
 - 'Copy for all products of Price Catalog': to copy the analyses of all Price Catalog products.
 - 'Copy on a Price Catalog selection': to apply filter criteria when checking the analyses to copy.For further information on filter criteria, see paragraph How to activate advanced filter functions.
6. Check 'Overwrite existing analyses' to replace the existing analyses with the copied ones. If you want to preserve the existing analyses, do not check this option.
7. Press Ok to confirm.

Change properties

The utility 'Change properties' allows the user to change some properties of the checked rows.

1. In the pane 'Filter setting', set the filter criterion to check the rows where the changes will be applied.
2. Check the property you want to change in the pane 'List of available properties' and drag it to the pane 'List of properties to change'. You can check more properties to be changed and repeat the operation described above.

NOTE: The list of available properties is different depending on the management you are working in.

3. Check a product in the list.
4. Press 'Change' to complete the procedure.

Update prices

The utility 'Update prices' allows the user to update the prices in a Price list by taking them from a Reference Price list (set for each product) for a specific price class.

To start the procedure press the button Update prices.

In the form 'Update prices':

1. Check a price class to specify the target class.
2. Use options 'Also change fixed or subcontract prices' and 'Also change analyzed prices keeping analysis but fixing price' to change prices as desired.
3. Check the Price list where the prices will be taken from.

The option 'From ref.' means that the prices will be taken from the reference Price list set for each product (fields 'Ref. product.', 'Ref. Price list .' specified on entry rows).

The option 'Specify Price list ' allows the user to specify a Price list different from the ref. Price list set for each product.

By checking this last option you can also define the source price class (drop-down menu of the field 'Price list Class').

4. If a Price list different from the reference one is specified, you can choose between:
 - 'Update by code' – the system looks for the corresponding product code;
 - 'Update by ref. code' the system looks for the product on the basis of the reference product code.
5. Choose if you want to update the whole price catalog or if you want to make a selection of products by means of the filter options.
6. Press the button Update to start the price updating procedure.

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[Image bg_g.jpg]
Analysis

Each Price list product or price catalog product can be analyzed, so that the price is determined on the basis of the components necessary for its realization; even each analysis component can be analyzed or have an input price.

Analyzed products are marked in the grid with a symbol in the column 'Analyzed'.

Detail tab Analysis

The detail tab 'Analysis' manages the composition of each product price, that is of any price class. To view the price analyses click the detail section 'Analysis', then check the price class: STR Vision CPM automatically supplies the price available in the product grid.

In the upper part of the form the analyzed quantity is displayed; the value supplied can be modified if you want to analyze different quantities.

The first field in the grid identifies the type of row being analyzed. It can have the following values:

- Product: the analysis row is associated with a Price list product.
- Comment: the row is a free comment.
- Amount: the row is a free amount.

■ Product row

It allows the user to analyze products involved in the realization, basic resources or further analyzed products. Fill in the following fields:

- Product code, description and m.u.: check the Price list product to be associated with the analysis or create a new one.
- Price class: the same analysis class (shown on the top left) is supplied, but you can check a price in a different class.
- Quantity: product quantity being analyzed, referred to the quantity analyzed; it is an expression field and you can enter numbers, operators, brackets, etc. When you are in the field, the symbol 'F' appears indicating the possibility to retrieve functions or parameters for the calculation. See section [Additional component fields](#).
- Price: product price, in the price class present on the row. The value supplied can be changed.
- Amount: amount of the component row, obtained by multiplying price by row quantity.
- Comment: free comment associated with the analysis row.

■ Comment row

Here free comments can be entered to better describe the analysis.

■ Amount row

It allows free amounts to be entered into the analysis calculation, without any reference to product rows. In this case the field 'quantity' is disabled, while calculation formulas can be entered into the field 'Amount'. As for the use of special calculation formulas, see section [Calculation expressions](#).

■ Price calculation

The field 'Price' on the top right of the tab 'Analysis' is updated automatically as the analysis is made. When saving the analysis (button 'Save' in the Ribbon bar) the price in the product row (upper grid) is updated too.

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Calculation expressions

The fields 'Quantity' and 'Amount' are both preset for calculation expressions: when you place the cursor on the field, the expression is displayed. Moving the cursor to other fields, the result or a symbol in case of syntax errors is displayed

Numbers, algebraic operators and parenthesis levels can be specified; special calculation formulas can be retrieved; formulas can be typed in directly in the expression or retrieved by button F at the beginning of the field.

NOTE: you can enter a percentage by indicating '%' after the value (example: '10' followed by '%' is read as '10%', that is '0.1'). This syntax is also active with functions or parameters: you can indicate a parameter, place the symbol '%' after it and have it processed as a percentage (example: OVERHEAD EXPENSES%).

Function types that can be retrieved into the analysis:

- STANDARD functions: trigonometric functions (sin(), cos(), tan(), etc.).
- SPECIAL functions: to build calculation expressions making reference to field values in other rows (total of preceding rows, quantity of a preceding row, subtotal as far as current row, etc.).
- CUSTOM functions: they can be defined freely (calculation of areas or volumes, amortization formulas, etc.).

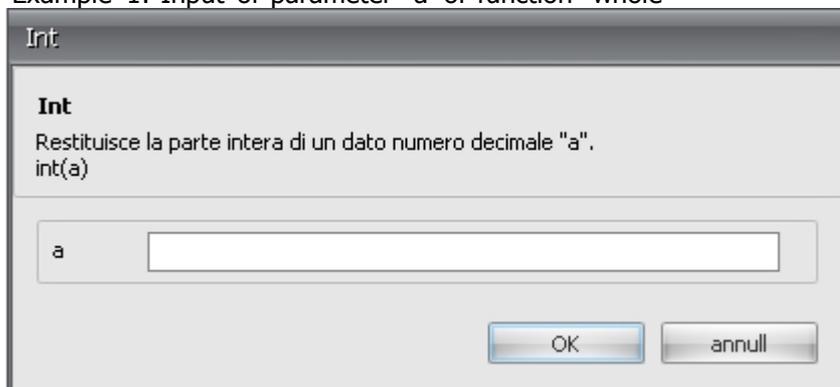
For further instructions see chapter '[Percentages and formulas](#)'.

■ Retrieving a function into an expression in analysis

Place the cursor inside the expression text and click the button . A window for the selection of function type (Standard, Special, Custom) will appear.

Check the required function and press **OK**: the system will insert it into the expression text (where the cursor is placed). If the function requires any parameters, the system supplies a form to enter them.

Example 1: Input of parameter 'a' of function 'whole'



The screenshot shows a dialog box titled "Int". Inside the dialog, the text "Int" is displayed in bold. Below it, the description "Restituisce la parte intera di un dato numero decimale \"a\"." is shown, followed by the formula "int(a)". There is a text input field containing the letter "a". At the bottom of the dialog, there are two buttons: "OK" and "annull".

Example 2: Calculation of the area of a trapezium

AreaTrap
Area trapezio
 $(b1+b2)*h/2$

b1

b2

h

OK annull

Example 3: Adding up the amounts of components of previous analyses

SommaImporto
Somma l'importo delle righe selezionate.

num1

num2

OK annull

■ Drawing up the list of analysis rows to be added up

Operate as follows:

1. Place the cursor on the button near the first field (Num1).
2. Move the mouse to the first analysis row you want to check and right-click.
3. Press **Enter**: the corresponding row number will be displayed in the field 'Num1'.
4. Repeat this procedure for the following rows and click again on the second row, etc.
5. As further rows are added, the system supplies a new empty row for additional selections.

Some special functions have a repeated behavior. Example:

- Special functions starting with 'Add up' (Add up amount, Add up quantities, etc.) require one or more rows (where the sum will be made) to be added.
- Functions with prefix 'Total' supply the total of a value available on all previous analysis rows, with no need for specifying any parameter.
- Functions with suffix 'Row' require just one row number.

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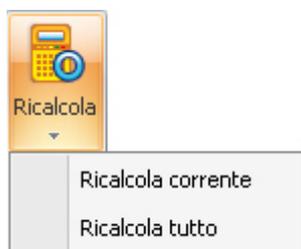
Safety charges

Each analysis component can participate in the calculation of the safety charges. If the flag 'Safety' is checked, the component is completely regarded as a 'Safety charge' and its amount is used to assign a value to the field 'Safety price' of the analyzed product (top right field).

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Price recalculation

This option allows the user to recalculate the current product or the whole archive. Check the button 'Recalculate' in the Ribbon Bar and then choose one of the two options..



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Function 'Disable'

This option on the Ribbon bar allows the current analysis row to be excluded from the calculation.



Disabled rows are displayed with strikethrough character

<u>Cod. Articolo</u>	<u>Des. Articolo</u>
01.01.01	Operaio-quarto livello

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Analysis footer – Overhead expenses and business profit

In addition to explicit analysis components, the price analysis can be completed by assigning further values for overhead expenses and business profit. These fields are supplied in the footer of the analysis tab; should the footer not be displayed, retrieve it by clicking the symbol 'Advanced information'.



The form supplies the calculation rule set on [Price class](#).

The following situations can occur:

- A default value for the footer section has already been specified on the price class; in this case the section is displayed with a value.
- No default value has been specified on the price class, or the value supplied must be changed for the current analysis; in this case operate as described below.

NOTE: In any case you can deviate from the indication on the price class and enter a calculation rule that will be used exclusively in the current composition.

1. To enable the fields in the footer section, tick the field **Applica perc. solo su questa analisi:** .
2. If necessary, change the fields 'Overhead expenses %' and 'Business profit %'; these fields refer to the table **Percentuali e formule** of the Price list or the work.
3. Check the calculation rule to be applied. It can have the following values:

$\text{Netto} + (\text{Netto} * \text{SG}) + (\text{Netto} + (\text{Netto} * \text{SG})) * \text{LI}$
 $\text{Netto} + (\text{Netto} * \text{SG}) + (\text{Netto} * \text{LI})$
 Non calcolare

- First rule – overhead expenses are applied on analysis value; business profit is applied on analysis value with applied overhead expenses.
- Second rule – both expenses and profit are calculated on analysis net value.
- Third rule – no add-on rule will be applied to the analysis.

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[Additional component fields](#)

Some analysis fields are not displayed automatically, but can be retrieved and saved on the form (see Changing and saving appearance).

Quantity incidence and Amount incidence

They supply the unit values of quantity and amount for the analysis component. They are useful especially when an product with analyzed quantity different from 1 is analyzed. In such a case:

- Fields 'Quantity' and 'Amount' -> show the component values for the analyzed quantity.
- Fields 'Quantity incidence' and 'Amount incidence' -> show the unit component values.

Unit and component execution time

Values are shown in case the analysis component is 'critical' for the duration of the activity. They are: execution time of the product (in hours) and execution time referred to component quantity.

Execution time

Each analysis component can be used to determine the duration of the activities in jobs planning and to define the length of the GANTT bar.

Activate the field 'Critical': if the component is associated with an product with execution time different from '0' (field 'Unit execution time'), the time (hours) necessary to obtain the analyzed product will be displayed in the field 'Execution time'.

Subcontracts

Some useful fields can be specified on each price analysis component to define subcontracts.

Subappalto	Cod. Sub...	Des. Subapp.
<input type="checkbox"/>		

- **Flag 'Subcontract'** : it means that the product on the component will be subcontracted. In requirements the product will be displayed directly and the price analysis omitted.
- **Subcontractor code and description:** you can specify a reference to the table ['Master data'](#) to obtain a specific group in requirements (the same name can classify supplies belonging to different work parts).

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[Image bg_g.jpg]

Measure unit

This working document allows the user to manage the symbols of the measure units associated with Price list or Price catalog products.

This code structure is also used to manage rounding in calculations (see chapter [Rounding](#)).

- Field **Code**: it is used to identify the measure unit; indicate its symbol directly.
- Field **Description** : in this free text field you can describe the meaning of the symbol used.

[Image bg_g.jpg]

Rounding

Rounding – Basics

- - This table allows the user to manage rounding in all calculations made by STR Vision CPM. Unless otherwise specified, each calculation is rounded off to the second decimal.
 - Rounding is always managed in the same way by STR Vision CPM: on display, in reporting and in the database. In this way the same result is obtained, for example, in exports and in analyses carried out with Pivot tables.
 - You can differentiate the rounding depending on data type and measure unit of the product involved (for example you can set 5 decimals for quantities expressed in Kg and 1 decimal for quantities expressed in tons).
 - Use a number > 0 to indicate the number of decimals, 0 (zero) for the units. Use a negative number to express rounding to ten, hundred, etc.
 - Rounding is associated with each Price list and project.

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Data types

The types of data where the rounding can be specified are the following:

- Amounts:** obtained as the product of quantity by price (e.g. on estimate rows or on measurements).
- Total amounts :** obtained as the sum of other amounts.
- Prices :** unit prices obtained from analyses and sales function.
- Component quantity :** component quantity field in analysis.
- Component amount:** component amount field in analysis.
- Percentages :** percentage field calculated on display or in reports.
- Quantity :** quantity in estimate row, measurements, time and material list, etc.
- Similar, length, width, height, weight, formula :** calculation expressions of quantities available in the estimate or in measurements.

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[Image bg_g.jpg]

Price range

This working document allows the user to manage different price types for the same product, price catalog or Price list. When generated, each archive is automatically supplied with a price class.

■ Adding new Price range

Further classes can be added at any time to manage different situations. For example:

- Prices on the same Price list but concerning different areas or provinces.
- Tender base price, price analyzed by cost and selling price (revenue).
- Prices offered by different executors/subcontractors.

The list of Price range is available in the tab 'price list' of Price list and price catalog.

■ Fields of management 'Price range

In the management 'Estimates' you can specify which prices must be available on display to assign values to the bill of quantities.

- Code and class description field:** indicate code and price class description. Be aware that these fields are available on display and in reporting to "re-qualify" the price (e.g.: 'base price', 'cost', etc.)

The following fields are used for calculations in price analyses:

- Overhead expenses code, Overhead expenses descr., Overhead expenses %:** indicate the estimated percentage (managed in [Percentages and formulas](#)) for overhead expenses (of Price list or work).
- Business profit code, Business profit descr., Business profit %:** indicate the estimated percentage (managed in [Percentages and formulas](#)) for business profit (of Price list or work).
- Percentage calculation type:** check the calculation rule to be applied. It can have the following values:
 - First rule – overhead expenses are applied on analysis value; business profit is applied on analysis value with applied overhead expenses.
 - Second rule – both expenses and profit are calculated on analysis net value.
 - Third rule – no add-on rule will be applied to the analysis.

NOTE: The calculation rule assigned here will be supplied in all archive analyses with the same class; however you can deviate from the general rule at any time and apply a specific rule to each price analyzed (see [Price analysis](#) management).

[Image bg_g.jpg]

Percentages and formulas

Function types

The management 'Percentages and formulas' is used to manage a list of numerical values that can be retrieved into Price lists and jobs in STR Vision CPM. Entries are of the following types:

- - Formula** : Customizable calculation formula. It can be retrieved both into analyses and into estimate or measurements.
 - Numerical parameter** : Fixed numerical value, it can be retrieved both into analyses, estimates and measurements.
 - Percentage** : Values are expressed in percentage. They are retrieved especially into the 'Analysis footer' (overhead expenses and business profit).
 - Text**: Free text.

For each function the fields 'code' (that will be retrieved into calculations) and 'description' must be specified. You can also add a drawing to facilitate the identification of formulas.

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The specific fields of each function

You can fill in the specific fields of each function in the Detail tabs.

■ Formula

- Expression** : it contains the calculation formula with reference to formula parameters.
- Parameter list**: it contains the expression parameters, separated by ';' (semicolon).
- Value** : do not consider.

■ Numerical parameter

- Expression**: do not consider.
- Parameter** : do not consider.
- Value**: enter the parameter value.

■ Percentage

- Expression** : do not consider.
- Parameter list**: do not consider.
- Value**: enter the percentage value (without %).

■ Text

- Expression**: enter the text.
- Parameter list**: do not

consider.

Value: do not consider.

Tipo funzione	Codice	Descrizione	Espressione	Lista parametri	Valore
> Formula	AreaTrap	Area Trapezio	$(B1+B2)*H/2$	B1;B2;H	0,00
Parametro nume...	NumiPiani	Numero Piani nello stabile			12,00
Percentuale	PercSG	Percentuale spese generali			7,00
Testo	Testo1	testo libero1	come concordato		0,00

Page Size 5 1/4 1/1

Dati di dettaglio

Tipo funzione Formula

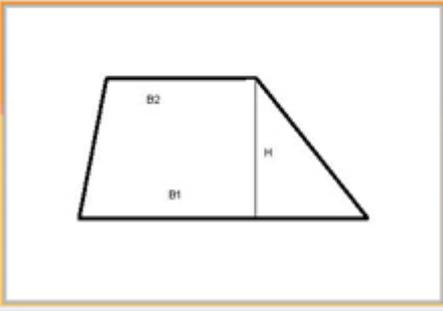
Codice AreaTrap

Descrizione Area Trapezio

Espressione $(B1+B2)*H/2$

Lista parametri B1;B2;H

Valore 0,00



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Where data concerning 'Percentages and formulas' can be entered

STR Vision CPM offers different points where percentages and formulas can be entered.

- Folder 'System settings': it contains the basic percentages and formulas for the whole system, that can be used by any management, 'Price lists and projects' included.
- Folder 'Price lists ' (individual Price list): it contains the values that can only be seen from the current Price list .
- Folder 'Projects' (individual project): it contains the values that can only be seen from the current project.

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Highlighting comments in prices Analysis

The type of comment lines included in the analyzes prices, can be highlighted Bold both in the management and later in the report.

Select the row to be highlighted, press the right mouse button and select Highlight row.

[Image bg_g.jpg]

Reporting

This working document allows the user to print Price list products.
This chapter describes the specific functions concerning Price list reports.
The following report types are available:

- Price list
- Price analysis

[Report of Price list](#)

The report of Price list contains a list of the products making up the current Price list .
The detail folder 'Options' of a Price list report has the following fields:

- Descriptions** : to check the type of description to be inserted into the report, as well as to define font, style and color for the short description field.
- Price range** : to check the Price range.
- Discount/raise** : to check the Discount/raise type.
- Safety charges** : when active, an additional column is displayed in reports with the price share concerning the safety charges.
- Only leaf products** : when active, only the products with a price will be printed. In this case the description of the upper level (product) is supplied to make the printout readable.
- Validity date** : when active, an additional column is available in reports with the price validity date.
- Images** : check this field if you want to print an image related to the Price list products.
- Highlight analyzed products** : when active, an asterisk will characterize the products with price deriving from an analysis composition.
- Index** : check this field if you want the List index on the printout.
- Automatic progressive** : when active, the progressive number is re-defined on the basis of the report order.

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[Reporting of Price Analysis](#)

The Price analysis report contains the analysis of the current Price list products (see chapter Analysis). The detail folder 'Options' of a Price Analysis report has the following fields:

- Descriptions** : to check the type of description of the Price list product to be inserted into the report, as well as to define font, style and color for the short description field.
- Components description** : to check the type of description of the analysis component to be inserted into the report, as well as to define font, style and color for the short description field.
- Price range** : to check the Price range.
- Prices for bid** : when this field is checked, the printout contains the descriptions of the Price list products as well as a blank price column.
- One analysis each page** : when active, one product analysis will be printed on each page.
- Components codes** : when active, the code of each analysis component is displayed.

- **Explosion of partly-finished products** : to print the analysis of each analyzed component. When this option is active, we recommend not to print the 'Components codes' but the progressive number.
- **Incidence** : in the column 'Amount', the incidence (in percentage) of the estimate row amount on the report total is displayed.
- **Analysis divided by classification** : when active, the supporting analysis will be printed by Classification.

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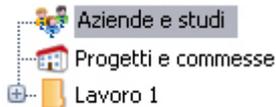
Projects organization

- [Companies and professional firms](#)
- [Current project](#)
- [Common data of current project](#)
 - [Price catalogs](#)
 - [Items](#)
 - [Documents](#)
 - [Reporting](#)
- [Measure units](#)
- [Roundings](#)
- [Price classes](#)
- [Percentages and formulas](#)
- [WBS](#)

[Image bg_g.jpg]

Companies and professional firms

Press the button 'Projects' and then 'Companies and professional firms' to start the corresponding management.



This working document is used to manage or create data of Companies and Professional firms. Each company/professional firm can be associated with more projects.

Fields of Companies and Professional firms

The grid has the following fields:

- Code and Description** : identifying data displayed in the upper part of the window (current company and current project).
- Company name:** complete company name to be used in report headings.
- VAT number**
- Tax number**
- Address**
- Place**
- Tel.**
- Mobile**
- Website**
- Fax**

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Detail tabs

General data

This tab contains the same fields as the grid.

The field on the bottom left allows the user to associate an image or a logo with the company. They will be used in report pages.

Telephone numbers

Telephone, mobile and fax numbers complete the company data.

Tax data

You can enter tax and VAT numbers (as in the grid).

Notes

Free, formattable, detailed text.

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[Creating a new company](#)

To create a new company:

1. Click **Add**.
2. The wizard to create a new company opens.
3. Enter Code and Description, then press **Next**.
4. Check a template, a standard or a custom template :
 - Standard: check one of the items in the drop-down list 'Standard Templates'.
 - Custom: check Choosecustomtemplate and then one of the items in the list. To create a custom template, read the following paragraph.
5. Press **End**.

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[Creating a new List template](#)

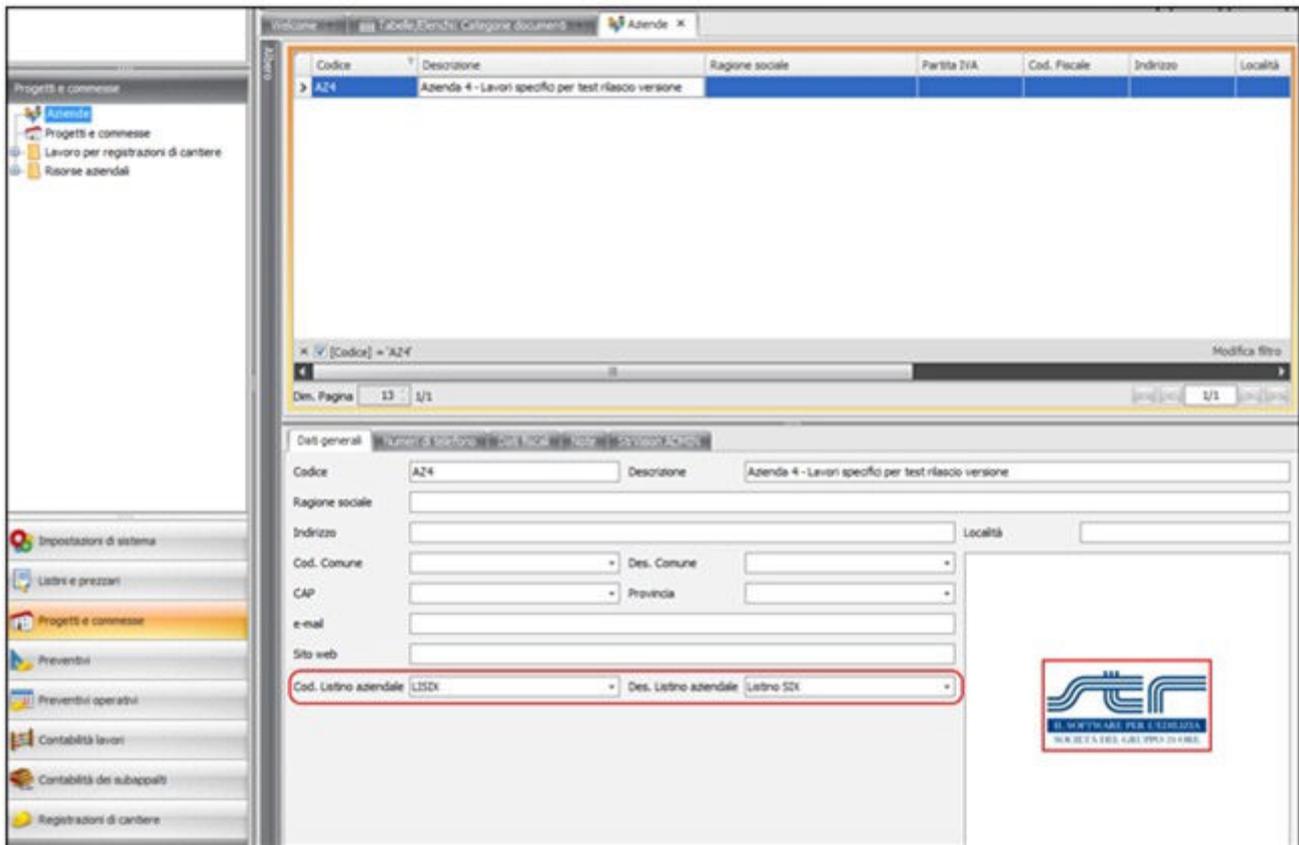
You can create new company templates and use them for later creations.

1. Check the company to be used as a template in the grid.
2. Click **Company Templates** .
3. The wizard to create a new list opens .
4. Enter Code and Description, then press **Create Template** .
5. A new custom template is now available in the list.
6. Close the window using the upper right **X**.

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[Defining the company pricelist](#)

The company pricelist can be drawn up in the working document enabled from the branch '[Companies and professional firms](#)' (Company master data).

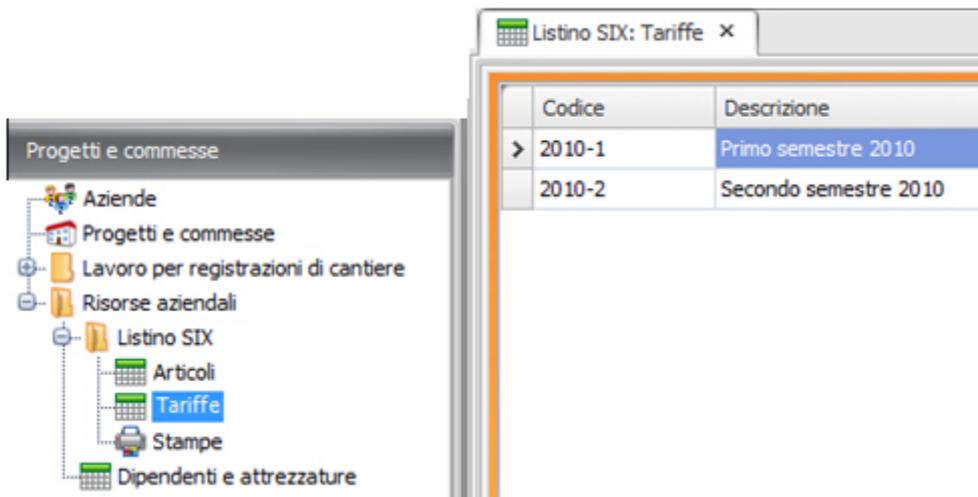


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Entering rates into the company pricelist

Rates master data can be accessed from the node '**Rates**', in the branch '**Company Resources**' (in **Projects**)

Thanks to this archive you can manage a number of rates for the same resource.



On the pricelist *heading* you can/must specify the current rate linked to the company pricelist.

You can enter the values (for the different hour types) of the individual resource, based on the current rate, into the working document **'Items'**, in the branch **'Company resources'** (in **Projects**).

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[Company workers and equipment](#)

From the node **'Workers and equipment'**, in the branch **'Company Resources'** (in **Projects**), you can access the management 'Workers and equipment' to be used to populate reports.

For each worker or equipment specify the item (company pricelist) supplying its value (rate).

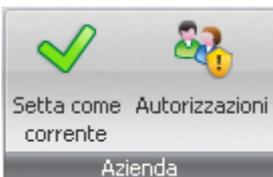
You can also assign data to workers by means of the link to a name contained in the corresponding management.

Tipo	Codice	Descrizione	Matricola	Articolo	Breve	Cod. UM	Des. UM
Attrezzatura	A1	Escavatore		03.01.07.a	angolato da t 12	H	h
Dipendente	D1	Mario Rossi	111111	01.01.01	Operaio quarto livello	H	h
Dipendente	D2	Giuseppe Gualerzi	222222	01.01.02	Operaio specializzato	H	h
Dipendente	D3	Salvatore Esposito	333333	01.01.03	Operaio qualificato	H	h

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[Specific functions of Companies and Professional firms](#)

Current Company



STR VISION CPM is preset to work with a current company or project. After checking the company or the professional firm, click **Set as current** to view the list (made current) of projects associated with the

company/professional firm in the work folder 'Projects'.

Authorizations

Here you can define the access authorizations for each company (see also [Users and Roles](#)).

Towns

It opens the contextual tab to enter Towns. The available fields are: code, description, province, ZIP code and land register code.

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STR Vision CPM Projects

Projects

This working document allows the user to organize STR Vision CPM data on the basis of the project/work they belong to. In addition to heading data, the project identifies:

- Project price catalogs
- Estimates (bill of quantities, available sums, etc.)
- Jobs planning
- Accounting data

Fields of the Project grid

The grid has the following fields:

- Code:** enter a project code.
- Description:** enter a description (it appears on the top left of STR Vision CPM title).
- Date:** enter project generation date.
- Currency code, descr. and symbol:** from the list in [System settings](#) you can check the code which will retrieve the description and symbol of the currency applied to the pricelist.

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Detail tabs

■ General data

This tab contains the same fields as the grid.

■ Designer

Fields concerning the Designer's personal data.

■ Customer

Fields concerning the Customer's personal data.

■ Supervisor

Fields concerning the Supervisor's personal data.

■ Notes

Tab reserved to notes (RTF text) on the current pricelist.

■ Data for reporting

This tab contains the fields available in report preview:

- No heading:** the pricelist report preview has no heading .
- No logo:** the pricelist heading has no image.
- Heading Descr. left 1,2,3, and right 1,2:** heading fields can be filled in on more rows, both on the left and on the right, that can be displayed in report preview .
- On the right, the third row is reserved to the current date.
- Footer description:** the footer field can be filled in.

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[Projects management - Basics](#)

How to create a new Project

To create a new Project:

1. Click **Add**.
2. The wizard to create a new Project opens .
3. Fill in the fields with the properties of the project being created, then press **Next**.
4. Check a standard or a custom template:
 - Standard: check one of the items in the drop-down list 'Standard Templates'.
 - Custom: check Choosecustomtemplate and then one of the items in the list. To create a custom template, read the following paragraph.
5. Press **End**.

NOTA: You can associate more projects with a company or a professional firm.

Creating a new Project template

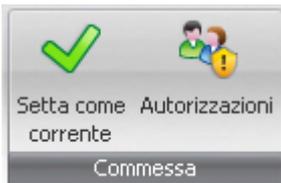
You can create new project templates and use them for later creations.

1. Check the project to be used as a template in the grid.
2. Click **Project Templates**.
3. The wizard to create a new Project opens .
4. Enter Code and Description, then press **Create Template** .
5. A new custom template is now available in the list.
6. Close the window using the upper right **X**.

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[Features of management 'Projects'](#)

NOTE: Before creating a new project, check that the corresponding company or professional firm are set as current.



Current project

STR VISION CPM is preset to work with a current company or project. After checking the project click **Set as current** to make it active.

Authorizations

Here you can define the access authorization for each Project (see chapters [Users and Roles](#)).

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[Image bg_g.jpg]
Current project

This section contains the current project data used both in estimates and jobs accounting.

- [Common data of current project](#)
 - [Price catalogs](#)
 - [Items](#)
 - [Documents](#)
 - [Reporting](#)
- Supplies
 - [Purchase requests](#)
- [Measure units](#)
- [Roundi ng](#)
- [Price classes](#)
- [Percentages and formulas](#)
- [WBS](#)

How to set a project as "current"

1. Double-click 'Projects'  Progetti e commesse
2. Check an item in the Data Grid
3. Click the button **Set as current**.

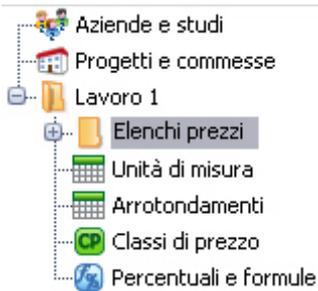


The list of project documents will show all working documents concerning the 'current project' previously set.

[Image bg_g.jpg]

Elenchi prezzi

Per aprire la gestione Elenchi prezzi premere il pulsante Progetti e commesse: nella Lista documenti selezionare il lavoro corrente e quindi la voce 'Elenchi prezzi'



E' un documento di lavoro di tipo [gestione dati](#) e permette di gestire gli elenchi prezzi di progetto.

Permette di gestire tutti gli elenchi prezzi di progetto, ad ogni progetto o commessa possono essere associati più elenchi prezzi.

[In questo articolo:](#)

↓ Le parti che compongono il documento

- [I campi della griglia di Elenchi Prezzi](#)
- [Le schede di dettaglio di Elenchi Prezzi](#)

↓ Che cosa c'è da sapere per partire

- [Come creare un nuovo Elenco prezzi](#)
- [Come creare un nuovo modello di Elenco prezzi](#)

[I campi della griglia di Elenchi Prezzi](#)

La griglia riporta i campi:

- Codice** inserire un codice identificativo del listino
- Descrizione** indicare descrizione del listino
- Tipo di listino** è possibile assegnare la tipologia di listino scegliendo tra: Prezzario, Aziendale, Fornitore e Integrato ERP.
- Cod. e descrizione classe** selezionare dal menù a discesa il codice e la descrizione della classe di prezzo associata al listino (vedere il capitolo [Classi di prezzo](#))
- Tipo gestione sicurezza** è possibile selezionare il tipo di incidenza della Sicurezza scegliendo tra : incidenza sul prezzo totale senza scorporo, incidenza sul prezzo netto con scorporo e ricarico percentuale sul prezzo (aggiuntivo).
- Cod. e des. e simbolo di Valuta** è possibile selezionare il codice, che richiamerà descrizione e simbolo della valuta applicata al listino, scegliendolo dall'elenco precompilato in [Impostazioni di sistema](#). Per maggiori informazioni sulla struttura del codice consultare [La funzione Proprietà dell'Albero](#).

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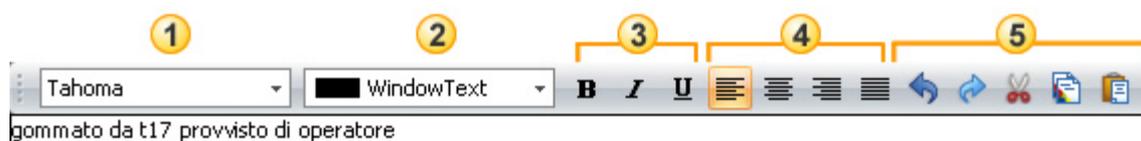
[Le schede di dettaglio di Elenchi Prezzi](#)

■ Dati generali

Ripropone i campi presenti in griglia.

■ Note

Scheda dedicata all'inserimento di eventuali note (testo RTF) per il listino corrente



I comandi presenti in questa finestra permettono di eseguire le seguenti operazioni:

1. Selezionare un font dall'elenco a discesa.
2. Selezionare un colore tra quelli proposti nelle palette 'Personalizza', 'Web', e 'Sistema'.
3. Applicare lo stile Grassetto, Corsivo e Sottolineato.
4. Allineare il paragrafo a sinistra, al centro, a destra, oppure impostarlo come giustificato.
5. Questo gruppo di comandi permette di eseguire le seguenti operazioni:
 - annulla l'ultima operazione eseguita
 - ripristina
 - taglia
 - copia
 - incolla

NOTA: La dimensione del font deve essere specificata direttamente sui prospetti in stampa.

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[Come creare un nuovo Elenco prezzi](#)

Per creare un nuovo Elenco prezzi:

1. fare clic su **Aggiungi**



2. Si aprirà la procedura guidata (o wizard) per creare un nuovo Elenco prezzi.
3. Compilare i campi proposti, quindi premere **Avanti**
4. Scegliere un modello tra quelli disponibili. E' possibile selezionare un modello standard o uno personalizzato:
 - standard: selezionare una delle voci presenti nel menu a discesa 'Modelli Standard'
 - personalizzato: selezionare Scegli modelli personalizzati e quindi una delle voci presenti in elenco. Per

creare un modello personalizzato consultare il paragrafo successivo.

5. Quindi premere **Fine**

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Come creare un nuovo modello di Elenco prezzi

E possibile creare nuovi modelli di Elenco prezzi da utilizzare come base in successive creazioni.

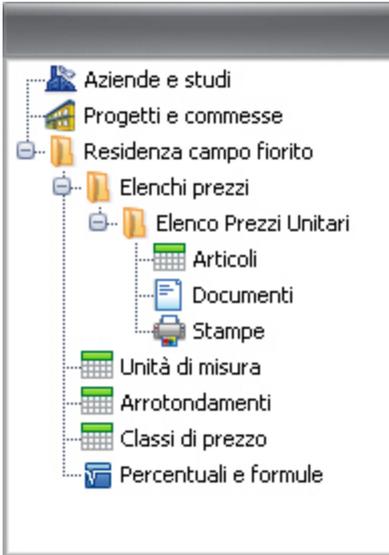
1. Selezionare nella griglia l'Elenco prezzi da utilizzare come modello
2. Fare click sul pulsante **Modelli di Elenchi prezzi**



3. Si aprirà la procedura guidata (o wizard) per creare un nuovo Elenco prezzi.
4. Inserire Codice e Descrizione quindi premere **Crea Modello**
5. Un nuovo Elenco prezzi personalizzato è ora disponibile in elenco
6. Chiudere la finestra utilizzando la **X** in alto a destra

Items

To start the management Items press the button **Projects** and then Items in the 'List of project documents'.



- [Detail tabs](#)
- [Safety charges](#)
- [Discount/raise percentage](#)
- [Flag Fixed](#)
- [Update codes](#)
- [Change prices](#)
- [Copy analysis](#)
- [Change properties](#)
- [Update prices](#)

Further instructions

- [Subcontracts](#)
- [Execution time](#)

The working document Items

This working document allows the user to manage the product of Price lists, their associated prices and the composition of the corresponding analyses.

The Tree and the Grid show the item fields.

Detail folders:

- Details: there are all item fields (both available or not available in the grid).
- Detailed: tab dedicated to the management of the detailed item description (RTF text)
- Prices: price list associated with the current item.
- Analyses: details of price analyses (see section [Analysis](#)).

- Image: image associated with the current item.

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Item data

- **Descriptions:** Each item has 2 description fields, short and detailed.

Short description: it is supplied anywhere the item is used. It is used both for searches and for reports. Max. length: 500 characters.

Detailed description: to be entered into the detail window. Max. length: unlimited. It can be printed in addition or as an alternative to the short description. The detailed description is generally used for item connected with types having the same general description.

- **Flag 'Item':** It identifies the item whose description must be available on the 'children' in reporting.

Thanks to this option you can omit repeating long texts on more items .

ATTENTION: this option can be used when the item code is structured. Operate as follows:

Describe the item at the second-last code level.

All children items can be just described with their own features, as the item description will be repeated on each child item in reporting.

- **Classification:** It describes the item 'nature' and can have the following values:

This field should be used when automatic summaries are required in reporting of analyses, time and material lists, etc.

However you can associate each item with a free code by defining a new 'free custom field' that, consequently, can assume all desired values.

- **Prices, price classes, price analyses:** In STR Vision CPM each product can have more prices described by the field 'price class' ('base price', 'province xyz price', etc.).

In the data load grid a single price is given, checked in the pricelist heading (see chapter Pricelists), completed by all related fields.

See also the detail section 'Prices'.

- **Reference product :** Each item in a pricelist or in a price catalog can be generated by copy-pasting it from another pricelist; in this case the fields 'Ref. Item' and 'Ref. Pricelist' supply the item code and the code of the pricelist where the item comes from.

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Detail tabs

The management 'Items' offers the following detail tabs.

■ **Details**

In addition to the fields available in the grid, the following information are supplied:

Ref. pricelist/Ref. item: fields connected with price catalog items. Open the drop-down menu to check a pricelist and a reference item to make an association.

■ **Detailed**

To enter the detailed item description.

The commands in this window allow the user to carry out the following operations:

1. To check a font in the drop-down list.
2. To check a color in the color pallets: 'Custom', 'Web' and 'System'.
3. To apply Bold, Italic and Underline styles.
4. To align the text left, center, right, or to justify.
5. This group of commands allows the user to carry out the following operations:
 - undo latest operation

- restore
- cut
- copy
- paste

NOTE: The font size must be specified directly on the tables to be printed.

■ Complete description

A description of all items in the hierarchy is supplied (upper levels).

- Upper level:** code and description of the parent item. This field receives a value automatically in case of structured code, otherwise it can be changed freely

■ Image

In this tab you can associate an image with the item.

To this purpose, go to the Image pane, right-click and check **Load** in the contextual menu.



After inserting the image you can cut, copy, etc. by means of the contextual menu (right-click).

To extract an image from the database and create an external file to be used with other programs, check **Save**.

■ Prices

The detail tab 'Prices' supplies all possible prices: a line is shown with each price class associated with the current archive.

- Price class: it is supplied automatically and can be changed in the corresponding management (see chapter Price classes).
- The price of each item can be given a value manually or by means of the price analysis function, that can be activated from tab 'Analysis'. In addition you can specify a start date for price validity.

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[Safety charges](#)

Pricelist items are the starting point to calculate the safety charges. A detailed description is supplied in section [Percentages and Formulas](#).

■ How to use the fields for safety charges

- Flag 'Safety' off: you can type the price share for safety in the field 'Safety Price', or the percentage to be applied to the item price in the field 'Safety %'.

Case 1: Price share for safety

Prezzo	Sicurezza	% sicurezza	Pz. Sicurezza
32,43	<input type="checkbox"/>	10,0000000...	3,24

- Flag 'Safety' on: the item is a special safety charge, therefore the item price is totally attributed to safety. Case 2: The item is a special charge, the whole price is attributed to safety

Prezzo	Sicurezza	% sicurezza	Pz. Sicurezza
32,43	<input checked="" type="checkbox"/>	0,00000000...	0,00

In analyses: the flag 'Safety' is also present on analysis components. In this case the component is completely attributed to safety and its amount is used to assign a value to the field 'safety price' of the item analyzed.

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Discount/raise percentage

The percentage can be expressed by a single contract value or specified for the individual items. In the management 'Price' you can enter the specific item value.

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Flag Fixed

The field Fixed allows the user to fix a price manually even in case of a price analysis: in this way the price cannot be changed by any Vision algorithm (or analysis, copy prices, bid mark-on).

Analyzed quantity: it describes the item quantity used in analysis calculation (see chapter [Price analysis](#)).

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Subcontracts

Some useful fields can be specified on prices to define subcontracts.

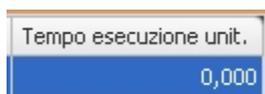
Subappalto	Cod. Nominativo	Des. Nominativo
<input type="checkbox"/>		

- **Flag 'Subcontract'** : it is used in the same way as the flag 'Fixed' (the price can be entered manually even in case of an analysis); in addition, the item will be classified accordingly in requirements.
- **Code and name description** : You can specify a reference to the [Nominatives](#) table to obtain a specific group in requirements (the same name can classify supplies belonging to different work parts).

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Execution time

Each item or each analysis component can be used to determine the duration of the activities in jobs planning and to define the length of the GANTT bar.



In the field 'Unit execution time' specify the conversion factor to obtain the time expressed in 'Hours' to be applied to the quantity of estimate item. This value will be used in analyses or estimates to find the time necessary to execute the whole work.

Example 1: Item 'Labor' with measure unit = 'hours' -> the field 'Unit execution time' must be set to '1'.

Example 2: Item 'Transport to dump' with m.u. = Quintals -> set the field 'Unit execution time' with a value expressing hours/quintal, e.g. '2,25 hours/quintal' (i.e. 2.25 hours to transport 1 quintal to the dump).

ATTENTION: Set this data for the items corresponding to the basic production factors (labor, means, freights, subcontracts). In case of complex works, this data is calculated by the function [Price analysis](#).

The value 'zero' in the field 'Unit execution time' means that the item does not influence in any way the execution time (a material, for example).

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Update Codes

The button 'Update codes' allows the user to adjust the internal codes (used by the software to order the lists) to the codes viewed by the user. This operation may be necessary when there are problems in ordering or grouping entries. (For example, after importing data generated with other programs).

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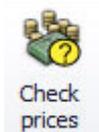
Change prices

The function 'Change prices' allows the user to change the prices of Measurement items by applying a change percentage on the start price.

To start 'Change prices' press the button in the Ribbon bar, command group 'Utilities'.

In the management 'Change prices':

- 1. Set the price class you want to use as 'Starting price list' where the change percentage will be applied.
- 2. In 'Target price list' set the price class you want to obtain after applying the percentage.
- 3. Type the change percentage.
- 4. Activate 'Filter setting' to apply possible filters when checking the items to be subjected to the price change. For further information on filter criteria, see paragraph [How to activate advanced filter functions](#).
- select '**Change fixed or subcontract prices too**' to change the prices with flag 'Fixed' or 'Subcontract' set as active.
- Select '**Change analyzed prices too: keep analyses but apply price**' to change the prices of the items checked without changing their [Price analysis](#), if available.
- After setting above fields, press 'Check prices'.



- In the lower part of the workspace a list of the items with changed price will be displayed. You can use the group, [order](#) and [filter](#) functions by right-clicking the column headings
- Press 'Save prices' to save the changes.

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[Copy analysis](#)

The utility 'Copy analysis' allows the user to copy the [analysis concerning a price](#) (Base, for example) to apply it to a different [price class](#) (Bid, for example).

1. Press Copy analysis

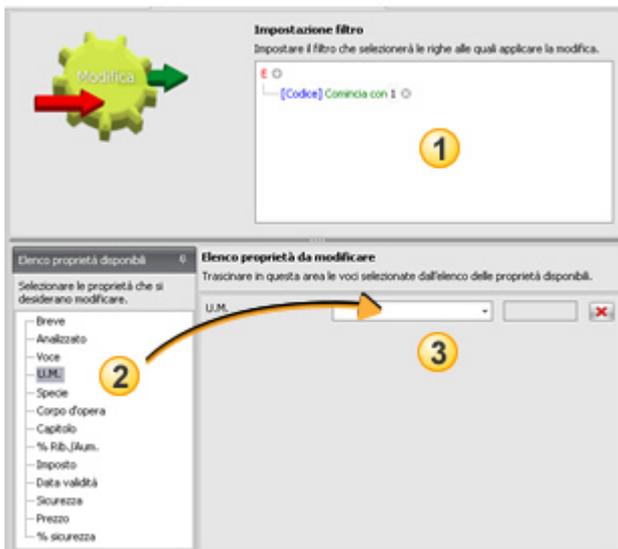
2. Check source and target.
3. Set the price class of the analysis you are going to copy.
4. Set the price class of the target analysis.
5. Check one of the 3 copy options :
 - 'Copy for checked item'**: to copy the analysis concerning the checked item exclusively.
 - 'Copy for all items of Price Catalog'**: to copy the analysis of all Price Catalog items.
 - 'Copy on a Price Catalog selection'**: to apply filter criteria when checking the analyses to copy.
6. Check **'Overwrite existing analyses'** to replace the existing analyses with the copied ones. If you want to preserve the existing analyses, do not check this option.
7. Press **Ok** to confirm.

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[Change properties](#)

The utility 'Change properties' allows the user to change some properties of the checked rows.

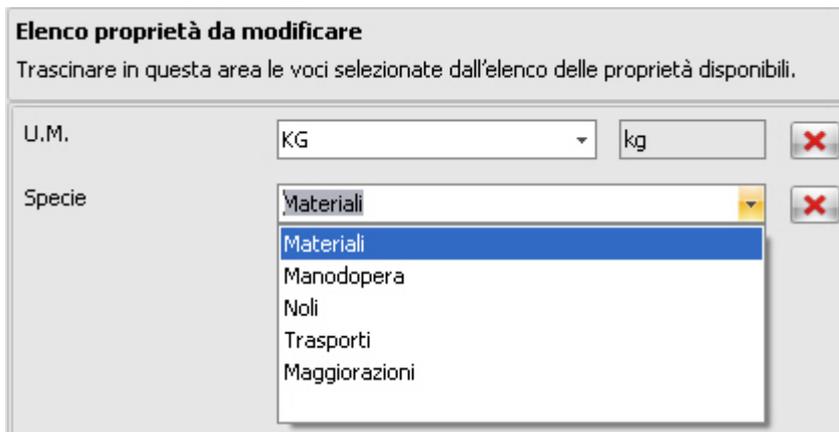




1. In the pane 'Filter setting' set the filter criterion to check the lines where the changes will be applied.
2. Check the property you want to change in the pane 'List of available properties' and drag it to the pane 'List of properties to change'. You can check more properties to be changed and repeat the operation described above.

NOTE: The list of available properties changes depending on the management you are working in.

1. 3. Check an item in the list.



2. Premere il pulsante 'Esegui la modifica' per completare la procedura.



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Update prices

The utility 'Update prices' allows the user to update the prices in a Price catalog taking them from a Reference pricelist (set on each item) for a specific price class.

To start the procedure press **Update prices**.

In the form 'Update prices':

1. Check a price class to specify the target class.
2. 1. Use options '**Also change fixed or subcontract prices**' and '**Also change analyzed prices keeping analysis but fixing price**' to change prices as desired.
3. Check the pricelists where the prices will be taken from. The option '**From ref.**' means that the prices will be taken from the ref. pricelist set for each item (fields 'Ref. item.', 'Ref. pricelist' specified on the entry rows). The option '**Specify pricelist**' allows the user to specify a pricelist different from the reference list set for each item. By checking this last option you can also define the source price class (drop-down menu of the field '**Pricelist Class**').
4. If a pricelist different from the reference one is specified, you can choose between:
 - '**Update by code**' – the system looks for the corresponding item code;
 - '**Update by ref. code**' the system looks for the item on the basis of the reference item code.
5. Choose if you want to update the whole price catalog or if you want to make a selection of items by means of the [filter options](#).
6. Press **Update** to start the updating procedure .

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[Image bg_g.jpg]
Analysis

Each Price list product or price catalog product can be analyzed, so that the price is determined on the basis of the components necessary for its realization; even each analysis component can be analyzed or have an input price.

Analyzed products are marked in the grid with a symbol in the column 'Analyzed'.

Detail tab Analysis

The detail tab 'Analysis' manages the composition of each product price, that is of any price class. To view the price analyses click the detail section 'Analysis', then check the price class: STR Vision CPM automatically supplies the price available in the product grid.

In the upper part of the form the analyzed quantity is displayed; the value supplied can be modified if you want to analyze different quantities.

The first field in the grid identifies the type of row being analyzed. It can have the following values:

- Product: the analysis row is associated with a Price list product.
- Comment: the row is a free comment.
- Amount: the row is a free amount.

■ Product row

It allows the user to analyze products involved in the realization, basic resources or further analyzed products. Fill in the following fields:

- Product code, description and m.u.: check the Price list product to be associated with the analysis or create a new one.
- Price class: the same analysis class (shown on the top left) is supplied, but you can check a price in a different class.
- Quantity: product quantity being analyzed, referred to the quantity analyzed; it is an expression field and you can enter numbers, operators, brackets, etc. When you are in the field, the symbol 'F' appears indicating the possibility to retrieve functions or parameters for the calculation. See section [Additional component fields](#).
- Price: product price, in the price class present on the row. The value supplied can be changed.
- Amount: amount of the component row, obtained by multiplying price by row quantity.
- Comment: free comment associated with the analysis row.

■ Comment row

Here free comments can be entered to better describe the analysis.

■ Amount row

It allows free amounts to be entered into the analysis calculation, without any reference to product rows. In this case the field 'quantity' is disabled, while calculation formulas can be entered into the field 'Amount'. As for the use of special calculation formulas, see section [Calculation expressions](#).

■ Price calculation

The field 'Price' on the top right of the tab 'Analysis' is updated automatically as the analysis is made. When saving the analysis (button 'Save' in the Ribbon bar) the price in the product row (upper grid) is updated too.

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Calculation expressions

The fields 'Quantity' and 'Amount' are both preset for calculation expressions: when you place the cursor on the field, the expression is displayed. Moving the cursor to other fields, the result or a symbol in case of syntax errors is displayed

Numbers, algebraic operators and parenthesis levels can be specified; special calculation formulas can be retrieved; formulas can be typed in directly in the expression or retrieved by button F at the beginning of the field.

NOTE: you can enter a percentage by indicating '%' after the value (example: '10' followed by '%' is read as '10%', that is '0.1'). This syntax is also active with functions or parameters: you can indicate a parameter, place the symbol '%' after it and have it processed as a percentage (example: OVERHEAD EXPENSES%).

Function types that can be retrieved into the analysis:

- STANDARD functions: trigonometric functions (sin(), cos(), tan(), etc.).
- SPECIAL functions: to build calculation expressions making reference to field values in other rows (total of preceding rows, quantity of a preceding row, subtotal as far as current row, etc.).
- CUSTOM functions: they can be defined freely (calculation of areas or volumes, amortization formulas, etc.).

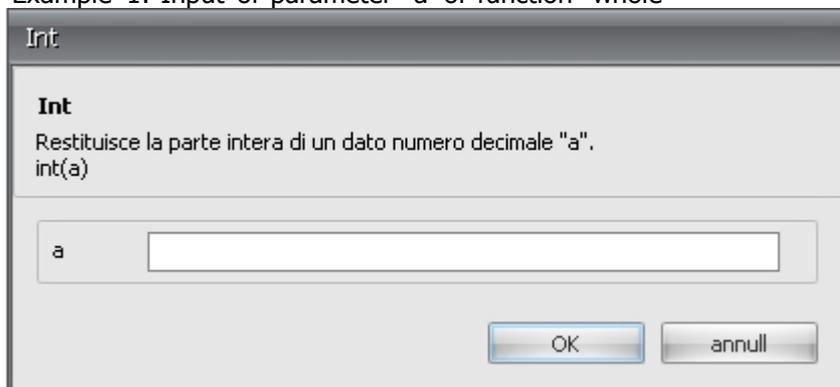
For further instructions see chapter '[Percentages and formulas](#)'.

■ Retrieving a function into an expression in analysis

Place the cursor inside the expression text and click the button . A window for the selection of function type (Standard, Special, Custom) will appear.

Check the required function and press **OK**: the system will insert it into the expression text (where the cursor is placed). If the function requires any parameters, the system supplies a form to enter them.

Example 1: Input of parameter 'a' of function 'whole'



Int

Int
Restituisce la parte intera di un dato numero decimale "a".
int(a)

a

OK annull

Example 2: Calculation of the area of a trapezium



AreaTrap
Area trapezio
 $(b1+b2)*h/2$

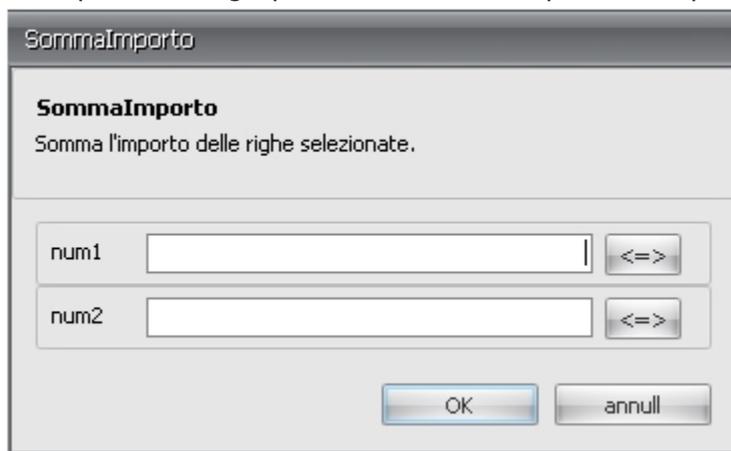
b1

b2

h

OK annull

Example 3: Adding up the amounts of components of previous analyses



SommaImporto
Somma l'importo delle righe selezionate.

num1

num2

OK annull

■ Drawing up the list of analysis rows to be added up

Operate as follows:

1. Place the cursor on the button near the first field (Num1).
2. Move the mouse to the first analysis row you want to check and right-click.
3. Press **Enter**: the corresponding row number will be displayed in the field 'Num1'
4. Repeat this procedure for the following rows and click again on the second row, etc.
5. As further rows are added, the system supplies a new empty row for additional selections.

Some special functions have a repeated behavior. Example:

- Special functions starting with 'Add up' (Add up amount, Add up quantities, etc.) require one or more rows (where the sum will be made) to be added.
- Functions with prefix 'Total' supply the total of a value available on all previous analysis rows, with no need for specifying any parameter.
- Functions with suffix 'Row' require just one row number.

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Safety charges

Each analysis component can participate in the calculation of the safety charges. If the flag 'Safety' is checked, the component is completely regarded as a 'Safety charge' and its amount is used to assign a value to the field 'Safety price' of the analyzed product (top right field).

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Price recalculation

This option allows the user to recalculate the current product or the whole archive. Check the button 'Recalculate' in the Ribbon Bar and then choose one of the two options..



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Function 'Disable'

This option on the Ribbon bar allows the current analysis row to be excluded from the calculation.



Disabled rows are displayed with strikethrough character

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Analysis footer – Overhead expenses and business profit

In addition to explicit analysis components, the price analysis can be completed by assigning further values for overhead expenses and business profit. These fields are supplied in the footer of the analysis tab; should the footer not be displayed, retrieve it by clicking the symbol 'Advanced information'.



The form supplies the calculation rule set on [Price class](#).

The following situations can occur:

- A default value for the footer section has already been specified on the price class; in this case the section is displayed with a value.
- No default value has been specified on the price class, or the value supplied must be changed for the current analysis; in this case operate as described below.

NOTE: In any case you can deviate from the indication on the price class and enter a calculation rule that will be used exclusively in the current composition.

1. To enable the fields in the footer section, tick the field **Applica perc. solo su questa analisi:** .
2. If necessary, change the fields 'Overhead expenses %' and 'Business profit %'; these fields refer to the table **Percentuali e formule** of the Price list or the work.
3. Check the calculation rule to be applied. It can have the following values:

$\text{Netto} + (\text{Netto} * \text{SG}) + (\text{Netto} + (\text{Netto} * \text{SG})) * \text{LI}$

$\text{Netto} + (\text{Netto} * \text{SG}) + (\text{Netto} * \text{LI})$

Non calcolare

- First rule – overhead expenses are applied on analysis value; business profit is applied on analysis value with applied overhead expenses.
- Second rule – both expenses and profit are calculated on analysis net value.
- Third rule – no add-on rule will be applied to the analysis.

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[Additional component fields](#)

Some analysis fields are not displayed automatically, but can be retrieved and saved on the form (see Changing and saving appearance).

Quantity incidence and Amount incidence

They supply the unit values of quantity and amount for the analysis component. They are useful especially when an product with analyzed quantity different from 1 is analyzed. In such a case:

- Fields 'Quantity' and 'Amount' -> show the component values for the analyzed quantity.
- Fields 'Quantity incidence' and 'Amount incidence' -> show the unit component values.

Unit and component execution time

Values are shown in case the analysis component is 'critical' for the duration of the activity. They are: execution time of the product (in hours) and execution time referred to component quantity.

Execution time

Each analysis component can be used to determine the duration of the activities in jobs planning and to define the length of the GANTT bar.

Activate the field 'Critical': if the component is associated with an product with execution time different from '0' (field 'Unit execution time'), the time (hours) necessary to obtain the analyzed product will be displayed in the field 'Execution time'.

Subcontracts

Some useful fields can be specified on each price analysis component to define subcontracts.

Subappalto	Cod. Sub...	Des. Subapp.
<input type="checkbox"/>		

- **Flag 'Subcontract'** : it means that the product on the component will be subcontracted. In requirements the product will be displayed directly and the price analysis omitted.
- **Subcontractor code and description:** you can specify a reference to the table ['Master data'](#) to obtain a specific group in requirements (the same name can classify supplies belonging to different work parts).

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[Image bg_g.jpg]
Documents

This working document is of type "[text document with variables](#)".

The following document types are available:

- UPC documents
- UPC cover

The documents can be reported by checking the node 'Reporting' of 'Price catalog'.

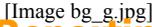
Task pane of a UPC document

To change a UPC document start the Editor by pressing the button .

The Task pane supplies the same list of variables for both document types.

List of document variables:

- Project General data**; in addition to code, description and currency, the data of buyer, designer and project manager are supplied.
- Price catalog** data: UPC code and description, note text.
- Report** data: data on signatures can be inserted into the document.
- Company or professional firm** data: code, company name, address, notes.


Reporting

This working document of [Report](#) type allows the user to report price catalog items. For general information see chapter [Reporting](#).

This chapter describes the specific functions of Price Catalog reporting.

The following report types are available:

- UPC – Report of UPC items
- UPC Documents – Report of text documents with variables
- Report of UPC cover
- Analysis – Report of price analyses

The fields supplied in the detail folder 'Options' are described here below for the report types available.

[Elenco Prezzi Unitari](#)

Report of UPC items.

- Price List**: to choose the price category to be reported among those available in the price catalog.
- Highlight analyzed items**: to identify the items with price deriving from an analysis composition.
- Progressive automatic**: it is re-defined on the basis of the report order.
- Images**: check this field if you want to report an image related to the Price Catalog items.
- Index**: check this field if you want the UPC index on the report.
- Only leaf items**: check this option to report Price Catalogs only (that is items with price). In this case the description of the upper level (item) will be supplied to make the report readable.
- Only used**: check this field to report only items used in estimation and/or accounting.
- Prices for bid**: when this field is checked, the report contains the descriptions of the Price catalog items as well as a blank price column.
- Validity date**: to report the price validity date.
- Safety charges**: the report will contain an additional column with the price share concerning safety charges.
- Descriptions**: to choose among short, detailed or both descriptions.
- Discount/raise**: to choose if the discount/raise shall be reported. In other reports you can decide if the Price catalog or the contract discount/raise shall be reported (see accounting reporting).
- Short description style**: to choose font, style and color for the short description field.

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[UPC documents](#)

Report of text documents with variables.

- Code and description of UPC document**s: check the text document with variables of 'document' type you want to report.

[↑ Top](#)

[UPC cover](#)

Report of UPC cover.

- Code and description of UPC cover** : check the text document with variables of 'cover' type you want to report.

[↑ Top](#)

[Analysis](#)

Report of price analyses.

- - Components description** : to choose which description will be reported for analysis components.
 - Price category** : to choose the Price category to be reported.
 - Prices for bid**: when this field is checked, the report contains the descriptions of the Price catalog items as well as a blank price column.
 - Only used**: only items retrieved from estimate rows will be reported.
 - Estimate**: check the estimate for the option 'Only used'.
 - One analysis each page**: a page break follows the analysis.
 - Components codes**: when this option is checked, item codes for analysis components will be reported; when this option is unchecked, each component is preceded by a progressive number.
 - Explosion of partly-finished products**: the analysis of each analyzed component is reported. When this option is checked, we recommend not to report the 'Components codes' but the progressive number.
 - Incidence**: the report will contain a column showing the component percentage in the price analyzed.
 - Total sorts**: the item total for each sort is indicated for each analysis.

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[Image bg_g.jpg]

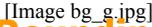
Measure units

This working document allows the user to manage the symbols of the measure units associated with Pricelist items or Price catalog items.

This code structure is also used to manage rounding in calculations (see chapter [Rounding](#)).

Field **Code**: it is used to identify the measure unit; indicate its symbol directly.

Field **Description** : in this free text field you can describe the meaning of the symbol used.


Rounding

[Rounding – Basics](#)

- This table allows the user to manage rounding in all calculations made by STR Vision CPM. Unless otherwise specified, each calculation is rounded to the second decimal.
- Rounding is always managed in the same way by STR Vision CPM: on display, in reports and in catalogs. In this way the same result is obtained, for example, in exports and in analyses carried out with Pivot tables.
- You can differentiate the rounding depending on data type and measure unit of the item involved (for example you can set 5 decimals for quantities expressed in Kg and 1 decimal for quantities expressed in tons).
- Use a number > 0 to indicate the number of decimals, 0 (zero) for the units. Use a negative number to express rounding to ten, hundred, etc.
- Rounding is associated with each pricelist and project.

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[Data types](#)

The types of data where the rounding can be specified are the following:

- Amounts:** obtained as the product of quantity by price (e.g. on estimate rows or on measurements).
- Total amounts :** obtained as the sum of other amounts.
- Prices :** unit prices obtained from analyses and sales function.
- Component quantity :** component quantity field in analysis.
- Component amount:** component amount field in analysis .
- Percentages :** percentage field calculated on display or in reports.
- Quantity :** quantity in estimate row, measurements, time and material list, etc.
- Similar, length, width, height, weight, formula :** calculation expressions of quantities available in the estimate or in measurements.

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Price categories

This working document allows the user to manage different price types for the same item, price catalog or pricelist.

Codice	Descrizione	Des. Utile impresa	% Utile Impresa	Des. Spese generali	% Spese generali	Tipo calcolo perc.
--------	-------------	--------------------	-----------------	---------------------	------------------	--------------------

When generated, each archive is automatically supplied with a price category.

Adding new price categories

Further categories can be added at any time to manage different situations. For example:

- Prices on the same pricelist but concerning different areas or provinces.
- Tender base price, price analyzed by cost and selling price (revenue).
- Prices offered by different executors/subcontractors.

The list of price categories is available in the tab 'pricelist' of pricelist and price catalog.

Fields of management 'Price categories'

In the management 'Estimates' you can specify which prices must be available on display to assign values to the bill of quantities.

- Code and category description field: indicate code and price category description. Be aware that these fields are available on display and in reporting to "re-qualify" the price (e.g.: 'base price', 'cost', etc.).

The following fields are used for calculations in price analyses:

- Overhead expenses code, Overhead expenses descr., Overhead expenses %:** indicate the estimated percentage (managed in Percentages and formulas) for overhead expenses (of pricelist or work).
- Business profit code, Business profit descr., Business profit %:** indicate the estimated percentage (managed in Percentages and formulas) for business profit (of pricelist or work).
- Percentage calculation type:** check the calculation rule to be applied. It can have the following values:
 - First rule – overhead expenses are applied on analysis value; business profit is applied on analysis value with applied overhead expenses.
 - Second rule – both expenses and profit are calculated on analysis net value.
 - Third rule – no add-on rule will be applied to the analysis.

NOTE: The calculation rule assigned here will be supplied in all archive analyses with the same class; however you can deviate from the general rule at any time and apply a specific rule to each price analyzed (see Price analysis management).

[Image bg_g.jpg]
Percentages and formulas

Function types

The management 'Percentages and formulas' is used to manage a list of numerical values that can be retrieved into pricelists and jobs in STR Vision CPM. Entries are of the following types:

- Formula:** Customizable calculation formula. It can be retrieved both into analyses and into estimates or measurements.
- Numerical parameter:** Fixed numerical value: it can be retrieved both into analyses, estimates or measurements.
- Percentage:** Values are expressed in percentage. They are retrieved especially into the 'Analysis footer' (overhead expenses and business profit).
- Text:** Free text.

For each function the fields 'code' (that will be retrieved into calculations) and 'description' must be specified. You can also add a drawing to facilitate the identification of formulas.

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Specific fields of each function

You can fill in the specific fields of each function in the Detail tabs.

Formula

- Expression** : it contains the calculation formula with reference to formula parameters.
- Parameter list**: it contains the expression parameters, separated by ';' (semicolon).
- Value** : do not consider.

Numerical parameter

- Expression**: do not consider.
- Parameter** : do not consider.
- Value**: enter the parameter value.

Percentage

- Expression** : do not consider.
- Parameter list**: do not consider.
- Value**: enter the percentage value (without %).

Text

- Expression**: enter the text.
- Parameter list**: do not consider. **Value** : do not consider.

Tipo funzione	Codice	Descrizione	Espressione	Lista parametri	Valore
Formula	AreaTrap	Area Trapezio	$(B1+B2)*H/2$	B1;B2;H	0,00
Parametro nume...	NumPiani	Numero Piani nello stabile			12,00
Percentuale	PercSG	Percentuale spese generali			7,00
Testo	Testo1	testo libero1	come concordato		0,00

Page Size 5 1/4

Dati di dettaglio

Tipo funzione: Formula

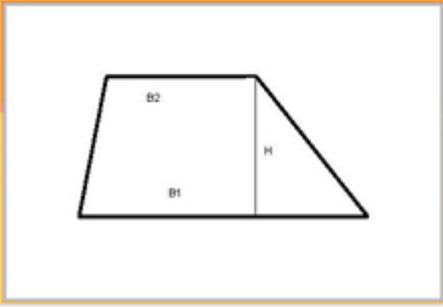
Codice: AreaTrap

Descrizione: Area Trapezio

Espressione: $(B1+B2)*H/2$

Lista parametri: B1;B2;H

Valore: 0,00



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Where data concerning 'Percentages and formulas' can be entered

STR Vision CPM offers different points where percentages and formulas can be entered.

- Folder 'System settings': it contains the basic percentages and formulas for the whole system, that can be used by any management, 'Pricelists and projects' included.
- Folder 'Pricelists' (individual pricelist): it contains the values that can only be seen from the current pricelist.
- Folder 'Projects' (individual project): it contains the values that can only be seen from the current project.

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STR Vision CPM Projects

[Image bg_g.jpg]

WBS

The WBS (Work Breakdown Structure) is an instrument to break down a project analytically. It shows all project parts in the form of a hierarchical tree, supplying different detail levels: from the first sub-targets down to specific tasks.

The WBS defines the product (or products) to be developed or produced. The work elements necessary to realize it are correlated one another and with the final product. The WBS can consist of any number of levels.

Press 'Projects' in STR Vision CPM, then enable the management 'WBS'.



In STR Vision CPM the WBS is a working document of data management type. It is a custom field that, unlike free custom fields, allows further custom fields to be created and associated inside it.

WBS fields

The grid has the following fields:

- Code:** enter a WBS ID code.
- Description:** enter a WBS description

If there are 'Associated custom fields' (e.g. the custom field 'Work'), the grid will show the corresponding fields 'Code' and 'Description'.

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Detail tabs

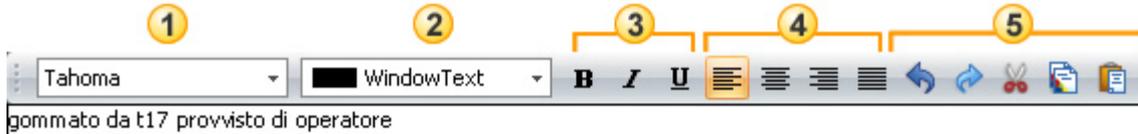
The management "WBS" offers the following detail tabs.

Details

In addition to 'Code' and 'Description', available in the grid, this tab supplies the fields 'Code' and 'Description' concerning the upper level of the WBS tree.

Notes

Allows to insert the detailed description associated with the WBS.



The commands in this window allow the user to carry out the following operations:

1. To choose a font in the drop-down list.
2. To choose a color in the color pallets: 'Custom', 'Web' and 'System'.
3. To apply Bold, Italic and Underline styles.
4. To align the text left, center, right, o to justify.
5. This group of commands allows the user to carry out the following operations:
 - undo last operation
 - restore
 - cut
 - copy
 - paste

NOTE: The font size must be specified directly on the tables to be reported.

Free custom fields

This tab is active when there are associated custom fields. It contains the corresponding fields 'Code' and 'Description'.

STR Vision ADMIN

It allows the user to associate the Cost Centers (or Phases) of STR Vision Admin to the WBS data of the current work. For detailed information see paragraph 'Vision for Companies'.

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[Custom fields](#)

The management 'WBS' includes the tree function [Custom fields](#).



The custom fields defined in WBS can be used in managements, reporting, Estimate and Accounting dashboards.

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[Generate WBS from ERP](#)

The WBS data of STR Vision CPM can be populated starting from the archive of the Cost Centers (or Phases) of STR Vision Admin.

1. Press the button '**Generate WBS from ERP**'.



2. Check the step to be imported into the grid, then press '**Transfer**'. By pressing '**Transfer all**' STR Vision CPM data is populated with all the phases available in STR Vision ADMIN.



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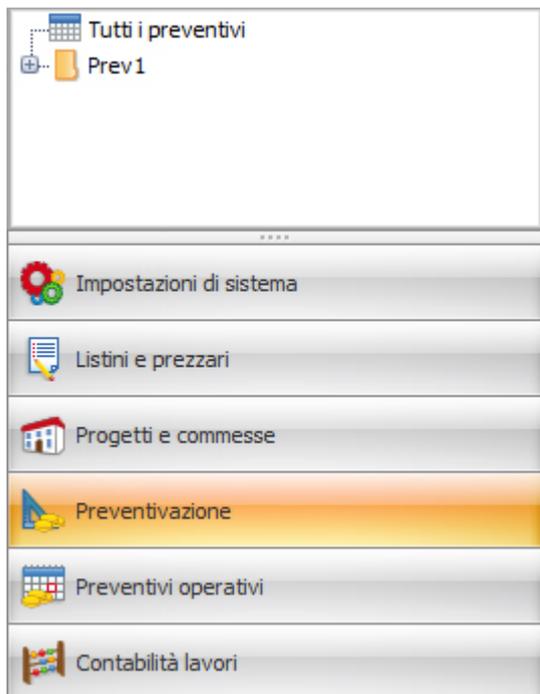
STB Vision CPM
Estimating

[Image bg_g.jpg]
Estimate

- [All estimates](#)
- [Measurements](#)
- [Bid management](#)
- [Jobs planning – timetable](#)
- [Estimate dashboard](#)
- [Comparison dashboard](#)
- [Requirements](#)
- [Budget](#)
- [Documents](#)
- [Reporting](#)

[Image bg_g.jpg]
All estimates

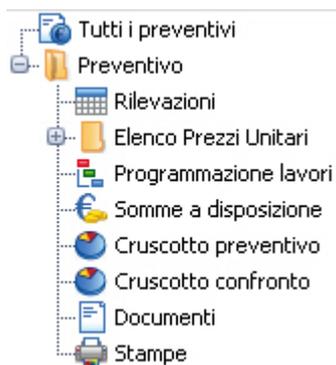
From the button 'Estimation' you can enable the management "All estimates".



This working document allows the user to manage the data of the estimates associated with a project.

More estimate documents can be associated with a project.

An estimate document consists of:



Fields of management 'All estimates'

The grid has the following fields:

- Code:** enter an estimate ID code.
- Description:** enter estimate description.
- Date:** check estimate date.
- UPC code and description:** check a code in the drop-down menu to retrieve a reference UPC (for detailed information see the chapter [Unit Price Catalog](#)).

The additional fields will be populated by the system when creating new catalog estimates automatically:

- UPC code and description for Cost
- Category code and descr. for Price
- Category code and descr. for Bid
- Category code and descr. for Cost

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[Detail tabs](#)

General data

In addition to some fields available in the grid, this tab contains:

- Tender data:** fill in the fields with tender details.
 - Tender base amount:** indicate tender base amount.
 - Safety charges type:** set the calculation method for safety charges:
 - Analytical:** calculated on each item.
 - Lumpsum:** according to contract.
 - None.**
 - Safety %:** indicate safety incidence (in %).
 - Safety charges amount:** after entering the price, the system calculates the percentage. The data will be updated automatically even in case of variation of the tender base amount.
 - Bid type:** choose between 'Discount' or 'Price bid'.
 - Disc/Raise %:** indicate the discount/raise percentage applied to the tender. This field is only active when the bid type 'Discount' is checked.
 - Award amount:** indicate the tender award amount. This field is only active when the bid type 'Price bid' is checked.
 - Available amounts:** indicate the amount of available sums.
- Town data:** enter the town code and the fields will be filled in automatically on the basis of the settings made in [Town master data](#) in System Settings.

Configuration data

In addition to the fields available in the grid this tab contains:

Bid type: it can have the following values:

- discount: in this case you can set the discount/raise percentage in the field.
- price bid: you can enter directly the award amount offered.

Notes

Tab reserved to possible notes (RTF text) for the current accounting.

NOTE: The font size must be specified directly on the tables to be reported.

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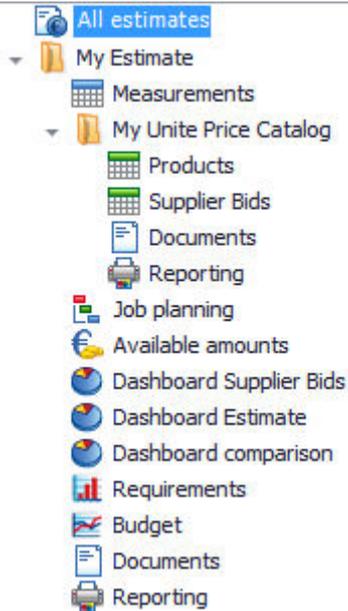
STB_Vision_CPM
Estimating

[Image bg_g.jpg]
Estimate

- [Measurements](#)
- [Available amounts](#)
- [Estimate dashboard](#)
- [Comparison dashboard](#)
- [Documents](#)
- [Reporting](#)

[Image bg_g.jpg]
Measurements

To open the management 'Measurements' press 'Estimation': check an estimate in the Documents list and then the item 'Measurements'.



This working document allows the user to draw up estimates.

Project structure

The work is divided into parts by custom fields that can be defined freely in STR Vision CPM. When a new project is created, the fields Lot, Map, Work are supplied: they can be modified or replaced with other fields more suitable for the work to be done.

Custom fields are used to order and filter estimate entries. They can be found:

- on the tree in the Estimate management
- in the management grid (screen top)
- in reporting
- in dashboards for data analysis, to organize and filter estimate data in reporting or in data analysis dashboards.

In addition, active custom fields are summed up in the detail section 'Custom fields'.

Please note that the custom fields defined in the estimate can also be used in the following project activities (project management, jobs accounting, etc.,).

Estimate rows

The technical and economic quantification of the project is carried out by means of estimate

measurements where the following can be specified:

- Row progressive number
- Item of project price catalog describing the work object
- Work quantity
- Price

The estimate row can show 1 – 3 prices according to the settings made at installation stage.

In this chapter

- [Measurement fields](#)
- [Detail tabs](#)
- [Transfer items from UPC/ref. Pricelist](#)
- [Utilities](#)
- [Analysis](#)

[Measurement fields](#)

According to the initial settings, the estimate grid can show just some fields of those available in the management; the remaining fields can be viewed at any time by means of the function 'Check columns' (right-click the grid fields).

The basic fields to draw up an estimate are: item (code and all corresponding fields) and row quantity, that can be entered directly in the field 'Quantity' on the work grid.

The price catalog item and the estimate custom fields can be entered directly from this management without opening any additional forms.

In the grid there are the following fields:

- Progressive:** the estimate rows are identified by the field 'Progressive'. Its step can be specified in the management of properties (see paragraph [Tree properties](#)).
- Measurement date:** free date, it only has a documentative value.
- Type:** it specifies how the measurement will be made:
 - by measure
 - lumpsum
 - time and material
- Entry type:** it specifies how the estimate measures will be entered (see 'Detail tabs – measures'):
 - factors (similar, length, width, height)
 - formula (free expression)
 - iron (specific weight by diameter)
 - electrowelded net (specific weight of net type)
- Item fields:** (code, description, measure unit, one or more prices).
- Amounts:** one or more fields filled in by multiplying the quantity by the prices on the row.
- SOA category:** reference to the table with [SOA categories](#).
- Direct supply:** the field contains the estimate elements not to be subjected to contract discount/raise.
- Ref. pricelist/Ref. item:** fields linked to UPC items. Open the drop-down menu to choose a pricelist and a reference item to make the association.

[Detail tabs](#)

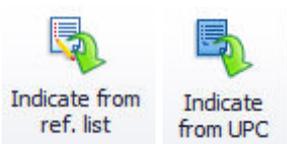
- **Measures:** detailed comments and measures determining the row quantity. The available columns vary depending on how the field 'Entry type' has been set. Be aware that every measure type field is an expression where operators, bracket levels, functions and percentages can be used.
- **Item:** fields of the price catalog item associated with the estimate row. The window supplies all item fields, even those not shown in the grid because hidden.
- **Detailed item:** detailed description of the item.
- **Measurement data:** same fields as in the screen top. The window supplies all item fields, even those not shown in the grid because hidden.
- **Lumpsum:** fields to manage the estimate of lumpsum works. For detailed information see section 'Features'.
- **Notes:** free text in RTF format associated with the measurement row.
- **Image:** image associated with the measurement row.
- **Analyses:** tab for the management of the item price analysis. For further information on this section see '[Price analysis](#)'.
- **Free custom fields:** list of free custom fields.

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[Transfer items from UPC/ref. Pricelist](#)

This button allows the user to set the archive (UPC or Reference pricelist) from which the items to be used in the current estimate shall be imported.

The button is active when a Reference pricelist is available.



- By means of '**Indicate from ref. list**' you can scroll and import items from the reference pricelist. Go to one of the grid fields with tables (e.g. 'Item') and click ▾
By means of '**Indicate from UPC**' you can choose the Price Catalog items to be associated with the estimate rows. Go to one of the grid fields with tables (e.g. 'Item') and click ▾.

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[Utilities](#)

Generate lumpsum prices

To obtain a 'lumpsum' item act as follows:

1. Check that the grid contains the fields: 'Type', 'Lumpsum code', 'Short lumpsum', 'Lumpsum MU'.
2. From the grid or from the detail tab 'Measurement data' set the field 'Type' with the value 'Lumpsum'.
3. From the grid or from the detail tab 'Lumpsum work' choose or create an item of 'Lumpsum' type by filling in the fields 'Lumpsum' (UPC item code identifying the lumpsum work), short lumpsum description, measure unit. Check the flag 'Lumpsum work' in the detail tab 'Lumpsum work'.
4. Repeat the operation on all estimate rows belonging to the lumpsum work composition.
5. Then activate the function '**Generate lumpsum prices**'.

Generate lumpsum prices

STR Vision CPM will generate the lumpsum price of the item as a sum of the estimate rows associated to the lumpsum work.

This setting will be available during work accounting

Bid management

The Bid Management allows the user to obtain the total sale price quickly, by using the data concerning the work value.

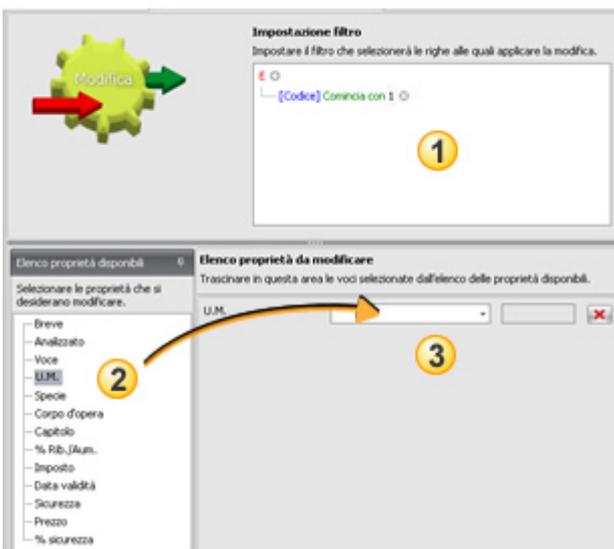
For detailed information see paragraph [Bid Management](#).

Bid management

Change properties

The utility 'Change properties' allows the user to change some properties of the selected rows.

Change properties



1. In the pane ① 'Filter setting' set the [filter criterion](#) to select the rows where the changes will be applied.
2. Select the property you want to change in the pane ② 'List of available properties' and drag it to the pane ③ 1. 'List of properties to change'. You can select more properties to be changed and repeat the operation described above.

NOTE: The list of available properties changes depending on the management you are working in.

3. Check an item in the list.
4. Press Modify.



Recalculation

STR Vision CPM processes the data automatically when the measurement rows are saved. Nevertheless some data (e.g. an item price) may be changed after the measurement rows are saved. In this case act as follows:

- Update the estimate rows by means of the function **Recalculate** of the group Utilities in the Ribbon bar.



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Analysis

Recalculation

STR Vision CPM processes the data automatically when the measurement rows are saved. Nevertheless some data (e.g. an item price) may be changed after the measurement rows are saved. In this case act as follows:

- Update the item prices by means of the function **Recalculate** of the group Analysis in the Ribbon bar.



Price analysis / Cost analysis for works

For each measurement item you can view the Cost analysis or the Price analysis in the detail tab 'Analysis'.

Price analysis

Press the button  **Price analysis** in the 'Ribbon bar', group Analysis: the price composition of the item checked in the grid will be displayed in the detail tab 'Price analysis'.
For detailed information see paragraph ['Price analysis'](#).

Cost analysis

Press the button  **Cost analysis** in the 'Ribbon bar', group Analysis: the cost composition of the item checked in the grid will be displayed in the detail tab 'Cost analysis'.
The management 'Cost Analysis' offers the following fields for each item:

- □ **Execution times – flag 'Critical'**

Each analysis component can be used to determine the duration of the activities in [jobs planning](#) and, consequently, to define the length of the GANTT bar.

Activate the field 'Critical': if the component is associated with an item with execution time different from '0' (field 'Unit execution time'), the time (hours) necessary to obtain the item analyzed will be displayed in the field 'Execution time'.

□ **Possible subcontractor**

Some useful fields can be specified on each price analysis component to define jobs assignment.

Flag 'Subcontract': it means that the item on the component will be subcontracted.

Subcontractor code and description: you can specify a reference to the '[Name data](#)' table (the same name can classify supplies belonging to different work parts).

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Bid management

The Bid Management in Estimate measurements allows the user to obtain the total sale price quickly, by using the data concerning the work value.

In this chapter

- [Bid management elements](#)
- [Amounts](#)
- [General rules for bid calculation](#)
- [Items](#)
- [Specific item rules](#)
- [All commands of Bid management](#)

Bid management elements

To enable the management press the button **Bid management** and set the parameters described here below.



The Bid management consists of the following elements:

The screenshot displays the Bid Management interface with four numbered callouts:

- 1**: Summary of costs and revenues. Total costs: 3,502,063,277 (90,65 %). Total revenue: 3,895,813,118 (100 %).
- 2**: General calculation rules panel for indirect costs and application rules.
- 3**: Grid of estimate items with columns for article code, description, unit, quantity, unit cost, unit revenue, direct costs, indirect costs, margin, and sale price.
- 4**: Detailed view of a specific item's calculation rules.

Art. articolo	Desc. articolo	Cod. Unit.	Quantità	Costo unitario	vendita unitaria	Costi diretti	Costi indiretti	Risarcia	Imp. vendita	% inc. costo	% M
008.01.000	CORRIDOIO PER RETE PVC DI PROT...	mq	0	0	0	0	0	0	0	0	0
010.01.000	PALAZZA AREA DI CANTIERE DA M...	AC	0	0	0	0	0	0	0	0	0
801.5.01.007.0	Servizi di sbiancamento	mc	4.562,28	134	129,22	529.224,48	1.515,51	58.797,83	589.537,82	15,11	
804.5.02.000.0	Getto di conglomerato cementizio non ric	mc	6.217,4	139	156,85	969.814,26	2.490,83	96.476,7	968.881,79	24,84	
809.5.02.013.0	Miscelazione di maltoni	mc	2.340,283	10	121,34	284.614,53	729,32	28.279,37	283.625,02	7,27	
815.5.02.017.0	Pavimento in pastello di gres	mq	23.532	67	75,19	1.768.410	4.948,63	176.402...	1.769.371,06	45,36	
0.1	Indiretti	VA	250.000	1	1,11	250.000	715,91	26.794,09	277.500	7,14	

- Amounts:** economic overview of the project.
- General rules for bid calculation:** to set the general rules for the calculation of direct/indirect costs and markup.
- Items:** list of estimate items in the form of a summary (quantity and other economic data like 'Unit cost', etc. are indicated for each item).
- Specific item rules:** specific rules for the item checked in the grid.

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Amounts

The 'Economic overview of the project' is a table with the grid values. It helps to determine the sale price.

Direct costs: sum of the estimate amounts associated with the cost class.

Indirect costs: additional expenses necessary to carry out the project, not classifiable as 'direct costs'.

Total costs: sum of 'Direct costs' and 'Indirect costs'.

Markup: additional charge that will be applied to the sale price, not belonging to above cost types (e.g. Profit, Contract risk, etc.).

Sale total: sum of 'Total costs' and 'Markup'.

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General rules for bid calculation

1. General calculation rules

They define how indirect costs and markup coefficients will be calculated.

General rule for indirect cost calculation

- Indirect costs can be calculated by:
 - Filter on estimate:** Press the button 'Filter'. In the window 'Indirect cost filter on estimate' set the [filter criteria](#).
 - Set value:** Type in the indirect costs value manually, in the corresponding field.

If a calculation of indirect costs is not required, check **Don't calculate**

General rule for markup calculation

The markup can be calculated in two ways:

- [Markup on estimate items](#)
 - | A markon 'K' is applied to price catalog items.

K1	<input type="text"/>
K2	<input type="text"/>
K3	<input type="text"/>
K4	<input type="text"/>
K5	<input type="text"/>

Regola generale per applicazione ricarica

Da K, in cascata su costo totale di articolo

Da K, in cascata su costo totale di articolo

Da K, in cascata su costo diretto di articolo

Da K, su classe base

1. Check markon K.
Should no K be available in the list, press **Markon coefficients** in the Ribbon Bar.



The window 'Markon factors' allows the user to set or modify the markon coefficients used in bid management.

K is a multiplier. It is applied to costs (total or direct costs).

NOTE: The multiplier K corresponds to the markon percentage on REVENUE and not on cost

Codice ▲	Descrizione	Percentuale su ricavo	Coeff. di ricarica
K1	Ricarica per opere in subapp	20,00%	1,25

The window 'Markon factors' consists of two parts:

Markon factors: in the top part you can find the list of markon factors.

Measures: in the lower part you can set the K markon composition.

2. Choose the 'General rule for markon application':
 - from K, cascading on total item cost:** it applies one or more K to all items on total cost;
 - from K, cascading on direct item cost:** it applies one or more K on direct cost;
 - from K, on base class:** it applies one or more K on tender base class.

[Fixed sale total](#)

Type in the total sale value manually. The markon value will be distributed among the items.

Imp. Vendita imposto

Regola generale per ripartizione ricarica

▼

- Proportionally on total costs: the fixed sale value is applied proportionally on total costs.
- Proportionally on direct costs: the fixed sale value is applied proportionally on direct costs.

2. General application rules

The general application rules allow the user to set how the calculation rules for indirect costs and markup will be APPLIED.

Rule for indirect cost application

Indirect costs are applied to items on the basis of a single general rule: proportionally to the cost.

Rule for markup application

The markup is applied on the basis of the general rule 'Markup application', which varies according to the general rule for the checked markup calculation.

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Items

The grid supplies a list of estimate items in the form of a summary (quantity and other economic data like 'Unit cost', etc. are indicated for each item), which allows the user to create groups.

The items can be gathered by column heading: drag one or more headings to obtain a hierarchical structure.

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Specific item rules

These rules deviate from the general rule and allow the user to diversify the markup on the individual item.

Special application rules (both for markup and indirect costs application) can be set for each item in the grid.

To set specific item rules, open the pane 'Specific item rules' by pressing the command bar at the bottom end of the workspace.

Specific rule for markup application

Regola specifica per applicazione ricarica

Regola generale	Regola generale
Da K, in cascata su costo totale di articolo	
Da K, in cascata su costo diretto di articolo	
Da K, su classe base	
Non assegnare ricarica	
Prezzo di vendita imposto	
Importo di vendita imposto	
Mantieni valore di vendita inalterato	
Regola generale	

- From K, cascading on total item cost:** it applies one or more K to all items on total cost.
- From K, cascading on direct item cost:** it applies one or more K on direct cost.
- From K, on base class:** it applies one or more K on tender base class.
- Don't apply markup:** no markup is applied on the checked item.
- Fixed sale price:** to fix a unit sale price.
- Fixed sale amount:** to fix a sale value.
- Keep sale value unaltered:** the sale value is left the same as in the previous session.
- General rule:** apply the general rule for markup application. .

Specific rule for indirect cost application

Regola specifica per applicazione indiretti

Regola generale
Non applicare
Valore imposto
Regola generale

Don't apply: the rule for indirect cost calculation is not applied to the checked item.

Fixed value: a value can be entered manually. When the indirect cost value is set manually, the system calculates the proportional share of indirect costs to be distributed among the other items.

General rule: the general rule checked above is applied.

NOTE: when a calculation rule is changed, use the button **Recalculate** to update the values in the grid.

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[All commands of Bid management](#)

Utilities



[Load bid](#)

Load the data necessary to create the bid.

[Recalculate](#)

Use this button to recalculate the data after changing the calculation rules (source data are not modified).

[Markup coefficients](#)

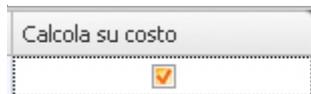
It opens the window 'Markon factors' allowing the user to set or change the markon coefficients used in bid management.

The window 'Markon factors' consists of two parts:

- Markon factors**: in the top part you can find the list of markon factors. K is a multiplier. It is applied on costs (total or direct costs).

Codice ▲	Descrizione	Percentuale su ricavo	Coeff. di ricarica
K1	Ricarica per opere in subapp	20,00%	1,25

NOTE: Check the option "Calculate on cost" to have the markon coefficient calculated on item Cost (and not on Revenue).



- Measures**: in the lower part you can set the K markon composition.

[Save calculation rules](#)

It saves the calculation rules set at present (values set manually included).

[Save bid](#)

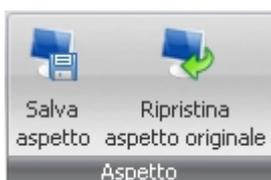
It saves the prices in sale category and the corresponding calculation rules.

[Export data to Excel](#)

It exports grid rows to Excel.

NOTE: This function is only enabled when the licence is active.

Appearance



[Save appearance](#)

- | The settings are saved and available on the following access.
[Restore original appearance](#)
- | To restore the default appearance.

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[Image bg_g.jpg]

Jobs planning – timetable

The function Jobs Planning allows the user to analyze and save projects efficiently, to better understand how they shall be planned and how changes will affect them, to keep the financial aspects under control and to obtain complete analysis.

In addition STR Vision CPM allows the user to obtain a Gantt chart with time chart, total costs and revenue as well as costs and revenue of a specific period.

- [Function elements](#)
- [Commands of Jobs Plan](#)
- [Planning rules](#)

[Function elements](#)

The jobs plan allows the user to schedule the building site activities. In fact times, execution order and relationship between project [activities](#) can be defined (Activities are operation with established start and end dates).

This function includes:

1. [Wizard for the creation of a Jobs Plan](#)
2. [Activity grid](#)
3. [Gantt bars](#)
4. [Activity properties](#)
5. [Additional information: Chart, Pivot and Activity Measurements](#)

[1. Wizard for the creation of a Jobs Plan](#)

The Jobs Plan always makes reference to the current estimate: you can create more Jobs Plans on the basis of your working requirements (for internal/external use, for the company, the customer, etc.).

NOTE: the Gantt chart created with the wizard can be modified later.

To create a new Jobs Plan with the wizard, press the button **Add** and then **New jobs plan from estimate** .

1. Press **Next** on the first screen.
2. Enter Code, Description and jobs start date, then press **Next**: the system will generate the data for the other fields in the form automatically.
The remaining fields in the form do not need to be changed, unless the user has particular requirements. Should this be the case, change the settings using the [Fields for advanced options](#).
3. Check the fields involved in the activity structure, thus creating a hierarchy among them.
The items 'Develop' (the whole hierarchical code will appear in the activity structure) , 'Consider all levels' and 'No. of Levels' (to set the number of hierarchical levels to be used in developing the activity) are advanced options: they don't require any change unless there are special requirements. For further information see paragraph [Fields for advanced options](#).
4. Press **End** to complete the procedure.

2. Activity grid

The activity grid contains the project activities and useful information for planning (Duration, Resources, Start and End dates, etc.). Each detail row corresponds to a horizontal bar in the Gantt chart.

- Each activity available in the chart can be classified as:
 - Parent activity:** non-terminal node corresponding to a symbol called Custom field, placed on the right of the Gantt area.
 - Child activity:** terminal node corresponding to a coloured rectangle placed on the right of the Gantt area.

Each Activity occupies its own row (both in the grid and in the Gantt area); it can be displayed if the user clicks the node corresponding to the parent of the Activity concerned (i.e. if the parent node is 'exploded')

:
the symbol  means that the activity is not exploded; the symbol  means that the items belonging to the group are displayed in the activity grid.

To expand/collapse an activity, use the button Expand .

To increase/decrease the hierarchy of the checked activity by a level, use the buttons **Indent** and **Undo indent** in the Ribbon Bar.

ATTENTION: The values concerning a Custom field Activity are calculated on the basis of the children's. As a consequence, if you double-click the Custom field Activity, the dialogue form will appear almost completely disabled. To modify the data of such activity, make the changes on the child activities.

- Use the button **Add** in the Ribbon Bar to create a new activity; fill in the grid fields manually or double-click to open the window [Activity properties](#).
- To change an activity, double-click the corresponding row and access the [Activity properties](#) form, or modify the values in the grid fields manually.
The diagram and the chart will be updated immediately on the basis of the changes made.
- The symbol  means that there are constraints for the activity in the detail row. Double-click the row to access the Activity properties form and view/modify the constraints.

3. Gantt bars

On the right of the workspace, the Gantt chart shows some graphical bars corresponding to the activity duration; a series of symbols supply information on the activity properties. To change the activity properties, double-click the corresponding Gantt bar and access the [Activity properties form](#).

- The symbols commonly used in the default view of the bars are:
 -  Custom field (corresponding to a parent activity in the grid)
 -  'Leaf' activity (representing a terminal node).
 -  Critical activity (activity that must be completed on time to prevent any postponement of project end date).
 -  Critical path row (time left before the activity becomes critical).
 -  jobs start
 -  Constraint row (connects two activities with a constraint). For detailed information see

paragraph [Dependences](#)).]

-  **Key activity** *(milestone representing an important event in a project, used to check the progress status).*]
-  **Completion percentage** *(the yellow bar shows the completion percentage of the activity. Field 'Completed' in the activity grid, see also [Activity properties](#)).*]

■ To change the duration of a leaf activity, go to the right end of the bar as far as the mouse pointer gets the following shape  then drag rightwards to postpone the end of the activity.

■ To move the leaf activity on the time axis, go to the bar and left-click so that the mouse pointer gets the following shape  then drag rightwards or leftwards.

■ By creating links among the activities you can produce a plan based on sequences and relationships, independently of the specific dates. To create a constraint between two activities act as follows:

- [Binding a custom field activity to another custom field or a leaf activity](#)

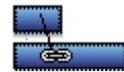
1. Place the cursor on the custom field where the constraint must start.
2. Left-click and drag to the target bar (the mouse pointer gets chain-shaped).



3. A black arrow appears between the two bars: the constraint has been created.

- [Binding a leaf activity to custom field or another leaf activity](#)

1. Place the cursor on the activity where the constraint must start.
2. Ctrl+left-click and drag to the target bar (the mouse pointer gets chain-shaped).
3. A black arrow appears between the two bars: the constraint has been created



For further information see paragraph [Dependences](#).

4. Activity properties

To access the window of Activity properties, double-click the row or the corresponding bar.

Here you can view the data concerning the checked activity, make changes and set the advanced [Planning rules](#).

In addition to activity name and duration, the following can be set in the tab '**General**' :

completion percentage of the activity
start and end dates

milestone (key activity) that is an important event in a project, used to check its progress state.

The tabs '**Predecessors**' and '**Advanced**' are used to set the advanced [Planning rules](#).

The tab '**Notes**' allows the user to insert text notes; an activity with notes is identified in the activity grid by the symbol .

5. Additional information: Chart, Pivot and Activity measurement

■ The **Chart** in the lower part of the work window shows graphically the project state in terms of Costs/Revenue.

The chart is updated automatically as the values in the grid and in the diagram vary.

The chart appearance can be changed by means of the buttons in the tab "Chart" of the Ribbon Bar.

- **Chart type:** to choose one of the chart types in the drop-down list.

- Show chart:** activate/deactivate the button to view/hide the chart in the workspace.
- Labels:** activate/deactivate the button to view/hide the labels in the chart.
- Report preview:** to create a Report preview.

■ The **Pivot** tab allows the user to view the data concerning costs and revenue (also shown in the Chart) in Pivot format. For further information on these dashboards, see paragraph [Data analysis dashboards](#).

Right-click to view the contextual menu with the following commands:

- Update data:** to update the data in the Pivot.
- Show Field List:** to view the list of Fields that can be dragged into the Pivot Grid.
- Show filter:** to view the [Filter builder](#) for the Pivot grid.

■ The tab **Activity measurements** contains the list of estimate measurements associated with each activity, on the basis of the hierarchical structure set during the [Jobs Planning creation](#) from estimate.

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[Commands of Jobs Plan](#)

The specific commands of the current function, available in the [Ribbon Bar](#), are organized in the following groups:

■ Zoom

- Zoom out: it shows a longer time period than the current one.**
- Zoom in:** it shows a shorter time period than the current one.
- Activity start:** the diagram is placed at the beginning of the activity set in the grid.
- Fit to page:** the diagram is fit to the page.
- Shift planning:** to shift a whole timetable by changing the project start date.
- The form supplies the current start date so that a new start date can be entered.
- Press OK to adjust all activity start/end dates accordingly, keeping the same durations and dependences.
- Save the timetable to confirm.

■ Diagram

- Appearance:** to choose the diagram appearance. The item 'Critical path' shows (in red) the activities causing the project end date to be postponed.
- Bar styles:** to change the graphical appearance and the colors of the Gantt bars.

■ Activity

- Indent:** to lower the checked activity by a hierarchical level.
- Undo indent:** to raise the checked activity by a hierarchical level.
- Expand/collapse:** to expand/compress the checked 'Custom field'.
- Move up:** to move the checked activity to the upper row.
- Move down:** to move the checked activity to the lower row.

■ Project

- General settings:** to change the general settings of the project made during the Jobs Plan creation (see [Fields for advanced options](#)).
- Working days:** to set working/non-working days manually, in case they do not correspond to the calendar preset in the system.
- Export for MS-Project:** to export the Gantt chart in Microsoft Project™ format.

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[Planning rules](#)

Planning rules consist of a series of advanced options and functions that should be only changed in case of special working needs.

[Advanced options fields](#)

The wizard for a new jobs plan from estimate allows the user to configure the following options t:

- Code:** type in the alphanumeric code you want to assign to the new jobs plan.
- Description:** type in the description of the new jobs plan.
- Start date:** enter the start date of the new jobs plan.
- End date:** the system attributes the jobs end date automatically, on the basis of the data loaded. Otherwise, if you want to create a jobs plan for a different time period (e.g. for the first 6 months), set the desired end date.
- No. of resources:** to set the number of people working on the building site.
- Planning type:** it can be set on the basis of one of the following alternatives:
 - Fixed resources:** the system calculates the time necessary for each activity on the basis of the critical analysis resources. For detailed information see paragraph [Price Analysis](#).
 - Fixed duration:** the system calculates the resources necessary for each activity on the basis of the pre-set time period.
 - Fixed work:** The system calculates the duration on the basis of the resources indicated in the field 'No. of resources'.
- Calendar code:** to choose one of the calendars in the list (to calculate the working days in the selected period).

[Dependences](#)

Project activities can be planned creating connections between them. Once a connection has been created between two (or among more) activities (e.g. between WALLING and FLOORS), the second activity is characterized by a 'Predecessor' whose features are shown in the window [Activity properties](#), tab 'Predecessors'.

To view and modify dependences between activities (shown in the Gantt chart with the symbol ) , double-click the connecting arrow. The window 'Relations between activities' is used to set the relation type (default setting: 'From end to start').

- From start to start:** both activities start on the same date.
- From start to end:** the start of the WALLING activity influences the end of the FLOOR activity.
- From end to start:** the end of the WALLING activity influences the start of the FLOOR activity.
- From end to end:** the end of the WALLING activity influences the end of the FLOOR activity.

In addition the constraint can be applied with a delay that can be set by typing the desired value in the field **Delay**.

To cancel the delay press the button **Delete**.

Constraints

The window 'Activity properties' allows the user to set the type of constraint between two activities.

In STR Vision CPM there are three types of constraint:

- **Flexible constraints**, not associated with specific dates. The activities can be started as soon or as late as possible, provided that they are completed before project end and that the other constraints and connections between project activities are taken into account.
 - ❑ **As late as possible:** the activity is planned to start as late as possible. It finishes before project end without causing any delay in the following activities. This constraint is pre-set when planning takes place starting from project end date. Do not enter activity start/end dates with this constraint.
 - ❑ **As soon as possible:** the activity is planned to start as soon as possible. This constraint is pre-set when planning takes place starting from project start date. Do not enter activity start/end dates with this constraint.

- **Semi-flexible constraints** must be associated with a date governing the first/last possible date for activity start/end. These constraints allow the activity to be completed at any time, provided that the start/end date is respected.
 - ❑ **Starts not sooner than:** the activity is planned to start on or after a specified date. This constraint is used to ensure that an activity won't start before a specified date.
 - ❑ **Ends not sooner than:** the activity is planned to end on or after a specified date. This constraint is used to ensure that an activity won't end before a specified date.
 - ❑ **Starts not later than:** the activity is planned to start on or before a specified date. This constraint is used to ensure that an activity won't start after a specified date.
 - ❑ **Ends not later than:** the activity is planned to end on or before a specified date. This constraint is used to ensure that an activity won't end after a specified date.

- **Non-flexible constraints** must be associated with a date governing the activity start/end date. They are useful when planning must take external factors into consideration, such as: availability of equipment or resources, expiry dates, contractors' crucial stages and start/end dates.
 - ❑ **Ends on:** the activity is planned to end on a specified date. The end date is specified in the field 'Date' on the right of the constraint.
 - ❑ **Starts on:** the activity is planned to start on a specified date. The start date is specified in the field 'Date' on the right of the constraint.

If the activity start/end date is entered manually, the corresponding constraint is changed into **Starts not sooner than** or **Ends not sooner than**. These semi-flexible constraints make the activity start/end on the specified date, independently of the changes that would otherwise affect the position of the activity in the whole plan.

ATTENTION: To achieve the highest planning flexibility, use flexible constraints to calculate start and end dates on the basis of activity duration and connections between/among activities. However, if there are unchangeable constraints (e.g. the date of an event that can't be modified), setting a constraint manually could be useful.

[Image bg_g.jpg]

Estimate dashboard

This working document allows the user to analyze and view data concerning the current estimate.

Data request

Press **Data request** to import data to the dashboard.



Click Ok

For further information on this dashboard, see paragraph [Data analysis dashboards.](#)

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[Image bg_g.jpg]

Comparison dashboard

This working document allows the user to compare, analyze and view data concerning two different estimates in STR Vision CPM archive.

Data request

Press **Data request** to import the data you want to analyze. The form below allows the user to check an estimate for the comparison.



Richiesta dati ▾

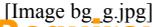
Preventivo

Ok Cancel

Press **Ok** to start data import.

For further information on this dashboard, see paragraph [Data analysis dashboards](#).

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Requirements

This working document allows the user to analyze and view data concerning the resources (requirements) necessary to carry out the work, divided into material to be supplied, performances of third parties, internal hires, etc.

Requirements quantity and cost can be scheduled and divided by work parts.

This analysis dashboard, in particular, has the field 'Purchase Request quantity'(in the window 'Grid Pivot fields list ') that summarizes the quantities of a given resource already requested in Purchase Requests created by 'Generate Purchase Request' or loaded manually. The field 'Purchase Request quantity' allows the user to compare planned quantities with already requested quantities.

- [Data request](#)
- [Generate Purchase Request](#)
- [Generate Orders](#)
- [Advanced options](#)

[Data request](#)

Press **Data request** to import the data you want to analyze.

NOTE: We recommend to keep the default settings in the options form and only specify requirements scheduling. If no Start date and End date are specified, the system will take the total project duration as time reference.

For further information see paragraph [Advanced options](#).

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[Generate Purchase Request](#)

This function allows the user to generate a Purchase Request starting from the cells checked in the dashboard. A Purchase Request is generated on the basis of a [Data request](#): for example, if you want to create a Purchase Request for a specific month, January, you will make a Data request for January only.

After loading the data, STR Vision CPM allows the user to generate the Purchase Request automatically by means of the button **Generate Purchase Request**.

- Purchase request Code:** type in an alphanumeric code for the Purchase Request. Should you enter or check an already existing code, the Purchase Request will be overwritten; otherwise a new one will be created.
- Purchase Request descr.:** enter a description for the Purchase Request.
- Del. Date:** you can enter a date manually by checking the option 'Fix date'. Otherwise, check the option 'From requirements': STR Vision CPM will generate a delivery date obtained from the calculation of Requirements.
- Suppl. Code:** enter a supplier code.

Press **OK** to complete the procedure.

Now the Purchase Request can be viewed in the management [Purchase requests](#).

For further information on this dashboard, see paragraph [Data analysis dashboards](#).

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[Generate Orders](#)

This function allows the user to generate order rows directly from requirements.

- Check an order in the list and indicate a fixed date, or keep the original dates by checking the option in Requirements.
- Choose a supplier in the list.
- If you want to keep the Custom fields used in estimate measurements, check the corresponding option.

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[Advanced options](#)

The advanced options allow the user to set additional parameters for data import.

- - Start date:** to choose the start date of the period to be analyzed.
 - End date:** to choose the end date of the period to be analyzed.
 - Subdivision:** to subdivide the requirements by time periods (e.g.: months) in case of [jobs planning](#).
 - Costs price class:** fill in this field with the [price category](#) identifying the project costs.
 - Expand costs analysis:** to explode the components of the cost analysis.
 - Expand subcontract:** to explode the analysis components even if qualified as subcontract. It allows the user to view the price analysis of the items classified as '[Subcontract](#).'
 - Costs jobs plan:** to select the [Jobs plan](#) of costs.
 - Revenue price class:** fill in this field with the [price category](#) identifying the project revenue.
 - Expand revenue analysis:** to explode analysis components at revenue.
 - Revenue jobs plan:** to select the [Jobs plan](#) of revenue.

NOTE: the system has the field 'Expand cost analysis' ticked, to explode the resources at cost.

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[Image bg_g.jpg]

Budget and financial budget

This working document allows the user to analyze and view the economic data of the scheduled project, both at cost and revenue.

- [Rata request](#)
 - [Send Budget](#)
 - [Advanced options](#)
 - [Financial budget](#)
-

[Data request](#)

Press **Data request** to import the data you are going to analyze.

NOTE: We recommend to keep the default settings in the options form and only specify the subdivision by time intervals. If no Start date and End date are specified, the system will take the total project duration as time reference.

- Start date:** to choose the start date of the period to be analyzed.
- End date:** to choose the end date of the period to be analyzed.
- Subdivision:** to subdivide the requirements by time periods (e.g.: months) in case of [jobs planning](#).

For further information on the [Advanced options](#) see the corresponding paragraph .

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[Advanced options](#)

The advanced options allow the user to set additional parameters on data import.

- Cost price class:** fill in this field with the [price category](#) identifying the project costs.
- Expand costs analysis:** to explode the components of the cost analysis.
- Expand subcontract :** to explode the analysis components even if qualified as subcontract. It allows the user to view the price analysis of the items classified as '[Subcontract](#).'
- Costs jobs plan :** to select the [Jobs plan](#) of costs.
- Revenue price class:** fill in this field with the [price category](#) identifying the project revenue.
- Expand revenue analysis:** to explode analysis components at revenue.
- Revenue jobs plan :** to select the [Jobs plan](#) of revenue.

For further information on this dashboard, see paragraph [Data analysis dashboards](#) .

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[Image bg_g.jpg]
Documents

- [Document types](#)
 - [Document variables](#)
-

[Document types](#)

The following document types are available:

- Estimate documents
- Estimate cover

Documents can be reported from the node 'Reporting' of Estimate.

[↑ Top](#)

[Document variables](#)

The list of variables supplied in the task pane is the same for both document types. The main groups are:seguito i principali raggruppamenti.

- General project data:** code, description, currency; buyer's, designer's and project manager's data.
- Estimate data:** estimate code and description, tender base amounts, award amount and available amounts.
- Report data:** data on signatures can be inserted into the document.
- Company or professional firm data:** code, name description, address, notes.

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[Image bg_g.jpg]
Available amounts

Available amounts can be grouped as in estimate measurements. Operate as usual after opening the amounts management.

Associate the groups in the pane **Custom fields** and save the template for the navigation tree in the pane **Customize** .

[Image bg_g.jpg]
Reporting

This working document allows the user to report documents belonging to the Estimate function. For general information on Reporting, see chapter [Reporting](#). This chapter describes the specific functions of Estimate reporting; the fields supplied in the detail folder 'Options' are described here below for the report types available.

- [Estimate report](#)
- [Estimate report for price bid](#)
- [Report of summary estimate](#)
- [Report of Estimate Comparison](#)
- [Report of Price Comparison](#)
- [Report of Estimate Cover](#)
- [Report of Estimate Document](#)

[Estimate report](#)

It is used to report the bill of quantities or the estimate.

- Descriptions:** to choose among short, detailed or both descriptions.
- Short description style:** to choose font, style and color for the short description field.
- Bill of quantities:** if active, only the Bill of quantities will be reported without estimates (price, amount).
- Prices for bid:** if active, the price column in the table is left blank.
- Price in letters:** if active, the estimate item price in the table is written in letters.
- Measurement type:** measurements can be divided into three groups: by measure, lumpsum, time and material.
 - Don't separate: measurements are reported without distinguishing their type.
 - Separate: measurements are reported dividing them into the three types.
 - Separate with lumpsum details: for each lumpsum item the list of estimate rows forming the lumpsum work is supplied.
- Rate:** check this field to report the lumpsum incidence on the total lumpsum works.
- Price class:** to choose a [Price class](#).
- Discount/raise:**
 - from contract: check this field if you want to apply the Discount/raise percentage indicated in Job Properties to the jobs amount.
 - from UPC: check this field if you want to apply the Discount/raise percentage indicated in the detail form of UPC items to the jobs amount.
- Safety charges:** by activating this option the report will contain an additional column with the price share concerning safety charges.
- Amounts carried forward:** check this field to have the amount carried forward (both as for amount, quantity or both) reported at the end of each page and at the beginning of the next one.
- Available amounts:** to report the amounts available in the estimate.
- Measures report:**
 - Complete formula: complete measure rows are inserted for each measurement. The formula is placed under the item description.
 - Subtotal: the subtotal of each measure row is written for each measurement.
 - Total: the total is written for each measurement. The subtotal column is eliminated.

- Separated measures:** by activating this field, additional columns (one for each factor required during Estimate preparation) are placed in the table. Each column shows the total of the expression contained.
- Separated measure detail:** this field is only available if the above-mentioned 'Total formula' has been checked. The expression for measure calculation is written.
- Single column:** by activating this field, the columns containing measurement progressive number, measurement date and item code are gathered in a single column.
- Progressive:** by activating this field the progressive number identifying each item in Estimate Measurements is shown; otherwise an automatic progressive number is reported.
- M.U.:** by activating this field, a column for measure unit description is added.
- Arrange by progressive number:** by activating this field, the items will be arranged on the basis of the progressive number they are identified with in Estimate measurements.
- Labor:** to report the total by labor sort.
- Notes:** to report notes on the items in the table.
- Incidence:** in the column 'Amount', the percentage of the measurement row amount on the report total is displayed.
- Images:** check this field if you want to add an image related to the Estimate items.

Summary custom field

In estimate reports with custom fields you have the possibility of issuing a report or a summary.

In the report pane 'Estimate custom fields and filters', for each custom field you can choose between report or summary.

Check the Position type ('Report only' or 'Summary only').

If no value is specified, a summary will be issued in both positions.

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[Report of Estimate for price bid](#)

It allows the user to report the estimate for the bid on the basis of the single text for contracts.

- Descriptions:** to choose among short, detailed or both descriptions.
- Short description style:** to choose font, style and color for the short description field.
- Measurement type:** measurements can be divided into three groups: by measure, lumpsum, time and material.
 - Don't separate: measurements are reported without distinguishing their type.
 - Separate: measurements are reported dividing them into the three types.
 - Separate with details: for each lumpsum item the list of estimate rows forming the lumpsum work is supplied.
- Assign values:** to choose a price category to give a value to price and amount on the report.
- Price class:** to choose the Price category to be reported.
- Column 'Modified quantity' (Reg. Art. 90, subparagraph 5):** a different bill of quantities can be chosen to indicate a change in quantity: this value will be shown in an additional column in the second part of the report.
- Estimate:** to choose the estimate for the above-mentioned comparison; this field is only active when the column 'Modified quantity' has been activated.
- Progressive:** by activating this field, the progressive number identifying each item in Estimate measurements is shown.
- Safety charges:** by activating this option the report will contain an additional column with the price share concerning safety charges.

- Measure details:** by activating this option the report will contain the details of the values measured.
- Alternative summary:** by activating this option the report will have an alternative format in the final summary.
- Summary by item:** by activating this option, the report is in the form of summary by Price Catalog item.

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[Stampa di Preventivo Sommario](#)

E' la stampa del sommario delle quantità di computo per articolo di elenco prezzi.

- Descrizioni** Permette di scegliere se stampare la descrizione breve, l'estesa o entrambe.
- Stile descrizione breve** Permette di scegliere il tipo di carattere, lo stile ed il colore per il campo descrizione breve.
- Ribasso/aumento**
 - da contratto: selezionare questo se si desidera applicare all'importo dei lavori la percentuale di ribasso/aumento indicata nelle Proprietà del Lavoro.
 - da EPU: scegliere questo campo per applicare all'importo dei lavori la percentuale di ribasso/aumento indicata nella maschera di dettaglio degli articoli di EPU.
- Oneri sicurezza** Selezionando l'opzione **Stampa** verrà visualizzato nel tabulato l'importo degli oneri relativi alla sicurezza; selezionando l'opzione **Stampa con dettaglio** verranno aggiunte nel tabulato le colonne 'Prezzo sicurezza' e 'Importo sicurezza'.
- Classe prezzi** Consente di selezionare la Classe di prezzo da riportare in stampa.
- Immagini** scegliere questo campo se si desidera ottenere la stampa di una eventuale immagine collegata agli articoli di Preventivo.
- Somme a disposizione** Stampa le somme a disposizione presenti nel preventivo.

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[Report of Estimate Summary](#)

Summary of measurement quantities by price catalog item.

- Descriptions:** to choose among short, detailed or both descriptions.
- Short description style:** to choose font, style and color for the short description field.
- Discount/raise:**
 - from contract: check this field if you want to apply the Discount/raise percentage indicated in Project Properties to the jobs amount.
 - from UPC: check this field if you want to apply the Discount/raise percentage indicated in the detail form of UPC items to the jobs amount.
- Safety charges:** check **Report** to have the safety charges amount shown in the report; check the option '**Report with details**' to have the additional columns 'Safety price' and 'Safety amount' in the report.
- Price class:** to choose the Price category to be reported.
- Images:** check this field if you want add an image related to the Estimate items.
- Available amounts:** to report the amounts available in the estimate.

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[Report of Price Comparison](#)

To report up to four price categories simultaneously.

- Description:** to choose among short, detailed or both descriptions.
- Short description style:** to choose font, style and color for the short description field.
- Price class:** to choose the Price categories to be compared.
- Progressive automatic:** it is re-defined on the basis of the report order.
- Quantities in separated column:** quantities are reported in a separated column.

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[Report of Estimate Cover](#)

- Estimate cover code:** to choose the cover template managed in the node [Documents](#).
- Estimate cover description:** it supplies the description of the cover template.

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[Report of Estimate Document](#)

- Estimate document code:** to choose a document type in the node [Documents](#).
- Estimate document description:** it supplies the description of the selected document.

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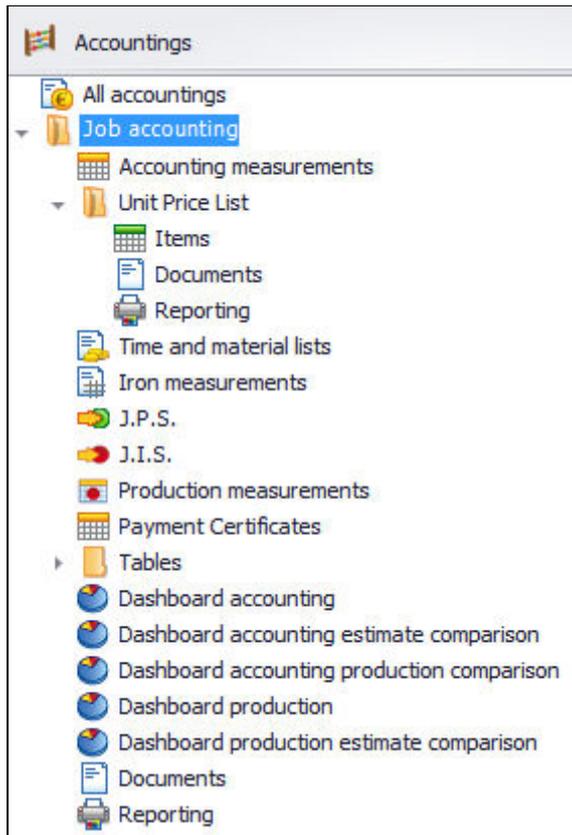
STB Vision CPM
Subcontract accounting

[Image bg_g.jpg]
Jobs accounting

- [All accountings](#)
- Accounting
 - [Accounting measurements](#)
 - [Time and material lists](#)
 - [Iron measurement](#)
 - [J.P.S.](#)
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 - [Measurement/est. dashboard](#)
 - [Measurement/J.I.S. dashboard](#)
 - [Account./estim. data dashboard](#)
 - [Documents](#)
 - [Reporting](#)

[Image bg_g.jpg]
All accountings

From the button 'Jobs accounting' you can activate the management of "All accountings". This working document allows the user to manage the data of existing accountings or to create new ones. More accounting documents can be associated with each project. An accounting document consists of:



- [Fields of 'All accountings' management](#)
- [Detail tabs](#)
- [How to create a new accounting](#)
- [How to create a new Accounting template](#)

[Fields of 'All accountings' management](#)

The grid has the following fields:

- Code:** enter an accounting ID code.
- Description:** enter accounting description.
- Works delivery date:** choose the works delivery date.
- Granted days:** indicate jobs duration as a difference between jobs end date and delivery date.
- Jobs start date:** indicate jobs start date.

- Jobs end date:** indicate jobs end date.
- UPC code and description:** in the drop-down menu check the code and description of the [price catalog](#) associated with the accounting.
- Category code and description:** in the drop-down menu check the code and description of the [price category](#) associated with the accounting.
- Estimate code and description:** in the drop-down menu check the code and description of the estimate associated with the accounting (see also [Estimation](#)).
- Consider delivery date:** consider the delivery date as a valid day for the calculation of jobs end date.

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[Detail tabs](#)

General data

In addition to the fields available in the grid this tab contains the tender data:

- Tender base amount:** indicate tender base amount.
- Safety charges type:** set the calculation method for safety charges:
 - Analytical:** calculated on each item.
 - Lumpsum:** according to contract.
 - None**
- Safety %:** indicate safety incidence (in %).
- Safety charges amount:** after entering the price, the system calculates the percentage. The data will be updated automatically even in case of variation of the tender base amount.
- Bid type:** check the bid type: 'Discount' or 'Price bid'.
- Disc/Raise %:** indicate the discount/raise percentage applied to the tender. This field is activated only when the bid type 'Discount' has been checked.
- Award amount:** indicate the tender award amount. This field is activated only when the bid type 'Price bid' has been checked.
- Available amounts:** indicate the amount of the available sums.

Contract data

All information on the contract associated with the accounting can be entered.

- Resolution No.:** indicate the resolution approval number.
 - Resolution Date:** indicate the resolution approval date.
 - Town Code and Descr.:** enter the town code to retrieve the data previously filled in in ['Tables/lists'](#) in System settings.
 - Approval:** enter the information on contract approval.
 - Approval No.:** indicate the approval number.
 - Approval date:** indicate the approval date.
 - Contract type:** indicate the contract type.
 - Contract No.:** indicate the contract number.
 - Contract date:** indicate the contract date.
 - Enforceability:** indicate who granted the enforceability.
 - Enforceability No.:** indicate the enforceability number.
 - Enforceability date:** indicate the date when contract enforceability was granted.
 - Registration:** enter the information on contract registration.
 - Registration date:** enter the registration date.
 - Number/Volume:** indicate the number and volume where the registration can be found.
 - Model:** indicate the registration volume model.

- Guarantee:** amount of any guarantee paid.
- Guarantee date:** date of guarantee payment.
- Min. Instalment:** min. instalment to issue the payment certificate. The amount is shown when reporting the certificate to remind the minimum amount to be reached.
- Fixed daily amount** penalty for each day of delay.

Additional data

- Date:** data filled in previously in the grid.
- Advance:** the advance value and the corresponding recovery percentage are used to calculate the certificate of payment.
- Deduction:** the warranty percentage is used in the calculation of the certificate amount.
- Insurance:** the workers insurance percentage can be reported on the payment certificate.

References

You can update the fields concerning the subjects involved in the project building site. The following subjects have been taken into consideration: Project Manager, Safety Manager, Work Supervisor, Executing Company and Tester. These subjects can be associated with a type (by means of a drop-down menu): Private company, Public authority, internal or external personnel.

As a consequence you can identify the master data code to be associated with the individual jobs (Project Supervisor, Safety Manager, etc.).**Note**

Notes

Tab reserved to possible notes (RTF text) for the current accounting.



NOTE: The font size must be specified directly on the tables to be printed.

Configuration data

The data filled in in the grid are supplied. These fields can be filled in automatically by checking the 'UPC', 'Class' and 'Estimate' codes in the drop-down menu, which were created previously and associated with the accounting.

Free custom fields

The detail tab can be only viewed in case there are custom fields associated with the current management.

[How to create a new Accounting](#)

To create a new Project:

1. Click **Add**.
2. The wizard to create a new Accounting opens.
3. Fill in the fields, then press **Next**.
4. Choose a standard or a custom template:
 - standard: check one of the items in the drop-down list 'Standard Templates'.
 - custom: check and then one of the items in the list. To create a custom template, read the following paragraph.
5. Then press **End**.

NOTE: STR Vision CPM allows the user to manage more accountings for each project.

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[How to create a new Accounting template](#)

You can create new Accounting templates to be used as a base for later creations.

1. Choose the accounting to be used as a template in the grid.
2. Click **Accounting Templates**.
3. The wizard to create a new Accounting opens.
4. Enter Code and Description, then press **Create Template**.
5. A new custom template is now available in the list.
6. Close the window using the upper right **X**.

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[Image bg_g.jpg]

Subcontract accounting measurements

Press Subcontract accounting and activate the management by opening the functions tree in the 'Project document list'.

In this working document type all jobs and supplies (with corresponding measures) of the active project are entered.

- [The document 'Accounting measurements' and its detail tabs](#)
- [Measurement data](#)
- [Features of the accounting measurements](#)
- [Utilities](#)
- [Adjustments required by law \(Art. 82 paragraph 3bis\)](#)

[The document 'Accounting measurements' and its detail tabs](#)

The Tree and the grid show the fields of the measurement rows and the data of the associated item.

The document 'Accounting measurements' contains the following detail tabs:

- Measures:** this tab is reserved for measure entry.
- Item:** it contains the specific item fields.
- Detailed item:** tab dedicated to the management of the detailed item description (RTF text).
- Measurement data:** it includes all item fields (available or not available in the grid).
- Notes:** tab reserved to possible notes (RTF text) for the current row.
- Image:** image associated with the current row.
- Lumpsum composition:** section to load the submeasurements for the management of lumpsum items.
- Free custom fields:** custom fields associated with the current accounting.

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[Measurement data](#)

- Progressive:** progressive number generated automatically (for further information on the code structure see [Tree Properties function](#)).
- JPS code and descr.:** indicates the [JPS](#) to which the measurement will be assigned (the current JPS is supplied).
- Type:** a measurement by Measure, Lumpsum or Time and material can be entered (see [Features of the accounting measurements](#)).
- Date:** measurement date. The current date is supplied automatically.
- Item:** list of current UPC items. Choose the item and the following fields will be filled in automatically
 - description
 - detailed description
 - measure unit
 - price
- Quantity:** a quantity can be entered directly or calculated using the functions in the detail tab 'Measures'.
- Amount:** amount calculated as quantity by price (click **Recalculate** to update the fields).

- Entry type:** it indicates the type of data entered. Available options: 'Factors', 'Formulas'. Depending on the check in the detail tab, the tab 'Measures' will vary according to the type and calculation method of the data to be entered.
- SOA Cat. and Descr.** choose the [SOA](#) category of the item.
- Flag 'Provisional entries':** user's entries that can be modified in later JPS. The association with a JPS field is mandatory.

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Features of the Accounting measurements

Detail tab 'measures'

Click **Add** to start data entry.

The available fields depend on the field 'Entry type' in the grid:

- Comment
- Similar
- Length
- Width
- Height
- Total

Detail tab 'Item'

It contains the item data associated with the measurement row.

Detail tab 'Detailed item'

To insert the detailed item description.

Features: the font size must be specified directly on the tables to be reported.

detail tab 'Measurement data'

It contains the same data as the grid.

Detail tab 'Notes'

To enter the detailed description associated with the measurement row.

The commands in this window allow the user to carry out the following operations:

1. To choose a font in the drop-down list.
2. To choose a color in the color pallets: 'Custom', 'Web' and 'System'.
3. To apply Bold, Italic and Underline styles.
4. To align the text left, center, right, or to justify.
5. This group of commands allows the user to carry out the following operations:
 - undo last operation
 - restore
 - cut
 - copy
 - paste

NOTE: The font size must be specified directly on the tables to be reported.

Detail tab 'Item image'

In this tab you can associate an image with the item.

To this purpose, go to the Image pane, right-click and check **Load** in the contextual menu.

After inserting the image you can cut, copy, etc. by means of the contextual menu (right-click).

To extract an image from the catalog and create an external file to be used with other programs, press **Save**.

Detail tab 'Lumpsum composition'

This tab is active if the measurement row is of 'Lumpsum' type. It shows the submeasurements which include all items associated with the lumpsum in the estimate (i.e. all estimate items having the current lumpsum item in the column 'Lumpsum').

Note that the section 'Lumpsum composition' includes the quantity estimated for each submeasurement item.

Therefore you can load the quantities reached for each item in the submeasurements:

- by loading the quantity directly in the window 'lumpsum composition'
- by loading the quantity in the 'Measures' detail tab of the submeasurements.

After loading ('Save' button) the system will determine the lumpsum progress as a sum of the progress of each submeasurement item (the progress of each item is given by the ratio of the quantities achieved as at the current JPS to the quantities planned in the estimate).

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Utilities

Recalculate

STR Vision CPM processes the data automatically when the measurement rows are saved. Nevertheless some data may be changed after the measurement rows are saved. In this case recalculate the data by means of the function **Recalculate** of the group Utilities in the Ribbon Bar.

Change properties

The utility 'Change properties' allows the user to change some properties of the selected rows.

1. In the pane 'Filter setting' set the [filter criterion](#) to select the rows where the changes will be applied.
2. Check the property you want to change in the pane 'List of available properties' and drag it to the pane 'List of properties to change'. You can check more properties to be changed and repeat the operation described above. NOTE: The list of available properties changes depending on the management you are working in.
3. Check an item in the list.
4. Press **'Modify'** to complete the procedure.

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[[Image bg_g.jpg]]

Time and material lists

This working document of [Data management](#) type allows the user to manage time and material works. The management 'Time and material lists' consists of three parts:

- the upper part shows the estimate headings;
- the middle part shows the detail tabs and the list of items measured with the current list;
- the lower part shows the detailed daily entries.

-
- [I campi della gestione Liste in economia](#)
 - [Le schede di dettaglio di Liste in economia](#)
 - [Le registrazioni giornaliere](#)
 - [Utilità](#)
-

[I campi della gestione Liste in economia](#)

La griglia riporta i campi

- Numero** Numero progressivo generato in automatico (per informazioni su come strutturare un codice consultare il capitolo [La funzione Proprietà dell'Albero](#))
- Descrizione** Indicare la descrizione della Lista in economia.
- Cod. SAL** Selezionare il SAL di riferimento
- Des. SAL** Selezionare la descrizione SAL
- Data inizio** Indicare la data di inizio della Lista. Viene proposta la data odierna.
- Data fine** indicare la data finale della Lista. Il programma propone una data seguente di 7 giorni dalla data di inizio.
- % Rib./Aum.** Digitare la percentuale di ribasso/aumento
- % Spese generali** In questo campo si indica l'eventuale percentuale riferita alle spese generali.
- % Utile impresa** Indicare l'eventuale percentuale riferita all'utile d'impresa.
- Importo lordo** Visualizza la somma degli importi riportati nella scheda di dettaglio Rilevazioni (fare click su **Ricalcola** per aggiornare i campi).

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[Le schede di dettaglio di Liste in economia](#)

■ Dati di dettaglio

Oltre a riportare i dati presenti in griglia, sono presenti i seguenti campi:

- Partecipa** Questo campo è attivo di default ed indica che l'importo totale della lista partecipa al totale del SAL. Togliere la selezione se l'importo totale della Lista non deve essere conteggiato nel SAL; in questo caso sarà possibile trasferire successivamente il contenuto della Lista nel Libretto delle misure.
- Tipo Rib/Aum.** Indicare su quale importo applicare la percentuale di ribasso/aumento indicata nel campo '% ribasso/aumento'. E' possibile scegliere tra le seguenti opzioni:
 - Nessuno
 - Su utile d'impresa;
 - Su mezzi d'opera + utile d'impresa;

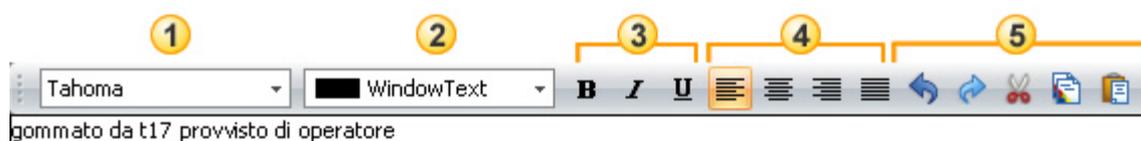
- Su spese generali + utile d'impresa;
- Su totale Lista.
- ATTENZIONE:** Scegliendo TOTALE LISTA il ribasso/aumento viene applicato al totale lista non comprendente le eventuali spese generali. Perché le spese generali vengano considerate nel calcolo del ribasso/aumento è necessario selezionare il tasto RICARICO.
- Sicurezza** Selezionare tale campo se si desidera che sull'importo relativo agli oneri della sicurezza venga applicata la percentuale di ribasso/aumento.
- Ricarico** Consente di richiedere il calcolo della percentuale di utile d'impresa anche sull'importo delle spese generali.
- Scorporo** Consente di effettuare lo scorporo dell'utile d'impresa in fase di stampa.

■ Importi

Questa scheda di dettaglio permette di visualizzare i vari tipi di importo.

■ Note

Permette di inserire la descrizione estesa associata alla riga di libretto



I comandi presenti in questa finestra permettono di eseguire le seguenti operazioni:

1. Selezionare un font dall'elenco a discesa.
2. Selezionare un colore tra quelli proposti nelle palette 'Personalizza', 'Web', e 'Sistema'.
3. Applicare lo stile Grassetto, Corsivo e Sottolineato.
4. Allineare il paragrafo a sinistra, al centro, a destra, oppure impostarlo come giustificato.
5. Questo gruppo di comandi permette di eseguire le seguenti operazioni:
 - annulla l'ultima operazione eseguita
 - ripristina
 - taglia
 - copia
 - incolla

NOTA: La dimensione del font deve essere specificata direttamente sui prospetti in stampa.

■ Rilevazioni

Viene riportato, in griglia, l'elenco degli articoli rilevati con la lista corrente.

I campi presenti nella griglia rilevazioni sono:

- Prg.** Viene proposto un progressivo da associare alla rilevazione da inserire.
- Articolo** Selezionare il codice dell'articolo di Elenco prezzi da inserire nella Lista.
- Breve** Riporta la descrizione breve dell'articolo
- Cod.U.M.** Selezionare l'unità di misura
- Des.U.M.** Selezionare la descrizione dell'unità di misura
- Quantità** Viene riportata la somma delle Quantità registrate in [Registrazioni giornaliere](#) relativamente all'articolo corrente.
- Importo** Viene riportata la somma degli importi calcolati in [Registrazioni giornaliere](#) relativamente all'articolo corrente.

- Cod. Manodopera** Indicare il codice dell'operaio.
- Des. Manodopera** Indicare la descrizione della manodopera.

La scheda di dettaglio rilevazioni permette di accedere ad ulteriori schede relative alle [Registrazioni giornaliere](#)

[↑ Top](#)

[Le registrazioni giornaliere](#)

■ Registrazioni giornaliere

Questa funzione consente una gestione più dettagliata delle liste in economia e permette di annotare l'attività svolta giornalmente.

Ogni riga della griglia è relativa ad un giorno compreso nell'intervallo della Lista corrente; è possibile indicare la quantità, il prezzo e ottenere quindi l'importo relativo all'articolo selezionato nella scheda 'Rilevazioni' in riferimento ad una data specifica.

Il campo commento permette di inserire note giornaliere in cui indicare l'attività svolta giorno per giorno: per inserire una nota

1. fare click sull'icona ;
2. digitare il testo
3. premere OK
4. l'icona  identificherà una registrazione con commento.

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Utilità

Ricalcola

STR Vision elabora i dati in automatico alla memorizzazione delle varie righe. Ciò nonostante è possibile che alcuni dati siano modificati successivamente alla memorizzazione delle righe stesse. In questo caso si consiglia di procedere nel seguente modo:

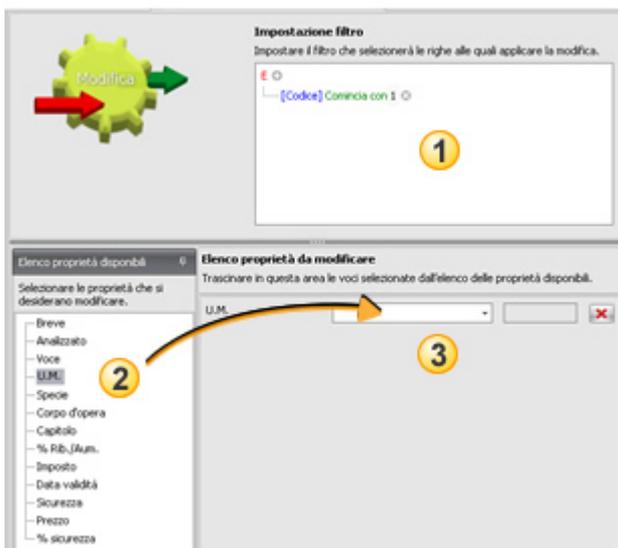
- Eseguire la funzione **Ricalcola** del gruppo Utilità nella Barra Multifunzione per ricalcolare i dati



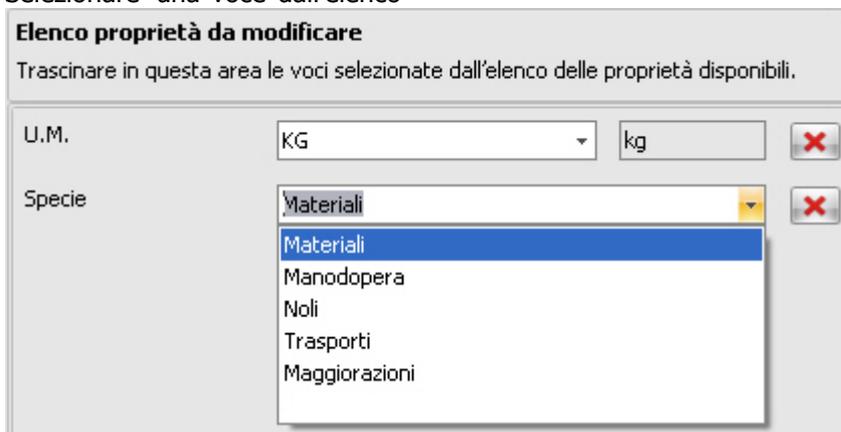
Modifica proprietà

L'utilità 'Modifica proprietà' permette di modificare in modo massivo alcune proprietà delle righe selezionate.





1. Nel riquadro ① 'Impostazione filtro' impostare il [criterio di filtro](#) per selezionare le righe alle quali applicare le modifiche.
2. Selezionare la proprietà che si vuole modificare nel riquadro ② 'Elenco proprietà disponibili' e trascinarla nel riquadro ③ 'Elenco proprietà da modificare'. E' possibile selezionare più proprietà da modificare ripetendo l'operazione sopra descritta.
NOTA: L'elenco delle proprietà disponibili cambia in relazione alla gestione nella quale si sta lavorando.
3. Selezionare una voce dall'elenco



4. Premere il pulsante '**Esegui la modifica**' per completare la procedura.



Modifica date

L'utilità Modifica date liste permette di indicare le nuove date di inizio e fine per ogni lista.

Nota bene> Se l'intervallo date viene ristretto rispetto a quelle originali, i dati sui giorni rimasti vengono

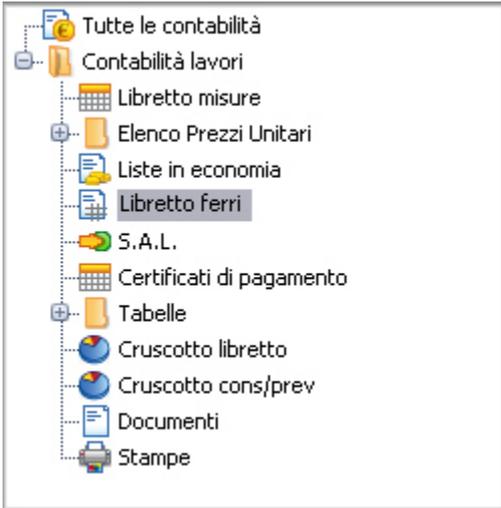
mantenuti.

Se l'intervallo viene modificato completamente i dati vengono rimossi.

[↑ Top](#)

[Image bg_g.jpg]
Iron measurement

Using the button 'Jobs accounting' you can open the function tree of a project and activate the management 'Iron measurement'.



This working document allows the user to enter specific measurements concerning reinforcements, rods and electrowelded nets.

-
- [Iron measurement – basics](#)
 - [Detail tabs of the Iron measurement](#)
 - [Iron measurement features](#)
 - [Utilities](#)
-

[Iron measurement - basics](#)

The Tree and the Grid show the fields of the measurement rows and of measurement, as well as the data of the associated item.

- Progressive:** progressive number generated automatically
- JPS code and descr.:** indicates the [JPS](#) to which the measurement will be assigned (the current JPS is supplied)
- Entry type:** two iron types can be entered:
 - 'Iron' (iron installed or reinforcement lists) that will be calculated on the basis of length and diameter.
 - 'Electrowelded nets' that will be calculated on the basis of area and diameter.
- Date:** measurement date. The current date is supplied automatically.
- Item:** list of current UPC items. Check the item and the following fields will be filled in automatically (see also the management '[Items](#)' and how to import an item using the [Task pane](#)):
 - description
 - detailed description

- measure unit
- price
- Quantity** : a quantity can be entered directly or calculated using the functions in the detail tab.
- Amount**: amount calculated as quantity by price (click **Recalculate** to update the fields).

[↑ Top](#)

[Detail tabs of Iron measurement](#)

Detail tabs – Measures

Click '**Add**' to enter a new measurement.

The fields available in this detail tab (depending on the 'Entry type' selected) are:

- Comment**: a comment useful to identify the measurement can be entered.
- Diameter code**: you can choose the iron type in the Diameters table (previously prepared) or add it to the list (right-click and select Add in the contextual menu). The following fields will be filled in automatically:
 - Diameter (or Net) description
 - Weight
- Similar**: it indicates the number of similar rods or electrowelded nets (factor).
- Area/Length**: enter and area (sq. mt.) for the electrowelded net or a length (mt.) for rods.
- Total**: multiplies the fields weight, similar and area/length.

Detail tabs - Item

In addition to the fields described in the grid, this section contains further information associated with the item, which were entered when drawing up the 'Price Catalog':

Safety price
Safety %
Disc./Raise %
Labor %

(these fields cannot be changed; to update them go back to '[Price catalog](#)').

Detail tabs – Detailed item

It allows the user to enter the detailed item description.

NOTE: The font size must be specified directly on the tables to be reported.

Detail tabs – Measurement data

This tab contains the same fields as the grid

Detail tabs – Notes

This tab is reserved to possible notes (RTF text) for the current row.

Detail tabs - Image

In this tab you can associate an image with the item.

To this purpose, go to the Image pane, right-click and select **Load** in the contextual menu.

After inserting the image you can cut, copy, etc. by means of the contextual menu (right-click).

To extract an image from the catalog and create an external file to be used with other programs, select **Save**.

 [Top](#)

[Iron measurement features](#)

- The Iron measurement can be reported autonomously.
- The total weight of each item must be entered by the user into the Accounting measurements. If he doesn't, the amount concerning the items in the Iron measurement does not influence either the Progress status or the measurement/register reporting, or the certificate amount.

 [Top](#)

[Utilities](#)

Recalculate

STR Vision CPM processes the data automatically when the measurement rows are saved. Nevertheless some data may be changed after the measurement rows are saved.

In this case recalculate the data by means of the function **Recalculate** of the group Utilities in the Ribbon Bar.

Change properties

The utility 'Change properties' allows the user to change some properties of the selected rows.

1. In the pane 'Filter setting' set the [filter criterion](#) to select the rows where the changes will be applied.
2. Select the property you want to change in the pane 'List of available properties' and drag it to the pane 'List of properties to change'. You can select more properties to be changed and repeat the operation described above.
NOTE: The list of available properties changes depending on the management you are working in.
3. Check an item in the list.
4. Press '**Modify**' to complete the procedure.

 [Top](#)

[Image bg_g.jpg]

J.P.S. (Job Progress Status)

Using the button 'Jobs accounting' you can activate the J.P.S. management.

This working document allows the user to create documents of J.P.S. type.
More J.P.S. documents can be created for each accounting.

-
- [Fields of 'J.P.S.' management](#)
 - [Detail tabs of 'J.P.S.' management](#)
 - [Checks](#)
-

[Fields of J.P.S. management](#)

The grid has the following fields:

- Number:** progressive number generated automatically (for further information on the code structure see [Tree Properties function](#)).
- Description:** indicate the JPS description.
- Date:** choose the closing date for the JPS involved. If it isn't known yet, it can be entered later.
- Current:** tick Current to enable accounting entries in association with the JPS indicated.
- Last:** tick Last to set the selected JPS as final.

[↑ Top](#)

[Detail tabs of J.P.S. management](#)

Details

This tab contains the same fields as the grid.

Notes

Tab reserved to possible notes (RTF text) on the current JPS.

The commands in this window allow the user to carry out the following operations:

1. To choose a font in the drop-down list.
2. To choose a color in the color pallets: 'Custom', 'Web' and 'System'.
3. To apply Bold, Italic and Underline styles.
4. To align the text left, center, right, or to justify.
5. This group of commands allows the user to carry out the following operations:
 - undo last operation
 - restore
 - cut
 - copy
 - paste

NOTE: The font size must be specified directly on the tables to be reported.

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Checks

The feature 'Current' or 'Last' can be assigned to a JPS at any time.

After reporting a payment certificate for a JPS, STR Vision CPM will disable any action on the JPS involved. For example, no measurements associated with that JPS can be entered.

When a measurement is saved in Accounting measurements, the system checks that the date is higher than the previous JPS and lower than the closing date of the current JPS.

[↑ Top](#)

STB Vision CPM Subcontract accounting

[Image bg_g.jpg]
I.I.S.

Using the button 'Jobs accounting' you can activate the J.I.S. management.

This working document allows the user to create documents of J.I.S. (Jobs Internal Status) type.
More J.I.S. documents can be created for each accounting.

-
- [Fields of 'J.I.S.' management](#)
 - [Detail tabs of 'J.I.S.' management](#)
-

[Fields of 'J.I.S.' management](#)

- The grid has the following fields:
 - Number:** progressive number generated automatically
 - Description:** enter JIS description.
 - Date:** choose the closing date for the JIS involved. If it isn't known yet, it can be entered later.
 - Current:** tick Current to enable accounting entries in association with the JIS indicated.

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[Detail tabs of 'J.I.S.' management](#)

■ **Details**

This tab contains the same fields as the grid.

■ **Notes**

Tab reserved to possible notes (RTF text) on the current JIS.

The commands in this window allow the user to carry out the following operations:

1. To choose a font in the drop-down list.
2. To choose a color in the color pallets: 'Custom', 'Web' and 'System'.
3. To apply Bold, Italic and Underline styles.
4. To align the text left, center, right, o to justify.
5. This group of commands allows the user to carry out the following operations:
 - undo last operation
 - restore
 - cut
 - copy
 - paste

NOTE: The font size must be specified directly on the tables to be reported.

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[Image bg_g.jpg]
JIS measurement

This working document is a document for internal use where all jobs and supplies (with corresponding measures) of the active project are entered.

-
- [The document 'JIS measurement' and its detail tabs](#)
 - [I dati di rilevazione](#)
 - [Specificità della Rilevazione SIL](#)
 - [Utilità](#)
-

[Il documento Rilevazione SIL e le sue schede di dettaglio](#)

The Tree and the grid show the fields of the JIS Measurement rows and the data of the associated item.

The document 'JIS Measurement' has the following detail tabs:

- Measures:** to enter measures.
- Item:** it contains the specific item fields.
- Detailed item:** management of the detailed item description (RTF text).
- Measurement data:** it includes all item fields (available or not available in the grid).
- Notes:** possible notes (RTF text) for the current row.
- Image:** image associated with the current row.
- Free custom fields:** custom fields associated with the current accounting.

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[Measurement data](#)

- Prog.:** progressive number generated automatically
- JIS code and descr.:** indicates the JIS to which the measurement will be assigned (the current JIS is suggested).
- Date:** measurement date. The current date is supplied automatically.
- Item:** list of UPC items. Check the item and the following fields will be filled in automatically
 - Short description
 - Code and Measure unit
 - Price
- Quantity:** a quantity can be entered directly or calculated using the functions in the detail tab 'Measures'.
- Amount:** amount calculated as quantity by price (click **Recalculate** to update the fields).
- Entry type:** it indicates the type of data entered. Available options: 'Factors', 'Formulas', 'Iron', 'Electrowelded net'.
- Chapter code and Chapter descr.:** you can check free custom fields of row or associated item.

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Features of JIS measurement

■ Detail tab 'Measures'

Click **Add** to start data entry.

The available fields depend on the field 'Entry type' in the grid:

- Comment:** a comment useful to identify the measurement can be entered.
- Similar:** enter quantity.
- Length, Width, Height:** enter item dimensions.
- Total:** multiplies similar and Length, Width, Height.

■ Detail tab 'Item'

In addition to the fields described in the grid, this section contains further information associated with the item, which were entered when drawing up the 'Price Catalog':

- Safety price
- Safety %
- Safety
- Labor %
- Disc./Raise %

NOTE: (these fields cannot be changed; to update them go back to ['Items'](#)).

■ Detail tab Detailed Item

To load the detailed item description.

Features: the font size must be specified directly on the tables to be reported.

Detail tab 'Measurement data'

It contains the same fields as the grid.

■ Detail tab Notes

To enter the detailed description associated with the measurement row.

The commands in this window allow the user to carry out the following operations:

1. To choose a font in the drop-down list.
2. To choose a color in the color pallets: 'Custom', 'Web' and 'System'.
3. To apply Bold, Italic and Underline styles.
4. To align the text left, center, right, or to justify.
5. This group of commands allows the user to carry out the following operations:
 - undo last operation
 - restore
 - cut
 - copy
 - paste

NOTE: The font size must be specified directly on the tables to be reported.

■ Detail tab images

In this tab you can associate an image with the item.

To this purpose, go to the Image pane, right-click and check **Load** in the contextual menu.

After inserting the image you can cut, copy, etc. by means of the contextual menu (right-click). To extract an image from the catalog and create an external file to be used with other programs, select **Save**.

■ Detail tab custom fields

It contains the field to select custom fields for row or associated item.

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Utilities

■ Recalculate

STR Vision CPM processes the data automatically when the rows are saved. Nevertheless some data may be changed after the rows are saved.

In this case act as follows: Recalculate the data by means of the function **Recalculate** of the group Utilities in the Ribbon Bar.

■ Change properties

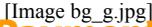
The utility 'Change properties' allows the user to change some properties of the selected rows.

1. In the pane 'Filter setting' set the [filter criterion](#) to select the rows where the changes will be applied.
2. Select the property you want to change in the pane 'List of available properties' and drag it to the pane 'List of properties to change'. You can select more properties to be changed and repeat the operation described above.

NOTE: The list of available properties changes depending on the management you are working in.

3. Check an item in the list.
4. Press **'Modify'** to complete the procedure.

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 **Payment certificates**

This working document allows the user to set the payment certificate data.

-
- [Fields of the Payment certificate grid](#)
 - [Detail tabs](#)
 - [Calculation of certificate amount](#)
 - [Management of advance recovery in the first year](#)
-

[Fields of the Payment certificate grid](#)

The grid has the following fields:

- Certificate description type** – It can have following values:
 - Jobs: certificate for jobs execution.
 - Bis: certificates for the automatic release of guarantee retentions.
 - Other: certificate to be prepared by the user.
- Certificate number**
- Description**
- Certificate date**
- Instalment number**
- Instalment expiry date**
- Code and description of the JPS the certificate refers to**
- Certificate amount** : this field is calculated during reporting

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[Detail tabs](#)

- Details:** it contains the same fields as the grid.
- Notes:** detailed text in RTF format that can be associated with the certificate report template.
- Free amounts:** they can be added to certificate report. In addition to value and description, the following calculation rules can be specified:
 - None:** not included in any calculation.
 - Guarantee retentions:** included in retention calculation.
 - Advance recovery** : included in advance recovery.
 - Guarantee + advance recovery:** included in both calculations.

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[Calculation of certificate amount](#)

To establish the certificate amount value, act as follows:

1. Create the certificate row and fill in all fields.
2. Activate certificate report (see section 'Accounting reporting – report type = certificate) and select the certificate ID in the 'Options' section.
3. Report.

The amount field will be given the value in report. If it does not appear immediately in the form, press the button "Update" in the ribbon menu.

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Management of advance recovery in the first year

If you want to change the advance recovery amount of a certificate, check the option 'Force advance recovery' in the detail data.

In this case, the amount indicated in the certificate will be issued during reporting instead of the amount calculated automatically by applying the recovery percentage.

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STB_Vision_CPM Subcontract accounting

[Image bg_g.jpg]

Notes

Press the button 'Subcontract accounting', open the function tree of a project and activate the management of Tables 'Notes'.

This working document allows the user to enter a note associated with a JPS that can be reported on the Measurements, the JPS and on the Register.

-
- [I campi della tabella Note e Riserve](#)
 - [Le schede di dettaglio](#)
-

Fields of the table 'Notes'

The grid has the following fields:

- Number:** progressive number generated automatically.
- Description:** enter note description.
- JPS code and description:** in the drop-down menu check the JPS number with which you want to associate the note.
- Reporting:** select where you want to place the note (Measurements, JPS, Register).

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Detail tabs

Details

This tab contains the same fields as the grid.

Notes

This tab is reserved to possible notes (RTF text) for the current row.

NOTE: The font size must be specified directly on the tables to be reported.

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[Image bg_g.jpg]
Various amounts

Here amounts excluded from jobs accounting but associated with a JPS (and reportable in JIS and Register) can be entered into accounting.

-
- [Fields of 'Various amounts' management](#)
 - [Detail tabs](#)
-

[Fields of 'Various amounts' management](#)

The grid has the following fields:

- Number:** progressive number generated automatically.
- Description:** enter the short amount description.
- JPS code and description:** in the drop-down menu check the JPS number with which you want to associate the amount.
- Amount:** enter the amount that will be included in accounting and shown in the associated JPS.
- VAT %:** enter the applicable VAT percentage.
- Reporting:** select where you want to place the amount (JPS, Register).

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[Detail tabs](#)

details: this tab contains the same fields as the grid.

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[Image bg_g.jpg]

Suspensions

Press the button 'Subcontract accounting', open the function tree of a project and activate the management of 'Suspensions' tables-

'Suspensions' allows the user to take note of possible works suspensions, as well as of their reason and duration.

Fields of the 'Suspensions' table.

The grid has the following fields:

- Number:** progressive number generated automatically.
- Description:** enter suspension description.
- Suspension reason:** a default list is supplied.
- Suspension date:** works suspension start date.
- Resumption date:** date on which works are resumed.

STB Vision CPM Subcontract accounting

[Image bg_g.jpg]

Extensions

Press the button 'Subcontract accounting', open the function tree of a project and activate the management of 'Extensions' tables
'Extensions' allows the user to take note of any extensions granted for jobs completion.

Fields of the 'Extensions' table

The grid has the following fields:

- Number:** progressive number generated automatically.
- Description:** enter extension description.
- Date:** indicate the extension grant date.
- Granted days:** indicate the number of granted days.

STB Vision CPM Subcontract accounting

[Image bg_g.jpg]

Bonds

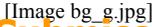
Press the button 'Subcontract accounting', open the function tree of a project and activate the management of 'Bonds' tables.

'Bonds' allows the user to take note of associated bond amounts; they can be viewed in the 'Payment certificate'.

Fields of the 'Bonds' table

The grid has the following fields:

- Number:** progressive number generated automatically.
- Description:** enter bond description.
- Date:** enter bond date.
- Amount:** enter bond amount. It will be included in the Payment certificate, on the basis of bond date, to reduce guarantees.

 **Submission deeds**

Dal bottone 'Contabilità lavori' è possibile, aprendo l'albero delle funzioni relative ad un lavoro, attivare la gestione delle Tabelle 'Atti di sottomissione'.
Attraverso 'Atti di sottomissione' è possibile annotare eventuali atti di sottomissione da parte dell'azienda appaltatrice.

Press the button 'Subcontract accounting', open the function tree of a project and activate the management of the tables 'Submission deeds'.
'Submission deeds' allows the user to take note of any contractor's submission deeds.

The grid has the following fields:

- Code:** progressive number generated automatically.
- Comment:** indicate the description of the submission deed.
- JPS code and description:** in the drop-down menu select the JPS number which the submission deed is associated with.
- Estimate code and description:** in the drop-down menu check the Estimate which the submission deed is associated with.

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Detail tabs

In addition to the fields available in the grid there are:

Details

- Number:** indicate the number of the submission deed resolution.
- Date:** indicate the date of the submission deed resolution.
- Document type:** description of document type.
- Amount:** enter the amount given by the sum of tender base works amount and submission deed amount.
- Available amounts:** indicate the amount of the available sums concerning the submission deed.

Contract data

The tab 'Contract data' contains the following fields:

- Resolution number and date:** indicate resolution number and date.
- Contract number and date:** indicate contract number and date.
- Approval, number and date:** enter information on deed approval.
- Enforceability, number and date:** indicate who granted the enforceability, number and date.
- Place and date:** indicate where and when the contract enforceability was granted.
- Number and Volume:** indicate number and volume where the registration can be found.
- Model:** indicate the registration volume model.

Contract object

Tab dedicated to Contract object description (RTF text).

NOTE: The font size must be specified directly on the tables to be reported.

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[↑_Top](#)

[Image bg_g.jpg]
Historical data

Press the button 'Subcontract accounting', open the function tree of a project you and activate the management of the tables 'Historical data'.

'Historical data' displays the data of the official reporting of each JPS.
The rows are created automatically by official measurements and register reporting.

Fields of the 'Historical data' table

The grid has the following fields:

- JPS code and description:** generated automatically when the official register or measurements are reported.
- Measurements reported :** active only if Measurements have been officially reported for the JPS.
- Register reported:** active only if the Register has been officially reported for the JPS.
- Prog. measurement :** last measurement progressive number.
- Measurement page:** last measurement page.
- Register progressive:** last register progressive number.
- Register page:** last register page.
- Gross amount:** JPS amount.
- Disc./Raise amount:** discount/raise amount.
- Amount carried forward:** to next JPS.

[Image bg_g.jpg]
Measurements dashboard

This working document allows the user to analyze and view Measurements data.

Data request

Press **Data request** to import data into the dashboard.

For further information on this dashboard, see paragraph [Data analysis dashboards](#).

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[Image bg_g.jpg]
Measurements/estim. Dashboard

This working document of [Analysis dashboard](#) type allows the user to compare measurements data with estimate data.

Press **Data request** to import the data you want to analyze. The form below allows the user to choose an estimate for the comparison.

The option '**Expand lumpsum composition**' allows the user to view the estimate rows associated with a lumpsum work and the details of the accounting submeasurements.

Press Ok to start data import.

For further information on this dashboard, see paragraph [Data analysis dashboards](#).

[Image bg_g.jpg]
Measurements/JIS dashboard

This working document of [Analysis dashboard](#) type allows the user to compare measurements data with JIS data.

Press **Data request** to import the data you want to analyze.

Select the fields in the 'Pivot Grid Fields List' and drag them into the data matrix.
For further information on this dashboard, see paragraph [Data analysis dashboards](#).

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STB Vision CPM
Subcontract accounting

[Image bg_g.jpg]

Actual/estim. dashboard

This working document of [Analysis dashboard](#) type allows the user to compare accounting data with estimate data.

Data request

Press **Data request** to import the data you want to analyze. The form below allows the user to choose an estimate for the comparison.

Press **Ok** to start data import.

For further information on this dashboard, see paragraph [Data analysis dashboards](#).

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[Image bg_g.jpg]
Documents

This working document is of type "[Text document with variables](#)".

-
- [Document types](#)
 - [Document variables for 'Accounting first page' and 'Accounting document'](#)
 - [Document variables for 'Certificate'](#)
-

Document types

The following document types are available:

- Accounting documents
- Accounting first page
- Certificate

Documents can be printed using the node '[Reporting](#)' of Accounting.

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Document variables for 'Accounting first page' and 'Accounting document' 'Documento di contabilità'

Variables in the [Task pane](#) are listed according to document type.

The main custom fields for 'Accounting first page' and 'Accounting document' are:

List of document variables:

- General project data:** code, description and currency, as well as data of buyer, designer and project manager.
- Accounting data:** in addition to code and description, it offers:
 - Tender base amounts, award amount and available sums, discount/raise percentage, improvement, safety
 - Resolution data
 - Approval data
 - Contract type, number and date
 - Contract registration data
 - Guarantees
 - Advances
 - Project Manager data
 - Safety Manager data
 - Work supervisor data
 - Executing company data
 - Tester data
 - Delivery date, jobs start and end dates, granted days, possible new expiry
 - Extensions and suspensions: a complete list of suspensions and extensions is available, as

- well as multi-row data (with symbol )
- Guarantee retention data
- Data of last JPS and previous JPS (the latter with symbol )
- Submission deeds data: difference amounts, resolution and approval data, contract data (registration included), enforceability
- Report data**: data on signatures can be added to the document.
- Company or professional firm data**: code, company name, address, notes.

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[Document variables for 'Certificate'](#)

The following variables are available for certificates, in addition to the ones already described for other document types.

A complete description of the certificate issue process is supplied in section '[Payment certificates](#)'.

- In section **Accounting Data** the following variables are available in addition to the ones described above:
 - Current certificate data (being printed):
 - Certificate type, instalment expiry date, instalment number, JPS reference, manager's signature
 - Free amounts with value and description
 - Current certificate data processed during reporting: special and general charges, discount, guarantee retention amounts, advance recovery, deductions, rounding, bonds, VAT and credit value in letters
 - Previous certificate data (multi-rows with symbol  are available): number and date, amount, total amount of previous certificates
 - Additional data: lumpsum amount, amount by measure, time and material, various amounts, total amount with time and material lists, total without lists, penalty amount
- In section **Print**, the following variables are available in addition to the ones described above:
 - VAT Percentage
 - Item and document for payment
 - Comment on JPS
 - Permanent policy data

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[Image bg_g.jpg]
Reporting

This working document of [Report](#) type allows the user to print documents concerning the Jobs Accounting function.

This chapter describes the specific functions of Jobs Accounting reporting; the fields supplied in the detail folder 'Options' are described here below for the available report types.

- [Accounting measurements](#)
 - [Time and material lists](#)
 - [Payment certificate](#)
 - [Accounting register](#)
 - [Jobs Progress Status](#)
 - [Accounting First page](#)
 - [Accounting document](#)
 - [Accounting Custom fields](#)
-

[Accounting measurements](#)

It allows the user to print the jobs and supplies loaded in the accounting measurements management:

- Current:** check to associate the current JPS.
- JPS:** check the JPS associated with the accounting measurements. Should it not be the 'Current' one, uncheck and check another one.
- Report type:** choose among: accounting measurements, official accounting measurements or accounting measurements with values.
- Description:** to views the short, detailed or both descriptions.
- Short description style:** pane to format the text description.
- Safety charges:** check this field if you want to view the amount of charges not subject to discount/raise (this option is active only with the option 'Accounting measurements with values').
- Discount/raise:**
 - from contract: check this field if you want to apply the Discount/raise percentage indicated in Project Properties to the jobs amount.
 - from UPC: check this field if you want to apply the Discount/raise percentage indicated in the detail form of the UPC items to the jobs amount.
- Amounts carried forward:** Check this field to have the amount carried forward (for amount, quantity or both) printed at the end of each page and at the beginning of the next one.
- Measurement date:** it allows the user to enter a date (to be printed) different from the one shown on each measurements row.
- Print measures:**
 - Complete formula: complete measure rows are printed for each measurement. The formula is placed under the item description.
 - Subtotal: the subtotal of each measure row is written for each measurement.
 - Total: the total is written for each measurement. The subtotal column is eliminated.
- Measurement types:**
 - Separate by type: when this option is checked, the printout is divided into the groups lumpsum, measure, time and material.
 - Separate with details: the printout contains the detailed composition of the lumpsum works.
- Single column:** by activating this field, the columns containing measurement progressive number,

measurement date and item code are gathered in a single column.

- Measure unit:** by activating this field, a column for measure unit description is added.
- Images:** to print the images inserted.
- Separate measures:** by activating this field, the printout will contain additional columns (one for each factor required during Measurements preparation). Each column shows the total of the expression in it.
- Rate:** check this field to print the lumpsum incidence on the total lumpsum works.
- Positive/Negative:** by checking this field the Subtotals column is replaced with two columns, Positive and Negative, containing positive and negative subtotals respectively.
- Notes:** to print the notes concerning the items in the printout.
- Progressive:** by checking this field, the progressive number used for each Measurement is shown.
- JPS issued:** by checking this field, SAL issue is mentioned at printout end with a description.
- Export Excel:** the Accounting measurements report can be directly exported in Excel format without print preview. The Excel file obtained will show:
 - Progressive number, Code and Item description
 - Measure Unit code and description
 - Quantity (with measurement details if you check the option 'Separate measures')
 - Price (if you check the option 'Accounting measurements with values')
 - Custom fields indicated in the report table, added in special columns.

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[Time and material lists](#)

To produce reports of time and material.

- JPS:** check the associated JPS. Should it not be the 'Current' one, uncheck and check another one.
- Current:** check to associate the current JPS.
- Report type:** choose among Normal, Supplies list, Monthly report and Summary.
- Description:** it views the short, detailed or both descriptions.
- Short description style:** pane to format the text description.
- Safety charges:** check this field if you want to view the amount of charges not subject to discount/raise (this option is active only with the option 'Accounting measurements with values').
- The following options allow the user to specify the descriptions that the final summary of each list will contain:
 - Total labor descr.**
 - Other Total descr.**
 - Business profit descr.**
 - Overheads descr.**
- Notes title:** type in the title for the daily notes.
- Daily notes:** it allows the user to print the texts identified as Notes at the end of each list.
- Do not print entries with quantity 0:** check this option if you don't want to view entries with quantity 0 in reports.

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[Payment certificate](#)

To produce Payment certificate reports.

- Certificate template:** to choose the template of 'document with variables' to be used in Certificate reporting.

- Certificate:** certificate to be printed; it makes reference to the management '[Certificates of Payment](#)'.
- Item for payment**
- Document for payment**
- Safety charges:** by activating this option the report will contain an additional column with the price share concerning safety charges.
- Discount/raise :**
 - from contract: check this field if you want to apply the Discount/raise percentage indicated in Project Properties to the jobs amount.
 - from UPC: check this field if you want to apply the Discount/raise percentage indicated in the detail form of the UPC items to the jobs amount.
- Separation:** by activating this option the report will contain the safety charges.
- JPL comment:** type in a comment for the JPS.
- Print advance:** by activating this option the report will contain the jobs advance amount.

Thanks to the following options, previous certificates can be included in reports depending on their type:

- Consider previous certificates of "works" type**
- Consider previous certificates of "bis" type**
- Consider previous certificates of "other" type**
- Check date:** previous certificates are printed not only on the basis of their progressive number, but also according to issue date.
- VAT%:** to indicate the VAT rate.
- Consider penalty:** activate this option to view the amount of any penalties for delayed works completion (the amount is obtained by multiplying the amount indicated in Contract data by the number of days after the date indicated in JPS properties).
- Ultimate date for penalty:** an alternative works completion date can be chosen as a base for penalty calculation.
- Permanent policy**
- Print manager signature:** field for the manager's signature.
- Manager signature text:** type in the text that will be placed near the manager's signature.

NOTE: When starting a 'Payment certificate' report, the form 'Certificate amount' is displayed to enter a rounded amount (if desired).

The form has the following fields:

- Calculated amount:** certificate amount calculated by the system.
- Rounded amount:** rounded value that can be entered manually.
- Previous rounded amount:** previous rounded amount.
- Calculated amount:** certificate amount calculated by the system.
- Min. Instalment:** minimum amount for certificate issue; this value is indicative. For further information see chapter [All accountings](#).
- Difference :** difference between Calculated amount and Minimum Instalment.

To print the certificate press **Confirm** .

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[Accounting register](#)

To produce Accounting register reports.

- JPS:** check the JPS associated with the Accounting Register. Should it not be the 'Current' one, uncheck and check another one.
- Register Type:** check a register type in the drop-down list.
- Measurement date:** to enter a date (to be printed) different from the one shown on each

measurements row.

- Description:** short, detailed or both descriptions.
- Short description style:** pane to format the text description.
- Safety charges:** by activating this option the report will contain an additional column with the price share concerning safety charges.
- Discount/raise:**
 - from contract: check this field if you want to apply the Discount/raise percentage indicated in Project Properties to the jobs amount.
 - from UPC: check this field if you want to apply the Discount/raise percentage indicated in the detail form of the UPC items to the jobs amount.
- Measurement types:**
 - Separate by type: when this option is checked, the printout is divided into the groups lumpsum, measure, time and material.
 - Separate with details: the printout contains the detailed composition of the lumpsum works.
- Discount/raise type:** choose the Discount/raise type:
 - On Last Register: the discount/raise percentage is applied on the register being issued.
 - On all registers: the discount/raise percentage is applied on all registers.
- Single column:** by activating this field, the columns containing measurement progressive number, measurement date and item code are gathered in a single column.
- Progressive:** by checking this field, the progressive number used for each Measurement is shown. Available only for non-official reporting.
- Labor:** total by labor sort.
- Print advance:** by activating this option the report will contain the jobs advance amount.

Thanks to the following options, previous certificates can be included in reports depending on their type:

- Consider previous certificates of "works" type**
- Consider previous certificates of "bis" type**
- Consider previous certificates of "other" type**
- Check date:** Previous certificates are printed not only on the basis of their progressive number, but also according to issue date.
- Report type:** to print certificates within the register printout. You can choose among:
 - No certificate
 - Certificates before the last only
 - Last certificate only
 - All certificates
- Print lists:** to print time and material lists.
- Separate lists:** to separate time and material lists.
- Consider list net:** to consider the discounted amount of the lists.
- Rate:** Check this field to print the lumpsum incidence on the total lumpsum works.
- Notes:** to print the notes concerning the items in the printout.
- Pre-numbered:** page number will not be printed.
- Do not print header:** printout header will not be printed.
- Do not print page numbers:** page numbers will not be printed.
- Print page numbers on top:** page numbers will be printed on page top.
- Additional pages for notes:** enter any number of additional pages to print notes later.
- Residual:** by checking this option, any difference between the register total and the certificate amount will be printed.
- Residual description:** enter a description.
- From page:** to choose the beginning of the page interval to be printed (the field is activated only in case the option 'Page numbers' is checked in the field 'Register type').
- To page:** to choose the end of the page interval to be printed (the field is activated only in case the option 'Page numbers' is checked in the field 'Register type').

Options Pane 2

Type of amount carried forward : the pre-defined Current value is supplied. To change it, check the Progressive value: the total accounting amount carried forward from the beginning will be obtained.

To include different amounts, check the corresponding option.

Check the option "Payments on closing" to have a special page with a summary of issued payments.

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[Jobs Progress Status](#)

It is the JPS report.

- Description:** short, detailed or both descriptions.
- Short description style:** pane to format the short text description.
- JPS:** check the JPS to be printed. Should it not be the 'Current' one, uncheck and check another one.
- Safety charges:** by activating this option the report will contain an additional column with the price share concerning safety charges.
- Discount/raise:**
 - from contract: check this field if you want to apply the Discount/raise percentage indicated in Project Properties to the jobs amount.
 - from UPC: check this field if you want to apply the Discount/raise percentage indicated in the detail form of the UPC items to the jobs amount.

Thanks to the following options, previous certificates can be included in reports depending on their type:

- Consider previous certificates of "works" type**
- Consider previous certificates of "bis" type**
- Consider previous certificates of "other" type**
- Check date:** Previous certificates are printed not only on the basis of their progressive number, but also according to issue date.
- Labor:** total by labor sort.
- Print advance:** by activating this option the report will contain the jobs advance amount.
- Ultimate date for penalty:** an alternative works completion date can be chosen as a base for penalty calculation.
- Text for penalty:** type in the text for penalty.

In the pane Signatures of the JPS report you can choose where the signatures will be placed:

- **At page bottom**
- **After the payments**

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[Accounting first page](#)

- Accounting first page code:** to choose the first page template managed in the node [Documents](#).
- Accounting first page description:** description of the first page template.
- JPS:** check the reference JPS. Should it not be the 'Current' one, uncheck and check another one.
- JPS Descr.:** description contained in JPS heading.

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[Accounting document](#)

- Accounting document code:** to choose a document type in the node [Documents](#).
- Accounting first page description:** description of the chosen document template.
- JPS:** check the ref. JPS. Should it not be the 'Current' one, uncheck and check another one.
- JPS descr.:** description contained in JPS heading.

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[Accounting custom fields](#)

This report offers a summary of the custom fields used in Accounting measurements and, as an option, in lists.

Check the options concerning:

- Price category**
- Disc./Raise**
- Safety charges**
- Check **Print lists** to include time and material lists in the report.

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[Image bg_g.jpg]

Subcontract accounting

- [All accountings](#)
- Accounting
 - [Accounting measurements](#)
 - [Time and material lists](#)
 - [Iron measurement](#)
 - [J.P.S.](#)
 - [J.I.S.](#)
 - [J.I.S. measurement](#)
 - [Payment certificates](#)
 - Tables
 - [Notes](#)
 - [Various amounts](#)
 - [Suspensions](#)
 - [Extensions](#)
 - [Bonds](#)
 - [Submission deeds](#)
 - [Worker master data](#)
 - [Historical data](#)
 - [Measurement dashboard](#)
 - [Measurement/est. dashboard](#)
 - [Measurement/J.I.S. dashboard](#)
 - [Account./estim. data dashboard](#)
 - [Documents](#)
 - [Reporting](#)

[Image bg_g.jpg]

All subcontract accountings

Using the button 'Subcontract accounting' you can activate the management "All accountings".

This working document is of [data management](#) type.

It allows the user to manage the data of existing accountings or to create new ones. More accounting documents can be associated with each project.

Subcontract accountings are identified by:

- Company name
- Contract number
- Contract description

-
- [Fields of 'All accountings' management](#)
 - [Detail tabs](#)
 - [How to create a new Accounting](#)
 - [How to create a new Accounting template](#)
-

[Fields of 'All accountings' management](#)

The grid has the following fields:

- Executor code:** enter an executor ID code.
- Executor description:** enter the executor description.
- Code:** enter an accounting ID code.
- Description :** enter the accounting description.
- Contract No.:** enter the contract number.
- JPS checks:** when disabled, the system does not carry out the checks required by the regulations of the specific country.
- Jobs delivery date:** choose the jobs delivery date.
- Consider delivery date:** consider the delivery date as a valid day in the calculation of the jobs end date.
- Jobs start date:** indicate jobs start date.
- UPC code and description:** in the drop-down menu check the code and description of the [price catalog](#) associated with the accounting.
- Category code and description:** in the drop-down menu check the code and description of the [price category](#) associated with the accounting.
- Estimate code and description:** in the drop-down menu check the code and description of the estimate associated with the accounting (see also [Estimation](#)).
- Granted days:** indicate jobs duration as a difference between jobs end date and delivery date.
- Jobs end date:** indicate jobs end date.
- Building site code and description:** free custom field.

[Detail tabs](#)

General data

Tender data are supplied in addition to the fields available in the grid:

- Tender base amount:** indicate the tender base amount.
- Safety charges type:** set the calculation method for safety charges:
 - Analytical:** calculated on each item.
 - Lumpsum:** according to contract.
 - None**
- Safety %:** indicate safety incidence (in %).
- Safety charges amount:** after entering the price, the system calculates the percentage. The data will be updated automatically even in case of variation of the tender base amount.
- Bid type:** check 'Discount' or 'Price bid'.
- Disc./Raise %:** indicate the discount/raise percentage applied to the tender. This field is activated only when the bid type 'Discount' is checked.
- Award amount:** indicate the tender award amount. This field is activated only when the bid type 'Price bid' is checked.
- Available amounts:** indicate the amount of the sums available.

Contract data

All information on the contract associated with the accounting can be entered.

Some fields are free and concern the documentation prepared for the tender.

Additional fields:

- Data:** data entered into the grid previously.
- Advance:** advance value and the corresponding recovery percentage; they are used to calculate the payment certificate.
- Insurance:** the workers insurance percentage can be printed on the payment certificate.
- Deduction:** the warranty percentage is used in the calculation of the certificate amount.

Additional data

Further information on the subcontract associated with the accounting can be entered.

Some data (like town data) can be retrieved by entering the code previously typed in '[Tables/lists](#)' in System settings.

References

The data of the subjects involved in the project can be updated.

The following subjects are available: Project Manager, Safety Manager, Work Supervisor, Executing Company and Tester.

They can be associated with a type (by means of a drop-down menu): Private company, Public authority, internal or external personnel.

As a consequence you can identify the master data code to be associated with the individual jobs (Project Supervisor, Safety Manager, etc.).

Notes

This tab is reserved to possible notes (RTF text) for the current accounting.

NOTE: The font size must be specified directly on the tables to be printed.

Configuration data

The data entered into the grid are supplied.

These fields can be filled in automatically by checking the 'UPC', 'Category' and 'Estimate' codes in the drop-down menu, which were created previously and associated with the accounting.

Free custom fields

The detail tab can be seen only in case there are custom fields associated with the current management. For further information see chapter [Group function.](#)

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[How to create a new Accounting](#)

1. Click **Add**.
The wizard to create a new Subcontract accounting opens.
2. Fill in the fields, then press **Next**.
3. Choose a standard or a custom template:
 - standard: check one of the items in the drop-down menu 'Standard Templates'.
 - custom: check Custom template and then one of the items in the list. To create a custom template, read the following paragraph.
6. Then press **End**.

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[How to create a new Accounting template](#)

New Subcontract accounting templates can be created and used for later creations.

1. Choose the accounting to be used as a template in the grid.
2. Click **Accounting Templates**.
3. The wizard to create a new Accounting opens.
4. Enter Code and Description, then press **Create Template**.
5. A new custom template is now available in the list.
6. Close the window using the upper right **X**.

[↑ Torna all'inizio](#)

[Image bg_g.jpg]

Planned performances

The management 'Planned performances' allows the user to define the contract rows that can be used in accounting.

It consists of:

- [Measurements](#)
- [Estimate dashboard](#)
- [Documents](#)
- [Reporting](#)

[Image bg_g.jpg]

Measurements

This working document of [Data management](#) type allows the user to draw up the estimate.

Project structure

The work is divided into parts by custom fields that can be defined freely in STR Vision CPM. When a new project is created, the fields Lot, Map, Work are supplied: they can be modified or replaced with other fields more suitable for the work to be done.

The custom fields are used to order and filter the estimate entries. They are:

- on the tree in Estimate management,
- in the management grid (screen top),
- in reporting,
- in data analysis dashboards to organize and filter estimate data in reporting or in data analysis dashboards.

In addition, active custom fields are summed up in the detail section 'Custom fields'.

Please note that the custom fields defined in the estimate can also be used in the following project activities (project management, jobs accounting, etc.).

Estimate rows

The technical and economic quantification of the project is carried out by means of estimate measurements, where the following can be specified:

- Row progressive number
- Item of project price catalog describing the work object
- Work quantity
- Price

The estimate row can show 1 – 3 prices according to the settings made at installation stage.

-
- [Elements of the document 'Measurements'](#)
 - [Measurements fields](#)
 - [Detail tabs](#)
 - [Features of 'Measurements' management](#)
-

[Elements of the document 'Measurements'](#)

The upper part of the management form allows the user to load the estimate rows and to navigate them using the tree.

List of detail tabs:

- Measures
- Item
- Detailed item
- Measurement data
- Lumpsum
- Notes
- Image
- Cost analysis / Price analysis
- Custom fields

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Measurements fields

According to the initial settings, the estimate grid can show just some fields of those available in the management; the remaining fields can be viewed at any time by activating the function 'Select columns'

The basic fields to draw up an estimate are: item (code and all corresponding fields) and row quantity, that can be entered directly into the field 'Quantity' on the work grid.
The price catalog item and the estimate custom fields can be entered directly from this management without opening any additional forms.

The grid contains the following fields:

- Progressive:** estimate rows are identified by the field 'Progressive'. Its step can be specified in the management of properties
- Measurement date:** free date, it only has a documentative value.
- Measurement type:** it specifies how the measurement will be made:
 - by measure
 - lumpsum
 - time and material
- Entry type:** it specifies how the measures will be entered (see 'Detail tabs – measures'):
 - factors (similar, length, width, height)
 - formula (free expression)
 - iron (specific weight by diameter)
 - electrowelded net (specific weight of net type)
- Item fields:** (code, description, measure unit, one or more prices).
- Amounts:** one or more fields filled in by multiplying the quantity by the prices on the row.
- SOA category:** reference to the table with [SOA categories](#).
- Direct supply:** the field contains the estimate elements not to be subjected to contract discount/raise.

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Detail tabs

- Measures:** detailed comments and measures determining the row quantity. The available columns vary depending on how the field 'Entry type' has been set. Be aware that every field of measure type is

an expression where operators, parenthesis levels, functions and percentages can be used.

- Item:** fields of the price catalog item associated with the estimate row. The window supplies all item fields, even those not shown in the grid because hidden.
- Detailed item:** detailed description of the item.
- Measurement data:** same fields as in the screen top. The window supplies all item fields, even those not shown in the grid because hidden.
- Lumpsum works:** fields to manage the estimate of lumpsum works. For detailed information see section 'Features'.
- Notes:** free text in RTF format associated with the measurement row.
- Image:** image associated with the measurement row.
- Analysis:** tab for the management of the item price analysis.
- Custom fields:** list of free custom fields associated with the estimate.

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Features of 'Measurements' management

Generate lumpsum prices

To obtain a 'lumpsum' item operate as follows:

1. Check that the grid contains the fields: 'Type', 'Lumpsum code', 'Short lumpsum', 'Lumpsum M.U.'.
2. From the grid or from the detail tab set the field 'Type' with the value 'Lumpsum'.
3. From the grid or from the detail tab 'Lumpsum works' choose or create an item of 'Lumpsum' type by filling in the fields 'Lumpsum' (UPC item code identifying the lumpsum work), short lumpsum description, measure unit. Check the flag 'Lumpsum work' in the detail tab 'Lumpsum work'.
4. Repeat the operation on all estimate rows contributing to the work composition.
5. Activate the function '**Generate lumpsum prices**'.
STR Vision CPM will generate the lumpsum price of the item as a sum of the estimate rows associated with the work.

This setting will be available during work accounting.

Recalculations

STR Vision CPM processes the data automatically when the measurement rows are saved. Nevertheless some data (e.g. an item price) may be changed after the measurement rows are saved. In this case act as follows:

- Update the item prices by means of the function **Recalculate** of the group Analysis in the Ribbon Bar.
- Update the estimate rows by means of the function **Recalculate** of the group Utilities in the Ribbon bar.

Bid management

The Bid Management allows the user to obtain the total sale price quickly, by using the work value data. For detailed information see paragraph [Bid Management](#).

Price analysis / Cost analysis for works

For each measurement item you can view the Cost analysis or the Price analysis in the detail tab 'Analysis'.

NOTE: These functions are only active if the [License STR Vision CPM](#) is available.

Price analysis

Press the button in the 'Ribbon bar', group Analysis: the price composition of the item checked in the grid will be displayed in the detail tab 'Price analysis'.

For detailed information see paragraph ['Price analysis'](#).

Cost analysis

Press the button in the 'Ribbon bar', group Analysis: the cost composition of the item checked in the grid will be displayed in the detail tab 'Cost analysis'.

The management Cost Analysis offers the following fields for each item:

Execution times – flag 'Critical'

Each analysis component can be used to determine the duration of the activities in [jobs planning](#) and, consequently, define the length of the GANTT bar.

Activate the field 'Critical': if the component is associated with an item with execution time different from '0' (field 'Unit execution time'), the time (hours) necessary to obtain the analyzed item will be displayed in the field 'Execution time'.

Possible subcontractor

Some useful fields can be specified on each price analysis component to define subcontracts.

- Flag 'Subcontract'** : it means that the item on the component will be subcontracted.
- Subcontractor code and description** : you can specify a reference to the ['Master data'](#) table (the same name can classify supplies belonging to different work parts).

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[Image bg_g.jpg]

Estimate dashboard

This working document of [Analysis dashboard](#) type allows the user to analyze and view data concerning the estimate associated with the current accounting.

Data request

Press **Data request** to import data into the dashboard.

For further information on this dashboard, see paragraph [Data analysis dashboards](#).

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[Image bg_g.jpg]

Documents

Document types

The following document types are available:

- Estimate documents
- Estimate first page

Documents can be printed from the node 'Reporting' of 'Planned performances'.

Document variables

The list of variables supplied in the task pane is the same for both document types. The main groups are:

- General project data:** code, description and currency, as well as data of buyer, designer and project manager.
- Estimate data:** estimate code and description, as well as tender base amounts, award amount and available amounts.
- Report data:** data on signatures can be inserted into the document.
- Company or professional firm data:** code, company name description, address, notes.

[Image bg_g.jpg]

Note e riserve

Dal bottone 'Contabilità subappalti' è possibile, aprendo l'albero delle funzioni relative ad un lavoro, attivare la gestione delle Tabelle 'Note e Riserve'.

E' un documento di lavoro di tipo [gestione dati](#)

Attraverso 'Note e Riserve' è possibile inserire una nota associata ad un S.A.L. e stampabile sul Libretto, sul S.A.L e sul Registro.

[In questo articolo:](#)

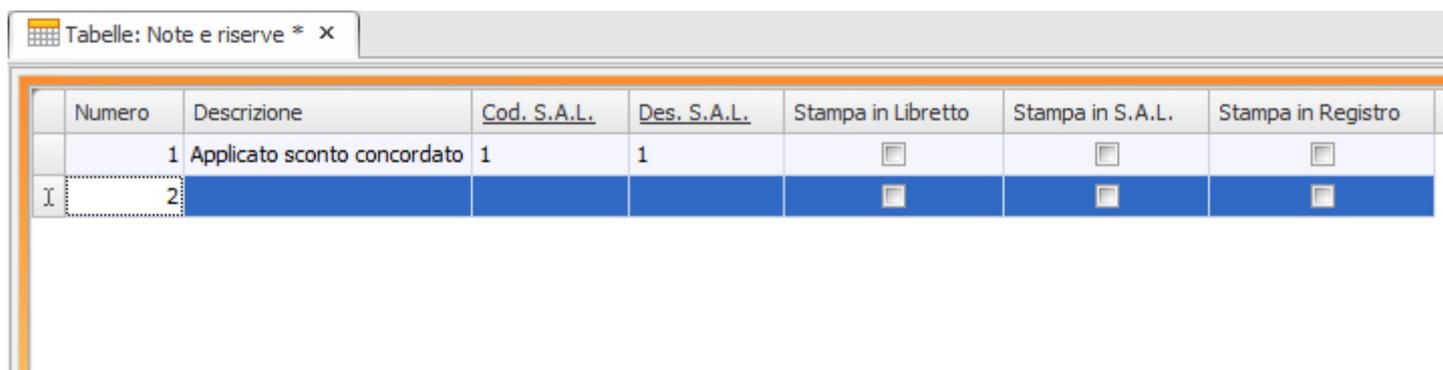
Le parti che compongono il documento

- [I campi della tabella Note e Riserve](#)
- [Le schede di dettaglio](#)

I campi della tabella Note e Riserve

La griglia riporta i campi:

- Numero** Numero progressivo generato in automatico
- Descrizione** indicare la descrizione della nota
- Codice e descrizione S.A.L.** selezionare dal menù a discesa il numero del S.A.L. a cui si desidera associare la nota.
- Stampe** selezionare su quale documento tra Libretto, S.A.L. e Registro, si vuole stampare la nota



Numero	Descrizione	Cod. S.A.L.	Des. S.A.L.	Stampa in Libretto	Stampa in S.A.L.	Stampa in Registro
1	Applicato sconto concordato	1	1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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Le schede di dettaglio

Dati di dettaglio

Ripropone i campi presenti in griglia

Note

scheda dedica all'inserimento di eventuali note (testo RTF) per la riga corrente



NOTA: La dimensione del font deve essere specificata direttamente sui prospetti in stampa.

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[Image bg_g.jpg]

Importi vari

E' un documento di lavoro di tipo [gestione dati](#).

Attraverso 'Importi Vari' è possibile inserire in contabilità importi esclusi dalla contabilizzazione dei lavori ma associati ad un S.A.L. e stampabili in S.A.L. e Registro.

[In questo articolo:](#)

↓ Le parti che compongono il documento

- [I campi della gestione 'Importi vari'](#)
- [Le schede di dettaglio](#)

[I campi della gestione 'Importi vari'](#)

La griglia riporta i campi:

- Numero** numero progressivo generato in automatico
- Descrizione** indicare la descrizione breve relativa all'importo
- Codice e descrizione S.A.L.** selezionare dal menù a discesa il numero del S.A.L. a cui si desidera associare l'importo.
- Importo** inserire l'importo che verrà poi contabilizzato e visualizzato nel S.A.L. associato
- % Iva** indicare l'eventuale percentuale d'IVA da applicare
- Stampe** selezionare su quale documento tra S.A.L. e Registro, si vuole stampare l'importo

Numero	Descrizione	Cod. S.A.L.	Des. S.A.L.	Importo	% IVA	Stampa in S.A.L.	Stampa in Registro
1	Attivazione contatore	1	1	340	0,00	<input type="checkbox"/>	<input type="checkbox"/>
I 2				0	0,00	<input type="checkbox"/>	<input type="checkbox"/>

[↑ Top](#)

[Le schede di dettaglio](#)

Dati di dettaglio Ripropone i campi presenti in griglia.

[↑ Top](#)

[Image bg_g.jpg]

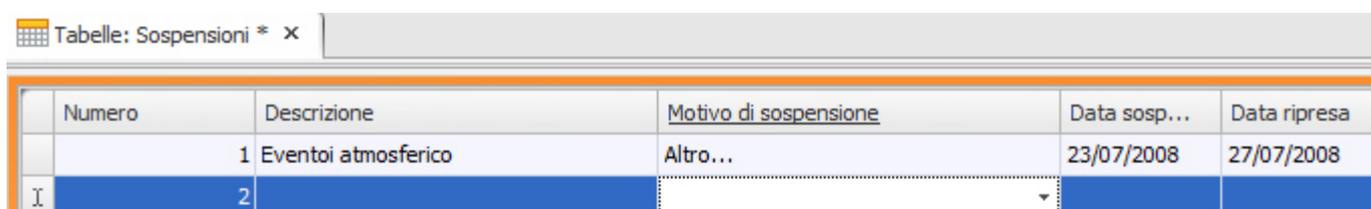
Sospensioni

Dal bottone 'Contabilità subappalti' è possibile, aprendo l'albero delle funzioni relative ad un lavoro, attivare la gestione delle Tabelle 'Sospensioni'.

E' un documento di lavoro di tipo [gestione dati](#)

Attraverso 'Sospensioni' è possibile annotare eventuali sospensioni dei lavori indicandone il motivo e la durata.

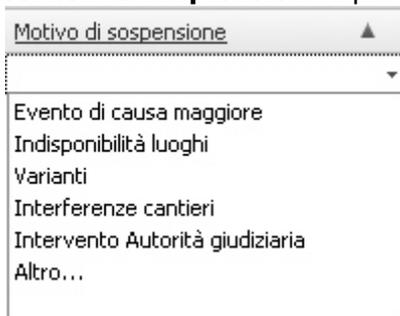
I campi della tabella Sospensioni



Numero	Descrizione	Motivo di sospensione	Data sosp...	Data ripresa
1	Eventoi atmosferico	Altro...	23/07/2008	27/07/2008
2				

La griglia riporta i campi:

- Numero** numero progressivo generato in automatico
- Descrizione** indicare la descrizione della sospensione
- Motivo di sospensione** è possibile scegliere il motivo di sospensione da un elenco di default



- Data sospensione** data di inizio sospensione lavori
- Data ripresa** data di ripresa lavori

[Image bg_g.jpg]

Proroghe

Dal bottone 'Contabilità subappalti' è possibile, aprendo l'albero delle funzioni relative ad un lavoro, attivare la gestione delle Tabelle 'Proroghe'.

E' un documento di lavoro di tipo [gestione dati](#)

Attraverso 'Proroghe' è possibile annotare concessioni di proroga all'ultimazione dei lavori.

I campi della Tabella Proroghe

La griglia riporta i campi:

- Numero** numero progressivo generato in automatico
- Descrizione** indicare la descrizione della proroga
- Data** indicare la data di concessione della proroga
- Giorni concessi** indicare i giorni di concessione della proroga

The screenshot shows a window titled 'Tabelle: Proroghe' with a table containing two rows of data. The first row has the number '1', the description 'Proroga accordata', the date '26/07/2008', and the number '5'. The second row has the number '2' and is currently selected, with a dotted border around the description field.

Numero	Descrizione	Data	Giorni con...
1	Proroga accordata	26/07/2008	5
2			

[Image bg_g.jpg]

Fidejussioni

Dal bottone 'Contabilità subappalti' è possibile, aprendo l'albero delle funzioni relative ad un lavoro, attivare la gestione delle Tabelle 'Fidejussioni'.

E' un documento di lavoro di tipo [gestione dati](#)

Attraverso 'Fidejussioni' è possibile annotare importi di fidejussione associati visualizzabili nel 'Certificato di pagamento'

I campi della Tabella Fidejussioni

La griglia riporta i campi:

- Numero** numero progressivo generato in automatico
- Descrizione** indicare la descrizione della Fidejussione
- Data** indicare la data in cui si è prestata la Fidejussione
- Importo** indicare importo di Fidejussione. Tale importo verrà considerato nel Certificato di pagamento, in base alla data della fidejussione, per ridurre l'onere delle garanzie.

Numero	Descrizione	Data	Importo
1		26/07/2008	4.000
2			0

[Image bg_g.jpg]

Atti di sottomissione

Dal bottone 'Contabilità subappalti' è possibile, aprendo l'albero delle funzioni relative ad un lavoro, attivare la gestione delle Tabelle 'Atti di sottomissione'.

E' un documento di lavoro di tipo [gestione dati](#)

Attraverso 'Atti di sottomissione' è possibile annotare eventuali atti di sottomissione da parte dell'azienda appaltatrice.

[In questo articolo:](#)

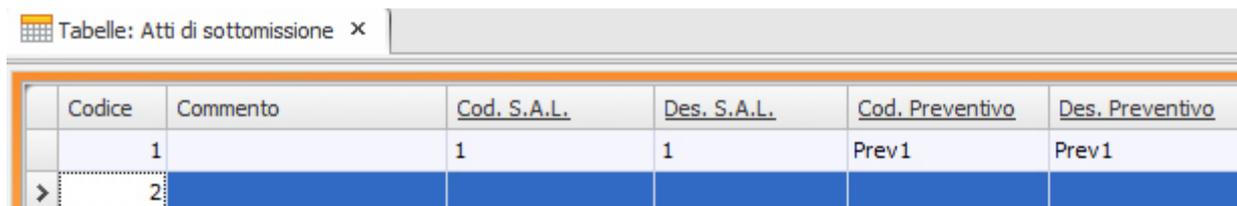
↓ Le parti che compongono il documento

- [I campi della Tabella Atti di sottomissione](#)
- [Le schede di dettaglio](#)

[I campi della Tabella Atti di sottomissione](#)

La griglia riporta i campi:

- Codice** numero progressivo generato in automatico
- Commento** indicare la descrizione dell'atto di sottomissione.
- Codice e descrizione S.A.L.** selezionare dal menù a discesa il numero del S.A.L. al quale è associato l'atto di sottomissione.
- Codice e descrizione Preventivo** selezionare dal menù a discesa il codice del Preventivo al quale è associato l'atto di sottomissione.



Codice	Commento	Cod. S.A.L.	Des. S.A.L.	Cod. Preventivo	Des. Preventivo
1		1	1	Prev1	Prev1
> 2					

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[Le schede di dettaglio](#)

Oltre a riproporre i campi presenti in griglia sono presenti:

Dati di dettaglio

- Numero** : indicare il numero della delibera dell'atto di sottomissione
- Data** : indicare la data di delibera dell'atto di sottomissione
- Tipo documento** : testo descrittivo della tipologia del documento

[Image bg_g.jpg]

Anagrafica operai

Dal bottone 'Contabilità subappalti' è possibile, aprendo l'albero delle funzioni relative ad un lavoro, attivare la gestione delle Tabelle 'Anagrafica operai'.

E' un documento di lavoro di tipo [gestione dati](#)

Attraverso 'Anagrafica operai' è possibile annotare l'elenco delle maestranze presenti in cantiere.

I campi della tabella Anagrafica operai

La griglia riporta i campi:

- Codice** numero progressivo generato in automatico
- Descrizione** indicare il nome dell'operaio

	Codice	Descrizione
	1	Mario Rossi
I	2	

[Image bg_g.jpg]

Storico

Dal bottone 'Contabilità subappalti' è possibile, aprendo l'albero delle funzioni relative ad un lavoro, attivare la gestione delle Tabelle 'Storico'.

E' un documento di lavoro di tipo [gestione dati](#)

Lo storico visualizza i dati relativi alle stampe ufficiali di ogni stato avanzamento lavori.

Le righe sono create automaticamente dalle stampe ufficiali di libretto e registro.

I campi della tabella Storico

La griglia riporta i campi:

- Codice e descrizione S.A.L.** : generato in automatico alla stampa ufficiale di registro o libretto
- Stampato libretto** : è attivo se per il SAL è stata eseguita la stampa ufficiale di Libretto
- Stampato registro** : è attivo se per il SAL è stata eseguita la stampa ufficiale di Registro
- Progressivo libretto** : ultimo progressivo di libretto
- Pagina libretto** : ultima pagina di libretto
- Progressivo registro** : ultimo progressivo di registro
- Pagina registro** : ultima pagina di registro
- Importo lordo** : importo SAL
- Imp.ribasso/aumento** : importo di ribasso/aumento
- Imp. Riporto** : riporto al SAL successivo

STB Vision CPM
[Image bg_g.jpg]
Vision for Companies

[Image bg_g.jpg]

Vision for Companies

- [Integration processes and functions](#)
 - [Associating basic archives](#)
 - [Acquiring and associating company resources and supplier/customer pricelist items](#)
 - [Sending Purchase Requests and checking execution](#)
 - [Sending the economic Budget](#)
 - [Acquiring contract rows](#)
 - [Sending estimate data to PCC](#)
 - [Sending active accounting and subcontract data](#)
 - [Integrating actual costs and revenues](#)
 - [Sending REQUIREMENTS](#)

[Image bg_g.jpg]
Integration processes and functions

Vision offers a series of flows integrating Vision CPM and Vision ADMIN.
The system manages the following:

- [Associating basic archives](#) (company, project...)
- [Acquiring and associating company resources and supplier/customer pricelist items](#)
- [Sending Purchase Requests and checking execution](#)
- [Sending economic Budget](#)
- [Acquiring contract rows](#)
- [Sending estimate data to PCC](#)
- [Sending active accounting and subcontract data](#)

The Vision system can be used according to the Company's requirements:

- CASE A:** Rigid approach. The Company only operates with resources directly connected with Vision ADMIN: all that is used in the projects must be coded as a company's resource.
- CASE B:** Free approach. The company works in Vision CPM completely independently of the resources available in Vision Admin.
- CASE C:** The company uses the resources available in the ADMIN management system to code the items used in the price analysis in Vision CPM.

[Image bg_g.jpg]

Associating basic archives

The association between basic archives requires STR Vision ADMIN archives and STR Vision CPM archives to be connected.

- [Creating Company association](#)
 - [Associating building site with project](#)
 - [Associating WBS with Building site steps](#)
 - [Associating Master data with STR Vision ADMIN Archives](#)
-

[Creating Company association](#)

Press 'Projects' and then 'Companies and Professional firms' to start the corresponding management.

Open the detail tab 'STR Vision ADMIN' concerning the company checked in the grid.

In the field 'Company' you can check one of the items in the list to associate it with one of the companies in STR Vision ADMIN database.

The address available in STR Vision ADMIN master data will be shown in the field 'Address' .

ATTENTION: Should the company not be associated using above procedure, no buttons or panels for data transfer/acquisition between STR Vision ADMIN and STR Vision CPM will appear in any management.

[↑ Top](#)

[Associating Project to Building site](#)

Press 'Projects' to start the corresponding management.

Open the detail tab 'STR Vision ADMIN' of the project checked in the grid.

In the field 'Building site' you can check one of the items in the list to associate it with one of the Building sites in STR Vision ADMIN database.

The description available in STR Vision ADMIN master data will be shown in the field 'Description'

NOTE: If no association at a higher level is made (with the Company, in this case), no association at a lower level is possible (of the Project, in this case) because the detail tab 'STR Vision ADMIN' is not activated.

[↑ Top](#)

[Associating WBS with Building site steps](#)

Press 'Projects' and then 'WBS' to start the corresponding management.

Check one of the WBS in the grid and open the detail tab 'STRVision ADMIN'.

In the field 'Step' you can check one of the items in the list to associate it with one of the Steps in STR Vision ADMIN database.

The description available in STR Vision ADMIN master data will be shown in the field 'Description'.

Generate WBS from ERP

This function allows the user to generate one or more WBS's starting from the Building site steps, from the ERP management system.

press '**Generate WBS from ERP**' to create the WBS's by copying them from STR Vision ADMIN Steps.

After checking the steps to be associated, press '**Transfer**', or '**Transfer all**' to transfer all rows.

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Associating master data with STR Vision ADMIN Archives

Press 'System settings' and then 'Master data' in 'Tables/Lists' to start the corresponding management.

Check one of the names in the grid and open the detail tab 'STRVision ADMIN'.

Check name type and code.

Import Names from ERP

The 'Master data' archives can be supplied with names imported from STR Vision ADMIN archives.

Press the button '**Import names from ERP**'.

In the window 'STR Vision Admin' press the button '**Find**' to view the master data of

- Suppliers
- Customers
- Workers

by clicking the corresponding tabs on the top right.

Check the names to be imported and then click '**Transfer**'.

Now the association can be made as explained above.

NOTE: The window to import names from ERP allows the user to carry out [Filter](#), Group (drag the field heading to the area 'Group grid') and Multiple transfer operations.

(select more rows simultaneously).

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[Image bg_g.jpg]

Acquiring and associating company resources and pricelist items articoli di listino

This function allows the user to acquire company resources available in the administrative area to transfer and associate them in STR Vision CPM.

The flow provides for the association between Company Resources and Supplier/Customer Items in STR Vision ADMIN, with the items in the Pricelists or in the price catalogue of the project. This function can be activated from:

- Pricelist items
- UPC items
- Estimate measurements
- Accounting measurements of active and passive accounting
- Purchase Request rows (Supplies module).

-
- [Update ERP prices](#)
 - [Acquire ERP prices](#)
 - [Acquire items from Supplier pricelist](#)
 - [Acquire items from Customer pricelist](#)
 - [Acquire items from Resources](#)
 - [Features of the administrative area](#)
-

[Update ERP prices](#)

The utility 'Update prices from STR Vision ADMIN' allows the user to update the prices in STR Vision CPM by retrieving them from the administrative area, according to specific criteria.

1. Press the button '**Update ERP Prices**' .
2. In the form 'Update prices from ADMIN' set the following options:
 - Price list category** : check a price category .
 - Also change fixed or subcontract prices**: the prices with active [flag 'Fixed'](#) and [flag 'Subcontract'](#) will be changed too.
 - Also change analysed prices keeping analysis but fixing price**: the prices of the [analyzed items](#) will be changed too, but the analysis components will be kept.
 - Price for resource** : if the price comes from the company resource master data of STR Vision ADMIN, you can choose among the following prices: **Last, Standard or Average** .
 - Price for Pricelist** : if the price comes from pricelist items of STR Vision ADMIN, you can choose among the following prices: **Pricelist, Net or Gross** .
 - Price from orders**: by activating this option the system does not identify the price in company resources or in pricelists, but in Customer or Supplier Orders. You can choose among **Highest, Latest or Average** price.
 - Collect Cost or Revenue price**: to collect Cost or Revenue prices.
 - Update whole price catalog**: all prices in the price catalog will be updated.
 - Update price catalog selection**: [filter criteria](#) can be set to choose the prices to be updated.
3. Click **Update** .

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[Acquiring ERP items](#)

To acquire items from the administrative area, operate as follows:

1. Start the management where you want to acquire the data.
2. Check the button '**ERP items**'.
3. In the form for the acquisition procedure set the parameters indicated below. The procedure is different depending on items being acquired from a [Supplier pricelist](#), a [Customer pricelist](#) or from [Resources](#).
4. Press '**Find**' to view the items in the grid.
5. Check the items you want to acquire.
6. Press '**Transfer**' to complete the procedure.
7. After the operation is completed, the item references can be viewed in the administrative area using the detail tab 'STR Vision ADMIN' with the fields Item, Description and Pricelist.
ATTENTION : The field 'Pricelist' (Reference pricelist in administrative area) in the STR Vision Admin detail tab has a different meaning from the field 'Ref. pricelist' (Reference pricelist in STR Vision CPM area)' of the detail tab 'Details'.

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[Acquiring items from Supplier Pricelist](#)

After pressing the tab 'Supplier pricelist' , check the product type you want to view in the Grid.

The grid shows all items available in the Resource master data of STR Vision ADMIN.

In the green area you can set the type of cost to be transferred to the field 'Unit cost' in the grid:

- Latest** : latest purchase price used in STR Vision ADMIN.
- Standard** : standard cost in Company Resource mater data of STR Vision ADMIN.
- Average**: average price calculated on purchases made in STR Vision ADMIN.

The grid only shows the items available in a supplier pricelist of STR Vision ADMIN.

In this case 'Transfer costs' (green area) can take place on the basis of the price categories managed in the pricelist:

- Latest** : latest price entered in the pricelist.
- Net**: price after deducting the discounts indicated in the pricelist.
- Gross** : gross list price.

The grid shows all items available in the Resource master data and in the supplier pricelists, as well as the manufacturers' items not included in any pricelist of STR Vision ADMIN.

ATTENTION : in this case a resource available in one or more pricelists will be shown in the list several times.

You can use the filter fields to filter the items to be shown in the grid.

The grid allows the user to carry out [Filter](#), Group (drag the field heading to the area 'Group grid') and Multiple transfer operations on the items displayed (select more rows simultaneously).

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[Acquiring items from Customer pricelist](#)

After pressing the tab 'Customer pricelist' , check the product type you want to view in the Grid.

The grid shows all items available in the Resource master data of STR Vision ADMIN.

In the green area you can set the type of price to be displayed in the field 'Unit price' in the grid:

- Latest** : latest sale price used in STR Vision ADMIN.
- Standard** : standard sale price in Mater data of STR Vision ADMIN.

The grid only shows the items available in a customer pricelist of STR Vision ADMIN.

In this case 'Transfer pricelist revenue' (green area) can take place on the basis of the price categories managed in the pricelist:

- Latest** : latest price entered in the pricelist.
- Net** : price after deducting the discounts indicated in the pricelist.
- Gross** : gross list price.

The grid shows all items available in the Resource master data and in the customer pricelists, as well as the manufacturers' items not included in any pricelist of STR Vision ADMIN.

ATTENTION : in this case a resource available in one or more pricelists will be shown in the list more times.

You can use the filter fields to filter the items to be shown in the grid.

The grid allows the user to carry out [Filter](#), Group (drag the field heading to the area 'Group grid') and Multiple transfer operations on the items displayed (select more rows simultaneously).

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[Acquiring items from Resources](#)

After pressing the tab 'Resource' you can access the form to view and create items in the STR Vision ADMIN area.

The tree in the left part of the form allows the user to explore and manage the introduction of new resources into STR Vision ADMIN area.

To create a new resource:

1. Go to the relevant element, open the tree and check a higher level than the detail level.
2. Press the button '**New**' .
In the form 'New resource' indicate code (ATTENTION: max. code length = 16 characters) , description, measure unit, kind, category, cost (that will be shown as a standard cost), price (that will be shown as a standard price) and type. Press **OK**.
3. Now the new resource is available in the administrative area.

NOTE: The new resources created as explained above will inherit the parent's properties (such as COGE account, VAT rate, etc.) even if these fields are not shown in the form 'New resource'.

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[Image bg_g.jpg]

Sending Purchase requests and checking execution

STR Vision allows the user to send [Purchase Requests](#) from the CPM area to the administrative area (Orders/Suppliers module).

- [Sending Purchase Requests](#)
 - [Checking execution](#)
 - [Features of Purchase Request transmission](#)
-

[Sending Purchase Requests](#)

To send a Purchase Request to the administrative area use the button **Send Purchase Request** and wait for the message confirming that it was sent successfully.

After that, 'Transferred' appears in the 'Status' field and in STR Vision ADMIN you can check if the Purchase Request has been transferred.

Now the Purchase Request cannot be removed by means of the button '**Delete**', but you can undo the operation using the button '**Cancel sent Purchase Requests**'.

After the status has changed into 'Not transferred', the Purchase Request can be removed from the grid using the button '**Delete**'.

[↑ Top](#)

[Checking execution](#)

If a Purchase Request has been executed partially or completely through orders, inquiries and subcontracts, it can no longer be removed using the button '**Cancel sent Purchase Requests**'.

[↑ Top](#)

[Features of Purchase Request transmission](#)

- Purchase Requests can be sent even if WBS's have not been included into Measurements.
- The items created in STR Vision CMP will be transferred to STR Vision ADMIN as UPC items of the project.
- Note that in the administrative area you can use the sent Purchase Requests even to create Subcontracts (Copy function).

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[Image bg_g.jpg]

Sending the economic Budget

STR Vision allows the user to send data on the economic scheduling of costs and revenue of a project ([Budget](#)), from the CPM area to the Management Control module of the administrative area.

- [Sending the budget](#)
 - [Features of economic Budget transmission](#)
-

[Sending the Budget](#)

In 'Estimation' open the management 'Budget' and press the button '**Send Budget**' to access the corresponding form to set the sending options.

- Start date/end date**: you can send data concerning a certain period of time. If nothing is indicated in the fields, the whole project budget will be transferred. We recommend to indicate the start/end dates of the accounting period of the ADMIN area.
- Budget**: a budget archive of the administrative area can be identified, where the current budget will be included. Should nothing be specified, STR Vision CPM will create a new Budget in the ADMIN area (the first available budget code and the description 'Budget from Vision CPM' will be indicated).

The Advanced Options allow the user to set additional transmission parameters, such as:

- Cost price category**: fill in this field with the price category identifying the project costs.
- Expand costs analysis composition**: to explode the components of the cost analysis.
- Expand subcontracts costs**: to explode the analysis components even if qualified as subcontract. It allows the user to view the price analysis of the items classified as '[Subcontract](#).'
- Costs jobs plan**: to select the Jobs plan of costs.
- Revenue price category**: fill in this field with the price category identifying the project revenue.
- Expand revenue analysis composition**: to explode the components of revenue analysis.
- Revenue jobs plan**: to select the Jobs plan of revenue.
-

Press **OK** to start sending data to the administrative area.

[↑ Top](#)

[Features of economic Budget transmission](#)

- To manage the data flow correctly, the WBS of the administrative area and the estimate row must be associated; if they aren't, an error message is displayed.

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[Image bg_g.jpg]

Acquiring contract rows

This procedure allows the user to retrieve the contract rows of the administrative area in the jobs of CPM area. Contract rows can be acquired from:

- Jobs accounting -> Accounting measurements
- Jobs accounting -> JIS Measurements
- Subcontract accounting -> Planned performances (Measurements)
- Subcontract accounting -> Accounting measurements
- Subcontract accounting -> JIS Measurements

To start the transfer of contract rows, the accounting chosen in STR Vision CPM must be associated with the Contract in the administrative area.

To this purpose activate the management 'All accountings'; then check the contract of the ADMIN area in the detail tab STR Vision ADMIN.

Press '**Contract rows**' in the management where the transfer will be started.

Press **Find**: the data of the Contract linked to the chosen Accounting will be displayed in the form 'STR Vision Admin'.

NOTE: The description of the chosen Accounting will be replaced with the description of the contract of STR Vision Admin.

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[Image bg_g.jpg]

Sending estimate data to PCC

This function allows the user to send the following estimate data to the PCC module of the ADMIN area:

- Estimate measurements
- WBS
- three custom fields of your choice (e.g. Lot, Map, Work)
- Project Price Catalog
- Project Cost Analysis
- Jobs Planning (start and end dates for each estimate row)

To start this procedure press **Send**.

In the form 'Send to PCC' set the following options:

- Estimate code and description:** enter a code and a description in the PCC module of ADMIN area.
- Set as current:** when active, the sent estimate is set as current.
- Jobs plan:** it identifies where (jobs plan) the transfer will take place from.
- Assign automatic progressive number:** it re-numbers the pages in the PCC module.
- Check step association:** it checks that the WBS's are associated with the work steps of the ADMIN area (when the check is activated, the system does not allow the transfer if the parameters are not met).
- Check empty descriptions:** it checks if there are items with invalid description (when the check is activated, the system does not allow the transfer if the parameters are not met).
- Custom field association:** (ADMIN Lot, ADMIN Map, ADMIN Work): up to 3 free custom fields can be chosen and associated to lot, map and work custom fields in the administrative area.

After setting above parameters press the button **Send** to send the data. If the system generates error messages during the transfer, you can choose if you want to continue the operation or not.

When the operation is completed, the estimate will be available in the module Planning and Control in the administrative area.

[Image bg_g.jpg]

Sending active accounting and subcontract data

The integrated system STR Vision allows the user to send 'Jobs accounting' data to 'Analytical and general Accounting' as follows:

1. JPS Accounting data to Analytical Accounting for checks
2. JPS Accounting data for checks and invoicing
3. JIS Accounting data to Analytical Accounting for checks

These three procedures can be started using the functions 'send accounting' in Certificate Reporting, JPS management (when closing the current JPS) and in JIS management.

General notes on Accounting integration

Accounting data can be sent if the options 'From Technical' in the building site of administrative area have been activated for the JPS management (procedures 1 and 2) and JIS management (procedure 3).

- Be aware that, before any transfer to the administrative area, you must link an Active Contract created in STR Vision ADMIN to the Accounting heading.
- Before carrying out the transfer, the WBS's must have been linked to each Accounting Measurement
- If items of the administrative area - created in STR Vision CPM with no link to STR Vision ADMIN - are used, they will be included in a Project UPC during the transfer.
- If items of the administrative area are used and the measure unit is changed, a secondary measure unit will be adopted during the transfer to the administrative area.
- Should you ask the system to open an already closed JPS or JIS, STR Vision will ask you to confirm the cancellation of the transfers already made to the administrative area.

↓ Features/peculiarities

- [Sending data from Certificate Report](#)
 - [Sending data from JPS management](#)
 - [Sending data from JIS management](#)
-

[Sending data from Certificate Report](#)

Start from the node [Reporting](#) of Jobs Accounting and carry out the Print Preview of the Certificate. Certificato.

In the form 'Certificate Amount', where the amounts can be rounded, press '**Confirm**'.

From the Certificate Preview you can start the transfer of the Payment Certificate by pressing the button **Send to ADMIN**.

The form 'ERP calculation' will appear.

In the form "ERP Calculation" set the following options:

- Discount/raise:**
 - from contract: check this option if you want to apply the Discount/raise percentage indicated in Project Properties to the jobs amount.
 - from UPC: check this field if you want to apply the Discount/raise percentage indicated in the

- detail form of the UPC items to the jobs amount.
- none: no contract discount/raise will be applied.
- Safety charges:** to calculate or not to calculate safety charges.
- Divide by Vision ADMIN resource:** when active, it carries out the Accounting summary by resource code of administrative area.
- Divide by date:** when active, it shows the date available on the Accounting measurements rows; when not active, the competence date on the form.
- Certificate date:** certificate date that will be used to make the entry in the administrative area.
- Competence date:** competence date of measurements; if nothing is entered, the current date is supplied.
- Contributory reg. period:** start and end of the contribution period.

Press **Calculate** and then **Send**.

The data will be sent to the administrative area where an entry will be created with the reason set in the linked Contract.

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[Sending data from JPS management](#)

This procedure consists of the following steps:

1. In JPS management set the following JPS as current.
2. Click Save.

In the form "ERP Calculation" set the following options.

- Discount/raise:**
 - from contract: check this option if you want to apply the Discount/raise percentage indicated in Project Properties to the jobs amount.
 - from UPC: check this field if you want to apply the Discount/raise percentage indicated in the detail form of the UPC items to the jobs amount.
 - none: no contract discount/raise will be applied.
- Safety charges:** to calculate or not to calculate safety charges.
- Divide by Vision ADMIN resource:** when active, it carries out the Accounting summary by resource code of administrative area.
- Divide by date:** when active, it shows the date available on the Accounting measurements rows; when not active, the competence date shown in the form.
- Certificate date:** certificate date that will be used to make the entry in the administrative area.
- Competence date:** competence date of measurements; if nothing is entered, the current date is supplied.
- Contributory reg. period:** start and end of the contribution period.

Press **Calculate** and then **Send**.

The data will be sent to the administrative area where an entry will be created with the reason set in the linked Contract.

Notes on payment certificates

- If the Certificate contains items non included in the contract, at invoice stage the COGE account on the contract will be read (if it is not available, the user will proceed manually)
- After the transfer, the JPS is regarded as closed and invoicing can take place in the administrative area.
- After invoicing in the administrative area, the JPS cannot be sent again or set as 'Current'.

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[Sending data from JIS management](#)

Check a JIS and press the button **Transfer to ADMIN**.

In the form "ERP Calculation" press Calculate and set the following options:

- Discount/raise:**
 - from contract: check this option if you want to apply the Discount/raise percentage indicated in Project Properties to the jobs amount.
 - from UPC: check this field if you want to apply the Discount/raise percentage indicated in the detail form of the UPC items to the jobs amount.
 - none: no contract discount/raise will be applied.
- Safety charges:** to calculate or not to calculate safety charges.
- Divide by Vision ADMIN resource:** when active, it carries out the Accounting summary by resource code of administrative area.
- Divide by date:** when active, it shows the date available on the Measure Book rows; when not active, the competence date shown in the form.
- Competence date:** competence date of measurements; if nothing is entered, the current date is supplied.

ATTENTION: In case of Subcontract Accounting, first sent JIS data and then JPS data.

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Integration of Actual Costs and Revenues

Thanks to the module "Building site entries" of Vision CPM you can record actual data originating from (or attributable to) the building site and concerning all costs and revenues that are not recorded in jobs accounting (active or passive, JPS or JIS).

These records aim at:

- 1) Supplying other functions of the STR Vision system (such as Industrial Accounting, Pi.Co, Business Intelligence) with complete actual data to be correctly analyzed and compared with estimates and budget.
- 2) Recording the documents received on the building site and their movements, so that they can be sent to the ERP system in order to:
 - a. Act as supporting documentation for Suppliers' invoices (example: Transport Documents)
 - b. Supply the Analytical Accounting with the Industrial Accounting data available on the building site to control the business management (Labor/Equipment reports, Costs/Revenues, Transfer entries, etc.).
- 3) Acquiring costs and revenues which are not recorded on the building site (but attributable to it, such as overheads) in Vision CPM actual figures to supplement them.

Possible scenarios

The control processes are different in the various company's situations as for:

- place (i.e. software function) where data are entered;
- data responsibility: system responsible for the data at a certain time;
- data direction: from which system the data is coming from and where it is going to;
- checks carried out and data involved;
- software function implementing the monitoring system.

The place of origin of data and their migration to the functions used by the different business entities have pushed us to develop integration utilities which allow (or will allow, when fully developed) the users to deal with any situation. Of course the specific functions to be used in the individual system shall be chosen in each specific case.

The following table shows the different situations that may arise even when only STR systems (and no external ERP's) are used.

To simplify our analysis, the variables connected with the integration of jobs accounting (both active and passive) have been excluded.

The utility functions available for the integration of Building site entries are the following:

- F9: Transmission of actual movements by Document category from CPM to ADMIN in CoAn
- F11 Acquisition of Orders from Ordered of ADMIN in CPM order management
- F10: Acquisition of CoAn movements of ADMIN in CPM WITHOUT COMPARISON
- F13: Acquisition of CoAn movements of ADMIN in CPM WITH COMPARISON

The following chapters describe the functions implemented in the integration utilities and the situations where they are conveniently used.

Due to the large variety of possible situations, we have set constraints on the possibility of activating the

functions or modifying the transferred data, to ensure a logic consistency of information. Some controls are left to the users: they will use these functions only after deciding how data shall be correctly transferred among the different Vision system components.

Frequency of transfers

As a rule, transfers among the different Vision system components can be carried out as often as required.

When transfers take place on the basis of the company's requirements, the resulting system data are clearer and more useful.

In general, Vision only sets constraints related to the fact that a data has been/has not been transferred.

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Transmission of actual movement data by Document category from CPM to ADMIN in CoAn

This function allows the user to send Report or Movement entries from CPM to ADMIN, that is it can be used when Reports and Movements are entered into Vision CPM and must be sent to ADMIN. The 'send' functions can check if the document has been sent to ADMIN and in this case make it non-modifiable in CPM. The following chapters describe how entries can be transferred and retrieved.

preliminary configuration

First of all you must identify which CPM document categories shall be sent to ADMIN (any document category can be sent to ADMIN, at the user's discretion). Identify the target Reason in the management of Document categories. The system will only send Reports or Movements to ADMIN, which are identified with a category defined by an ADMIN reason.

Reasons are filtered so that the document categories are not associated with improper Reasons. Then activate the movement transfer function from the management 'Reports' or 'Actual costs and revenues', by pressing the button Send in the group Admin.

CPM categories and ADMIN reasons

The following table shows the correspondence between Vision CPM document types and Vision ADMIN reasons.

CPM movement type	ADMIN reason type
Note	
Supplier's Transport document	Supplier's Transport document
Document data must be complete and recognized by ADMIN (linked master data). Information is checked for correctness partly when defining the entries in Vision CPM and completely during the transfer.	
General passive document (not yet available)	General passive document
Supplier's Transport document not subject to checks for completeness and correctness. These documents are associated with specific (newly implemented) reasons so that they can be used for analytical accounting records of other documents registered in ADMIN only (incomplete Transport	

CPM does not supply a mechanism to fulfill Transport documents with Invoices because not all useful accounting information are available to carry out this operation properly. This means that you can **register the Transport document or the Invoice for the same event, but not both documents, in CPM**. Similarly you can transfer Transport documents or Invoices to ADMIN, but never both for the same event. The user will check this procedure together with the STR consultant. In addition the same principles set forth for Active Transport documents apply to this case; as a consequence, Active invoices are transferred to ADMIN as general active documents, to be validated and completed in ADMIN

Cost transfer	Cost transfer
<p>Transfers have the same meaning both in CPM and in ADMIN: a quantity and an amount are moved from a place to another.</p> <p>When a transfer to ADMIN takes place, the system checks that it does not concern the same ADMIN PHASE (with 2 different WBS's in CPM); in such a case the transfer to ADMIN would be a useless entry.</p>	
Revenue transfer	Revenue transfer
<p>See above (Cost transfer).</p>	
Transfer of transport document	Cost transfer
<p>As a document management capable of printing the transfer document is not available in CPM, the document is handled as a cost transfer. See 'Cost transfer'.</p>	
Cost charge / charge off	Cost charge
<p>The reason is the same as in ADMIN: it's a cost allocation on a single-entry basis.</p>	
Revenue record / write off	Revenue record
<p>The reason is the same as in ADMIN: it's a revenue allocation on a single-entry basis.</p>	

The CPM Document categories supplying Cost or Revenue reasons with the possibility of invoicing in ADMIN can be chosen in the General ledger or Document issue (depending on their nature). When these documents are sent as described above, the function '**Import**' shows 'General documents from Vision CPM'.

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Transfer of Reports

In the management **Reports** you can find the buttons **Send** and **Undo send** to send a report or to undo the operation.

When a report is sent, a simple CoAn entry is transmitted to ADMIN without supplying any details (Employees, Hour type, etc.).

When the transfer is activated, a form is displayed where the user can decide to send the current document only (the whole document, not just some rows), or the documents of a certain period of time.

In addition you can carry out a preliminary check of the data transfer to ADMIN by means of the button 'Check': all checks necessary to ensure a trouble-free transfer are made and any problems notified.

These checks are also made when pressing 'Do'. They concern:

- Entry completeness
- Locked periods in the target system
- Match between CPM data and ADMIN reasons
- Other checks

The user is informed of any anomaly so that he can take suitable corrective measures.

Transfer of Actual costs and revenues

In the management Actual costs and revenues you can find the buttons Send and Undo send to transfer a document or to undo the operation.

You can send different types of entries to ADIM, as per above table.

When the transmission is activated, a form is displayed where the user can decide to send the current document only (the whole document, not just some rows), or the documents of a certain period of time.

In addition you can carry out a preliminary check of the data transfer to ADMIN by means of the button 'Check': all checks necessary to ensure a trouble-free transfer are made and any problems notified.

These checks are also made when pressing 'Do'. They concern:

- Entry completeness
- Locked periods in the target system
- Match between CPM data and ADMIN reasons
- Other checks

The user is informed of any anomaly so that he can take suitable corrective measures.

Please note that not all CoIn records need to be sent to ADMIN. Some records concern the building site only and they must not be sent to ADMIN because they represent the movements differentiating CoInd and Co An.

The user, together with the STR consultant, will decide which document categories shall be defined in relation with the records to be made in Vision CPM; in addition he will decide if each category shall be associated with a reason in ADMIN to transfer the document.

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Acquisition of orders from Ordered of ADMIN in CPM management 'Orders'

The management 'Orders' in the custom field Supplies can be used together with Vision ADMIN to acquire the orders confirmed in ADMIN. In this way you can send orders from the Purchase department to CPM, to give the building site a base to fill in the delivery notes.

The management 'Orders' of Vision CPM is not designed for the Purchase department, but it is an 'order binder' supporting the management 'Actual costs and revenues'.

Preliminary configuration

To activate this integration you must enable some parameters in Vision ADMIN.

In the management 'General business parameters':

'CPM – Activate Integration (1=Yes, 0=No)' to enable the feature 'Final' on Order headings. Vision CPM will import a 'Final' order, but NOT a non-'Final' order.

An additional check informs the ADMIN users (Purchase department) that an Order has been sent to CPM and any change requires the order to be re-acquired (the transfer function is activated in CPM).

This check level is controlled by the parameter 'CPM – Sent Orders Lock (0=No, 1=Message, 2=Yes)' as follows:

0 = No: the order can be modified in ADMIN; no message is displayed for the user.

1 = Message: the order can be modified in ADMIN; when changing it, a message is displayed informing the user that the order has been sent to CPM.

2 = Yes: the order is locked in ADMIN and cannot be modified.

Should the order be modified after being sent, the new information will be sent to CPM if possible. Therefore, to enable the order transfer you must activate the flag 'Final' on the heading of each order.

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Transfer of Orders

After carrying out the preliminary operations and recording Orders in ADMIN, you can activate the acquisition of orders from ADMIN by means of the button 'Orders from ERP' in the management 'Orders' in Vision CPM. The order rows belonging to Cost Centers related to WBS's of the current Project will be imported from each Project.

The function will only supply the message of completed operation.

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Order fulfillment

When recording actual costs and revenues of Vision CPM, you can Copy from the management 'Orders' and

Paste in the management 'Movements'. In this way the quantities delivered and to be delivered are updated in the CPM order, but not in the Vision ADMIN order.

The order will be regarded as fulfilled in Vision ADMIN when the document recorded in Vision CPM is sent to Vision ADMIN. At the same time the ERP system will have the fulfilled order together with the document supporting the fulfillment; having the order fulfillment at an earlier time would be inconsistent.

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Acquisition of CoAn movements without collimator

The utility for the acquisition of CoAn movements from ERP Vision ADMIN allows the actual data recorded in Vision ADMIN to be transferred to the management 'Actual costs and revenues' of the module 'Building site entries' in Vision CPM.

This function can be used by the companies that make COMPLEMENTARY records in the CPM and ADMIN systems; in other words, the same economic or quantitative data is not represented at different times. As a consequence this method cannot be used when Transport documents are recorded in Vision CPM and the corresponding Invoices in Vision ADMIN: in this case doubled values would be obtained (Transport document value + Invoice value). On the contrary, the function can be used by the companies carrying out the whole check Transport document/Invoice in Vision ADMIN.

Custom fields and aggregation of records

The movements acquired are CoAn movements and contain typical information such as: Resource, Cost Center, Work Phase, Management Structure, Supplier (if available).

These data have a precise destination in Vision CPM:

- ❑ **Resource:** it is included in the UPC archive associated with the Building site entries, that is the archive in 'Price catalog code' in the management 'Entries'.
- ❑ If there is an item with the same resource code, it will be used; otherwise a new item will be created with code, description and M.U.
- ❑ **Cost Center or Work Phase:** it is searched in the Phases associated with the Project WBS archive. Unlike the Resource, the Phase does not receive a value directly, but through the WBS. If the WBS is not found, it is not generated because this function is available in the management 'WBS' (button 'Generate WBS from ERP'). In addition, as there can be many WBS's linked to a PHASE, the association is only made if
 - ❑ a PHASE code is associated with one WBS only in the project. If the same PHASE is associated with more WBS's, the WBS will receive no value and the user shall assign it after the import operation.
- ❑ **Management Structure:** this custom field is given a value starting from the same information in Vision ADMIN, provided that it is included in the Business custom fields of Vision CPM and it is associated with the Groups in the UPC of Building site entries. The management Structure will be associated with the Resource and not with the record resulting from CoAn. If there are more Management Structure values in different movements for the same Resource in Vision ADMIN, only the first used value will be associated in Vision CPM. Be aware that Management Structure will be associated in Vision CPM only if its value is void when importing. The name 'Management structure' is an essential condition to receive a value.
- ❑ **Origin:** this custom field receives a value starting from its code and supplier's or customer's Company name used in Vision ADMIN entries. The simple Name has not been used because it can only be found in Documents (custom field for movements) of Vision CPM; it is only used in particular documents directly defined in Vision CPM.

Document categories and generated records

When data are acquired from CoAn, a maximum of two Documents are generated in Vision CPM on the basis of the entries in Vision ADMIN. They are classified as follows:

Cost charge/charge off – for cost movements

Revenue record/write off – for revenue movements.

The movement code will result from the accrual date of the generated entry and the category code.

As a consequence, import can take place just once a day, unless the user gives the records a new code before a new import. In this case pay attention to the calculation procedure described below.

Details of generated records

The generated records will be 2 max. The number of record movements depends on the data in Vision ADMIN. The individual movements are generated by aggregating CoAn movements by means of the above-described custom fields:

- Movement type (cost or revenue)
- Resource
- Cost center
- Management Structure
- Origin (Customer or Supplier).

Quantities and amounts are summed up as described here below. The rows of each CoAn movement are not detailed in Vision CPM.

Recording by 'progressive delta values'

In Vision ADMIN you can change CoAn records in time. This may be required by different reasons: a change in accrual date, an amount changed due to a Transport document recorded before the corresponding Invoice, a record changed manually. In addition you may need to record or cancel movements in past periods.

When variations caused by CoAn movements are acquired in Vision CPM, a special mechanism identifies quantity and amount variations on a certain date, compared to a previous date.

The system operates as follows:

- All records of a project are analyzed, a progressive number is defined on an accrual date and aggregated by custom fields (see above).
- The progressive number is saved in a permanent data structure.
- The algebraic difference of quantities and amounts compared to a previous situation (acquired in Vision CPM) is calculated.
- Two documents (one for Costs, one for Revenues) with the Delta values are written in Vision CPM. In this way the latest entry in Vision CPM will always include the variations occurred in Vision ADMIN since the previous acquisition, even if such variations concern previous periods.

Accrual is always attributed to a single date.

Be aware that if the Progressive delta mechanism only identifies a variation in amount (unchanged or zero quantity), two movement rows will be written:

- First row with quantity = 1, amount and price = amount
- Second row with quantity = -1, amount and price = zero.

- Transfer activation

The function of data acquisition from ADMIN can be activated from the management 'Actual costs and revenues' in Building site entries, using the button 'Receive CoAn'.

A form will be displayed where you can enter the information necessary for the transfer. The information will be saved by the system and supplied on the following transfer.

A series of features define the acquisition of movements. Choose a method and always use the same for the whole project life

- Cost category:** category with which the document with cost movements is recorded. You can use categories of document type 'Cost charge/charge off' defined in the corresponding management in Tables/Lists of System settings.
- Revenue category:** category with which the document with revenue movements is recorded. You can use categories of document type 'Revenue record/write off' defined in the corresponding management in Tables/Lists of System settings.

The following YES/NO fields are used to include or exclude some record types of Vision ADMIN from the movements acquired. Make a careful choice of these features to prevent values to be repeatedly shown in reporting and in dashboards of CoIn, Pico and CPM modules extracting actual data. Such processes automatically aggregate the data available in Active accounting (JPS or JIS, at user's choice), Passive accounting (JPS or JIS, at user's choice), Labor and equipment reports, Actual costs and revenues. When accounting or reports are handled in Vision CPM and the corresponding records are available in Vision ADMIN, such records should be conveniently excluded from the acquisition.

- Import active JPS's**: active JPS's are included or excluded from the import.
 - Import active JIS's**: active JIS's are included or excluded from the import.
 - Import passive JPS's**: passive JPS's are included or excluded from the import.
 - Import passive JIS's**: passive JIS's are included or excluded from the import.
- Import reports**: equipment and labor reports are included or excluded from the import.
- Latest acquisition date**: date on which the previous progressive number was acquired, to calculate the delta. The system supplies the latest import date, which can be modified manually by the user. In this case the acquisition records made between such date and the current acquisition should be conveniently cancelled, to avoid double records.
- Accrual date**: date on which the progressive number to be acquired is defined. This date is used to attribute accrual to the movements of the delta record.

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Acquisition of CoAn movements with collimator

The utility for the acquisition of CoAn movements from ERP Vision ADMIN allows the actual data recorded in Vision ADMIN to be transferred to the management 'Actual costs and revenues' of the module 'Building site entries' in Vision CPM.

This function can also be used by the companies that make COMPLEMENTARY or OVERLAPPING records, i.e. records concerning the same economic event, in the CPM and ADMIN systems. Here below you can find some cases in which this function can be used, as a reference for your particular situation:

- The same document is recorded both in CPM and ADMIN, by direct input or by transfer between the two systems.
- Transport documents are recorded in CPM, the corresponding invoices in ADMIN.
- Payment certificates are recorded both in CPM and ADMIN due to the transfer.
- Building site costs are recorded in CPM; in ADMIN they are recorded together with the overheads that can be attributed to the building site.

In all these cases you can use the function "Data acquisition with collimator".

This function will be also available for companies that do NOT operate with the STR accounting system, but use external ERP's. In this case the information exchange will be standard both as for the files used for the transfer and the type of transferred information. The company having such standard features will be able to use the functions of the comparison system. Different situations will require special a custom project.

At present this function is not available and will be issued as per STR schedule.

STB Vision CPM

[[Image bg_g.jpg]]

Site documents and project control

[[Image bg_g.jpg]]

Site documents and project control

- Procurement
 - [Purchase request](#)
- Recordings
 - [Labour and equipment lists](#)
 - [Actual costs and revenues](#)
 - [Periods](#)
 - [Employees and equipment](#)
 - [Dashboard labour and equipment](#)
 - [Dashboard summary rec](#)
 - [Reporting](#)
- [Cost accounting](#)

[Image bg_g.jpg]

Purchase requests

For further information on the creation of Purchase requests see chapter '[Requirements](#)'.

[Fields of management 'Purchase Requests'](#)

The most important fields of this management are:

- Delivery address:** address where the goods will be delivered.
- Delivery date:** date on which the goods will be delivered.
- Delivery notes:** notes on delivery of the goods.
- Status:** transferred/not transferred means if the Purchase Request has been sent to the administrative area.

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[Detail tabs of management 'Purchase Requests'](#)

General data

- Delivery notes:** this field can be viewed in the Purchase Request of the administrative area, field 'Notes 1'.

References

- Requesting technician:** these fields refer to the [Master data](#). The requesting technician will be displayed in the Purchase Request of STR Vision ADMIN in the field 'Purch. Dept. Technician'.
- Supplier:** this preference is indicated by the Technician generating the Purchase Request; it will be displayed in the field 'Notes 2' of the administrative area.

Measurements

These measurements are the subject of the Purchase Request. NOTE: The Detailed Item Description will be sent to the administrative area.

STR Vision CPM ADMIN

This detail tab is available in case of integration with STR Vision CPM ADMIN and, after transferring the Purchase Request, it allows the user to view the Purchase Request references generated in the administrative area. For further information see chapter [Integration processes and functions](#).

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[Image bg_g.jpg]
Recordings

The module called 'Building site entries' supplies a number of useful functions to enter final costs and proceeds of the building site with a technical (not an administrative/accounting) approach. The entry types are described by a set of document categories, set at system level, which each entry must refer to.

Entry types can be divided into two groups:

1. Labor and equipment reports
2. Actual costs and revenues

Each entry type can make reference to different document categories (e.g. for actual costs and revenues there are Supplier's Transport documents, Active Transport documents, Transfer Transport documents, etc.). As for labor and equipment reports, you can retrieve workers and equipment from a company archive (shared by all building sites of the same company) or from a building site archive, depending on the availability of a company pricelist associated with the current company.

As for movements, there is a reference price catalog defined for the building site, containing the items that can be used.

[General menu](#)

Check '**Building site entries**' in the navigation tree to access all entry managements.

In this menu you can also find the node '**Entries**' with the managements to enter Labor and Equipment reports as well as Building site movements.

The menu also includes the **Supplies** area (in the past it was in the menu 'Projects').

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[Setting the building site price catalog](#)

From the branch '**Entries**' in the menu '**Building site entries**' a working document can be activated where you can specify the building site price catalog (to be used both in reports and movements) and the **cost/revenue** price categories that will determine the values of actual costs and revenues (together with category setting).

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[Entering rates into the building site price catalog](#)

1. From the node 'Rates' in the branch "[Projects](#)" reach the rate master data. This archive allows the user to manage a large variety of rates for the same resource.
2. On the price catalog 'heading' you can specify the linked (current) rate.
3. In the working document '**Items**' in the branch '**Building site resources**' (in Building site entries -> Entries) you can enter the values (for the different hour types) concerning the individual resource and at the current rate.

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Rapportini di manodopera e attrezzature

E' un documento di lavoro del tipo [Gestione dei dati](#).



Il documento di lavoro si attiva dal ramo '**Rapportini**' presente all'interno di '**Registrazioni di cantiere**' ed è costituito da una griglia principale (in cui i primi 3 campi rappresentano dati di testata mentre i campi successivi rappresentano dati di riga) e 3 cartelle di dettaglio ('Dati di testata', 'Dati di riga', 'Note') che permettono di inserire informazioni aggiuntive relativamente a testata e righe del rapportino.

In inserimento vi sono 2 opzioni possibili:

1. **Aggiungi rilevazione** : aggiunge una nuova riga inizializzando una serie di informazioni (cod. rapportino, des. rapportino, categoria, wbs, ...) dalla riga precedente
2. **Aggiungi rapportino** : aggiunge una nuova riga senza inizializzare alcuna informazione



La gestione è composta da una griglia master che rappresenta i documenti (o rapportini) e una griglia di dettaglio collegata che rappresenta i movimenti (o le righe di rapportino) relativi al documento selezionato.

Cambio progetto

Per passare ad un altro progetto senza doverlo impostare come corrente e inserire dati nella medesima gestione (documenti/ rapportini) del nuovo progetto, premere il tasto Cambia Progetto.

[Image bg_g.jpg]

Actual costs and revenues

The working document can be activated from the branch '**Actual costs and revenues**' in '**Building site entries**'. It consists of a main grid (the first 2 fields contain document data, the following fields contain movement data) and 3 detail folders ('Document data', 'Movement data', 'Notes') allowing the user to enter additional information on documents and movements.

Two options are available:

1. **Add movement** : a new row is added by initializing a series of information (document code, document description, category, WBS...) from the preceding row.
2. **Add document** : to add a new row without initializing any information.

STB_Vision_CPM

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Site documents and project control

[Image bg_g.jpg]

Periods

When saving a movement and/or a report row, the system automatically associates a period to the entry on the basis of the accrual date (movement) or the date (report rows). The period is saved in a master data to be consulted from the branch 'Periods' available in 'Building site entries'.

The automatic generation of the period takes place according to a rule available in the general data of the Project.

This information aims at improving data searching (by organizing the navigation tree) and is a reference for future data transfers to the administrative system (Vision ADMIN or other ERP)

STR Vision CPM

[Image bg_g.jpg]

Site documents and project control

[Image bg_g.jpg]

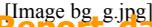
Employees and equipment

This management, used to populate reports, can be accessed from the node **'Workers and equipment'** in the branch **'Building site Resources'** (in **Building site entries -> Entries**).

In this case, unlike company resources, the elements can be only used in the current Project/Building site. For each worker or equipment specify the item (price catalog) supplying its value (rate). You can also assign data to workers by means of the links with a name contained in the corresponding management.

STR Vision CPM

Site documents and project control

 **Report dashboard**

This working document of [analysis dashboard](#) type shows report and movement data divided by hour type, but without prices and amounts.

STR Vision CPM

[[Image bg_g.jpg]]

Site documents and project control

[[Image bg_g.jpg]]

Summary dashboard

This working document of [analysis dashboard](#) type shows movement and report data organized by item (that is without worker/equipment details and without hour types), with prices and amounts.

[Image bg_g.jpg]

Labor and equipment reporting

The working document is enabled from the branch '**Reports**' in '**Building site entries**'. It consists of a main grid (the first 3 fields contain heading data, the following fields contain row data) and 3 detail folders ('Heading data', 'Row data', 'Notes') allowing the user to enter additional information on report heading and rows.

Two options are available:

1. **Add measurement** : a new row is added by initializing a series of information (report code, report description, category, WBS...) from the preceding row.
2. **Add report** : to add a new row without initializing any information.

The management consists of a master grid representing documents (or reports) and a linked detail grid with movements (o report rows) concerning the checked document.

[Image bg_g.jpg]

Industrial accounting

The module 'Industrial accounting' supplies a set of functions to monitor the project situation by means of customizable reports and pivot tables.

In this way you can check quantities and amounts related to costs and revenues as well as create groups at different levels.

The node 'Industrial accounting' can be found in the menu 'Site documents and project control'.

Dashboard 'Costs and revenues comparison':

The dashboard '**Costs and revenues comparison**' offers 3 possibilities:

- Costs**: comparison between estimated requirements and actual entries coming from: subcontract accounting, building site movements of 'cost' type category, labor and equipment reports of 'cost' type category.
- Revenues**: comparison between estimated and actual entries coming from: active accountings, building site movements of 'revenue' type category, labor and equipment reports of 'revenue' type category.
- Costs/Revenues**: comparison between estimate (and corresponding requirements) and all actual entries both of 'cost' and 'revenue' types.

Report 'Building site balance'

The report 'Building site balance' offers 3 possibilities:

- Costs**: actual entries are taken from: subcontract accounting, building site entries of 'cost' type category, labor and equipment reports of 'cost' type category.
- Revenues**: actual entries are taken from: active accountings, building site movements of 'revenue' type category, labor and equipment reports of 'revenue' type category.
- Costs/Revenues**: all actual entries both of 'cost' and 'revenue' types.

Specific report options:

A number of options are available to filter and organize the report so that costs and revenues are separated on the basis of the different entities (**Subdivide by source**) and only the higher group levels are displayed (**Hide details**).

Report 'Building site progress'

The report '**Building site progress**' offers 6 possibilities:

- Period**: data are divided on the basis of the selected time range (period from... to): 'previous', 'of period' and 'Total'.
 - Costs**: actual entries are taken from: subcontract accounting, building site movements of 'cost' type category, labor and equipment reports of 'cost' type category.
 - Revenues**: actual entries are taken from: active accountings, building site movements of 'revenue' type category, labor and equipment reports of 'revenue' type category.

- **Costs/Revenues** : all actual entries both of 'cost' and 'revenue' types.
- **Annual** : data are divided on the basis of the selected period (month, three-months, six-months) of the current year.
 - **Costs** : actual entries are taken from: subcontract accounting, building site movements of 'cost' type category, labor and equipment reports of 'cost' type category.
 - **Revenues** : actual entries are taken from: active accountings, building site movements of 'revenue' type category, labor and equipment reports of 'revenue' type category.
 - **Costs/Revenues** : all actual entries both of 'cost' and 'revenue' types.

Specific report options:

A number of options are available to filter and organize the report so that costs and revenues are separated on the basis of the different entities (**Subdivide by source**) and only the higher group levels are displayed (**Hide details**).

Report 'Building site comparison'

The dashboard '**Building site comparison**' offers 3 possibilities:

- **Costs** : comparison between estimated requirements and actual entries coming from: subcontract accounting, building site movements of 'cost' type category, labor and equipment reports of 'cost' type category.
- **Revenues** : comparison between estimated and actual entries coming from: active accountings, building site movements of 'revenue' type category, labor and equipment reports of 'revenue' type category.
- **Costs/Revenues** : comparison between estimate (and corresponding requirements) and all actual entries both of 'cost' and 'revenue' types.

Specific report options:

A number of options are available to filter and organize the report so that costs and revenues are separated on the basis of the different entities (**Subdivide by source**) and only the higher group levels are displayed (**Hide details**).

Project control

- Pi.Co. – Controllo Avanzato
- Definizione di un preventivo operativo
- Gestione del Preventivo Operativo
- Utilità "r;Aggiorna dati consuntivi"
- Cruscotti di preventivazione
- Stampa del Preventivo Operativo
- Cruscotto analisi scostamenti
- Gli Showdown
- Stampa Situazione di Progetto
- Consuntivo da Co.An. di Vision ADMIN

[Image bg_g.jpg]

Pi.Co. - Advanced Control

'Pi.Co. - Advanced Control' extends the Project control functions already available in the Industrial Accounting module, by adding utilities and reporting which better support the control of large-sized long-lasting projects.

The functions and processes described below complement the existing functions of cost analysis and jobs planning.

Functions

Operative estimate:

- it allows the user to analyze the quantities and the economic values 'to completion' in detail and at different times during the project life;
- it can be generated from estimates made at bidding or operative stage;
- the values to completion can be re-calculated by means of utilities and rules which keep the production already carried out into account;
- achieved, to completion, total and initial quantities are displayed simultaneously.

Advanced Control Dashboard:

- it allows the user to identify the causes of any gap between estimate and actual data of the period by means of the Earned Value analysis;
- it calculates CPI, SPI, CV, SV, that is indexes and values representing the causes of the gap between estimate and actual situation;
- the gaps can be represented at various levels, from the details of the individual resource to the summary by WBS or other aggregator;
- it supplies the Showdowns for a quick and effective overview of the project WBS/WBE's situation;
- it compares forecast, actual and earned data, JIS or JPS productions, orders, Purchase Requests;
- it compares costs and revenues (when available);
- it compares total or period data (when available).

Report of Operative Estimate and Production Control:

- The report contains all quantities available:
 - in the operative estimate,
 - or in the production of JIS/JPS (included the calculation of JIS-JPS delta on progressive numbers)

Location of functions

"Pi.Co. – Advanced Control" includes management activities (e.g. preparation of the operative estimate) and control activities (e.g. gap analysis). The latter gather information coming both from the estimate and from actual data areas of Vision CPM (Actual costs and revenues, Active and Passive Accounting, etc.). For this reason the functions of this module are activated at different sites, depending on the management type required.

- Operative estimates** : they have a dedicated group at the first level of the ribbon bar.

- From the **details** of this menu you can access the different management functions (Measurements, UPC, Jobs Scheduling, etc.) and reports of the individual operative estimate. For an easier use of the control instrument, references to functions outside the estimation (such as Jobs Planning) have been supplied; however, they can also be found in their original locations. In addition, here you can find all instruments necessary to define, modify and improve the operative estimate as well as the reports supporting such actions (for example the new report 'Operative Estimate' - Report node)
- The functions of **Gap analysis** and Comparison, which process data both from the Operative Estimate and other entities (Orders, Purchase Requests, Movements, etc.), are in the group '**Entries and Control**' dedicated to project control reporting. In particular they are placed in a branch called '**Advanced Control**'.

[Image bg_g.jpg]

Defining an operative estimate

The **Operative estimate** is an instrument developed to periodically analyze what is left to be done from a certain time up to the end of the project. As a consequence, most information concern future events or events still in course. The data concerning the whole project life are available in the control function, even if some of them (in particular work quantities) can also be found in the estimate management, because they are indispensable to specify what is necessary to complete the project.

One of the reasons why the operative estimate (different from the ones already available in Vision CPM) was developed, is the complexity and length of the works. This means that 'what is left to be done' will be re-estimated repeatedly in the period between jobs start and end. As these operations involve the use of a large number of data (from simple quantities to the analyses of costs and incidences of production factors at several levels), they are typically carried out at suitable intervals (usually every 6 months or yearly). In addition, revising an estimate typically requires a lot of time. For these reasons, ad hoc logics and functions have been implemented to support such operations; the user shall become familiar with them before starting a profitable use of the Pi.Co. module.

The wizard 'Add'

The management 'All estimates' in Operative Estimates is very similar to the one in the estimation used for the Bid. It includes a list of estimates set in the project and new estimates can be generated by means of the function '**Add**' (menu top).

This operation starts the generation of a new estimate on the basis of pre-defined or custom templates. You can also specify some information that should be analyzed especially during re-estimation.

In addition to code and description, the wizard asks for the Price Catalog where the items and resources used in the current estimate can be defined. There are three options:

- From template
- Select existing Price Catalog
- Type in code and description (create a new one)

In the first two cases existing Price Catalogs are used: any change to Items, Descriptions, Prices, Analysis and information in the Price Catalogs made for the new operative estimate will also affect the previous estimates or data entities making use of such Price Catalogs. If you want the new estimate to have dedicated Items (and corresponding data), use the option 'Enter code and description' so that a new archive is generated to be used by the present estimate exclusively.

In the next step you can choose an estimate in the project: it will supply the measurements (and items) that will be generated automatically in the new estimate. During generation some quantities are assigned to the fields described in the following paragraphs (Management of the operative estimate).

The possibility of changing the UPC and the quantity assignment logics is very important and represents the difference between the wizard 'Add' and a simple 'Copy/paste' operation.

The further steps are similar to the ones described for bid estimation; refer to the corresponding documentation for details.

Estimate validity date

As the new estimate is a 'clone' of a previous one (or an empty estimate), it shall be transformed to be able to describe the works necessary to complete the project.

After revising its analyses, jobs scheduling, etc. it will become a reference estimate to make comparisons with actual data. The 'activities to completion' refer to the precise date on which the estimate validity starts. This date is particularly important because it divides actual and estimate data, which are available in the management and analysis functions of operative estimation.

What happened before this date is always regarded as actual, the so-called 'previous actual data'; what is made on or after this date is typically the estimate value, sometimes called 'to completion' to be better placed into a time frame.

The validity date coincides with the field 'Date' in the panel 'General Data' of the operative estimate.

Please note that some operations of the Advanced Control functions or of the Operative Estimate management need this date to be specified. Therefore its meaning must be clear and its value must be set right on the generation of the operative estimate.

Progress

The pane 'Progress' identifies the rules useful for some utility functions in the operative estimate. Its features are described in details together with such functions.

◆fV◆◆p*

[Image bg_g.jpg]

Management of the Operative estimate

The Operative Estimate is defined and modified by means of the management '**Measurements**'. As this instrument is very similar to the Measurements management of the Bid estimate, this chapter only describes its special features. For the remaining functions see the description supplied for the Bid estimate.

Specific features

The operative estimate has four quantitative data expressing the development of measurement quantities in connection with project development:

- Initial quantity:** reference quantity. When defining the estimate a value is assigned automatically
 - by the estimate quantity, if the source estimate is a Bid estimate;
 - by the initial quantity, if the source estimate is an operative estimate.
- Previous quantity:** measurement quantity achieved up to the estimate validity date. It can be set manually or by means of the utility 'Update as per actual data'.
- Quantity :** quantity to completion, up to project end. It can be set manually or by means of the utility 'Update as per actual data'.
- Total quantity:** total measurement quantity in project life, resulting from Previous quantity + Quantity.

Assigning values to amounts

The fields Cost, Price, etc. are calculated by multiplying unit prices (values taken from the categories in the estimate heading data) by the field Quantity: they are the estimated values 'to completion'. This management does not include overall project amounts because their actual data (especially as for cost) results from different entities, especially from 'Actual costs and revenues'. Here entries are not made by individual estimate row but by WBS, or high-level custom field, by Item (as with subcontracts) or Resource (as in Reports). As a consequence, a method to assign an actual cost to an individual estimate measurement could hardly be found. Therefore the overall economic values are not processed in this management but only in the dashboards and reporting of the advanced control.

Utility 'Update actual data'

When the new operative estimate derives from a previous one (see the function '[Add](#)' described above), the four quantities are copied. Therefore the 'Actual quantity' is not updated automatically on the basis of the Accounting measurements (JIS or JPS), also because the new estimate could be generated just as a simple copy.

In addition, defining and improving an Operative Estimate may require a lot of time. Even if the software functions and utilities (like the module Pi.Co.) give the 'Controller' a substantial help in defining the 'data', this task involves decisions and choices of great impact on the whole project organization that must be duly weighed and shared.

These decisions may give rise to changes in the works to be done, especially in the way they are carried out. As a result of the values and indexes processed by the control functions (such as the Earned Value analysis implemented in Pi.Co.), cost analyses, incidence of components, resources used, execution procedure (subcontract or direct works), etc. can be revised. During this revision stage, the jobs for works contained in estimate measurements progress as performed quantities in JPS or JIS.

- To adjust the quantities to the situation resulting from the Accounting measurements, the following has been developed:
 - a set of rules, available in the pane 'Progress' of the operative estimate heading,
 - a utility function called 'Update as per actual data'.

Progress rules

This utility identifies the accounting (accounting Code and Type) to be used to calculate the actual progress of the estimate measurements. Special attention shall be paid because the Accounting measurements and/or JIS record the progress by Items, but they do not make clear reference to the estimate row.

The rule (press the button) establishes the custom field to be used for the Accounting measurements data so that the sum of the quantities of the individual measurements refers to one estimate row only; in this way a set of measurements determines the actual quantity for a single estimate row.

A typical example can be the WBS code + the Item code, even if this information is not always sufficient.

These rules affect all operations producing a "fresh" actual data (i.e. re-calculated on the basis of the Accounting measurements in real time) to be displayed in connection with an estimate measurement.

This happens both in the utility 'Update as per actual data' and in the Operative estimate Report for the data called 'Prod. Qty'. ...'.

Utility 'Update as per actual data'

On the operative estimate row there are the four quantities described above. The Actual quantity can be calculated automatically by means of this utility. Once activated, the following operations are carried out:

All measurements of the accounting specified in the pane 'Progress' of the estimate heading are analyzed.

All measurements are gathered on the basis of the rule indicated in such panel and book quantities are added up, up to the JIS or JPS indicated in 'Recurrent estimate updating – JPS' (see picture).

The new row quantities are re-calculated as follows (New = quantities after the operation, Old = quantities before the operation):

- $\text{MeasureQty} = \text{sum of measurement quantities involved}$
- $\text{New Quantity} = \text{Tot. Old Quantity} - \text{MeasurQty} (*)$
- $\text{Previous New quantity} = \text{MeasurQty}$
- $\text{New total quantity} = \text{Previous New quantity} + \text{New quantity} - \text{Initial unchanged Quantity}$

- (*) this calculation is made only if 'Update quantity to completion' is active.

- The estimate validity date (in estimate heading) is set on the 'New estimate validity date', supplied as JPS (or JIS) date plus 1 day.

- Be aware that the actual quantity obtained from the measurements is saved in the individual estimate measurement. As a consequence, if the Accounting measurements (considered by the utility) are changed, the sums of the quantities in the measurements and those saved in Actual quantity in the estimate rows will be different.

This choice has been made because the quantity of the estimate 'to completion' is calculated by the utility as (Total quantity – Measurements); to justify its value after the calculation, the quantity 'to completion' is saved in the estimate row.

In addition, should the actual quantity not be saved, the large number of measurement rows would remarkably slow down the estimate display, because the calculation rules should be analyzed for each row and the Measurements total should be recalculated.

[Image bg_g.jpg]

Utilità 'Aggiorna dati consuntivi'

La generazione del nuovo preventivo (vedi funzione ['Aggiungi'](#)) esegue una copia speculare delle quattro quantità qualora si derivi da un precedente preventivo operativo. La 'Quantità cons.' pertanto non viene automaticamente aggiornata a partire dal libretto misure (SIL o SAL) anche perché l'operazione di generazione di un nuovo preventivo potrebbe anche riguardare soltanto una semplice copia.

Inoltre, come anticipato, la definizione ed il perfezionamento di un Preventivo Operativo può richiedere notevole tempo. Anche se l'ausilio di funzioni e utilità di software, come il modulo Pi.Co., aiutano notevolmente il 'Controller' nella definizione del 'dato' è indubbio che tale opera comporti scelte e decisioni che impattano sull'organizzazione dell'intera commessa e perciò vanno debitamente ponderate e condivise.

Queste decisioni possono portare alla variazione delle lavorazioni da realizzare, in particolare nel modo in cui si svolgono i lavori. A seguito dei valori ed indici elaborati dalle funzioni di controllo, come l'analisi dell'Earned Value (implementata in Pi.Co.), possono essere revisionate le analisi costi, a vario livello, le incidenze delle varie componenti, le risorse in esse utilizzate, la modalità di realizzazione in subappalto o in diretta e tanto altro. In questa fase di revisione i lavori per le lavorazioni presenti nelle rilevazioni del preventivo avanzano come quantità realizzate nei libretti di SAL o di SIL.

Al fine di allineare le quantità alla situazione della produzione determinata dai libretti delle misure sono state studiate:

- Un insieme di regole, presenti nel pannello 'Avanzamento' della testata del preventivo operativo
- Una funzione di utilità denominata 'Aggiorna da consuntivo'

[n questo articolo:](#)

↓ Le parti che compongono il documento

- Regole di Avanzamento
- Utilità 'Aggiorna da consuntivo'

Regole di Avanzamento

The screenshot shows the 'Avanzamento' (Progress) tab selected. The interface includes the following elements:

- Cod. Contabilità:** A dropdown menu with 'CONT' selected.
- Des. Contabilità:** A dropdown menu with 'Contabilità Lavori Ufficiale - 546 Ristr...' selected.
- Tipo:** Radio buttons for 'Libretto misura' (selected) and 'SIL'.
- Ultimo aggiornamento:** A dropdown menu.
- Regola:** A text input field containing 'Cod. WBS, Articolo' and a blue button with three dots.

Questa utilità ha lo scopo di individuare la contabilità (Cod. Contabilità e Tipo) da cui determinare l'avanzamento consuntivo delle rilevazioni di preventivo. Si faccia molta attenzione in quanto le rilevazioni presenti nei Libretti misure e/o SIL registrano sì avanzamenti per Articoli ma non hanno su di esse un

riferimento forte alla riga del preventivo.

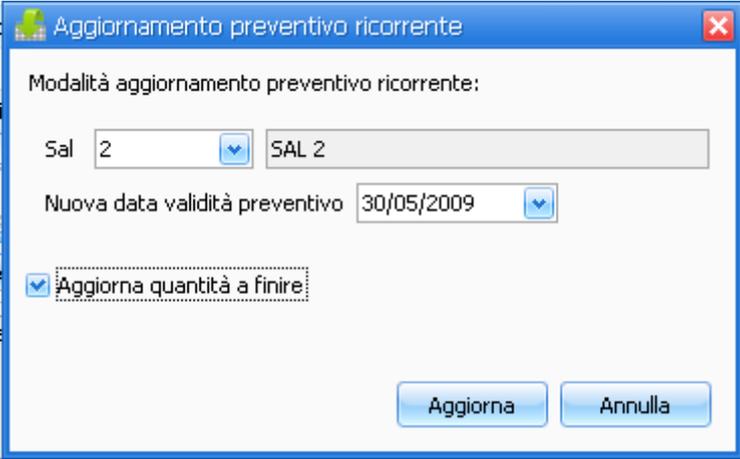
La regola, alla quale si accede premendo il bottone , determina il raggruppamento da utilizzare sui dati dei Libretti misure per ricondurre la sommatoria delle quantità delle singole rilevazioni ad una ed una sola riga di preventivo, così che un determinato insieme di rilevazioni determini la quantità consuntiva per una sola riga di preventivo.

Un esempio tipico può essere rappresentato dal codice di WBS + il codice di Articolo anche se non è detto che tale coppia di informazioni sia sufficiente.

Le regole qui espresse hanno effetto in tutte le elaborazioni che determinano il dato consuntivo 'fresco' (ovvero rideterminato dai libretti misure in tempo reale) da visualizzare in relazione ad una rilevazione di preventivo; ciò avviene sia nell'utilità 'Aggiorna da consuntivo' sia nella Stampa del Preventivo Operativo per i dati denominati 'Qtà Prod. ...'.

[↑ Top](#)

Utilità 'Aggiorna da consuntivo'



Sulla riga del preventivo operativo sono presenti le quattro quantità precedentemente descritte. La Quantità Cons. può essere determinata in modo automatico per mezzo della presente utilità, l'attivazione della quale esegue le seguenti operazioni:

- Analizza tutte le rilevazioni della contabilità definita nel pannello 'Avanzamento' della testata di preventivo per il tipo ivi indicato (SIL o SAL).
- Aggrega tutte le rilevazioni in base alla regola indicata in tale pannello totalizzandone le quantità di libretto fino al SIL o SAL indicato alla 'Modalità aggiornamento preventivo ricorrente - Sal' (vedi immagine)
- Le nuove quantità di riga vengono rideterminate nel seguente modo (New = le quantità al termine dell'operazione, Old = le quantità prima di eseguire l'utilità):
 - o $QtaRilevaz = \text{sommatoria delle quantità delle rilevazioni di libretto interessate}$
 - o $Quantità\ New = Quantità\ comp.\ Old - QtaRilevaz$ (*)
 - o $Quantità\ prec.\ New = QtaRilevaz$
 - o $Quantità\ comp.\ New = Quantità\ prec.\ New + Quantità\ New$
 - o $Quantità\ iniz.$ invariata

- (*) questo calcolo viene eseguito solo se l'attributo 'Aggiorna quantità a finire' è attivo

- La data validità del preventivo (Data in testata preventivo) viene impostata alla data 'Nuova data validità preventivo' che viene proposta come data SAL (o SIL) più un giorno.

Si ribadisce che la quantità consuntiva (prec.) da rilevazioni viene effettivamente memorizzata sulla singola

rilevazione del preventivo. Pertanto, qualora successivamente all'attivazione di tale utilità vengano variati i libretti misure nelle rilevazioni considerate dall'utilità, le sommatorie delle quantità da libretti e quelle memorizzate in Quantità cons. sulle righe di preventivo differiranno.

Questa scelta progettuale è stata determinata dal fatto che la quantità di preventivo 'a finire' viene determinata dall'utilità come (Complessiva – Rilevazioni), per cui per giustificare il valore della quantità 'a finire' in momenti successivi al calcolo, questa è stata memorizzata sulla riga di preventivo.

Inoltre, se la quantità consuntiva non venisse memorizzata, la potenziale molteplicità delle righe di Libretto rallenterebbe notevolmente il caricamento a video del preventivo in quanto per ciascuna riga si renderebbe necessario analizzare le regole di calcolo ed eseguire il relativo calcolo di totalizzazione da Libretto.

[Image bg_g.jpg]

Estimation dashboards

The 'Estimate dashboard' and the 'Comparison dashboard' of the operative estimate include all the quantities available in estimate management. Therefore, besides the bid dashboards there are the 'initial', 'actual' and 'total' quantities as well as the simple 'Quantity' showing the value 'to completion'. If an operative estimate is chosen, the comparison dashboard will include above quantities both for the current and the comparison estimates.

[Image bg_g.jpg]

Report of Operative estimate

The report of the Operative estimate is completely different from the report of the bid estimate because its purposes are different.

This report, where the maximum detail is the individual measurement, includes the quantitative data of the operative estimate and integrates them with further data calculated during reporting.

This set of values allows the user to obtain charts to different ends: check of operative estimate values, check of quantitative progress, check of differences between JIS and JPS, etc.

To make the large number of available information understandable and to allow a selected use of same (depending on the purposes of the individual chart), the columns have been gathered in macro-categories containing:

- Master data
- Estimate data
- Actual data
- Total JIS - JPS

The custom fields of estimate measurements are also present.

Column legend

Because of lack of space, the titles of the columns have been abbreviated. The following table supplies an explanation of the column titles.

Report columns

The following list describes the columns that can be issued in reporting.

Note that Production data (PROD) are obtained from accounting by means of the grouping principle specified on the estimate heading. In the report options specify if you want to use JPS or JIS measurements.

COLUMN	DESCRIPTION
MASTER DATA	
PRG.	Progressive number of estimate measurement
ART.	Item code
DESCRIZIONE:	Item description
UM	Code of item measure unit
ESTIMATE	
QTA INIZ.	Initial quantity of estimate measurement
RCV U. PREV	Estimated unit revenue of the item
CST U. PREV	Estimated unit cost of the item
QTA PREV.	Estimated measurement quantity

RCV PREV.	Estimated measurement revenue amount
CST PREV.	Estimated measurement cost amount
ACTUAL DATA	
QTA PREC.	Actual measurements quantity
PROD PREC.	Quantity as per Accounting measurements before estimate date
PROD SU PREV.	Quantity as per Accounting measurements on estimate date at period end
PROD PER.	Quantity as per Accounting measurements between start date and period end
RCV SU PREV.	Actual revenue amount (as per Accounting measurements) accrued between estimate date and period end date
RCV PER.	Actual revenue amount (as per Accounting measurements) accrued between start date and period end date
TOTAL DATA	
PROD. CONS.	Total quantity as per Accounting measurements from jobs start to period end
QTA A FINIRE	Estimated quantity from period end date to jobs end: calculated by difference between 'QTA PREV.' and 'PROD SU PREV'
RCV CONS.	Actual revenue as per Accounting measurements, obtained by multiplying the estimated unit revenue by 'PROD. CONS'
RCV A FINIRE	Revenue to completion obtained by multiplying the estimated unit revenue by 'QTA A FINIRE'
QTA	Total quantity obtained by adding 'QTA CONS.' to 'QTA PREV'
RCV	Total revenue obtained by multiplying "r;QTY by "r;e Est. unit revenue"
JIS - JPS	
PROD SIL-SAL	Difference between progressive quantities of JIS measurements and Accounting measurements on period end date
RCV SIL-SAL	Difference between revenue of JIS measur. and Accounting measur. calculated by multiplying 'PROD SIL-SAL' and the estimated unit revenue

Options

Active accounting: you can use JIS or JPS production.

Filter by JPS/JIS issue date: the measurement date (unticked) or the JPS/JIS issue date (ticked) can be attributed to the measurements.

Start date and End date: they identify the time period for the period data (PER.). The end date also identifies the upper time limit of the 'ON EST.' data and the total actual data.

Hide details: the report concerns the grouping levels specified in 'Custom fields and filters'; the detail level of the estimate measurement is not issued.

Exclude Column Grouping: column titles are not gathered in the corresponding categories.

[Image bg_g.jpg]

Gap analysis dashboard

The 'Gap analysis' dashboard is one of the most complete processes available in projects of the whole Vision CPM system. This dashboard widens the dashboard 'Costs and revenues comparison' available in industrial accounting: gaps are given a value by means of the Earned Value analysis.

This chapter describes all data and operations of the two dashboards. Be aware that the Earned Value data (Flex) and the data resulting from them (CPI, SPI, CV, SV) are only available in the 'Gap analysis' dashboard.

Dashboard data

The dashboards allow the user to gather data from different entities in a single view:

- Estimates** : data of a certain project estimate (bid or operative estimate), from which measurement items, quantities and corresponding costs and revenues are taken.
- Scheduling** : for each category of cost or revenue values a jobs plan can be chosen, so that the estimate data can be set in a period of time.
- Requirements** : the estimate data can be broken down into its basic cost components so that the composition of the basic production factors (requirements) derived from multi-level cost analyses can be calculated for each item handled in measurements. Unit costs, incidence and amounts of the individual Resources are obtained.
- Accounting** : the actual values of active or passive (subcontracts) productions are calculated by the accountings available in the project. For each calculation the user can decide if JPS or JIS measurements shall be used in active and passive accountings.
- Actual costs and revenues** : actual data are integrated with the cost or revenue values coming from the management 'Actual costs and revenues'.
- Labor and equipment reports**: actual data are integrated with the cost or revenue values coming from the management 'Reports'.
- Orders and subcontracts**: the dashboards also contain data concerning Orders (available in the corresponding management) and Planned Performances of subcontracts. This set of records defines an intermediate data (between estimate and actual data).
- Purchase requests** : the dashboards also contain Purchase Request data, supplying information on requests for materials/performances issued by the building site, so that they can be compared with materials/performances ordered and delivered.
- Earned Value** : (only Gap analysis dashboard) set of data calculated by the dashboard processing system, useful to carry out a Gap analysis (gap between estimate and actual data).
- PERIOD and TOTAL data**: both dashboards process some data categories among the ones described above, both as for TOTAL values and a PERIOD of time. The period of time is set as described in the following chapters.

Activation options

- Process type**: you can select if only cost, revenue or both data shall be processed. 'Earned' data, and the data derived from them, are processed only if you check 'Costs Revenues'.

Advanced options: Estimates

- ❑ **Estimate** : check the estimate that will influence the output of estimate data and requirements.
- ❑ **Cost Price class**: price class to be used to assign values to unit costs from UPC and estimate totals.
- ❑ **Cost Jobs plan**: jobs plan, defined in the corresponding management, to be used to schedule costs and requirements.
- ❑ **Expand cost analysis composition**: requirements are processed by breaking down cost analyses into different levels.
- ❑ **Revenue Price Category**: price category to be used to assign values to unit revenues from UPC and estimate totals.
- ❑ **Revenue Jobs plan**: jobs plan, defined in the corresponding management, to be used to schedule revenues as per estimate row.

Advanced options: Accounting

- ❑ **Active accounting** : check the accounting type (JPS or JIS) to be used to assign values to active productions.
- ❑ **Passive accounting** : check the accounting type (JPS or JIS) to be used to assign values to passive productions (subcontracts).

Advanced options: Analysis period (Estimate and Actual)

- ❑ **Attention**: specify the 'Periods' in 'Entries and Control' to have the PERIOD data calculated correctly. Be aware that they will be generated automatically if actual entries are defined in 'Reports' or 'Actual costs and revenues', but they must be generated manually when only Estimation and Jobs Accounting functions are used.
- ❑ **Start period** : start period (management 'Periods' in Industrial Accounting) of the time period to be considered when assigning values to the 'PERIOD' data. The time period starts on the start date of the chosen period.
- ❑ **End period**: end period of the time period to be considered when assigning values to the 'PERIOD' data. The time period will end on the end date of the chosen period. Start and end periods can be the same.

Advanced options: Orders, subcontracts and purchase requests

- ❑ **Consider orders and subcontracts**: to assign values to the columns with amounts from Orders management and from Planned subcontract Performances.
- ❑ **Purchase requests** : to assign values to the columns with amounts from Purchase Requests management.

Custom fields

The custom fields available in the dashboards are the ones that can be viewed in the management 'Actual costs and revenues' of the Building site entries. Here you can aggregate calculated data or set filter conditions (as in all Vision CPM dashboards).

Some custom fields are in the form of columns with all corresponding hierarchical levels; others have columns only for the values directly used in entries.

Data columns

These dashboards contain a large number of data columns. As a consequence, processing times vary depending on:

- quantity of data available in source entities (budget/achieved data, orders, etc.);
- settings made in the dashboard activation options.

For example, if no cost/revenue jobs plan is supplied, the estimated data will not be broken down by month and the processing times will be shorter compared with the operations including this calculation. Therefore we recommend to use different dashboard templates to set targeted processes (according to the results required), as well as to change the activation options and the columns of the pivot table every time.

COLUMN	DESCRIPTION
MASTER DATA	
Item	Item code on estimate row.
Short	Short item description.
Resource code	Resource code: it always identifies a detail cost, unless it coincides with the Item. Subcontract items are classified as resources because they identify a cost.
Resource descr. Resource	Short resource description.
Cust/Suppl code	Customer/supplier code in case of actual data resulting from Subcontracts (supplier) or Actual costs and revenues concerning a customer or a supplier. In case of integration with Vision ADMIN, this attribute receives the source Code.
Cust/Suppl descr.	Customer/supplier name in case of actual data resulting from Subcontracts (supplier) or Actual costs and revenues concerning a customer or a supplier. In case of integration with Vision ADMIN, this attribute receives the source Descr.
Category code	Code of the document category used in Actual costs and revenues and Reports. The attribute does not receive a value from other entities (for example: estimates).
Category descr.	Description of the document category used in Actual costs and revenues and Reports. The attribute does not receive a value from other entities (for example: estimates).
Subcontract code	Code of passive jobs accounting; values only come from jobs accounting.
Subcontract descr.	Description of passive jobs accounting; values only come from jobs accounting.
Custom field code	Codes of custom fields found in the processed data entities. Be aware that they are those of Project, Company, System types, and not the ones defined for individual detailentities.

Custom field descr.	Custom fields descriptions found in the processed data entities.
WBS code	Description of the WBS used when entering processed entities.
WBS code (N-level)	WBS code (if structured) in levels preceding the detail level used (N = level). This information is useful to carry out syntheses at higher levels (and not at WBS detail level).
WBS descr. (N-level)	Description of N-level WBS.
Custom field code (WBS)	Codes of WBS custom fields found in the processed data entities by means of WBS codes. Be aware that they are those of Project, Company, System types, and not the ones defined for individual detail entities.
Custom field descr. (WBS)	Description of WBS Custom field.
Sort	Sort by which the Item was classified.
Resource sort	Sort by which the Resource was classified.
MU code	Code of Item M.U.
MU descr.	Description of item M.U.
Resource M.U. code	Code of Resource M.U.
Resource M.U. descr.	Description of Resource M.U.
QUANTITY	

Cost quantity (CodPrev PERIODO)	Estimated cost quantity attributed to the chosen period by means of the jobs plan.
Cost quantity (CodPrev)	Estimate quantity, available for items and resources.
Cost quantity (CONS PERIODO)	Actual cost quantity attributed to the chosen period on the basis of the accrual date.
Cost quantity (CONS)	Actual cost quantity: values in Resources come from Subcontracts, Reports, Actual costs and revenues.

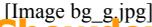
Cost quantity (FLEX PERIODO)	Flexible quantity attributed to the chosen period by means of the jobs plan.
Cost Quantity (FLEX)	Flexible cost quantity (Earned) obtained as follows: for items, from active accounting; for resources, by multiplying unit requirements by individual Item and by quantity produced of same.
Cost Quantity (ORD)	Quantity resulting from Orders and Planned Performances of subcontracts.
Cost Quantity (RIC)	Quantity coming from Purchase requests.
Previous cost quantity (CodPrev)	Previous (actual) quantity, available for items and resources. For items, it is the actual quantity on estimate row; for resources it is the quantity entered in the different actual data entities.
Residual cost quantity to completion (CodPrev)	Estimated cost quantity from period end date to expected jobs end date. It is the difference between estimated quantity and actual quantity as entered on estimate date up to period end date.
Revenue quantity (CodPrev PERIODO)	Estimated revenue quantity attributed to the chosen period by means of the jobs plan.
Revenue quantity (CodPrev)	Revenue quantity as per estimate, available for items.
Revenue quantity (CONS PERIODO)	Actual revenue quantity attributed to the chosen period on the basis of the accrual date.
Revenue quantity (CONS)	Actual revenue quantity: for items, it derives from production; for Resources, Reports an Actual costs and revenues from categories of Revenue type.
Previous revenue quantity (CodPrev)	The same as Previous cost quantity, but only with values for items resulting from estimate row.

AMOUNTS

Cost amount (CodPrev PERIODO)	Estimated cost amount attributed to the chosen period by means of the jobs plan.
Cost amount (CodPrev)	BCWS (Budget Cost of Work Scheduled) available for items and resources
Cost amount (CONS PERIODO)	ACWP Period - Actual cost amount attributed to the chosen period on the basis of the accrual date.
Cost amount (CONS)	ACWP (Actual Cost of Work Performed) - Actual cost amount: derived from the managements saving actual cost data, that is: subcontracts, reports, movements.
Cost amount (FLEX PERIODO)	BCWP Period - Flexible amount attributed to the chosen period by means of the jobs plan.
Cost Amount (FLEX)	BCWP (Budgeted Cost of Work Performed) - Flexible (Earned) cost amount

determined as follows: for non-analyzed items, by multiplying active production by estimated cost; for resources, by multiplying unit requirements for the individual item and

	the produced quantity of the Item.
Cost Amount (ORD)	Amount resulting from Orders and Planned Performances of subcontracts.
Cost Amount (RIC)	Amount resulting from Purchase requests.
Previous cost amount (CodPrev)	Only available for Resources. It is the cost value recorded in actual entities before estimate validity date.
Residual cost amount to completion (CodPrev)	Available for Items and Resources. It is the estimated cost from period end date up to project end. It is obtained by multiplying the "residual quantities to completion" by unit costs.
Revenue amount (CodPrev PERIODO)	Estimated revenue amount attributed to the chosen period by means of the jobs plan.
Revenue amount (CodPrev)	Revenue amount as per estimate, available for items.
Revenue amount (CONS PERIODO)	Actual revenue amount attributed to the chosen period on the basis of the accrual date.
Revenue amount (CONS)	Actual revenue amount: for items, it results from production; for Resources, from Reports and Actual costs and revenues.
Previous revenue amount (CodPrev)	Only available for Resources. It is the cost value recorded in actual entities before estimate validity date.
GAP ANALYSIS I <i>Calculated with PERIOD data</i>	
CV (PERIOD)	<p>Cost Variance = BCWP – ACWP</p> <p>Difference between estimate and actual data.</p> <p>CV<0: you are spending more than expected</p> <p>CV=0: you are spending as much as expected</p> <p>CV>0: you are spending less than expected</p>
CPI (PERIOD)	<p>Cost Performance Index = BCWP / ACWP</p> <p>Ratio of estimate to actual data.</p> <p>CPI<1: you are spending more than expected</p> <p>CPI=1: you are spending as much as expected</p> <p>CPI>1: you are spending less than expected</p>
SV (PERIOD)	<p>Schedule Variance = BCWP – BCWS</p> <p>Difference between scheduled and actually executed jobs.</p> <p>Negative SV: the project is late</p> <p>SV=0: the project is on time</p> <p>Positive SV: the project is early</p>
SPI (PERIOD)	<p>Schedule Performance Index = BCWP / BCWS</p> <p>Ratio of scheduled to actually executed jobs.</p> <p>SPI<1: the project is late</p> <p>SPI=1: the project is on time</p> <p>SPI >1: the project is early</p>


Showdowns

The Showdown is an immediate and intuitive representation of the results obtained in the project WBS's.

There are two showdown types:

- CPI Period / Progress
- CPI - SPI Period

The following data are shown: Cost Performance Index, Scheduled Performance Index and progress in time.

A showdown consists of a Cartesian chart where the following is represented on abscissas and ordinates:

- CPI Period / Progress: ordinates = CPI, abscissas = Progress %
- SPI Period (in the picture): ordinates = CPI, abscissas = SPI

The diagram shows the different WBS's in the form of colored circles. The circle surface represents the WBS value compared to the other WBS's of the project. The calculation system defines autonomously the abscissa and ordinate scale as well as the circle volume and position, so that the whole representation is balanced.

On the basis of the explanation supplied in the Gap Analysis section of the table above, we can easily state that when a circle is positioned in the lower left quadrants the results are negative; on the contrary, when it is positioned in the upper right quadrants the results are positive.

[Image bg_g.jpg]

Progress status Reporting

Progress Status reporting has been developed to check the economic progress of the Project in terms of 'achieved', 'to completion' and 'total' values, compared with an initial baseline.

Details, custom fields and processed data entities

The maximum detail in this Report can be defined by using WBS custom fields as well as the ones common to the entities included in the report. The Report includes the economic data available in:

- A reference estimate covering the whole project life, to be chosen among Bid or Operative estimates; An Operative estimate representing the present estimate;
- Actual data achieved at a certain date in terms of Revenues (from JPS or JIS measurements) and Costs (from Subcontracts as per JPS or JIS, Building site reports, Actual costs and revenues).

For each checked estimate you can choose a Jobs Plan to distribute the economic data over time.

Report columns

Columns are as follows:

1. Custom fields code and description
2. Total Project Amounts
3. Annual Amounts (year chosen by the user)
4. Amount of following years

In the custom fields 2 and 3 there are 5 detail columns with the following titles:

Total Project Amounts

- A. Budget: total amount resulting from the 'full life' reference estimate
- B. Present actual data: value resulting from the total actual data of (active and passive) CoInd,, Reports, Actual costs and revenues up to the period end date shown in the report.
- C. To completion: values to completion, obtained from the operative estimate indicated in the report options, by breaking down its values by month as required by the Jobs plan chosen. These values are calculated starting from the day after the period end date of actual data.
- D. Forecast: sum of Present actual data and To completion (B + C)
- E. Deviation: difference between estimate and Reference budget (D - A).

Annual amounts

- A. Budget: planned value for the reference year, as per jobs plan chosen, in relation to the 'full life' reference estimate.
- B. Present actual data: value resulting from the total actual data of (active and passive) CoInd, Reports, Actual costs and revenues in the reference year, up to the period end date shown in the report.
- C. To completion: values to completion, obtained from the operative estimate indicated in the report options, by breaking down the values (falling within the reference year) by month as required by the Jobs plan chosen. These values are calculated starting from the day after the period end date of actual data.
- D. Forecast: sum of Present actual data and To completion (B + C)
- E. Deviation: difference between estimate and Reference budget (D - A).

ATTENTION : actual data of Vision CPM are saved by WBS or custom field and not in relation to an estimate row or an item. This means that if you want to obtain total values (column D) that can be directly compared with an initial forecast (column A), you should organize reports on the basis of common custom fields, both as for Budget and Actual data, as well as Operative estimates. The amount 'Following years' is obtained by breaking down the Operative estimate (chosen on the basis of the Jobs plan) by month.

Report options

- Category type** : you can process Revenue, Cost or Revenue & Cost data.
- Accrual year** : year to be represented in the 'annual' columns.
- Full life estimate** : to choose a reference estimate.
- Full Life Jobs Plan** : to choose the Jobs plan to be applied to the reference Estimate.
- Operative estimate** : to choose a current Operative estimate.
- Operative Jobs Plan** : to choose the Jobs plan to be applied to the current Operative Estimate.
- Active accounting** : to use JIS or JPS production.
- Passive accounting** : to use JIS or JPS production.
- Filter by JPS/JIS issue date** : to attribute the measurement date (unticked) or the JPS/JIS issue date (ticked) to the measurements.
- Start period and End period** : to identify the time period of actual data.
- Hide costs/revenues headings** : to show (untick) or hide (tick) a pre-defined heading of Revenues and Costs sections. Thanks to this option, a pre-defined classification included in a custom field is omitted.

[Image bg_g.jpg]

Actual data from CoAn of Vision ADMIN

The actual data (ACWP) of Vision CPM consist of values recorded in the following functions:

- Passive accounting: production costs due to subcontracts.
- Reports: equipment and labor.
- Actual costs and revenues: costs for supplies, indirect costs (overheads), etc.

The Vision system, spanning across the different company areas, offers the possibility to benefit from the functions of Vision ADMIN which meet the requirements of other company sectors (administration, purchase dept., treasury, etc.).

These sectors can be organized in different ways according to their structure, requirements and cross-sector workflows.

In case the data concerning actual supplies are recorded in Vision ADMIN, an import function is available to 'write' the same records in Vision CPM, in the management 'Actual costs and revenues', duly filtered.

As some actual data are very likely to be recorded both in Vision CPM and in Vision ADMIN, the import function of CoAn has been equipped with some options to choose which data shall be imported to Vision CPM.

Example: active or passive accounting recorded in Vision CPM and the corresponding Invoices that are relevant for CoGe but can also be found in CoAn of Vision ADMIN. If already present, these records must be excluded from the import to Vision CPM to prevent their duplication.

Method of 'Progressive balance delta'

A method has been developed to obtain the same values in Vision CPM and in Vision ADMIN. This calculation method allows the user to operate completely independently on both systems, identifying the differences of the progressive project values compared to the previous import. Import operations are not carried out on the basis of fixed periods, but as desired by the user according to his own organization.

The quantity and amount data of CoAn Vision ADMIN are aggregated by Step/Cost center, Resource and Management structure; after that they are reduced by the same values calculated on the previous import and finally entered in Vision CPM.

As a result, import is not so detailed as in CoAn of ADMIN and document data (available in ADMIN) are not recorded in CPM; if necessary, they can be analyzed in the source system directly.

Utility 'Receiving CoAn from ADMIN'

This utility can be activated at time intervals freely set by the user.

On each import two documents are potentially generated:

- one for costs of Cost Charge/Charge-off category
- one for revenues of Revenue Record/Write-off category

The document is recorded with a pre-set code consisting of: execution date, a 'minus' sign and "ERPCosts" or "ERPRevenues".

Should the operation have already been carried out on the same day, the system asks for its cancellation before continuing with a new import.

The user shall identify any previous records to be cancelled when importing historical data that can overlap already imported periods.

- ❑ **Cost category:** indicate a cost category specified in the corresponding management. Only categories of Cost Charge/Charge-off type can be checked. Specify an ad-hoc category for these import operations so that they can be easily found.
- ❑ **Revenue category :** indicate a revenue category specified in the corresponding management. Only categories of Revenue Record/Write-off type can be selected. Specify an ad-hoc category for these import operations so that they can be easily found.
- ❑ **Import active JPS's:** to import entries of active certificates defined in ADMIN. Do not activate this option if active certificates are also defined in Vision CPM.
- ❑ **Import active JIS's:** to import entries of Jobs Production defined in ADMIN. Do not activate this option if JIS measurements are also defined in Vision CPM.
- ❑ **Import passive JPS's:** to import entries of passive certificates defined in ADMIN. Do not activate this option if passive certificates are also defined in Vision CPM.
- ❑ **Import passive JIS's:** to import entries of Jobs Production defined in ADMIN. Do not activate this option if JIS measurements are also defined in Vision CPM.
- ❑ **Import reports :** to import entries of labor/equipment reports defined in ADMIN. Do not activate this option if reports are also defined in Vision CPM or if the whole HR amounts (salaries and wages) are included in analytical accounting.
- ❑ **Latest acquisition date:** it is set by the system on the basis of the latest acquisition of CoAn data. The system searches for the previous import starting from this date and compares its values with the just imported progressive values. You can keep the date supplied by the system and have the progressive values reduced by the ones imported on the previous operation or you can anticipate such date so that the comparison is made with one of the previous imports. In this case you must cancel the CPM operations carried out previously, back to the date following the latest acquisition date indicated.
- ❑ **Accrual date:** end date of the latest open period; it defines the max. upper limit of the data to be imported and the accrual date of the record to be made in Vision CPM.

Custom fields

coAn data are grouped by Step/Cost center and Management structure. In special cases their value is determined as follows:

- ❑ **Cost center/Steps :** a WBS with the same code is searched for. If available, it is used and associated with the single movement; if the search is unsuccessful, no value is given to the WBS. The WBS is available in the movements as a pre-set attribute.
- ❑ **Management Structure :** it receives a value if the following conditions are both fulfilled:
 - ❑ There is a custom field called "Management structure" in UPC movement data.
 - ❑ There isn't another management structure value on the item involved in the movement.
- ❑ **Source :** a value is given if there is a custom field called 'Source Code'. The value is assigned with Supplier or Customer Code if they are available on the source entries.

Actual unit values are recalculated for each movement.

Maintenance Plan

The functions of this module allow the user to prepare the Maintenance Plan. Click the button Maintenance Plan to activate the management. It allows the user to manage the data of The Maintenance Plan associated with a project. Only one Maintenance Plan is associated with a project.

The document Maintenance Plan consists of:

- [Data banks](#)
- [Plan data](#)

Data banks

The grid is activated by double-clicking the note Data banks.
It shows:

- Code:** enter an estimate ID code.
- Description:** enter the estimate description.

To create a Data bank updated to the latest version of Vision CPM, press the key

The new Data bank will be added to the existing ones without overwriting them.
For each Data bank there is a node with its [maintenance elements](#).

Maintenance elements of the Data bank

The Data bank consists of work parts, divided into units and maintenance elements. Each technological unit is characterized by requirements and performances. Each element is characterized by anomalies, checks and interventions.

Data bank folders:

- [Details](#)
 - [Detailed description](#)
 - [Use](#)
 - [Requirements and performances](#)
 - [Anomalies](#)
 - [Documentation](#)
 - [Checks and interventions](#)
-

Details

This folder contains the following information:

- Code and description** of the element.
- Structural element** : it indicates if the element is of structural type, so that a list of structural elements can be filtered.
- Higher level**: code and description of the parent item. This field receives a value automatically in case of structured code, otherwise it can be changed freely. For further information about the code structure, see the chapter 'How to set the code structure - [Tree Properties function](#) .
- Full description**: description of all items in the hierarchy (upper levels).

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Detailed description

Detailed description of the element

[↑ Top](#)

Use

Instructions to use the element correctly.

[↑ Top](#)

Requirements and performances

Requirements for a good operation of the unit or the element.

Table fields:

Requirement type code: reference to the Requirement category table.

Short description of the requirement.

The detail panes on the right show: Detailed description, Performances, Min. performance level and Ref. regulations.

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Anomalies

Anomalies associated with the element. You can associate a detailed description (in the side pane) with each

table row.

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Documentation

Detailed documentation of the element, technical bulletins, etc. In the grid you can indicate:

Document description and Storage location.

Manual : Use manual, Use and maintenance manual or Maintenance manual.

In the detail panes on the right you can indicate the following for each grid row:

Detailed description

Graphic representation: here you can associate an image with the item. To this purpose, go to the Image pane, right-click and check Load.

After inserting the image you can cut, copy, etc. by means of the contextual menu (right-click).

Internet addresses: press the key to indicate a reference link for the element.

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Checks and interventions

Checks and interventions associated with the element. The grid shows:

- Code and description** of the check/intervention.
- Period** : check a value in the drop-down menu.
- Frequency** : indicate the frequency of the check/intervention on the basis of the Period. If the frequency is 'On failure' or 'When needed' leave the pre-set value 0,00.
- Executable by user**: check this option if the check/intervention can be carried out by the final user. If skilled personnel is required, do not check this option.
- Amount** : if the amount needs to be calculated with a special estimate, go to the detail pane 'Resources estimate' (on the right).

The detail panes are:

- Detailed description.**
- Requirements and performances** : view of the list Requirements/performances linked to the element or its technological unit.
- Anomalies** : view of the anomalies indicated for the element.
- Skilled personnel**: list of skilled personnel categories necessary to carry out the check/intervention.
- Resources estimate** : enter code, description, measure unit, price and quantity of the resources necessary to carry out the check/intervention. If you want to use the items in the reference lists or price Data banks of the project, open the [Task pane](#) and drag the items into the grid of resources estimate. Enter the quantity and save. The calculated total amount will be shown in the field Amount of the element.

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Plan data

Here you can find all data of the maintenance plan of the current project. The folder contains:

- [Maintenance items](#)
- [Maintenance Plan](#)
- [Maintenance plan dashboard](#)
- [Documents and first pages](#)
- [Reporting](#)

Maintenance elements

This management represents the project Data bank and is filled in automatically when elements are copied from the Data bank to the current maintenance plan.

The maintenance elements in the management are separated from the source Data bank so that they can be modified and adapted to the current project.

Note: if you want to update an element in the plan by copying it from the Data bank, first of all delete it from the maintenance element table, otherwise it will not be updated.

Data bank folders:

- [Details](#)
 - [Detailed description](#)
 - [Use](#)
 - [Requirements and performances](#)
 - [Anomalies](#)
 - [Documentation](#)
 - [Checks and interventions](#)
-

Details

This folder contains the following information:

Code and description of the element.

Structural element: it indicates if the element is of structural type, so that a list of structural elements can be filtered.

Higher level: code and description of the parent item. This field receives a value automatically in case of structured code, otherwise it can be changed freely. For further information about the code structure, see the chapter 'How to set the code structure - [Tree Properties function](#) .

Full description: description of all items in the hierarchy (upper levels).

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Detailed descr.

Detailed description of the element.

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Use

Instructions to use the element correctly.

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Requirements and performances

Requirements for a good operation of the unit or the element. Table fields:

Requirement type code: reference to the Requirement category table.

Short description of the requirement.

The detail panes on the right show: Detailed description, Performances, Min. performance level and Ref. regulations.

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Anomalies

Anomalies associated with the element. You can associate a detailed description (in the side pane) with each

table row.può essere associata una descrizione estesa nel pannello a lato.

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Documentation

Detailed documentation of the element, technical bulletins, etc. In the grid you can indicate:

Document description and **Storage location**.

Manual : Use manual, Use and maintenance manual or Maintenance manual.

In the detail panes on the right you can indicate the following for each grid row:

Detailed description.

Graphic representation: here you can associate an image with the item. To this purpose, go to the Image pane, right-click and check Load.

After inserting the image you can cut, copy, etc. by means of the contextual menu (right-click).

Internet addresses: press the key to indicate a reference link for the element.

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Checks and interventions

Checks and interventions associated with the element. The grid shows:

Code and description of the check/intervention.

Period : check a value in the drop-down menu.

Frequency : indicate the frequency of the check/intervention on the basis of the Period. If the frequency is 'On failure' or 'When needed' leave the pre-set value 0,00.

Executable by user: check this option if the check/intervention can be carried out by the final user. If skilled personnel is required, do not check this option.

Amount : if the amount needs to be calculated with a special estimate, go to the detail pane 'Resources estimate' (on the right).

The detail panes are:

Detailed description.

Requirements and performances : view of the list Requirements/performances linked to the element or its technological unit.

Anomalies : views of the anomalies indicated for the element.

Skilled personnel: list of skilled personnel categories necessary to carry out the check/intervention.

Resources estimate : enter code, description, measure unit, price and quantity of the resources necessary to carry out the check/intervention. If you want to use the items in the reference lists or price Data banks of the project, open the [Task pane](#) and drag the items into the grid of resources estimate. Enter the quantity and save. The calculated total amount will be shown in the field Amount of the element.

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Maintenance plan

The grid shows the elements of the maintenance plan and the association of each element with the WBS/work value, so that the plan can be structured in work parts.

To fill in the plan open the [task pane](#) and the reference Data bank.

Open the Data bank, scroll the nodes of the technological units and reach the maintenance elements.

Drag & drop the elements into the plan grid.

Fill in the WBS field using the available values or enter new ones.

If the WBS structure has already been filled in, drag the elements directly onto a node on the tree structure.

Buttons of the ribbon bar

They are:

- Update Plan from estimate**
- [Create maintenance schedule](#)
- [View maintenance schedule](#)

Update Plan from estimate

By pressing this button the Maintenance plan is generated starting from the associations between:

- Elements and UPC items.** To associate elements with items, open the price Data bank and go to the Maintenance pane. Open the task pane and the reference Data bank. Drag & drop the maintenance elements into the grid of the Maintenance pane.
- Elements and estimate measurements** To associate elements with estimate measurements, open the measurements of the executive project and go to the Maintenance pane. Open the task pane and the reference Data bank. Drag the elements into the grid of the Maintenance pane.
- Elements and rows of WBS/work parts.** To associate elements with rows of the table WBS/work parts, open the WBS table from the section Projects and go to the Maintenance pane.

Open the task pane and the reference Data bank. Drag & drop the elements into the grid of the Maintenance pane.

Create maintenance schedule

Press this button to generate the schedule of maintenance costs and interventions.

Le parti che compongono la funzione

The Jobs plan allows you to schedule the maintenance interventions. You can define: times, order of execution, connections between checks and interventions.

This function includes:

1. [Activity grid](#)
2. [Gantt bars](#)
3. [Activity properties](#)
4. [Additional information: Chart, Pivot and Activity measurement](#)

1. Activity grid

The activity grid shows the checks and interventions for each maintenance element, as well as additional information useful for scheduling (Duration, Resources, Start and End dates, etc.).

Each detail row corresponds to a horizontal bar in the Gantt chart.

Each activity available in the chart can be classified as:

- Parent activity:** non-terminal node. A corresponding symbol (Custom field) is placed on the right of the Gantt area.
- Leaf activity:** terminal node. A corresponding colored symbol is placed on the right of the Gantt area.

Each Activity occupies its own row (both in the grid and in the Gantt area) and can be displayed by clicking the node corresponding to the Activity parent (the node is "exploded"):

the symbol  means that the activity is not exploded; on the contrary, the symbol  means that the group items are displayed in the activity grid.

To expand/compress an activity, use the button .

To increase/decrease the hierarchy of the selected activity by a level, use the buttons Indent and Undo indent in the Ribbon Bar.

ATTENTION: The values concerning the Activity of a Custom Field are calculated on the basis of the children's values. As a consequence, if you double-click the Custom Field Activity, the dialogue form will appear almost completely disabled. To modify the data, make the changes on the children's activities.

To change an activity, double-click the corresponding row and access the form 'Activity properties', or modify the values in the grid fields manually. The diagram and the chart will be updated immediately.

2. Gantt bars

On the right of the workspace, the Gantt chart shows some graphical bars corresponding to the activity duration; a series of symbols supplies information on the activity properties. To change the activity properties,

double-click the corresponding Gantt bar and access the form [Activity properties.](#)

■ The symbols commonly used in the default view of the bars are:

-  **Custom field:** corresponding to a parent activity in the grid.
-  **'Leaf' activity:** representing a terminal node.
-  **Critical activity:** activity that must be completed on time to prevent any postponement of the project end date.
-  **Critical path:** time left before the activity becomes critical.
-  **Start of work**
-  **Constraint line:** it connects two activities with a constraint. For further information see paragraph [Dependences.](#)
-  **Main activity:** milestone representing an important event in a project, used to check the progress status.
-  **Completion percentage:** The yellow bar shows the completion percentage of the activity (field 'Completed' in the activity grid, see also [Activity properties.](#))

■ To change the duration of a leaf activity, place the mouse pointer on the right end of the bar until it gets the following shape ; then drag rightwards to postpone the end of the activity.

■ To move the leaf activity on the time axis, go to the bar and left-click so that the mouse pointer gets the following shape ; then drag rightwards or leftwards.

■ By creating connections among the activities you can produce a plan based on sequences and relationships, independently of the specific dates. To create a constraint between two activities act as follows:

- [Tying up a custom field activity with another custom field or a leaf activity](#)
 - 1. Place the cursor on the custom field where the constraint must start.
 - 2. Left-click and drag to the target bar (the mouse pointer gets chain-shaped)
 - 3. A black arrow appears between the two bars: the constraint has been created.
- [Tying up a leaf activity with a custom field or another leaf activity](#)
 - 1. Place the cursor on the activity where the constraint must start.
 - 2. Left-click while pressing **trl** and drag to the target bar (the mouse pointer gets chain-shaped)
 - 3. A black arrow appears between the two bars: the constraint has been created.

For further information see paragraph [Dependences.](#)

[3. Activity properties](#)

To access the window of Activity properties, double-click the row or the corresponding bar. Here you can view the data concerning the checked activity, make changes and set the advanced [Scheduling rules.](#)

In addition to the activity name and duration, in the tab '**General**' you can see:

- activity completion percentage
- start and end dates
- milestone (main activity), that is an important event in a project used to check its progress status.

The tabs '**Predecessors**' and '**Advanced**' are used to set the advanced [Scheduling rules.](#)

The tab '**Notes**' allows the user to enter text notes; an activity with notes is identified in the activity grid by the symbol.

4. Additional information: Chart, Pivot and Activity measurement

■ The **Chart** in the lower part of the work window shows graphically the project status in terms of Costs/Revenues.

The chart is updated automatically as the values in the grid and in the chart vary.

The chart appearance can be changed using the buttons in the tab "Chart" of the Ribbon Bar.

- Chart type**: to select a chart type in the drop-down list.
- Show chart**: enable/disable the button to view/hide the chart in the workspace.
- Labels**: enable/disable the button to view/hide the labels in the chart.
- Print preview**: to create a [Print preview](#).

■ The tab '**Pivot**' allows the user to view the data concerning costs and revenues (also shown in the Chart) in Pivot format. For further information on these dashboards see paragraph [Data analysis dashboards](#).

Right-click to view the contextual menu with the following commands:

- Update data**: to update the data in the Pivot.
- Show Field List**: to view the list of Fields that can be dragged into the Pivot Grid.
- Show filter**: to view the [Filter](#) of the Pivot grid.

■ The tab '**Activity measurement**' contains the list of maintenance activities associated with each activity, on the basis of the hierarchical structure set during [Jobs schedule creation](#) from estimate.

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Jobs Plan commands

The specific commands available in the [Ribbon bar](#) are organized in the following groups:

Zoom

- Zoom out**: it shows a longer time period than the current one.
- Zoom in**: it shows a shorter time period than the current one.
- Activity start**: the diagram is placed at the beginning of the activity selected in the grid.
- Fit to page**: the diagram is fit to the page.

Diagram

- Appearance**: to select the diagram appearance. The item 'Critical path' shows (in red) the activities causing the project end date to be postponed.
- Bar styles**: to change the graphical appearance and the colors of the Gantt bars.

Activity

- Indent**: to lower the checked activity by a hierarchical level.
- Undo indent**: to raise the checked activity by a hierarchical level.
- Expand/collapse**: to expand/collapse the checked 'Custom field'.
- Move up**: to move the checked activity to the upper row.
- Move down**: to move the selected activity to the lower row.

Project

- General settings** : to change the general settings of the project made when creating the Jobs Plan (see [Advanced options fields](#)).
- Working days** : to set working/non-working days manually, in case they do not correspond to the calendar preset by the system.
- Export for MS Project** : to export the Gantt chart in Microsoft Project™

[Scheduling rules](#)

Scheduling rules consist of a series of advanced options and functions that should be changed only in case of special working needs.

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[Advanced options fields](#)

The wizard for a new jobs schedule from estimate allows the user to configure the following options:

- Code** - enter the alphanumeric code you want to assign to the new jobs schedule.
- Description** - enter the description of the new jobs schedule.
- Start date** - enter the start date of the new jobs schedule.
- End date** - the system attributes the jobs end date automatically, on the basis of the entered data. Otherwise, if you want to create a jobs schedule for a different time period (e.g. for the first 6 months), set the desired end date.
- Resource number** - to set the number of people working on the building site.
- Scheduling type** - choose one of the following alternatives:
 - Fixed resources** - the system calculates the time necessary for each activity on the basis of the critical analysis resources. For detailed information see paragraph
 - Fixed duration** - the system calculates the resources necessary for each activity on the basis of the pre-set time period.
 - Fixed work** - the system calculates the duration on the basis of the resources indicated in the field 'Resource number'.
- Calendar code** - to select one of the calendars in the list (to calculate the working days in the period).

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View maintenance schedule

Shows the last maintenance schedule generated via button Create maintenance schedule

Maintenance plan dashboard

It's a document of [analysis dashboard](#) type.

It allows the user to analyze and view the data generated by developing the [Maintenance schedule](#) for the current plan.

Data request

Press the button **Data request** to import data into the dashboard.

For further information on this dashboard, see paragraph [Data analysis dashboards](#).

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Documents and first pages

Document types

The following document types are available:

- First page of use manual
- First page of maintenance manual
- First page of maintenance schedule

The documents can be linked to the reporting of the maintenance plan

Document variables

The list of variables in the Task pane is the same for all document types.

- General project data:** code, description and currency, as well as data of buyer, designer and project manager.
- Maintenance plan data:** plan description and code, as well as object, relationship and information on the town where the work will be executed.
- Report data:** to add signature data to the document.
- Company or professional firm data:** code, company name, address, notes.

Reporting

This working document of [Report](#) type allows the user to obtain reports concerning the Estimate function. For general information on Reports, see chapter [Reporting](#) and the [Detail folders of a Report document](#) .

This chapter describes the specific functions of Maintenance plan reporting and the fields available in report detail folders.

- [Pane 'Use manual'](#)
- [Pane 'Maintenance manual'](#)
- [Pane 'Maintenance schedule'](#)

Pane 'Use manual'

- Use manual:** to print the Use manual.
- Compact report :** to remove page breaks in reports and reduce the number of pages
- Anomalies:** to obtain the titles of the expected anomalies of a maintenance element.
- Anomalies - detailed description :** to print the detailed descriptions of the expected anomalies of a maintenance element.
- Checks the user can carry out:** to obtain the table of the checks that the user can carry out.
- Checks - detailed description:** to obtain the detailed descriptions of the checks that the user can carry out.
- Checks - Requirements and anomalies :** to obtain the requirements and anomalies specified for the checks.
- Checks - Skilled personnel :** to obtain the skilled personnel required for the checks.
- Interventions the user can carry out:** to obtain the table of the interventions that the user can carry out.
- Interventions - Detailed description :** to obtain the extended descriptions of the interventions that the user can carry out.
- Interventions - Requirements and anomalies :** to obtain the requirements and anomalies specified for the checks.
- Interventions - Skilled personnel :** to obtain the skilled personnel required for the interventions.
- Documentation - Storage location :** to know where the documents associated with the maintenance elements can be found.
- First page template :** select a first page.

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Pane 'Maintenance manual'

- - Maintenance manual :** check to print the maintenance manual.
 - Compact report :** to remove page breaks in reports and reduce the number of pages.
 - Requirements - Performances:** to print the requirements of each performance.
 - Requirements - Regulations:** to print the Regulations providing for the requirements.
 - anomalies - Detailed description :** to print the detailed descriptions of the expected anomalies of the maintenance element.
 - checks - Detailed description :** to obtain the detailed descriptions of the checks.
 - Checks - Requirements and anomalies :** to obtain the requirements and anomalies specified for the checks.
 - Checks - Skilled personnel :** to obtain the skilled personnel required for the checks.
 - Checks - Resources estimate :** to show the resources necessary to carry out each check and their estimated cost: measure unit, unit price, quantity and amount.
 - interventions - Detailed description :** to obtain the detailed descriptions of the interventions

that the user can carry out.

- Interventions - Requirements and anomalies** : to obtain the requirements and anomalies specified for the interventions.
- interventions - Skilled personnel** : to obtain the skilled personnel required for the interventions.
- Interventions - Resources estimate** : to show the resources necessary to carry out each intervention and their estimated cost: measure unit, unit price, quantity and amount.
- first page template** : select a first page.

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Pane 'Maintenance schedule'

- - Maintenance schedule** : check to print the Maintenance schedule consisting of Subschedule of performances, Subschedule of checks, Subschedule of interventions.
 - Requirements - Detailed description:** to print the detailed descriptions of the requirements.
 - Requirements - Min. performance level:** check to print the minimum performance level.
 - Requirements - Regulations:** to print the Regulations providing for the requirements.
 - checks - Detailed description:** to print the detailed descriptions of the checks.
 - Checks - Requirements and anomalies** : to obtain the requirements and anomalies specified for the checks.
 - Checks - Skilled personnel** : to obtain the skilled personnel required for the checks.
 - interventions - Detailed description** : to obtain the detailed descriptions of the interventions that the user can carry out.
 - Interventions - Requirements and anomalies** : to obtain the requirements and anomalies specified for the interventions.
 - Interventions - Skilled personnel** : to obtain the skilled personnel required for the interventions.
 - first page template** : select a first page.

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State of work

This module allows the user to draw up a special State of work.

The State of work will be generated from a template containing the information on the Contract model or one of the regulations on the matter (art. 45 and 42, paragraph 4, d.P.R. n. 554/1999).

The Contract model contains the clauses governing the relationship between Contracting Station and Executor, depending on the features of the intervention.

The special State of work is attached to the Contract model: here you can find the technical prescriptions concerning the object of the individual contract.

Each project is associated with only one State of work.

Click the button 'State of work' to activate this management.

The document 'State of work' consists of:

- [Data banks](#)
- [State of work data](#)

State of work data bank

To create data banks updated to the latest version of Vision CPM, press the button New updated data banks. The new data banks will be added to the available ones (without overwriting them). Double-click 'Items' to open the different data banks. A data bank consists of text documents organized in folders and grouped by content.

State of work data

Here there are the State of work data of the current project. Double-click the folder to fill in the details: Contract, Town, Company, etc.

The folder contains:

- State of work:** The special State of work includes a section of Regulations (Contract model or State of work, obtained from a template) and a section of special technical specifications (obtained from data banks).

The operations are the following (in the order):

- [Creation of the State of work from a template](#)
- [Compilation of Technical prescriptions](#)
- [Completion](#)
- [Documents and first pages](#)**
- [Reporting](#)**

State of work

The operations to be carried out are the following (in the order):

- [Creation of the State of work from a template](#)
- [Compilation of Technical prescriptions](#)
- [Completion](#)

Creation of the State of work from a template

- Press the button Create from the ribbon bar.
- Choose a template in the lists (Public Works - Private Works).
- Press End.

The general section is created, containing the regulations or the Contract model.

Go to [Compilation of Technical prescriptions](#).

Compilation of Technical prescriptions

This section can be filled in as follows:

- [Direct compilation from data banks](#)
- [Generation from estimate](#)
- [Manual entry](#)

Direct compilation from data banks

- - Open the [Task pane](#) and the data bank involved (example: Construction works).
 - Drag & drop the node Technical prescriptions onto to the same node of the State of work. Check [Insert after](#).

You can delete unnecessary contents and the empty node Technical prescriptions later.

Alternative:

- Scroll the content of the data bank tree and drag & drop the individual items onto the node Operative prescriptions.
- The items will be copied with their whole content.

The d&d operation can be carried out in several steps and from different data banks. All data copied in the State of work can be edited as desired.

Go back to [Compilation of Technical prescriptions](#)

Generation of the State of work from estimate

Press the button Create from Estimate to generate the State of work starting from the associations between:

□ **State of work items and Price data bank items.**

To associate State of work items with Price data bank items, open the Price data bank and go to the pane 'State of work'.

Open the [task pane](#) and the data bank involved. Drag & drop the State of work items into the grid of the pane 'State of work'.

□ **State of work items and estimate measurements.**

To associate State of work items with estimate measurements, open the estimate measurements and go to the pane 'State of work'.

Open the [task pane](#) and the data bank involved. Drag & drop the State of work items into the grid of the pane 'State of work'.

□ **State of work items and WBS/work parts rows.**

To associate State of work items with rows of the table WBS/work parts, open the WBS table from the section Projects and go to the pane 'State of work'.

Open the [task pane](#) and the data bank involved. Drag & drop the State of work items into the grid of the pane 'State of work'.

The generation will fill in the node Technical prescriptions of the State of work.

The hierarchical structure over the associated items will be generated automatically.

Go back to [Compilation of Technical prescriptions](#)

Manual entry

To add new items manually right-click and check the menu Insert.

Available options:

- Insert Before:** the item will be inserted before the target one, at the same level in the tree structure.
- Insert After:** the item will be inserted after the target one, at the same level in the tree structure.
- Insert In:** the item will be inserted in the target one, at a lower level in the tree structure.

Copy/paste

The items can be copied/pasted in any node, in any State of work and data bank.

Right-click and check Copy. After copying, right-click and check Paste.

Available options:

- Insert Before:** the item will be pasted before the target one, at the same level in the tree structure.
- Insert After:** the item will be pasted after the target one, at the same level in the tree structure.
- Insert In:** the item will be pasted in the target one, at a lower level in the tree structure.

Go back to [Compilation of Technical prescriptions](#)

Completion

Variables: to complete the State of work you can add a series of variables to each item, linked to the general data. The list of variables in the Task pane is the same for both document types.

General project data: code, description and currency, as well as data of buyer, designer and project manager.

State of work data: plan description and code, as well as object, relationship and information on the town where the work will be executed.

Report data: to add signature data to the document.

Company or professional firm data: code, company name, address, notes.

Paragraph title: in the field Paragraph type enter or modify the item type. Options: Title, Chapter, Paragraph and Item. The elements will be numbered automatically during printing, on the basis of above information.

Update code: before reporting press the button 'Update code' to re-number the items automatically on the basis of the 'Paragraph type'.

Find next and Replace: press these buttons to search/replace in the whole State of work.

Creating a custom template of Regulations: you can create new templates for the section Regulations of the State of work, that is where 'Regulations' is checked.

Double-click the folder 'State of work data'.

Click 'State of work templates'.

Enter Code and Description, then press 'Create Template'.

The new template can be used to create a section of custom regulations for new works by pressing the button [Create](#). The Technical Prescriptions must be entered manually.

Documents and first pages

This is a working document of type [text document with variables](#).
Click Add to add a new State of work document.

Document variables

the list of variables in the Task pane is the same for both document types.

General project data: code, description and currency, as well as data of buyer, designer and project manager.

State of work data: plan description and code, as well as object, relationship and information on the town where the work will be executed.

Report data: to add signature data to the document.

Company or professional firm data: code, company name, address, notes.

Reporting

This node allows the user to create a report of the State of work.

Click 'Add report' to add a new State of work.

Press the buttons 'Style' to set a font for the titles. Each level in the tree structure can have a different font.

There is a default setting for each level, available for every new report table.

Update codes: to re-number items before reporting.

Index: to produce an index of contents at the end of the document.

Building site journal

The Building site journal is used to record the daily activities on the building site. It includes:

- weather conditions
- activities carried out
- personnel on site
- vehicles/equipment used
- remarks, instructions, service orders

The Building site journal is useful for:

- the Works management, to comply with the regulations on building site control.
- the company, to record the activities actually carried out on the building site.
- all involved parties, to produce the documentation required by law.

Qualification master data

It allows the user to make correct entries into the Building site journal. This master data is available at system level and can be used in all journals of all Projects.

Press the button Add to insert a new row.

Enter code and description of qualifications (skilled worker, employee...) and of vehicles/equipment (excavator, bulldozer...).

Journal data

It contains all data of the journal of the current project.
Daily entries are based on a calendar associated with the journal.

- Double-click the node **Journal data**.
- Right-click the field '**Calendar code**' and check '**List of values from management**' .
- The calendar can be customized by means of the utility '**Non-working days**' to set holidays and other non-working days.

The journal folder contains:

- [Daily diary](#)
- [Firm/Persons/Equipment](#)
- [Reporting](#)

Daily diary

Press the button Add to make a daily entry.

Day: check a day in the drop-down menu.

Weather conditions: check the weather conditions in the drop-down menu.

Rain/Snow (mm): enter mm precipitation in the day.

Wind (m/s): enter information on the wind in the day.

Min. and max. temperatures: enter min. and max. temperatures in the day.

Please note:

When making the first entry of the day, the weather conditions are also recorded in [Day data](#).

The following entries made on the same day will receive the weather information automatically.

Entry type: check the type of entry in the drop-down menu: activity, service order, company's note, etc.

A new entry is created automatically as 'Activity' type.

Prog.: set automatically.

Description: enter a short description of the activity carried out. A more detailed description can be written in the pane [Notes](#).

Details Building site journal

- [Panels 'Day data' and 'Entry data'](#)
- [Pane 'People'](#)
- [Pane 'Vehicles/Equipment'](#)
- [Pane 'Notes'](#)
- [Pane Link](#)
- [Pane Remarks/Instructions](#)
- [Pane Image](#)

Panels 'Day data' and 'Entry data'

These panels contain the same data as the grid, but in a more detailed form to facilitate its entry.

Pane 'People'

Press the button Add to insert a new row.

Person qualification code: choose a value in the linked [qualification master data](#).

Person code: to supply details on the resources involved, open the menu with the people master data. If the master data includes the person's qualification, it will be entered automatically.

Number of people: enter the number of people for each row.

Note>> This pane is only available for the entries of Activity type.

Pane 'Vehicles/Equipment'

Press the button Add to insert a new row.

Vehicle qualification code: choose a value in the linked [qualification master data](#).

Vehicle code: to supply details on the resources involved in the work, open the menu with the vehicle master data.

If the master data includes the vehicle qualification, it will be entered automatically.

Number of vehicles: enter the number of vehicles for each row.

Note>> This pane is only available for the entries of Activity type.

Pane 'Notes'

Enter a detailed description that can be added in reports, after the description included in the pane [Day data and Entry data](#).

Pane ' Links '

Use this pane to connect external links.

Pane ' Remarks/Instructions '

Enter remarks and instructions concerning the entry. They will be placed in the corresponding column in reports.

Pane ' Image '

Here you can associate an image with the entry: right-click and check Load.

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Firm/Persons/Equipment

Press the button Add to insert a new row.

Type: check a master data type: equipment, company or person. Enter code, description and ID (if any).

Qualification code: retrieve the qualifications from the drop-down menu of the corresponding [management](#).

If you associate the qualification with the master data, when journal entries include master data the qualification is added automatically..

Reporting

For general information on Reports, see chapter [Reporting](#).

Report type: Check '*Standard journal*' to obtain a report with general qualifications only.

Check '*Journal with detailed people/vehicles*' to have the details entered in the panes

Entry type: you can obtain reports by entry type, activity, service order, etc.

Description type: choose if you want to print a compact entry description, extended remarks or both.

Short description style: choose the font of the compact description.

Entry date, from-to: choose the date interval of the report.

Single column: check this option to place the three columns with date, weather conditions and data of each entry in a singlecolumn.

Images: check this option to print images attached to the entries.

Exclude non-working days: check this option to exclude non-working days.

Highlight non-working days: check this option to red-mark non-working days in reports.

Day data

This management shows the headings of the days used in the journal.

Each day is listed with its own weather conditions.

The changes made to a day in this table are propagated automatically to all linked daily entries.

Similarly, a change in weather conditions entered in the daily diary will also affect this management and applied to all entries of the same day.

Filter by entry type

To apply a filter by entry type: Activity, Company, Service order, etc.

Filter by date

To apply a filter on the basis of the entry date. The filter can include a single day or a date interval.

Journal validation

This specific function allows the user to validate the journal.

The validation blocks all entries up to the indicated date; after setting the validation date no lower or equal date can be entered, modified or deleted.

Safety plans

This module allows the user to manage different versions of the Safety and Coordination Plan (PSC)

- Operational Safety Plan (POS) Substitutive Safety Plan (PSS)
- First indications for the PSC, necessary at Preliminary design stage.

In particular you can obtain:

- Jobs time schedule (for safety)
- Automatic calculation of working duration (starting from the economic value), labor incidence and assigned team
- Coordination of the works interfering with prescriptions automatically supplied by the corresponding data bank
- Calculation of man/days using specific tables Estimate of Safety charges
- Risk Assessment Report making use of simple and complex variables that can be freely used (even by the final user) in the desired final document.

The node [Safety plans - What to do](#) supplies a tutorial with the necessary instructions.

Firms and Subjects

Open the node Master data and check Companies and self-employed workers.

Double-click to access the management.

To enter a name press the button **Add**.

- In the menu **Type** choose the type of company or self-employed worker involved in the building site activities.
- Enter a **Name code** and a **Name description**. You can also enter a generic identification, such as BC (Building company) or P (Plumber).
- You can also retrieve a name from the system master data by pressing directly in the field.

Pane Firm workers'

When the name entered is of Company type, the pane 'Workers' in the window below becomes active: here you can enter the data of the personnel on the building site, that is of employed and self-employed workers operating for the same company. In addition you can list the tasks carried out, IPD's and training courses.

Entering subjects

Open the node Master data and check **Subjects**. Double-click to access the management.

To enter a name into the Master data press the button **Add**.

- In the menu **Type** check a subject type.
 - Enter details into the panes.
 - Details**: details of master data, including Tax number, VAT number etc.
 - Notes
 - References to the job description
 - IPD list
 - Pane with information/training data

The company managers [Responsible](#) for safety on the building site will be included in the technical report together with their tasks any reference documents, specific training and information.

Data banks

Data banks are collections by Type, Works, Vehicles, Equipment, Materials, Risks, Safety measures, Building site areas, Building site organization, Coordination and Signals.

Data bank generation and updating

To import updated Data banks, double-click each individual data bank.

- If the data bank does not exist, the wizard for the creation of the specific data bank starts after receiving your confirmation.
- To add a data bank you don't need to open the grid of the specific data bank. The grid is activated by double-clicking the node Data banks and it shows:

- Code** : enter an estimate ID code.
- Description** : enter the estimate description

The button 'Add' activates the wizard to create a data bank from a template.

- You can also create a data bank updated to the latest version of Vision CPM as follows: go to the grid and press the button 'Create updated data bank' for each type.

The new data banks created automatically will have the suffix 2014 and will always be overwritten. A confirmation message will appear.

The Works data bank contains the works linked to Vehicles, Equipment, Materials, Risks, Safety measures, Building site areas, Building site organization, Coordination and Signals, as well as work details and Analysis.

A data bank can be imported from a STR eXcellent file:

Press the label Safety plan to activate the module.

To create a Safety plan the following steps are required:

1. [Creating a Safety plan from a template](#)
2. [General Plan data](#)
3. [Master data of Firms and subjects](#)
4. [Compilation of Building site areas](#)
5. [Compilation of Building site organization](#)
6. [Importing work phases from data bank](#)
7. [Generating a Plan from estimate](#)
8. [Work phases details](#)
9. [Safety Gantt chart](#)
10. [Work phases coordination](#)
11. [Dossier](#)
12. [Checking the technical report](#)
13. [Reporting](#)

Create a safety plan from model

To create a new Safety plan:

- Open the node Safety plans.
- Double-click All safety plans.
- Press the button **Add** in the ribbon bar.
- Choose a template in the drop-down menu. Check the option **Choose custom templates** to use a template saved previously.
- Enter code, description, dates and reference calendar.
- A management to estimate the safety charges is associated to the safety plan: choose an existing estimate, create a specific one or use the estimate in the template.
- Press End.

Go to the Details pane and integrate the data with:

- Number and date PDC/DIA /SCIA
- No. of workers and Firms involved
- Average hourly wage
- Hours per day
- Men/Day
- Amount
- Overheads
- Profit

General data

Go to the Details pane and integrate the data with:

- Number and date PDC/DIA /SCIA
- No. of workers and Firms involved
- Average hourly wage
- Hours per day
- Men/Day
- Amount
- Overheads
- Profit

Building site area

This management deals with the dangers due to the features of the building site area and the general environment.

Open the management in the branch **Building site area** in the node Safety plan.

To enter the areas:

- Open the [Task pane](#).
- Open Safety data banks > Building site area data bank.
- Drag & drop the elements into the grid.

Note that the evaluation will concern the following aspects:

- Risks due to features of the building site area (example: geomorphological conditions of the ground, availability of subservices, etc.).
- Risks due to external factors (example: another building site, high-traffic roads, etc.).
- Risks due to the works on the building (example: noise, dust, falling material, etc.).

Building site organization

This management deals with dangerous situations and the necessary preventive measures to be taken by the building site organization.

- Open the management in the branch **Building site organization** in the node Safety plan.
- To fill in the organization master data:
 - open the [Task pane](#),
 - open Safety data banks > Building site organization data bank,
 - drag & drop the elements into the grid.

Note that the evaluation will concern the following aspects:

1. measures concerning the building site fence, accesses and signals;
2. hygiene-care services;
3. main site roads;
4. supply systems, power, water and gas networks as well as other energy systems ;
5. grounding systems and protection systems against atmospheric discharges;
6. access procedures for vehicles transporting materials;
7. location of building site plants;
8. location of load and unload areas;
9. equipment/materials/waste storage areas;
10. storage areas for materials with a risk of fire or explosion.

The work phases grid shows all elements included in the plan and their association with the WBS/Company/Area value to structure the safety plan.

Open the work grid starting from the branch **Works** of the tree **Safety plans**.

To fill in the plan open the [Task pane](#) and the reference data bank. Scroll the nodes and reach 'Works'; then drag & drop the elements into the plan grid.

Fill in the field WBS/Company/Area with the values available in the drop-down menus or enter new ones.

If the WBS/Company/Area structure has already been filled in, you can drag the elements directly onto a node of the tree structure.

Import from data bank

The work phases grid shows all elements included in the plan and their association with the WBS/Company/Area value to structure the safety plan.

- Open the work phases grid starting from the branch work phases of the tree **Safety plans**.
- To fill in the plan open the [Task pane](#) and the reference data bank. Scroll the nodes and reach work phases ; then drag & drop the elements into the plan grid.
- Fill in the field WBS/Company/Area with the values available in the drop-down menus or enter new ones.

If the WBS/Company/Area structure has already been filled in, you can drag the elements directly onto a node of the tree structure.

Generate safety plan from estimate

By pressing this button the Safety plan is generated starting from the associations between:

- **Work phases and UPC items.**

To associate work phases with items, open the **price data bank** and go to the pane **Safety**.

Open the [Task pane](#) and the reference data bank.

Drag & drop the works directly into the grid of the pane **Safety**.

- **Work phases and estimate measurements**

To associate work phases with **estimate measurements**, open the measurements of the executive project and go to the pane **Safety**.

Open the [Task pane](#) and the reference data bank.

Drag & drop the works into the grid of the pane **Safety**.

- **Work phases and wbs**

To associate work phases with the **WBS structure**, open the WBS table and go to the pane **Safety**.

Open the [Task pane](#) and the reference data bank.

Drag & drop the works into the grid of the pane **Safety**.

Work phases detail

The **Safety detail** panel contains the composition of each processing.

The detail is simultaneously filled during the copy of the work phases from the bank, and consists of

- risks
- risk sources (machines, equipment, materials)
- risks
- Safety measure

The data bank comes with a complete and verified content, but the content of each work phase can be changed or deleted at will.

The work phases can be changed manually or by copying from the bank data.

Manual changes

By clicking the right mouse on the work phases, the elements can be added at any position.

Insert Before and Insert After allow you to enter a detail parallel to the work phase.

Enter inside allows you to create an internal structure to the work phase.

The menu is contextualized, for example, it may contain only half Risks or safety measures. A risk may only contain safety measures.

Changes by copying the data bank

The analysis can be completed by Drag & Drop from the data bank, inserting the elements into the desired position.

As in manual compilation, also dragging items, the contextual menu will appear to choose where to drop the item

Safety Gantt chart

The Gantt security is a tool dedicated to the safety of building sites, which allows to identify the duration, the 'type teams' required for each period and the interference between the various processes.

The Gantt is built on the data entered in the Analysis Panel but can also be prepared manually without specific dates.

Technical report

The technical report is the final document of the activities.
Open the node Technical report

Text formatting options

To change the text style you can use the commands in the Font group.

1. Change font: to format an existing document, select the text and then choose the desired font in the drop-down list.
2. Change font size.
3. Apply the formatting to the selected text.
4. Start a numbered, bullet or multilevel list.
5. Show paragraph marks and other text format symbols.
6. Align the text left, center, right, or justify.
7. Reduce or increase spacing

To create a technical report use the menu [Reporting](#).

Reporting

The menu Reporting offers three types of report. Choose the desired report using the button "Add report" of the ribbon bar. A grid with the report list will be filled in.

Technical report

In the Options of the Technical Report you can choose to highlight the references to Regulations (check accordingly). You can also decide which description will be included in the report for Work phases and measures. A font can be set for each level of paragraph. Add an index to consult the Technical report more easily.

Executive Stage - Plan revision

To create a safety plan revision, prepare a copy of the safety plan to be revised.

- Double click the node of the management and open the safety plan list.
- Check the plan and press the button Copy in the ribbon bar.
- Press Paste.
- Change the plan description as desired.

Modify as necessary and adapt the plan to the executive stage. Example:

- Update Firms and Subjects in the corresponding management.
- Attribute [work phases to Firms](#).
- Correct work [duration](#) and content as for risk sources, measures, etc.
- In case of PSC, also evaluate the [coordination](#) procedures.

Comparison report

After modifying the plan, you can produce a comparison report showing the differences between the two plans.

Starting from the revised safety plan, create a new report table of the technical report. In the lower part of the pane fill in the following fields:

- Safety plan**: enter the safety plan to be used for the comparison.
- Revision label**: enter a standard text to be placed on the first page of the plan in case of comparison. The text can be changed as desired.
- Filter report by company**: enter a company to produce a report which only concerns the (changed or revised) work phases attributed to it.

Schedule postponement

During the executive stage it may be necessary to postpone the whole schedule to a later

date. Act as follows:

- Generate the Gantt chart.
- Select the pane Activity.
- Press the button Shift schedule.
- Indicate the new project start date and press Ok. The work phases will be shifted while keeping duration and relationships unaltered.

Executive Stage - Inspections

Choose a suitable date for the inspection using the [special tools available in the Gantt chart](#).

To create an inspection:

- Double click the node **Inspections** .
- Press **Add** and indicate the inspection date.

All work phases being carried out on the building site on inspection date as well as the necessary coordination work phases will be displayed in the lower part of the window. In case the inspection data are not displayed, check the inspection date and make sure that the Gantt chart and any coordination procedures have been generated.

Inspection checks report

To have a list of the checks to be carried out and a summary of the regulations to be applied on the building site, create a new table of Inspection report type. Choose the type of description and the inspection.

Inspection outcome

After an inspection, enter the outcome of each work inspected. The outcome can be attributed from any inspection level.

Right-click the work for which you want to indicate the outcome. Check **Set OUTCOME on all lower nodes** .

Choose a value among Compliant, Non-compliant, Serious danger: it will be attributed to the whole node content and indicated in the detail pane of all safety measures below.

However you can change the outcome of each measure.

Inspection reports

To produce reports concerning the inspections (Building site inspection report with non-compliances, Notification of non-fulfillment, Notification to the customer), open the management Reports and add a new report of **Safety document** type.

Choose one of the templates and indicate the number of inspection.

The templates can also be modified using the document editor: open the node Documents, check the document to be modified and press **Modify** in the ribbon bar.

Open the pane with variables on the left.

Open the node **General job data**, **Safety plan data** and check the variables you want to add to the template..

Inspection date

The Safety Gantt chart allows you to identify the most suitable days to carry out checks and inspections (when most work phases are carried out, most resources are used or major risks are present).

- Generate the Gantt chart.
- Check the pane Chart
- Check Show chart
- In the lower part check the pane Inspection date.
- Check one or more properties as a criterion to identify the days suitable for the inspection.
- Indicate a threshold.
- Example: to identify the days with more than 2 work phases , associate a filter showing the work phases with a risk higher than or equal to 9.
- After filtering, double click the row of one of the resulting days: a blue row appears on the chart near the selected date.