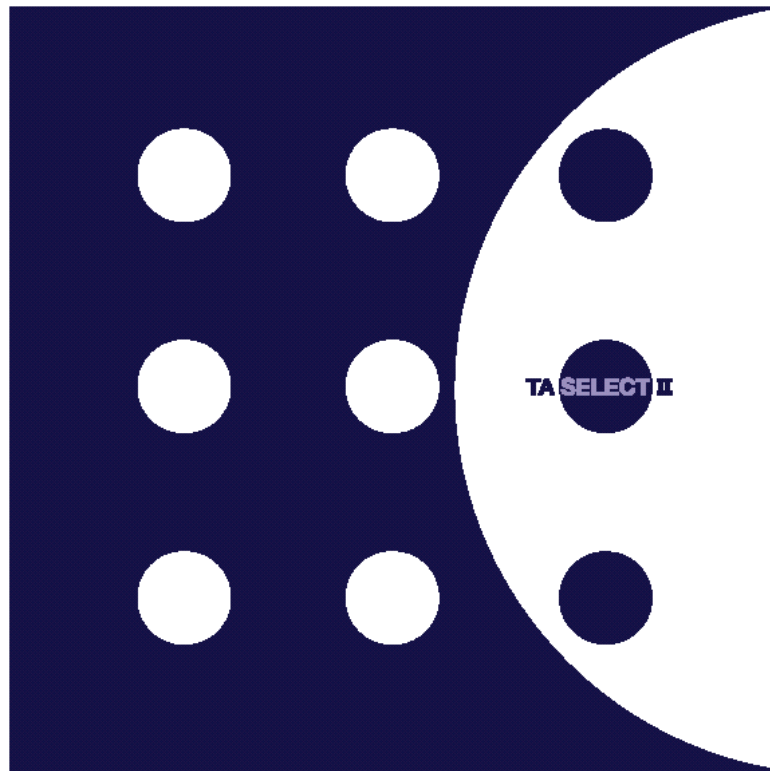




User's Guide



TA Select^{II}



Table of contents

Table of contents.....	1
TA Select^{II} License Agreement.....	2
1 Introduction	4
1.1 Computer requirements	4
1.2 Install TA Select ^{II}	4
1.3 Uninstall TA Select ^{II}	5
1.4 What's new in TA Select ^{II}	5
2 TA Select^{II} window structure.....	6
3 Customisation	8
3.1 Default units	8
3.2 Technical parameters.....	8
4 The “Project” view	11
4.1 Decomposing a plant into hydronic modules.....	11
4.2 Building up a hydraulic network.....	13
4.3 Transferring data to and collecting data from TA-CBI.....	16
4.4 Exploiting data collected from TA-CBI.....	18
5 The “Selection” view	22
5.1 Static balancing selection view	22
5.2 Dynamic balancing selection view.....	23
5.3 Selecting an element of the suggestion list	25
6 The “Results” view	27
6.1 Displayed field dialog box	27
6.2 Edit header/footer dialog box.....	28
6.3 Format project info dialog box.....	29
7 The “Information” view.....	30



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If you have any enquiries about the programme, or if you require any assistance, please contact Tour and Andersson sales organisation.



1 Introduction

TA Select^{II} is dedicated to balancing and flow regulating device selection. Starting from a minimum information, the software is able to suggest a range of suitable balancing valves, fixed orifices, double regulating valves, return valves or differential pressure controllers with all section calculated values as the handwheel setting.

TA Select^{II} is not only a computerised catalogue. It replaces the Flow-Pressure drop-Presetting graphics and the selection disk which are used today. Sophisticated calculation are performed to take into account the exact characteristics (density, viscosity) of various water /additive mixtures.

1.1 Computer requirements

1.1.1 Your computer should match the following minimum requirements:

- IBM-PC or 100% compatible, Pentium class or equivalent processor.
- Minimum 800x600 screen resolution.
- 25 Mb free hard disk space.
- 64 Mb RAM (128 Mb with Windows NT series).
- CD-ROM or DVD-ROM drive.
- Microsoft Windows 98/NT 4/Me/2000/XP or later
- Microsoft Internet Explorer v4.0 or later
(latest version freely downloadable on <http://www.microsoft.com/windows/ie/default.asp>) Adobe Acrobat Reader v4.0 or later
(see the Release Notes; latest version freely downloadable on <http://www.adobe.com/acrobat>)

1.1.2 Operating system settings

For best results when using TA Select^{II}, use the default Windows setting of **font size** found in Windows **Display properties, Settings tab, Advanced button** (Right Click on Windows desktop, select **Properties**). This setting is rarely changed but if you use a high resolution monitor, it can be set to **Large Font**.

1.2 Install TA Select^{II}

1. Insert the CD into your CD-ROM drive. The installation program will start automatically. If the installation program does not start automatically, you can start it by choosing Run from the Start menu and typing D:\SETUP (where "D:" is the letter associated to your CD-ROM drive). Click "OK".
2. Follow the remaining on-screen instructions.

TA Select^{II} is now installed on your hard disk. Menu entries are added at **Tour and Andersson** in the **Programs** submenu of the Windows **Start** menu.



If you have used version 1 of TA Select and need to access to project data created in that version do not remove it. You need this old version to access your old project data because they can not be imported in TA Select^{II}. Both versions can be installed at the same time but the installation must be done in different directories.



1.3 Uninstall TA Select^{II}

Click the **Add/Remove Programs** in Windows **Control Panel**. A list of products installed on your system will be presented. Select the **TA Select^{II}** entry and click the Remove button to begin the uninstallation process.

1.4 What's new in TA Select^{II}

The following functionalities have been added to the TA Select^{II} software compared to TA Select 1:

- ✚ TA Select^{II} is developed for 32-bit Windows platform. This means that Windows 3.1 family of operating systems are not supported anymore. If you have Windows 3.1, please use TA Select version 1.1 instead or update your operating system.
- ✚ New database and file formats. If you need to access your old plant data saved with TA Select 1.1, please keep your TA Select 1.1 version installed.
- ✚ Dynamic balancing is available with selection of Δp controllers (STAP).
- ✚ Communication with the Computerised Balancing Instrument (TA-CBI). Plant data can be created in TA Select^{II} and transferred to the TA-CBI. Measured flows and Dp as well as loggings can be transferred back from TA-CBI to TA-Select^{II}. All these TA-CBI data can be visualised, printed and exported in different formats through TA Select^{II}.
- ✚ The product database is up to date with all new devices.
- ✚ Internet based database and program update. Update can be either automatic or manual.
- ✚ Quick reference and full product catalogue sheets of all selectable products.
- ✚ Ability to save your references like name, address... and also store information per project about project name and customer information.
- ✚ Easier to use Viscosity correction estimation.
- ✚ Pipe pressure drop calculation updated.
- ✚ Kv (in series) calculation now allows usage of Zeta coefficient besides, Kv, Cv and flow & pressure drop.
- ✚ Unit conversion, a handy tool, is now added in this version of TA Select^{II}. A wide range of unit types and units can be converted.
- ✚ Better and more consistent layout of selection parameters allowing easier valve selection.
- ✚ Pipe series and pipe creation are simplified and more straightforward.
- ✚ Document layout options are extended and easier to use.
- ✚ Header and footer adjustments are extended. This allows better customisation of printouts.

2 TA Select^{II} window structure

The main window of TA Select^{II} is divided into two main parts: the left pane and the right view. The left pane is the control part of the window where you are able to input parameters, choose visualisation options, etc. The right view is the visualisation part of the window where TA-CBI data, valve suggestions, selection results and technical documentation sheets can be examined.

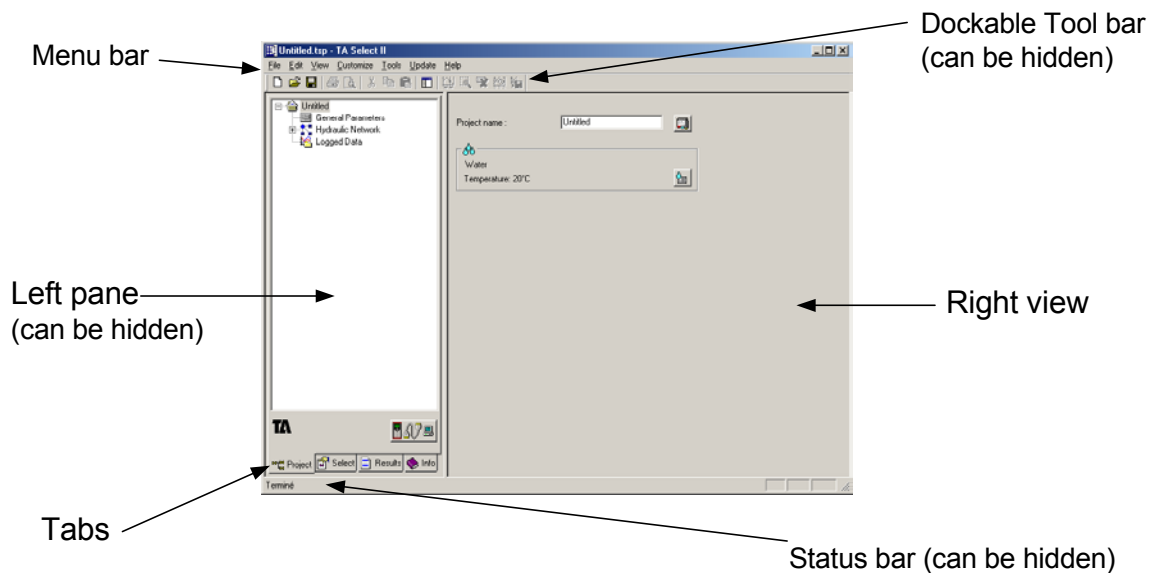


Figure 2.1: Structure of TA SelectII main window.

The four tabs located at the bottom of the left pane are each associated to a different left pane structure and a different right view.

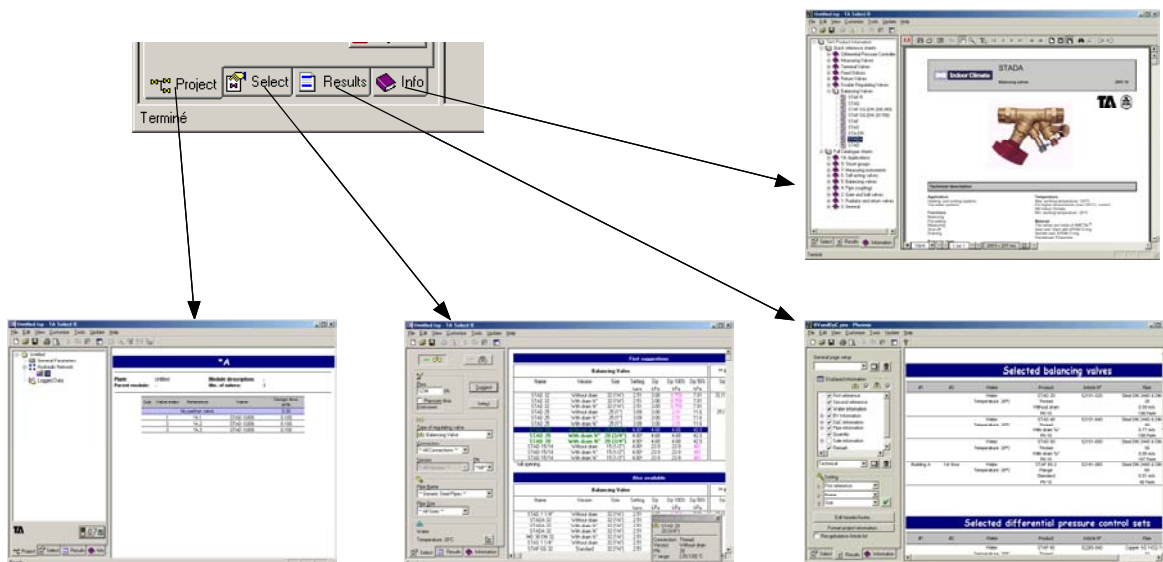


Figure 2.2: The 4 tabs command the display of the 4 TAS2 views.

The first tab is the **Project tab** (this is the default tab), where data transferred to and/or from TA-CBI are structured. The associated right view displays the data in various ways.



- ✦ The second tab is the **Selection tab**, where selection parameters can be input. The associated right view displays suggestion tables according to the selection parameters that have been input.
- ✦ The third tab is the **Results tab**, where document layout preferences can be specified. The associated right view displays the selected products according to the chosen layout.
- ✦ The fourth tab is the **Information tab**, where all product documentation sheets can be browsed. The associated right view displays the selected product information sheet thanks to Adobe Acrobat Reader.

When you first start TA Select^{II} the displayed window looks as shown in Figure 2.1.



3 Customisation

3.1 Default units

When TA Select^{II} is started for the first time, the units used by default are those of the International System of units. In order to specify your unit preferences, click on **Customize** in the menu bar and select the **Default Units** sub-menu. The dialog box displayed in Figure 2.1 appears to let you choose your preferred units for each physical type.

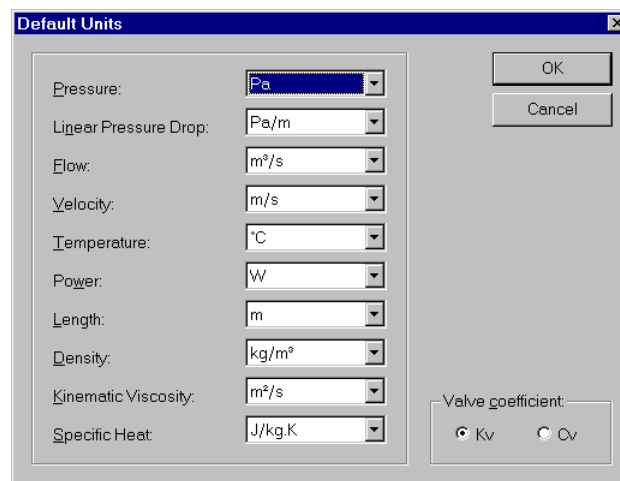


Figure 3.1: Default unit dialog box.

3.2 Technical parameters

In order to perform calculations required during the selection process, TA Select^{II} rely on a series of default technical parameters that have been adjusted to best reflect local customs. These technical parameters can be modified by clicking on **Customize** in the menu bar and select the **Technical Parameters** sub-menu. The dialog box displayed in Figure 3.2 appears to let you modify various parameters. The parameters are grouped per theme, each displayed in a different tab of the dialog box.

3.2.1 Technical parameters for manual balancing valves

These parameters can be accessed through the tab **Valves** (see Figure 3.2).

Min/max pressure drop:

Minimum and maximum acceptable pressure drop in manual balancing valves. A minimum of 3 kPa is generally recommended.

Min opening:

Minimum acceptable valve opening. To be able to reach a sufficient accuracy in flow measurement and adjustment, it is recommended that valves are at least 25% opened.

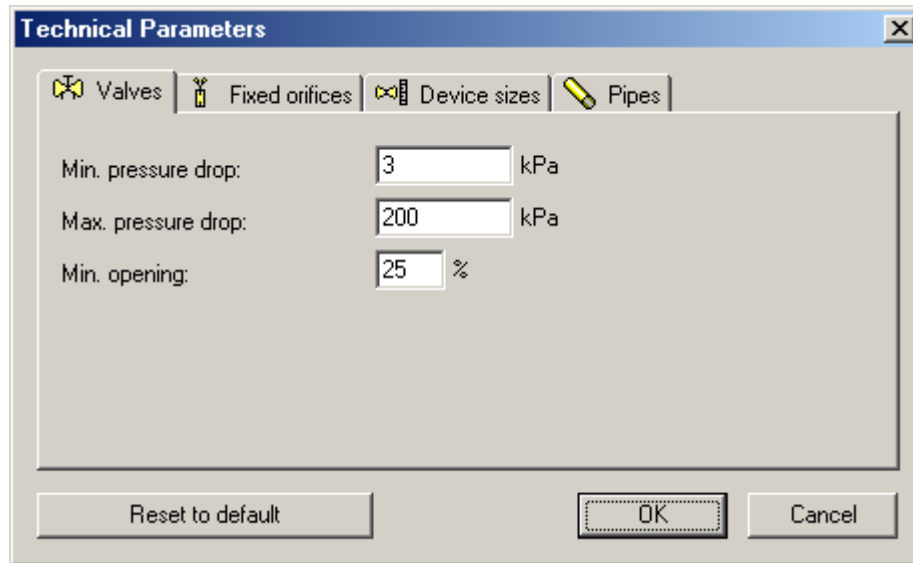


Figure 3.2: Valves tab of Technical Parameters dialog box.

3.2.2 Technical parameters for fixed orifices

These parameters can be accessed through the tab **Fixed orifices** (see Figure 3.3).

Min/max signal:

Minimum and maximum allowed signal differential pressure to be measured in fixed orifices.

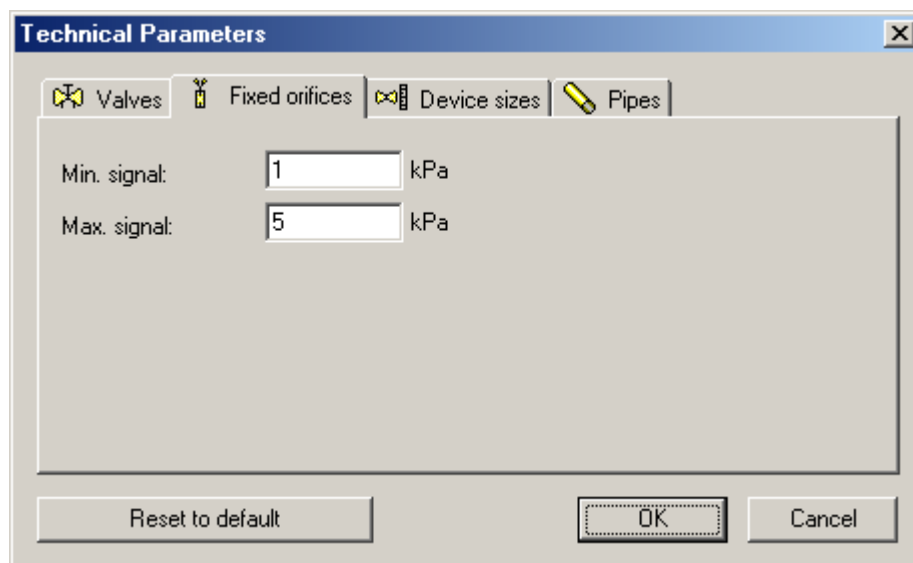


Figure 3.3: Fixed orifices tab of Technical Parameters dialog box.

3.2.3 Technical parameters for device sizes

These parameters can be accessed through the tab **Device sizes** (see Figure 3.4).

Radio buttons allow to define how valve sizes can be chosen according to the pipe sizes. Default settings allow valve sizes to be up to two sizes smaller than the pipe size.

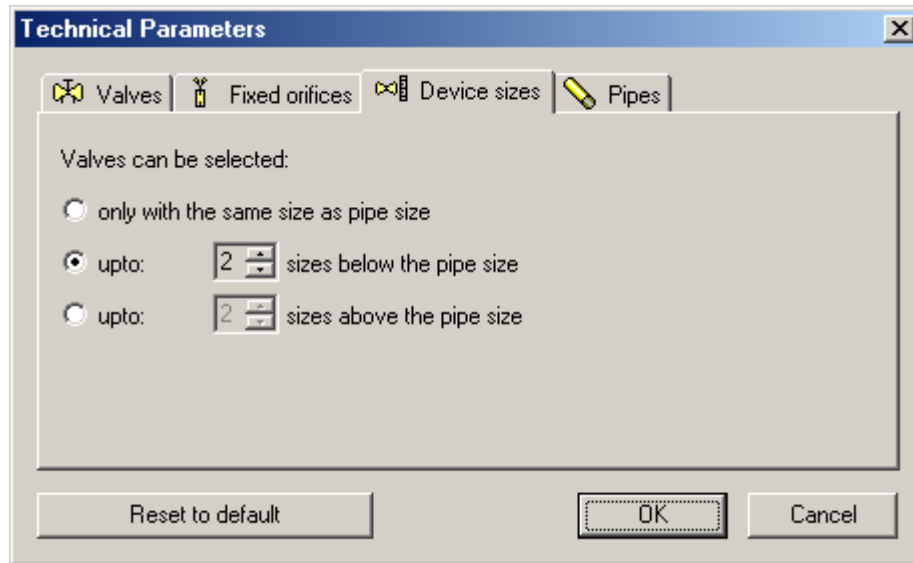


Figure 3.4: Device sizes tab of Technical Parameters dialog box.

3.2.4 Technical parameters for pipes

These parameters can be accessed through the tab **Pipes** (see Figure 3.5).

Pressure drop limits in pipes:

Minimum and maximum design linear pressure drops in pipes.

Velocity limits in pipes:

Minimum and maximum design water velocity in pipes.

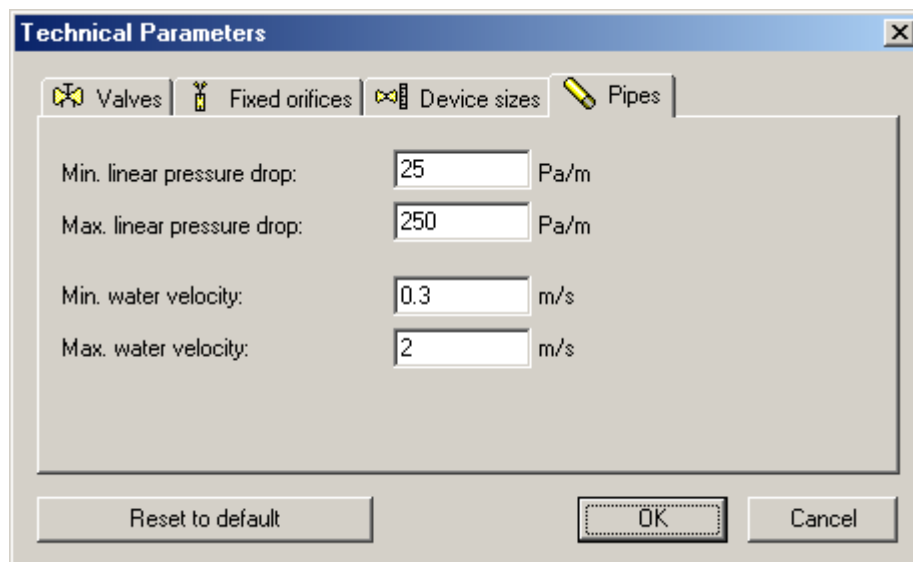


Figure 3.5: Pipes tab of Technical Parameters dialog box.



4 The "Project" view

The "Project" view is the view where the structure of a plant can be created and sent to TA-CBI. This is also a view where measured data can be collected from TA-CBI in order to prepare a balancing report. When you start TA Select^{II}, the "Project" view displays itself as shown in Figure 4.1.

The tree in the left pane represents the structure of the project. When clicking on a node of the tree, the associated project data are displayed in the right part of the window:

- General parameters give access to the project references as well as to the project's water characteristics¹.
- Hydraulic network is organised hierarchically in hydronic modules.
- Logged data give access to charts and data lists of loggings transferred from TA-CBI.

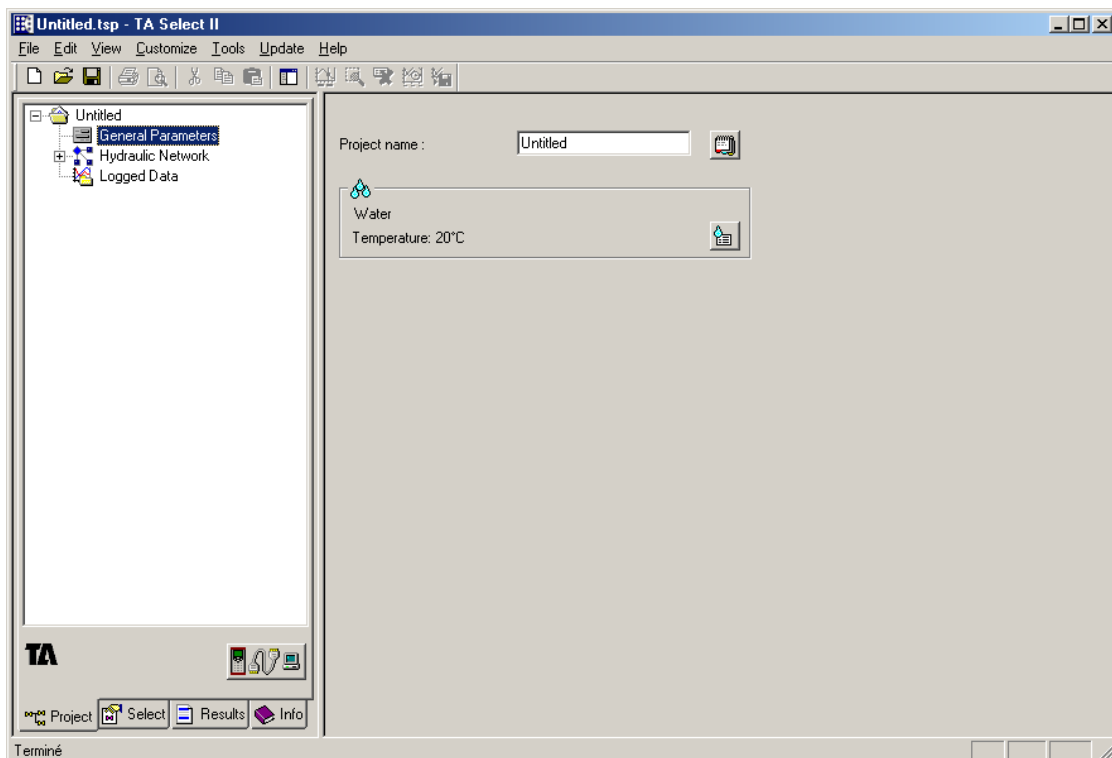


Figure 4.1: Project view displaying project's general parameters.

4.1 Decomposing a plant into hydronic modules

In order to balance a plant with the help of the systematic and energy-optimal balancing methods developed by Tour and Andersson, one first needs to decompose it in elementary hydronic modules. This hydronic module structure is also required for sending balancing valve data to TA-CBI.

¹ The water characteristics stored for the project are not the same than these that are used in the "Selection" view (see section 5.1).



A hydronic module is made of any set of circuits connected in parallel and requiring each a certain design flow with 3 additional conditions (see Figure 4.2):

- ① The circuits are connected in direct return. This is essential because a direct return system has a flow proportionality property that reverse return systems do not have.
- ② A balancing valve is fitted on each circuit.
- ③ A general valve is fitted to act on the total flow of the module. This valve is referred to as *Partner Valve*.

Remark that the circuit numbering must follow the TA convention, as in Figure 4.2.

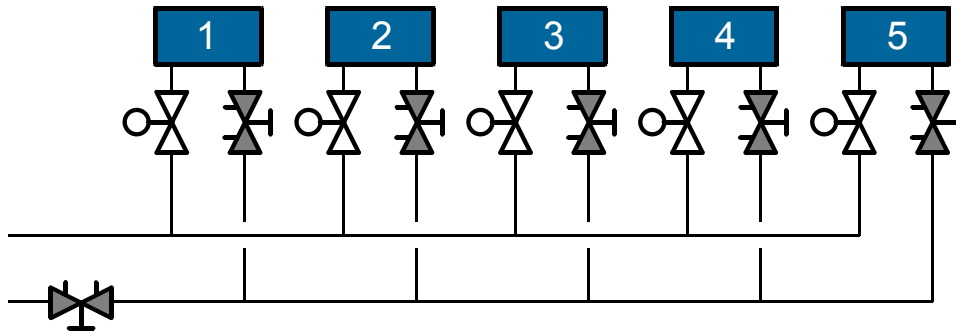


Figure 4.2: Typical hydronic module.

It is to be noted that a circuit can be a terminal unit and its associated control valve (as in Figure 4.2), but a circuit can also be another hydronic module. For instance, in Figure 4.3, a parent module named **A** is made of 11 circuits, amongst which circuits **A.4**, **A.5** and **A.6** are hydronic modules themselves. Notice that the partner valves of these child modules allow to consider them as elementary circuits from the parent module viewpoint.

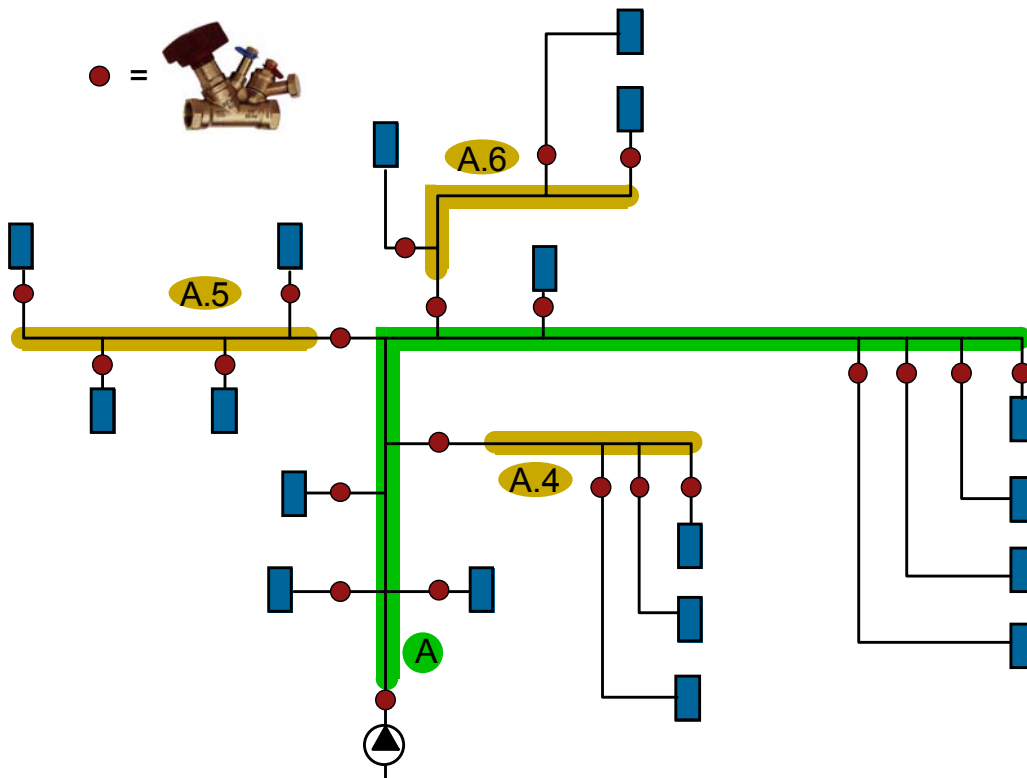


Figure 4.3: Example of decomposition of a plant into hydronic modules.



This decomposition of a plant into hydronic modules leads us to a hierarchical structure of hydronic modules. This is precisely what allows to break up the complex problem of balancing an entire plant into a series of much simpler problems consisting in the separate balancing of each hydronic module.

For more details on the balancing methods that can be applied for balancing a hydronic module, the reader is referred to TA Handbook n° 2 "Balancing of distribution systems".

4.2 Building up a hydraulic network

As described above, once decomposed into hydronic modules, a plant can be seen as a hierarchical tree of hydronic modules. This is precisely what the Hydraulic Network part of the tree located in the "Project" view left pane is all about (Figure 4.4).

The screenshot shows the TA Select II software interface. On the left, a hierarchical tree of hydronic modules is visible, with the root node being *A. The tree structure includes: SmallPlant, General Parameters, Hydraulic Network, *A, *A.1, *A.2, *B, and Logged Data. The right pane displays the data for module *A.1. The data is organized into a table with columns: Sub., Valve index, Reference, Valve, Presetting turns, and Design flow l/h. The table contains three rows of data for valves *A.1.1, *A.1.2, and *A.1.3, all of which are STAD 15/14 valves with a presetting of 2.8 turns and a design flow of 280 l/h. A 'Partner valve' is listed as STAD 20 with a design flow of 840 l/h.

Sub.	Valve index	Reference	Valve	Presetting turns	Design flow l/h
		Partner valve	STAD 20		840
1		*A.1.1	STAD 15/14	2.8	280
2		*A.1.2	STAD 15/14	2.8	280
3		*A.1.3	STAD 15/14	2.8	280

Figure 4.4: Hierarchical tree of hydronic modules and view on the right of module *A.1 data.

When TA SelectII is started, an empty project structure is created and the hydraulic network is by default made of an empty root module named *A. In order to build up the hydraulic network corresponding to your specific project, you need to create the hierarchical structure of modules and you need also to fill up these modules with the data of the balancing valves they are made of.

4.2.1 Creating a module

The creation of a new module in the hydraulic network is straight-forward. Position the mouse pointer in the left pane tree on the module that should be the parent module of the module you wish to create. If the module you wish to create is a root module, position the pointer on the Hydraulic Network node of the tree. Right click to get the associated floating menu and select **Create menu**. A dialog box then displays as in Figure 4.5.

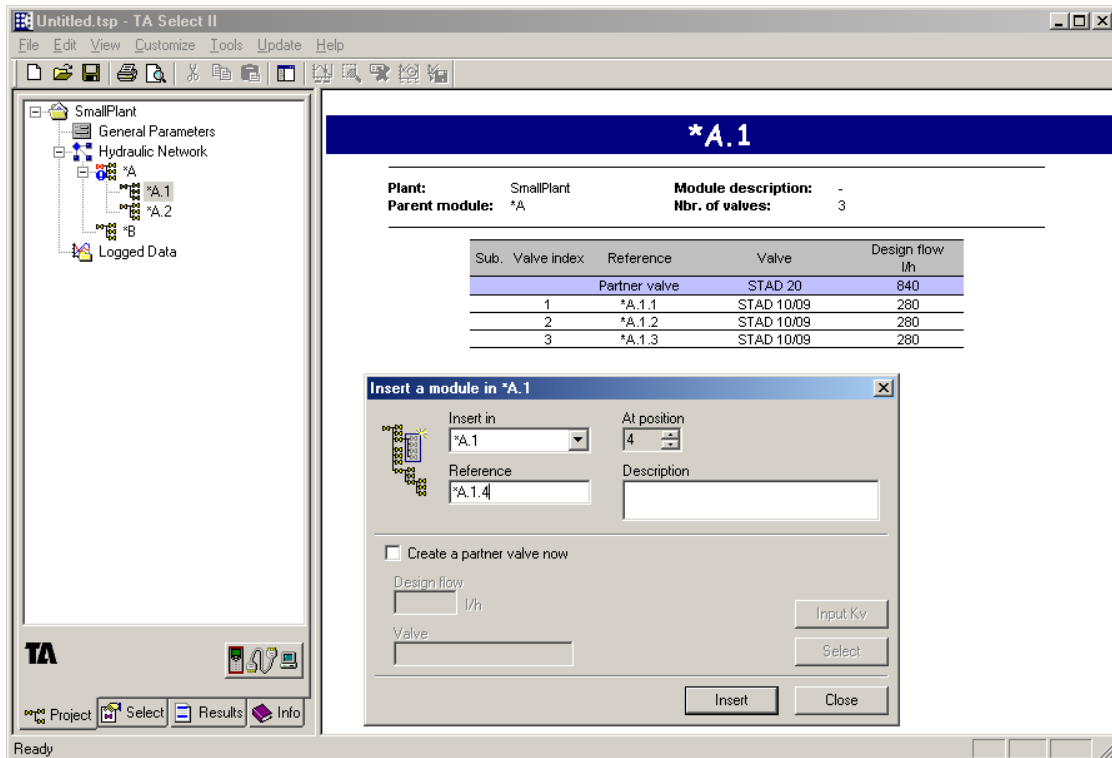





Figure 4.5: Create module dialog box obtained by right click on module *A.1.

By default, a module reference is automatically created based on the parent module's name. The * character that is at the beginning of a module reference indicates that automatic renaming is active for this module. Automatic renaming means that cut and paste operations will lead to a recomposition of module references based on their new position. To deactivate this automatic renaming for a given module, just remove the leading * character from the module reference.

The position of a module is attributed according to the TA numbering convention. You can change a module's position by clicking the up and down arrows beside the position edit box.

Partner valves are optional in the software but must be specified to enable the use of the systematic and energy-optimal TA balancing methods. The definition of the partner valve of a newly created module is by default delayed to a later stage. To define the partner valve of a module, you just need to edit the module and press the **Dir. Selection** button. The design flow of a module partner valve is automatically calculated from the valves that have been added in the module.

The icon of a module indicates its status:

-  Normal module
-  Module with missing partner valve
-  Incomplete module (missing data are blocking any transfer attempt to TA-CBI)

4.2.2 Adding a valve

The addition of a new valve in an existing module is very similar to the creation of a module. Position the mouse pointer in the left pane tree on the module in which you wish to add a valve. Right click to get the associated floating menu and select **Add valve**. A dialog box then displays as in Figure 4.6.

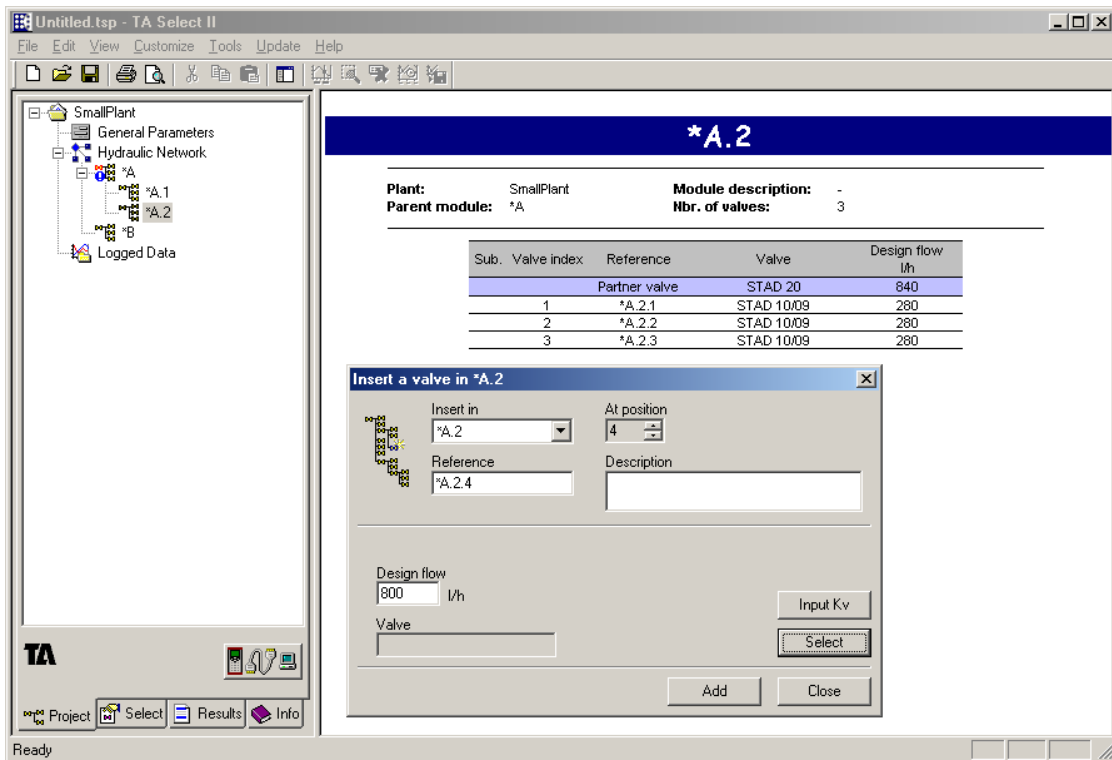


Figure 4.6: Add valve dialog box obtained by right click on module *A.1.

In order to define a new valve, the design flow of the valve must be input in the design flow edit box. Then the valve can be defined either by selecting it directly from the TA range of products (button **Dir. Selection**) or by inputting a corresponding Kv-value (button **Input Kv**). Figure 4.7 and Figure 4.8 show the respective dialog boxes that appear when pressing these buttons.

When a valve appears in the Select valve dialog box with an article number equal to xxxxx-xxx, this means that this valve does not exist any longer in the TA range. It is however kept in the database for compatibility with existing plants.

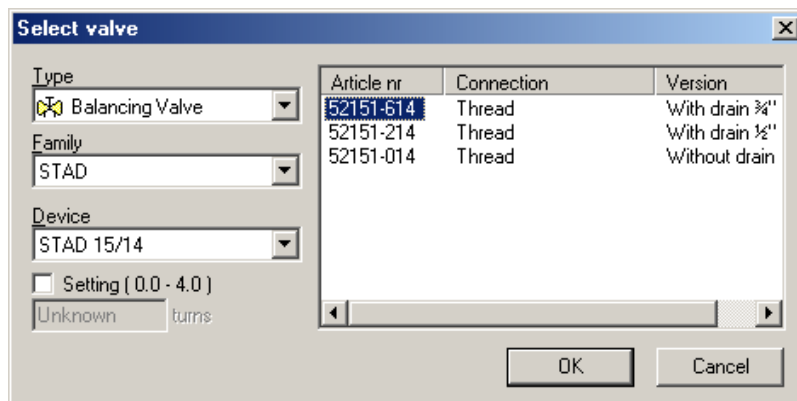


Figure 4.7: Select valve dialog box obtained by pressing Dir. Selection button of the Add valve dialog box.

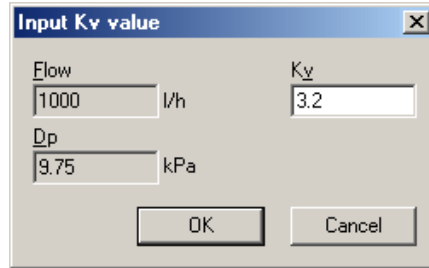


Figure 4.8: Input Kv dialog box obtained by pressing Input Kv button of the Add valve dialog box.

4.3 Transferring data to and collecting data from TA-CBI

The whole communication process with TA-CBI is taken over by a communication wizard that sequences in simple steps the actions and choices to be achieved by the user. In order to activate the communication wizard, press button located at the bottom of the project view left pane. The initial communication wizard panel will then display instructions to be followed (see Figure 4.9).

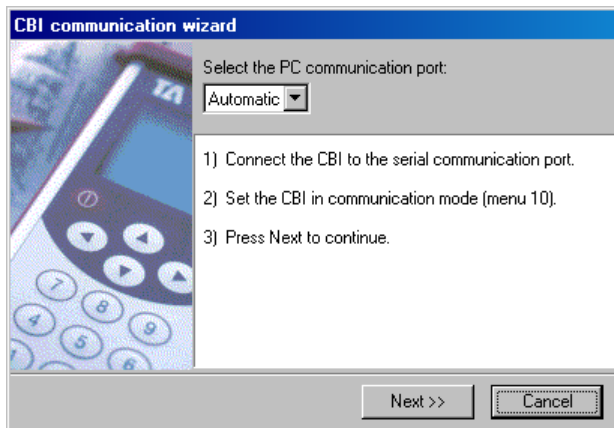


Figure 4.9: Initial communication wizard panel showing user instructions.

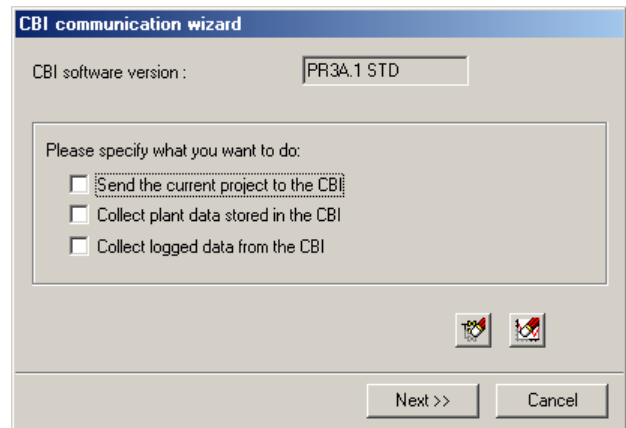


Figure 4.10: Communication wizard panel showing the possible communication actions with TA-CBI.

When the Next button of the first wizard panel is pressed, TA Select^{II} starts a scanning of all Serial COM port that can be found on the computer. If a TA-CBI in communication mode is found on one of the COM port, the second wizard panel appears as shown in Figure 4.10. Remark that if no TA-CBI in communication mode can be found, TA Select^{II} will display an error message box instructing the user on the possible causes of communication failure.

Three possible actions can be selected by the user and can be combined within a single communication session:

- Send the current TA Select^{II} project to TA-CBI
- Collect the plant data (of one chosen plant) stored in TA-CBI
- Collect the logged data stored in TA-CBI.

Buttons and allow respectively to delete **all** saved plant data and **all** logged data from the TA-CBI memory.



4.3.1 Sending a project to TA-CBI

In order to send the plant data of the current TA Select^{II} project, the user just needs to validate the first check box that appears in the second communication wizard panel. Once the **Next** button is pressed, TA Select^{II} starts the data transfer and a new panel displaying the progress of the transfer appears (see Figure 4.11).

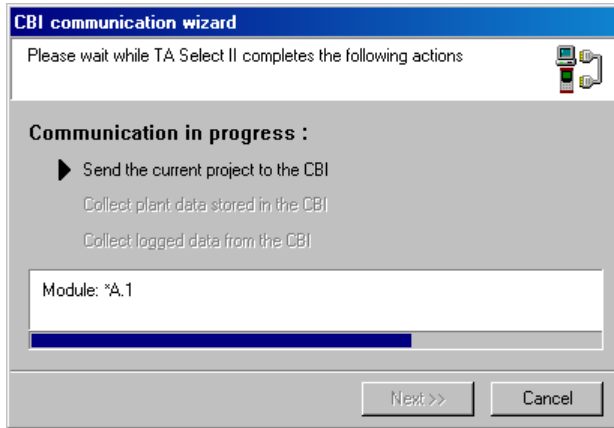


Figure 4.11: Communication wizard panel showing the progress of plant data transfer to TA-CBI.

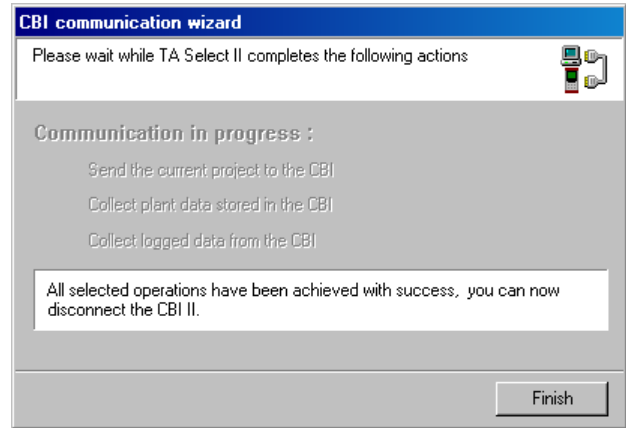


Figure 4.12: End of transfer communication wizard panel.

When the data transfer is completed, a final communication wizard panel informs the user that all selected transfer operations have been completed and that TA-CBI can be disconnected from the computer (Figure 4.12).

4.3.2 Collecting plant data stored in TA-CBI

Collecting plant data from TA-CBI is just as easy as sending them. Saved plant data collection takes place during the communication process if the second check box that appears in the second communication wizard panel is checked. When the **Next** button is pressed, TA Select^{II} starts the saved plant data collection and a panel displaying the progress of the transfer appears (see Figure 4.13).

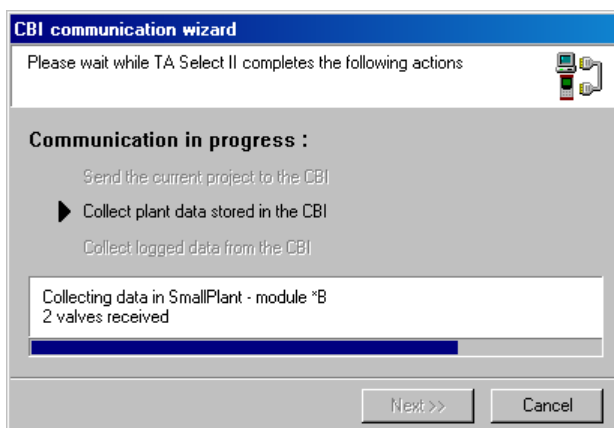


Figure 4.13: Communication wizard panel showing the progress of plant data collection from TA-CBI.

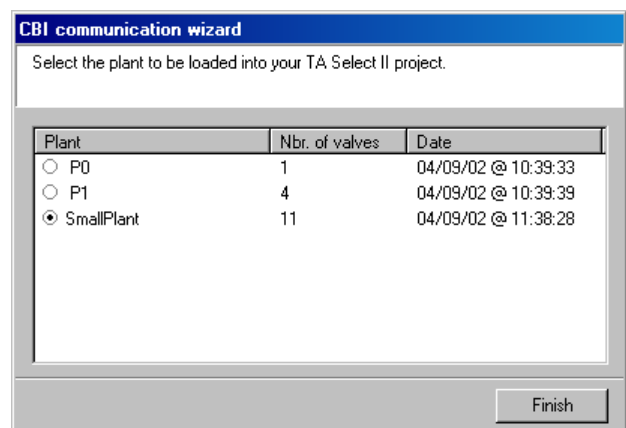


Figure 4.14: Communication wizard panel asking which one of the plants available in TA-CBI memory should be loaded in TA Select^{II}.

Once all saved plant data stored in TA-CBI have been collected, the end of transfer wizard panel of Figure 4.12 appears. Upon clicking on the **Next** button, collected data are presented in the next



communication wizard panel. Figure 4.14 shows this panel where the different plants stored in TA-CBI memory are listed. One of these plants can be selected for loading in the current TA Select^{II} project by clicking on the radio button located on its left.

4.3.3 Collecting logged data stored in TA-CBI

Collecting logged data from TA-CBI is also very easy. Logged data collection takes place during the communication process if the third check box that appears in the second communication wizard panel is checked. When the **Next** button is pressed, TA Select^{II} starts the logged data collection and a panel displaying the progress of the transfer appears (see Figure 4.15).

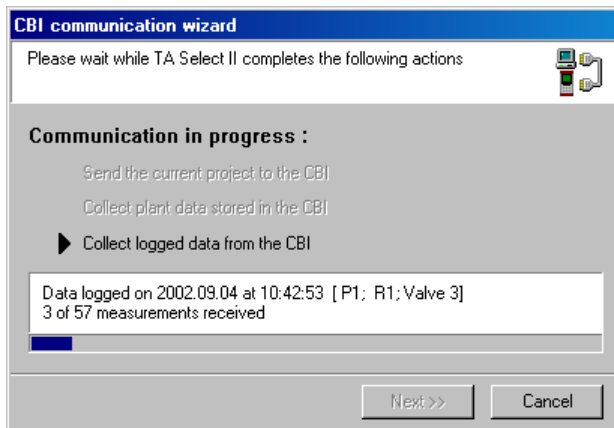


Figure 4.15: Communication wizard panel showing the progress of logged data collection from TA-CBI.

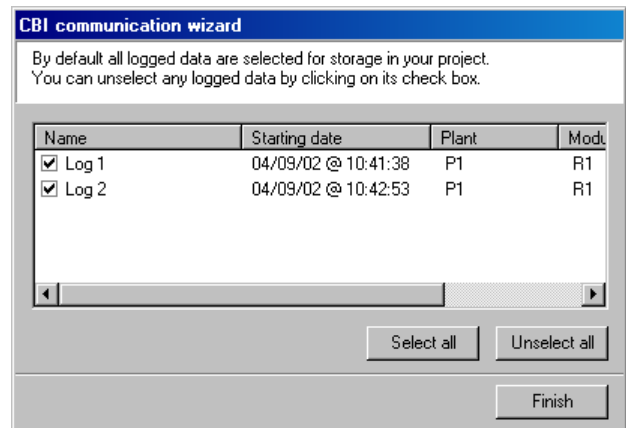


Figure 4.16: Communication wizard panel asking which logged data available in TA-CBI memory should be loaded in TA Select^{II}.

Once all logged data stored in TA-CBI have been collected, the end of transfer wizard panel of Figure 4.12 appears. Upon clicking on the **Next** button, collected logged data are presented in the next communication wizard panel. Figure 4.16 shows this panel where the different logged data stored in TA-CBI memory are listed. Any of the logged data lists can be selected for loading in the current TA Select^{II} project by clicking on the associated check box located on their left. Two buttons **Select All** and **Unselect All** are also available for easier selection/unselection when numerous logged data lists are present.

4.4 Exploiting data collected from TA-CBI

When plant data or logged data have been collected from a TA-CBI, these data can be exploited in TA Select^{II} to prepare a balancing report or can be exported from TA Select^{II} in various formats to allow for specific document edition.

4.4.1 Plant data

The Dp and flow measured on valves can be examined module per module by clicking on module nodes in the left pane tree. As can be seen in Figure 4.17, the deviation between the design and measured flows is also displayed in the last column of the right view.

A proportional balancing index is calculated for each module and is given in the information block of the module. This proportional balancing index corresponds to the mean flow deviation in the module of rescaled measured flows with respect to their associated design flows. The rescaling of the measured flows consists in correcting each measured values by the factor:

$$q_{\text{total design}}/q_{\text{total measured}}$$



so as to obtain an image of the level of proportionality of the flows with respect to each other in the module.

All module data can be easily printed or exported towards Microsoft Excel through right-clicking on a module line in the left pane tree. Printing and exporting can be done for an isolated module or for a full branch in one single operation. In this later case, the commands **Print Recursive** and **Export Recursive** acts on the currently pointed module and all its descendants.

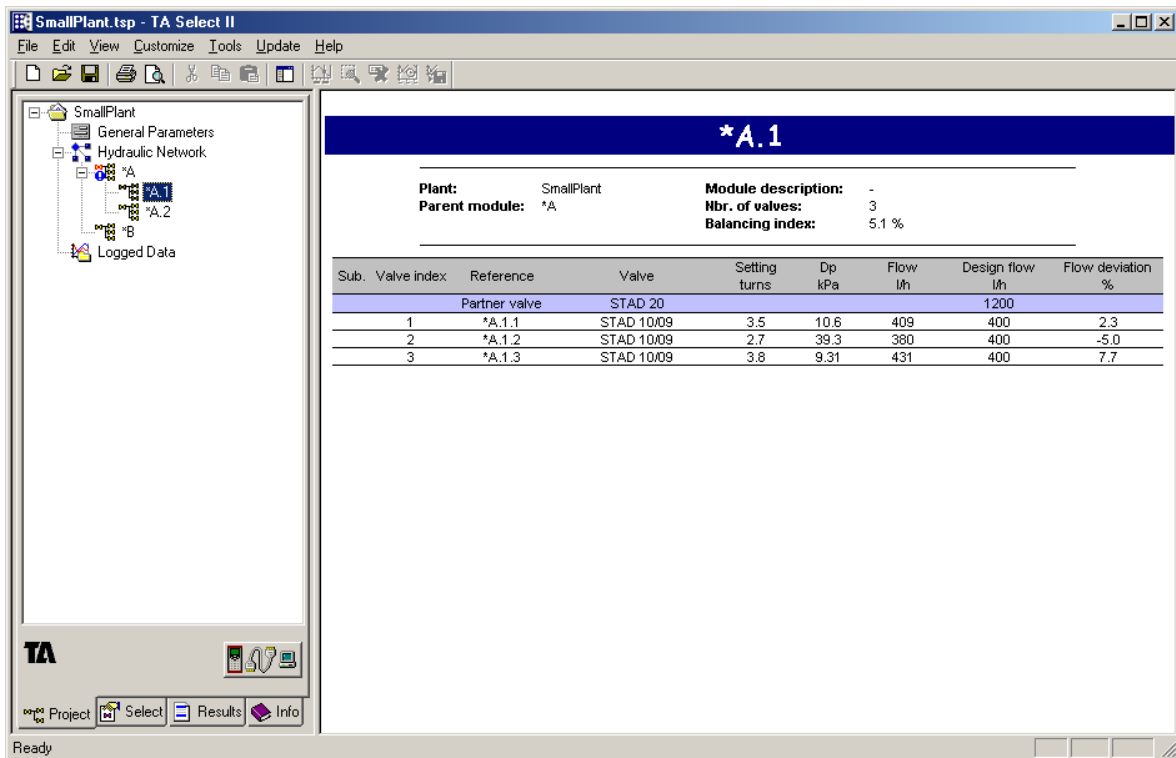


Figure 4.17: Display of measured data collected from TA-CBI.

4.4.2 Logged data

As mentioned above, multiple loggings can be collected in the same TA Select^{II} project file (.tsp). All loggings can be accessed through the Logged Data branch of the left pane tree. Clicking on a logging name displays the chart associated to this logging in the right view. As can be seen in Figure 4.18, an information block located below the chart presents the general data and some statistics about the considered logged data.

Combined loggings flow/temperature or differential pressure/temperature logging are available in the TA-CBI, starting with TA-CBI version PR3A.1. Combined loggings are handled in TA Select^{II} in one single chart by using scaled vertical axes on left and right with a colour coding linking each curve to its axis.

Zooming is made by going from left to right with the left mouse button pressed.. Scrolling is made by moving the mouse cursor while having the right mouse button pressed. Undo zooming/scrolling by going from right to left with the left mouse button pressed.

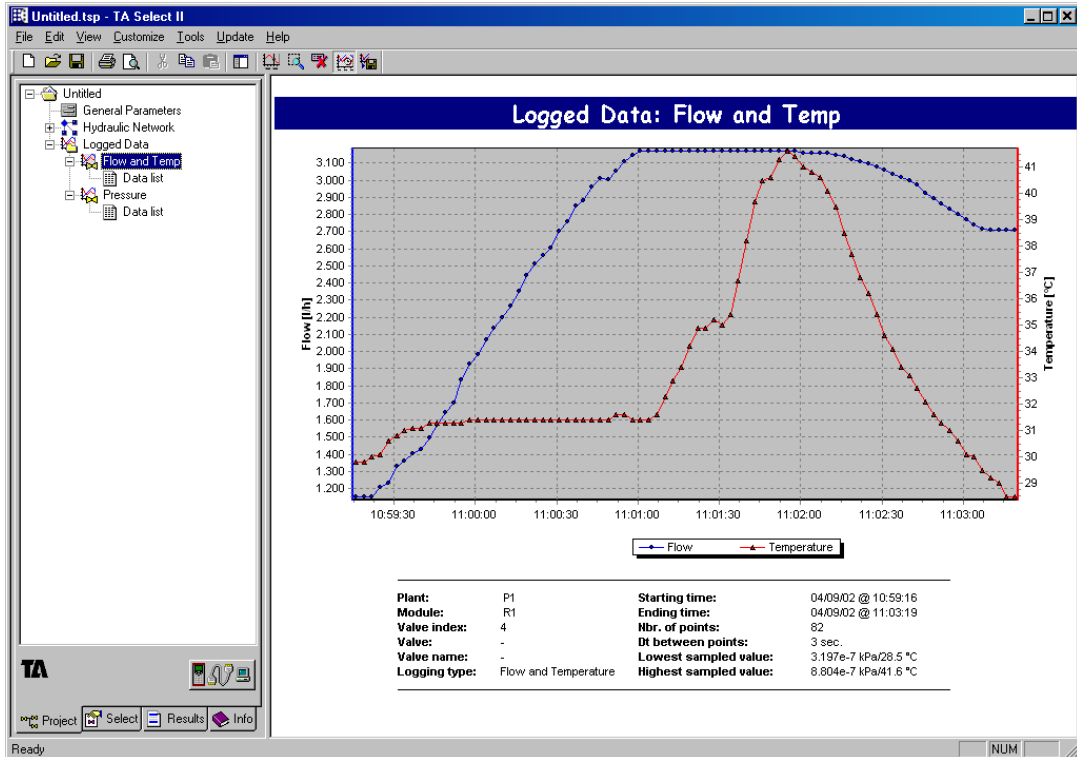


Figure 4.18: Chart display of logged data collected from TA-CBI.

Buttons are available in the toolbar for interaction with the logged data chart:

- Cursor Tracking
- 2D Zoom/Scroll
- Legend box display
- Date on axis display
- Chart exportation

Clicking the chart exportation button makes the dialog box of Figure 4.19 appears. It allows to export a logged data chart in 4 different graphics file format: Windows Metafile, Bitmap, Jpeg and Png. Logged data chart can also be copied to Windows clipboard (for pasting in another application such as Microsoft Word, Excel or PowerPoint)

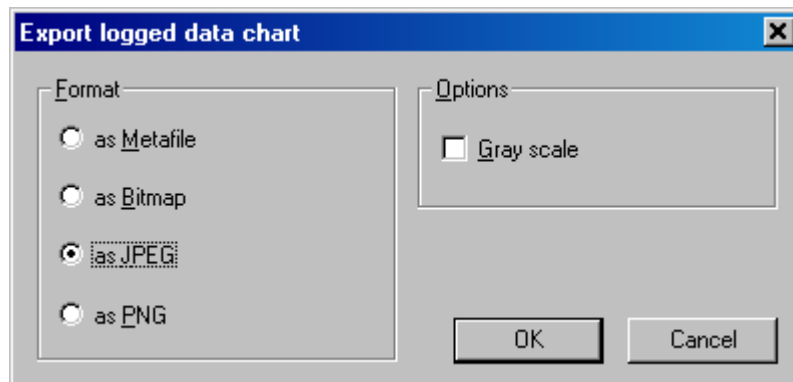


Figure 4.19: Dialog box for logged data chart exportation.



The exact numerical values of each measurement point of a logging can also be visualised under the form of a table by opening the desired logged data node in the left pane tree and clicking its Datalist link. Logged data lists displayed in the right view (Figure 4.20) can be scrolled and printed as displayed.

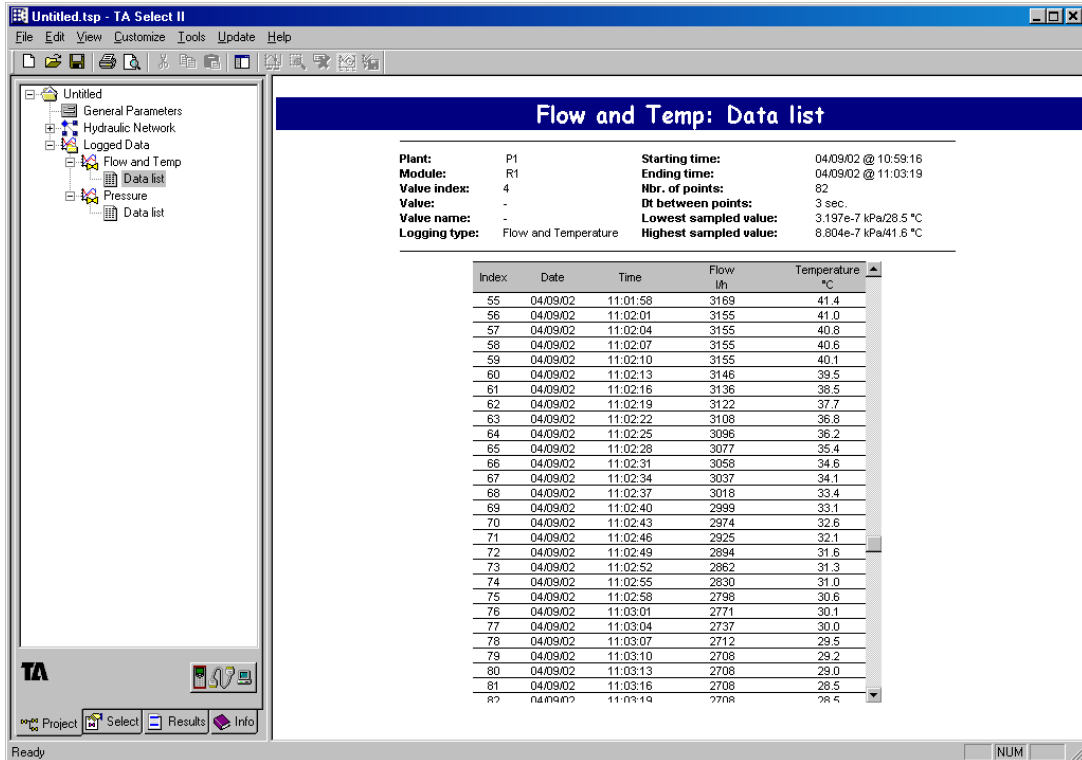


Figure 4.20: List display of logged data collected from TA-CBI.

Logged data lists can also be exported in different formats through main menu **File/Export**. A dialog box then appears to select the export format for the logged data (see Figure 4.21):

- Text (character separated)
- Excel
- Html table

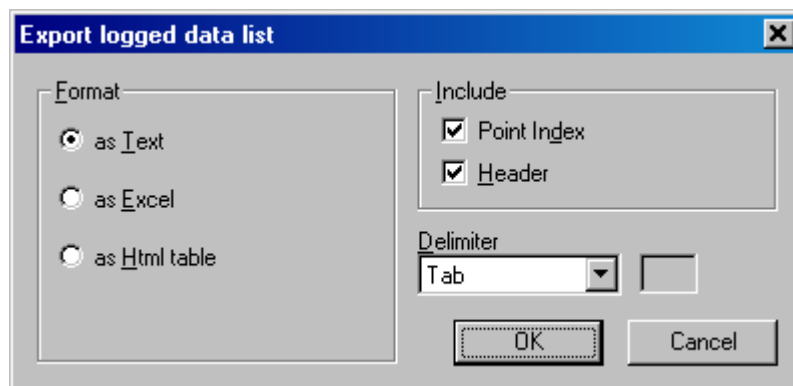


Figure 4.21: Dialog box for logged data list exportation



5 The "Selection" view

The "Selection" view is the view where valves are suggested to the user based on his input parameters. There are actually three different "Selection" views that are each activated through radio buttons located at the top of each "Selection" view left pane:



activates the static balancing selection view (Figure 5.1),




activates the dynamic balancing selection view (Figure 5.2),



activates the radiator valve selection view (**Erreur ! Source du renvoi introuvable.**).

5.1 Static balancing selection view

In the left pane of this view, four frames allows to input a series of parameters:

- ▶ The flow (the only compulsory parameter to obtain a valve suggestion).
- ▶ The pressure drop (can be given or left unknown).
- ▶ The type, connection, version and PN of the valves to be suggested. The type of valve must be chosen amongst the proposed categories. Connection, version and PN can be left open.
- ▶ The pipe series can be chosen or the default "Generic Steel Pipe" series can be kept. The pipe size can be left open.
- ▶ The water characteristics can be changed through the Water characteristics dialog box that is displayed by pressing button .

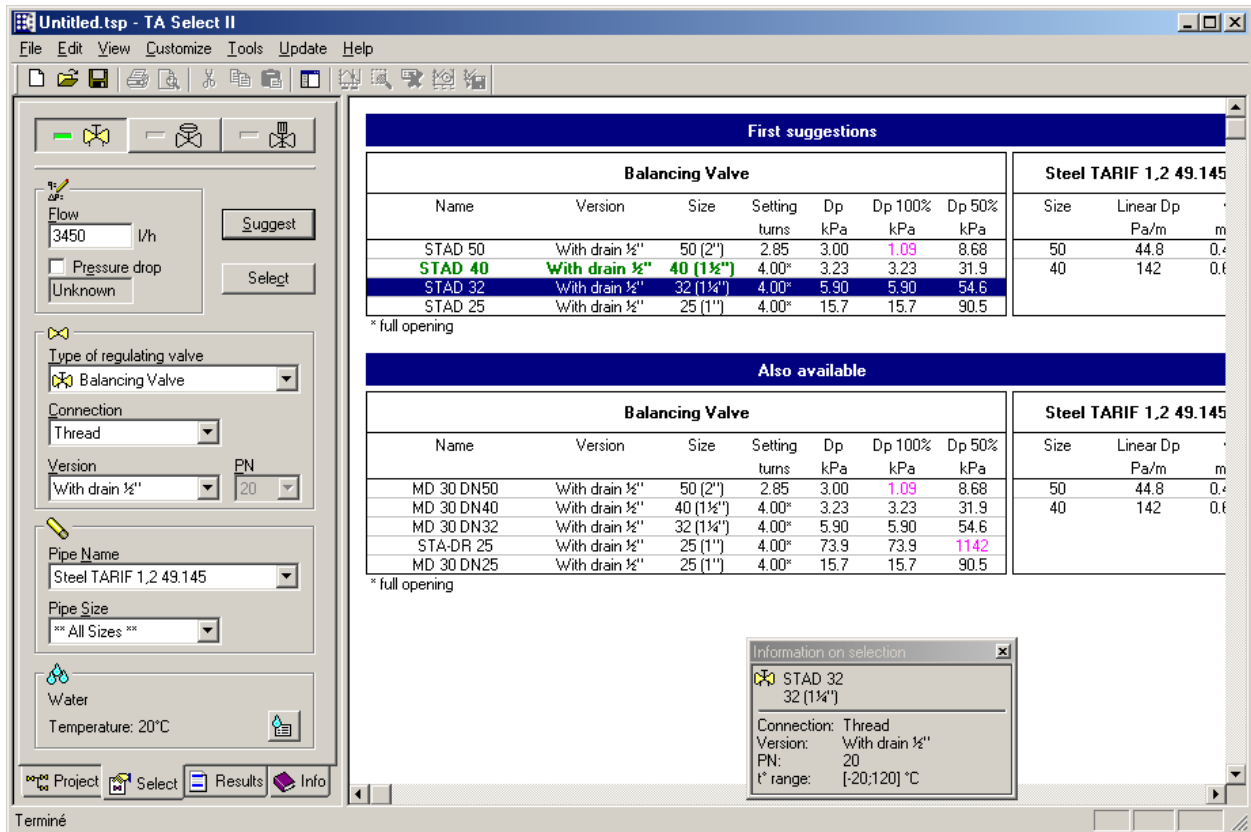


Figure 5.1: Static balancing selection view.

Suggestions are displayed in the right view when the **Suggest** button is clicked. A colour code is used in the valve suggestion list:

- ▶ When the Dp is unknown, the best valve is displayed in green (valve giving the lowest Dp higher than 3 kPa at full opening).
- ▶ Results that do not satisfy technical parameters² in a non-blocking way are in indigo.
- ▶ Valves of which one result does not satisfy technical parameters are displayed on gray background with the invalid result in red.

When a valve of the suggestion list is clicked, a small floating information box appears to give more information about the valve (see Figure 5.1).

Right-clicking on an element of the suggestion list displays a floating menu that allows to add the valve in the selection document (see section 5.3) or to view the technical documentation sheet of the product (see section 7).

5.2 Dynamic balancing selection view


In the left pane of this view, five frames allows to the user to input a series of parameters:

- ▶ The first frame allows to select the type of Dp stabilisation that is wished. The Dp can be stabilised on a branch³ or directly on a control valve. The second choice is to specify

² Technical parameters can be accessed through the **Customize** menu of the main TA Select^{II} window.



whether the measuring valve that transmits the upper pressure to the Dp controller should be included or not in the stabilised Dp (measuring valve located on the primary or secondary side).

- ▶ The second frame allows to input:
 - ▶ The flow (the only compulsory parameter to obtain a Dp controller suggestion).
 - ▶ The differential pressure to stabilise (can be given or left unknown). For Dp stabilisation on a control valve, a Kvs value must be input. TA Select^{II} displays an interval of Kvs beside the Kvs edit box to help the user making its choice. When the Kvs value is input, TA Select^{II} calculates and displays the value of the Dp to be stabilised.
- ▶ The third frame contains a graphical representation of the considered Dp stabilisation.
- ▶ The fourth frame allows to input pipe parameters. The pipe series can be chosen or the default "Generic Steel Pipe" series can be kept. The pipe size can be left open.
- ▶ In the fifth frame, the water characteristics can be changed through the Water characteristics dialog box that is displayed by pressing button .

Suggestions are displayed in the right view when the **Suggest** button is clicked. As for the Static balancing selection view, a colour code is used in the valve suggestion list.

When a Dp controller and/or a measuring valve of the suggestion list is clicked, a floating information box appears to give more information about the Dp controller and associated measuring valve (see Figure 5.2). The connection scheme is displayed and the calculated Dp of the valves, the minimum required pump head (Hmin) and valve settings are positioned on the connection scheme in nice graphical overview.

Right-clicking on an element of the suggestion list displays a floating menu that allows to add the Dp controller and/or associated measuring valve in the selection document (see section 5.3). This floating menu also allows to view the technical documentation sheet of one the products (see section 7).

³ The option of Dp stabilisation on a branch can be used for any load (risers, terminal units, sets of terminal units, ...) for which a differential pressure to stabilise can be defined.

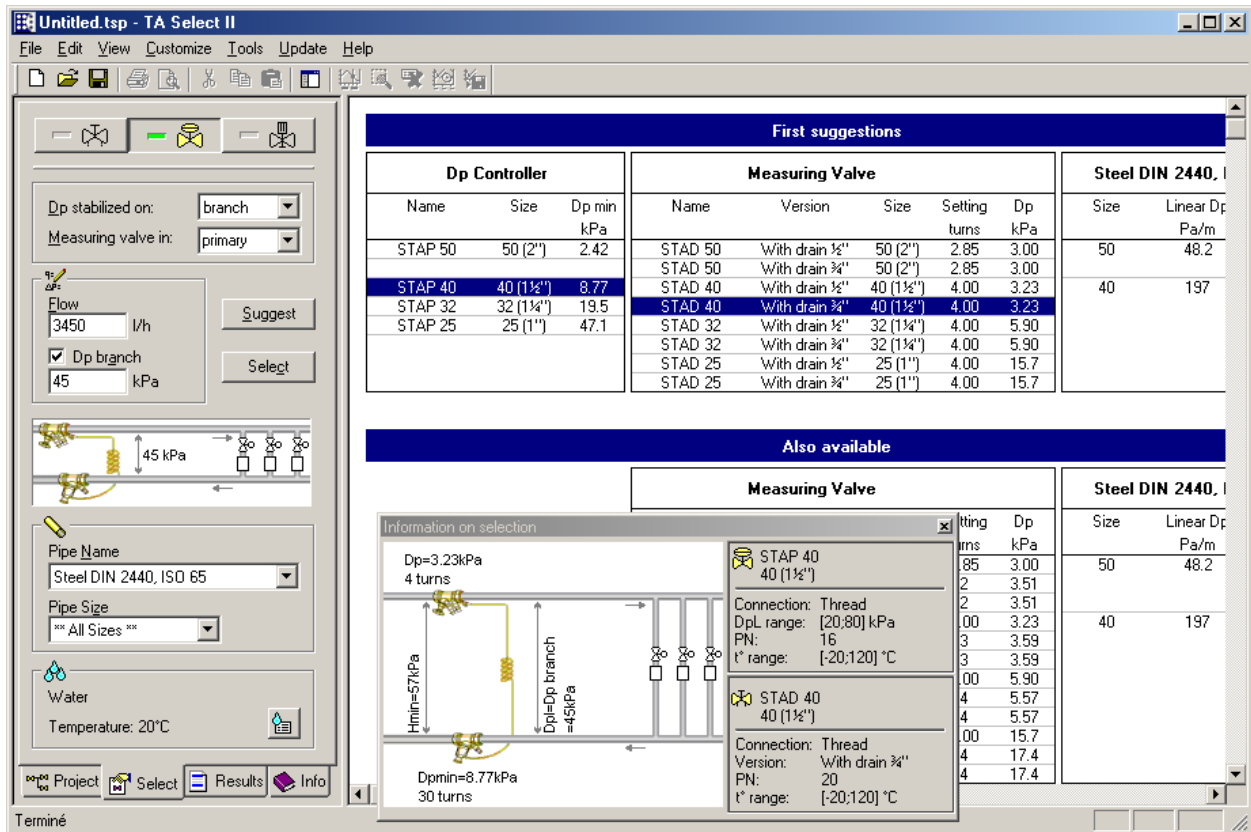


Figure 5.2: Dynamic balancing selection view.

5.3 Selecting an element of the suggestion list

There are three ways to add an element (or a pair of elements) of a suggestion list to the selection document:

- The element can be simply clicked which turns it on a blue background. The **Select** button becomes then active and can be pressed to add the element to the selection document.
- The element can be double-clicked.
- The element can be right clicked and the **Select** option chosen (see Figure 5.3).

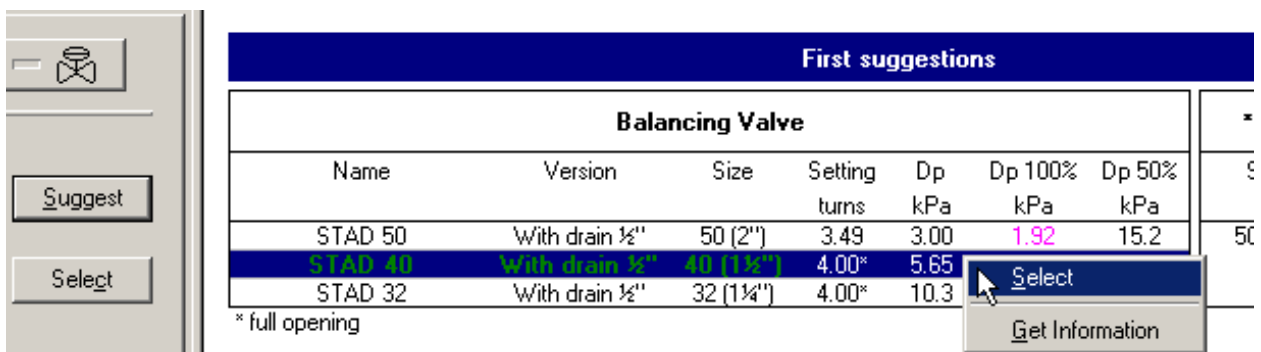


Figure 5.3: Selection of an element of the suggestion list through its floating menu.

Before the selected element is indeed added to the selection document, a dialog box is displayed for confirming the selection and adding complementary information (see Figure 5.4). Two



references, a quantity as well as a remark can be added as complementary information to the selection. Remarks can be kept in a glossary.

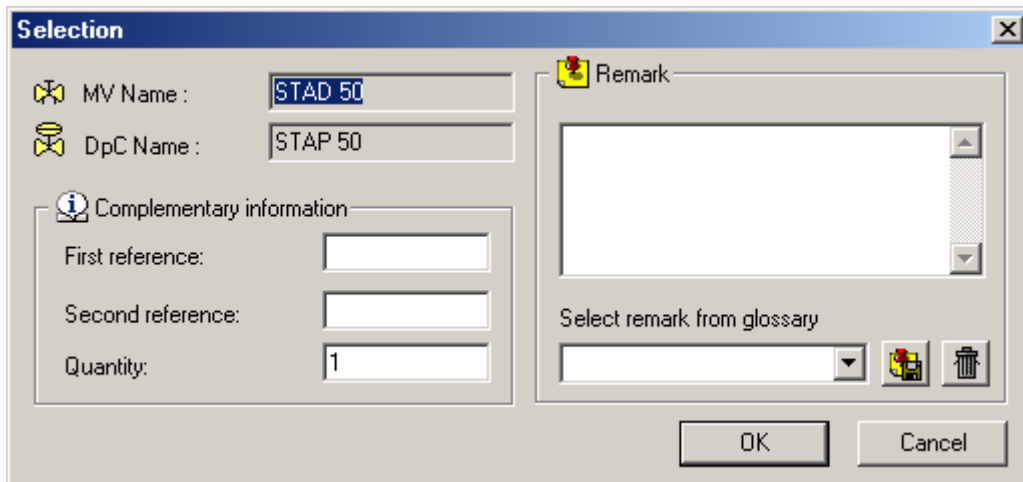


Figure 5.4: Selection confirmation dialog box allowing to add complementary information.

To create a new entry in the remark glossary, input a text in the remark edit box, type a remark name in the glossary combo box and press button to save the remark in the user database. To remove a remark from the glossary, select it in the combo box and press the garbage button .

As soon as the selection is confirmed by pressing the **OK** button, a new entry is created in the selection document. It can be visualised in the "Results" view (see section 6).



6 The “Results” view

The “Results” view is the view where document layout preferences can be specified. Layout preferences can be set through the left pane controls.

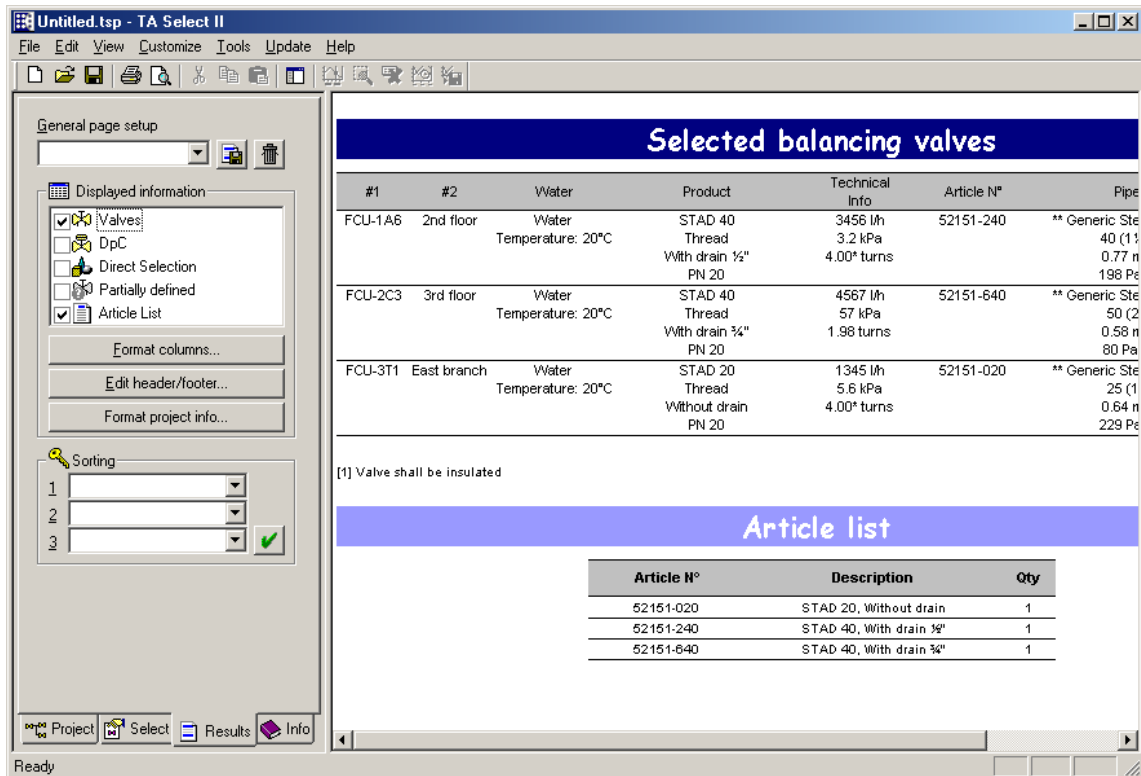


Figure 6.1: Display of selected products in the “Results” view.

- ✦ A page setup containing all formatting parameters you have set can be named and kept in user database for later use in another project.
- ✦ Categories of selected valves to be displayed/printed can be chosen.
- ✦ Buttons **Format columns**, **Edit header/footer** and **Format project info** display dialog boxes that allow to format the printed version of the document according to user preferences. These dialog boxes are further described below.
- ✦ A sorting functionality with triple sorting keys is available for ordering your selected valves as you wish.
- ✦ Edit, cut, copy and paste of the selected valves displayed in the right view can be performed through toolbar, menu bar and floating menus.

6.1 Displayed field dialog box

This dialog box is displayed when the **Format columns** button (see Figure 6.1) is pressed. Check the check boxes of data fields or sub-fields to be displayed; uncheck the check boxes of data fields to be hidden. Displayed field styles can be defined and kept in user database for later use.



To create a new displayed field style, check/uncheck the field boxes according to your preferences, type a style name in the combo box and press button to save the style in the user database. To remove a style, select it in the combo box and press the garbage button .

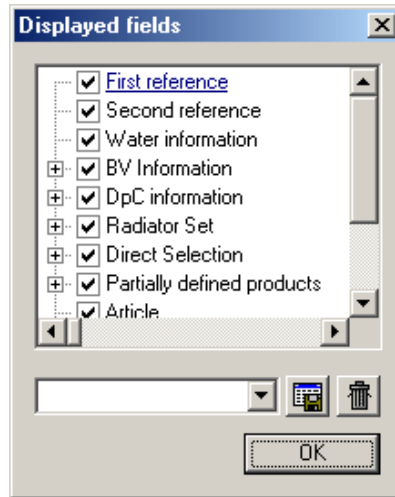


Figure 6.2: Displayed field dialog box.

6.2 Edit header/footer dialog box

This dialog box is displayed when the **Edit header/footer** button (see Figure 6.1) is pressed.

Click on the check box **First page different** to allow for different header and footer for the first page of the selection document. Button drops user references in the current footer in small font size and left-aligned. User references can be input through the **Customize** menu of the main TA Select^{II} window.

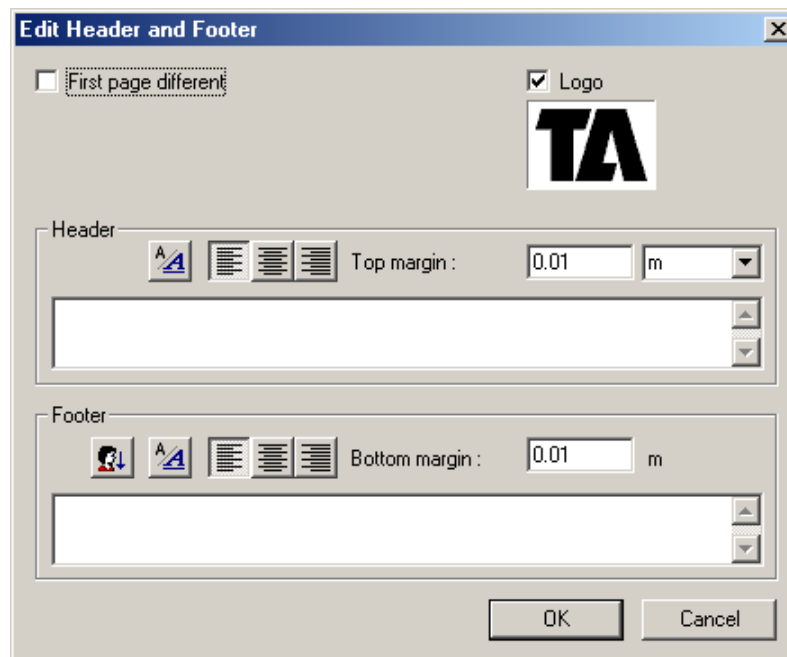


Figure 6.3: Edit header and footer dialog box.



6.3 Format project info dialog box

This dialog box is displayed when the **Format project info** button (see Figure 6.1) is pressed. It allows to choose which project info must be displayed in the info frame printed on the top of the first selection document page.

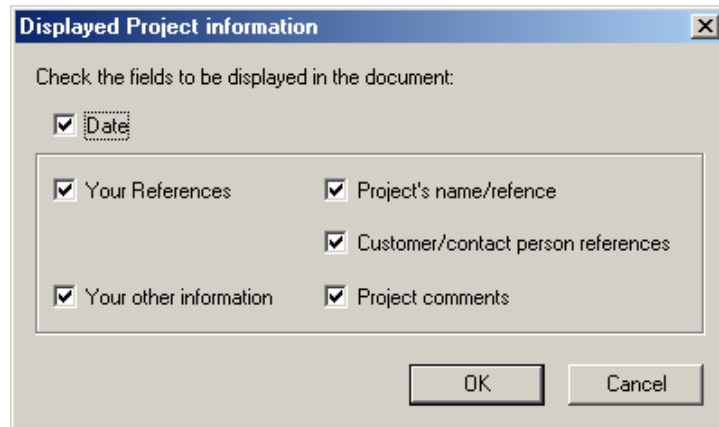


Figure 6.4: Format project info dialog box.



7 The “Information” view

TA Select^{II} includes the technical documentation sheets of all products available in the TA catalogue. To get access to the technical documentation sheets, select the **Information Tab** at the bottom of the left pane. The "Information" view then displays as shown in Figure 7.1.

The tree in the left pane allows to browse within a complete set of technical documentation sheets. These sheets are displayed through Adobe Acrobat Reader v4.0 or later⁴. All functionalities of Acrobat Reader such as zooming, searching, printing, etc. can be used.

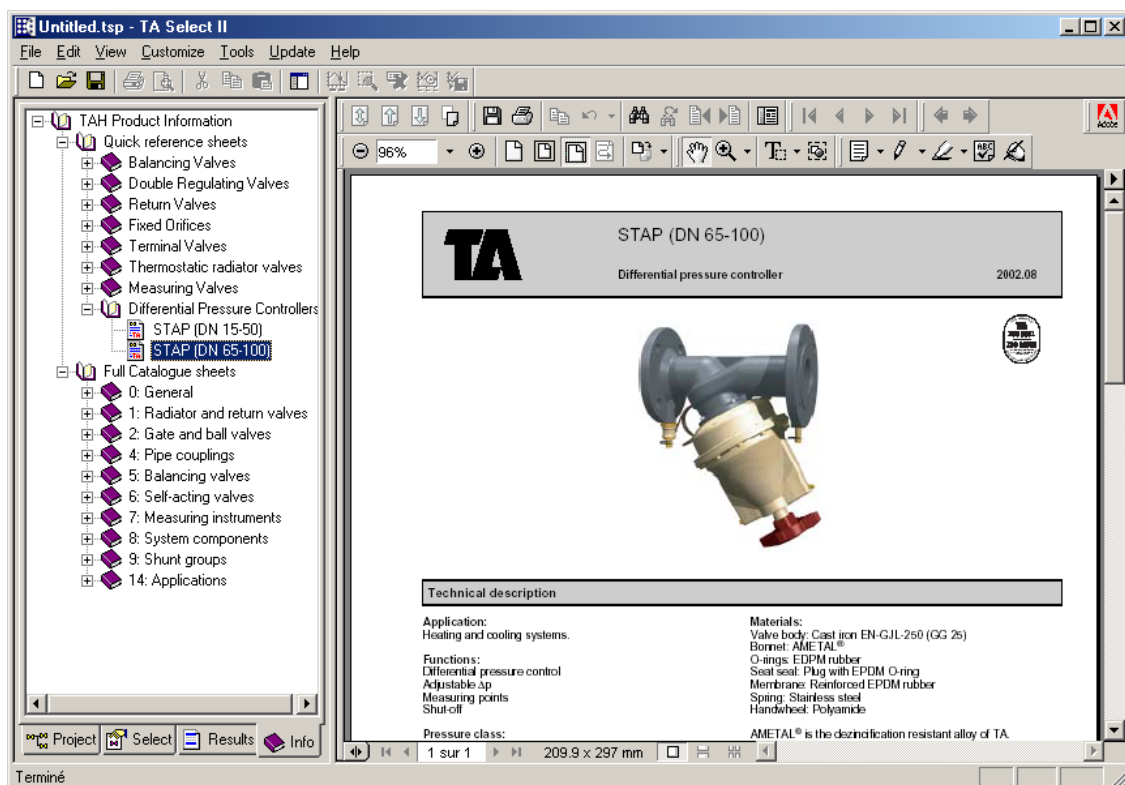


Figure 7.1: Display of technical documentation in the “Information” view

Two types of documentation sheets are available:

- ▶ **Quick reference sheets** summarize the main technical characteristics of each product series. They are displayed automatically when the user asks for information about a specific valve in the “Selection” or “Results” view.
- ▶ **Full catalogue sheets** are the sheets from the TA catalogue. They contain all needed information for all available products and their accessories.

In order for you to always have up-to-date information on current and new products, both quick reference sheets and full catalogue sheets are maintained by an automatic update functionality.

⁴ If you do not have Adobe Acrobat Reader v4.0 or later installed on your computer, technical documentation sheets cannot be viewed. Refer to the Release Notes accessible through the **Help** menu of TA Select II for getting Acrobat Reader on your computer.