

ValSpeQ

Version 3.80

USER MANUAL

Version 1.0

Release: - May 2008

Table of Contents

Topic No.	Topic Description
1	Overview
2	System Requirements – Hardware & Software
3	Technical Support
4	Getting Started With ValSpeQ Application
5	Navigation Section
5.1	Configuration Tab
5.2	Project Tab
5.2.1	Quote Number Folder/Node
5.2.2	Template Library Folder
6	Application Work Area
7	Application Menu Bar
7.1	Project
7.1.1	New Project
7.1.2	New Configuration
7.1.3	Open (Existing Project)
7.1.4	Save
7.1.5	Save As
7.1.6	Import
7.1.7	Export
7.1.8	Freeze Items
7.1.9	Unfreeze Items
7.1.10	Search Tag
7.1.11	XML File...
7.1.12	Project Preferences
7.1.13	Spreadsheet View
7.1.14	Print
7.1.15	Recently Used Projects Section
7.1.16	Exit
7.2	Template Library
7.2.1	Export Templates
7.2.2	Import Templates

7.3	Item
7.3.1	Add
7.3.2	Copy
7.3.3	Copy Item to Library
7.3.4	Delete
7.3.5	Save
7.3.6	Freeze
7.3.7	Unfreeze
7.3.8	Cancel Item
7.3.9	UnCancel
7.3.9	General Info
7.4	Template
7.4.1	Add
7.4.2	Copy
7.4.3	Copy Template to Quote/ Project
7.4.4	Delete
7.4.5	Save
7.4.6	General Info
7.4.7	Overlay Template
7.5	Settings
7.5.1	Pricing
7.5.2	Factory Notes Library
7.5.2.1	Manage Factory Notes / Groups / Collections
7.5.2.2	Import Factory Notes
7.5.2.3	Export Factory Notes
7.5.3	User Preferences
7.5.4	Manage Customer Library
7.5.5	ITP
7.5.5.1	ITP Management
7.5.5.2	Import ITP
7.5.5.3	Export ITP
7.6	Tools
7.6.1	ANSI Calculator
7.6.2	Leakage Calculator
7.6.3	UOM Converter
7.6.4	PED Evaluation
7.6.5	PED Factory Documentation
7.6.6	Filter
7.6.7	Mass Change
7.7	Help
8	Tag
9	LODB Restrictor
10	ValSpeQ Messages

Overview

Welcome to ValSpeQ, a full function, Windows based multi-configurator for Control Valve, Level, Accessory and Regulator sizing, selection and specification tool. This version of ValSpeQ is intended for Masoneilan sales and sales support personnel as well as sales representatives and agents. ValSpeQ is designed to be an effective tool for quickly sizing a few valves to generating complete proposal documentation for large quotes. Now ValSpeQ supports configuration of Regulators too.

As a valve configurator ValSpeQ offers flexibility yet is consistent in its validation of valve, actuator and accessory selections. Indeed, the tool is structured so that user cannot select invalid combinations of components. Tool output reliability is also assured through sizing calculations and noise prediction methods that are entirely consistent with the latest ISA/IEC standards. Moreover, regular maintenance of the ValSpeQ product database and standardized formatting of output documents leads to tool accuracy and consistency. As a common platform for sales support worldwide, the ValSpeQ product database and output documents are intended to be Masoneilan corporate standards.

By combining flexibility, ease of use and full functionality, ValSpeQ, effectively supports our selling efforts from identification of sales opportunity to submittal of quote.

Features and functionality of ValSpeQ beyond Sizing, Selection & Specification include the capability to:

- Create configurations for Valves, Levels, Regulators and Accessories.
- Easily navigate between Items/Templates & various configurations detail information.
- Quickly calculate without actually adding an Item or Template & then at the user's option saving the same, if required, as an Item or a Template.
- Store every project separately, each project containing multiple Items/Templates.
- Now open the Project File (.vnx) directly from the Explorer, by just double clicking on the file.
- Import/Export selected Items/Templates including Factory Notes from one user to another.
- Generate a XML File with Factory Notes for the factory/facility MRP system.
- Create a Template or set of Templates within the Template Library allowing the user to create an Item of similar configuration very quickly.
- Copy an Item within the Quote or to the Template Library as a Template. Copy a Template within the Template Library or to Quote as an Item.
- Visual Indicator to indicate Valid or Invalid configuration adjacent to the Item/Template & at each Configuration node. Visual indicator to represent an item/template type (either control valve-C within a circle or Level-L within a circle or Accessory – Actuator-A within a square, Positioner – P within a square, Transducer –T within a square, Booster-B within a square, Switch-S within a square, Solenoid-S within a square and Regulator-R within a circle). Green background for a circle or square represents valid & red background represents invalid.
- Search Items by Tag Number. Search tags for items by giving special conditions like Tag 'Equals'/'Begins with'/'Contains'/'Ends with'.
- Invalidate Items or Templates if configured using an older version, thus forcing the user to re-configure & re-validate using the current configurator.
- Prohibit opening project files created using higher ValSpeQ application version than the current one.
- Re-order Items.
- Freeze/Unfreeze all items in one click.
- Create criteria based Filters in Library and Project to quickly work with items/templates.
- Mass change for accessories for the filtered/non-filtered items.

- Use Freeze/Unfreeze, search tag, export, XML file, Mass change, Apply factory notes like functionalities along with Filters.
- Generate envelope dimensioned drawings and various reports in multi-language including: Specification Sheet, Calculation Sheet, Notes Sheet, Price Sheet, Valve Flow Curve, Technical Summary, Pricing Summary, Drawing Sheet, Accessory Sheet, Restrictor Sheet, Item Impact, Factory Quality Plan, Revision Sheet, ITP Sheet and ITP summary.
- Automatically price complete configurations:
 - North American List Price, Canadian Price List, Alliance Price List
 - Discounting via a 3 Tier Quote/Line/Accessory Discount Template
 - Pricing of Quality Plans, Factory Notes and User Defined Adders
- Create and Manage Groups, Factory Notes, Note Collections in Library and Project. Apply Note collections to items/templates. Find and replace a note for items/templates.
- Import and Export the Factory Notes along with Groups and collections.
- Store the user defined Factory Notes along with Groups in the Library. Hence user can reuse Factory Notes once created for different projects & associate them with the configuration.
- Automatically tag masking for items on accessories.
- A separate User preference screen to allow the user to set default values for new configurations and for ValSpeQ general behavior.
- Open the Project from previous versions like Release 3.60, 3.61, 3.61.1, 3.61.2, 3.61.3, 3.62, 3.62.1, 3.70, 3.70.1, 3.70.2, 3.71, 3.72, 3.72.1, 3.72.2, 3.73, 3.73.1, 3.74, 3.74.1, 3.74.2, 3.75, 3.75.1, 3.75.2 and make them Release 3.80 compatible.
- Import an Item or Template from the export file created in Release 3.60, 3.61, 3.61.1, 3.61.2, 3.61.3, 3.62, 3.62.1, 3.70, 3.70.1, 3.70.2, 3.71, 3.72, 3.72.1, 3.72.2, 3.73, 3.73.1, 3.74, 3.74.1, 3.74.2, 3.75, 3.75.1, 3.75.2 and make those lines compatible with Release 3.80.
- New Tools for the user to calculate ANSI Rating, Leakage and UOM converter.
- Supporting for PED Evaluation and factory documentation.
- Applying ITP (Inspection & Testing Plan) to Line Items.
- Spreadsheet View for Line Items in order to view or change the Line Items at one go.
- Cancel or Uncancel the Line Items.
- Supporting Custom Trim functionality since Version 3.70 onwards.
- Auto Selection of Accessory from Version 3.80.









































ValSpeQ Editions

ValSpeQ is distributed in 3 different editions.

Features	Lite	Standard	Full/Professional
Sizing & Selection	✓	✓	✓
Render Drawing	x	✓	✓
Pricing/Discount/Quote Management	x	x	✓
Registration Required	x	✓	✓

Product Configurators Supported

Following is the list of different product and accessories configurators supported & the different visual identifiers.

Configurators Supported	Visual Representation			
	Invalid	Valid	Freeze	Cancel
Control Valve				
Levels				
Accessory Configurator				
Actuator				
Positioner				
Transducer				
Booster				
Switch				
Solenoid				
Airset				
Regulators (new in v3.80)				

Note: Accessory line items will have a square background as opposed to Control Valve or Level or Regulator that have a round background.

System Requirements – Hardware & Software

Hardware Requirements

Pentium III 533 MHz Processor

512 MB RAM

Minimum 500-MB free Disk Space required on the system drive.

Software Requirements

Windows XP OR

Windows 2000 Professional OR

Windows 2000 Server OR

Windows 2003 Server OR

Technical Support

For any technical assistance, please contact

Postal Address : Dresser, Masoneilan
85 Bodwell Street
Avon, Massachusetts 02322

Email : ValspeqSupport@masoneilan.com

Telephone : (508) 586-4600

Tele Fax : (586) 941-5497

Kindly use the below mentioned format when recording any problems or errors.

Client Name : Type Your Company Name

User Name : Type Your Name

Application : ValSpeQ 3.60

Error Description : Provide the following Information

1. Error Description or Message
2. Occurs Only On A Specific Event & steps to reproduce the event
3. Occurs Randomly
4. Data, in case any

Getting Started with ValSpeQ Application

To start the ValSpeQ application, follow the steps given below: -

From the Windows taskbar click **Start→All Programs→ValSpeQ→ValSpeQ**

On starting the application, a New Project named “Untitled.vnx” will be opened & the blank Sizing & Selection screen is being displayed in the application work area. The application will be ready to configure a New Configuration. The Pricing version will have the folder Quote Number in place of folder “Project”. The default value of the Quote Number will be “Quote” which is editable.

The screenshot shows the ValSpeQ 3.80.0 application window. The title bar reads "ValSpeQ 3.80.0 - C:\Documents and Settings\Administrator\My Documents\standard.vnx". The menu bar includes "Project", "Template Library", "Item", "Template", "Settings", "Tools", and "Help". The interface is divided into several sections:

- Navigation Section:** Located on the left, it contains a "Quote" tree view with items like "1 41-FV-01 [35-35212] 6in, Basic, ANSI" and a "Template Library" section.
- Menu Bar:** Located at the top, it includes "Project", "Template Library", "Item", "Template", "Settings", "Tools", and "Help".
- Project File Name:** Located at the top right, it displays "standard.vnx".
- Application Work Area:** The main central area containing configuration fields and a data table.

	Minimum	Normal	Maximum	Other
flow rate	89.3	246.3	271	m3/h
inlet pressure	746	718	711	kPa g
outlet pressure	411	571	610	kPa g
pressure drop	335	147	101	kPa
temperature	38	38	38	deg C
vapor pressure	104	104	104	kPa a
critical pressure	3569	3569	3569	kPa a
viscosity	0.368	0.368	0.368	centipoise
liquid Gf	0.7	0.7	0.7	

When ValSpeQ is invoked for the first time, Sizing & Selection screen for Control Valve is displayed.

When ValSpeQ is invoked subsequently, the screen displayed may vary based on Default Configurator selected in User Preferences. User can set Control Valve or Levels as the Default Configurator.

ValSpeQ can alternatively be invoked by Double Clicking on the ValSpeQ icon on the desktop or by double clicking on a ValSpeQ Project File i.e. .vnx file.

Navigation Section

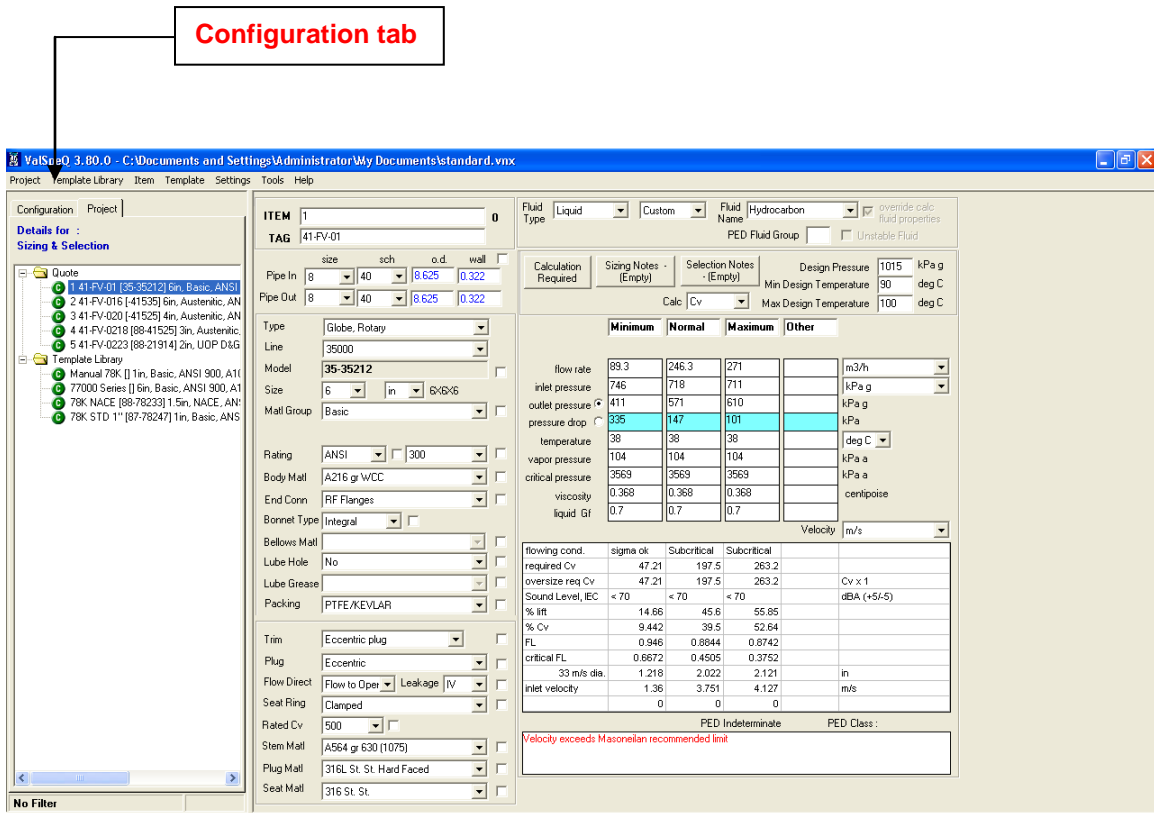
The Navigation section facilitates the user to navigate or switch in between Items / Templates & its associated different configuration nodes/functions.

The Navigation section is split into two

1. Configuration Tab
2. Project Tab

1. Configuration Tab

Functionality: Allows navigation through different functionalities of a configuration such as Size & Selection, Materials, Actuation etc. in case of a Control Valve. The configuration nodes vary based on configurator.

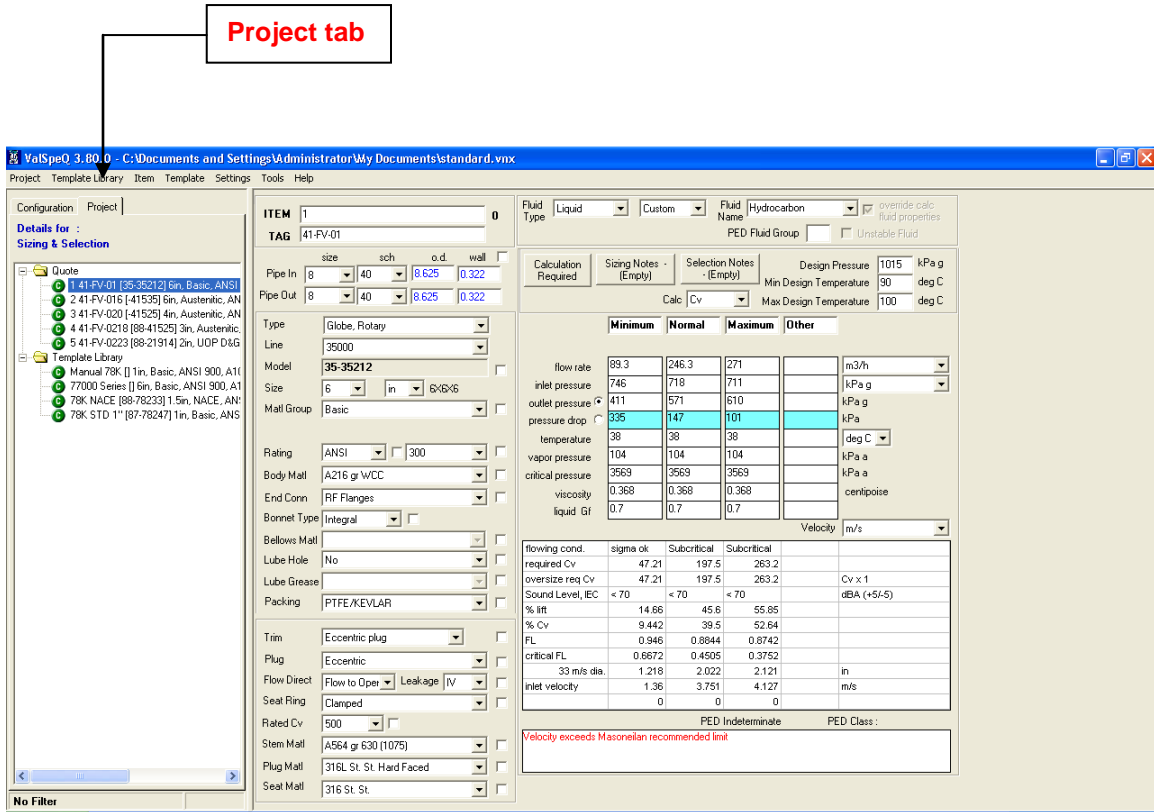


Depending on the selected Configuration Node & the selected Item or Template, the data is displayed in the application work area.

Visual icons to indicate valid or invalid / incomplete data are displayed adjacent to each Configuration Node. If any one Configuration Node is invalid / incomplete, the Item / Template Node is set to invalid / incomplete.

2. Project Tab

Functionality: Allows navigation between Items / Templates in Quote Number / Project & Template Library folder respectively.



Depending on the Item or Template selected & the selected Configuration Node, the data is displayed in the application work area.

Visual icons to indicate valid or invalid / incomplete data are displayed adjacent to each Item / Template node. If any one Configuration Node is invalid / incomplete, the Item / Template Node is set to invalid / incomplete. Only when all the Configuration Nodes are valid, the Item / Template Node is set as valid.

The Project Tab page is further split into 2 i.e. Quote Number Folder / Node & Template Library Folder / Node. All the Items reside under the Quote Number folder & all the Templates reside under the Template Library folder.

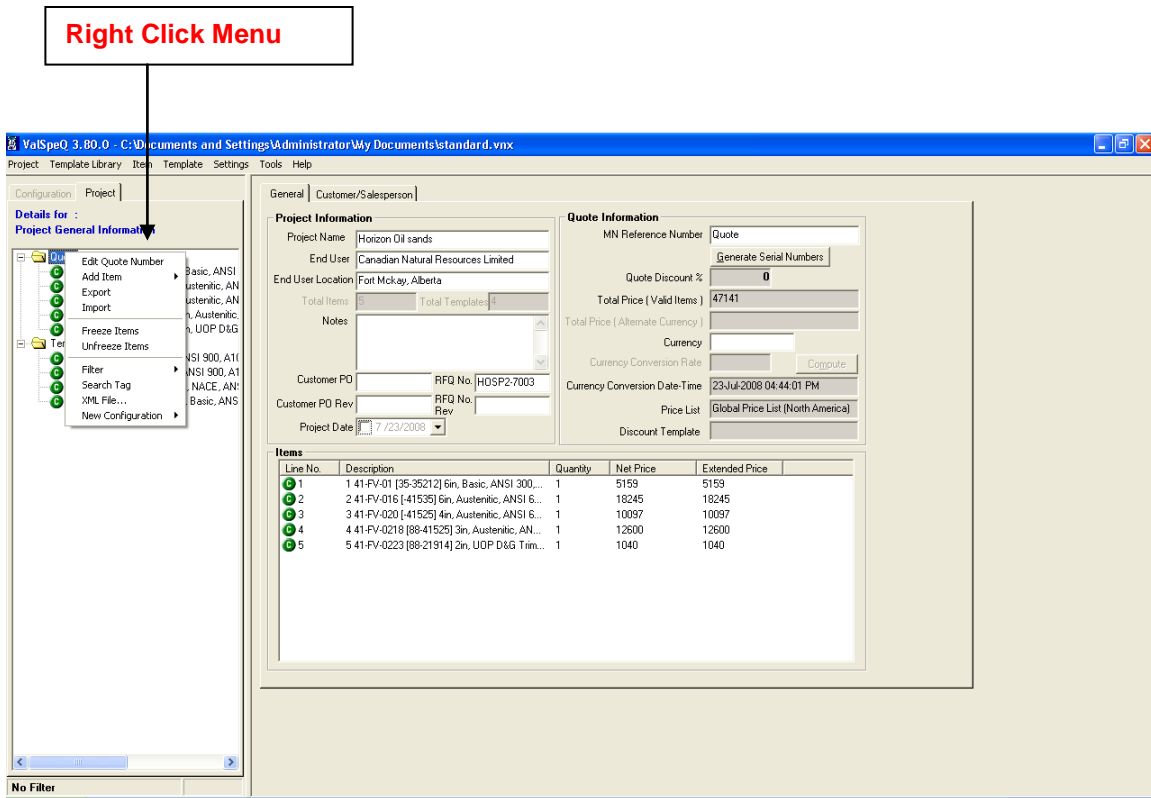
Quote Number Folder/Node

The Quote Number folder on the Project Tab contains list of Items in the Quote.

Note: The Quote Number folder is referred to as Quote hereafter in the document.

By right clicking on the Quote Folder or Node, a popup menu is displayed by which some of the functionalities related to current Project can be invoked.

The following screen shows the options available on the popup menu on the right click of Quote node.



The lists of functions available on right click of Quote Folder/Node are as follows:

1. Edit Quote Number (Option available in Professional Edition only)

Note: Users provided with Project Files to work with by the host system, Edit Quote Number option will not be available i.e. it will be disabled. Users will also not be able to edit the MN Reference Number & the same will be pre-populated by the host system. In addition, **Generate Serial Numbers** button on the **Project General Information** screen will be disabled. All **Serial Number** fields on **Item Data** node of the **Configuration** tab will be non-editable.

2. Add Item
 - 2.1. Control Valve
 - 2.2. Level
 - 2.3. Accessories

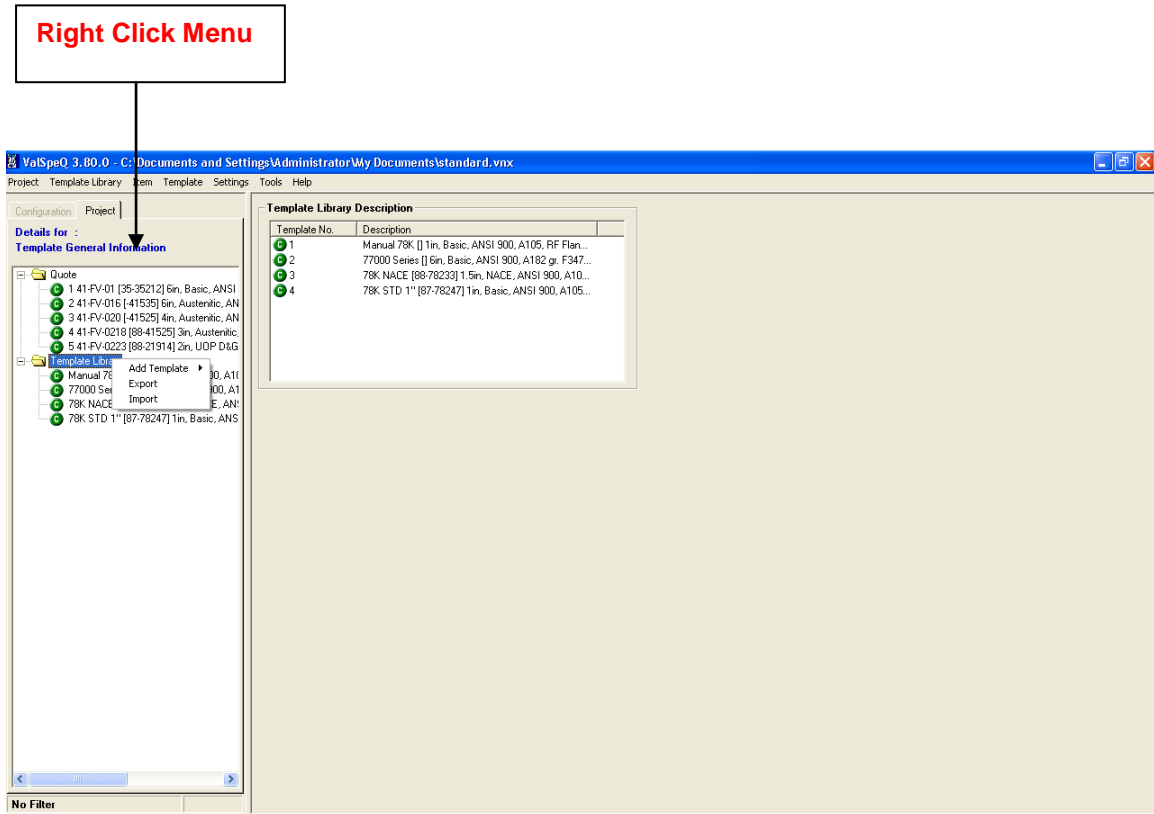
- 2.3.1 Actuator
- 2.3.2 Positioner
- 2.3.3 Transducer
- 2.3.4 Booster
- 2.3.5 Switch
- 2.3.6 Solenoid
- 2.3.7 Airset
- 2.4. Regulator
- 3. Export
- 4. Import
- 5. Freeze Items
- 6. Unfreeze Items
- 7. Filter
 - 7.1. Add/Edit...
 - 7.2. Activate
 - 7.3. Refresh
- 8. Search Tag
- 9. XML File
- 10. New Configuration
 - 10.1. Control Valve
 - 10.2. Level
 - 10.3. Accessories
 - 10.3.1 Actuator
 - 10.3.2 Positioner
 - 10.3.3 Transducer
 - 10.3.4 Booster
 - 10.3.5 Switch
 - 10.3.6 Solenoid
 - 10.3.7 Airset
 - 10.4. Regulator

Template Library Folder/Node

The Template Library Folder on the Project Tab provides a list of Templates available in the project.

By right clicking on the Template Library folder/node, a popup menu is displayed by which some of the functionalities related to Template Library can be invoked.

The following screen shows the options available on the popup menu on the right click of Template Library node.



The lists of functions available on right click of Template Library folder/node is as follows:

1. Add Template
 - Control Valve
 - Level
 - Accessories
 - Actuator
 - Positioner
 - Transducer
 - Booster
 - Switch
 - Solenoid
 - Airset
 - Regulator
2. Export
3. Import

Application Work Area

The application work area is the area where most of the configuration related data for the selected Item / Template & for the selected Configuration Node is displayed.

Application Work Area

The screenshot displays the ValSpeQ 3.80.0 software interface. The main window title is "ValSpeQ 3.80.0 - C:\Documents and Settings\Administrator\My Documents\standard.vnx". The interface is divided into several sections:

- Configuration Tree (Left):** Shows a list of items and templates. The selected item is "41-FV-01 [35-35212] 6in. Basic, ANSI".
- Configuration Panel (Center):** Contains various settings for the selected item, including:
 - ITEM: 1, TAG: 41-FV-01
 - Pipe In: size 8, sch 40, o.d. 8.625, wall 0.322
 - Pipe Out: size 8, sch 40, o.d. 8.625, wall 0.322
 - Type: Globe, Rotary
 - Line: 35000
 - Model: 35-35212
 - Size: 6 in
 - Rating: ANSI 300
 - Body Mat: A216 gr WCC
 - End Conn: RF Flanges
 - Bonnet Type: Integral
 - Trim: Eccentric plug
 - Plug: Eccentric
 - Flow Direct: Flow to Open
 - Seal Ring: Clamped
 - Rated Cv: 500
 - Stem Mat: A564 gr 630 (1075)
 - Plug Mat: 316L St. St. Hard Faced
 - Seal Mat: 316 St. St.
- Fluid Properties (Top Right):**
 - Fluid Type: Liquid
 - Fluid Name: Hydrocarbon
 - Calculation Required: Sizing Notes (Empty)
 - Design Pressure: 1015 kPa g
 - Min Design Temperature: 90 deg C
 - Max Design Temperature: 100 deg C
- Calculation Results (Bottom Right):**

	Minimum	Normal	Maximum	Other
flow rate	89.3	246.3	271	m3/h
inlet pressure	746	718	711	kPa g
outlet pressure	411	571	610	kPa g
pressure drop	335	147	101	kPa
temperature	38	38	38	deg C
vapor pressure	104	104	104	kPa a
critical pressure	3569	3569	3569	kPa a
viscosity	0.369	0.369	0.369	centipoise
liquid Gf	0.7	0.7	0.7	

	sigma ok	Subcritical	Subcritical
flowing cond.			
required Cv	47.21	197.5	263.2
oversize req Cv	47.21	197.5	263.2
Sound Level, IEC	< 70	< 70	< 70
% lift	14.66	45.6	55.85
% Cv	9.442	39.5	52.64
FL	0.946	0.8844	0.8742
critical FL	0.6672	0.4505	0.3752
33 m/s dia.	1.218	2.022	2.121
inlet velocity	1.36	3.751	4.127
	0	0	0

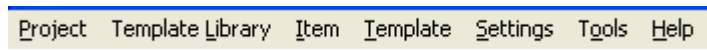
Application Menu Bar

The Application Menu Bar in ValSpeQ provides various options for executing or invoking the different features / functionality of the application.

The following menus are available on the application menu bar

1. Project
2. Template Library
3. Item
4. Template
5. Settings
6. Tools
7. Help

The following image shows the available options on the menu bar.



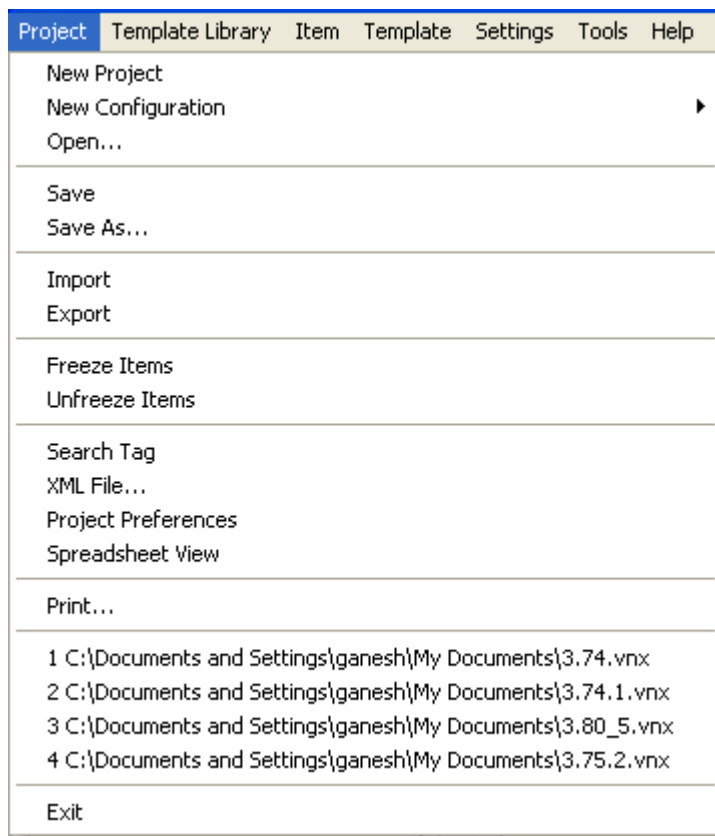
Project

The **Project** menu on the application menu bar allows the customer to perform / invoke various Project related functions.

The list of functions is as follows:

- 1.1 New Project
- 1.2 New Configuration
 - Control Valve
 - Level
 - Accessories
 - Actuator
 - Positioner
 - Transducer
 - Booster
 - Switch
 - Solenoid
 - Airset
 - Regulator
- 1.3 Open (Existing Project)
- 1.4 Save
- 1.5 Save As
- 1.6 Import
- 1.7 Export
- 1.8 Freeze Items
- 1.9 Unfreeze Items
- 1.10 Search Tag
- 1.11 XML File
- 1.12 Project Preferences
- 1.13 Spreadsheet view
- 1.14 Print
- 1.15 Recently Used Projects Section
- 1.16 Exit

The following screen displays the above-mentioned options under the **P**roject menu.



1.1 New Project

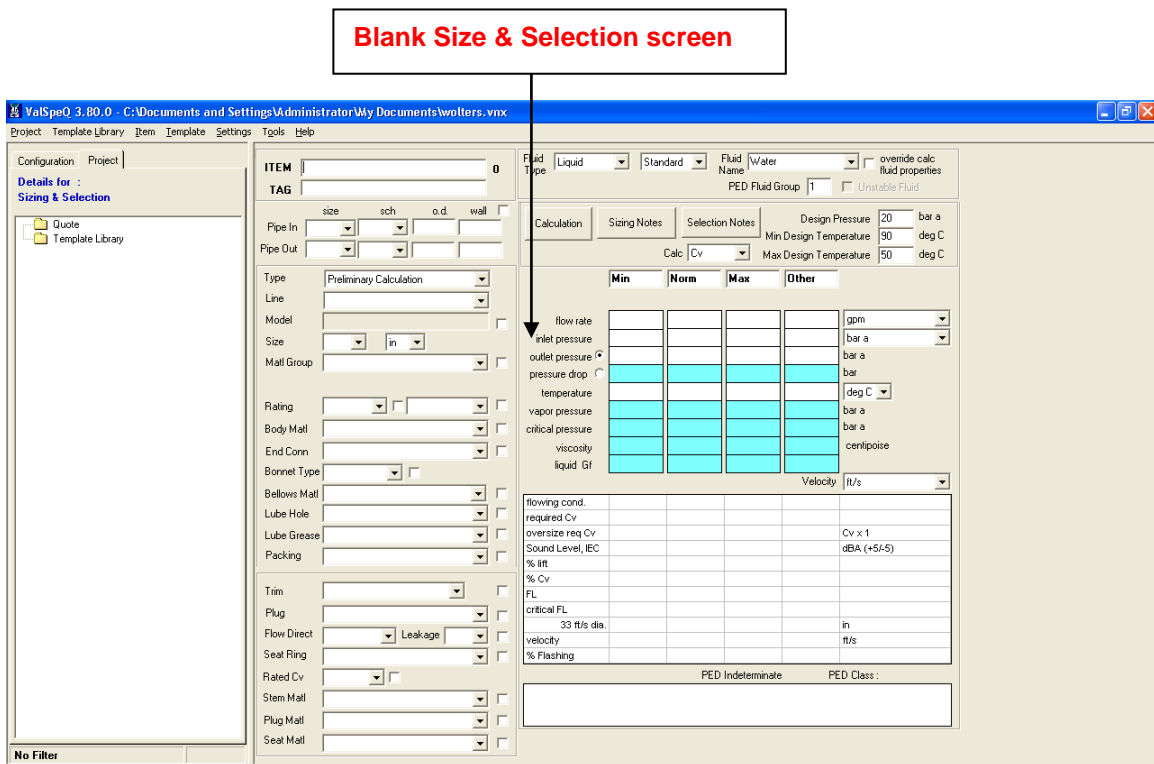
This option facilitates the user to create a New Project, which can have multiple Items and Templates.

Steps:

1. Click on **New Project** option under **Project** menu or **Alt+P** & then **N** for New Project.
2. The application will prompt the user to save any unsaved data for the current project provided it has not been saved before invoking the New Project option.
A new project with the default name as “untitled.vnx” will be opened.
A blank Sizing & Selection screen for Control Valve or blank Service & Level screen for Level will be displayed in the application work area based on the Default Configurator set in User Preferences. The application will be ready to configure a new configuration.

Note: - In ValSpeQ Professional edition, on starting a New Project, associate a Price List in the Pricing option under Settings menu. This is not applicable for Standard and Lite editions.

The following screen is displayed on invoking the New Project option.



1.2 New Configuration

This option facilitates a ValSpeQ user to work on a product configurator without having to add as a line item or template within the project. The user can subsequently save the same either as an item or as a template.

The New Configuration allows user to select the following product configurators

- **C**ontrol Valve
- **L**evel
- **A**ccessories
 - **A**ctuator
 - **P**ositioner
 - **T**ransducer
 - **B**ooster
 - **S**witch
 - **S**olenoid
 - **A**irset
- **R**egulator

Steps:

1. Select appropriate product configurator option available under **New Configuration** menu of **Project** menu.

The New Configuration functionality can also be invoked by Right Clicking the mouse button on the Project / Quote folder / node & then selecting the appropriate product configurator option from the sub menu available under New Configuration menu on the popup menu.

The application will prompt the user to save any unsaved data provided it has not been saved before invoking the New Configuration option.

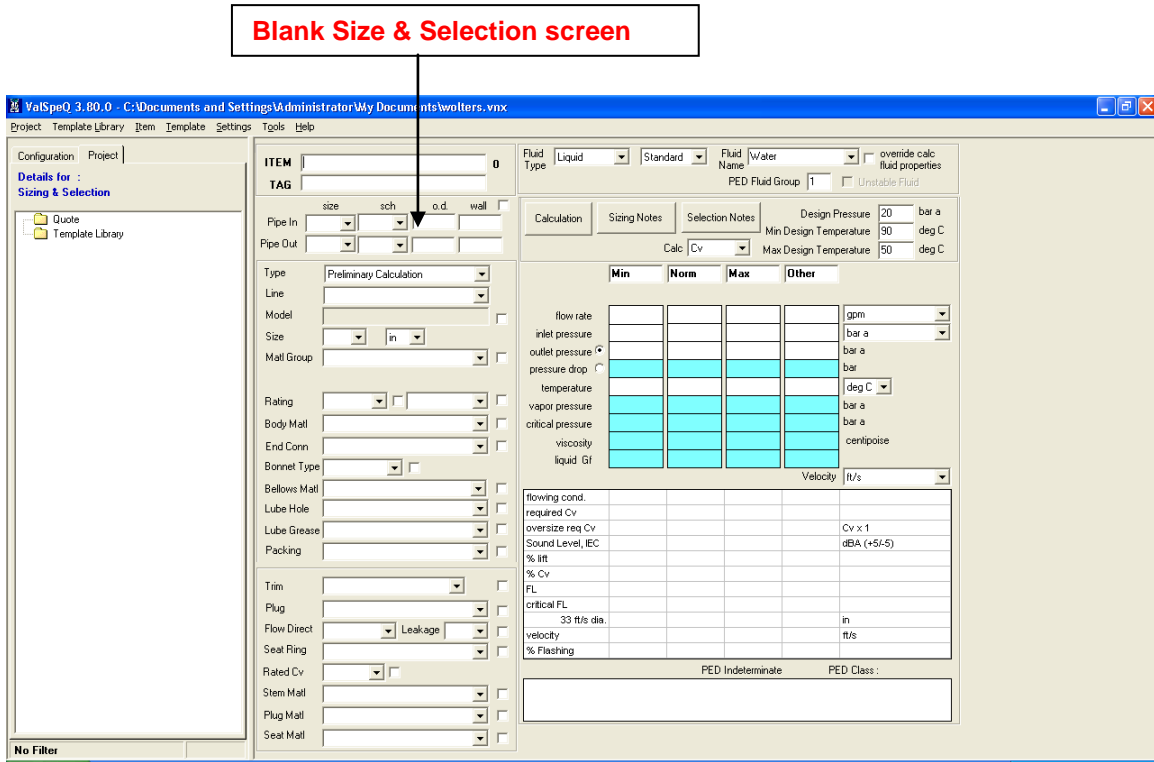
The following table provides information about the blank configurator screen displayed on selecting an appropriate product configurator.

Product Configurator	Blank Config Screen Displayed
Control Valve	Sizing & Selection
Levels	Service & Level
Accessories	
Actuation	Actuator
Positioner	Positoner
Transducer	Transducer
Booster	Booster
Switch	Switch
Solenoid	Solenoid
Airset	Airset
Regulator	Regulator

How to Save New Configuration?

A New Configuration is neither an Item nor a Template & hence no Item Node or Template Node is added under the Project / Quote or Template Library node. The user has the choice to save it as an Item or as Template by selecting Save option from Item or Template menu. If the New Configuration is not saved & any other option is invoked, the application will prompt whether to Save the New Configuration as Item or Template.

The following screen is displayed on invoking the New Configuration option for Control Valve.



Warning

A warning message is prompted by the application on saving the New Configuration as a Template. Tag information or Quantity or Notes information on Item Data screen/node or Pricing data on the Pricing screen/node may be lost if the New Configuration is being stored as a Template.

1.3 Open (Existing Project)

This option facilitates the user to open & work with any existing projects. The user can open the project in different ways.

Option 1

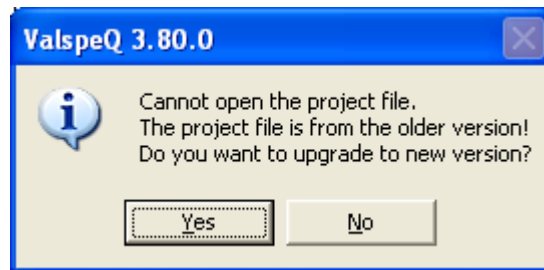
Steps:

1. Click on **Open...** option under **Project** menu or **Alt+P** & then **O** for Open.

The application will prompt the user to save any unsaved data for the current project provided it has not been saved before invoking the Open Project option. The application will prompt the user to save the current project if it has not been saved i.e. untitled.vnx.

The application will display an Open dialog box where existing projects would be listed.

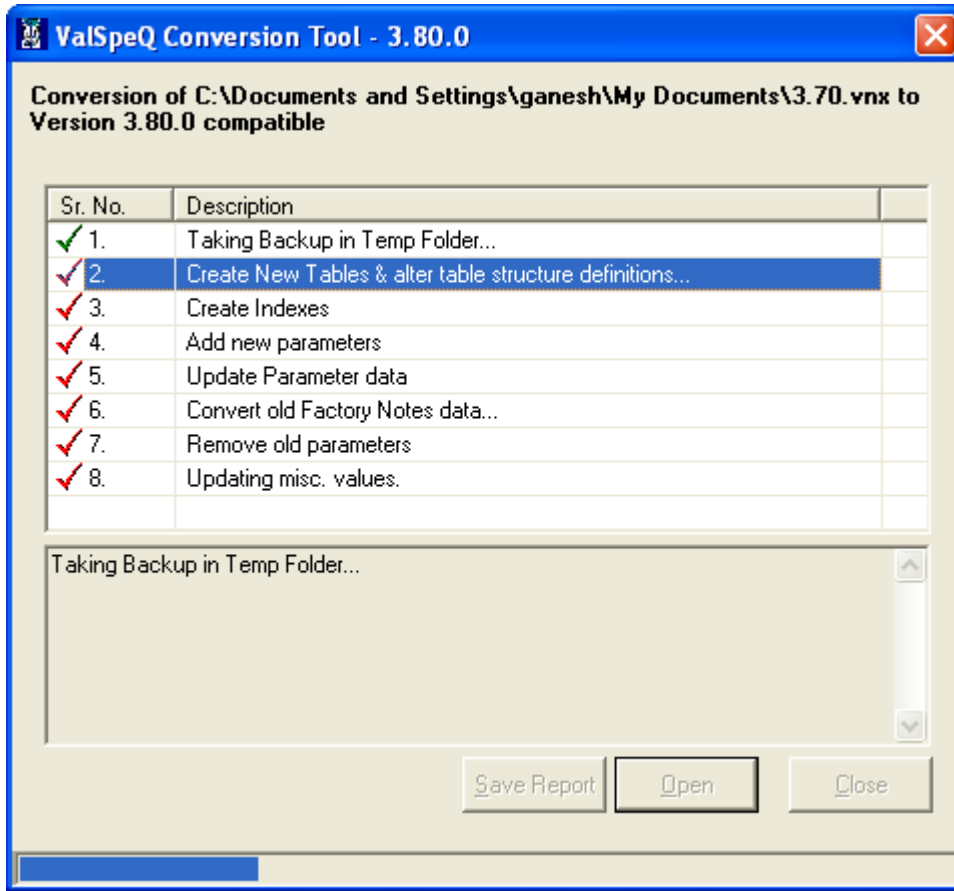
2. Select the desired project & click on Open button. The Project Database Version of the selected project will be checked. If the project file is created using previous version of ValSpeQ application then application will prompt the user to convert the project to make ValSpeQ 3.80 compatible.



If the project file is created using version less than 3.60 and if you click on "YES" button of the above message, following additional message is displayed before the conversion process starts.



3. On approval, a backup of the selected project file is taken and the project database is updated with the additional Fields, Tables, Parameters and Regional Settings Compatibility. Following screen will be displayed while upgrading the project.



If user selects “No” then the selected project will not be open & upgraded.

4. After successfully converting, the selected project will be opened & the Project General Information screen will be displayed in the application work area. The Project / Quote node will be the selected node. Project information, customer information, project related notes & details of items within the project is provided.

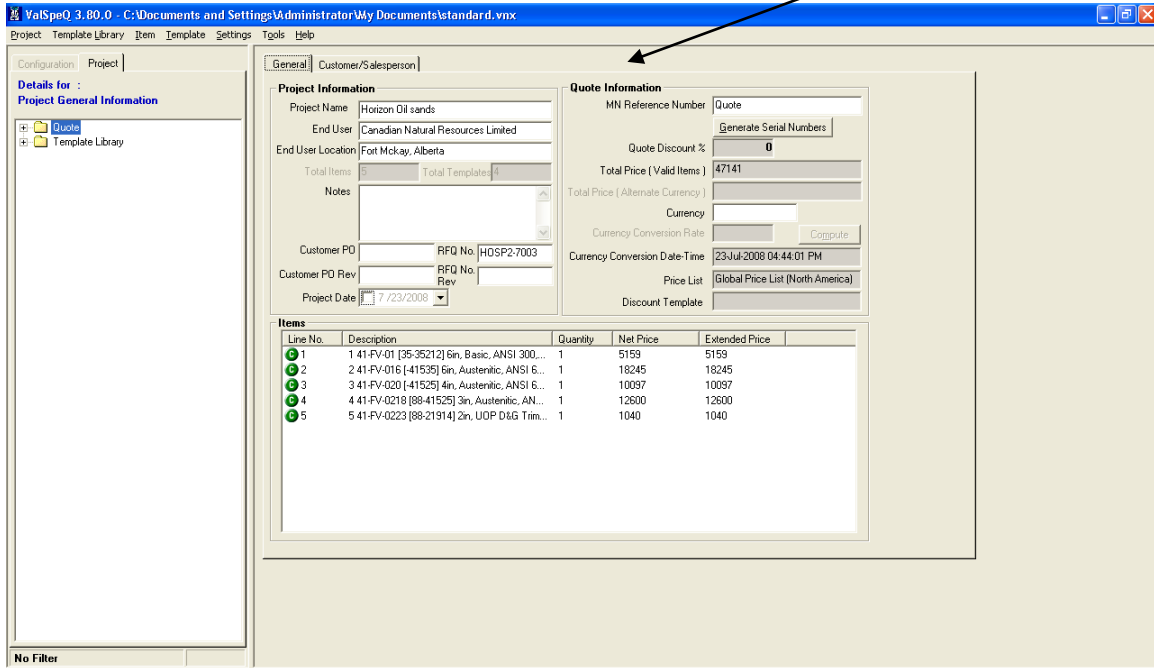
Option 2

The user can double click on a ValSpeQ project file (.vnx) in the Windows Explorer view provided ValSpeQ is not running.



The following screen is displayed on invoking the Open option.

Project information



On upgrading,

Product Type & Status Prior To Upgrading	Configuration Node Status	Item Status
Control Valve Line item was either valid or invalid but not freeze	Sizing & Selection- invalid Materials- invalid Actuation- invalid Pricing (if ValSpeQ edition is Professional) - invalid	Valid & freeze
Control Valve Line item was valid & freeze	Sizing & Selection- invalid Materials- invalid Actuation- invalid Pricing (if ValSpeQ edition is Professional)- invalid	Valid & freeze
Level Line item was either valid or invalid but not freeze	Service & Level– invalid Materials– invalid Instrument– invalid Pricing (if ValSpeQ edition is Professional) - invalid	Valid & freeze
Level Line item was valid & freeze	Sizing & Selection- invalid Materials- invalid Instrument- invalid Pricing (if ValSpeQ edition is Professional)- invalid	Valid & freeze
Accessory Line item was either valid or invalid but not freeze	Accessory– invalid Pricing– (if ValSpeQ edition is Professional)- invalid	Valid & freeze

Accessory	Accessory- invalid	Valid & freeze
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Line item was valid & freeze	Pricing (if ValSpeQ edition is Professional)- invalid	
Regulator- Not Applicable. Introduced in v3.80		

If the project file selected is created using the same project database version, the application will perform the following validations for every Item & Template

1. Check the Configurator version that was used when the Item / Template was configured with current application Configurator version.
2. Check the Sizing control/OCX version that was used when the Item / Template was configured with current application Size control/OCX version.
3. Check the Sizing database version that was used when the Item / Template was configured with current application Size database version.

If difference is found in any one of the validations described above, the Sizing & Selection, Materials & Actuation nodes will be set to invalid & the Item / Template will be set to invalid.

Similarly the following validations will be performed for all the Items

- Check the Pricing control/OCX version with which the Item was configured with current application Pricing control/OCX version.
- Check the Pricing database version with which the Item was configured with current application Pricing database version.

- If difference is found in any one of the validations described above, the Pricing node will be set to invalid & the Item will be set to invalid.

Note: Following table shows the invalid nodes for each Line Item when difference is found in anyone of the VERSIONS mentioned above.

	CONTROL VALVE	LEVEL	ACCESSORY	REGULATORS
CONFIG_VERSION	Sizing & Selection- invalid Materials- invalid Actuation- invalid	Service and level- invalid Materials- invalid Instrument- invalid	Actuation- invalid	Regulators- invalid Materials- invalid ITP- invalid Pricing- invalid
SIZEOCX_VERSION	Sizing & Selection- invalid Materials- invalid Actuation- invalid	Service and level- invalid Materials- invalid Instrument- invalid	Actuation- invalid	Regulators- invalid Materials- invalid ITP- invalid Pricing- invalid
SIZEDB_VERSION	Sizing & Selection- invalid Materials- invalid Actuation-	Service and level- invalid Materials- invalid Instrument- invalid	Actuation- invalid	Regulators- invalid Materials- invalid ITP- invalid Pricing- invalid

	invalid			
PRICEOCX_VERSION	Sizing & Selection- invalid Materials- invalid Actuation- invalid Pricing- invalid	Service and level- invalid Materials- invalid Instrument- invalid Pricing- invalid	Actuation- invalid Pricing- invalid	Materials- invalid ITP- invalid Pricing- invalid
PRICEDB_VERSION	Pricing- invalid	Pricing- invalid	Pricing- invalid	Materials- invalid ITP- invalid Pricing- invalid

NOTE: If Project file is prior to v3.73 when ITP did not exist, the ITP node will be set to invalid.

1.4 Save

This option facilitates the user to save the current project.

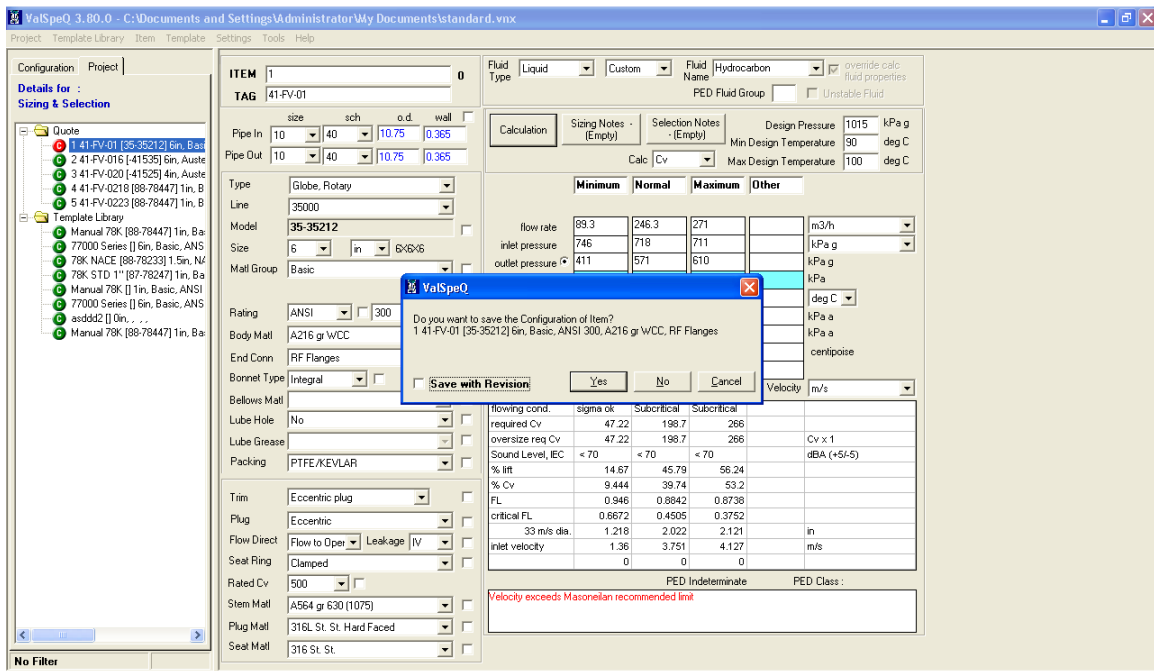
Steps:

1. Click on **S**ave option under **P**roject menu option or **Alt+P** & then **S** for Save.

The application will prompt the user to save any unsaved data for the current project provided it has not been saved before invoking the Save option.

The application will prompt the user to save the current project if it has not been saved i.e. untitled.vnx refer to the screen displayed in the **S**ave **A**s... option.

The following screen is displayed on invoking the Save option.



1.5 Save As

This option facilitates the user to save a new project or a current project with a different project name.

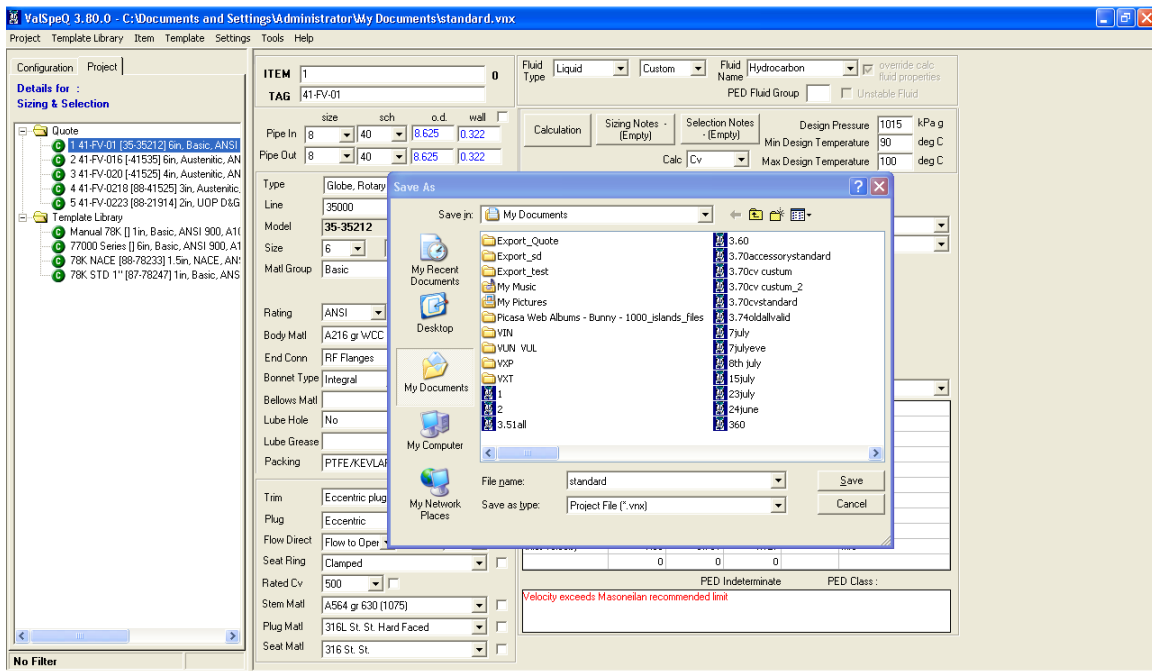
Steps:

1. Click on **Save As...** option under **Project** menu or **Alt+P** & then **A** for Save As.

The application will prompt the user to provide project name by opening the Save As dialog box. Provide a file name for the project file.

Subsequent to saving the project, the application will prompt the user to save any unsaved data provided it has not been saved before invoking the **Save As...** option. The data would then be saved to the new project & not to the old project.

The following screen shot is displayed to save the project with new file name.



1.6 Import

This option facilitates the user to import Item or Template data into the current Project / Quote from another project via previously exported file having “.vxp” (for Item) or “.vxt” (for Template) extension.

The Import is split into two

1. Import Item
2. Import Template

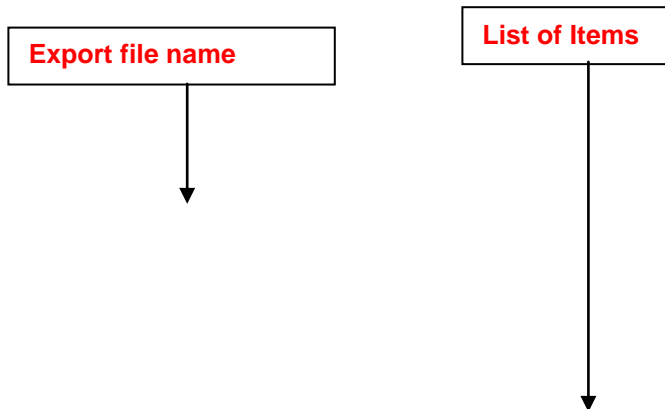
Import Items

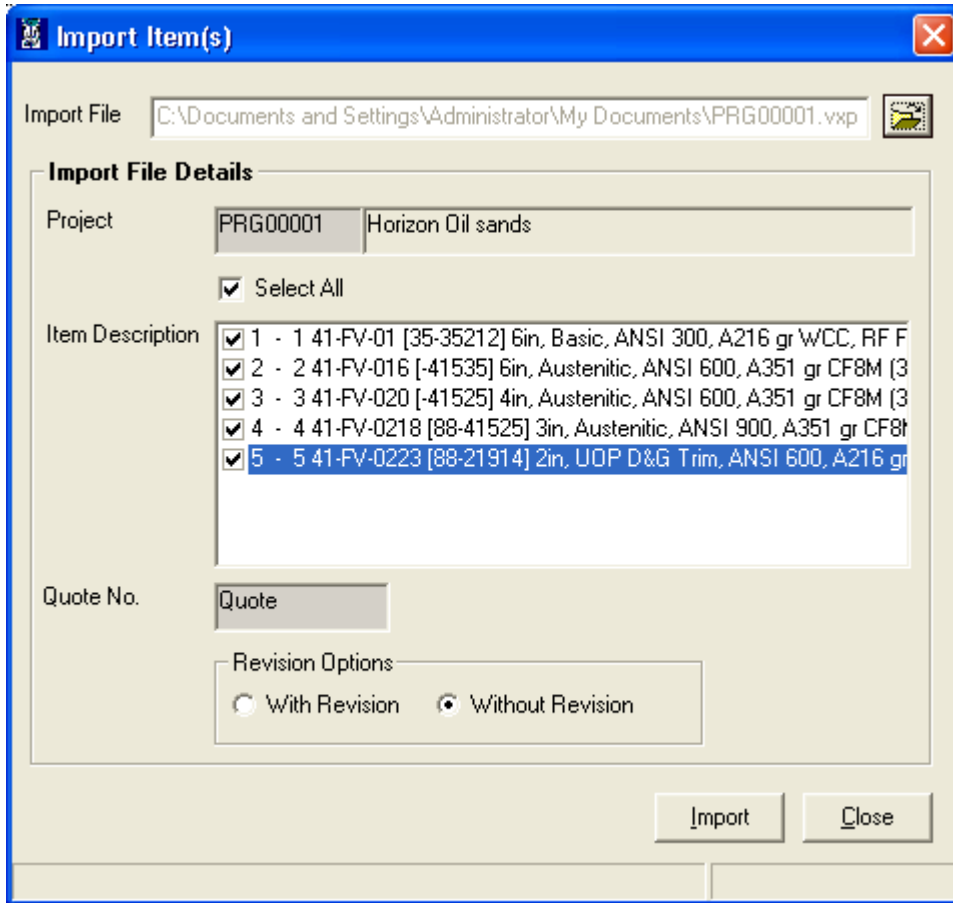
Functionality:

This utility facilitates the users to import Item data into the current Project from an export file with “vxp” extension. The user can import one or more selected Items from the export file.


The **Import** option can be invoked by selecting the **Import** option from the **Project** menu on the application menu bar or **Alt+P & I** for Import Items. The same can be invoked by right clicking on the **Project / Quote** node and then selecting the **Import** option from the popup menu.

The following screen will be displayed for Import Item.





In another case if Filter is active while invoking Import functionality it will give the message-
“ValSpeq will deactivate the active filter. Do you want to proceed?” with YES and NO buttons.
On selecting YES filter will be deactivated and import functionality will get invoked.
On selecting NO the import functionality will not get invoked & application will remain as it is.

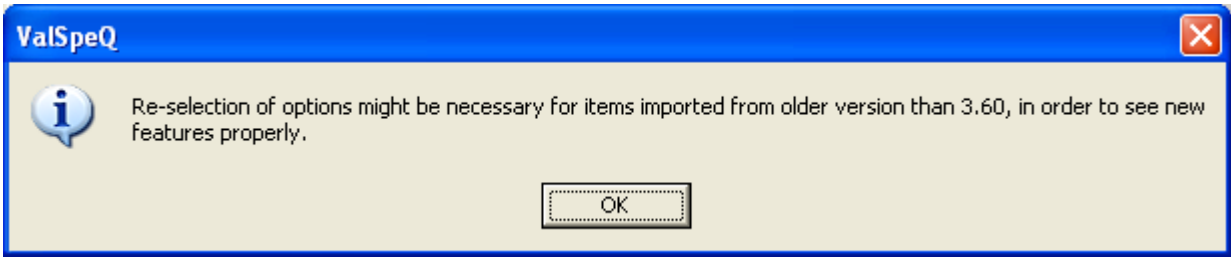
Select the export file by clicking on the  (Open Folder) button. The application will display the Code and Name of the Project that has generated the export file. All Items from the export file will be displayed & selected by default for import. The user has the option to de-select all and select a few.

The user can either select the **With Revision** or **Without Revision** option. **With Revision** option will import the Item Revision data into current Project file.

Click on the **Import** button or press **Alt+I** key to start the import process.

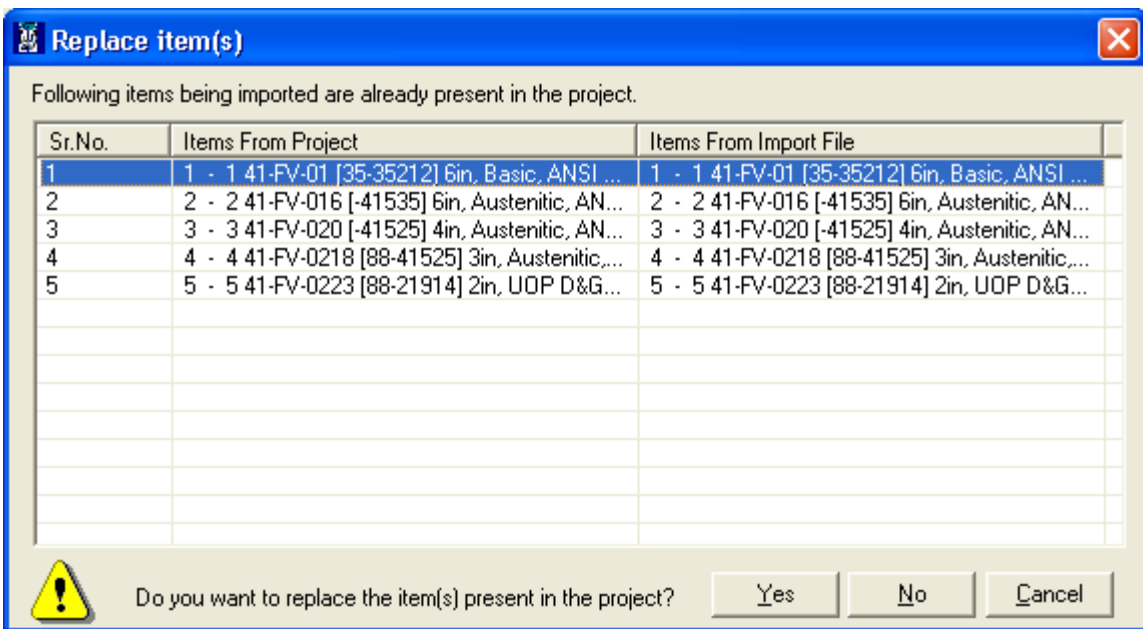
The application will inform the user that Data to be imported will be added to the current project.

If the file is exported from version less than 3.60, following message is displayed before the Import process starts.



On clicking OK button, a backup of the selected project file is taken and the project database is updated with the additional Fields and Parameters.

If items present in the VXP file and items in the Project have same item identifiers (GULI - Global Unique Line Identifier) then following message will be displayed.



If **Yes** option is selected then items from Project will be replaced by items in the VXP file.

If **No** option is selected then items from VXP file will be added as new items in the Project.

If **Cancel** option is selected then control will return to **Import Item(s) Form**.

As the utility starts, the progress bar will be displayed.

During the import process, the application will make the line item compatible with the current version of ValSpeQ & will also ensure Regional Settings compatibility.

After Import of items of Control Valve and Level, ITP and Pricing node for all items (In case of Accessory only Pricing node) will be set to invalid & the Item will be set to invalid. The status of all other configuration nodes remains unchanged.

After Import of freezed items of Control Valve and Level, ITP and Pricing node for all items (In case of Accessory only Pricing node) will be set to invalid but the status of the Item will remained unchanged. The status of all other configuration nodes remains unchanged.

A set of validations is executed on starting the import process. The validations are as follows.

1. If the Price List does not exist on the workstation that is importing the data, the application will provide a warning and will proceed further only on approval.
2. If the project database version that has created the export file differs from the project database version into which the data is to be imported, a message that “Data being read is sent by Different Database Version” will be flashed by the application.

The following table provides a guideline on different configuration nodes that are set to invalid depending on Product type.

Product Type	Invalid Configuration Nodes
Control Valve	Sizing & Selection Materials Actuation ITP
Level	Service & Levels Materials Instruments ITP
Actuator	Actuator
Positioner	Positioner
Transducer	Transducer
Booster	Booster
Switch	Switch
Airset	Airset
Regulator	Regulator Materials ITP

3. While inserting data if any field is not found, data for that field will be skipped and the import will proceed to insert data for the rest of the fields.
4. If the project database version matches, the application proceeds to check the Configurator version, Sizing Control / OCX version, Sizing database version, Pricing Control / OCX version and Pricing database version from the export file with the current application versions. If difference is found in any one of these versions, a message that “Version Differences Found in Items in the selected import file” will be flashed by the application. The appropriate configuration nodes as described in the above table will be set to invalid and the Item will be set to invalid.

In case if any of the item being imported is a valid frozen item, then on import, appropriate configuration nodes are invalidated depending on the differences encountered but retains the item status as valid & frozen.

The status of all other configuration nodes remains unchanged.

5. If version information is not available in the export file then the message “Version Information Missing” ” will be flashed by the application and it will proceed the import process for the selected Items.
6. For Pricing version, the Pricing node and all items imported are set to invalid.

7. If item has Technical Notes (previously known as Factory Notes) i.e. default system notes or user defined notes assigned to it while export then that item will import with same. If the Project has same User Defined Technical Note Reference as importing item's Technical Note Reference then new name will be generated for importing Technical Note Reference by suffixing an '_1' & appropriately update the same for the item. If a Technical Note Reference already exist with the '_1' then the Technical Note Reference is replaced with the next sequential incremented number and the reference in the item is updated appropriately.

Close Button

Click on the **C**lose button or press the **Alt+C** keys to close.

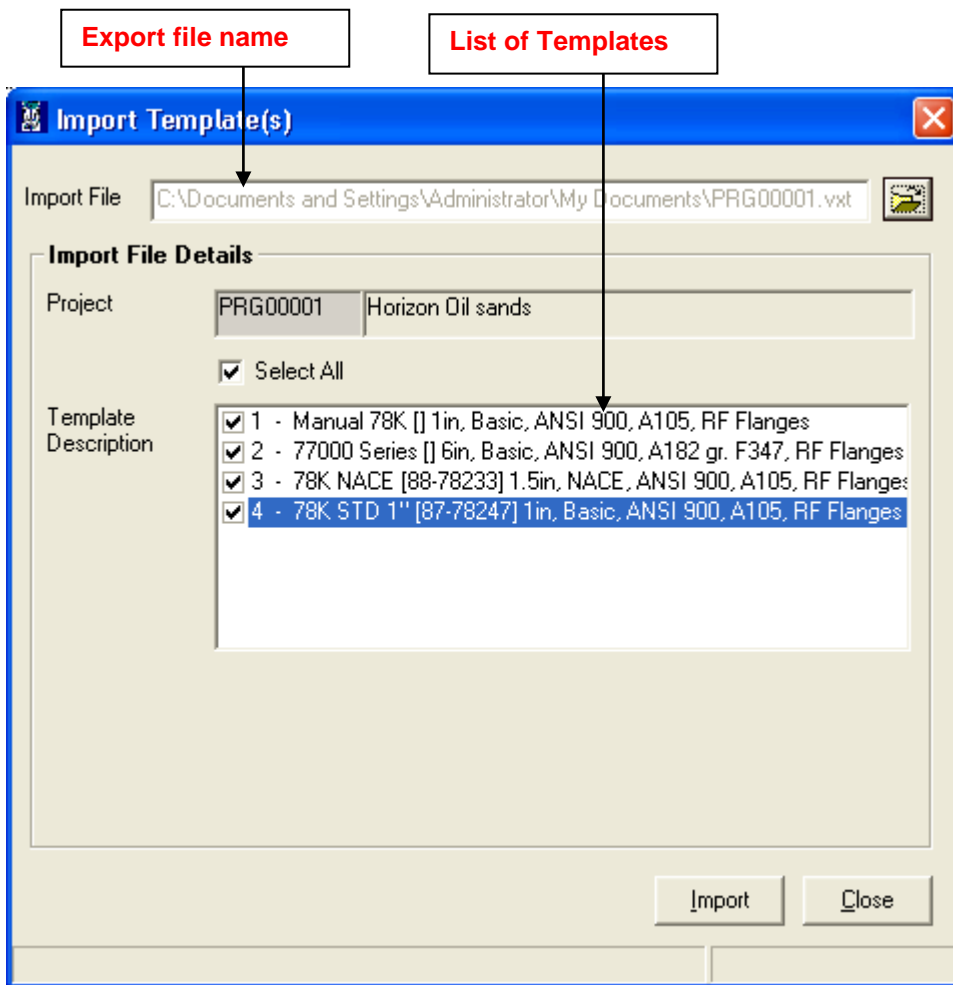
Import Templates


Functionality:

This utility facilitates the users to import Template data into the current Project from an export file with “vxt” extension. The user can import one or more selected Templates from the export file.

The Import option can be invoked by selecting the **Import Template** option from the **Template Library** menu on the application menu bar or **Alt+L** and then **I**. The same can be invoked by right clicking on the **Template Library node** and then selecting the **Import Template** option from the popup menu.

The following screen will be displayed for Import Template.

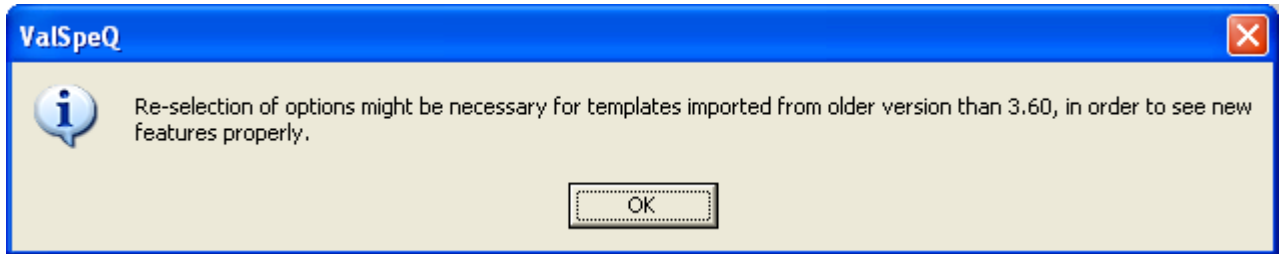


Select the export file by clicking on the  (Open Folder) button. The application will display the Code and Name of the Project that has generated the export file. All Templates from the export file will be displayed & selected by default for import. The user has the option to de-select all and select a few.

Click on the **Import** button or press **Alt+I** key to start the import process.

The application will prompt the user that Data to be imported will be added to the current project

If the file is exported from version less than 3.60, following message is displayed before the Import process starts.



On clicking OK button, a backup of the selected project file is taken and the project database is updated with the additional Fields and Parameters.

As the utility starts, the progress bar will be displayed.

During the import process, the application will make the line item compatible with the current version of ValSpeQ & will also ensure Regional Settings compatibility.

A set of validations is executed on starting the import process. The validations are as follows.

1. If the project database version that has created the export file differs from the project database version into which the data is to be imported, a message that “Data being read is sent by Different Database Version” will be flashed by the application.

The following table provides a guideline on different configuration nodes that are set to invalid depending on Product type.

Product Type	Invalid Configuration Nodes
Control Valve	Sizing & Selection Materials Actuation ITP
Level	Service & Levels Materials Instruments ITP
Actuator	Actuator
Positioner	Positioner
Transducer	Transducer
Booster	Booster
Switch	Switch
Airset	Airset
Regulator	Regulator Materials ITP

2. While inserting data if any field is not found, data for that field will be skipped and the import will proceed to insert data for the rest of the fields.

3. If the project database version matches, the application proceeds to check the Configurator version, Sizing Control/OCX version, and Sizing database version from the export file with the current application versions. If difference is found in any one of these versions, a message that “Version Differences Found in Templates in the selected import file” will be flashed by the application. The appropriate configuration nodes as described in the above table will be set to invalid and the Template will be set to invalid. Pricing Control/OCX version and Pricing database version check is not applicable for Template.

The status of all other configuration nodes remains unchanged.

4. If version information is not available in the export file then the message “Version Information Missing” ” will be flashed by the application and it will proceed the import process for the selected templates.
5. If Template has Technical Notes (previously known as Factory Notes) i.e. default system notes or user defined notes assigned to it while export then that item will import with same. If the Project has same User Defined Technical Note Reference as importing item’s Technical Note Reference then new name will be generated for importing Technical Note Reference by suffixing an ‘_1’ & appropriately update the same for the item. If a Technical Note Reference already exist with the ‘_1’ then the Technical Note Reference is replaced with the next sequential incremented number and the reference in the item is updated appropriately.

Close Button

Click on the **C**lose button or press the **Alt+C** keys to close the Import Template(s) form.

For Item / Template import:

Before starting the import process, the application takes a backup of the current project and the user will be informed about the backup location. This helps the application to restore the database from the backup in case of an unsuccessful import operation. But if the application fails to restore the backup, the user will have to manually restore the backup.

After successful completion of the import process, a message that “Import completed successfully” will be flashed by the application and the backup database will get deleted.

1.7 Export

Functionality:

This utility facilitates the users to export the Items and Templates of current Project to other ValSpeQ user. The exported Items and Templates can then be imported in any other Project.

The Export is split into two

1. Export Item
2. Export Template

Export Item

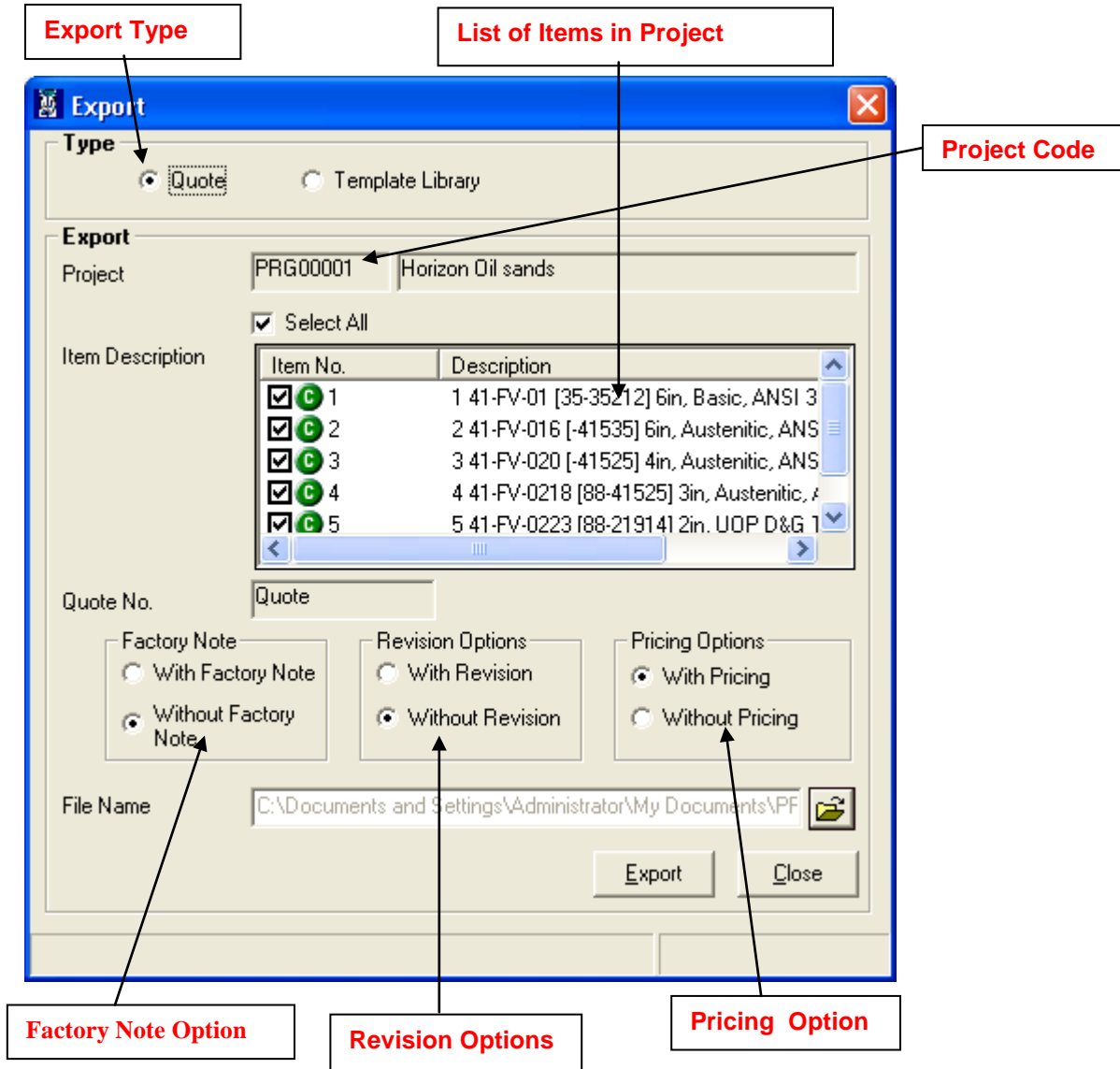
Functionality:


This utility facilitates the users to select single, multiple or all Items from the current Project and export the same. The exported Items can then be imported in any other Project of the same user or any other ValSpeQ user.

This option can be invoked by selecting the **Export** option from the **Project** menu on the application menu bar or by pressing **Alt+P** and then **E**.

The same can be invoked by **right clicking on the Project / Quote node** and then selecting the **Export** option from the popup menu.

Export Type **Project / Quote** is selected by default. User has the choice to select **Template Library** if he intends to export templates. The following screen is displayed.



All the Items from the Project will be displayed & selected by default. The user has the option to de-select all and select a few. Click on the  (open folder) button to provide a filename to export. The export file will have an ".vxp" extension.

In another case if Filter is active while invoking Export functionality only those line items which matches the filter criteria are displayed

The default export file name is generated by the application with the project code number followed by an ".vxp" extension. Project Code, Project Name and Quote Number are displayed to user on the Export form.

The user has choice to export the data **With Revision** or **Without Revision**. The user can also export the data **With Pricing** or **Without Pricing** and **With Factory Note** or **Without Factory Note**.

The pricing, revision and Factory Note related information for the selected Items would be included in the export file only after selecting the **With Pricing, With Revision** and **With Factory Note** option.

Click on the **E**xport button or press **Alt+E** key to start the export process

As the utility starts, the progress bar will be displayed.

After successful completion of the Export process, a message “Export completed successfully” is flashed by the application.

In case the export operation is not successful or the export process encounters any error, a related message will be flashed by the application and then the user has to repeat export operation.

Close

Click on the **C**lose button or press the **Alt+C** keys to close the Export Form.

Export Template

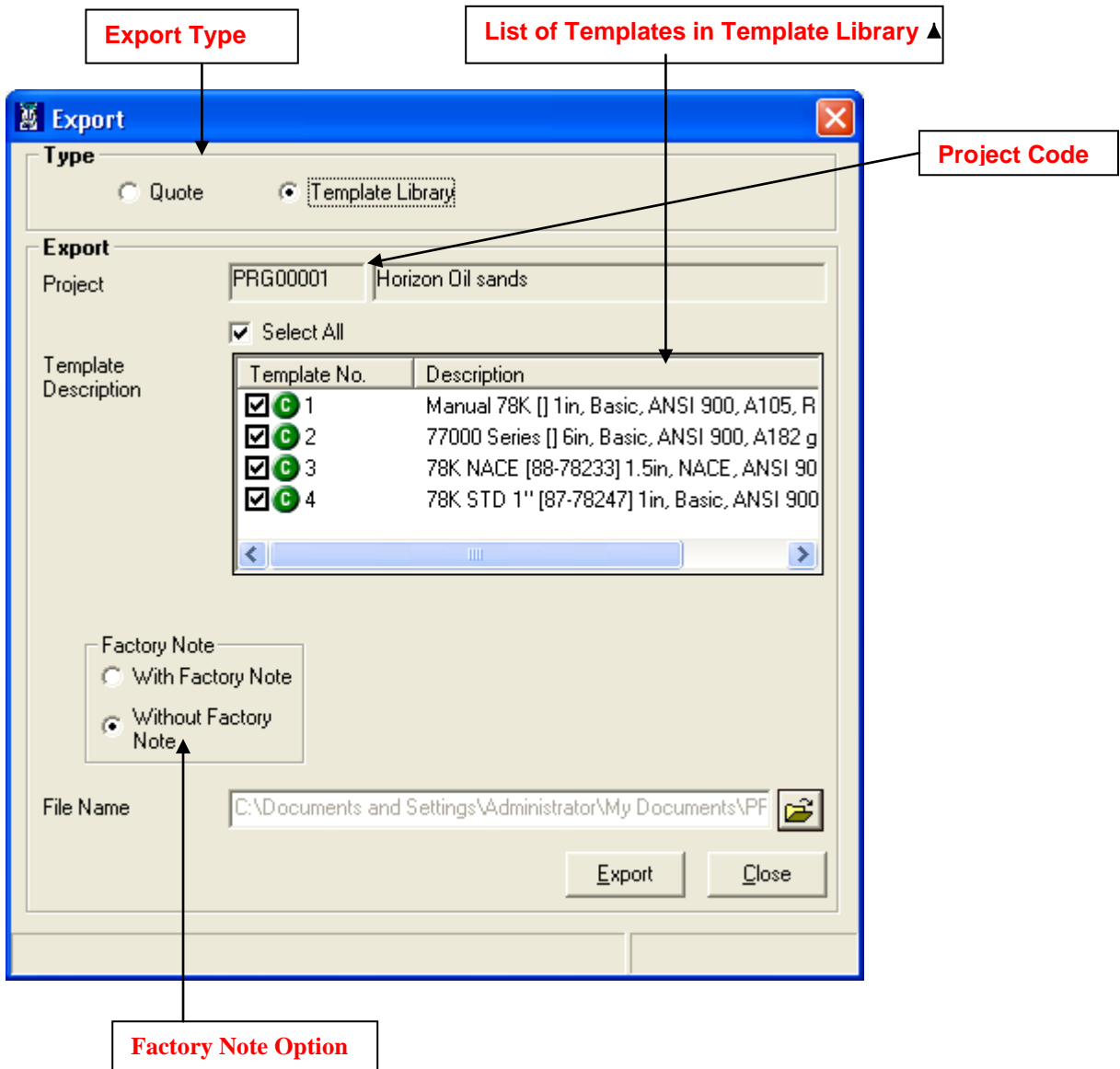
Functionality:


This utility facilitates the users to select single, multiple or all Templates from the current Project and export it to other ValSpeQ user. The exported Templates can then be imported in any other Project.

The Export option can be invoked by selecting the **Export Template** option from the **Template Library** menu on the application menu bar or **Alt+L & E** for Export Templates.

Right clicking on the **Template Library** node and then selecting the **Export Template** option from the popup menu can invoke the same.

Export Type **Template Library** is selected by default. User has the choice to select **Project / Quote** if he intends to export items. The following screen is displayed.



All Templates from the Project will be displayed & selected by default. User has the option to de-select all and select a few. Click on the  (open folder) button to provide a filename to export. The export file will have an ".vxt" extension.

The default export file name is generated by the application with the project code number followed by an ".vxt" extension. Project Code, Project Name and Quote Number is displayed to user on the Export form.

The user has the choice only to export data **With Factory Note** or **Without Factory Note**. The Factory note related information for the selected Items would be included in the export file only after selecting the **With Factory Note** option.

Click on the **E**xport button or press **Alt+E** key to start the export process

As the utility starts, the progress bar will be displayed.

After successful completion of the export process, a message that "Export completed successfully" will be flashed by the application.

In case the export operation is not successful or the export process encounters any error, a related message will be flashed by the application and then the user has to repeat export operation.

Close

Click on the **C**lose button or press the **Alt+C** keys to close the Export Form.

Freeze / Unfreeze Items

Freeze Items































This option is used to freeze all Valid Line items within a Project / Quote instead of freeze item one at a time.

The **Freeze** option can be invoked by selecting the **Freeze Items** option from the **Project** menu on the application menu bar or **Alt+P & F**. The same can be invoked by right clicking on the **Project / Quote** node and then selecting the **Freeze Items** option from the popup menu.

Only valid line items, currently not frozen, within a Project / Quote will get frozen on invoking this option. If no valid line item exists, an appropriate message is displayed. Invalid line items are not considered & not frozen.

A confirmation message is displayed to the user prior to proceeding with the freeze functionality.

The following table shows the different visual indicators when the item is invalid, valid & freeze.

Products	Visual Representation		
	Invalid Not Eligible For Freeze	Valid Eligible For Freeze	Freeze After Freeze
Control Valve			
Levels			
Accessory Configurator			
Actuator			
Positioner			
Transducer			
Booster			
Switch			
Solenoid			
Airset			
Regulators (new in v3.80)			

Unfreeze Items

This option is used to unfreeze all Freeze Line items within a Project / Quote instead of individually unfreezing every item individually.

The **Unfreeze** option can be invoked by selecting the **Unfreeze Items** option from the **Project** menu on the application menu bar or **Alt+P & U**. The same can be invoked by right clicking on the **Project / Quote** node and then selecting the **Unfreeze Items** option from the popup menu.

Only freeze line items within a Project / Quote will be unfreeze on invoking this option. If no freeze line item exists, an appropriate message is displayed.

A confirmation message is displayed to the user prior to proceeding with the freeze functionality.

For items freeze in v3.80, on unfreeze, ValSpeQ invalidates the Pricing node & the item.

For items freeze in project before v3.73, ValSpeQ checks for every item that is being unfreeze whether any difference exist in Configurator, Sizing database & control and Pricing database & control version used for the item with the current ValSpeQ versions. If any differences are found then the following configuration nodes are set to invalid,

For Control Valve- Sizing & Selection, Materials, Actuation, ITP, and Pricing.

For Levels- Service & Levels, Materials, Instruments, ITP, and Pricing.

For Actuator- Actuator and Pricing.

For Positioner- Positioner and Pricing.

For Transducer- Transducer and Pricing.

For Booster- Booster and Pricing.

For Switch- Switch and Pricing.

For Solenoid- Solenoid and Pricing.

For Airset- Airset and Pricing.

For items freeze in or after v3.73 and if ITPs had been assigned while configuring, ValSpeQ will checks for every item that is being unfreeze whether any difference exist in Configurator, Sizing database & control and Pricing database & control version used for the item with the current ValSpeQ versions. If any differences are found then the following configuration nodes are set to invalid.

Product Type	Invalid Configuration Nodes
Control Valve	Sizing & Selection Materials Actuation Pricing
Level	Service & Levels Materials Instruments Pricing
Actuator	Actuator Pricing
Positioner	Positioner Pricing
Transducer	Transducer Pricing
Booster	Booster Pricing
Switch	Switch

	Pricing
Solenoid	Solenoid Pricing
Airset	Airset Pricing

For items freeze in or after v3.73 and if ITPs had not been assigned while configuring, ValSpeQ checks for every item that is being unfreeze whether any difference exist in Configurator, Sizing database & control and Pricing database & control version used for the item with the current ValSpeQ versions. If any differences are found then the following configuration nodes are set to invalid.

Product Type	Invalid Configuration Nodes
Control Valve	Sizing & Selection Materials Actuation ITP Pricing
Level	Service & Levels Materials Instruments ITP Pricing
Actuator	Actuator Pricing
Positioner	Positioner Pricing
Transducer	Transducer Pricing
Booster	Booster Pricing
Switch	Switch Pricing
Solenoid	Solenoid Pricing
Airset	Airset Pricing

1.10 Search Tag

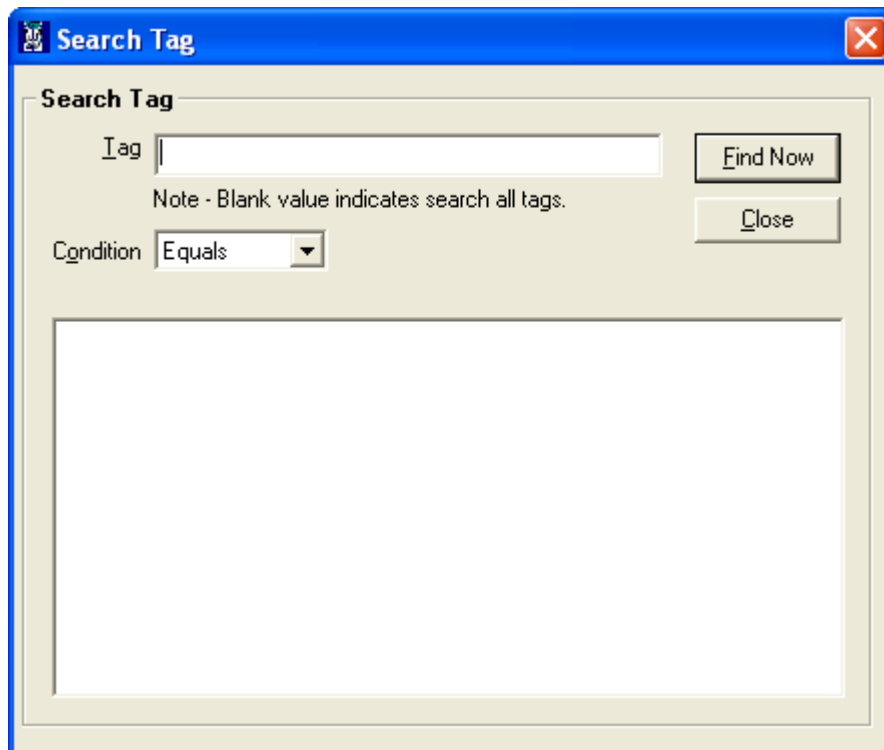
This option facilitates the user to search Item(s) based on tag value. On a big project file containing a large number of items, using the Search Tag functionality, the user can quickly navigate to the appropriate item.

Steps:

1. Click on **Search Tag** option under **Project** menu option or **Alt+P** & then **G**. The Search Tag functionality can also be invoked by **Right Click** of the mouse button on the **Project/Quote** node.

The application will prompt the user to save any unsaved data for the current project provided it has not been saved before invoking the Search Tag option.

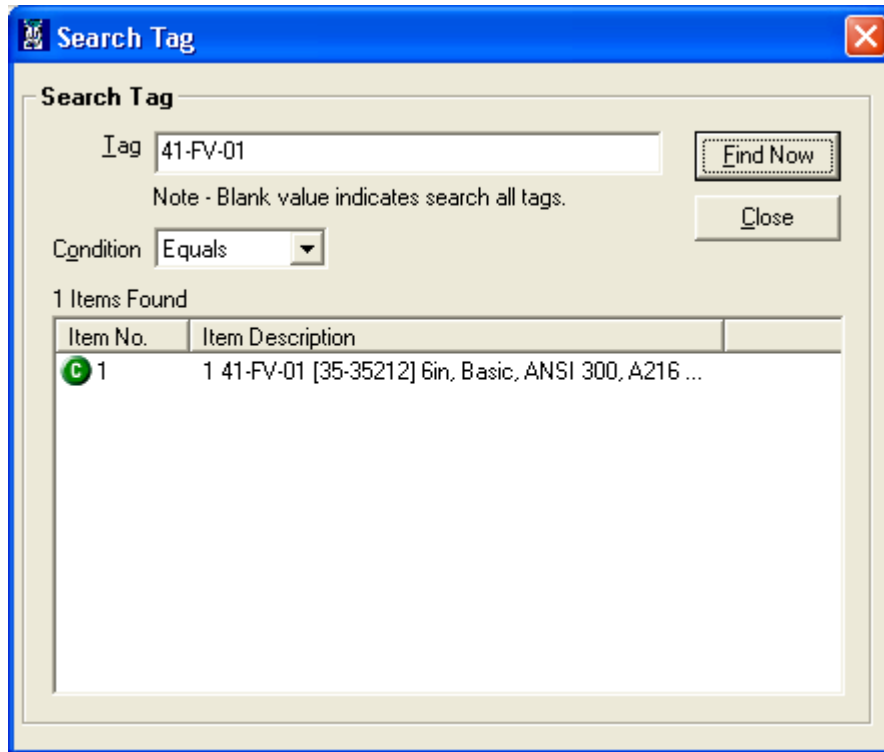
The following screen will be displayed.



2. Enter a search string in the **Tag** field and select a Condition from the **Condition** drop down list.
 - Select condition as **Equals** to search tag/s that have an exact match i.e. the search string equals the tag descriptions
 - Select condition **Begins** to search tag/s whose tag description begins with the search string entered.
 - Select condition **Contains** to search tag/s whose tag description contains the search string entered.

- Select condition **Ends With** to search tag/s whose tag description ends with the search string entered.
3. After entering a search string and selecting search condition, click on the **Find Now** button or press **ALT+F** to search tags that match the search criteria.

Total number of line items that match the search criteria is displayed. All line items which match the search criteria are listed as shown in the following image.



User can double click to navigate on to the selected line item. The Search Tag screen is closed & appropriate configuration screen for the selected line item depending on the product type is displayed.

If Tag string to search is not provided, then the search will display all line items for which at least one tag value is available irrespective of the Condition.

In another case if Filter is active, then on clicking Find Now button of Search Tag functionality only those line items which satisfies the filter as well as search criteria are displayed in the list.

Close

To close the Search Tag screen click on the **Close** button or press **ALT+C**.

1.11 XML File...

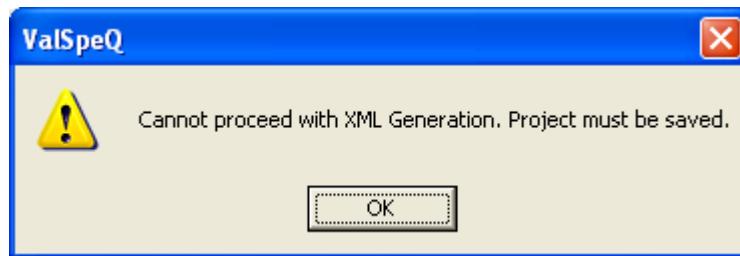
The primary objective of this option is to facilitate seamless movement of project / quote & selected line item information from ValSpeQ to any MRP system via BOMGEN (High Level Bill of Material Generation) application.

User will be able to generate an XML file for MRP for the selected line item. The XML file is generated as per a predefined format.

This option can be invoked by selecting **XML File...** option under the **Project** menu or by pressing **Alt + P & X** keys. The same can be invoked by right clicking Quote node and selecting XML File from option from the popup menu.

On invoking this option, the application will check for any unsaved data & will prompt the user to save such unsaved data.

If the current project has not been saved i.e. it is still untitled.vnx, the application will prompt to save the project. The operation for generating the XML file will not proceed unless & until the project has been saved with a different name other than the default name of untitled.vnx.

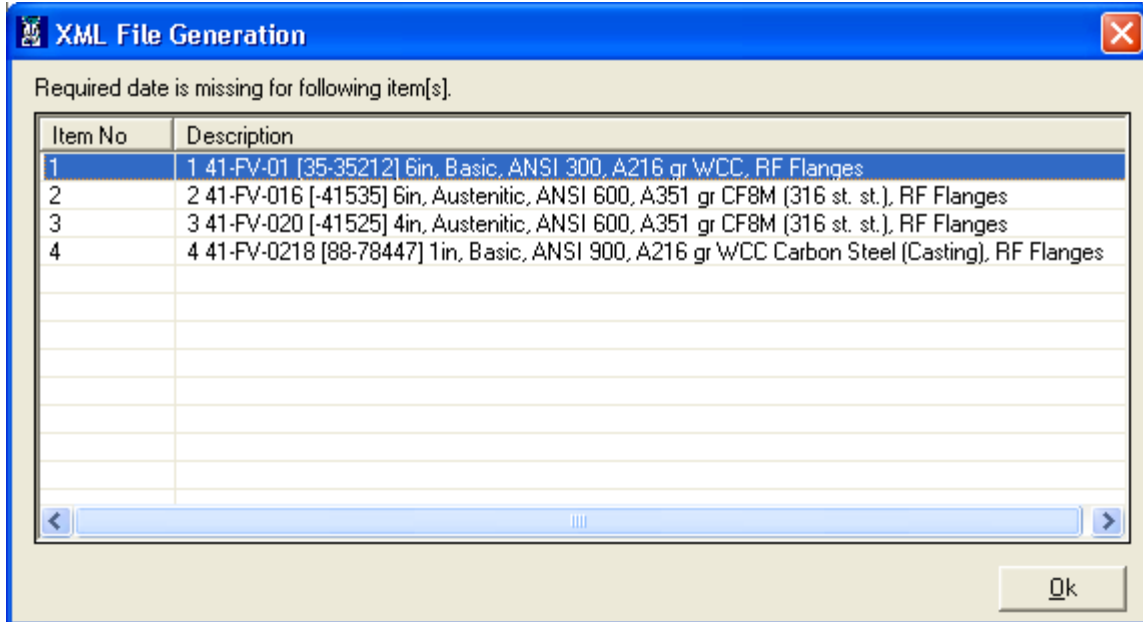


It is mandatory to have the user information i.e. Name, Phone & Email of ValSpeQ user. User information can be provided in the User Preferences option under General Tab. XML File operation will not proceed without having the User information.

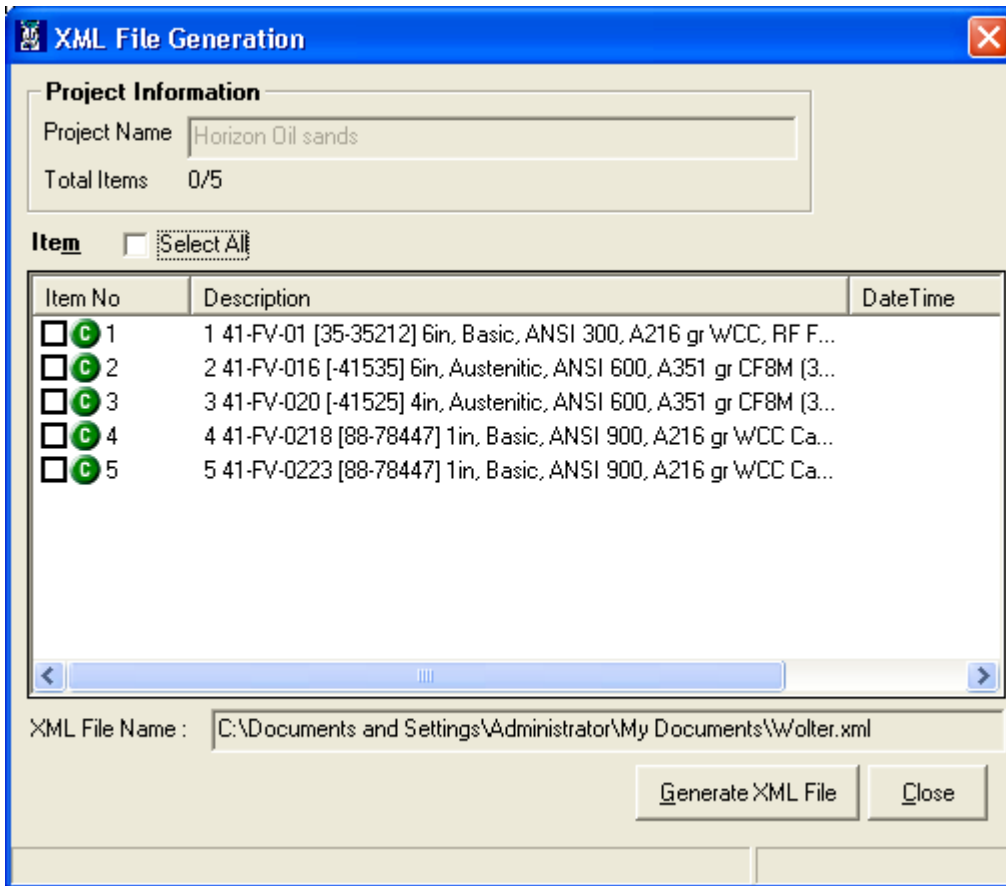
Similarly it is mandatory to provide Billing, Shipping, End User Information & Customer PO Number. The application will flash a message if the information is missing & will not proceed to generate XML.



If Required Date for any line item is missing or not entered, then an appropriate message is displayed & the user is forced to enter the data before proceeding to select line items for XML Generation.



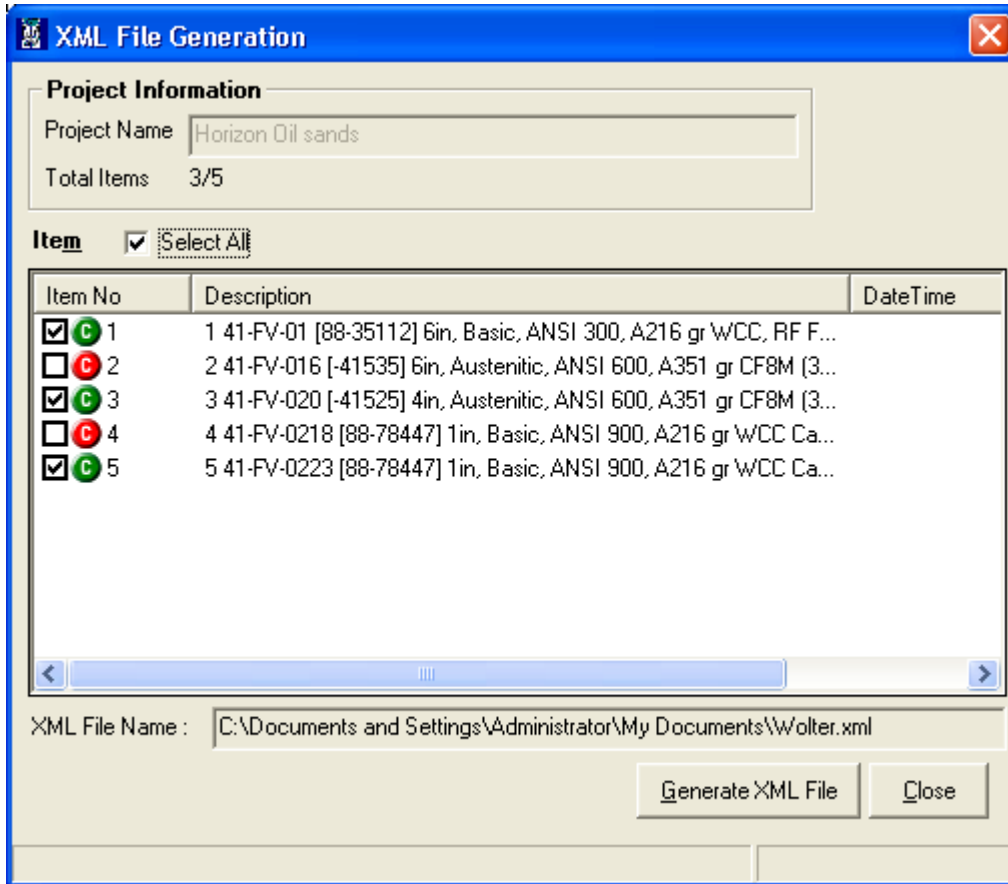
If all the required information is available, the following screen is displayed.



All line items available in the current project are listed for XML File generation irrespective of the Filter status.

Only valid line items will be available for selection.

Press **Alt + M** to select all (valid) items. User has option to de-select all and select a few. Invalid line items though displayed are restricted from being selected.



The XML File will always be generated at the same location where the current project file resides and will have a filename as that of the project with an .xml extension. If a file with the same name already exists, the application will prompt for an Overwrite confirmation.

Click on **Generate XML File** button or press **Alt + G** to write out the XML file.

The application will flash appropriate message if the XML File Generation operation is not successful or if the process encounters any error.

Close

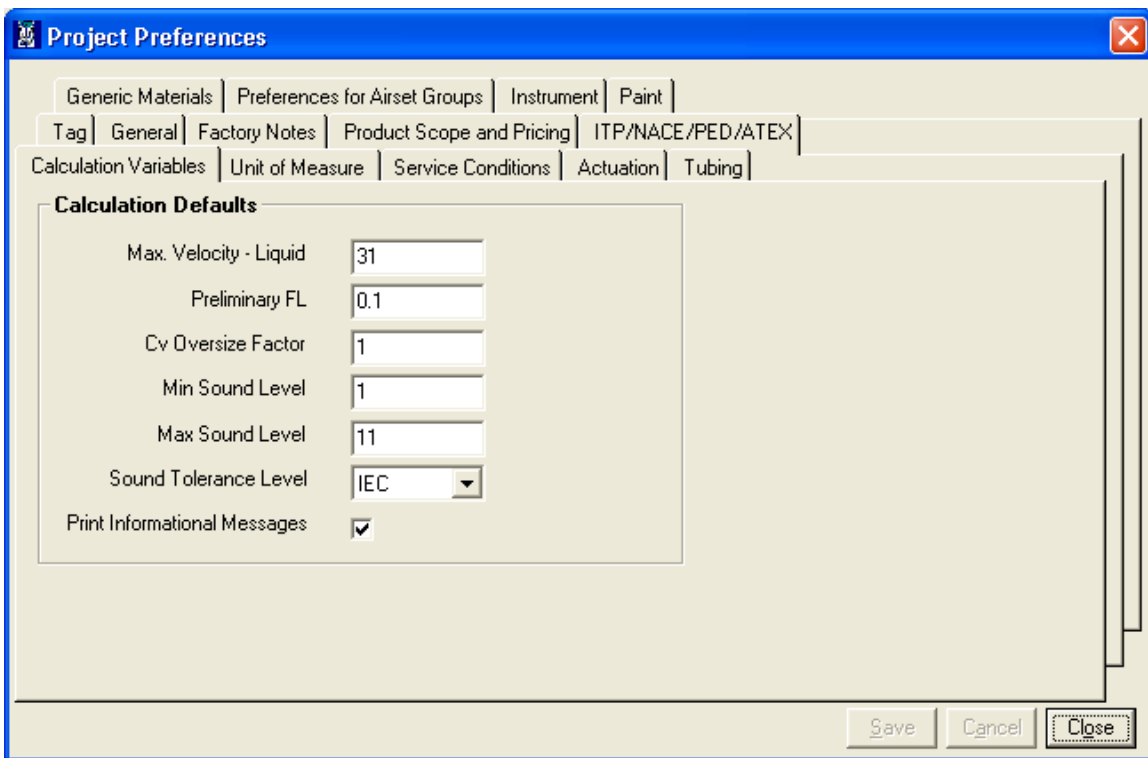
Click on the **Close** button or press the **Alt + C** keys to close XML file generation form.

1.12 Project Preferences

Project Preferences facilitates the user to define preferences for a particular project. Every time default values in Project preferences are copied from User Preferences and automatically set to new project. User has the flexibility to change the preferences as per the project requirements.

This option can be invoked by selecting **Project Preferences** option under the **Project** menu or by pressing **Alt + P & R** keys.

The following screen is displayed.



Project preferences are segregated to ease & can be accessed by selecting the appropriate tab page as given below

1. Calculation Variables
2. Unit of Measure
3. Service Condition
4. Actuation
5. Tubing
6. Tag
7. General
8. Factory Notes
9. Product Scope and Pricing
10. ITP/NACE/PED/ATEX
11. Generic material

12. Preferences for Airset Groups
13. Instrument
14. Paint

By default **Calculation Variables** tab is displayed.

By default **S**ave and **C**ancel buttons are disabled & are enabled only on change of any preferences. Click **S**ave button to save the changes made & **C**ancel to discard any changes made.

Calculation Variables

For every new project Project Preferences values for Calculation Variables are defaulted from values set in User Preferences. These values are used while performing Sizing Calculation.

The screenshot shows the 'Project Preferences' dialog box with the 'Calculation Variables' tab selected. The 'Calculation Defaults' section contains the following settings:

Parameter	Value
Max. Velocity - Liquid	31
Preliminary FL	0.1
Cv Oversize Factor	1
Min Sound Level	1
Max Sound Level	11
Sound Tolerance Level	IEC
Print Informational Messages	<input checked="" type="checkbox"/>

Buttons for 'Save', 'Cancel', and 'Close' are located at the bottom right of the dialog box.

Max. Velocity – Liquid – The value specified

Preliminary FL

Cv Oversize Factor – The **oversize Req Cv** in the grid displayed on **Sizing & Selection** screen for a Control Valve is calculated based on the factor provided here.

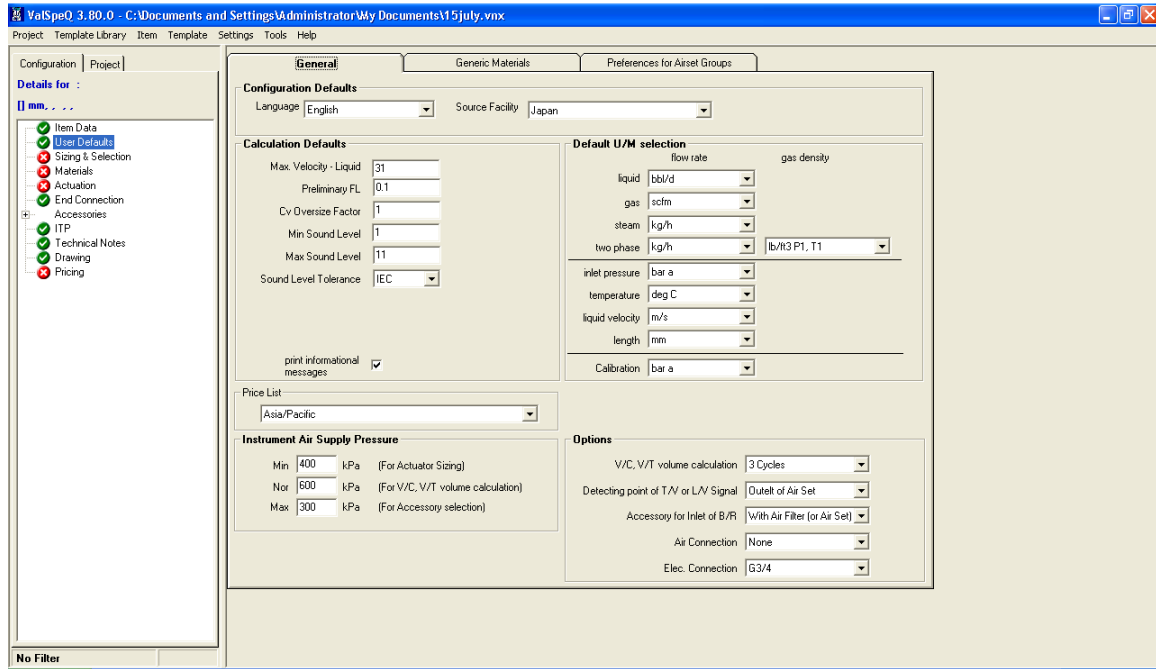
Min Sound Level & Max Sound Level - By specifying the Min Sound Level & Max Sound Level, the application is able to validate the service conditions against the selected valve as to whether the noise is within the valid permitted range. If the Sound is beyond the range specified, an appropriate message is displayed.

Sound Tolerance Level

Print Informational Messages

User can change the default values and save by clicking on the **Save** button. An message "Defaults saved successfully." is displayed.

The **Project Preferences** set are applied to all new items / templates created subsequently & are not applied to existing items / templates. These values are reflected on the **User Default** node under the **Configuration** tab.



Unit of Measure Tab

The Unit of Measure tab page allows the user to define the Units to be used for the project. For every new Project, Project Preferences values for Unit of Measure are defaulted from values set in User Preferences. On selecting the Unit of Measure tab, the following screen will be displayed.

The screenshot shows the 'Project Preferences' dialog box with the 'Unit of Measure' tab selected. The dialog has a blue title bar and a close button in the top right corner. Below the title bar are several tabs: 'Generic Materials', 'Preferences for Airset Groups', 'Instrument', 'Paint', 'Tag', 'General', 'Factory Notes', 'Product Scope and Pricing', 'ITP/NACE/PED/ATEX', 'Calculation Variables', 'Unit of Measure' (selected), 'Service Conditions', 'Actuation', and 'Tubing'. The main area is titled 'Default U/M selection' and contains two columns of dropdown menus. The left column is labeled 'flow rate' and the right column is labeled 'gas density'. The 'flow rate' column has four rows: 'liquid' (bbl/d), 'gas' (scfm), 'steam' (kg/h), and 'two phase' (kg/h). The 'gas density' column has one row: 'two phase' (lb/ft3 P1, T1). Below these are five rows of dropdown menus: 'inlet pressure' (bar a), 'temperature' (deg C), 'liquid velocity' (m/s), 'length' (mm), and 'Calibration' (bar a). At the bottom right are three buttons: 'Save', 'Cancel', and 'Close'.

	flow rate	gas density
liquid	bbl/d	
gas	scfm	
steam	kg/h	
two phase	kg/h	lb/ft3 P1, T1
<hr/>		
inlet pressure	bar a	
temperature	deg C	
liquid velocity	m/s	
length	mm	
<hr/>		
Calibration	bar a	

It allows the user to define **Unit of Measure** for **Liquid Flow Rate**, **Gas Flow Rate**, **Steam Flow Rate**, **Two Phase Flow Rate**, **Two Phase Gas Density**, **inlet Pressure**, **Temperature**, **Liquid Velocity**, **Length** and **Calibration**.

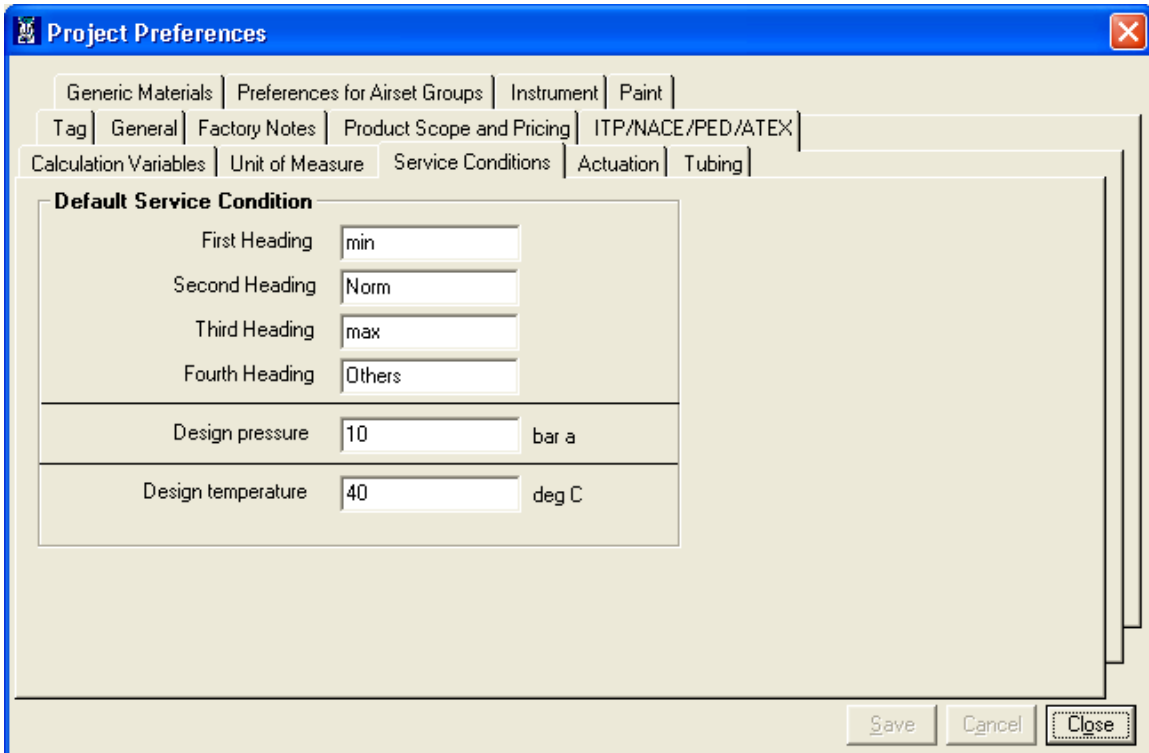
User can change the values as per the project requirements.

The **Project Preferences** set are applied to all new items / templates created subsequently & are not applied to existing items / templates. These values are reflected on the **User Default** node under the **Configuration** tab.

Service Conditions Tab

The Service Conditions tab page allows the user to define the titles / labels which would best describe the four Service Condition data under that column. It also allows the user to set default values for Design pressure & Design Temperature applicable for the Project.

For every new Project Project Preferences values for Service Conditions are defaulted from values set in User Preferences. On selecting the Service Conditions tab, the following screen will be displayed.



The screenshot shows the 'Project Preferences' dialog box with the 'Service Conditions' tab selected. The dialog has a blue title bar and a close button in the top right corner. The main area contains several tabs: 'Generic Materials', 'Preferences for Airset Groups', 'Instrument', 'Paint', 'Tag', 'General', 'Factory Notes', 'Product Scope and Pricing', 'ITP/NACE/PED/ATEX', 'Calculation Variables', 'Unit of Measure', 'Service Conditions', 'Actuation', and 'Tubing'. The 'Service Conditions' tab is active, showing a 'Default Service Condition' section with four heading labels and their corresponding values in text boxes: 'First Heading' (min), 'Second Heading' (Norm), 'Third Heading' (max), and 'Fourth Heading' (Others). Below these are two rows for 'Design pressure' (10 bar a) and 'Design temperature' (40 deg C). At the bottom right, there are 'Save', 'Cancel', and 'Close' buttons.

Default Service Condition		
First Heading	<input type="text" value="min"/>	
Second Heading	<input type="text" value="Norm"/>	
Third Heading	<input type="text" value="max"/>	
Fourth Heading	<input type="text" value="Others"/>	
Design pressure	<input type="text" value="10"/>	bar a
Design temperature	<input type="text" value="40"/>	deg C

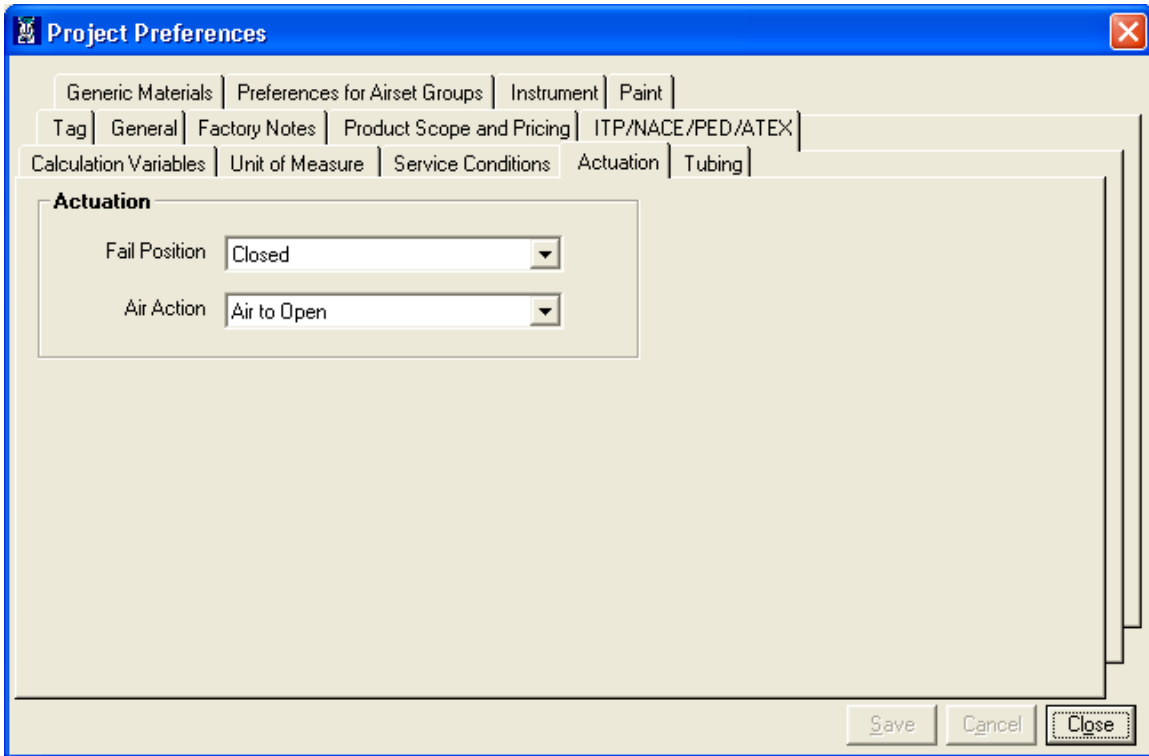
User can change the values as per the project requirements.

The **Project Preferences** set are applied to all new items / templates created subsequently & are not applied to existing items / templates. These values are reflected on the **Sizing & Selection** node under the **Configuration** tab if the product is **Control Valve** or on the **Service & Levels** node if product is **Levels** or on the **Regulator** node if the product is **Regulator**.

Actuation Tab

The Actuation tab page allows the user to define the default Fail Position and Air Action values as per the current project requirements. These values are subsequently set on the Actuation screen.

For every new project, Project Preferences values for Actuation is defaulted from values set in User Preferences. On selecting the Actuation tab, the following screen will be displayed.



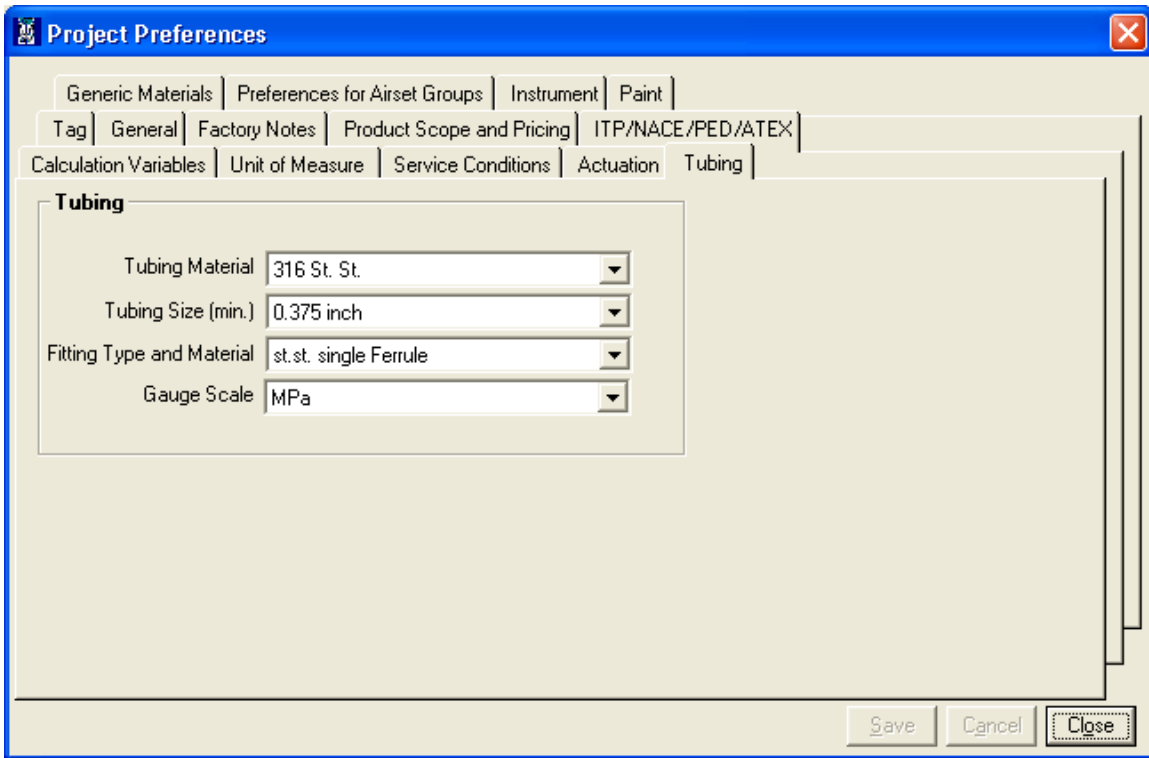
User can change the values as per the project requirements.

The **Project Preferences** set are applied to all new items / templates created subsequently & are not applied to existing items / templates. These values are reflected on the **Actuation** node under the **Configuration** tab if the product is Control Valve or Actuator.

Tubing Tab

The Tubing tab page allows the user to define the default Tubing Material, Fitting Size, Fitting Type and Material and Gauge Scale values as per the current project requirements. These values are subsequently set on the Tubing & Airset screen.

For every new project, Project Preferences values for Tubing are defaulted from values set in User Preferences. On selecting the Tubing tab, the following screen will be displayed.



The screenshot shows a software window titled "Project Preferences" with a blue title bar and a close button (X) in the top right corner. The window contains several tabs: "Generic Materials", "Preferences for Airset Groups", "Instrument", "Paint", "Tag", "General", "Factory Notes", "Product Scope and Pricing", "ITP/NACE/PED/ATEX", "Calculation Variables", "Unit of Measure", "Service Conditions", "Actuation", and "Tubing". The "Tubing" tab is currently selected and active. Inside this tab, there is a section titled "Tubing" containing four dropdown menus: "Tubing Material" (set to "316 St. St."), "Tubing Size (min.)" (set to "0.375 inch"), "Fitting Type and Material" (set to "st.st. single Ferrule"), and "Gauge Scale" (set to "MPa"). At the bottom right of the window, there are three buttons: "Save", "Cancel", and "Close".

User can change the values as per the project requirements.

The **Project Preferences** set are applied to all new items / templates created subsequently & are not applied to existing items / templates. These values are reflected on the **Tubing & Airset** node under the **Configuration** tab for Control Valve.

Tag Tab

Tag tab provides a facility to the user to enable or disable auto tag numbering or tag masking on New Items as per rules or definition. Based on the values entered for Tag Mask, the ValSpeQ application behavior is subsequently reflected when a new Control Valve line item is added & appropriate accessories are selected before saving the line item.

For every new project, **Project Preferences** values for **Tag** are defaulted from values set in **User Preferences**. On selecting the **Tab** tab, the following screen will be displayed.

The screenshot shows the 'Project Preferences' dialog box with the 'Tag' tab selected. The 'Default Tag Mask and Increment' section is active, featuring a checked checkbox for 'Use Tag Masks on New Items'. Below this, there are two columns of input fields. The left column lists various tag types with their corresponding values: Valve Tag (1), Positioner Tag (2), Transducer Tag (3), Booster Tag (4), Switch Tag (5), Solenoid Tag (6), Transfer Lockup Valve1 Tag (7), Transfer Lockup Valve2 Tag (8), Transfer Lockup Valve3 Tag (9), and Airset for Transfer Lockup Valve Tag (10). The right column contains three fields: 'Initial Value' (1), 'Increment Value' (2), and 'Next Value' (1). At the bottom right, there are 'Save', 'Cancel', and 'Close' buttons.

Note:

Tag Mask works with Control Valve line item only.

Use Tag Mask on New Items - When this option is checked, the selected Tag Masks are applied to new line items. Tag Mask is generated based on prefix entered under **Tag Mask** + '-' (hyphen) + **Next Value**.

If the "Use Tag Mask on new items" check box option is unchecked, all the text boxes on the Tag tab are disabled. When it is checked, all text boxes on the Tag tab are enabled except Next Value text box.

Tag Mask – Valve Tag - This field value is used as the prefix for the auto generated tag for Control Valve and Level line item.

Tag Mask – Accessory (Positioner, Transducer, Booster, Switch & Solenoid) – These field values are used as the prefix for the auto generated tag for the corresponding appropriate accessory selected at the time of configuring a control valve line item that is yet to be saved.

Tag Mask is not mandatory & can be left blank.

Initial Value – This field is used for specifying the start value for generating the default tags. While working on a large project, this facilitates more than one user to work & allows them to allocate appropriate tag numbers by setting the appropriate corresponding value. **Initial Value** is mandatory & minimum value should be 1.

If **Initial Value** is changed then the same value will be reflected in the Next Value field.

Increment Value – The **Increment Value** is the value which is added to the **Initial Value** for the first time to derive the **Next Value** (tag number). For every subsequent Tag Number that is generated, the previous generated **Next Value** that was allocated to a Control Valve line item is treated as the **Initial Value** to which the **Increment Value** is added to derive the **Next Value**. **Increment Value** is mandatory & minimum value should be 1.

Next Value – This non-editable field displays the number, which will be used for generating the next tag. This value will be updated after each tag generation.

Warning:

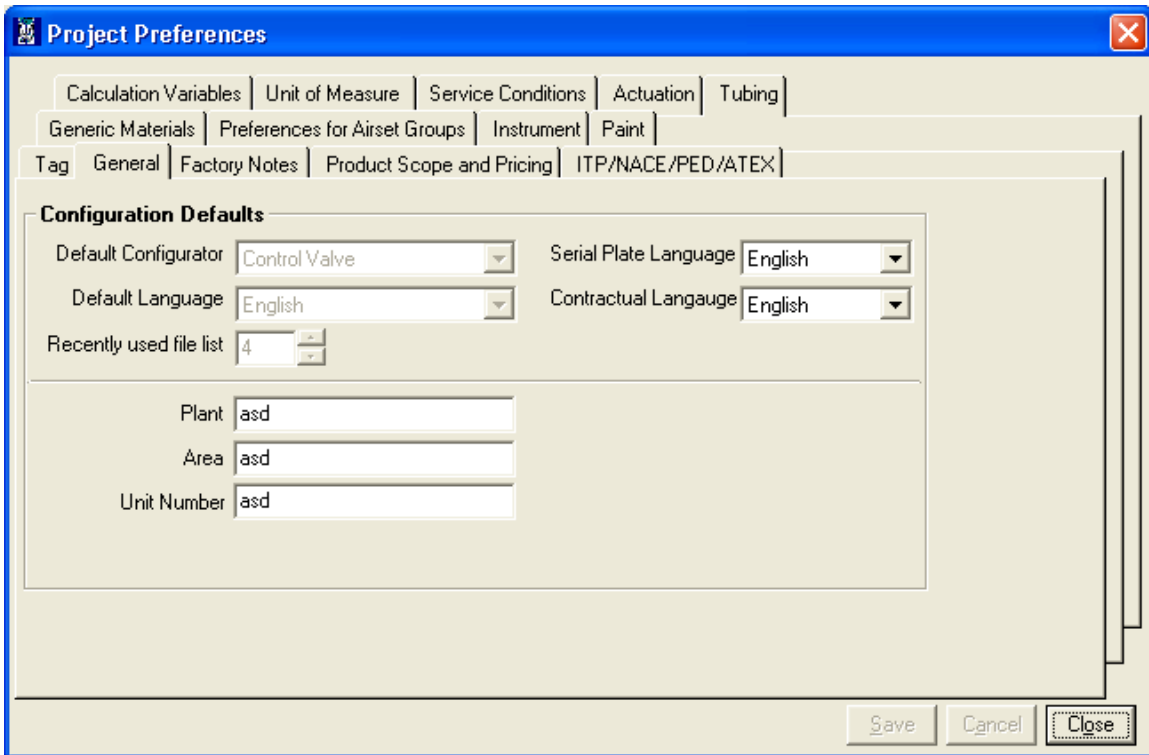
Tags for Positioner, Transducer, Booster, Switch & Solenoid are auto generated only if any model is selected before the line item is saved. However if a Control Valve line item is first configured & saved and then subsequently the accessory are selected, tags for Positioner, Transducer, Booster, Switch & Solenoid will not be auto generated.

Similarly if Valve Type is not selected & the line item is saved, then Valve tag will not be auto generated.

General Tab

General tab facilitates user to specify **Plant, Area & Unit Number** information based on the Project. It also allows selecting the Serial Plate & Contractual Language to be used for the project. These values are reflected on the **Item Data** screen for all new Control Valve, Level & Regulator line items or templates added subsequently.

For every new project, **Project Preferences** values for **General** are defaulted from values set in **User Preferences**. On selecting the **General** tab, the following screen will be displayed.



The screenshot shows the 'Project Preferences' dialog box with the 'General' tab selected. The dialog has a blue title bar and a close button in the top right corner. Below the title bar, there are several tabs: 'Calculation Variables', 'Unit of Measure', 'Service Conditions', 'Actuation', 'Tubing', 'Generic Materials', 'Preferences for Airset Groups', 'Instrument', 'Paint', 'Tag', 'General', 'Factory Notes', 'Product Scope and Pricing', and 'ITP/NACE/PED/ATEX'. The 'General' tab is active. The 'Configuration Defaults' section contains the following fields:

Default Configurator	Control Valve	Serial Plate Language	English
Default Language	English	Contractual Language	English
Recently used file list	4		

Below this section, there are three text input fields:

Plant	asd
Area	asd
Unit Number	asd

At the bottom right of the dialog, there are three buttons: 'Save', 'Cancel', and 'Close'.

Values for **Default Configurator, Default Language & Recently used file list** are non-editable as they are User Specific preference & have to be set thru User Preferences option under Settings menu.

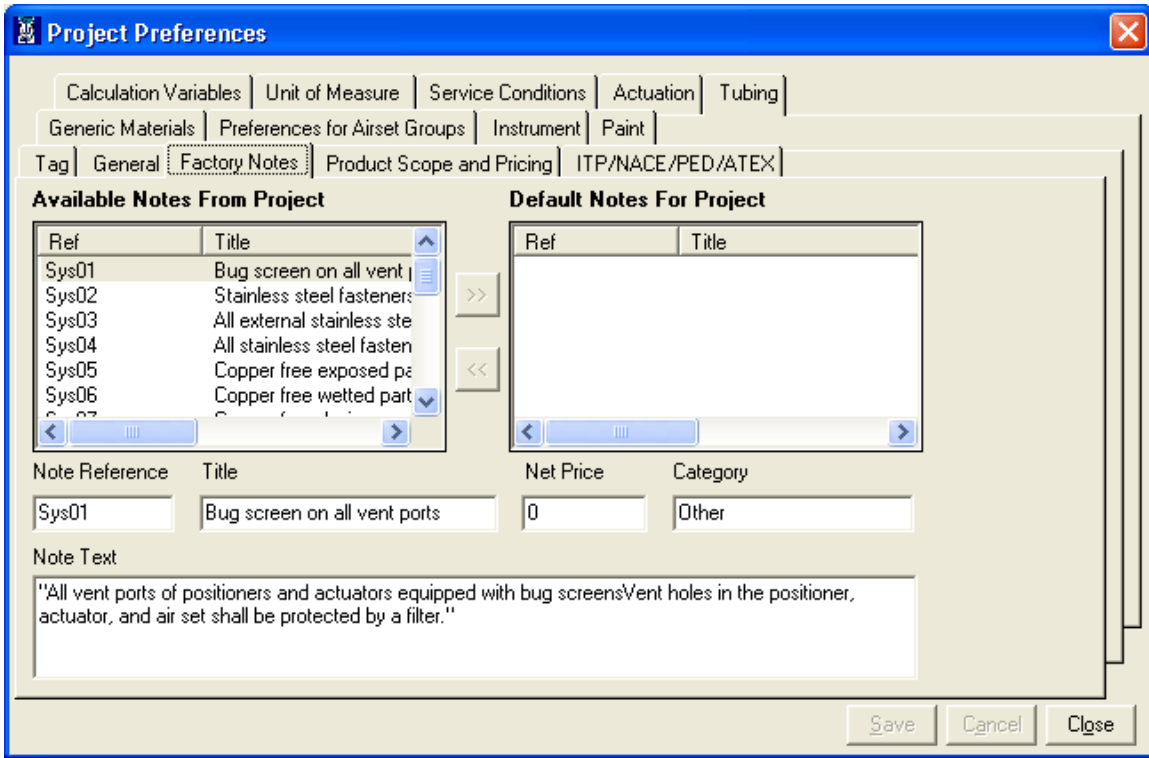
Values for Serial Plate & Contractual Language could set as per the project requirements. These values once set are automatically applied when a new Control Valve, Level, Regulator or an Accessory line item or template is added subsequently.


User can update the Plant, Area & Unit Number information as per the project requirements. These values once set are automatically applied when a new Control Valve, Level or Regulator line item or template is added subsequently.


Factory Notes Tab

Factory Notes tab facilitates user to specify **Default Notes For Project**. All Control Valve, Level or Regulator line items / templates created subsequently will automatically be assigned the Default Notes selected for the project. This eliminates the need to assign standard Factory Notes for a Project from being applied manually.

On selecting the **Factory Notes** tab, the following screen will be displayed.



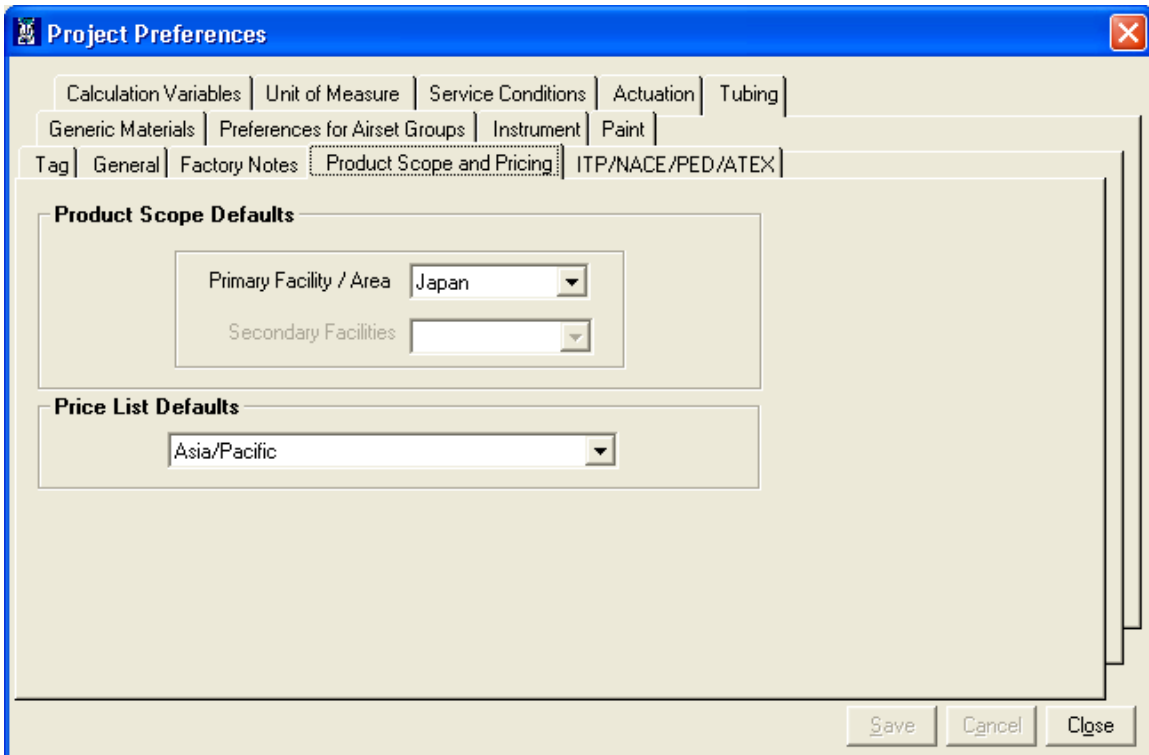
User can select notes listed under **Available Notes From Project** & add it to **Default Notes For Project** by using  button. All notes listed under Default Notes For Project will be applied to new Control Valve, Level or Regulator line items / templates added subsequently.

Similarly user can remove a currently set Default Notes For Project by using the  button. The notes removed will not be applied to new Control Valve, Level or Regulator line items / templates added subsequently.

Product Scope and Pricing Tab

The Product Scope and Pricing tab page allows the user to define the Primary Facility for the Project & Price List to be used for the Project.

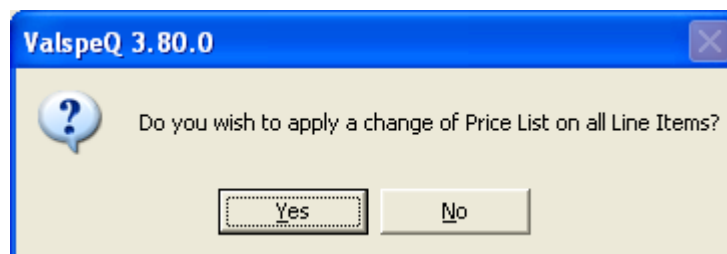
For every new project, Project Preferences values for Product Scope and Pricing are defaulted from values set in User Preferences. On selecting the Product Scope and Pricing tab, the following screen will be displayed.



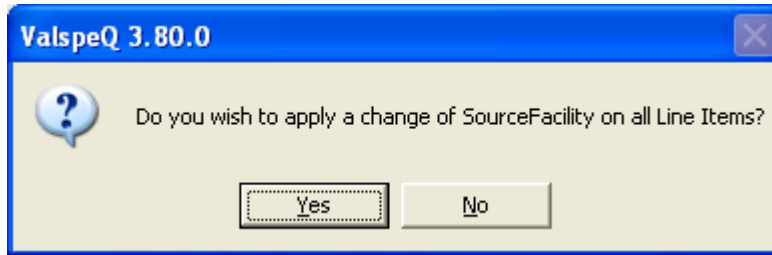
Note: Price List Defaults section is available for selection only in ValSpeQ Professional edition. The same is not displayed in ValSpeQ Standard or Lite edition.

User can select the **Primary Facility / Area**. Based on the **Primary Facility / Area** selected, the available / associated Price Lists are listed. User can select the appropriate Price List to be used for pricing the line items within the Quote.

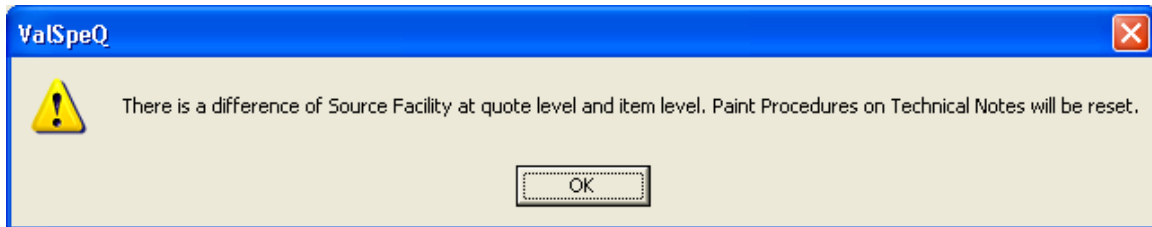
If ValSpeQ edition is Professional & project contains one or more line items and a different **Primary Facility / Area** or **Price List** is selected then ValSpeQ will prompt for a confirmation message as shown below.



And if **ValSpeQ** edition is Lite or Standard and a different **Primary Facility / Area** is selected then following message is displayed.

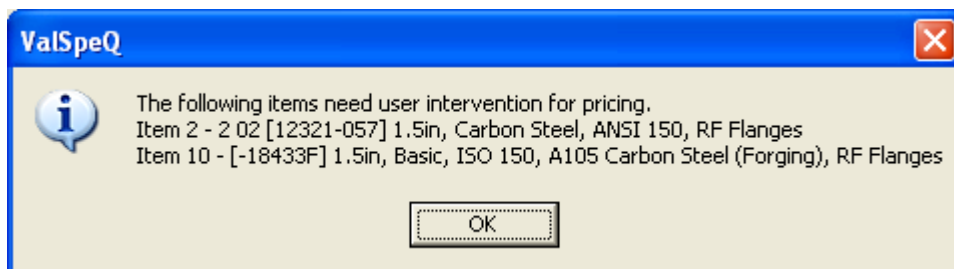


If **Yes** is selected and Primary Source Facility is changed then a warning message for Quality plans being reset is displayed.



After clicking on **OK** button, **Primary Facility / Area** and **Price List** for all line items not freeze is changed to the one selected. In case of **ValSpeQ Standard** and **Lite** edition only **Primary Facility / Area** is changed.

If **ValSpeQ** edition is **Professional** & the **Primary Facility / Area** is changed then the **Paint Procedures** (on **Technical Notes** node) of all unfreeze line items is reset and Pricing of all unfreeze line items is re-calculated by ValSpeQ as per the new price list. If ValSpeQ is unable to calculate the price of some line items then a message will list those line items.



The line items, which are listed in this message box, are invalidated on pricing.

The **Project Preferences** set for Product Scope & Pricing are applied to all new items created subsequently & to existing items also. These values are reflected on the **User Default** node under the **Configuration** tab.

ITP/NACE/PED/ATEX Tab

ITP/NACE/PED/ATEX tab facilitates the user to define the PED requirements for the project, the ITP type to be used, the NACE standard to be adhered to & the ATEX requirements.

The screenshot shows the 'Project Preferences' dialog box with the 'ITP/NACE/PED/ATEX' tab selected. The dialog has a blue title bar and a close button in the top right corner. The main area contains several sections: 'PED' with a checked 'PED Required' checkbox; 'ITP' with a dropdown menu set to 'Standard + European directive'; 'NACE' with a dropdown menu set to 'None'; and 'ATEX' with three dropdown menus: 'Zone Classification' (None), 'Temperature Class' (None), and 'Protection Mode' (None). To the right of these dropdowns are two empty text boxes for 'Ambient Temperature Min' and 'Ambient Temperature Max'. At the bottom right, there are 'Save', 'Cancel', and 'Close' buttons.

Check the **PED Required** checkbox to define PED requirements for all **Control Valve, Levels & Regulator** line items / templates within the **Project / Quote**.

For every new project, default value for **PED Required** in **Project Preferences** is populated from the values set in **User Preferences**.

All new **Control Valve, Levels & Regulator** items / templates created subsequently will default the **PED Required** status as set in **Project Preferences**. The same is reflected on the **Item Data** screen.

User can select default **ITP Type** that is to be applied for the Project. The different **ITP Types** available are

- **Standard**
- **Standard + Nace**
- **Standard + PMI**
- **Standard + ASME B16-34 special class**
- **Standard + European Directive**
- **Standard + European Directive + Nace**
- **Standard + European Directive + PMI**
- **Standard + European Directive + ATEX**

For each of the **ITP Types**, certain **ITP** options under various categories are preset or selected. (for more information refer to **ITP Management** section)

If **PED Required** is checked, user has to pick one of the **European Directive ITP Type** only. An appropriate message is displayed provided the user does not pick up the right **ITP Type**.

Similarly if **PED Required** is not selected & one of the **European Directive ITP Type** is selected, then an appropriate message is displayed & **PED Required** is automatically checked.

All new Control Valve, Levels & Regulator items / templates created subsequently will default the **PED Required** status as set in Project Preferences. The same is reflected on the **Item Data** screen.

For every new project, default **ITP Type** in **Project Preferences** is populated from values as set in **User Preferences**. The default ITP Type for the project is the one selected in Project Preferences.

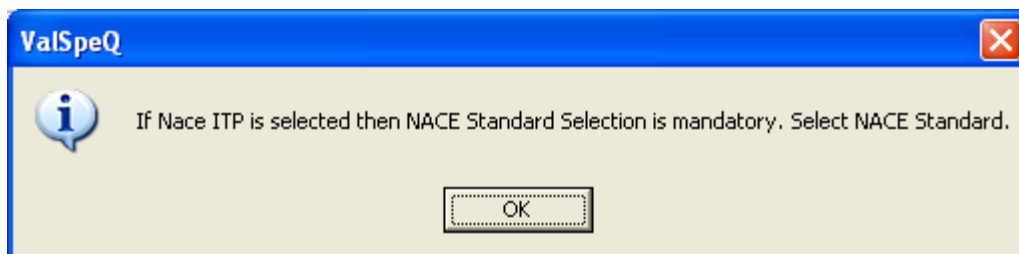
Note:

It is recommended to set the **ITP Type** using the **Project Preferences** at the very beginning of a new project before adding any new line items.

On changing a different ITP Type in Project Preferences & if no line item or template has been added, the Standard ITP that was set as per User Preferences is over written & the new selected ITP Type from Project Preferences is treated as the default ITP i.e. ITP-1 as seen on the ITP Management screen.

ITP Types are applicable to only **Control Valve, Level & Regulator** line item or templates.

User has to select a **NACE Standard** to be used if **Standard + Nace ITP Type** is selected or **Standard + European Directives + Nace ITP Type** is selected. An appropriate message is flashed.

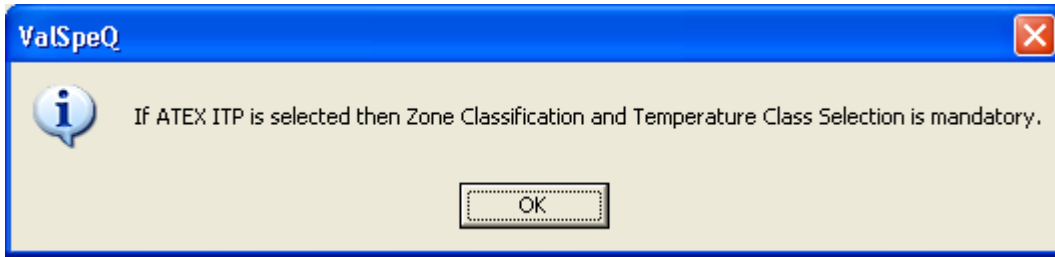


Default **NACE Standard** can be selected only for **Control Valve** Line Item/Template.

Note:

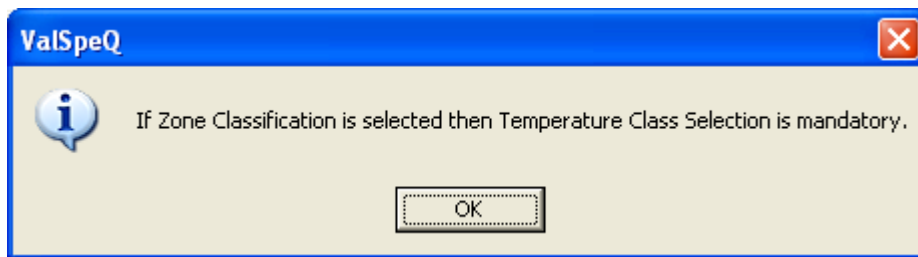
User is permitted to select a **NACE Standard** even if **ITP Type** selected is not **Standard + NACE** or **Standard + European directives + NACE**

User has to select a **Zone Classification & Temperature Class** to be used if **Standard + European + ATEX ITP Type** is selected. An appropriate message is flashed.



A **Standard + European + ATEX** ITP will be automatically set in ITP type combo box if user set data in **Zone Classification** combo box.

User has to select **Temperature class** if **Zone classification** is selected form ATEX frame. An appropriate message is flashed.

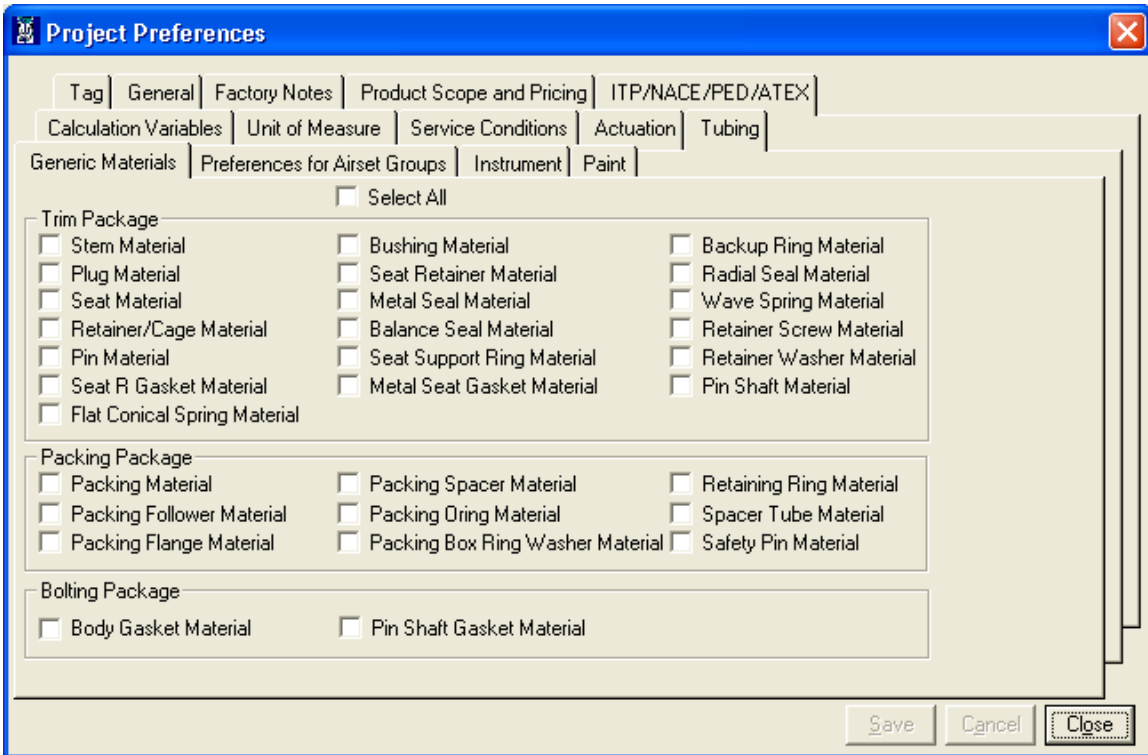


User can select default **Ambient Temperature Min**, **Ambient Temperature Max** in ATEX frame.

Generic Materials Tab

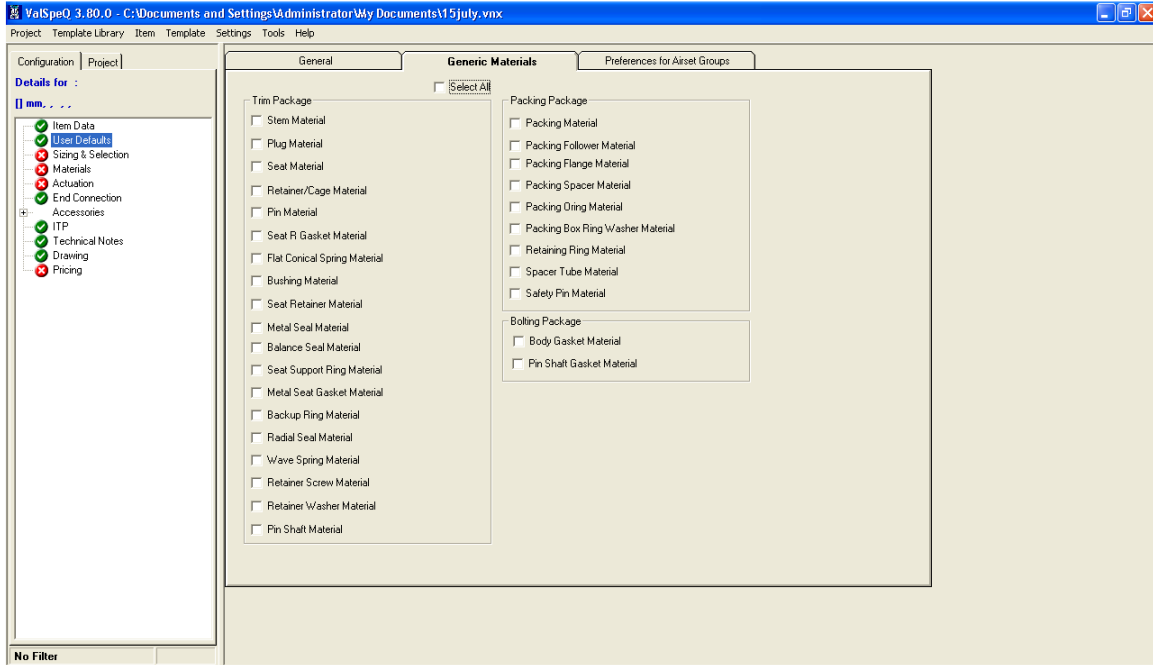
This option facilitates user to define how material data is to be populated. Material data can be populated by using Generic Names or Specifics. User is allowed to define this method of data population for various **Trim Package**, **Packing Package** & **Bolting Package** materials that are to be selected.

For every new project, **Project Preferences** values for **Generic Materials** are defaulted from values set in **User Preferences**. On selecting the **Generic Materials** tab, the following screen will be displayed.



User can select the Select All check box or individual Material check boxes under Trim Package, Packaging Package & Bolting Package for which Generic Material Names are to be populated. For the materials that are unchecked the Specific Names will be populated.

The **Project Preferences** set are applied to all new items / templates created subsequently & are not applied to existing items / templates. These values are reflected on the **Generic Materials** tab on **User Defaults** node under the **Configuration** tab if the product is Control Valve.



Preferences for Airset Group tab

Airset Group preferences facilitates user to define various air appliances to be assigned to the configuration on the occurrence of pre-defined conditions. This allows for a more consistent airset and air filter piping practice to be released from the factories.

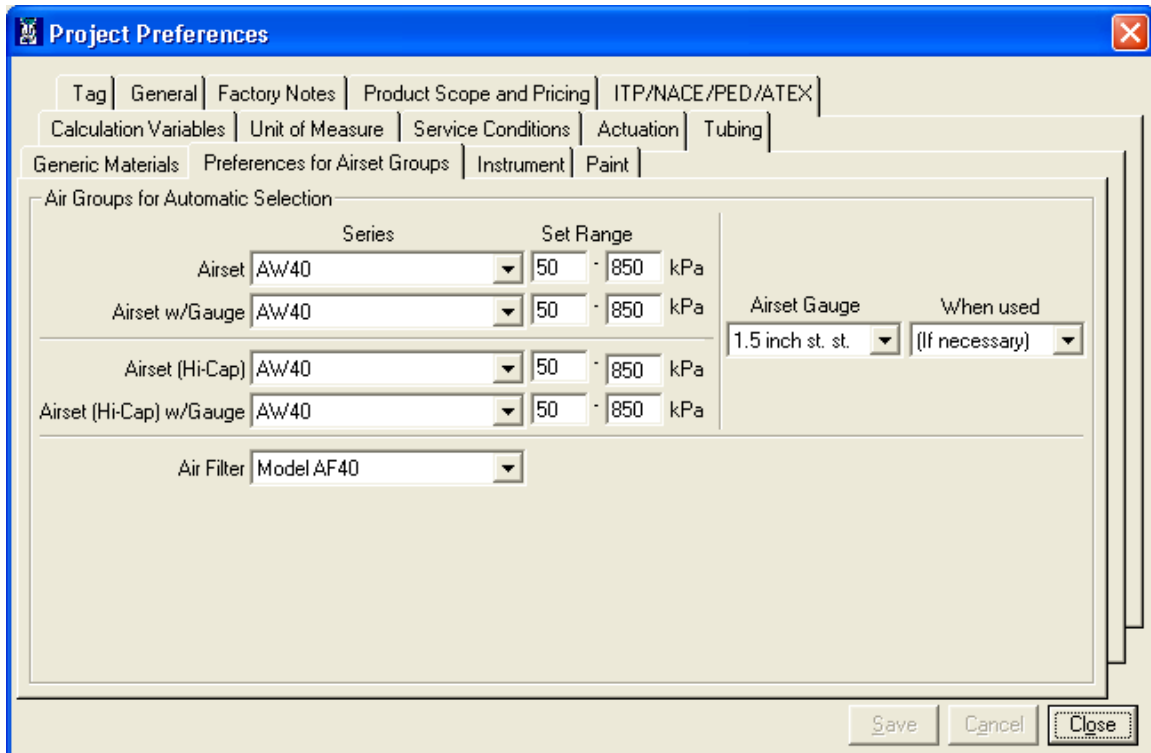
Note:

Currently only the NIIMCO standard is available in ValSpeQ since NIMCO facility has published Air Group piping guidelines. However all common Air Group piping practices are being looked at from various facilities in order to come up with a global Air Group piping scheme that will ensure consistent airset and air filter piping practices for Masoneilan. The user can choose to use this model or simply remove any air accessories from the Air Group preferences not to use the NIMCO guidelines.

Project Preferences values for **Preferences for Airset Groups** are defaulted from values set in **User Preferences**. On selecting the **Preferences for Airset Groups** tab, the following screen will be displayed.

The Airset Group preference screen allows for the user to select Air Accessories to be used for the following:

- Normal Capacity Low Set Pressure AirSet
- Normal Capacity High Set Pressure AirSet
- High Capacity Low Set Pressure AirSet
- High Capacity High Set Pressure AirSet
- Airset Gauge preferred and when to use it.
- Air Filter



Select a preferred airset to be used. ValSpeQ displays the initial airset range for the selected airset model. User can choose to keep these ranges or fine tune them further. However the value for minimum Set Pressure & maximum Set Pressure should not be beyond the initial range of value displayed for the selected airset model. ValSpeQ will display an appropriate message in the event if the values are fine tuned and are beyond the initial range of values displayed for the selected airset model.

Select the **Airset Gauge & When Used**. The **Airset Gauge** lists the different options available & the **When Used** allows the user to specify whether it is applied on all line items irrespective of whether it is required or not or applied on when necessary.

Select **Air Filter** to be used.

Limitation

Airset to use based on Calculated Set Pressure requires selection of Positioner & Boosters. However ValSpeQ in its current design, allows the user to select Airset on Positioner & Booster screen thus restricting overwriting the selected options with the recommended as calculated. For example in order for the Air Group logic to make an air group recommendation, the following must be known:

- Instrument Air Pressure Range (Min and Max)
- Actuator Model
- Positioner Model
- Booster Qty
- Fail Position

Once this is known, the Air Group Logic has the ability to determine the following:

- Positioner Airset, Positioner Airset Qty, Positioner Airset Gauge
- Booster Airset, Booster Airset Qty, Booster Airset Gauge
- Volume Tank / Chamber Airset, Airset Qty, and Airset Gauge

In ValSpeQ, the Airset for the Positioner is selected on the Positioner screen. The Booster Airsets are also depicted on the Booster Screen. So in essence, the Positioner preferred airset can not be estimated until a Booster Model and Booster Qty is selected. The Auto Selection button on the Booster screen will determine the necessary Boosters to have when there is a stroke / response time requirement. Only then can the system suggest to change the Positioner airset on the positioner screen.

User can change the values as per the project requirements. Select the **Save** option to save Project preferences.

The **Project Preferences** set are applied to all new items / templates created subsequently & are not applied to existing items / templates.

By default **S**ave and **C**ancel buttons are disabled & are enabled only on change of any preferences. Click **S**ave button to save the changes made & **C**ancel to discard any changes made.

Use the **C**lose button to close the **Project Preferences** window.

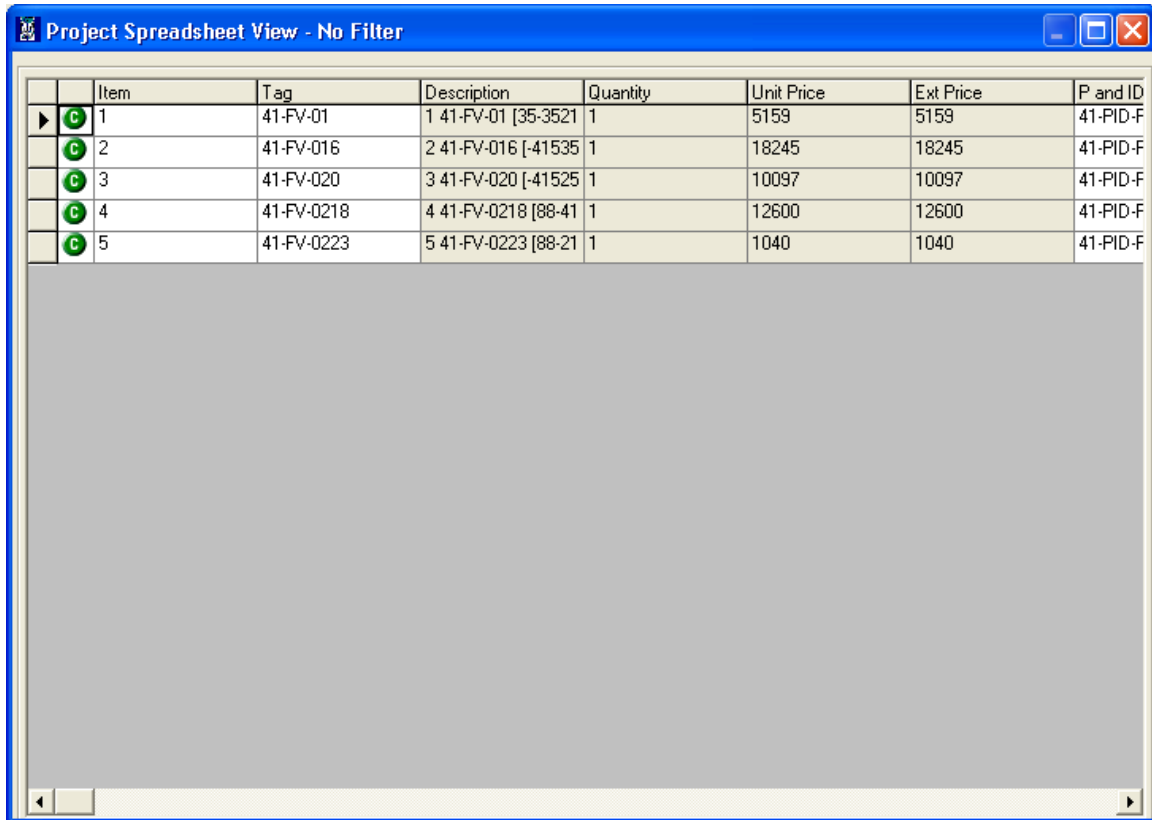
Important Note:

1. Every time when a new project is created, Project Preferences values are set as per the values set in User Preferences.
2. Any changes to Project Preferences will be applied to new items or templates added subsequently. The changes made will not be applied to existing items except in the case of Source Facility / Price List.
3. Change to Source Facility / Price List on Product Scope & Pricing tab on Project Preferences screen is applied to all line items within the project.
4. Most of the Project Preference values set at the time when the line item was created are reflected on User Defaults node on Configuration tab & user has the flexibility to change the same at the item level.

1.13 Spreadsheet View

The spreadsheet view facilitates easy navigation & manipulation by displaying non-config & non-pricing data for all line items in rows & columns.

Spreadsheet view functionality can be invoked by selecting the **Spreadsheet View** option under **Project** menu.



	Item	Tag	Description	Quantity	Unit Price	Ext Price	P and ID
▶ c	1	41-FV-01	1 41-FV-01 [35-3521	1	5159	5159	41-PID-F
c	2	41-FV-016	2 41-FV-016 [-41535	1	18245	18245	41-PID-F
c	3	41-FV-020	3 41-FV-020 [-41525	1	10097	10097	41-PID-F
c	4	41-FV-0218	4 41-FV-0218 [88-41	1	12600	12600	41-PID-F
c	5	41-FV-0223	5 41-FV-0223 [88-21	1	1040	1040	41-PID-F

Note:

If a Filter is active only those line items that meet the filter criteria are listed. The Spreadsheet View window title displays the filter status, name of the filter & total line items that meet the criteria against total line items within the project.

All Line Items from the Project / Quote are displayed. Non-editable columns are displayed with a grey background. Similarly line items with Freeze status (i.e. rows in spreadsheet view) are also non-editable & displayed with grey background. Cells in which data can be modified are displayed with White background.

The Spreadsheet View offers a few options to allow the user to decide the columns he intends to see in the spreadsheet view from a list of columns that can be displayed. In addition it also facilitates Auto Fill or Find & Replace functionality for mass updating of data. These features can be invoked by right clicking on the column title. A popup menu with the following options is displayed

- **Select Columns...**
- **Re-order Columns**
- **Mass Change**
- **AutoFill / Find Replace**
-

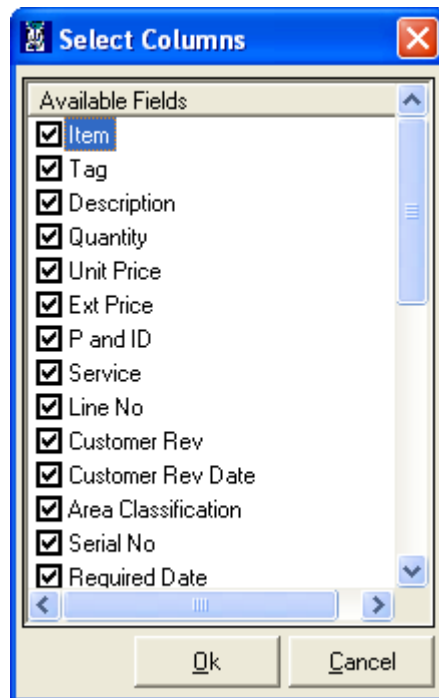


Note:

1. Option Re-order Columns & Mass Change options are currently disabled. These options will be enabled in the future when the respective functionality is incorporated.
2. If the right mouse button is clicked on a non-editable column title, the **AutoFill / Find Replace... option** is disabled.

Select Columns...

User can select or de-select the columns he intends to view on the Spreadsheet View window by using **Select Columns...** option.



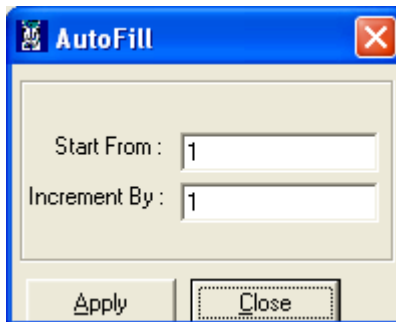
On invoking this option, list of available columns that can be viewed on the spreadsheet view are displayed. User can select or deselect columns he intends to view. Spreadsheet view is subsequently refreshed & data is displayed as per the columns selected.

Auto Fill / Find Replace...

Depending on the data type of the column on which this option was invoked, different features are offered.

Numeric Data Type

An AutoFill feature is provided if the column data type is Numeric that facilitates auto fill values by providing a **Start From** value & **Increment By** value.

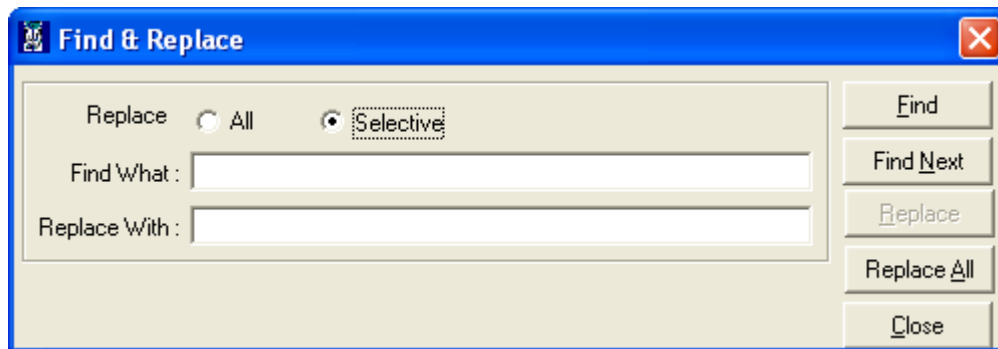


Apply button computes & applies appropriate values to the cells within the column for line items which are not with Freeze status.

Close button closes the Auto Fill window.

Text Data Type

A Find & Replace feature is provided if the column data type is Text that facilitates user to replace either all values or selective values.



Select the **All** radio button option if all the values in the column are to be replaced or overwritten for all line items not having Freeze Status. Provide a string in the **Replace With** field & click on the **Replace All** button.

Note:

Find What text box is disabled and **Replace All** & **Close** buttons are available when **All** radio button option is selected. **Find**, **Find Next** & **Replace** buttons are disabled.

Select the **Selective** option to find a string entered in the **Find What** field or find & replace it with the string entered in the **Replace With**.

Find button option always locates the first instance or occurrence within the column that matches the string entered & shifts control to that cell.

Find Next button locates the next occurrence that matches the string entered & shifts control to that cell.

In case of **Find** or **Find Next** an appropriate message is displayed if none of the rows or line items matches the string being searched.

Replace button replaces the string found with the string entered in Replace With text box.

Replace All button replaces all the occurrences of the string found in the column except for the line items with Freeze status. A confirmation message is displayed to prevent accidental replacements.

Close button closes the **Find & Replace** window.

Date Data Type

A Find & Replace feature is provided if the column data is of Date data type to facilitate to replace either all values or selective values.



Select the **All** radio button option if all the dates in the column are to be replaced or overwritten for all line items not having Freeze Status. Select a date from the **Replace With** field & click on the **Replace All** button.

Note:

Find What date picker is disabled and **Replace All** & **Close** buttons are available when **All** radio button option is selected. **Find**, **Find Next** & **Replace** buttons are disabled.

Select the **Selective** option to find a date selected in the **Find What** field or find & replace it with the string entered in the **Replace With**. To search for a cell within the column that does not contain any date or is blank / empty, uncheck the check box within the **Find What** date picker.

Find button option always locates the first instance or occurrence within the column that matches the date being searched & shifts control to that cell.


Find Next button locates the next occurrence that matches the date being searched & shifts control to that cell.

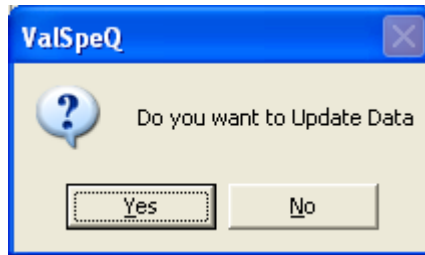
In case of **F**ind or **F**ind **N**ext an appropriate message is displayed if none of the rows or line items matches the date being searched.

Replace button replaces the date found with the date selected in **R**eplace **W**ith date picker. To blank out a date uncheck the check box within the **R**eplace **W**ith date picker. This will cause any existing date to be replaced with a blank / empty value.

Replace **A**ll button replaces all the occurrences of the date being searched within the column with date selected in the **R**eplace **W**ith date picker except for the line items with Freeze status. A confirmation message is displayed to prevent accidental replacements.

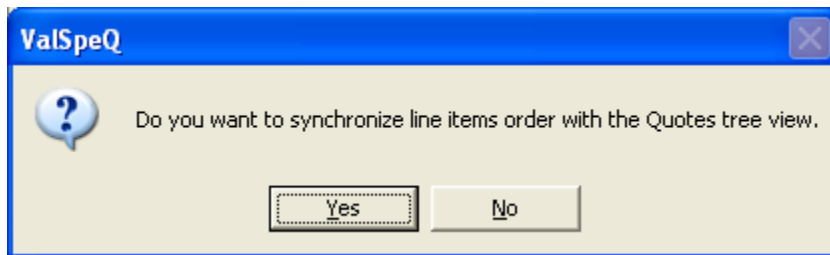
Close button closes the **F**ind & **R**eplace window.

User can close the Spreadsheet View window by clicking on the  button (right top). A message to update changes made is displayed user provided user has changed any data.



On accepting the changes are updated & the Spreadsheet View window is closed. The updated changes are reflected on the normal ValSpeQ application view. On rejecting, the changes made are not updated & the Spreadsheet View window is closed.

After making changes in the order or sequence of the Line Items, if user tries to close the **Spreadsheet View** window the confirmation message is displayed as shown in the following screen with Yes and No buttons.



On clicking on **Yes** button, the changes are applied to the Items in Quote node and on clicking on **No** button changes made are not applied to the Line Items.

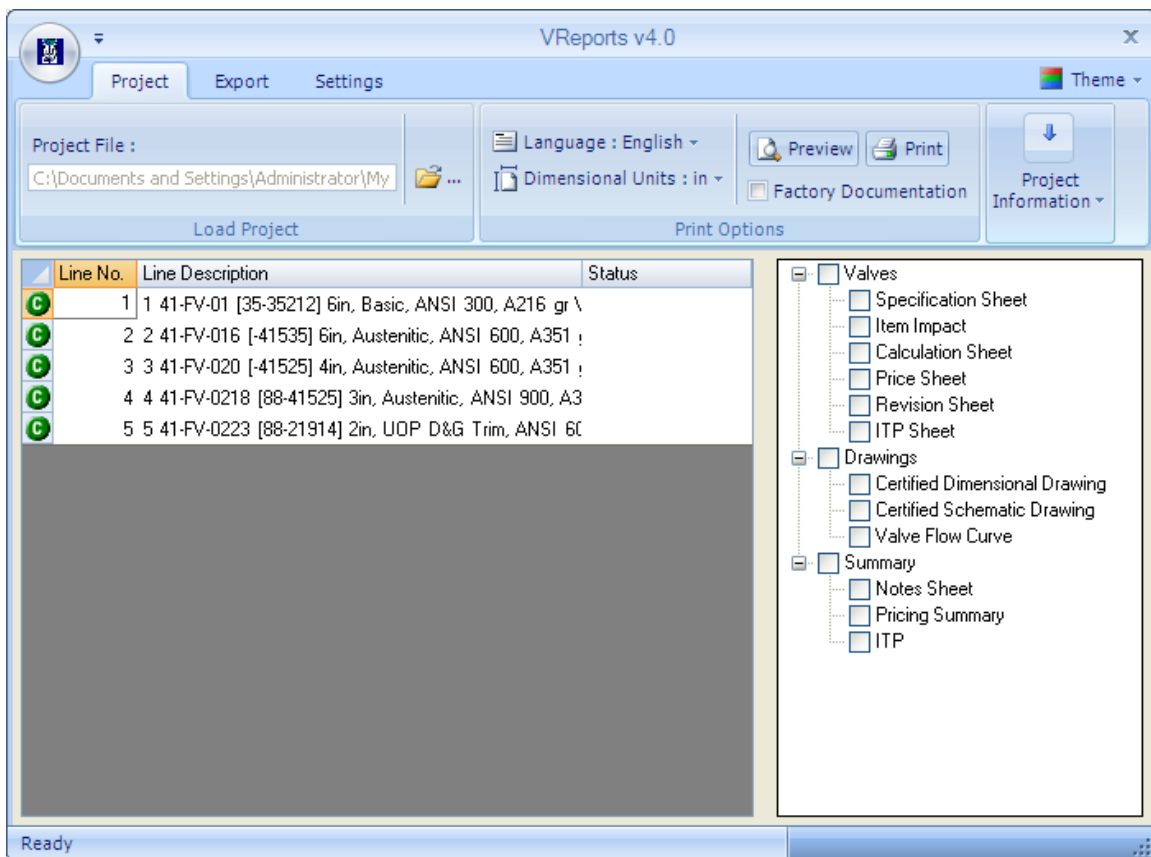
Note: In Spreadsheet if filter is active, user can not reorder or have drag-drop.

1.14 Print...

This option facilitates the user to generate the standard documentation associated with the Project or Quote. This option invokes VReports plug in which can be invoked separately or from within ValSpeQ. The user manual covers all the aspects with respect to invoking the same via ValSpeQ.

The Print option can be invoked by selecting the **Print...** option from the **Project** menu on the application menu bar or **Alt+P** & then **P** for Print.

The following screen is displayed on invoking the **Print** option.



- **Available Line Items**

All Items within the Project are listed on the left view & available reports are listed on the right view. Available reports are grouped & listed by category.

The list displays the Item's logical line number in the project file & the description of the Item as configured. User can select one or more line items from the list. To select multiple line items listed sequentially, select the starting line item & holding the Shift key click on the line item to indicate end of selection. To select multiple line items not in a sequence click on the first line item & holding the Ctrl key click on the other line items that are required.

- **Available Reports Tree**

The report tree displays the currently available reports in ValSpeQ. These reports are categorized in 3 groups.

- **Valves** – These reports are printed once for every Line Item & represent valve related information.
- **Drawings** – These reports are printed once for every Line Item & represent drawing type information for the valve.
- **Summary** – These reports print once for every print run & represent summary reports associated with the Quote.

Selection of reports can be done in two ways. Each report can be selected individually by clicking the report's name within the tree. This has the effect of toggling the report as **Checked** to be printed or **Unchecked** to be ignored by the print run. Groups of reports can be selected by clicking the Group name they are listed under. This has the effect of toggling all reports under the group as **Checked** to be printed or **Unchecked** to be ignored by the print run.

- **The Toolbar buttons**

On clicking on ValSpeQ icon at the top left corner of the window, a quick menu for **Open**, **Printer Setup**, **Print** and **Preferences** will be displayed.

The drop down menu at the top left corner of the window provides two options viz. **Show Below the Ribbon** and **Minimize the Ribbon**.

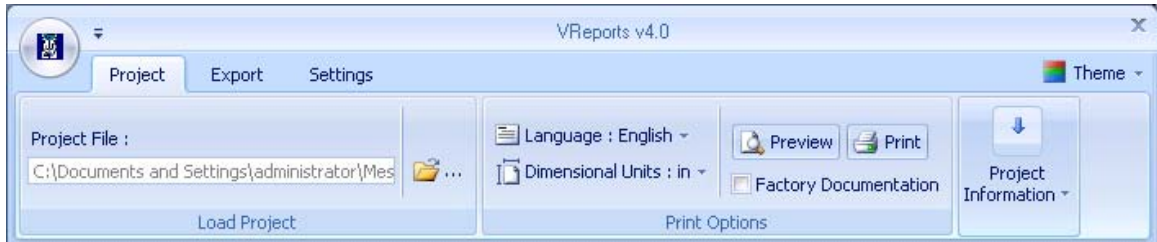
Select **Show Below the Ribbon** to display the drop down menu below the **Project**, **Export** and **Setting** tabs.

Select **Minimize the Ribbon** to hide or display the details displayed on **Project**, **Export** and **Setting** tabs. This option toggles & displays a tick mark when **Minimize the Ribbon** option is selected. When selected, the details for each of the tabs are not displayed. They are displayed only when user selects the option. They overlap on the main work area & hide back or disappear as soon as the mouse button is clicked in the main work area. When not selected i.e. not ticked, the tab details are displayed in a fixed area & do not overlap the main work area but the main work area is displayed below the tab details.


The upper part of the window displays three tabs viz. **Project**, **Export** and **Settings**.

1. **Project tab**

Use this option to open a project file, select Language & Dimensional Units. When invoked from ValSpeQ, by default the project file open in ValSpeQ application is the one opened by default. The path of the .vnx file being opened is displayed under the label titled **Project File**.

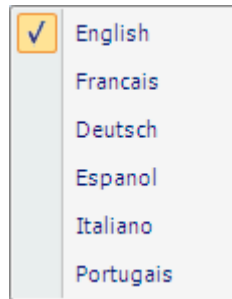


- **Load Project option**

Click on  (Open File) icon to work on a different project file. User can open a different project file in VReports & also have a different project file open in ValSpeQ application to facilitate generating reports in the background while working on a different project in ValSpeQ.

- **Language Option**

Select **Language** to be used for reporting from the list of available languages. The report will be generated in the selected language.



- **Dimensional Units option**

Select **Dimensional Units** to be used in **Certified Dimensional Drawing** or **Certified Schematic Drawing**.



Note:

The **Dimensional Units** are applicable only to **Certified Dimensional Drawing** or **Certified Schematic Drawing** & not used in other reports.

- **Preview option**

Select **Preview** option to view the reports on screen or view prior to print. A pdf file is created with the project name & at the same location where the project file exists. The screen displays the status & on successful generation displays the pdf file to the user. Reports selected will be written to pdf files for selected line items.

Note:

In the event if the selected report is not applicable to a line item, the same will be ignored & simply not written in the pdf file.

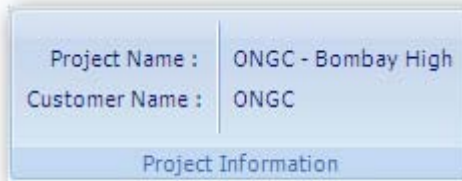
- **Print option**

Select **Print** option to print the reports directly to the printer without preview. Selected reports for selected line items are printed on the printer.

Note:

In the event if the selected report is not applicable to a line item, the same will be ignored & simply not printed.

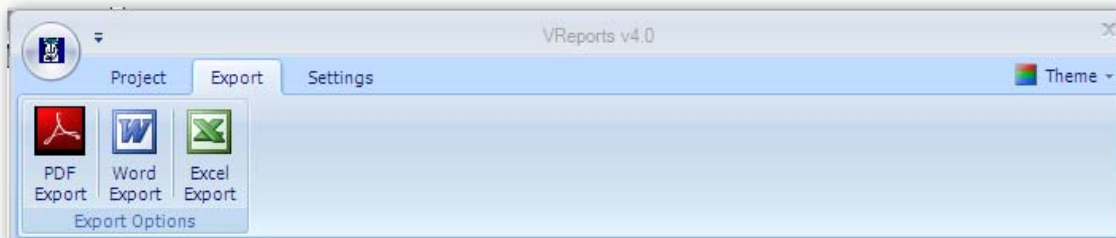
- **Project Information option**
Project Information displays the **Project Name & Customer**. This option is available only if Project Name & Customer information has been entered in ValSpeQ. This option is not visible if Project Name & Customer information has not been entered in ValSpeQ.



- **Factory Documentation option**
Select or check Factory Documentation option if the reports are to be generated for the factory. On selecting this option, standard factory reports are auto-selected & user is restricted from checking or un-checking any of the reports. The following reports are selected by default when Factory Documentation is checked
 - a. **Specification Sheet**
 - b. **Item Impact**
 - c. **Calculation Sheet**
 - d. **Price Sheet**
 - e. **Certified Dimensional Drawings**
 - f. **Summary Notes Sheet**
 - g. **Pricing Summery**
 - h. **Summary ITP**

2. Export tab

Use this option to select the export data in either PDF or MS-Word or MS-Excel format.



Select the appropriate format to which the data for the selected line items & for the selected reports is to be exported. The number of output files generated will vary based on the type of output format selected.

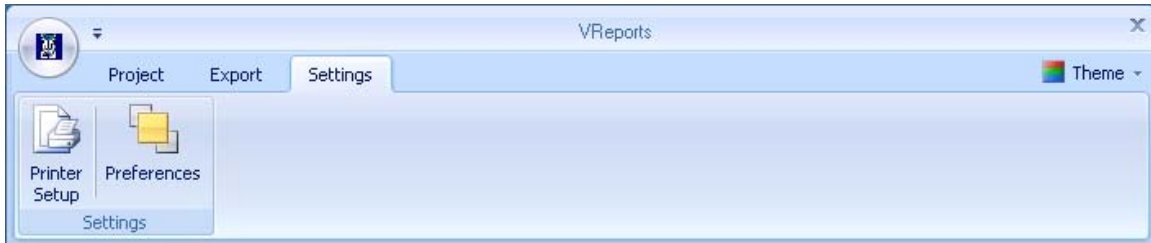
If PDF export type is selected, then depending on the values set in preferences will either generate a single pdf for all selected line items & reports or generate individual pdfs for each line item & every selected report.

If MS-Word export type is selected, multiple document files are created for every line item & every selected report.

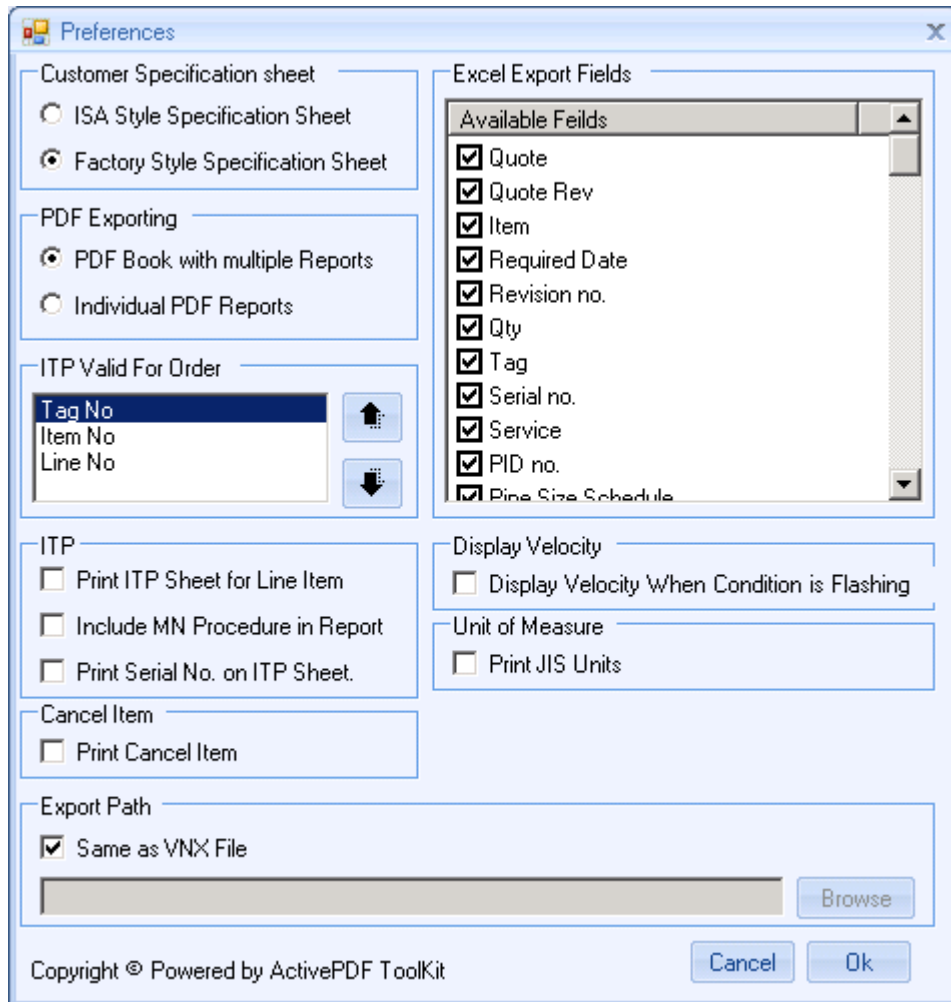
If Excel export type is selected, data elements as selected in preferences are included in the excel sheet as columns & the selected line item information is included as rows.

3. Settings tab

User can setup printer using the Printer Setup option or set Preferences for printing.



- **Printer Setup option**
Use this option to invoke the Windows Printer Setup screen to define printer preferences.
- **Preferences option**
The Preference option facilitates the user to define reporting preferences.



- **Customer Specification Sheet**
User can select the type of Specification Sheet to be printed. The options are **ISA Style Specification Sheet** and **Factory Style Specification Sheet**.
- **PDF Exporting**
Type of exporting can be selected as PDF Book with multiple Reports or Individual PDF Reports. Select **PDF Book with multiple Reports** to generate a single PDF file for all the selected line items & reports. Select **Individual PDF Reports** to generate individual PDF files for each report of the selected line item/s.
- **ITP Valid For Order**
User can set the preferred sequence in which 'ITP Valid For' value should be printed on reports. Set the sequence between Tag No, Item No, Line No. If the first preferred value is unavailable then second value is printed and if the second preferred value is unavailable then third value is printed on the report.
- **ITP**
Select **Print ITP Sheet for Line Item** to print ITP Sheet for every line item. Select **MN Procedure in Report** to have it printed in the ITP report. Select **Print Serial No. on ITP Sheet** option to print serial number for the line items on the ITP Sheet & ITP Summary sheet.
- **Cancel Item**
Select **Print Cancel Item** to print cancelled line items. By default this option is unchecked & cancelled line items are ignored while generating reports.
- **Excel Export Fields**
Select the fields to be included while generating Excel report.
- **Display Velocity**
Select **Display Velocity When Condition is Flashing** check box to display Velocity for the flowing condition 'Flashing' on **Calculation sheet**.
- **Export Path**
Select **Same as VNX File** option to specify report path should be the same where VNX resides. To select a different path uncheck the **Same as VNX File** option & use the **Browse** option to specify a path.
- **Unit of Measure**
Select **Print JIS Units** option to print Japanese unit 'A' for 'mm' & 'B' for 'in' in the reports.

Reports

There are twelve reports that can be generated by the ValSpeQ print feature. They are described in detail below

Specification Sheet

Specification Sheet is the primary sheet reflecting specification information. This sheet prints once for every Item selected for printing. It includes detailed information about the product selections made by the user.

Accessory Sheet

Accessory Sheet is not displayed & available for selection to the user & prints automatically with the Specification Sheet when accessories are selected for the configuration. This sheet prints once for every item selected for printing & will appear when any of the following accessories are selected.

- Transducer
- Booster
- Switch
- Solenoid
- Reducers
- Transfer/Lock-up valve
- Restrictor

Note: Accessory sheet will generate only for product type Control Valve.

User Accessory Sheet

User Accessory Sheet is not displayed & available for selection to the user & prints automatically with the Specification Sheet when accessories are selected for the configuration. This sheet prints once for every item selected for printing & will appear when any of the Additional accessories on Tubing and Airset form are selected.

Note: User accessory sheet will not generate for product type Regulator.

Item Impact

Item Impact report displays information about assigned Technical Notes, BOM Impact List, and Routing Impact List. This sheet prints once for every Item selected for printing.

Calculation Sheet

Calculation Sheet displays the sizing information used & calculated for the configuration. This sheet prints once for every Item selected for printing.

- Note:**
1. Calculation sheet will generate only if service conditions are available for the Control Valve.
 2. Calculation sheet will not generate for product type Level, Regulator and accessories.

Restrictor Sheet

Restrictor Sheet is not displayed & available for selection to the user & prints automatically with the Calculation Sheet when Restrictor is selected for the configuration. This sheet prints once for every item selected for printing & will appear when Restrictor is associated with the line item.

Note: Restrictor sheet will generate only for product type Control valve.

Factory Quality Plan Sheet

Factory Quality Plan Sheet is not listed under the report tree view and is not available for selection to the user. Factory Quality Plan report prints automatically for the line item depending on quantity of the line item and following conditions,

- a. Factory Documentation option is selected.
- b. Standard options like Plug/Seat Leakage test or Packing Leakage Test etc. of associated ITP are selected from ITP Option tab for the line item.

Note: Factory Quality Plan Sheet will generate for product type Control valves and Regulators and not for Levels.

Factory Quality Plan Special Test

Factory Quality Plan Special Sheet is not listed under the report tree view and is not available for selection to the user. Factory Quality Plan Special report prints automatically for the line item depending on quantity of the line item and following conditions,

- a. Factory Documentation option is selected.
- b. Non Standard or special options of associated ITP are selected from ITP Option tab for the line item.

Note: Factory Quality Plan Special Test Sheet will generate only for product type Control valves and Regulators and not for Levels.

Price Sheet (available only if ValSpeQ edition is Professional)

Price Sheet provides a detailed breakdown of component pricing for the configuration. This sheet prints once for every valid Item selected for printing.

Note: Price sheet will not generate if pricing node of selected product type is invalid.

Revision Sheet

Revision Sheet displays details about revision made to the Line Items. This sheet prints once for every Item selected for printing.

ITP Sheet

ITP Sheet displays the information of the ITP that is assigned to the Line Item. ITP Sheet prints once for every Item selected for printing.

Note: ITP sheet will not generate for accessories.

Certified Dimensional Drawing

Certified Dimensional Drawing displays a non-scale dimensional drawing of the standard valve, level & regulator configuration. Custom or special accessories are not displayed. This sheet prints once for every Item selected for printing.

Note: Certified Dimensional Drawing will not generate for accessories.

Certified Schematic Drawing

Certified Schematic Drawing displays how the various accessories are piped together on the configuration. This sheet prints once for every Item selected for printing.

Note: Certified Schematic Drawing will not generate for product types Levels and accessories.

Valve Flow Curve

Valve Flow Curve sheet displays the characteristic curve of the control valve configuration & the intersecting lines of travel for each of the four service conditions. This sheet prints once for every Item selected for printing.

Note: Valve Flow Curve sheet will generate only for product type Control valve.

Notes Sheet

Note summary displays any Quality Plans & user entered factory notes for the configuration. This sheet prints once for every Item selected for printing.

Note: Note Summary sheet will not generate for accessories.

Pricing Summary (available only if ValSpeQ edition is Professional)

Pricing Summary sheet displays summary pricing information for all the Items selected for printing. This sheet prints once for every print run.

Note: Content of pricing summary sheet will be blank if pricing node of selected product type is invalid

Discount Authorization Sheet

Discount Authorization Sheet is not selectable by the user & prints every time the Pricing Summary is selected. This sheet provides details on the discount structure used to arrive at the prices seen on the Price sheet & the Pricing Summary reports. This sheet is intended to be forwarded to Sales Management for review & approval.

Note: Discount Authorization sheet will generate only if discount is entered for entire quote or selected products.

ITP Summary

ITP Summary prints a single page for each ITP containing information about the line items associated with the ITP.

Note: ITP sheet will not generate for accessories.

1.15 Recently Used Projects Section

This option provides a speedy alternative to open an existing project file, which has been recently used.

By default, the application maintains list of 4 projects that were recently opened by the user.

Click on the project listed under this section to open instead of going via the **Open...** option under the **P**roject menu.

User has the option to change the number (maximum ten) for recent file list entry from User Preference screen. (*refer User Preferences*)

Steps:

1. Click on Project listed in the Recently Used Project section under **P**roject menu option or **Alt+P** & then the **number associated to the project**.

The application will prompt the user to save any unsaved data for the current project provided it has not been saved before invoking the Recently Used Project.

Application will open the selected project.

For the newly opened project the Project General Form will be displayed by default.

In case if user selects the project from Recently used Projects section which is currently open, application will give message-'Project file is already opened' with an OK button. On clicking OK button control will return to the already opened project.

1.16 Exit

This option facilitates the user to exit from the ValSpeQ application.

Steps:

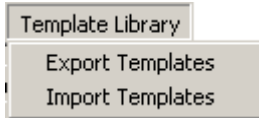
1. Click on the Exit option under the Project menu or Press **Alt+P** & then **X** for Exit.
2. The application will prompt the user to save any unsaved data for the current project provided it has not been saved before invoking the Exit from Project menu. The application will prompt the user to save the current project if it has not been saved i.e. untitled.vnx.

Template Library

The Template Library menu on the application menu bar allows the user to export and import templates.

It contains following sub menus:

- Export Templates
- Import Templates



Export Template

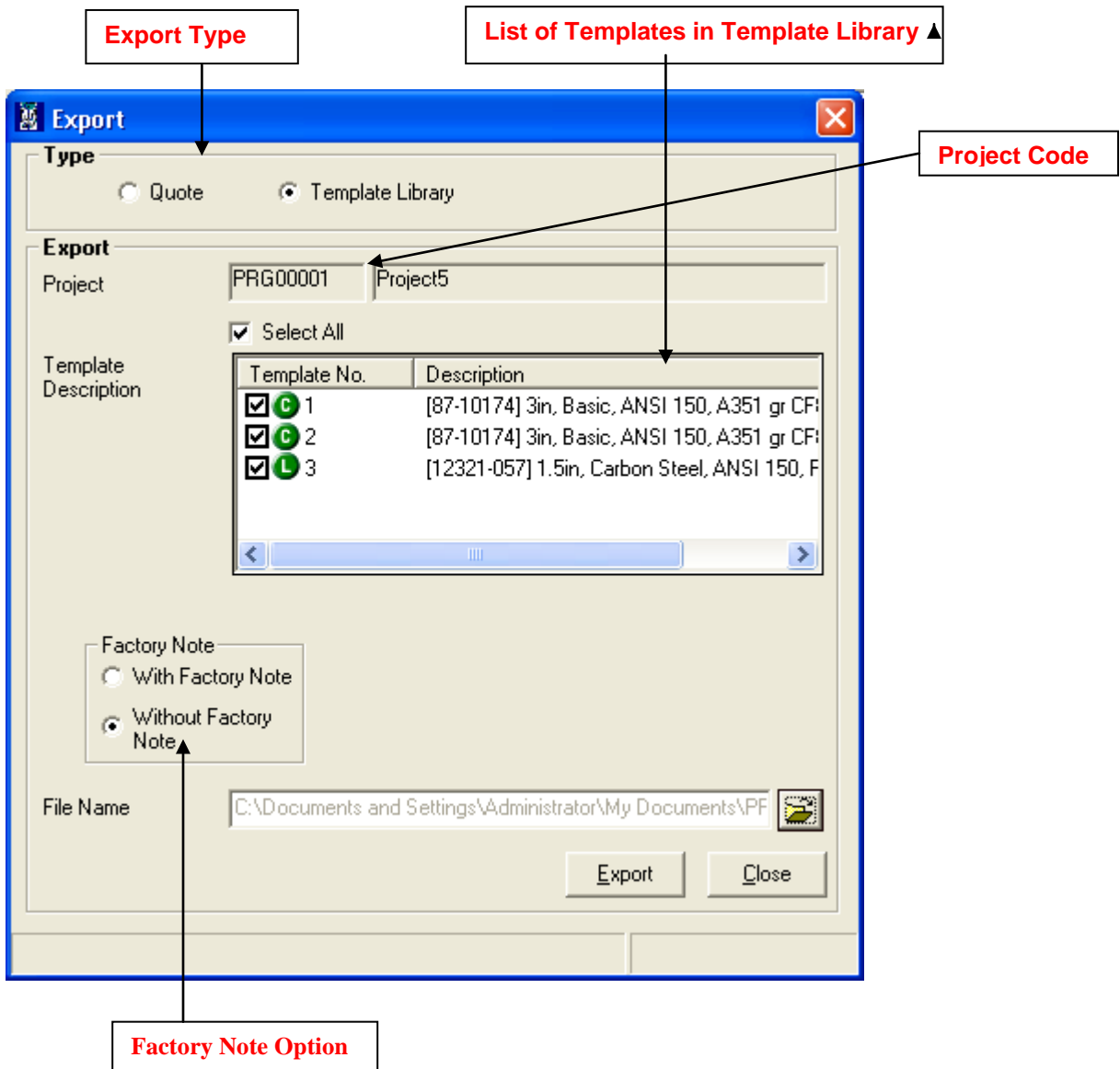
Functionality:


This utility facilitates the users to select single, multiple or all Templates from the current Project and export it to other ValSpeQ user. The exported Templates can then be imported in any other Project.

The Export option can be invoked by selecting the **Export Template** option from the **Template Library** menu on the application menu bar or **Alt+L & E** for Export Templates.

Right clicking on the **Template Library** node and then selecting the **Export Template** option from the popup menu can invoke the same.

Export Type **Template Library** is selected by default. User has the choice to select **Project / Quote** if he intends to export items. The following screen is displayed.



All Templates from the Project will be displayed & selected by default. User has the option to de-select all and select a few. Click on the  (open folder) button to provide a filename to export. The export file will have an ".vxt" extension.

The default export file name is generated by the application with the project code number followed by an ".vxt" extension. Project Code, Project Name and Quote Number is displayed to user on the Export form.

The user has the choice only to export data **With Factory Note** or **Without Factory Note**. The Factory note related information for the selected Items would be included in the export file only after selecting the **With Factory Note** option.

Click on the **E**xport button or press **Alt+E** key to start the export process

As the utility starts, the progress bar will be displayed.

After successful completion of the export process, a message that "Export completed successfully" will be flashed by the application.

In case the export operation is not successful or the export process encounters any error, a related message will be flashed by the application and then the user has to repeat export operation.

Close

Click on the **C**lose button or press the **Alt+C** keys to close the Export Form

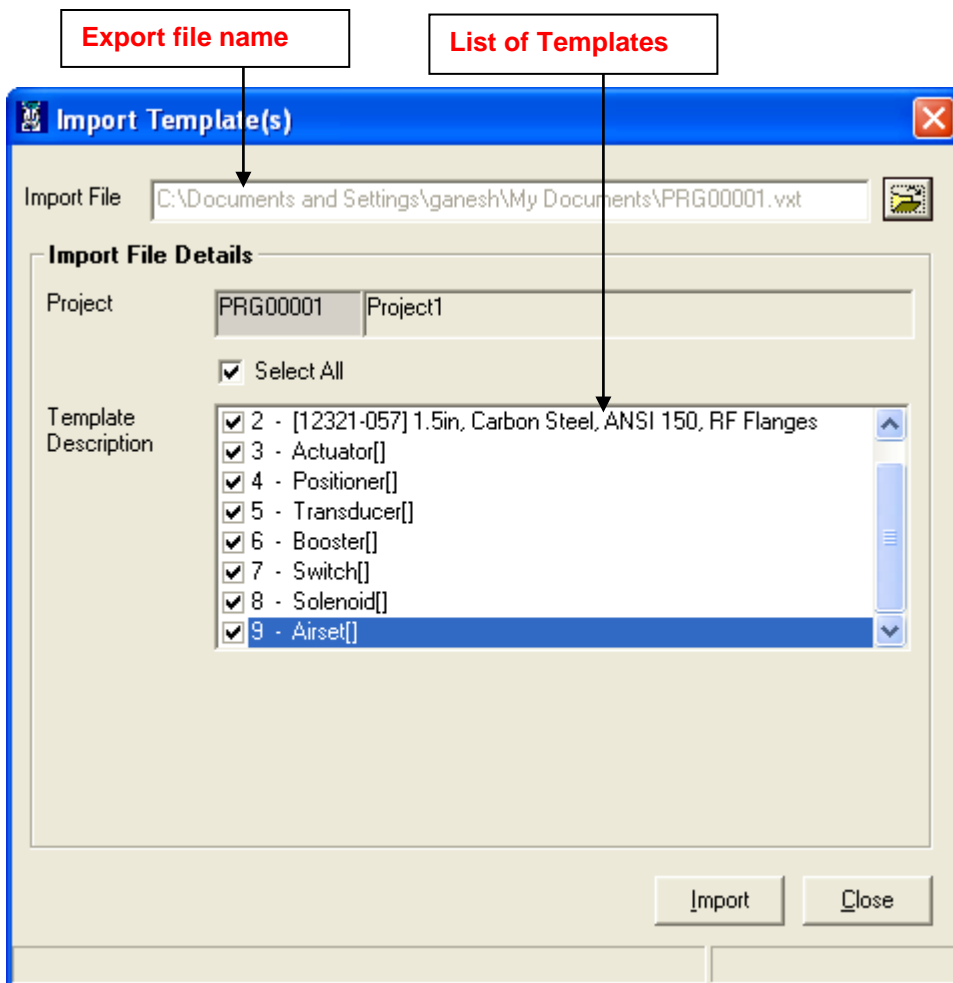
Import Templates


Functionality:

This utility facilitates the users to import Template data into the current Project from an export file with “vxt” extension. The user can import one or more selected Templates from the export file.

The Import option can be invoked by selecting the **Import Template** option from the **Template Library** menu on the application menu bar or **Alt+L** and then **I**. The same can be invoked by right clicking on the **Template Library node** and then selecting the **Import Template** option from the popup menu.

The following screen will be displayed for Import Template.

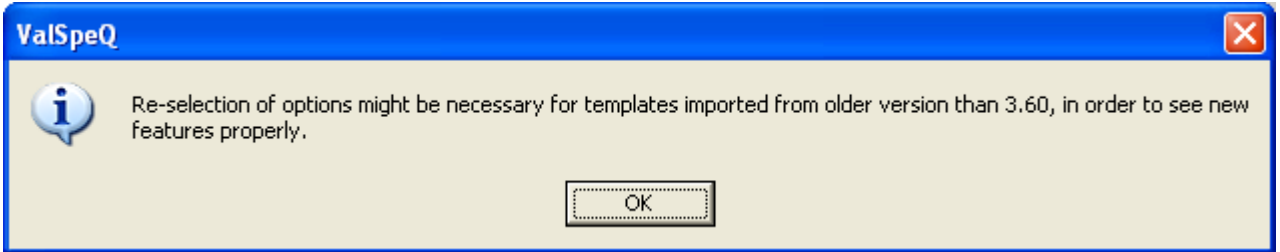


Select the export file by clicking on the  (Open Folder) button. The application will display the Code and Name of the Project that has generated the export file. All Templates from the export file will be displayed & selected by default for import. The user has the option to de-select all and select a few.

Click on the **Import** button or press **Alt+I** key to start the import process.

The application will prompt the user that Data to be imported will be added to the current project

If the file is exported from version less than 3.60, following message is displayed before the Import process starts.



On clicking OK button, a backup of the selected project file is taken and the project database is updated with the additional Fields and Parameters.

As the utility starts, the progress bar will be displayed.

During the import process, the application will make the line item compatible with the current version of ValSpeQ & will also ensure Regional Settings compatibility.

A set of validations is executed on starting the import process. The validations are as follows.

6. If the project database version that has created the export file differs from the project database version into which the data is to be imported, a message that “Data being read is sent by Different Database Version” will be flashed by the application.

The following table provides a guideline on different configuration nodes that are set to invalid depending on Product type.

Product Type	Invalid Configuration Nodes
Control Valve	Sizing & Selection Materials Actuation ITP
Level	Service & Levels Materials Instruments ITP
Actuator	Actuator
Positioner	Positioner
Transducer	Transducer
Booster	Booster
Switch	Switch
Airset	Airset
Regulator	Regulator Materials ITP

7. While inserting data if any field is not found, data for that field will be skipped and the import will proceed to insert data for the rest of the fields.

8. If the project database version matches, the application proceeds to check the Configurator version, Sizing Control/OCX version, and Sizing database version from the export file with the current application versions. If difference is found in any one of these versions, a message that “Version Differences Found in Templates in the selected import file” will be flashed by the application. The appropriate configuration nodes as described in the above table will be set to invalid and the Template will be set to invalid. Pricing Control/OCX version and Pricing database version check is not applicable for Template.

The status of all other configuration nodes remains unchanged.

9. If version information is not available in the export file then the message “Version Information Missing” ” will be flashed by the application and it will proceed the import process for the selected templates.
10. If Template has Technical Notes (previously known as Factory Notes) i.e. default system notes or user defined notes assigned to it while export then that item will import with same. If the Project has same User Defined Technical Note Reference as importing item’s Technical Note Reference then new name will be generated for importing Technical Note Reference by suffixing an ‘_1’ & appropriately update the same for the item. If a Technical Note Reference already exist with the ‘_1’ then the Technical Note Reference is replaced with the next sequential incremented number and the reference in the item is updated appropriately.

Close Button

Click on the **C**lose button or press the **Alt+C** keys to close the Import Template(s) form.

For Item / Template import:

Before starting the import process, the application takes a backup of the current project and the user will be informed about the backup location. This helps the application to restore the database from the backup in case of an unsuccessful import operation. But if the application fails to restore the backup, the user will have to manually restore the backup.

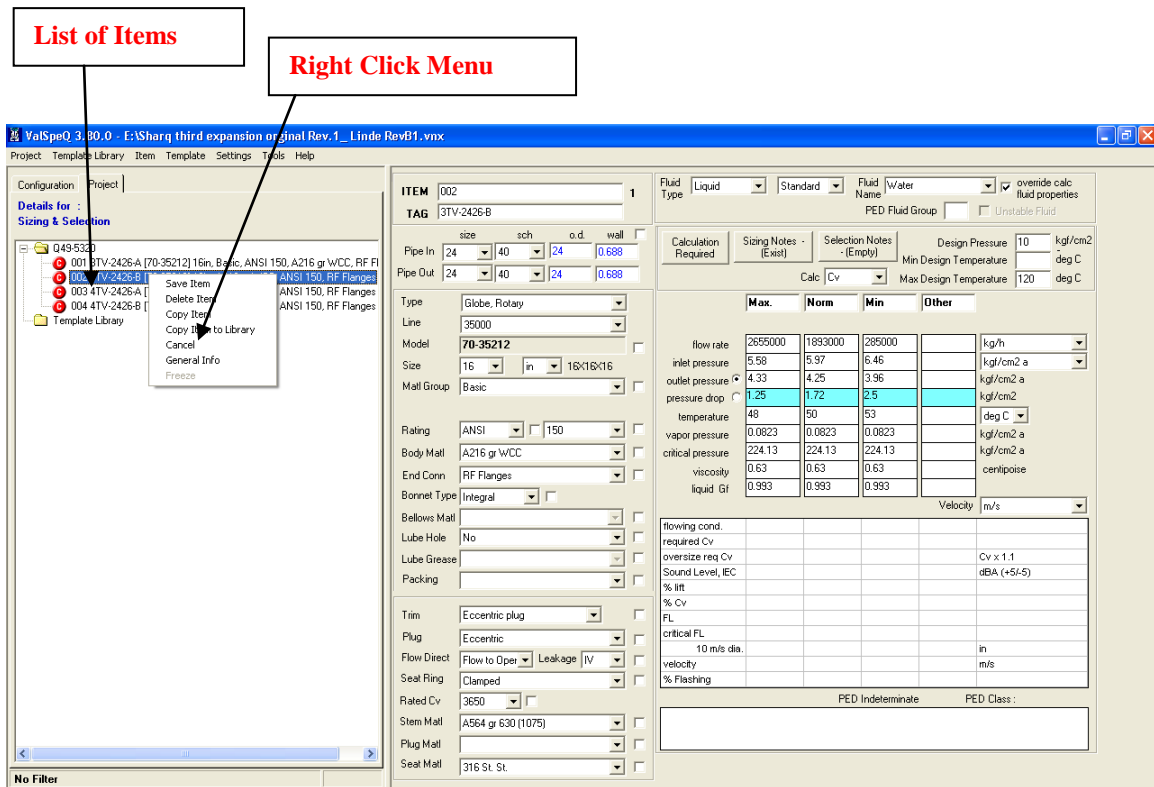
After successful completion of the import process, a message that “Import completed successfully” will be flashed by the application and the backup database will get deleted.

Item

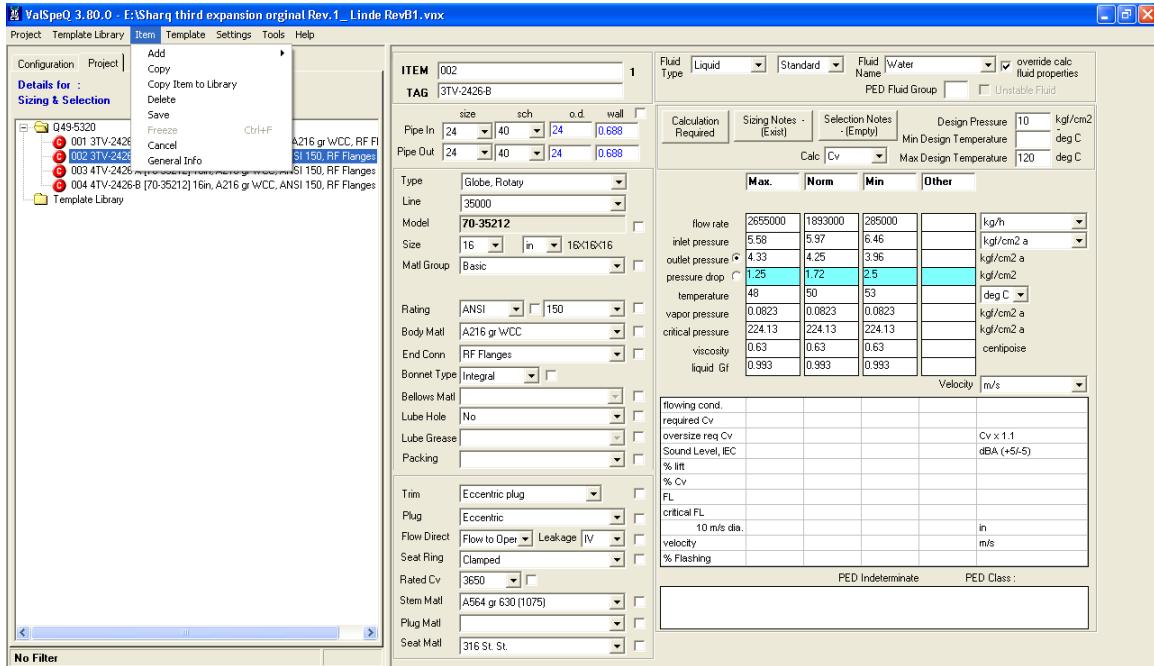
An Item is either a Valve, Level, Accessory or Regulator configuration consisting of service conditions, valve/level selection, material selection, accessories, if any, & other configuration data.

A project can consist of multiple Items. All the Items are listed under the Quote (Quote Number) folder/node on the Project Tab page. The Item menu on the application menu bar allows the user to perform various operations related to item of type Control Valve, Level, Accessory and Regulator.

The following screen shows the options available on the popup menu on the right click of Item node.



The following screen shows the options available under Item menu



Various functions associated to an Item are listed below. Most of these functions can be invoked either by right clicking on the Item node or from the Item menu on the application menu bar or by pressing **Alt+I**.

1. Add
 - Control Valve
 - Level
 - Accessories
 - Actuator
 - Positioner
 - Transducer
 - Booster
 - Switch
 - Solenoid
 - Airset
 - Regulator
2. Copy
3. Copy Item to Library
4. Delete
5. Save
6. Freeze or Unfreeze
7. Cancel or UnCancel
8. General Info

Add Item

This option will facilitate the user to add the Items viz. Control Valve, Level, Accessory or Regulator under Quote/Project node. The user will be displayed a blank Sizing & Selection screen for Control Valve, a blank Service & Level screen for Level, corresponding accessory screen for Accessories and Regulator for Regulator. A node is added under the Quote/Project node.

Steps:

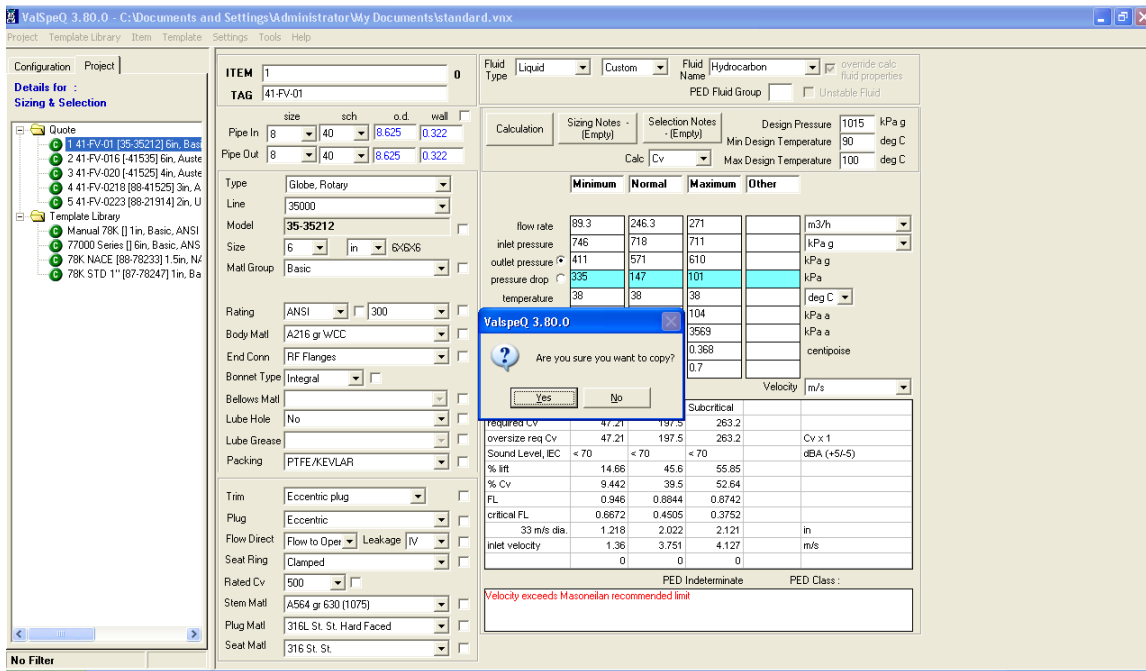
1. To add Item select **Add... Control Valve/Level/Accessories/Regulator** menu option from the **Item** menu or press **Alt+I & then A**.
2. The Add option can also be invoked by **right clicking** on the Quote/Project node & then selecting the **Add Item... Control Valve/Level/Accessories/Regulator** option from the popup menu.
3. The blank Sizing & Selection screen / blank Service & Level /blank Accessory / blank Regulator screen will be displayed and a new node will be added under Quote/Project node.

Copy Item

This option will facilitate the user to make a copy of an Item. A copy of the selected Item will be made in the project.

Steps:

1. Select the Item to be copied from the Quote/Project node.
2. Select **Copy** option from **Item** menu on the application menu or using short cut key **Alt+I & then C**. The Copy option can also be invoked by **right clicking** on the specific **Item** & then selecting **Copy Item** option from the popup menu. An Item can also be copied by selecting & dragging the same on to the Quote node.
3. User will be prompted to confirm the copy in order to avoid accidental copying. This will be done only if such a setting is made under the User Preference.



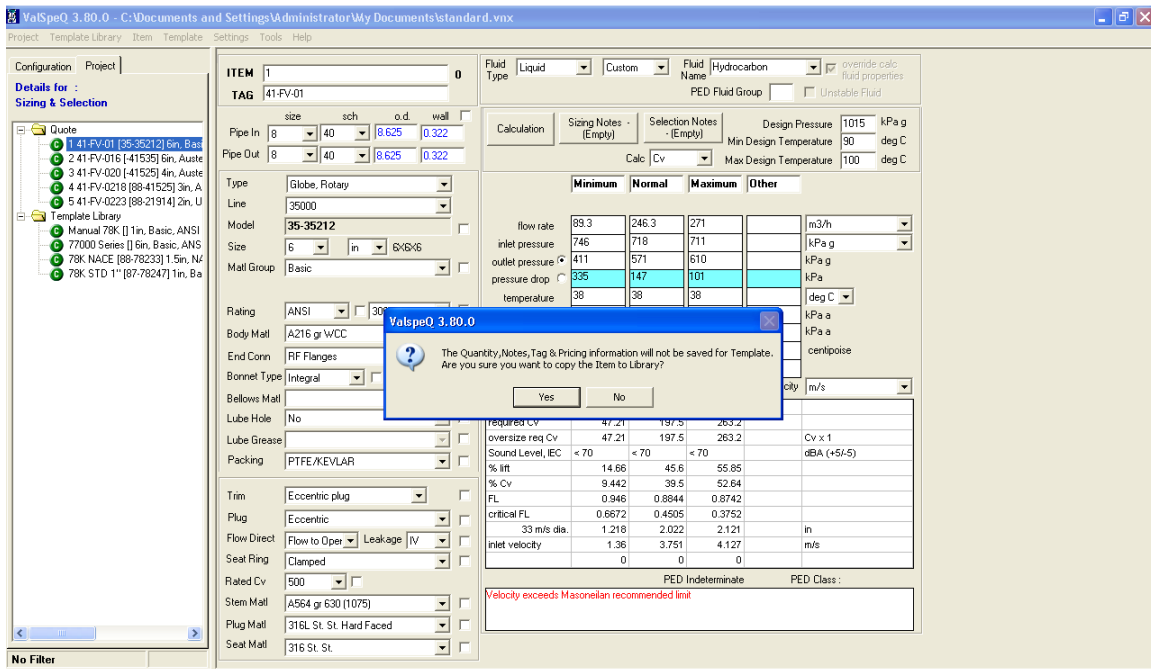
Copy Item to Library

This option will facilitate the user to copy an Item to the Template Library folder.

Steps:

1. Select the Item to be copied from the Quote/ Project node.
2. Select **Copy Item to Library** option from **Item** menu on the application menu bar or using short cut key **Alt+I** & then **L** to copy to library. The Copy Item to Library option can also be invoked by **right clicking** on the specific **Item** & then selecting **Copy Item to Library** option from the popup menu. An Item can also be copied to the Template Library by selecting & dragging the Item on to the Template Library node.
3. User will be prompted to confirm the copy in order to avoid accidental copying. This will be done only if such a setting is made under the User Preference.

When an item is copied to Library, the Quantity, tags, notes & pricing information does not get copied to template. For this a warning message is displayed to the user along with confirmation of copy message.



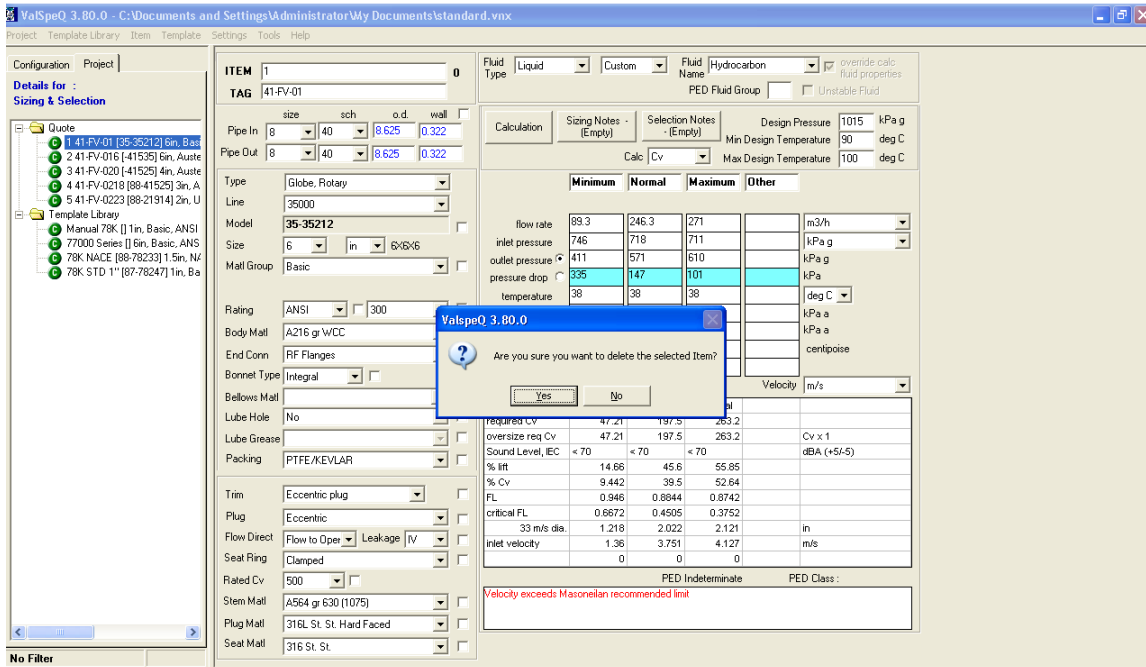
Delete Item

This option will facilitate the user to delete an Item from the Quote/Project node.

Steps:

1. Select the Item to be deleted from the Quote/Project node.
2. Select **Delete** option from **Item** menu on the application menu bar or using short cut key **Alt+I** & then **D** to delete item. The Delete option can also be invoked by **right clicking** on the **Item node** & then selecting **Delete Item** option from the popup menu.
3. User will be prompted to confirm in order to avoid accidental delete. This will be done only if such a setting is made under the User Preference.

The following screen is displayed after clicking the Delete option.

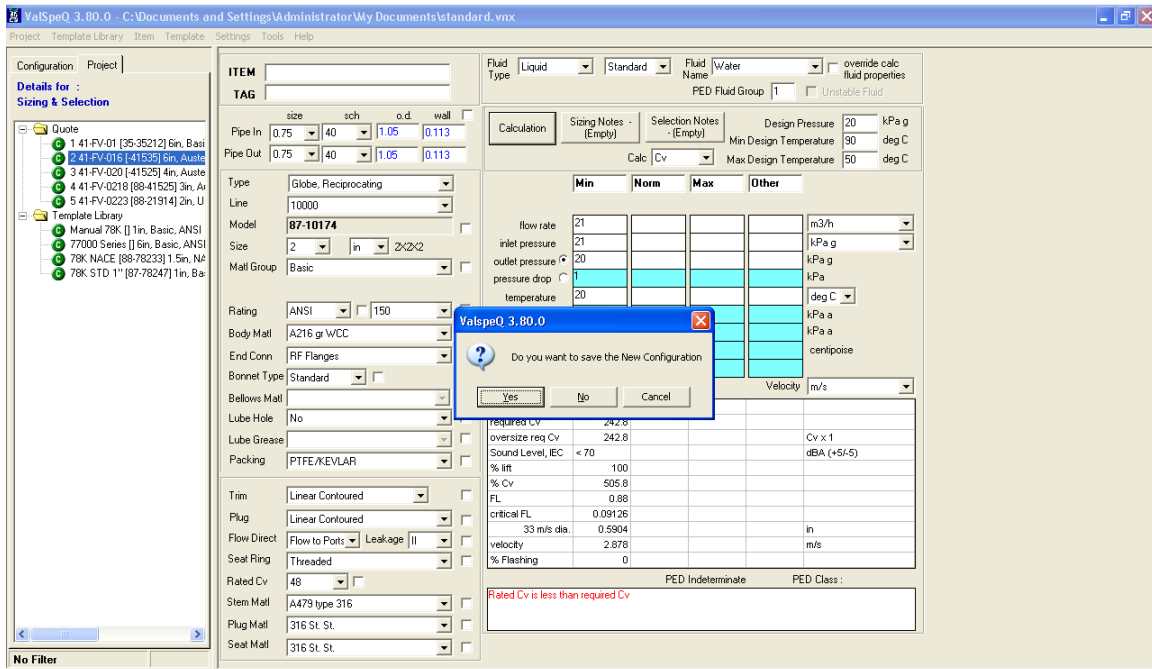


Note: Canceled or Freeze line items can not be deleted.

Save Item

This option will facilitate the user to save an Item under Quote/Project node. This option can be used after modifying an existing Item configuration or in order to save a New Configuration as an Item under Quote/Project node.

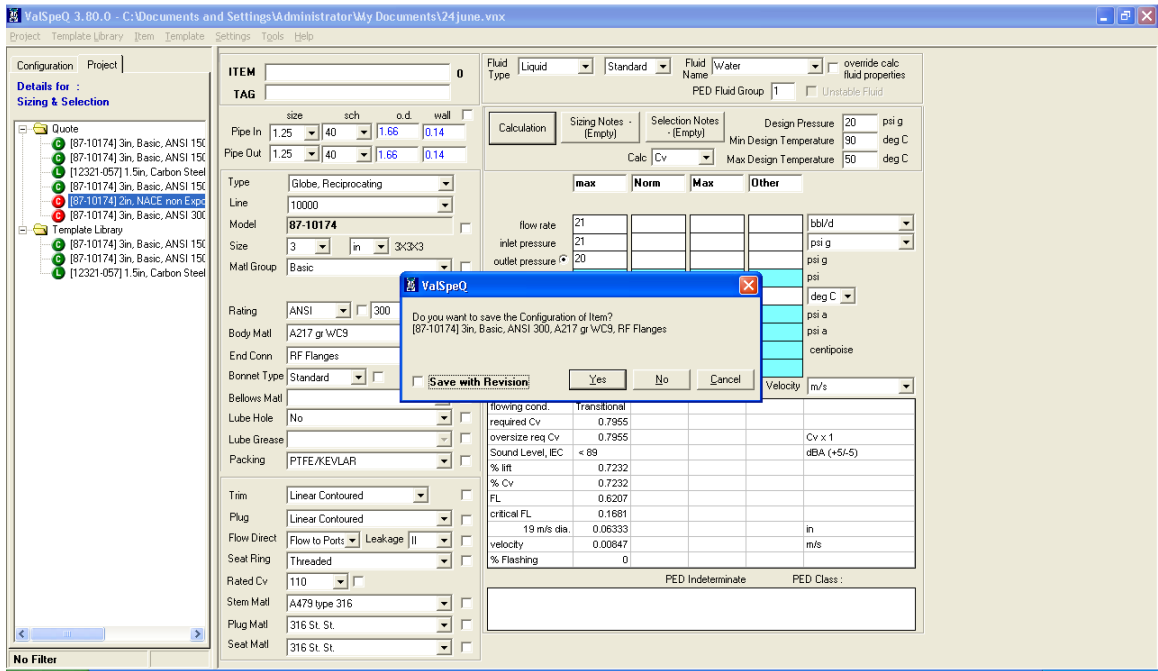
New Configuration – After clicking on Save option from Item menu following message box will be displayed to save the New configuration as Item.



Existing Item :

1. If an existing Item is modified & the changes are to be saved then select **Save** option from the **Item** menu on the application menu bar or **Alt+I** & then **S** to Save.
2. User will be prompted to confirm saving of the Item either with a revision or without a revision determined by the checking or unchecking of the checkbox provided on the Save Confirmation box.

The following screen is displayed on invoking the Save option for Item.



3. If the “**Save with Revision**” checkbox is unchecked then on clicking the Yes button the Item is saved normally.

4. If the “**Save with Revision**” checkbox is checked then on clicking the Yes button a new screen displaying the Line Item Revision details is displayed. On clicking OK button present on the form, the item will be updated accordingly.

The following screen is displayed while checking the checkbox:

Line Item Revision Details

Line Revision Details

ValSpeQ Revision No. - 1 Date - 3/28/2008

Seq No.	Description	Old Value	New Value	
1	Approval Description	II 2 G/D EEx d II C T5	II 2 G EEx d II ...	
2	Prime Mech Type	Transmitter	Controller	
3	Model	12321-057	12311-057	

Revision : 1

Revision Date : 3 /28/2008 User Name : Sam

Reason For Change :

OK

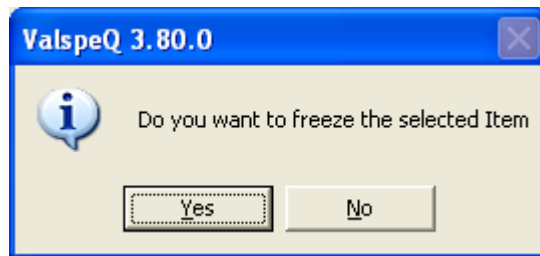
Freeze Item

This option is used to freeze selected Line item under the Quote/Project Node.

Steps:

1. Select the Item from the Quote /Project node
2. Select **Freeze** option from the **Item** menu on the application menu bar or press **Ctrl+F** or press **Alt+I** & then **F** for Freeze Items. The Freeze Item option can also be invoked by **right clicking** on the **Item node** & then selecting **Freeze** option from the popup menu
3. Following message will appear on the screen. (This will be done only if such a setting is made under the User Preference).

4.



5. Click on Yes to freeze item. Otherwise click on No button.
6. If user clicks on Yes then selected item gets freeze and user cannot make any changes in freeze item.

Note: Invalid or canceled line item can not be freeze.

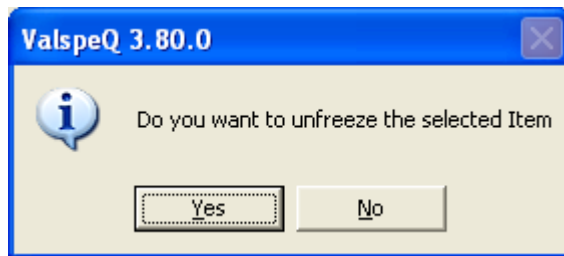
Unfreeze Item

This option is used to unfreeze selected freeze Line item under the Quote/Project node.

Steps:

1. Select the freeze Item from the Quote/Project node
2. Select **Unfreeze** option from the **Item** menu on the application menu bar or press **Ctrl+F** or using short cut key **Alt+I** & then **U** for Unfreeze Items. The Unfreeze Item option can also be invoked by **right clicking** on the **Item node** & then selecting **Unfreeze** option from the popup menu

Following message will appear on the screen. (This will be done only if such a setting is made under the User Preference).



3. Click on Yes to unfreeze item. Otherwise click on No button.

If user clicks on Yes then selected item gets unfreeze and user can make changes in the unfreeze item.

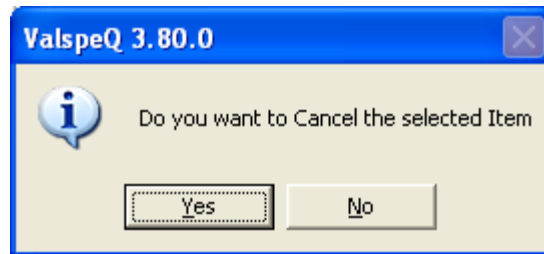
Cancel Item

This option is used to cancel the selected Line Item under the Quote/Project node.

Steps:

1. Select the Line Item from Quote/Project node
2. Select Cancel option from Item menu on the application menu bar. The Cancel Item option can also be invoked by **right clicking** on **Item** node & then selecting Cancel option from the popup menu.

Following message will appear on the screen.



3. Click on Yes to cancel item. Otherwise click on No button.

If user clicks on Yes then selected item gets canceled and user cannot make any changes to the canceled item

Note: Freeze line item can not be cancelled.

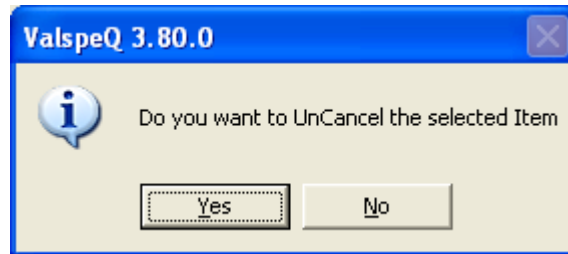
UnCancel Item

This option is used to uncancel the canceled Line Item under the Quote/Project node.

Steps:

1. Select the canceled Line Item from Quote/Project node
2. Select UnCancel option from Item menu on the application menu bar. The UnCancel Item option can be invoked by right clicking on Item node & then selecting UnCancel option from the popup menu.

Following message will appear on the screen.



3. Click on Yes to uncancel item. Otherwise click on No button.

If user clicks on Yes then the selected item gets uncanceled and user can make changes to uncanceled item.

General Information of line Item

This option will facilitate the user to view the Item Information screen where in the Item details & the related Tag details would be displayed.

Steps:

1. Select the Item from the Quote/Project node.
2. Select **General Info** option from the **Item** menu on the application menu bar or **Alt+I** & then **G** for General Information. The General Info option can also be invoked by **right clicking** on the **Item node** & then selecting **General Info** option from the popup menu.
3. The Item Information screen would be displayed.
4. The user has an option to set the default values for User and Plant information.

The following screen is displayed after invoking the General Info option from the Item menu.

The screenshot shows the 'Item Information' window for Item 2, Tag 41-FV-016. The interface includes a left-hand navigation pane with a tree view showing a hierarchy of items and templates. The main area is divided into several sections:

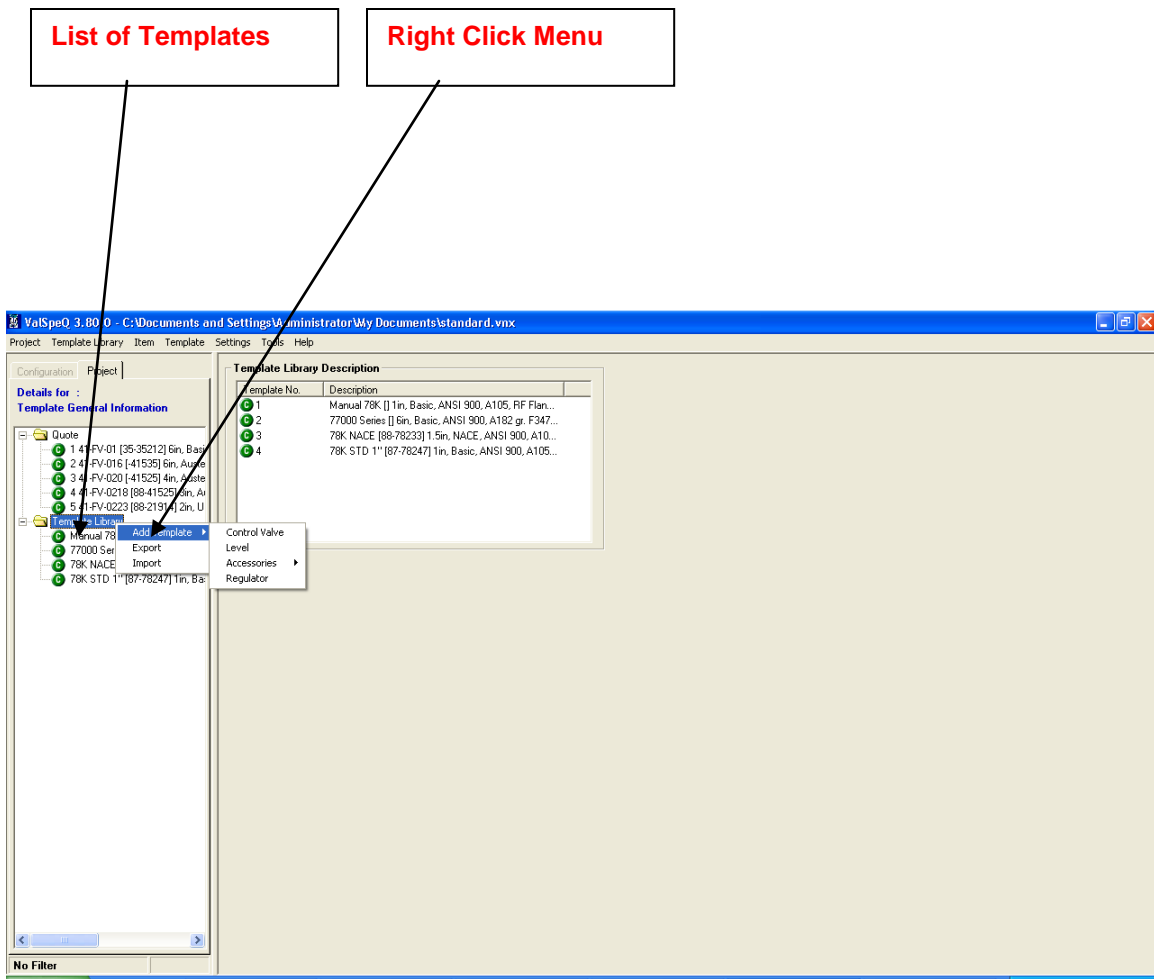
- General:** Product Description (41-FV-016 [41535] 6in, Austenit), Quantity (1), and Notes.
- Tag Information:** A table with columns 'Serial No' and 'Description', containing one entry: Serial No 1, Description 41-FV-016.
- Customer Information:** Fields for Customer Rev, Required Date (7/24/2008), Project Date (7/24/2008), Creation Date (1/30/2008), Customer Rev. Date, Serial Plate Language (English), Contractual Language (English), and Secondary Serial Plate Language (English).
- Identification:** P and ID (41-PID-PR-0009), Service (Naptha Feed From 41-G-01), Line No (41-P-000005-8"-CALH), and Serial No.
- Classification:** Area Classification (None), Temperature Class (None), Protection Mode, Ambient Temperature Max/Min (deg C), PED Required (checkbox), Grade, Gas Type (None), and Has Actuator (checkbox).
- User and Plant Information:** User Name (Doug Yeomans), User Location (Dresser Valve), User Phone ((403) 444-9424), Plant, Area, and Unit Number.
- Prices:** Unit price (18245) and Extended price (18245).

Template

A Template is a valve configuration consisting of service conditions, valve selection, material selection, accessories, if any, & other configuration data. The only information that is not applicable to a Template is Tag, Quantity, Notes & Pricing information.

A Template is a configuration, which can be used directly by the user for adding similar configuration Items within the project & then only update or modify certain data or parameters.

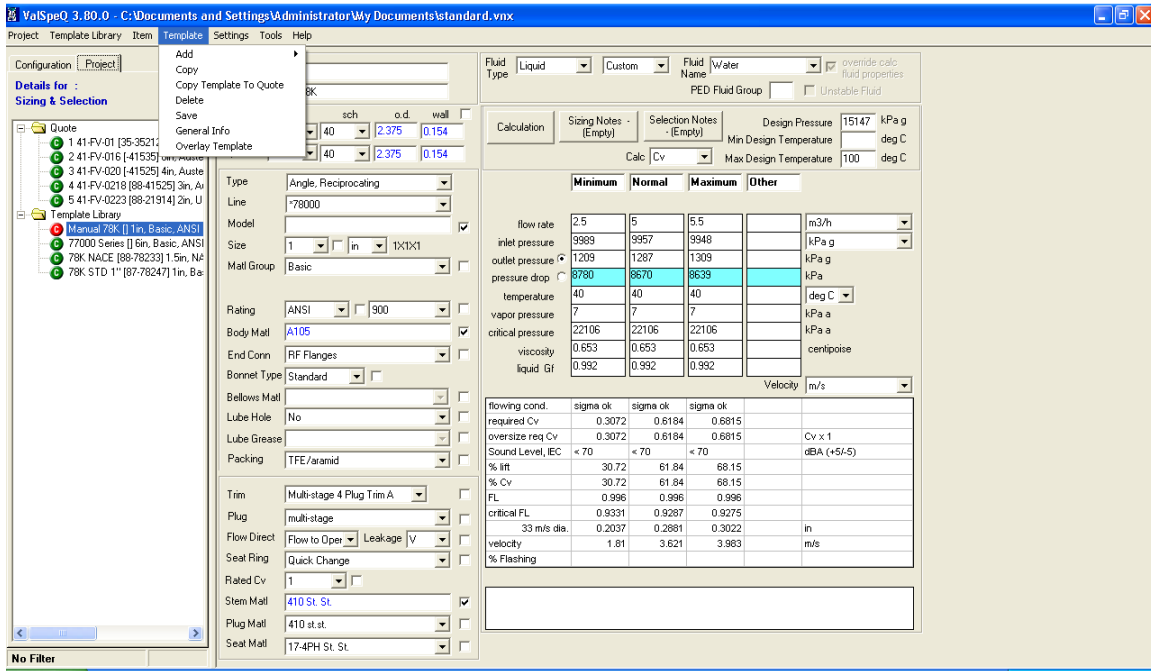
A project can have multiple Templates. All the Templates are listed under the Template Library folder/node on the Project Tab page.



User Manual – ValSpeQ 3.80

Various functions associated to a Template are listed below. Most of these functions can be invoked either by right clicking on the Template node or from the Template menu on the application menu bar.

The following screen displays options available under Template menu



The various options against each Template are as follows

1. Add
2. Copy
3. Copy Template To Quote
4. Delete
5. Save
6. General Info
7. Overlay Template

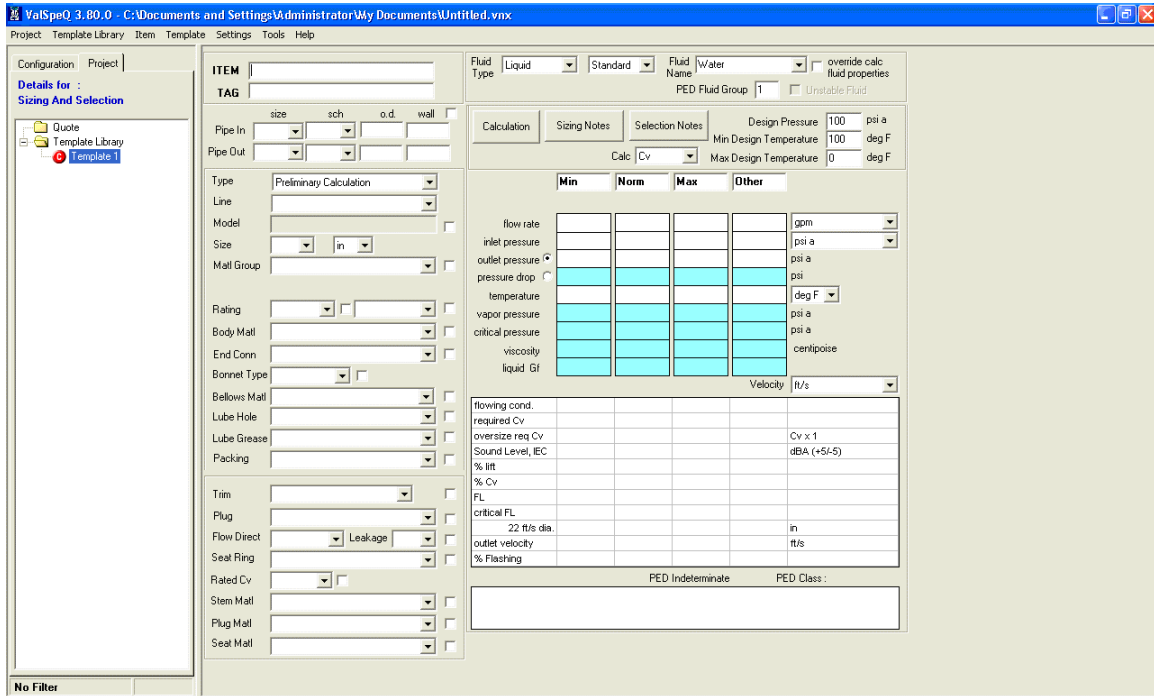
Add Template

This option will facilitate the user to add a Control Valve/ Level/Regulator/Accessories Template under Template Library folder/node. The user will be displayed a blank Sizing & Selection/ Service & Level/Regulator or Accessory screen. A node is added under the Template Library folder/node.

Steps:

1. Select **Add** option from the **Template** menu or **Alt+T** & then **A** to Add template. The Add option can also be invoked by **right clicking** on the **Template Library** node & then selecting the **Add Template** option from the popup menu. After clicking on Add Template option the user can select Control Valve or Level or Accessories or Regulator option from the Add Template menu.
2. A blank Sizing & Selection screen will be displayed if the user selects Control Valve option, a blank Service and Level form will be displayed if the user selects Level option, a blank Accessory form will be displayed if the user selects any of the Accessory option, a blank Regulator form will be displayed if the user selects Regulator option & a new node under Template Library folder/node is added.

The following screen is displayed after adding a Template.



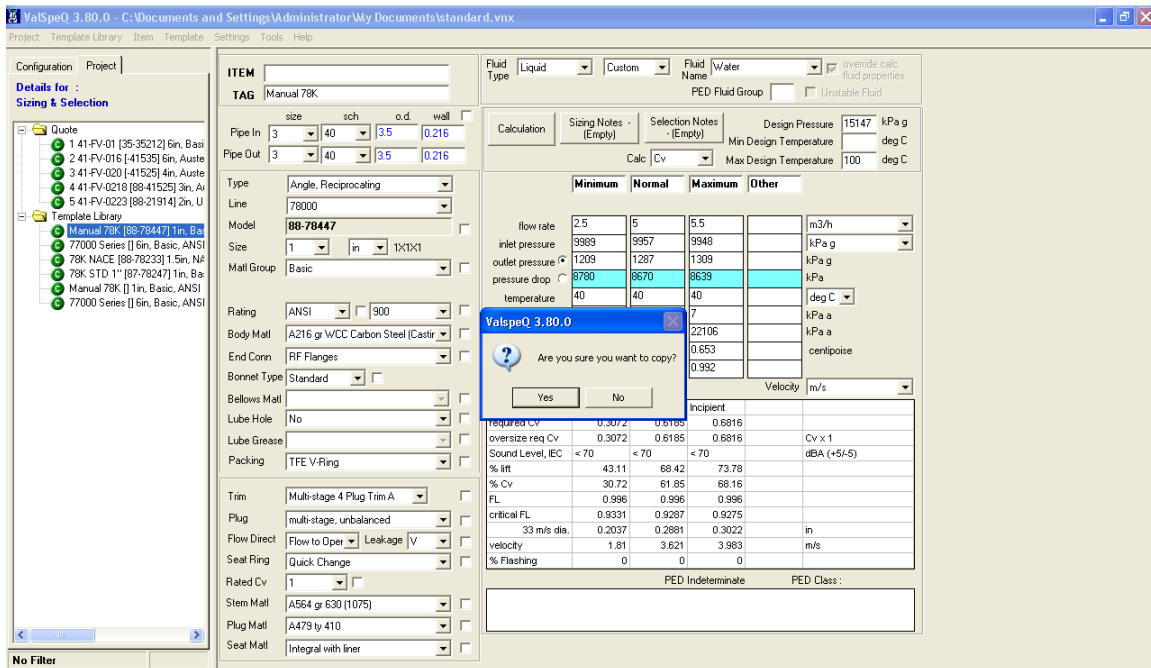
Copy Template

This option will facilitate the user to make a copy of a Template. A copy of the selected Template will be made in the Template Library.

Steps:

1. Select the Template to be copied from the Template Library folder/node.
2. Select **Copy** option from **Template** menu on the application menu or **Alt+T & C** to Copy Template. The Copy option can also be invoked by **right clicking** on the **Template Library node** & then selecting **Copy Template** option from the popup menu. A template can also be copied by selecting & dragging the template on to the Template Library folder/node.
3. User will be prompted to confirm the copy in order to avoid accidental copy. This will be done only if such a setting is made under the User Preference.

The following screen is displayed on invoking the Copy option.



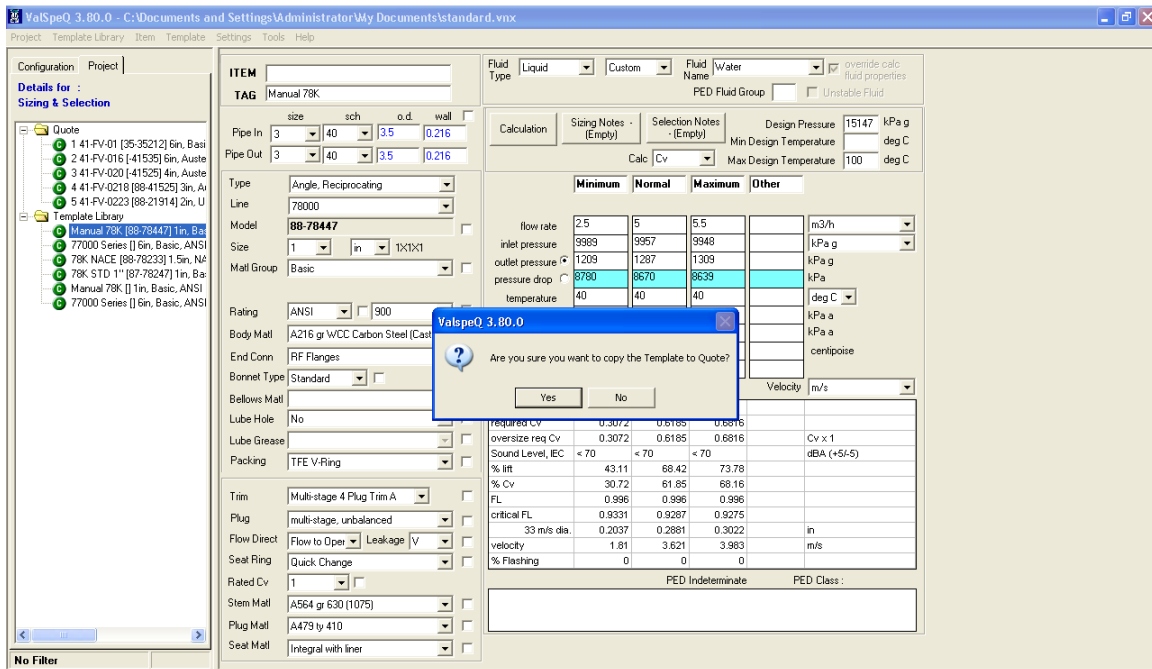
Copy Template to Quote

This option will facilitate the user to copy a Template to the Quote folder.

Steps:

1. Select the Template to be copied from the Template Library folder/node.
2. Select **Copy Template to Quote** option from the **Template** menu on the application menu or **Alt+T** & then **T** to copy template to Quote. The Copy Template to Quote option can also be invoked by **right clicking** on the **Template** node & then selecting **Copy Template to Quote** option from the popup menu. A Template can also be copied to the Quote by selecting & dragging the Template on to the Quote node.
3. User will be prompted to confirm the copy in order to avoid accidental copy. This will be done only if such a setting is made under the User Preference

The following screen is displayed on clicking the Copy to Quote option.



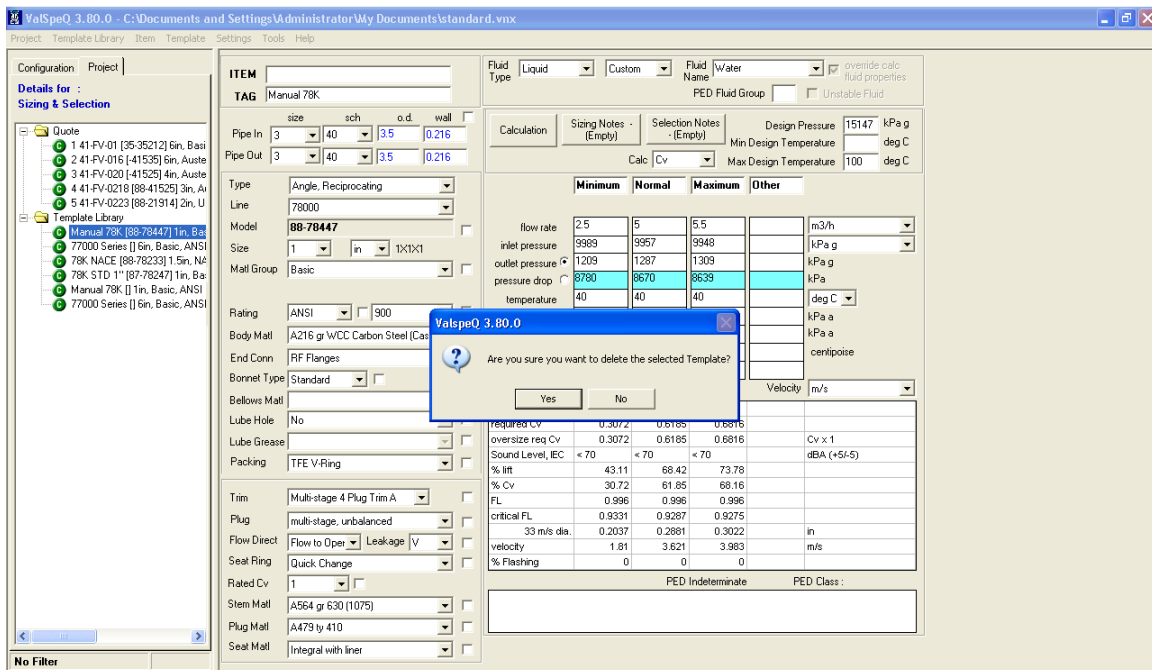
Delete Template

This option will facilitate the user to delete a Template from the Template Library folder/node.

Steps:

1. Select the Template to be deleted from the Template Library folder/node.
2. Select **Delete** option from **Template** menu on the application menu or **Alt+T** & then **D** to Delete Template. The Delete option can also be invoked by **right clicking** on the **Template** node & then selecting **Delete Template** option from the popup menu.
3. User will be prompted to confirm in order to avoid accidental delete. This will be done only if such a setting is made under the User Preference.

The following screen is displayed on clicking the Delete option from the Template menu.



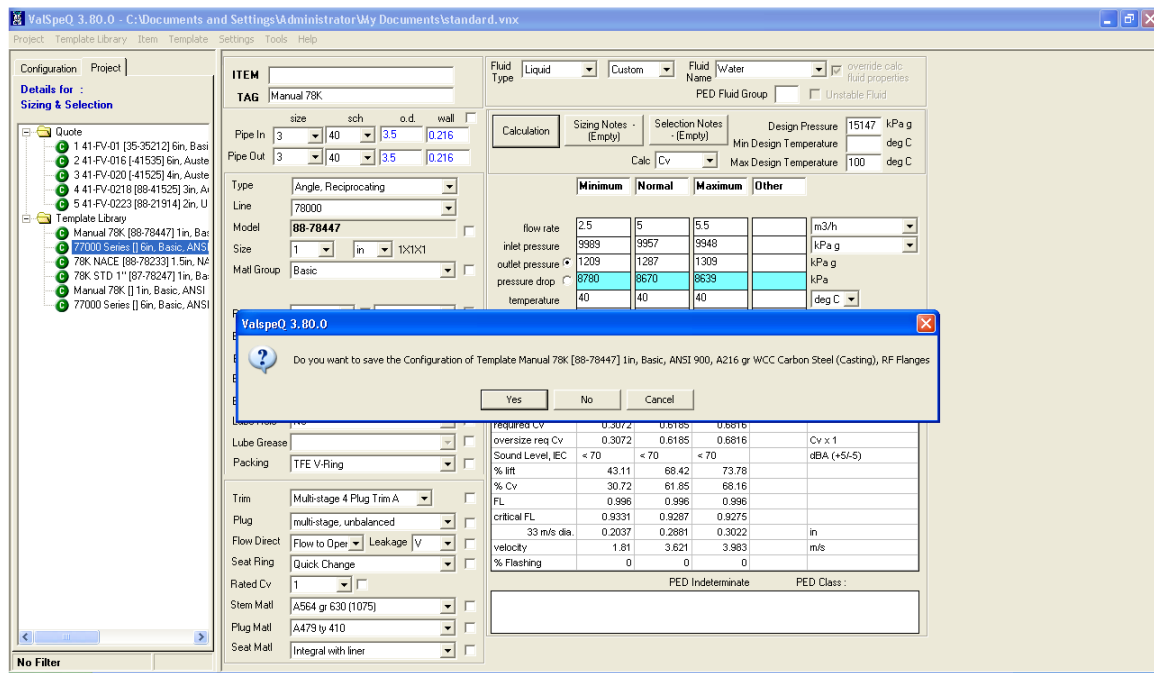
Save Template

This option will facilitate the user to save a Template under Template Library node. This option can be used after modifying an existing Template configuration or in order to save a New Configuration as a Template under Template Library node.

Steps:

1. If an existing Template is modified & the changes are to be saved then select **Save** option from the **Template** menu on the application menu bar or **Alt+T** & then **S** to Save.
2. User will be prompted to confirm saving of the configuration.

The following screen is displayed after the Save option from the Template menu is invoked.



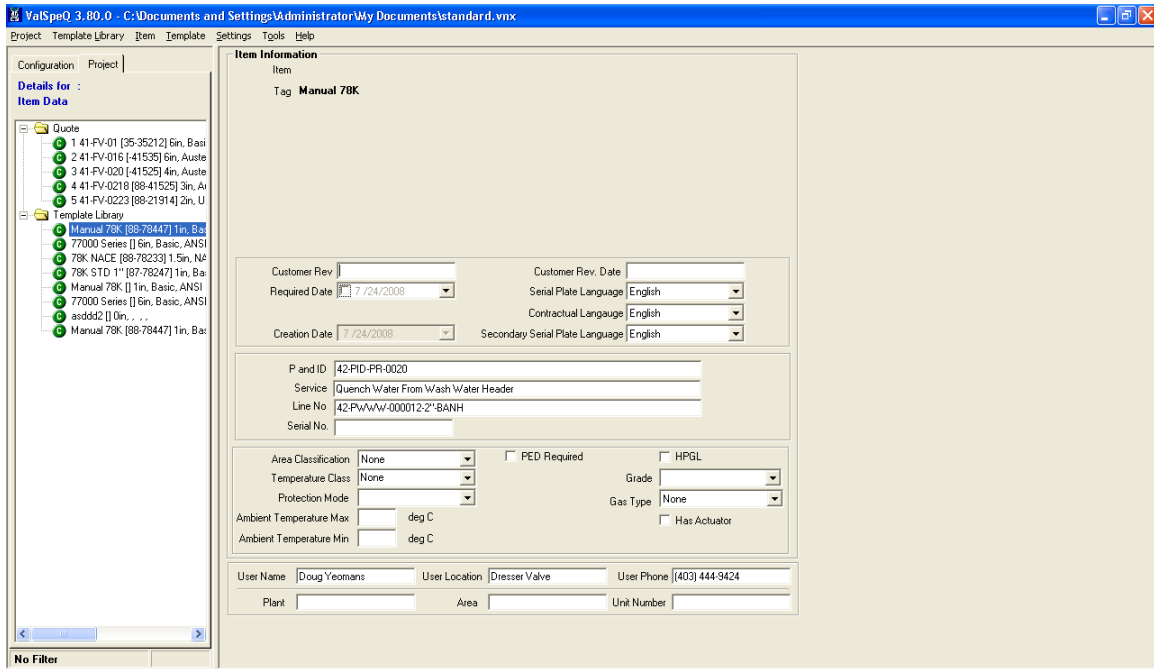
General Information of Template

This option will facilitate the user to view the Item Data screen where in the Template details would be displayed. This screen will not display the Tag information.

Steps:

1. Select a Template from the Template Library.
2. Select **General Info** option from the **Template** menu on the application menu bar or **Alt+T** & then **G** for General Information. The General Info option can also be invoked by **right clicking** on the **Template** node & then selecting **General Info** option from the popup menu.
3. The Item Data screen would be displayed. This screen will not contain data related to Tag & General Item Description.

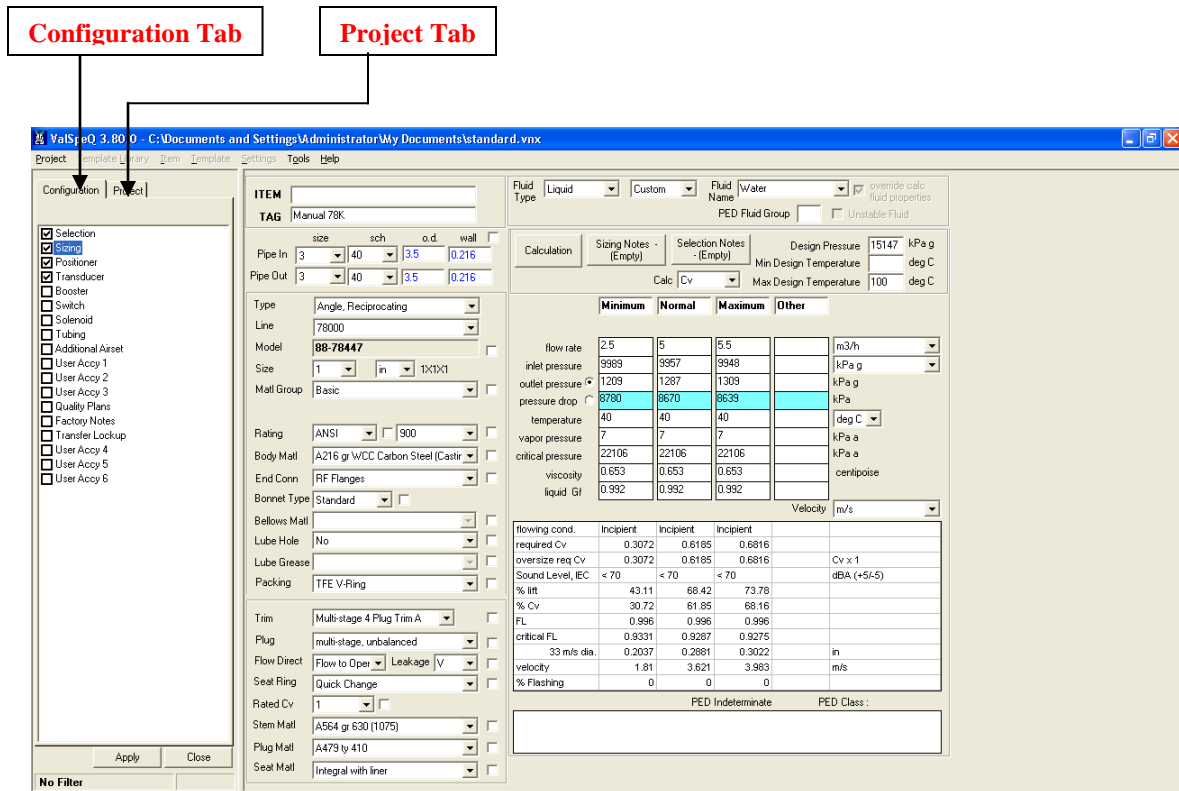
The following screen is displayed after clicking the General Info option from the Template menu for the selected Template.



Overlay Template

User can overlay a line item with a template using Overlay Template on Filtered as well as non-filtered items. The freeze line items cannot be overlaid by a template.

To apply the Overlay Template invoke Overlay Template option available under Template menu or right click on the template. After invoking Overlay Template the following screen will be displayed.

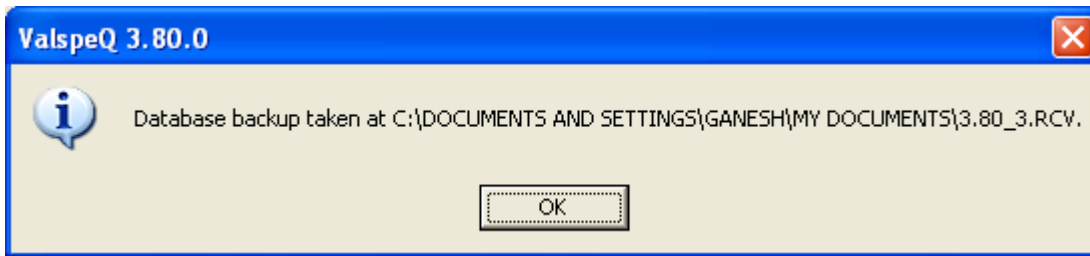


It will display configuration and Project tabs. On configuration tab there will be forms and on Project tab there will be the available unfreeze items in the project.

If overlay template is invoked on control valve line items then only the unfreeze Control Valve Line Items will be displayed on the Project tab and forms related to control valve will be displayed on the configuration tab.

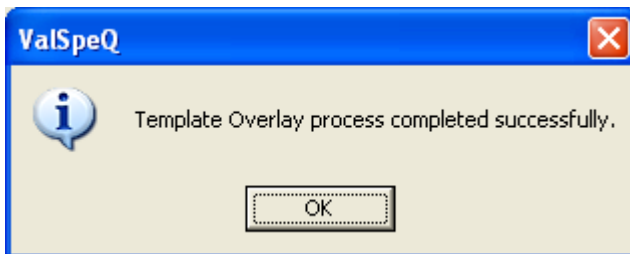
The sizing, selection, quality plans, factory notes and accessory forms will be displayed.

Backup of the current project will be taken before continuing the overlay process. The backup will be saved in the location where the project is saved.



If a backup file is already available in the location then a message will be displayed whether to overwrite the file or not.

When the overlay process is completed the following message is displayed.

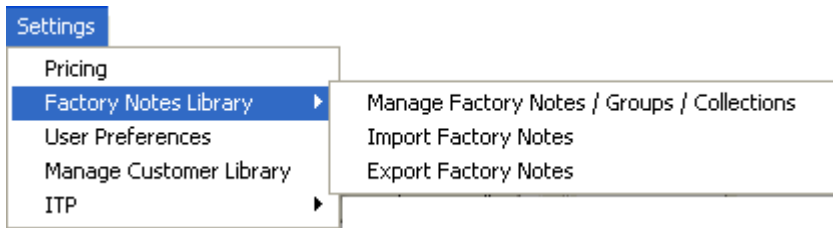


Settings

The Settings menu on the application menu bar allows the customer to set values or parameters that would be used for the current project at various stages.

1. Pricing
2. Factory Notes Library
 - 2.1 Manage Factory Notes / Groups / Collections
 - 2.2 Import Factory Notes
 - 2.3 Export Factory Notes
3. User Preferences
4. Manage Customer Library
5. ITP
 - 5.1 ITP Management
 - 5.2 Import ITP
 - 5.3 Export ITP

The following screen displays the above-mentioned options under the Settings menu. “Import Factory Notes” and “Export Factory Notes” menus are disabled and are unavailable in this version.



Pricing

The **Pricing** option under **Settings** menu facilitates the user to create different Discount Templates that can be used for a Project / Quote.

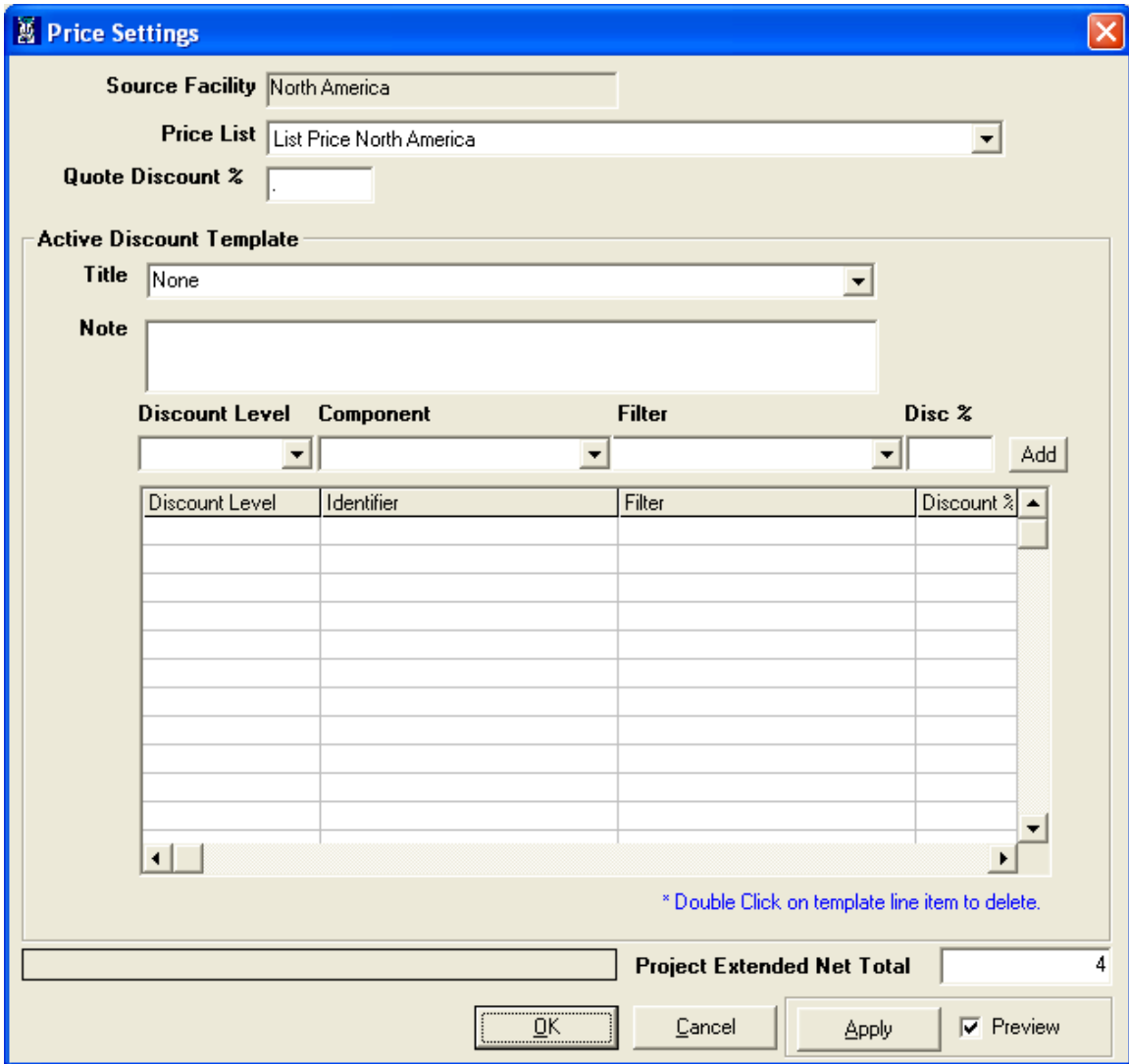
ValSpeQ allows a user to define a 3 layered discounting facility – i.e. Quote Level, Line Item Level & Component Level. Line Item level discounting over rides Quote level discount and Component level discount overrides Line Item level discount.

User can create different discount templates with different discounting schemes at line level or component level & quickly evaluate the total project value while bidding in a competitive environment.

Note:

This option is available only if **ValSpeQ** edition is **Professional**. This option is disabled if **ValSpeQ** edition is **Standard** or **Lite**.

On invoking this option, the following screen is displayed



The image shows a 'Price Settings' dialog box with the following fields and controls:

- Source Facility:** Text box containing 'North America'.
- Price List:** Dropdown menu showing 'List Price North America'.
- Quote Discount %:** Text box containing a period '.'.
- Active Discount Template:** A section containing:
 - Title:** Dropdown menu showing 'None'.
 - Note:** Empty text area.
 - Discount Level, Component, Filter, Disc %:** Four dropdown menus with an 'Add' button to the right.
 - Table:** A table with 4 columns: 'Discount Level', 'Identifier', 'Filter', and 'Discount %'. It contains several empty rows.
- Project Extended Net Total:** Text box containing the number '4'.
- Buttons:** 'OK', 'Cancel', 'Apply', and a checked 'Preview' checkbox.

* Double Click on template line item to delete.

Price List

Pricing for an Item is derived & dependent on the Price List that is selected. Select a Price List that should be used for deriving Item Price.

Quote Discount %

User can specify a discount % (percent) for the entire quote. This discount is applied to all line items within the Project / Quote. User can specify any value in between -100.00 to +100.00. An appropriate message is displayed on entering a value beyond the specified range.

Discount Template

A Discount Template may consist of one or more Line or Component level Discount definitions. User can create multiple templates but only one can be active. To set an Active Discount template, select a Discount Template from the **Title** list.

Discount templates are project specific. Discount Templates created for a project are not available to another project. For every new project, user will have to create a discount template.

Add a Discount Template

A discount template can be created by overwriting the discount template **Title** & then add one or more Line or Component level discount definitions.

Add Line or Component Level Discount Definition

Discount definition can be at a **Line** level or **Component** level.

Select **Line** or **Component** from the **Discount Level** drop down to add a **Line** or **Component** level discount.

If **Discount Level** option **Line** is selected, the **Component** drop down is disabled & the values in **Filter** drop down are populated from the current Items configured in the Project.

If **Discount Level** option **Component** is selected, the **Component** drop down populates a list of different components. On selecting a **Component**, values in **Filter** drop down are populated for the selected **Component** from the current Items configured in the Project.

User can specify a **Line** or **Component** level **Disc % (Discount Percent)**. User can specify any value in between -100.00 to +100.00. An appropriate message is displayed on entering a value beyond the specified range.

Click the **Add** button to add the line or component level discount definition. The definition will be displayed in the grid. The grid displays a list of Line or Component Level discount definitions for the selected Discount Template. The discount template & its definitions are stored.

Delete a Line or Component Level Discount Definition

To delete a line or component definition within a discount template, double click the Line or Component Level Discount Definition displayed on the Grid.

Apply button

On hitting the **Apply** button individual Item prices are re-computed after applying the Quote level Discount, which is overridden by Line level Discount & is finally overridden by Component level Discount.

If **Preview** option is checked, **Quote Total Price** or **Project Extended Net Total** after applying the Discount Template to the current Project is computed virtually without updating the database.

If the **Preview** option is unchecked, the changes are applied to all the Items & the database is updated.

OK button

If a new discount template is created or any new definitions are added or deleted for an existing discount template or another existing template is selected & is applied (i.e. **Apply** button is hit) with **Preview** option unchecked, then hitting the **OK** button will close the Settings – Pricing screen.

If a new Discount Template is created or any new definitions are added or deleted for an existing discount template or another existing template is selected & **Preview** option is checked then irrespective of whether **Apply** button is hit or not hitting the **OK** button will prompt the user whether to apply the Discount Template. On approval, the discount template will be applied & the price for all the Items will be computed & the database will be updated. On rejecting the same, the Pricing node for all the Items will be set to invalid & the Item will also be set to invalid.

Warning:

1. Discounts are not applied to all those components of the Items configured where component level discount locks are applied. Individual component level discount locks can be applied using the Pricing node on the Configuration tab page for the selected Item.
2. Discounts are not applied to those line items that are with Freeze status.

Finally the extended price for all valid Items is summed up to display Quote Total Price.

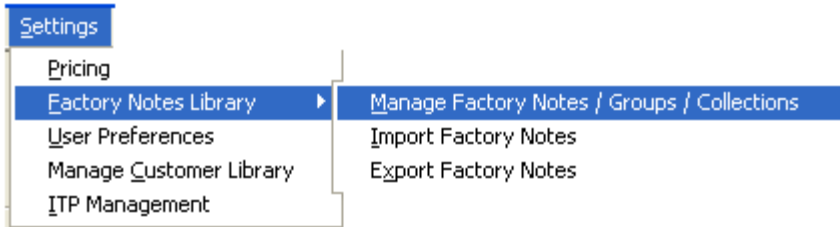
Cancel Button

If the Cancel button is hit prior to applying the Discount Template, the discount definitions will be lost & will close the **Price Settings** screen.

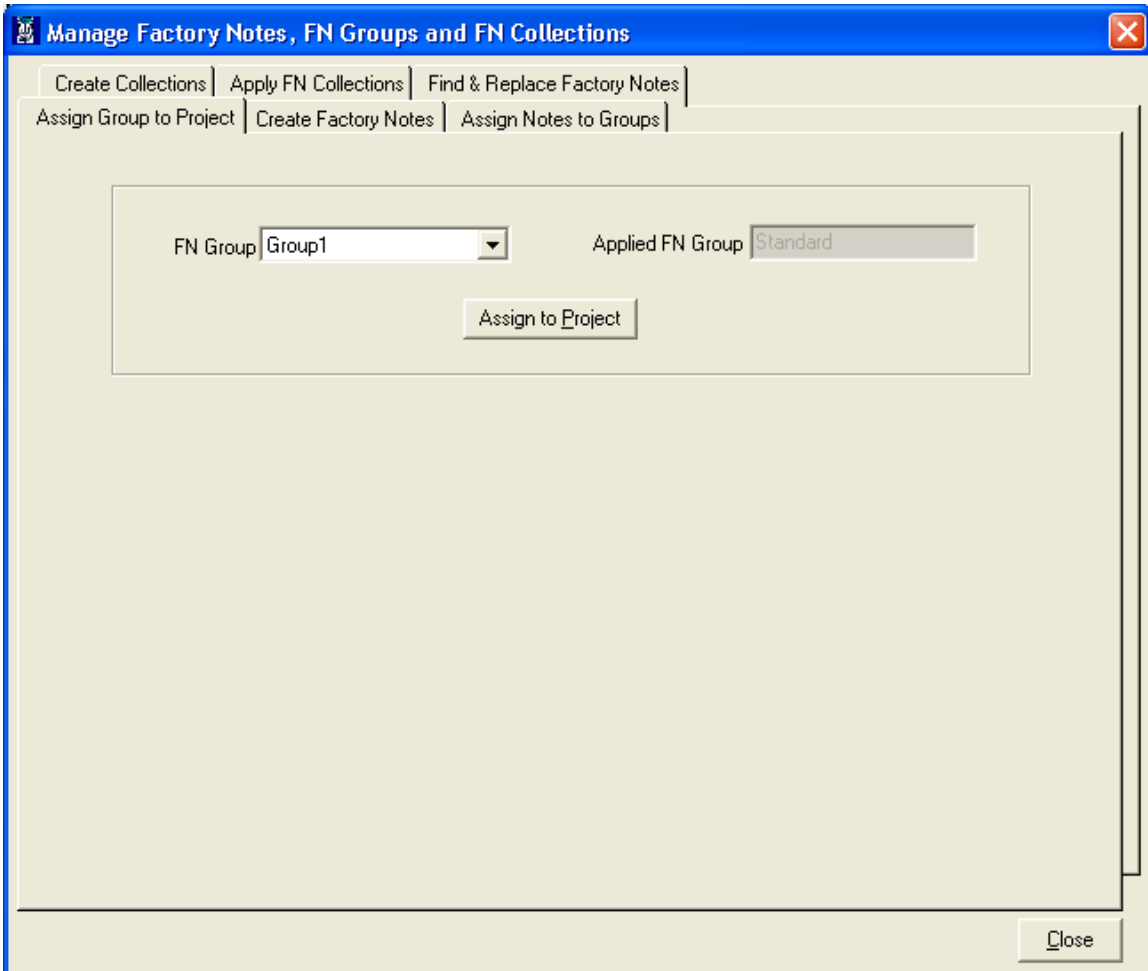
If the Cancel button is hit after applying the Discount Template, the discount definitions created after applying the Discount Template will be lost & will close the **Price Settings** screen. The discount definitions set prior to applying will still exist.

Manage Factory Notes / Groups / Collections

To create Factory Notes, invoke **Settings -> Factory Notes Library->Manage Factory Notes / Groups / Collections** option.



After clicking on **Manage Factory Notes / Groups / Collections** option following screen will be displayed.



This screen contains following tab options:

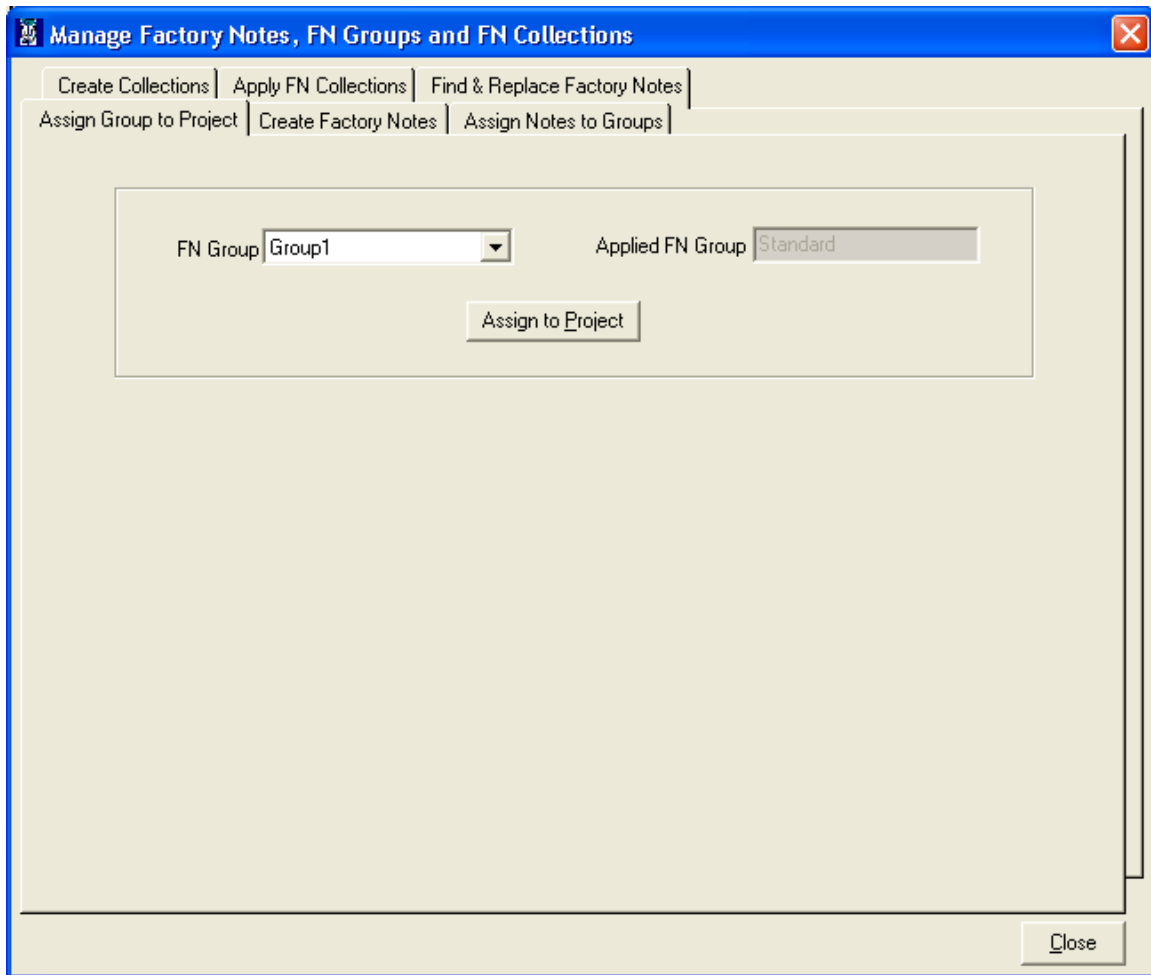
- Assign Group to Project
- Create Factory Notes
- Assign Notes to Groups
- Create Collections
- Apply FN Collections
- Find & Replace Factory Notes

- **Assign Group to Project tab**

After creating FN Group and FN Collections for the group, you can apply that FN Group to the Current Project.

To Apply the FN Group to Current Project Click on “**Assign Group to Project**” tab.

After Clicking on “Assign Group to Project” tab following screen will be displayed.



This screen contains following data elements:

FN Group combo – This combo box contains the list of all the FN Group names from the Library.

Applied FN Group Text Box – This textbox shows the FN Group Name, which is currently assigned to open Project.

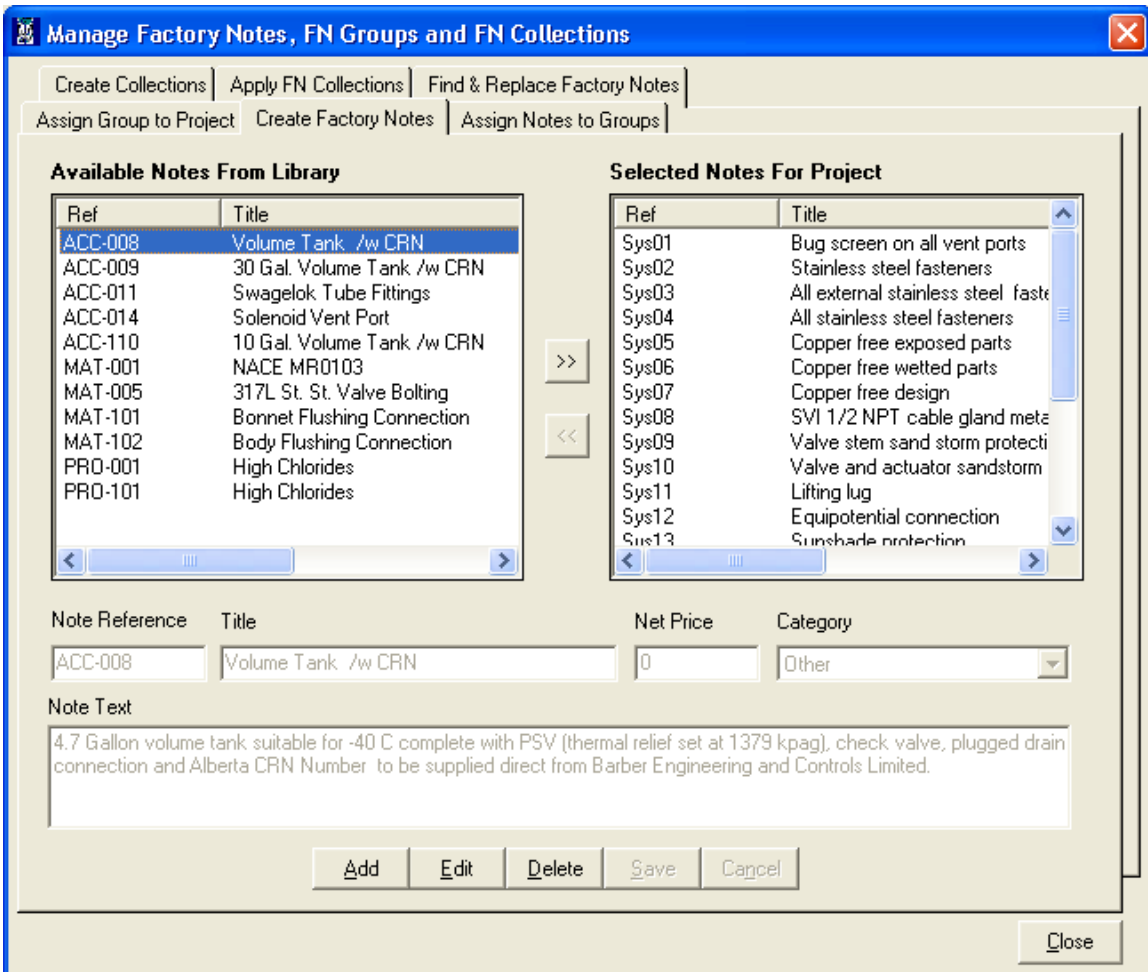
Select the FN Group to apply and click on **Assign to Project** button. An information message is displayed after assigning Group to the project as shown below.

Note: New Project contains a ‘Standard’ group already assigned to it containing standard Factory Notes.



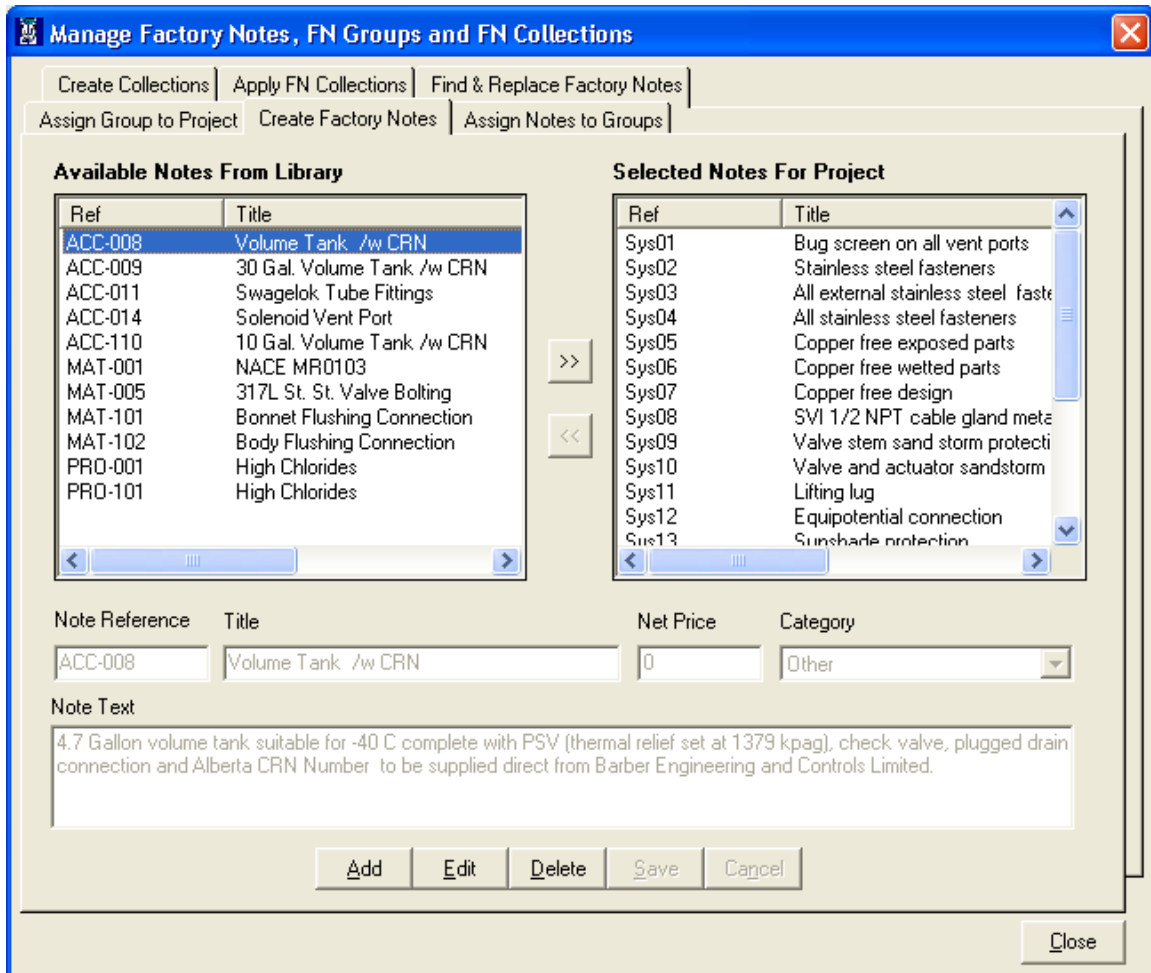
After assigning FN Group to current Project, the Applied FN Group text box displays the applied group name.

After applying FN Group to the current project, all Factory Notes and collections of that group are copied from Library to the Project i.e. vnx file. These Factory notes are listed in the “Selected Notes for Project” list along with Standard Factory Notes under the Create Factory Notes tab as shown below.



- **Create Factory Notes tab:**

User can create and transfer factory notes in Library and project using this tab.



This screen contains following data elements:

Available Notes From Library List – This list view lists all the factory notes from library along with its Ref (Reference), Title, Category and List Price.

Selected Notes for Projects List - This list view lists all the factory notes from the currently opened Project along with its Ref (Reference), Title, Category and List Price. This list view contains the standard Factory Notes which cannot be deleted or edited.

Note: List price column will not be available in Standard and Lite Editions of ValSpeQ.

Note Reference Text box – Displays the Reference of the currently selected Factory Note.

Title Text box – Displays the Title of the currently selected factory note.

Net Price Text box – Displays the Net Price of the currently selected factory note.

Category Combo box – Displays the Category of the currently selected factory note.

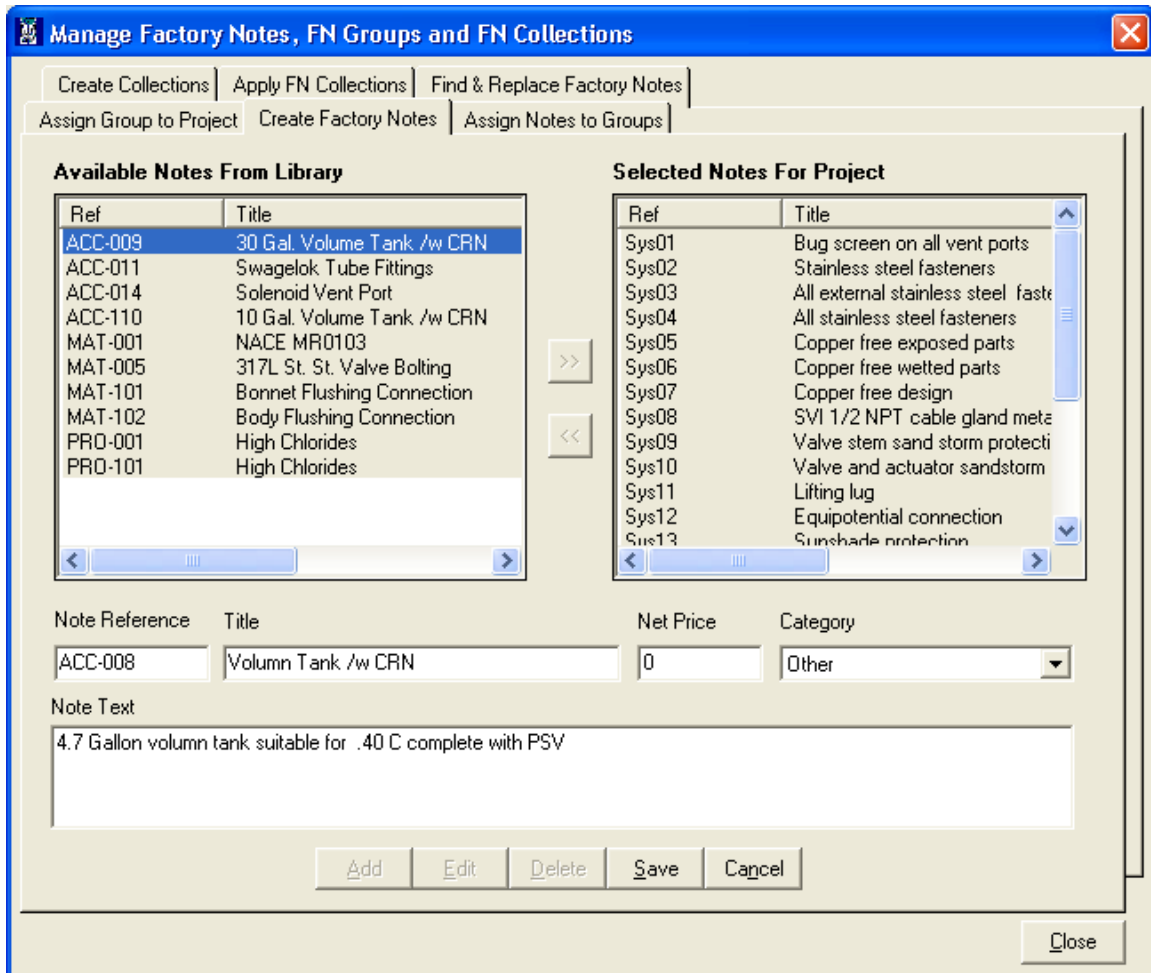
Note Text Text box – Displays the Description of the currently selected factory note.

Add Factory Note in Library

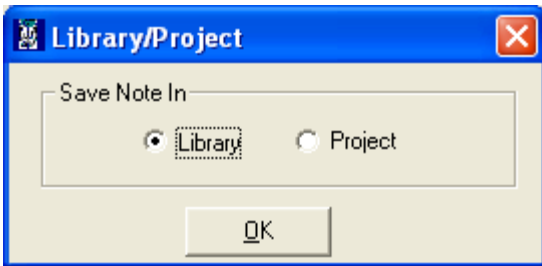
The user can Add, Edit and Delete Factory Notes from the Library or Project.

To create a new Factory Note, click on **Add** Button and Insert Note Reference, Title, Net Price, Category and Note Text into corresponding Text boxes.

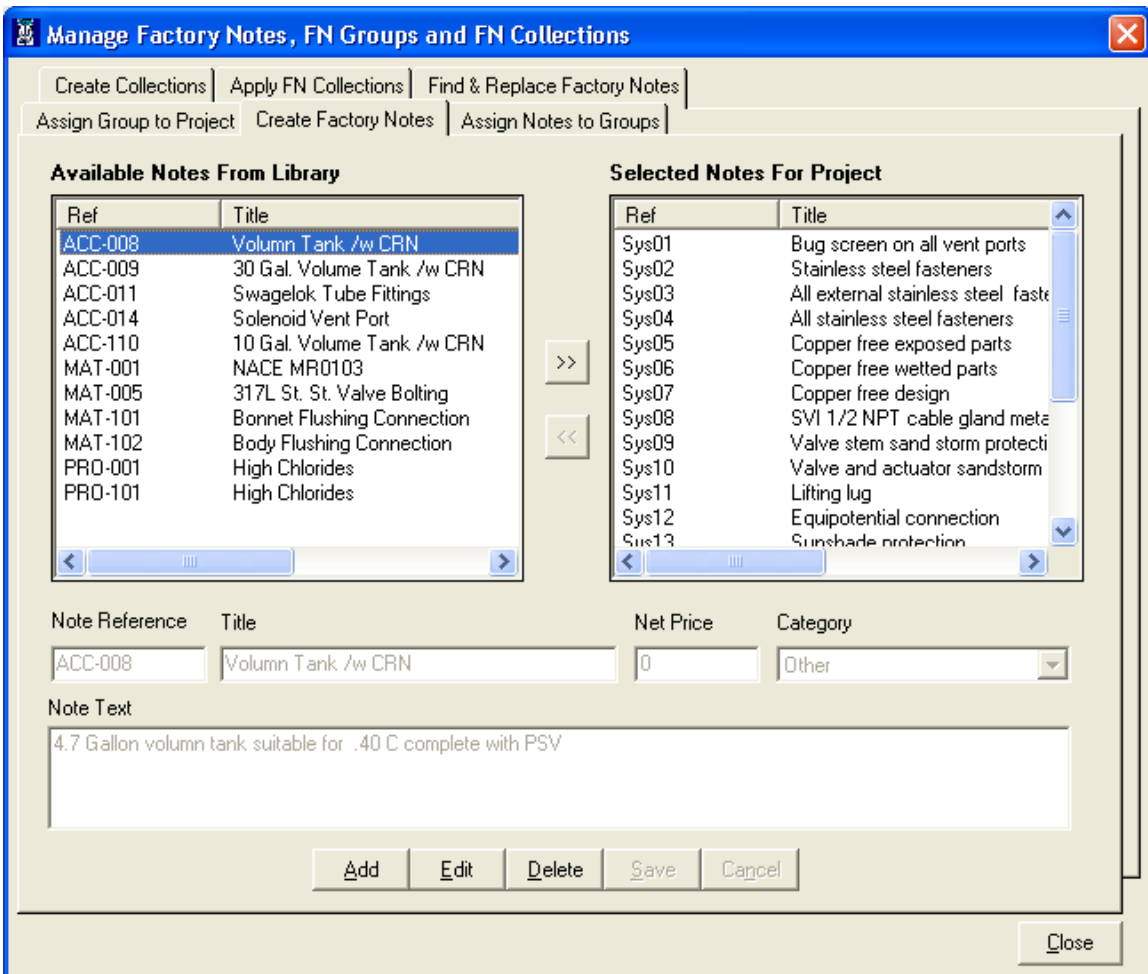
The Note Reference, Title, Net Price (If version is Professional), Category and Note Text are mandatory fields and user must enter values in it.



Now click on **save** button to save factory note. This will ask to select the location to store the factory note. This dialog box contains 2 options as Library and Project as shown below.



By default Library option is selected. Click on OK button to save the factory note in Library. Now the “Available Notes from Library” List contains the added note as shown in following screen.

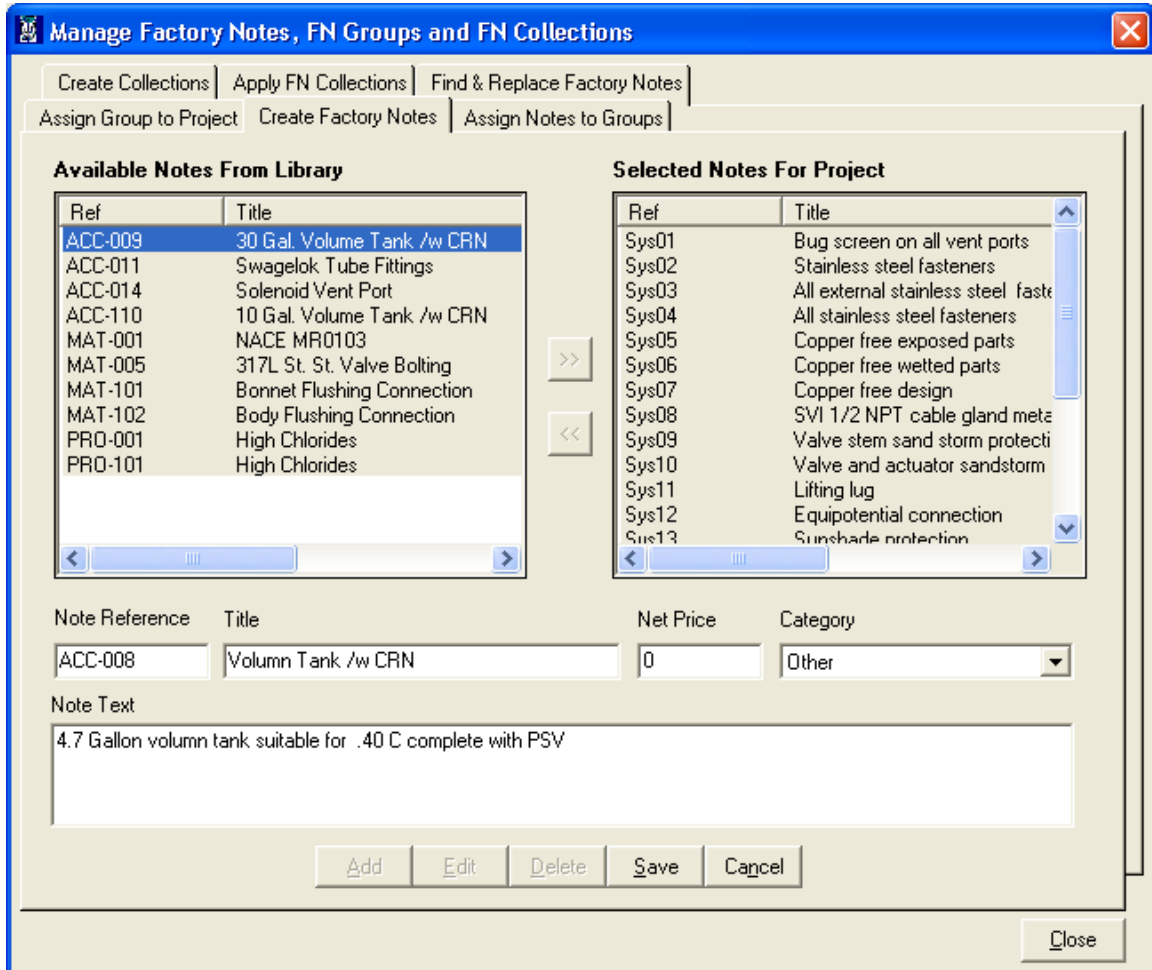


Note: Duplicate Factory notes are allowed in Library.

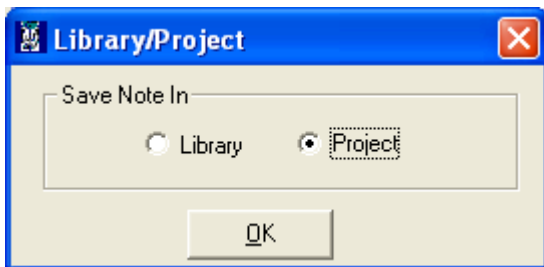
Add Factory Note in current Project

Though the current Project has a Standard group applied to it, you can add Factory Notes in the current Project.

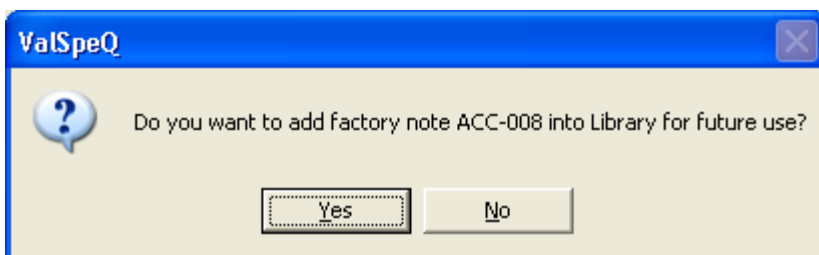
To add a new Factory Note to the project, select the **“Create Factory Notes”** tab & click on Add Button, and insert factory note information in Text box.



Then click on **Save** button. Select Project from the Library/Project window, as shown below.

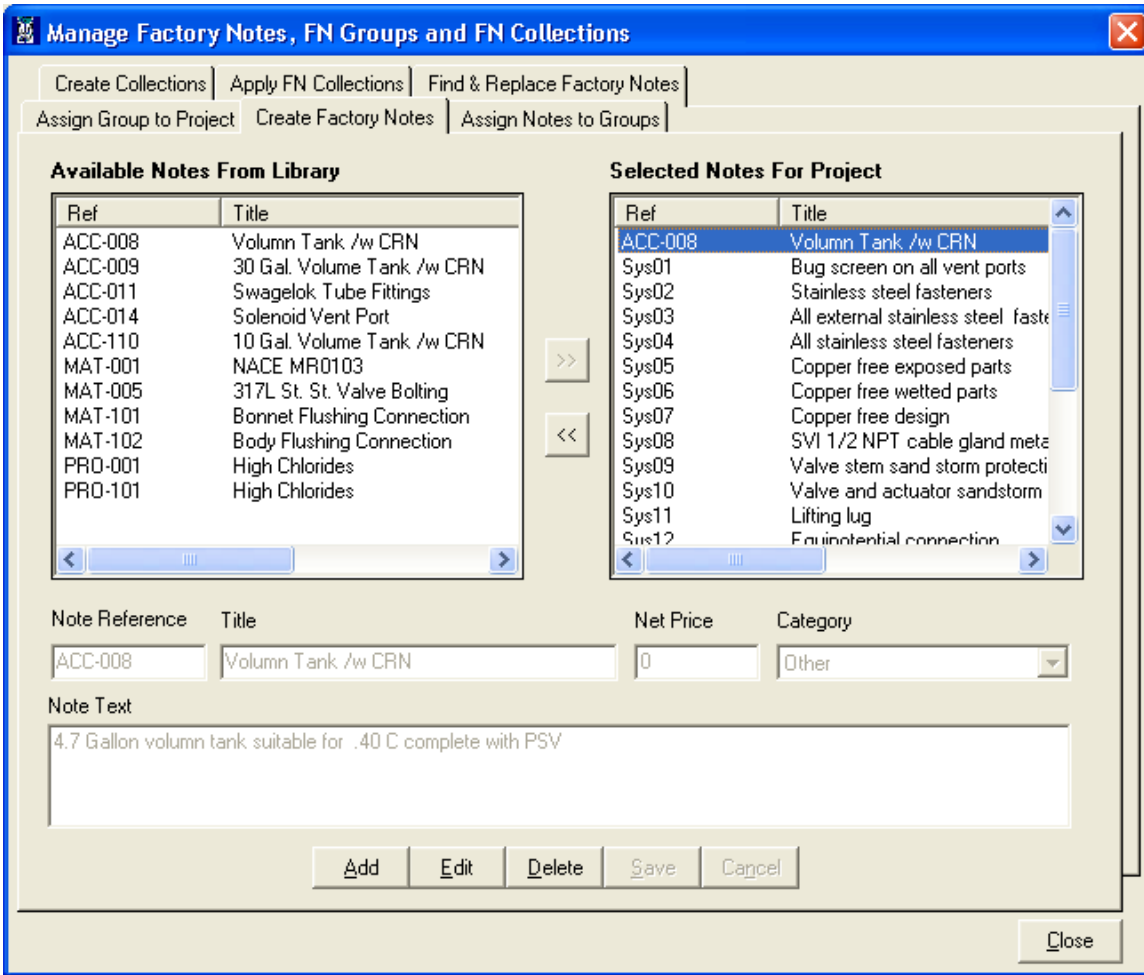


Click on OK button to add Factory Note into Project. A message asking to save Factory Note in Library will be displayed as shown below:



After clicking on Yes button Factory Note will be saved in Library also, on clicking on No button the new Factory Note will be saved in Project only.

After successful save, newly added factory note is listed under the “Selected Notes For Project” list as shown in following screen.

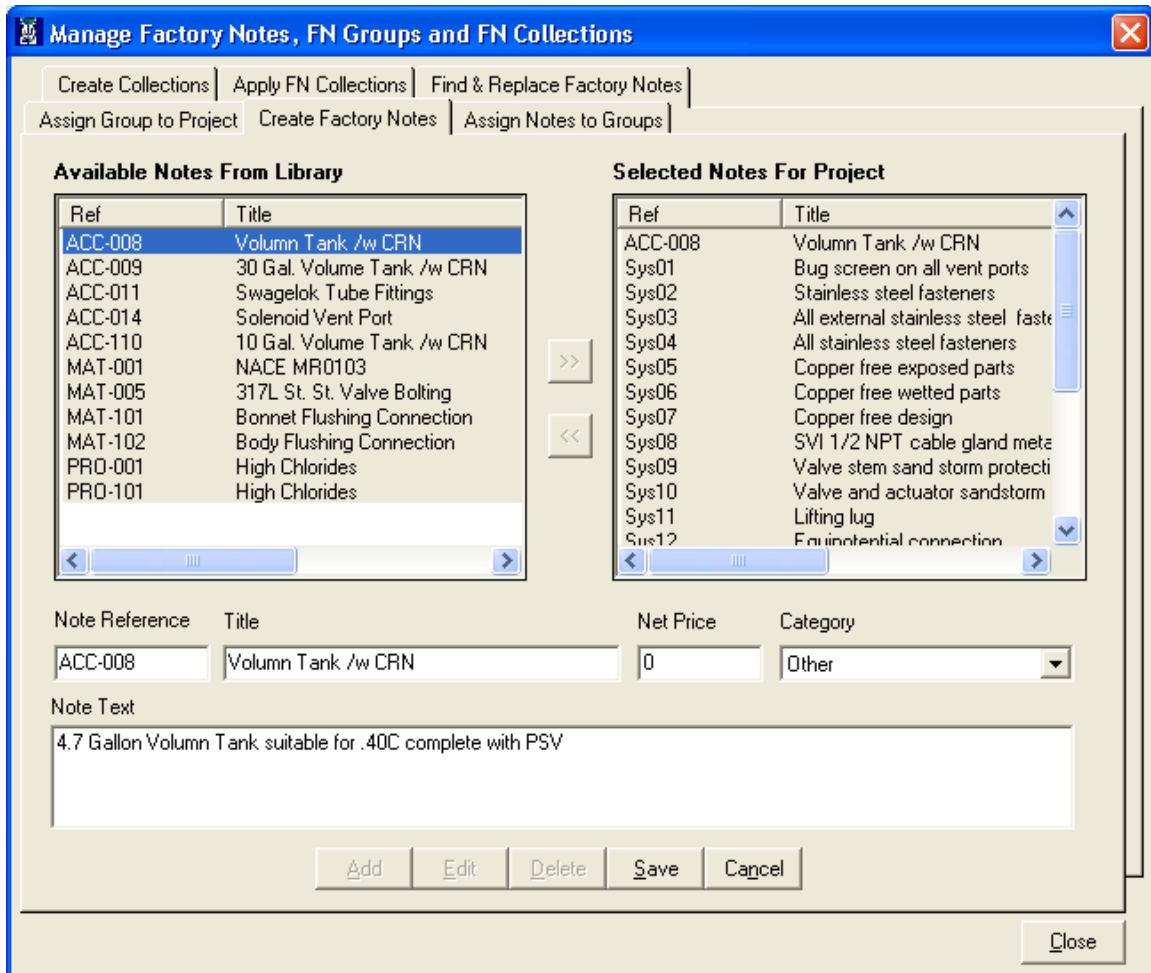


Edit Factory Notes

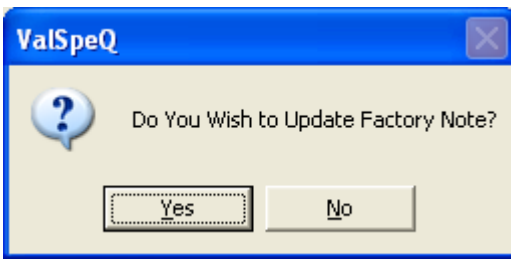
To edit a particular factory note, select that factory note from the list. Both Library and Project factory notes can be edited.

Edit Note from Library

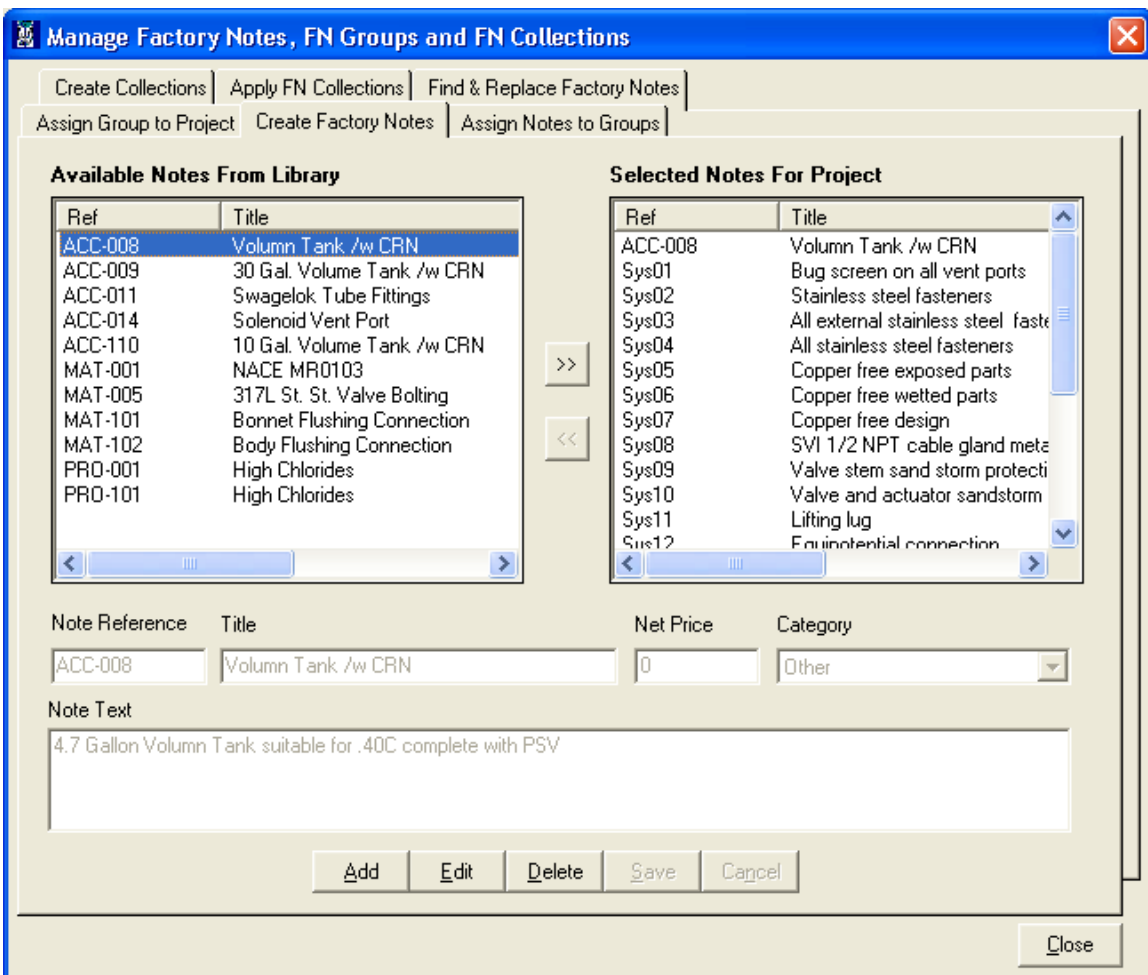
Select factory note from Library to edit and click on Edit button. All text boxes will be editable to make changes. Change the entries in the text box as shown in the following screen.



After making changes click on Save button, to save changes. A confirmatory message box will be displayed, as shown below.



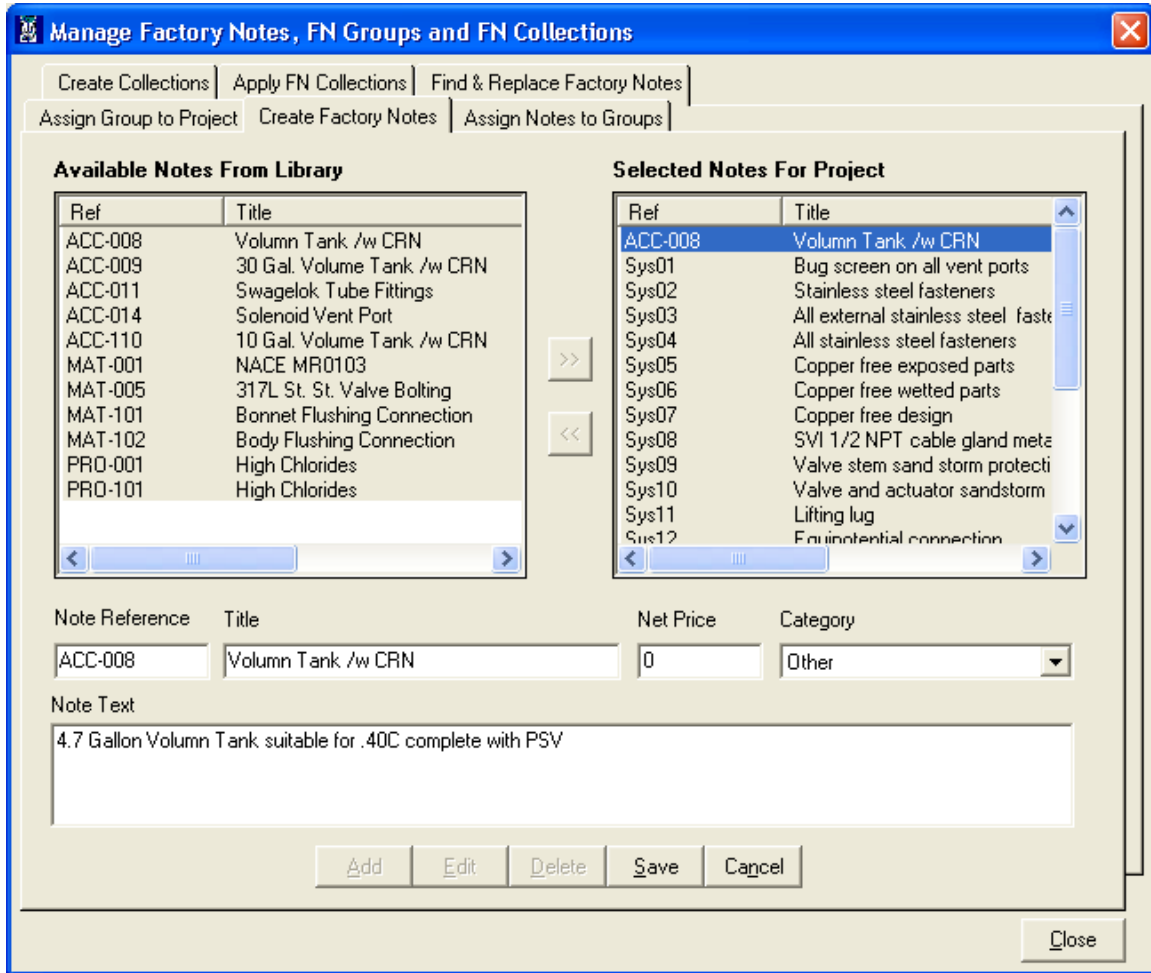
Click on **Yes** button to save the changes. If you don't want to save changes click on **No** button. Selected Factory note is updated as shown in following screen.



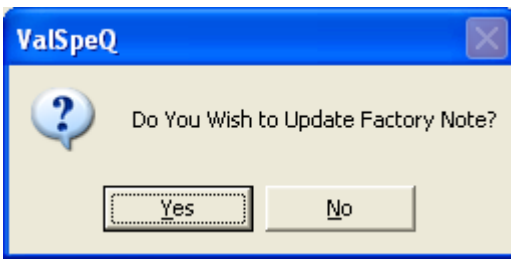
Edit Note from Project

To edit the factory note from Project, select factory note from Project to edit and click on Edit button, however the standard Factory Notes cannot be edited. Change the entries in the text box as shown in the following screen.

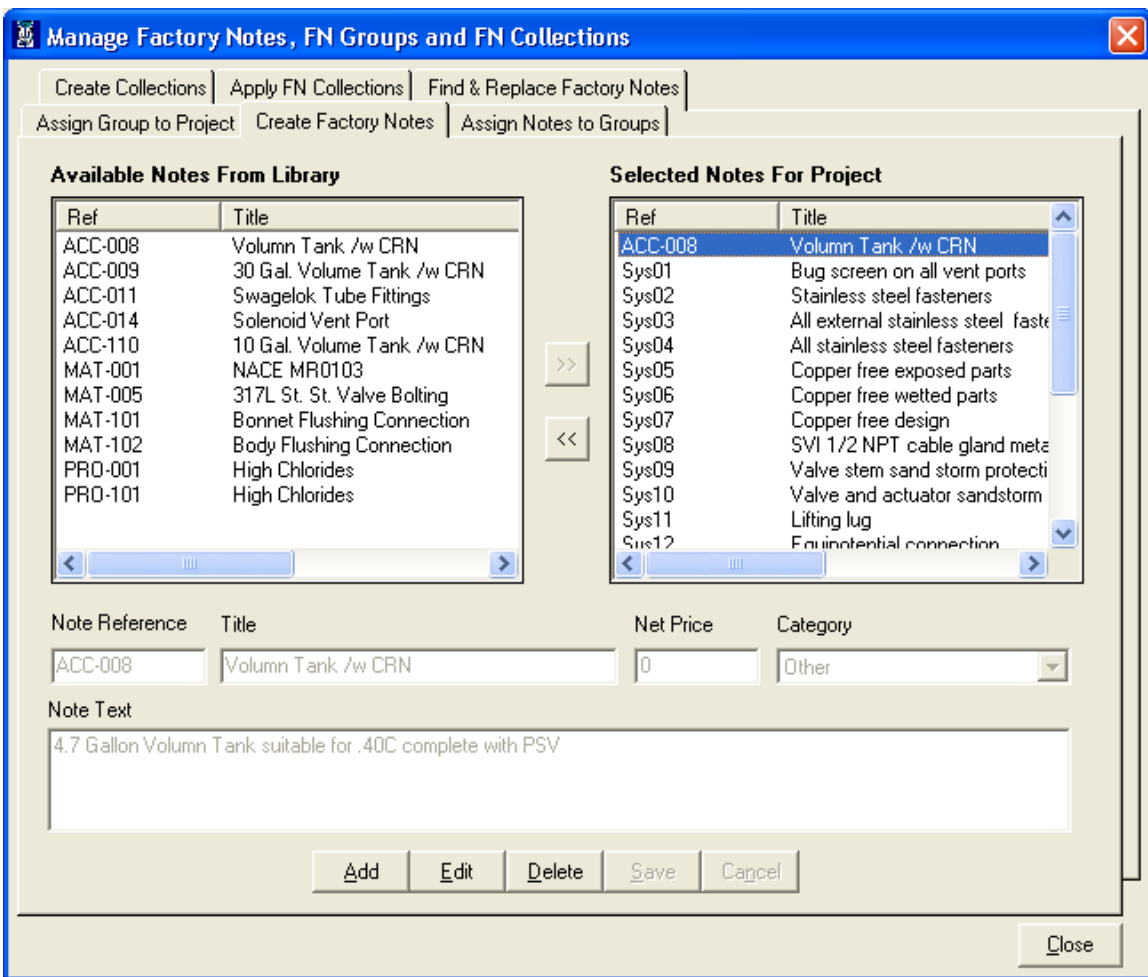
Note: All text boxes except the Reference text box will be editable to make changes.



After making changes click on **Save** button, to save changes. A confirmatory message box will be displayed, as shown below.



Click on **Yes** button to save the changes. If you don't want to save changes click on **No** button. Selected Factory note is updated in Selected Notes for Project list as shown in following screen.



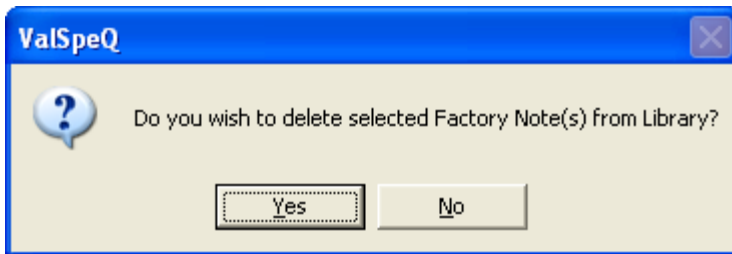
If the Net Price or List Price of Factory Note is changed and if that note is applied to any of the line item then price of that line item is recalculated.

Delete Factory Notes

1. Delete Factory Note from Library

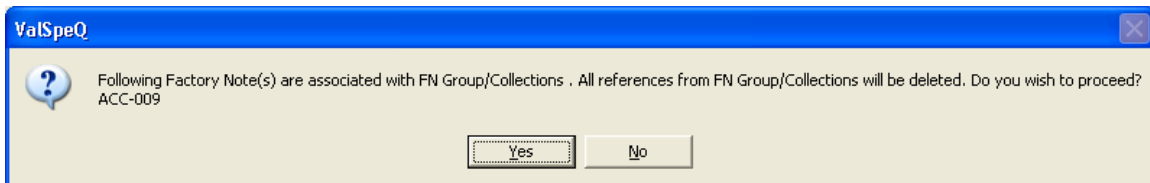
To delete a particular factory note from Library, select one or more factory notes from the “Available Notes From Library” and then click on the **Delete** button. Appropriate message box for confirmation is displayed as shown below.

If the selected factory notes are not associated with any Group or Collection in Library then the following message box is displayed



If Yes button is clicked the selected factory note is deleted from the Library. If No button is clicked no factory note is deleted from the Library.

If the selected factory notes are associated with any Group or Collection in Library then following confirmation message box is displayed.



If **Yes** button is clicked the selected factory notes are deleted from the Collections and Groups first and then it is deleted from the Library.

2. Delete Note from Project

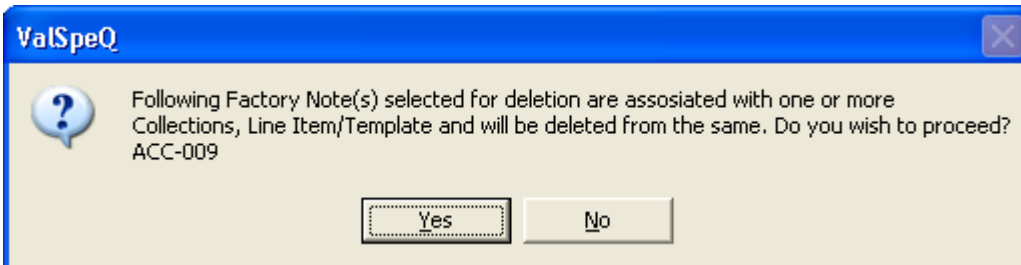
To delete a particular factory notes from Project, select one or more factory notes from the “Selected Notes for Project” and then click on the **Delete** button. Appropriate message box for confirmation is displayed as shown below. Standard Factory Notes cannot be deleted from Project.

If the selected factory notes are not associated with any Group or Collection or if it is not applied to any line item or template with in Project then the following message box is displayed.



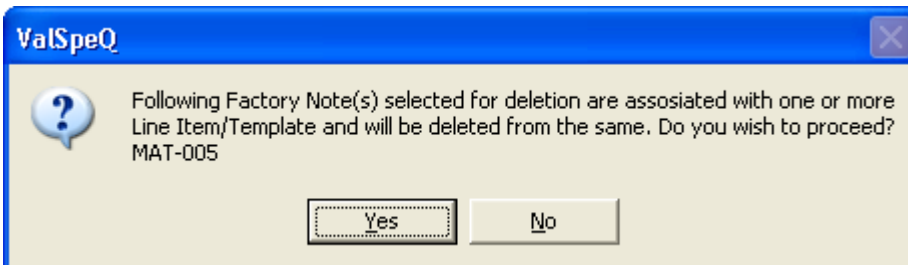
If Yes button is clicked the selected factory note is deleted from the Project and from Project Group. If No button is clicked no factory note is deleted from the Project.

If the selected factory notes are associated with any Collection in Library then following confirmation message box is displayed along with the associated notes list.



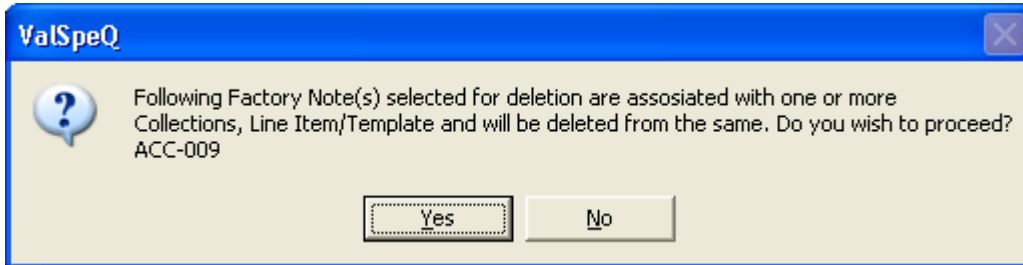
If Yes button is clicked the selected factory notes are deleted from the Collections first and then it is deleted from the Project and from the Group. And if No button is selected the selected factory notes do not get deleted from anywhere.

If the selected factory notes are applied to any line items or template then following confirmation message box is displayed along with the associated notes list.



If Yes button is clicked then selected factory notes are deleted from the applied notes for Line item and template first and then it is deleted from the Project and from the Group. And if No button is selected the selected factory notes is not get deleted from anywhere.

If the selected factory notes are applied to any line items or template and also it is associated with collection then following confirmation message box is displayed along with the associated notes list.



If Yes button is clicked then selected factory notes are deleted from the applied notes for Line item and template and from collections first and then it is deleted from the Project and from the Group. And if No button is selected, the selected factory notes do not get deleted from anywhere.

If the factory note which is deleted is associated with any line items then pricing of those line items to which factory note is associated is recalculated.

Copy Factory Notes

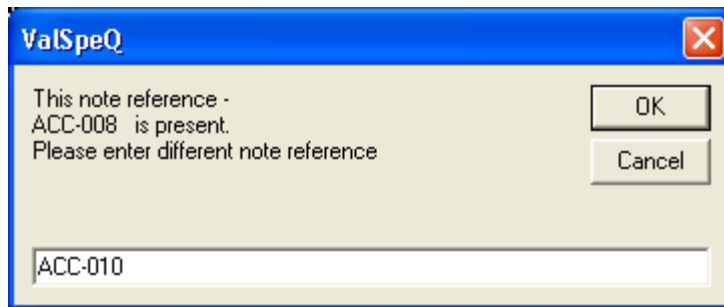
If FN Group is assigned to Project then, Factory notes can be copied from library to project and from project to library.

1. Copy FN from Library to Project

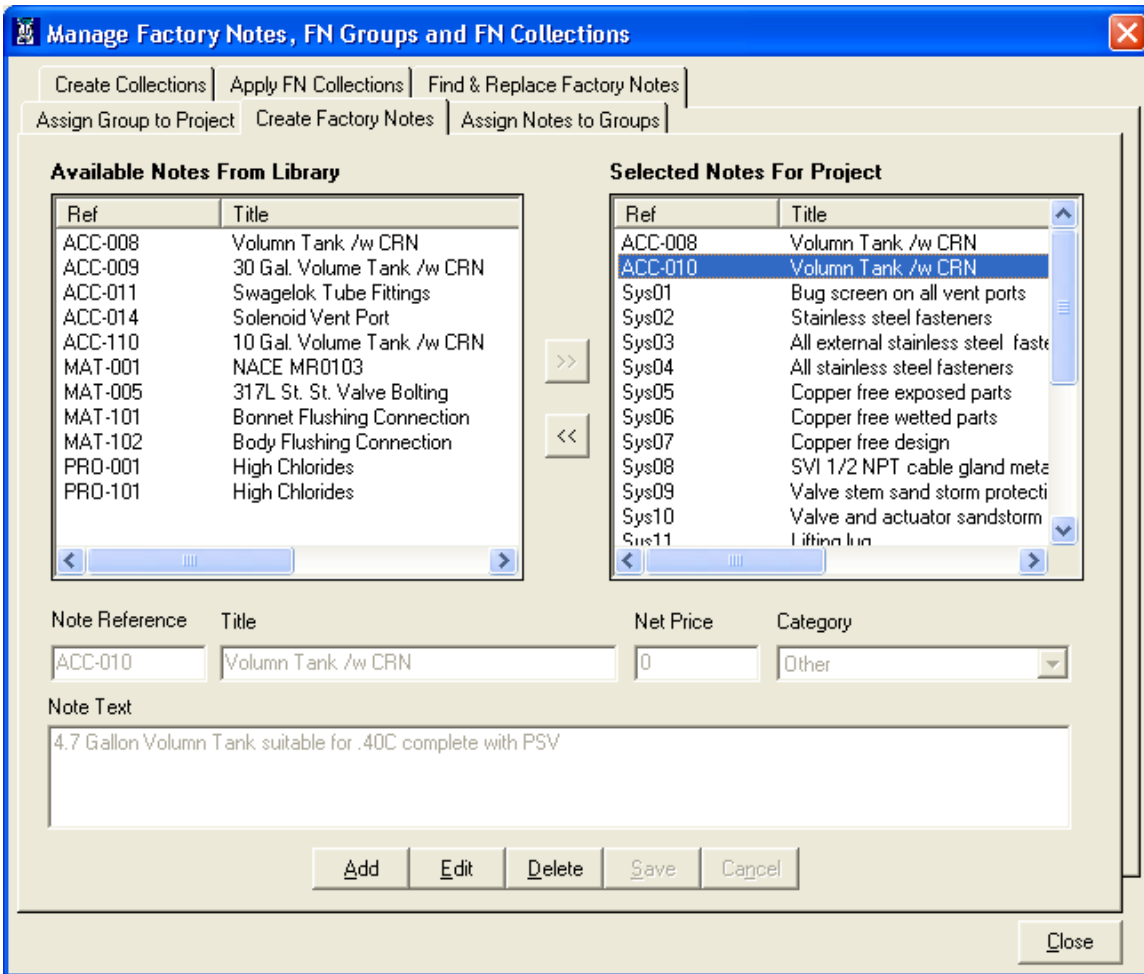
To copy Factory notes from library to project, select factory notes from “Available Notes from Library” list and click on >> button.

More than one Factory Notes can be selected from the lists.

If the selected factory note is not present in “Selected notes for Project” list, it will get copied as it is. If it is already present in the project list, then a dialog box appears that asks you to enter different reference for the factory note, as shown in the following screen.



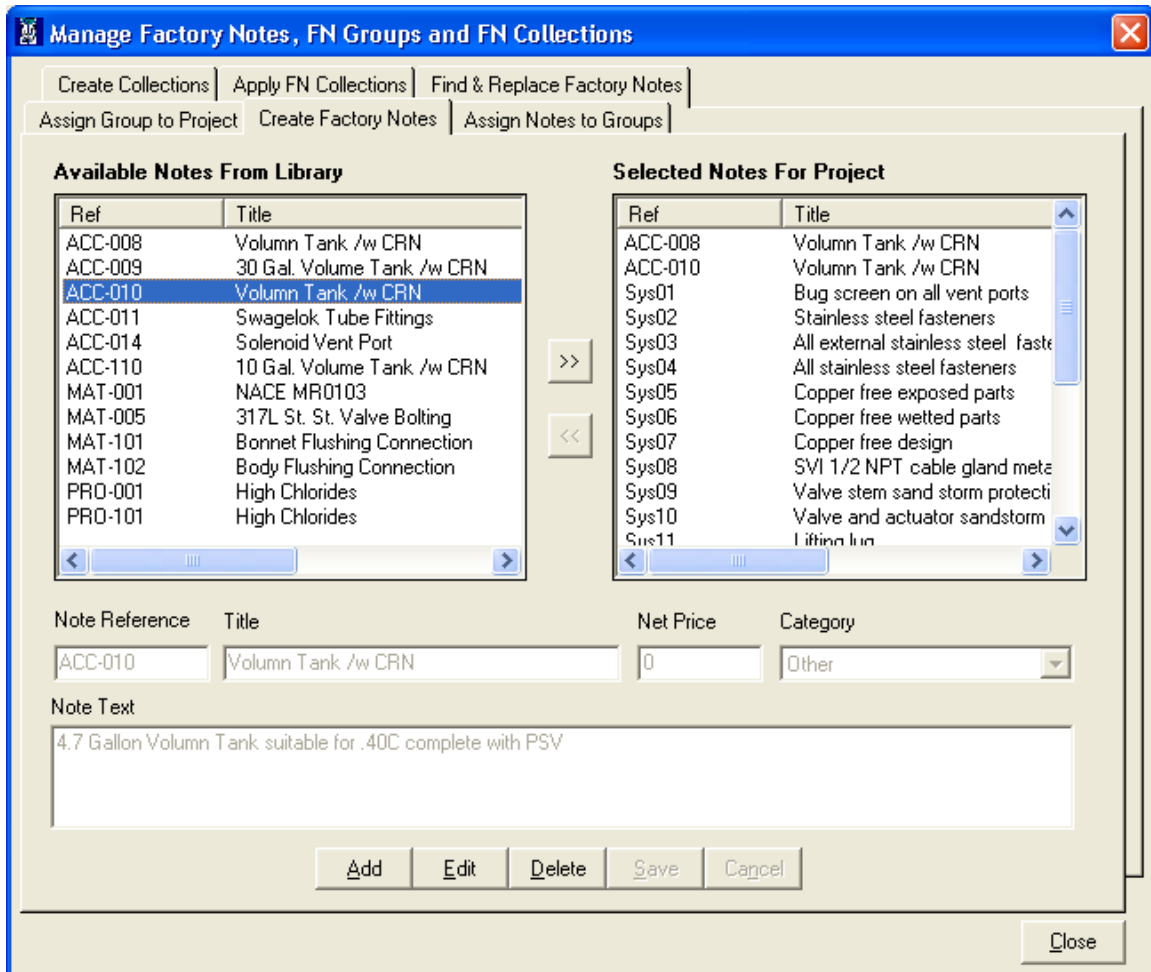
Enter the Note reference in the dialog box and click on the OK button. The selected Factory note is inserted into Project; the reference field contains the entered reference as shown in following screen.



2. Copy FN from Project to Library

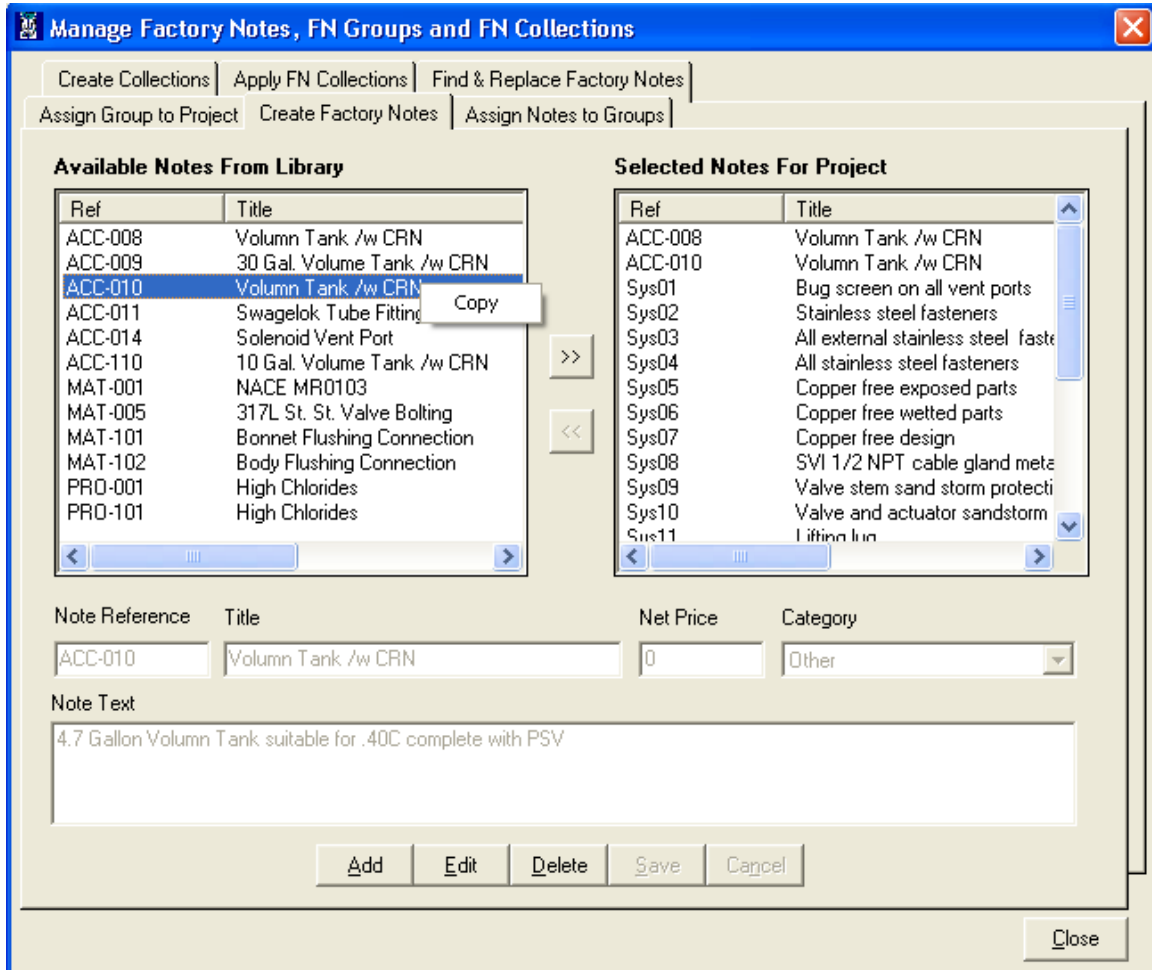
To copy factory notes from project to Library, select factory notes from “Selected Notes For Project” list and click on << button.

The selected Factory Note is copied as it is in the library. As shown in following screen.

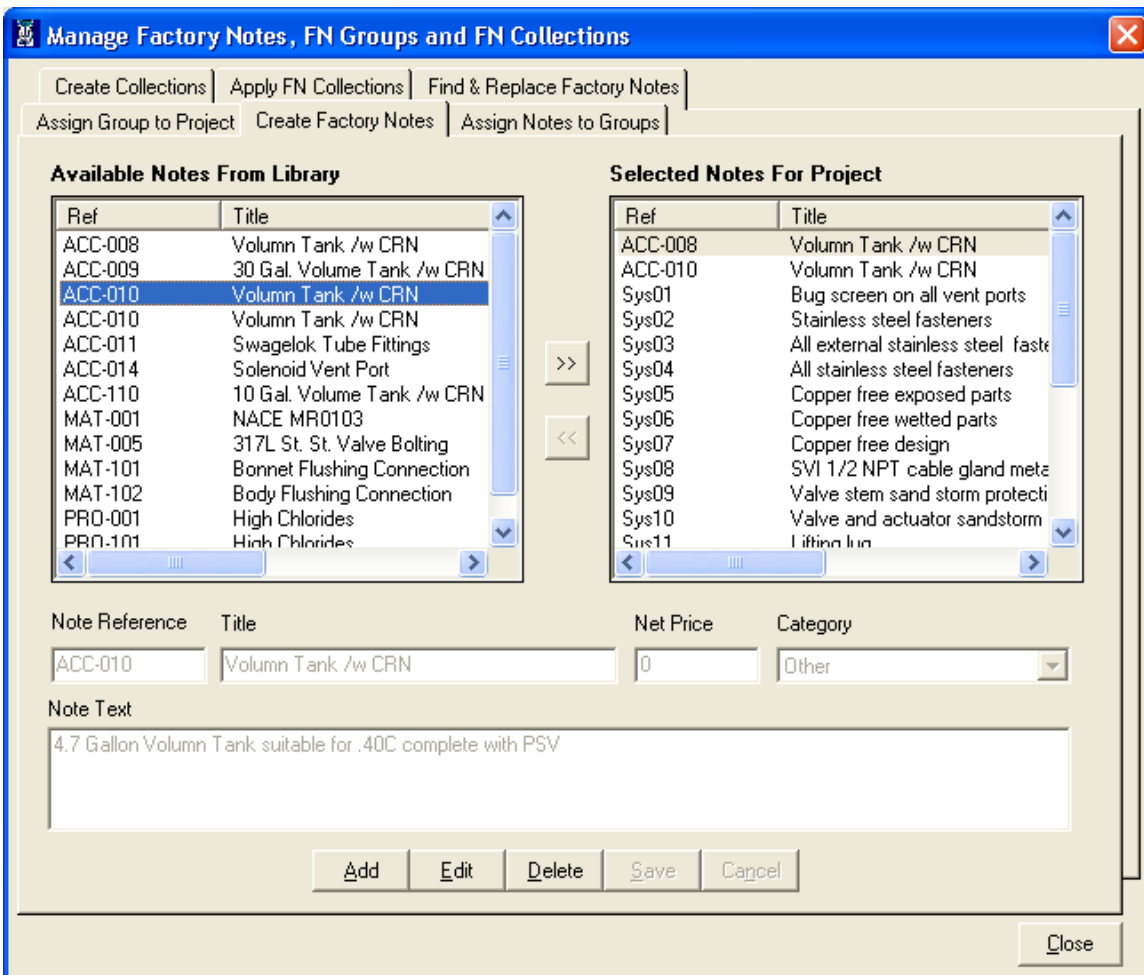


3. Copy FN from Library to Library

To copy Factory Notes from Library to Library, select one or more factory note from the “Available Notes from Library” list. Then right click, the copy menu is appeared on the screen as shown in the following screen.

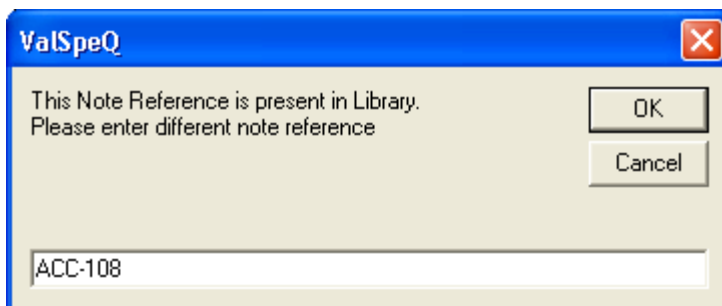
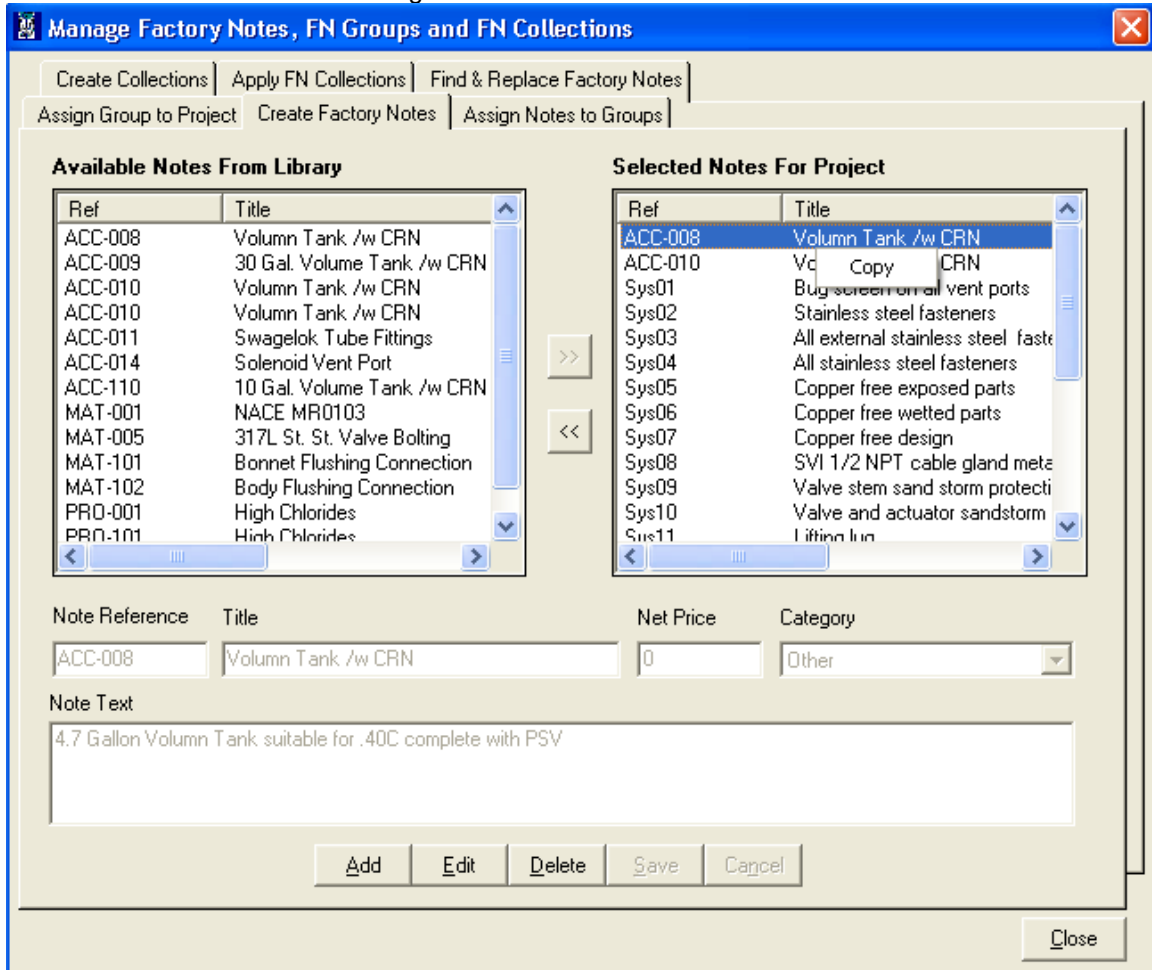


Click on Copy menu, Selected Factory note are copied into library as shown in the following screen.

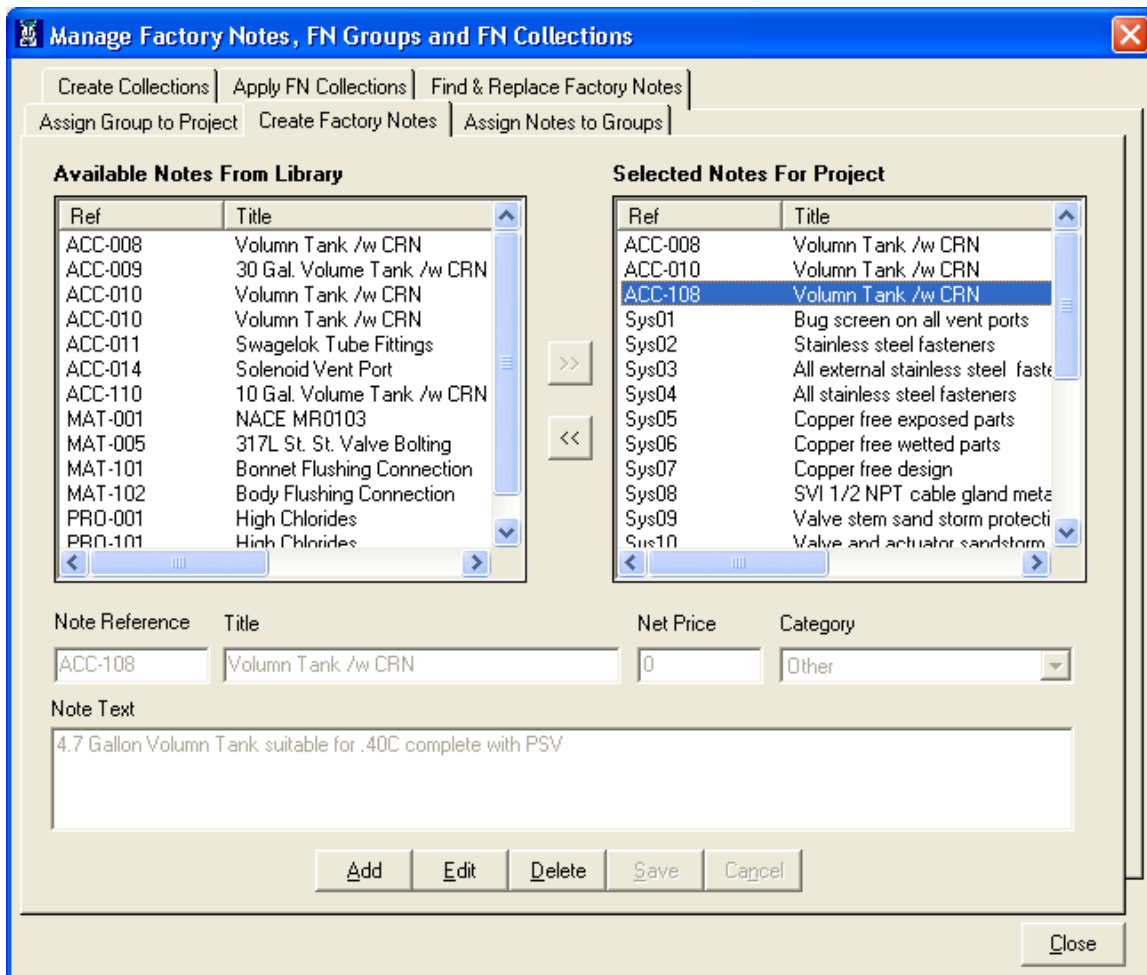


4. Copy FN from Project to Project

To copy Factory Notes from Project to Project, select one or more factory note from the “Selected Notes For Project” list. Then right click, the copy menu is appeared on the screen. Click on the copy menu an input box is displayed on the screen asking to enter another Factory note reference as shown in the following screen.



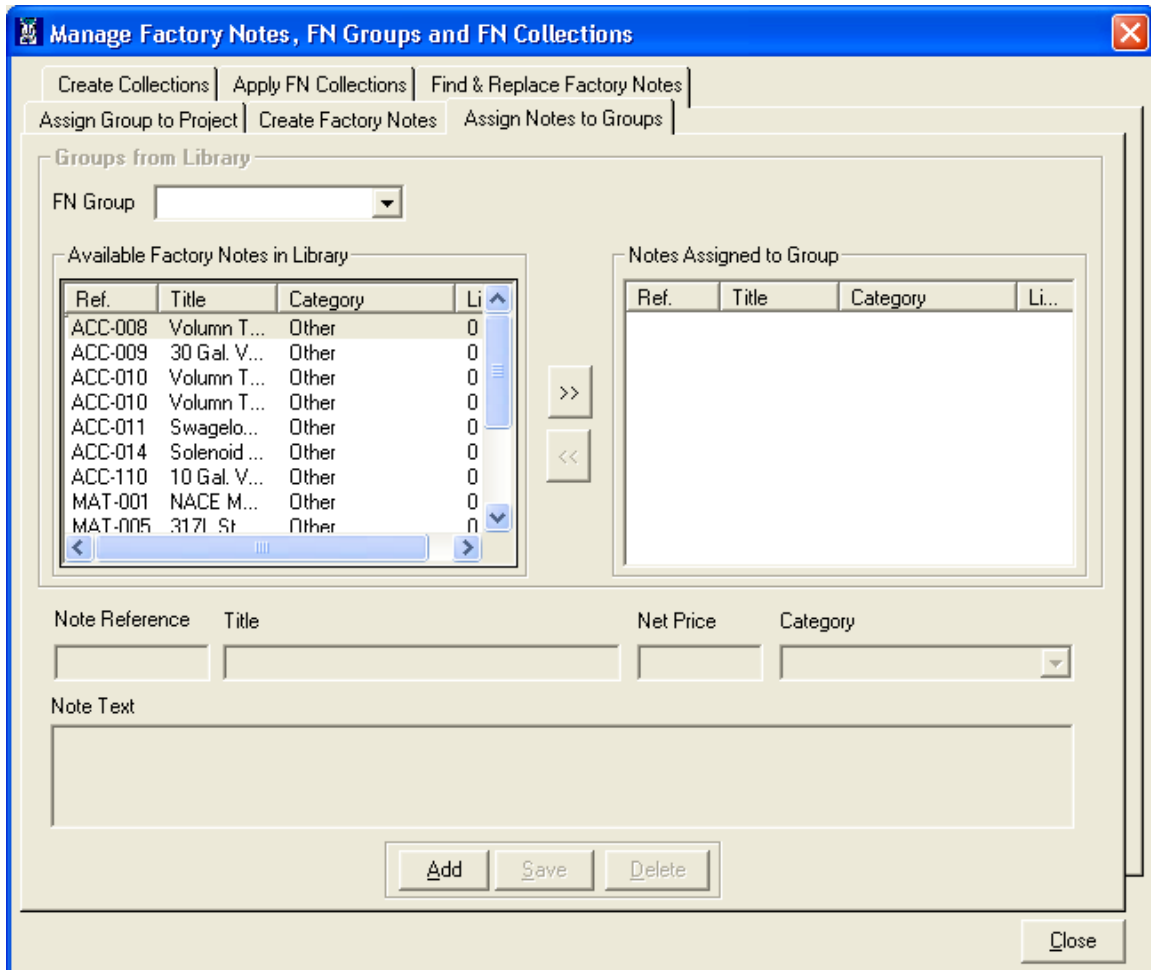
After entering different reference click on OK button. This will copy selected factory note into the Project only, the reference field contains the entered reference. As shown in the following screen.



- **Assign Notes to Group tab**

After creating factory notes in Library, select “Assign Notes to Groups” tab, to create groups for factory notes in Library.

After Clicking on “Assigns Notes to Groups” tab following screen will be displayed.



This screen contains following data elements.

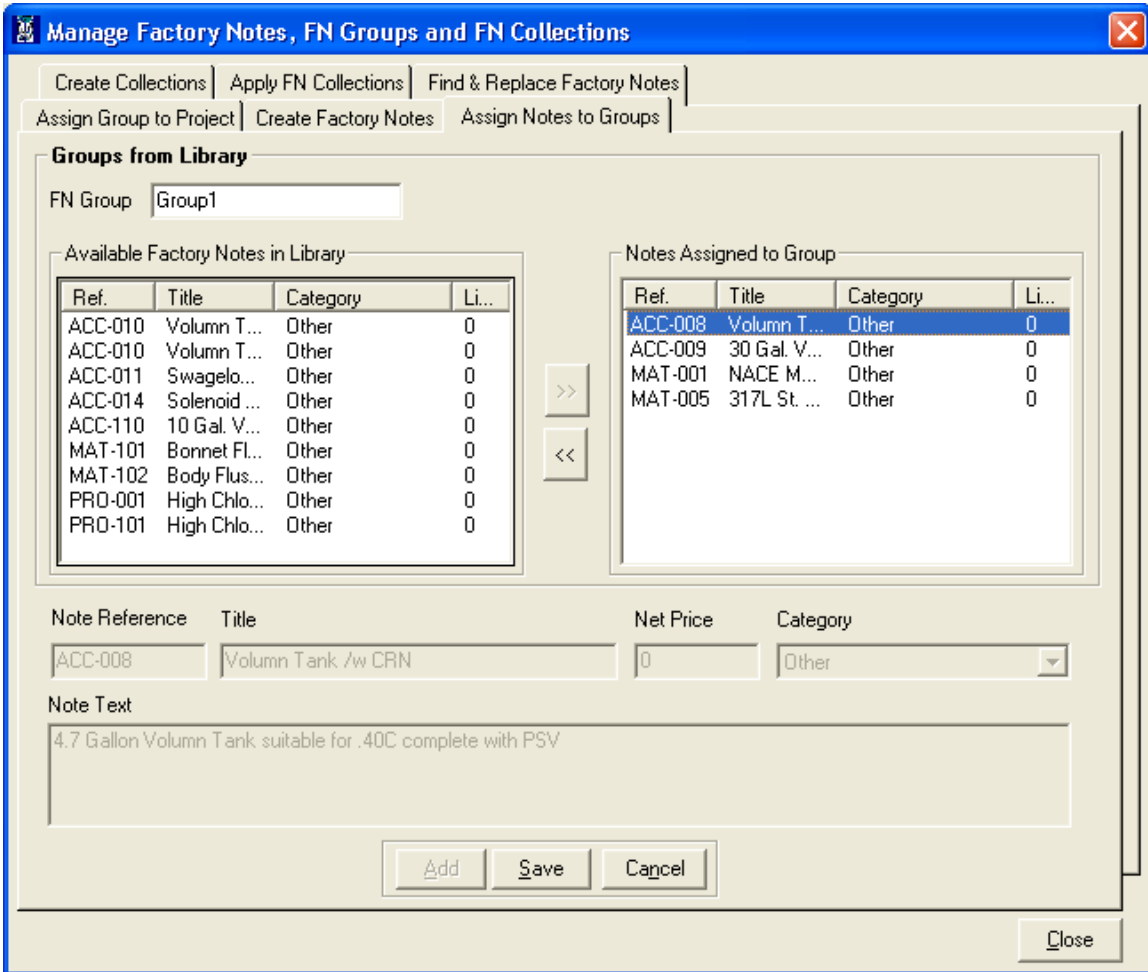
FN Group Combo box – This combo box contains list of all the Group from the Library.

FN Group Text box – This text box allows entering the name of the group which is to be added.

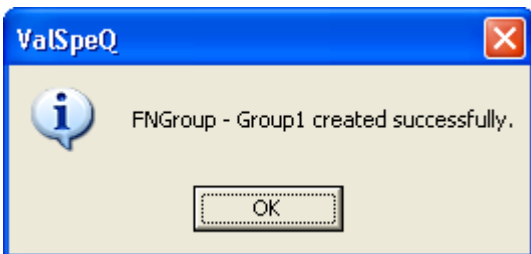
Available Factory notes in library – This list contains the list of factory notes from the Library which are not currently assigned to currently selected group.

Notes Assigned to Group – This list contains the factory notes, which are assigned to currently selected FN Group.

To create a new FN Group, click on **Add** Button, this will display a text box to enter FN Group name. Insert FN Group Name in that Text Box and then Select Factory Notes from “**Available Factory Notes in Library**” List and click on “>>” Button. You can select one or more factory notes from the list. Now the Selected Factory Notes will be inserted into “**Notes Assigned to Group**” List. After selecting Factory notes Screen will look as.



Now click on Save button to save FN Group. After saving a message is displayed as following.



Manage Factory Notes, FN Groups and FN Collections

Create Collections | Apply FN Collections | Find & Replace Factory Notes
 Assign Group to Project | Create Factory Notes | Assign Notes to Groups

Groups from Library

FN Group:

Available Factory Notes in Library

Ref.	Title	Category	Li...
ACC-010	Volumn T...	Other	0
ACC-010	Volumn T...	Other	0
ACC-011	Swagelo...	Other	0
ACC-014	Solenoid ...	Other	0
ACC-110	10 Gal. V...	Other	0
MAT-101	Bonnet FL...	Other	0
MAT-102	Body Flus...	Other	0
PRO-001	High Chlo...	Other	0
PRO-101	High Chlo...	Other	0

>>

<<

Notes Assigned to Group

Ref.	Title	Category	Li...
ACC-008	Volumn T...	Other	0
ACC-009	30 Gal. V...	Other	0
MAT-001	NACE M...	Other	0
MAT-005	317L St. ...	Other	0

Note Reference	Title	Net Price	Category
<input type="text" value="ACC-010"/>	<input type="text" value="Volumn Tank /w CRN"/>	<input type="text" value="0"/>	<input type="text" value="Other"/>

Note Text

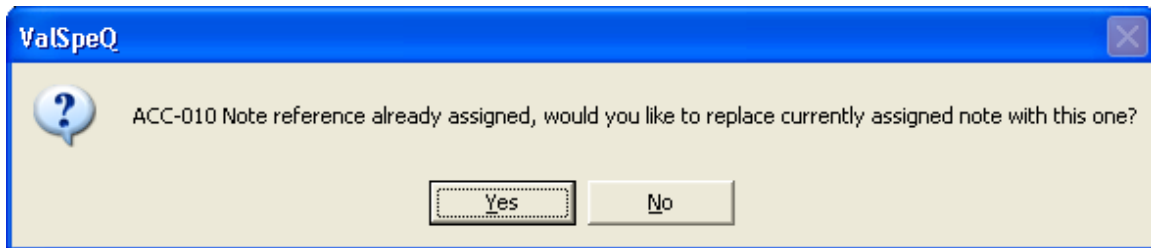
4.7 Gallon Volumn Tank suitable for .40C complete with PSV

Edit FN Group

To edit an existing FN Group select that group in the FN Group combo. After selecting the group , factory notes assigned for that group are listed under the **Notes Assigned to Group** list and available factory notes from the library are listed under the **Available Factory notes in library** list.

To add factory note in the group select the note from the Available Factory Notes in Library list and click on the “>>” button. this will insert the factory note in the Notes Assigned to Group list and removes that list from the Available Factory Notes in Library list.

If the selected factory note is already exist in the Available Factory Notes in Library list then the following confirmation message is displayed.

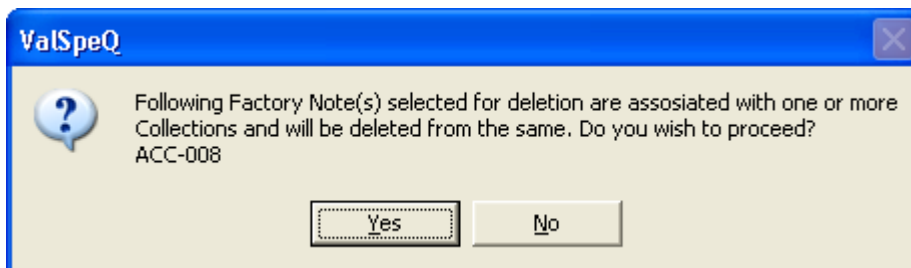


If Yes button is clicked the group note is replaced with the selected Factory note.

To remove Note from the Group select the notes from the Notes Assigned to Group list and click on the “<<” button.

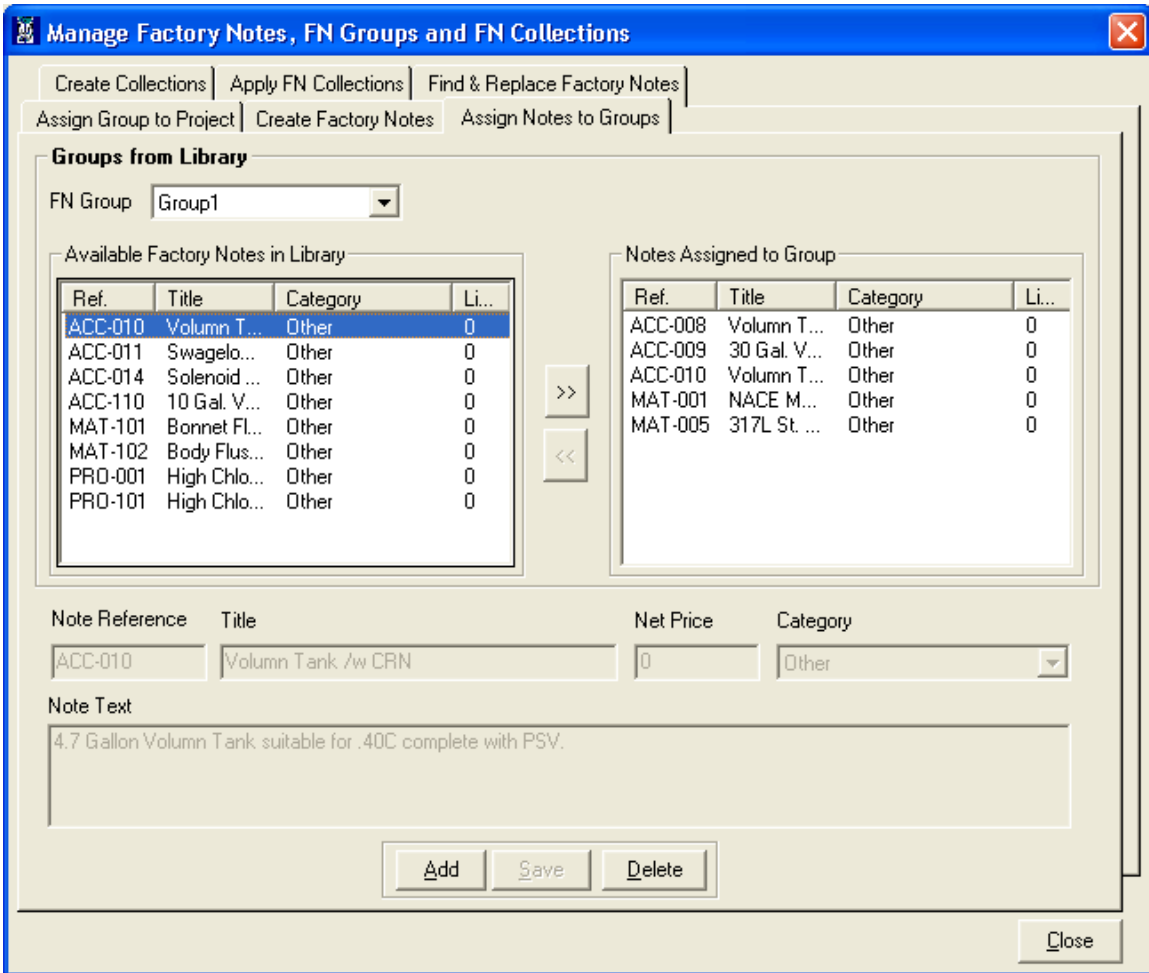
If the selected factory notes are not associated with any FN Collection in Library then that notes are removed from the Notes Assigned to Group list and added in the Available Factory Notes in Library list.

If the selected factory notes are associated with any FN Collection in Library then the following confirmation message is displayed.



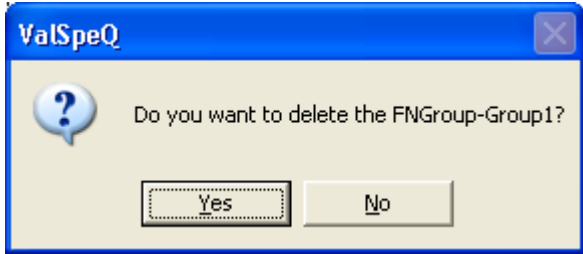
If yes button is clicked then those notes are removed from the Collection first and then removed from the Notes Assigned to Group list and added in the Available Factory Notes in Library list.

After adding or removing Notes from the Notes Assigned to Group list, Save button gets enabled. Click on the save button to save changes made in the Group. After saved successfully Save button gets disabled.



Delete FN Group

To delete a Group from the library select that Group in the FN Group combo and click on the Delete button. Confirmation message box is displayed as shown below.

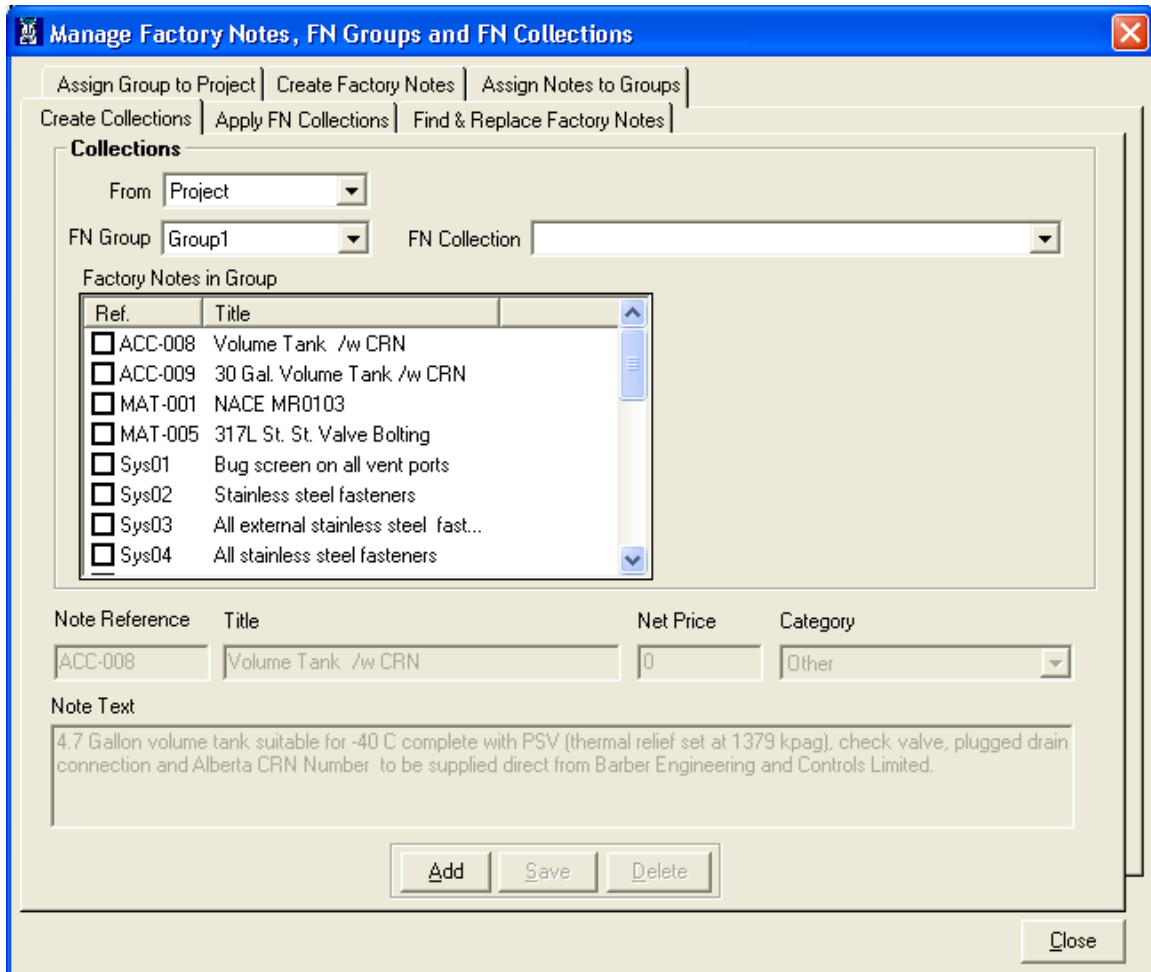


If Yes button is clicked the selected FN Group is deleted from the Library. And if No button is clicked no FN Group is deleted.

- **Create Collections tab**

After creating a FN Group, FN Collections can be created for that FN Group. To create FN Collection click on “**Create Collections**” Tab.

The screen will look like:



This screen contains:

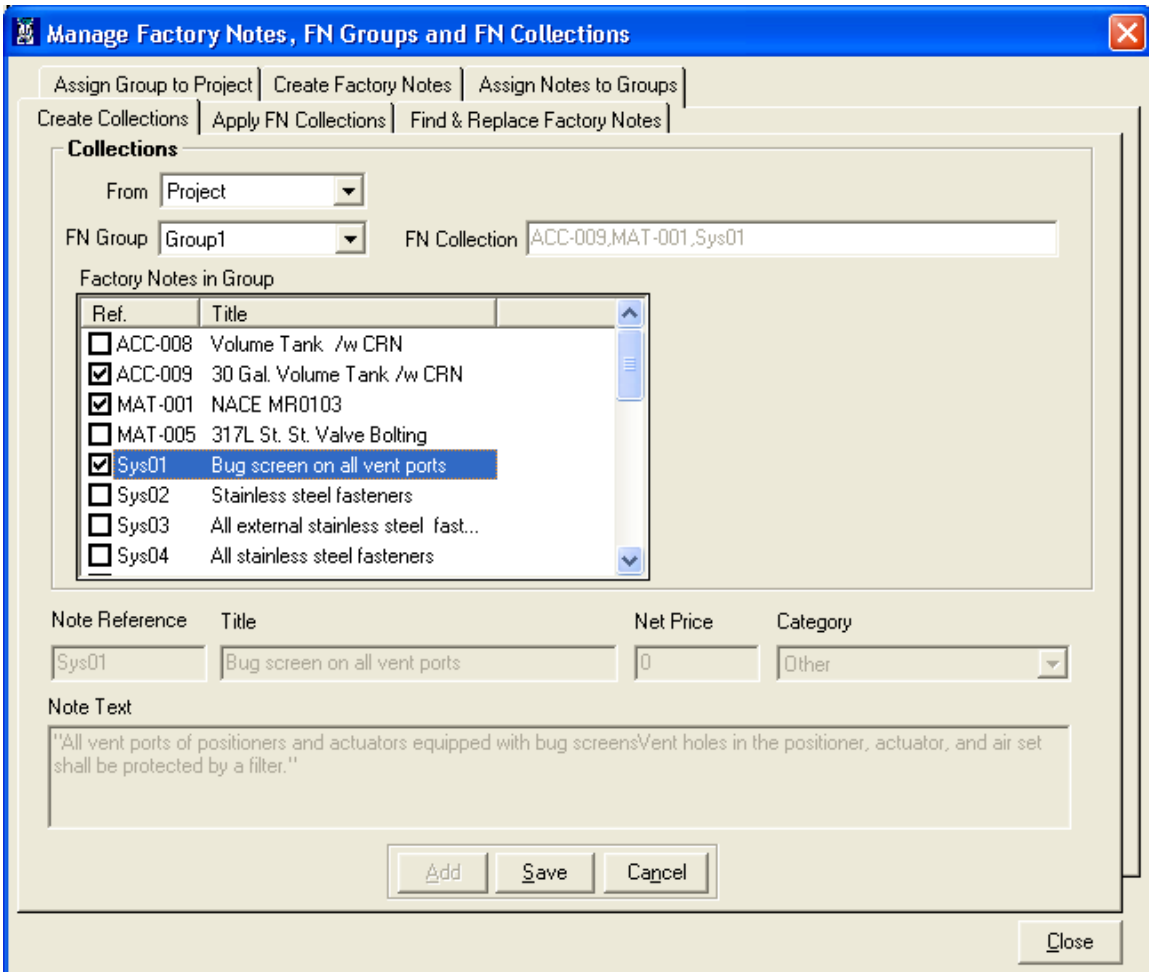
From combo box – This combo box contains options to list the Collections and factory notes from the Project or from Library.

FN Group combo box – This combo box contains list of all the groups from the Library.

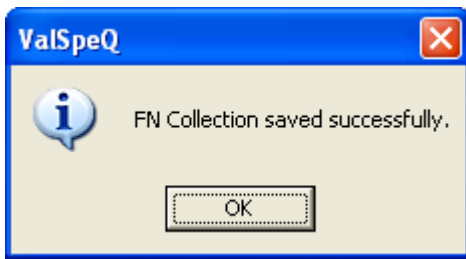
FN Collection combo box – This combo box contains list of all the Collection from the selected FN Group.

Factory Notes in Group list – This list contains all the list of factory notes from the group along with check box, Ref (reference) and Title. if the factory note is assigned to current collection the check box in front of that note is checked else it is unchecked.

To create a FN Collection in the project select the Project option from the From combo box or to create a FN Collection in the Library select the Library option from the From combo box. Then click on **Add** Button. Select the FN Group for which you want to create FN Collection. Select Factory Notes from “**Factory notes in Group**” List to be inserted in the FN Collection. After selecting each factory note, FN Collection text box display the comma separated list of selected factory notes is displayed in FN Collection Text box.



Now click on save button to save FN Collection. A successful save message is displayed as following.



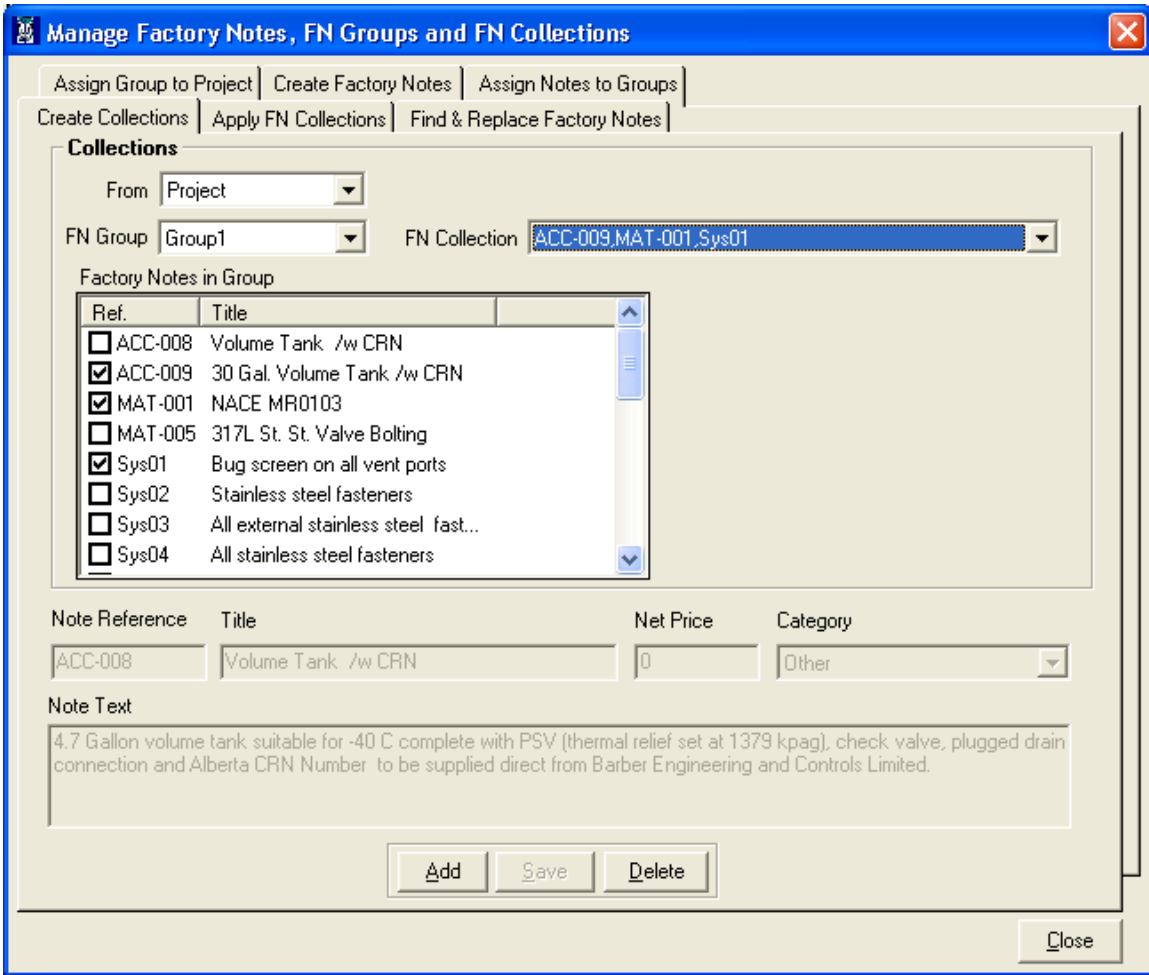
Edit FN Collection

To edit a collection from the Project select the Project option from the From combo box and to edit a collection from the Library select the Library option from the From combo box. After selecting the option, FN Group combo box is filled with the available groups according to selections.

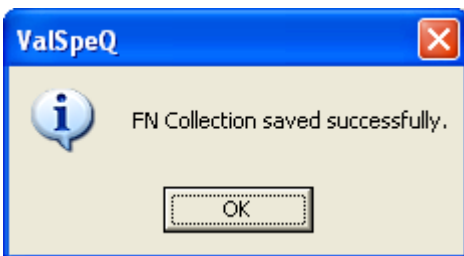
To edit a FN Collection first select the group for which that FN Collection is created. After selecting Group select the Collection from the FN Collection combo.

To add a note in the collection check that note from the Factory Notes in Group list. To remove a note from the collection, uncheck that note from the Factory Notes in Group list.

After changing the collection notes, 'Save' button gets enabled and caption of Delete buttons is changed to Cancel. As shown in the following screen.



To save changes made in the collection click on the Save button. After successful save, following confirmation message is get displayed on the screen.



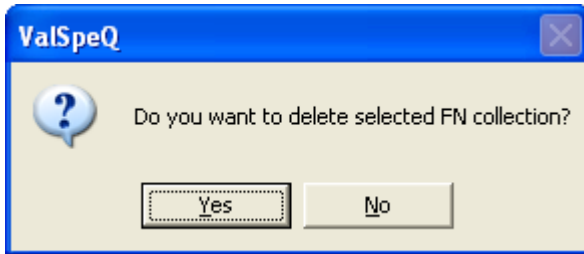
To cancel changes made in that collection click on the Cancel button.

Delete FN Collection

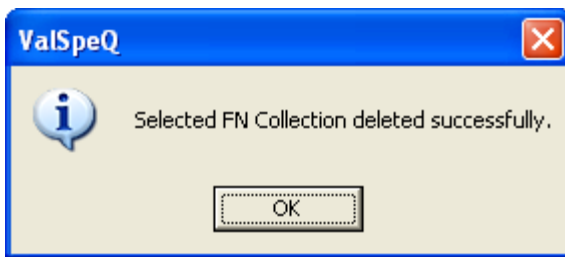
To delete FN Collection from the Project select Project option from the From combo box and to delete FN collection from the Library select the Library option from the From combo box.

To delete FN Collection from the group, first select that group in the FN Group combo box. After selecting Group select the Collection from the FN Collection combo box.

After selecting the FN Collection click on the Delete button. This will display a confirmation message as shown in the following screen.

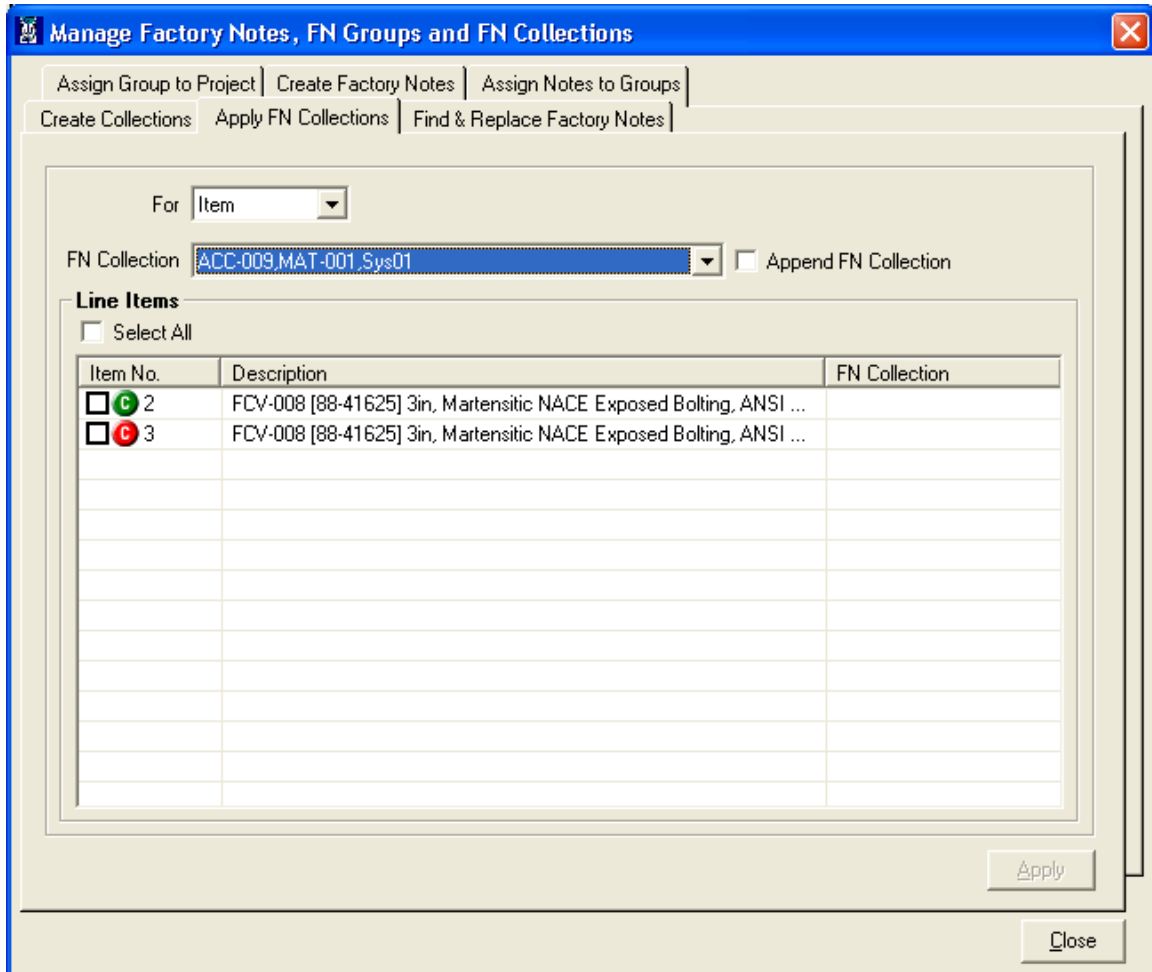


Click on the Yes button to delete the selected FN Collection. After successful deletion of the FN Collection following message box is displayed.



- **Apply FN Collections**

To Apply FN Collections to Line Items/Templates select the Apply FN Collection tab. After Clicking on “Apply FN Collections” tab following screen will be displayed.



This screen contains:

For combo box – This combo box contains options item and template. Select item to apply FN Collection to items. And select template option to apply FN Collection to templates.

FN Collection combo box – This Combo box list all the FN Collections associated with the currently applied FN Group. These FN collection contains a comma separated References in the collection.

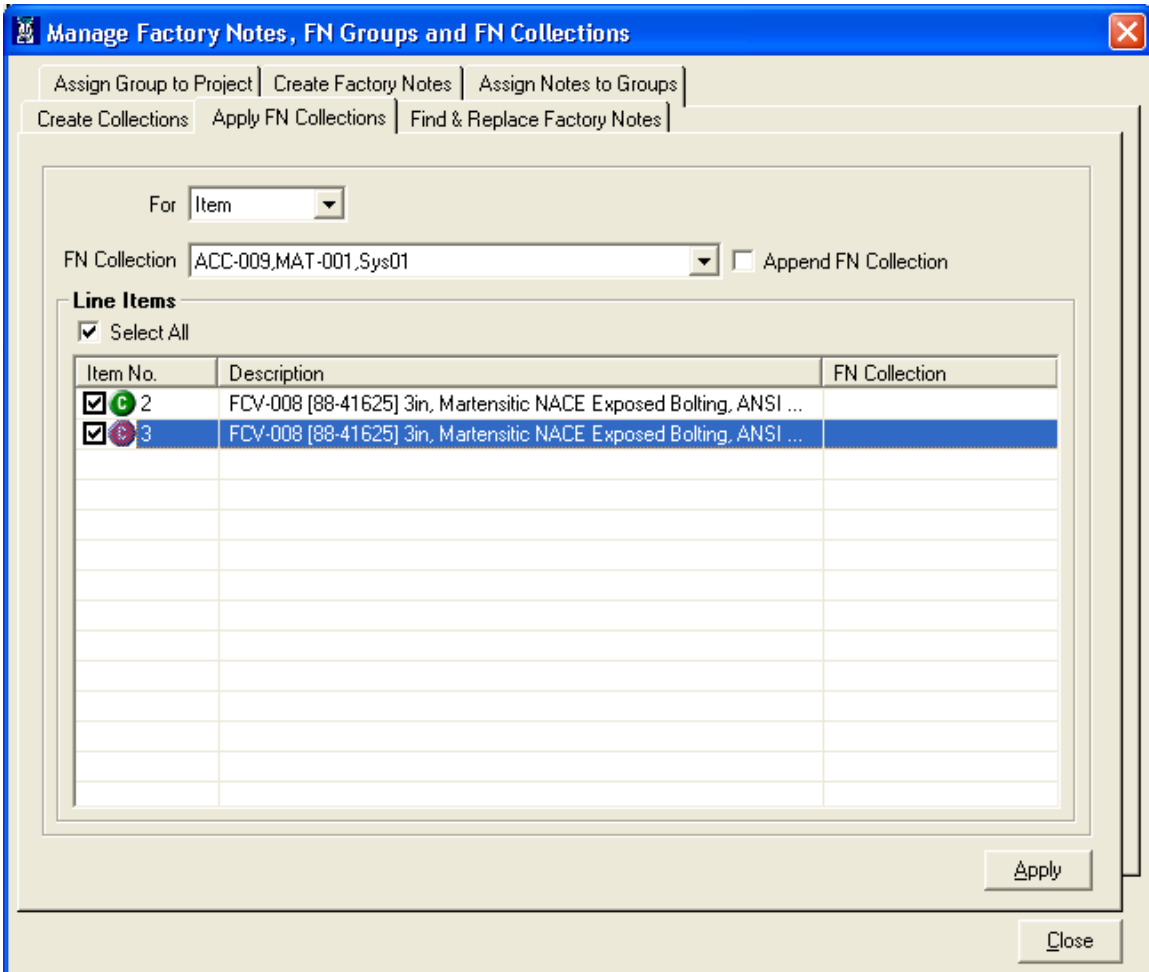
Select All check box – This check box is used to select or deselect all items or templates listed under the list view.

Line Items/Templates List View – This list view lists all the items or templates from the current project along with check box, Line No or Template No., Description and applied FN Collection.

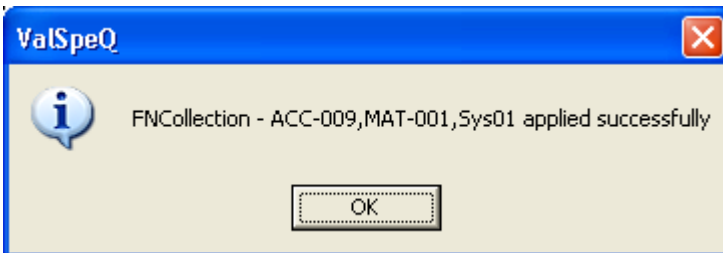
1. Apply FN Collection to Item

To apply FN Collection to items select the item option from the For combo box. This will load all line items from the current project to the Line Items list view, which are not freeze. Select the FN Collection from the FN Collection combo box.

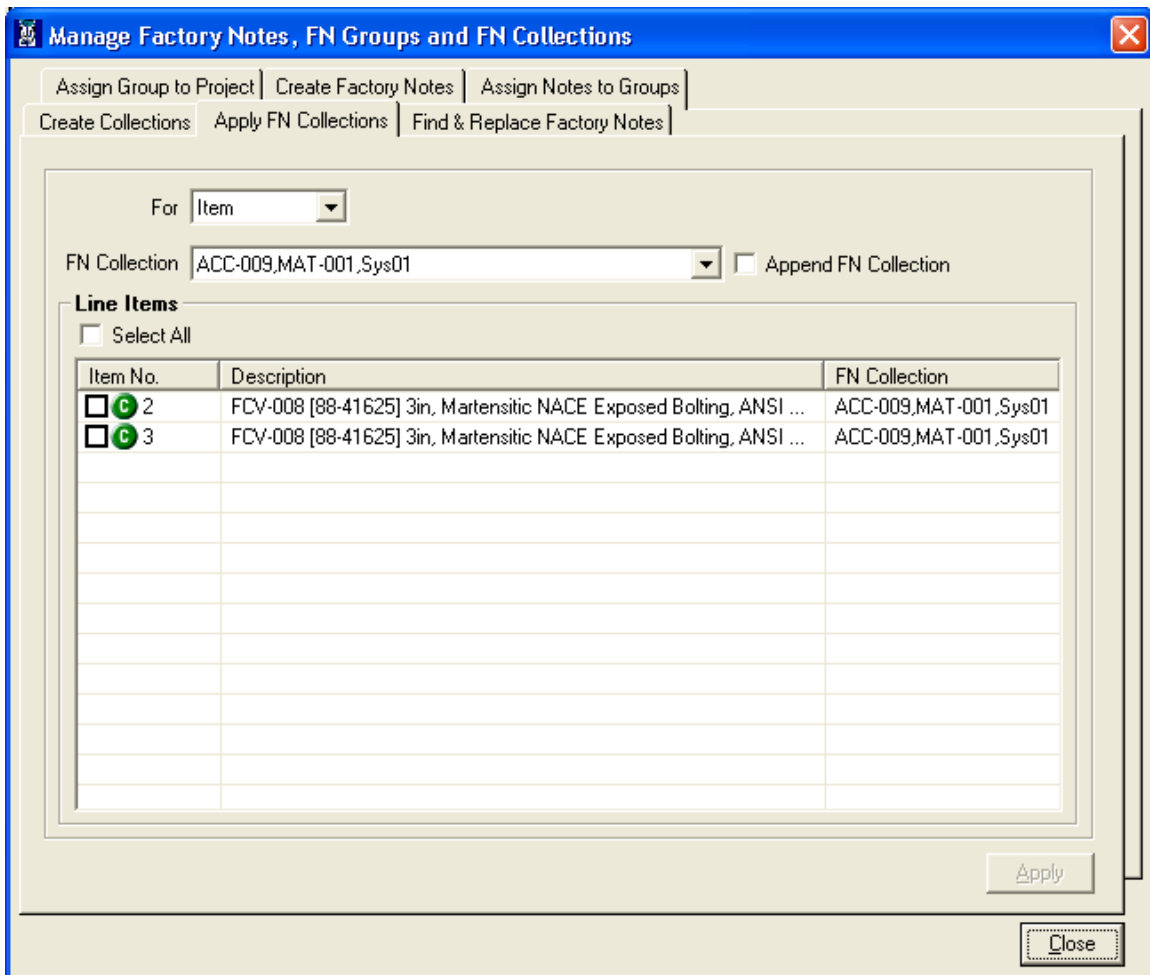
Then select the line items from the list. For selection check the check box in front of that line item. To select all the line items from the list check the Select All check box. After selection of line items, Apply button gets enabled. As shown in following screen.



Click on **Apply** button. this will apply the selected FN Collection to the selected line items and message box is displayed as shown below.

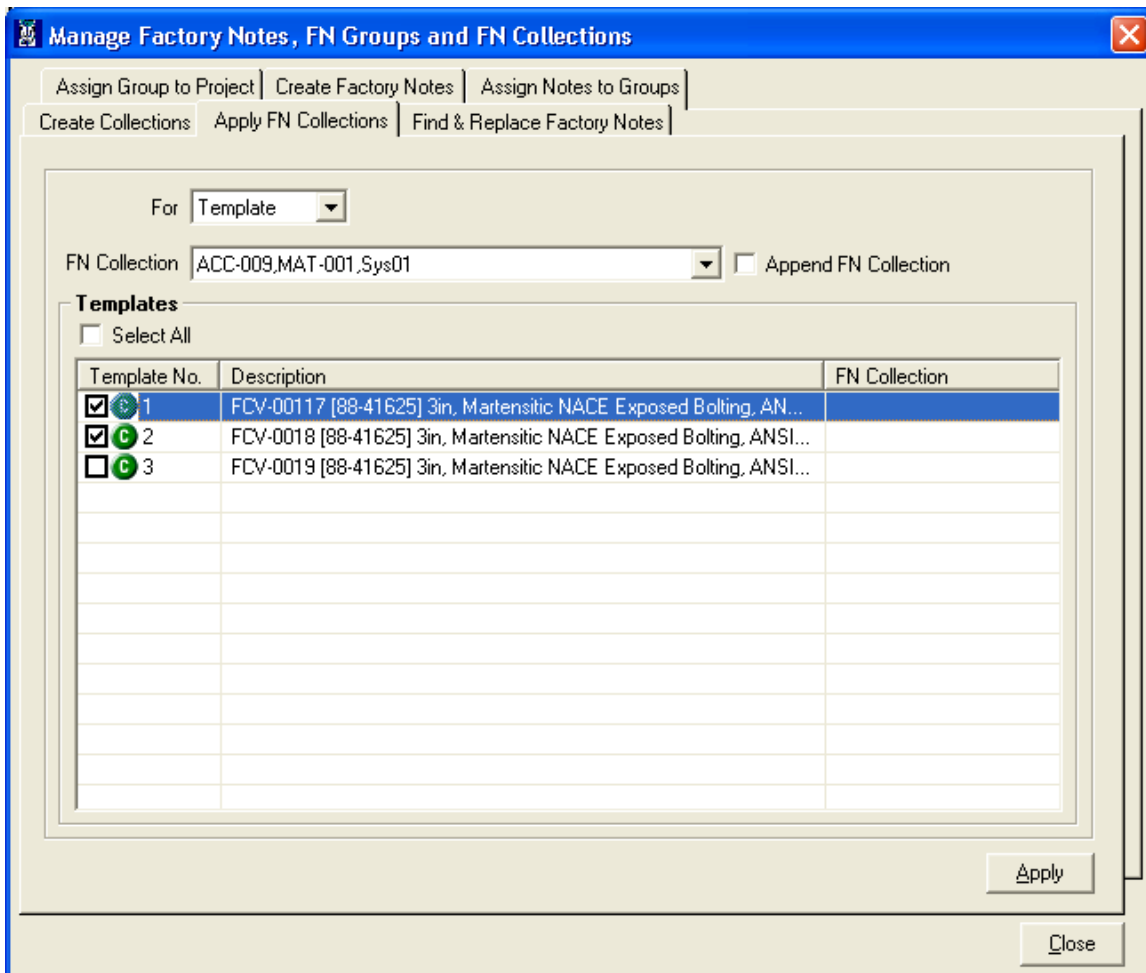


After clicking **OK** button, the applied FN Collections can be seen in the list view under the FN Collection column and Apply button gets disabled, as shown in the following screen.

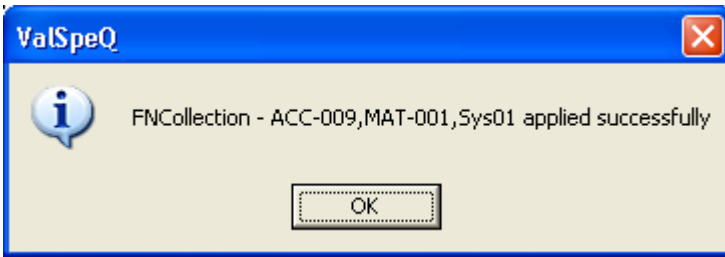


After applying FN Collection to line items, the pricing of those line items is recalculated.

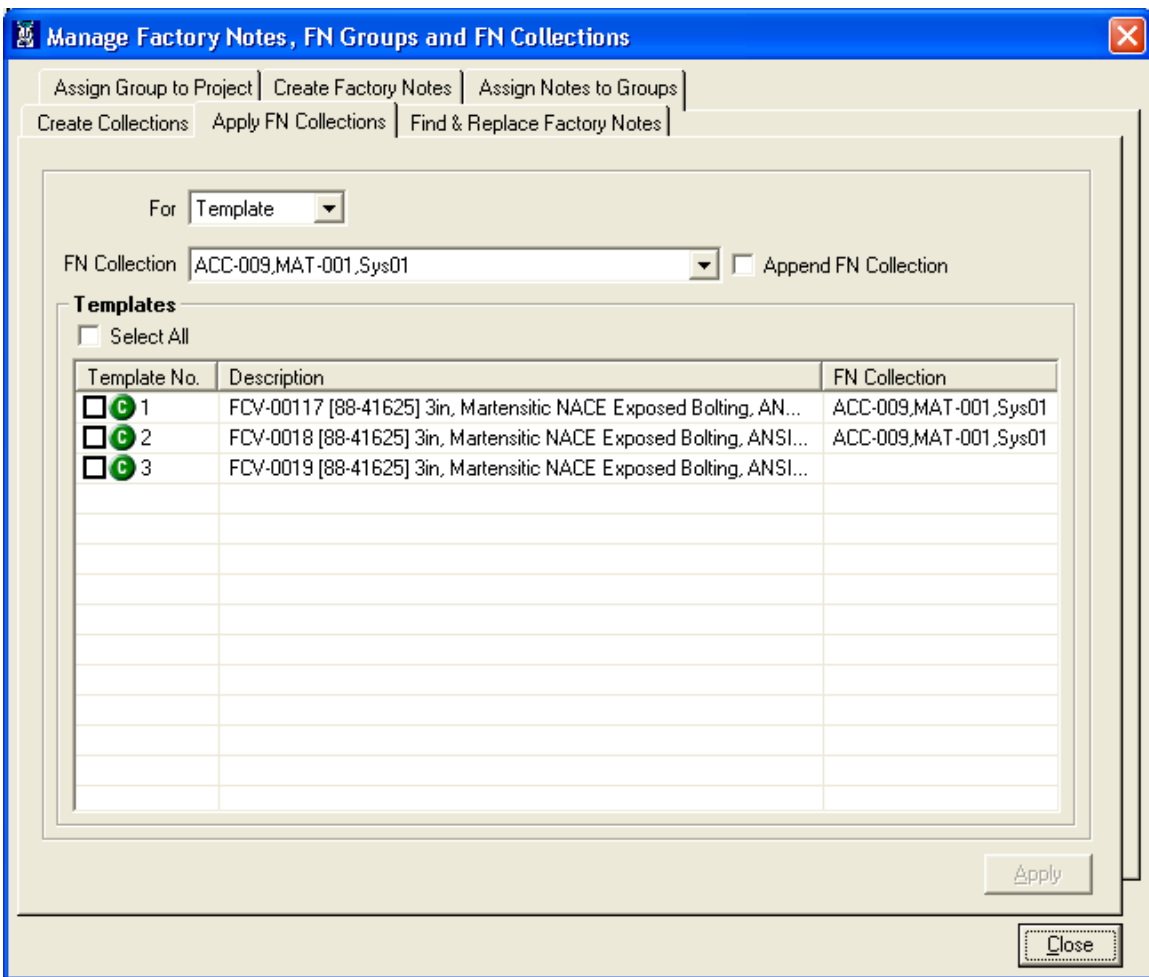
Then select the FN Collection and Templates, this will enable the Apply button as shown in following screen.



Click on **Apply** button. This will apply the selected FN Collection to the selected templates and message box is displayed as shown below.

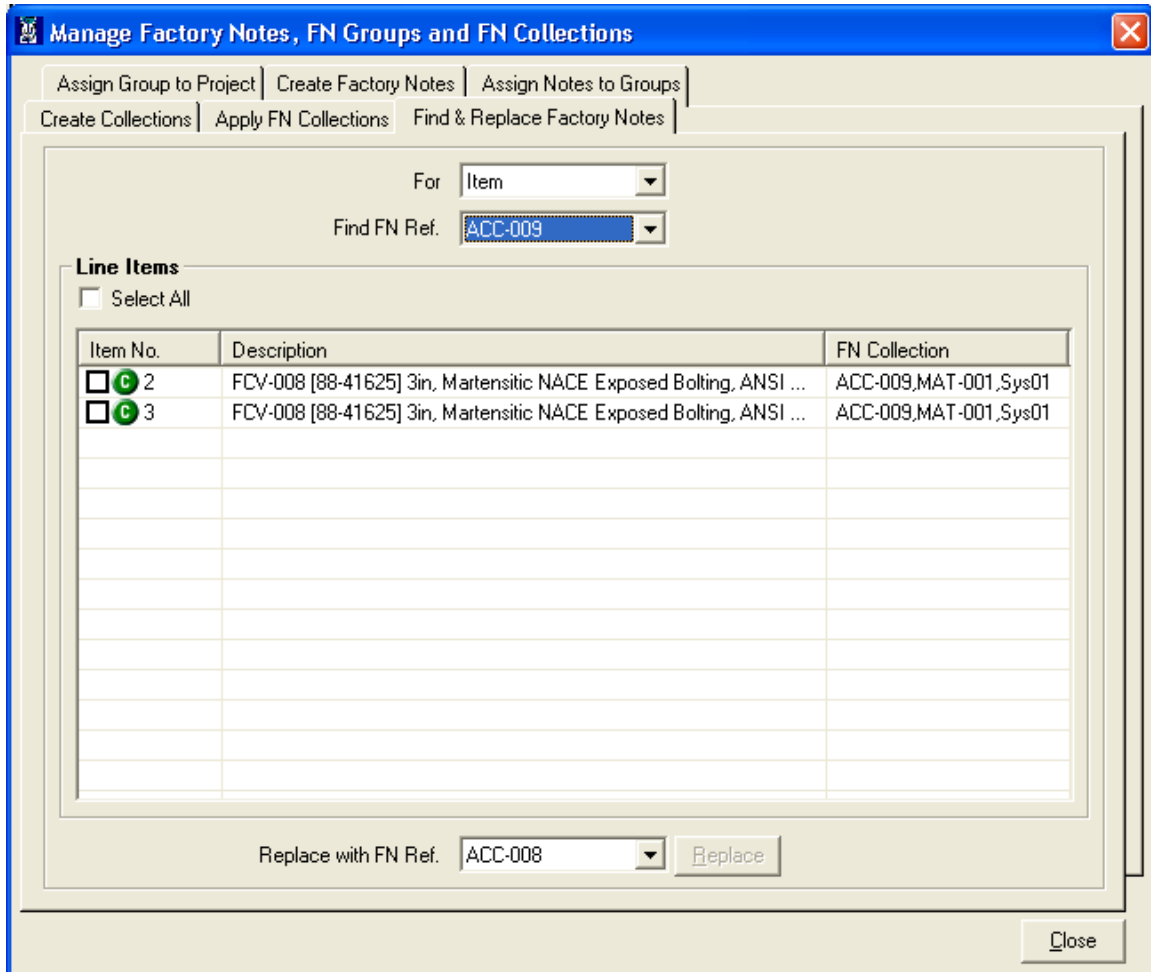


After clicking **OK** button, the applied FN Collections can be seen in the list view under the FN Collection column and Apply button gets disabled, as shown in the following screen.



- **Find & Replace Factory Notes Tab**

To Find and Replace a particular Factory Note from applied FN Collection select the **Find & Replace Factory Notes** tab. Find & replace Screen is displayed as shown in following screen.



This screen contains:

For combo box – This combo box contains options item and template. Select item to Find & Replace Factory Note in items. And select template option to Find & Replace Factory Note in templates.

Find FN Ref combo box – This Combo box list the Factory note references, which are currently applied to line items or templates.

Select All check box – This check box is used to select or deselect all the line items or templates listed under the list view.

Line Items/Templates List View – This list view lists all the items or templates from the current project along with check box, Line No or Template No., Description and applied FN Collection, which contains the currently selected reference.

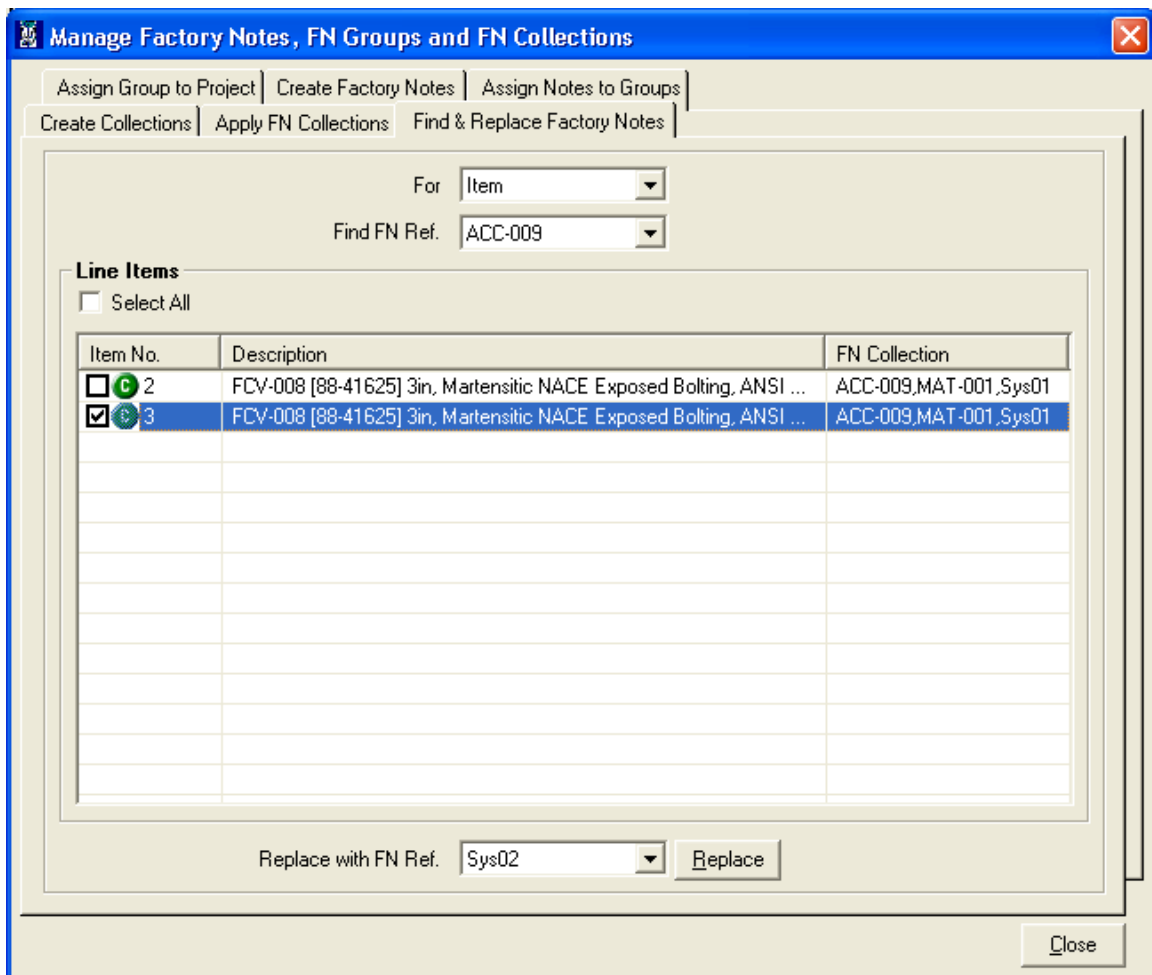
Replace with FN Ref. combo box – This Combo box list of all the Factory note references available in the current project. Additional option Nothing is available to replace selected reference with nothing.

1. Find & Replace Factory note for Items

To Find a particular Factory note in items select item option from the For combo box.

To Find Line Items that contains a specific Factory Note Reference, Select that Reference in the Find FN Ref. combo box and then click on the **Find** button. After clicking on Find button all line items that has selected factory note applied are listed under the Line items list.

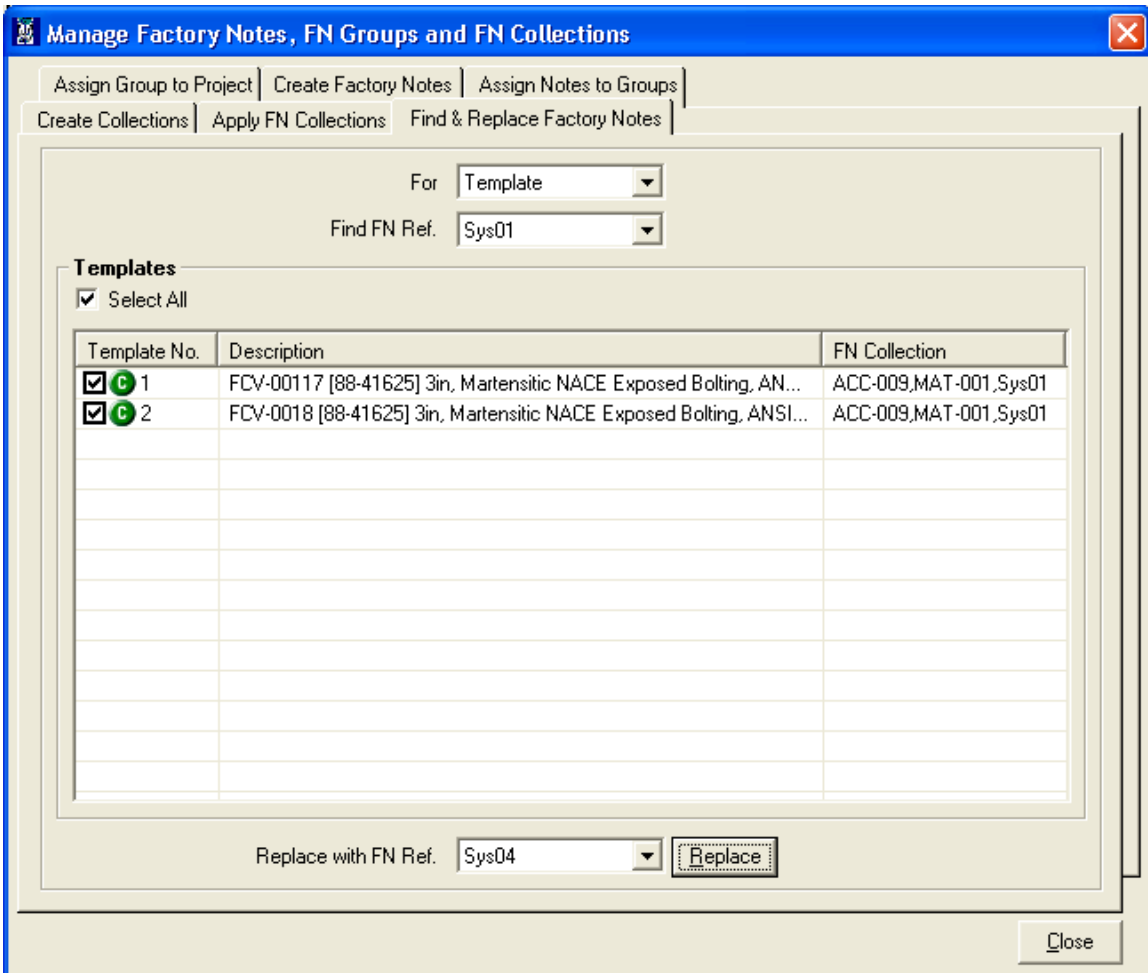
Then Select the another Note reference into the Replace with FN Ref. combo box and select the line items for which notes are to be replaced. After the selection of line items, Replace button gets enabled as shown in the following screen.



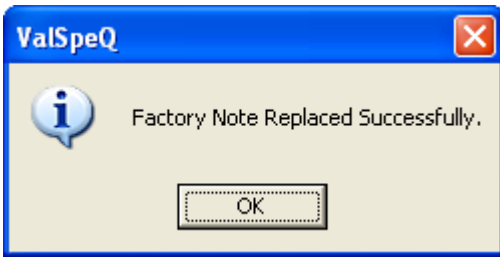
Then click on the Replace button. This will replace the find reference with the replace reference and message box is displayed as shown below.

2. Find & Replace Factory note for Templates

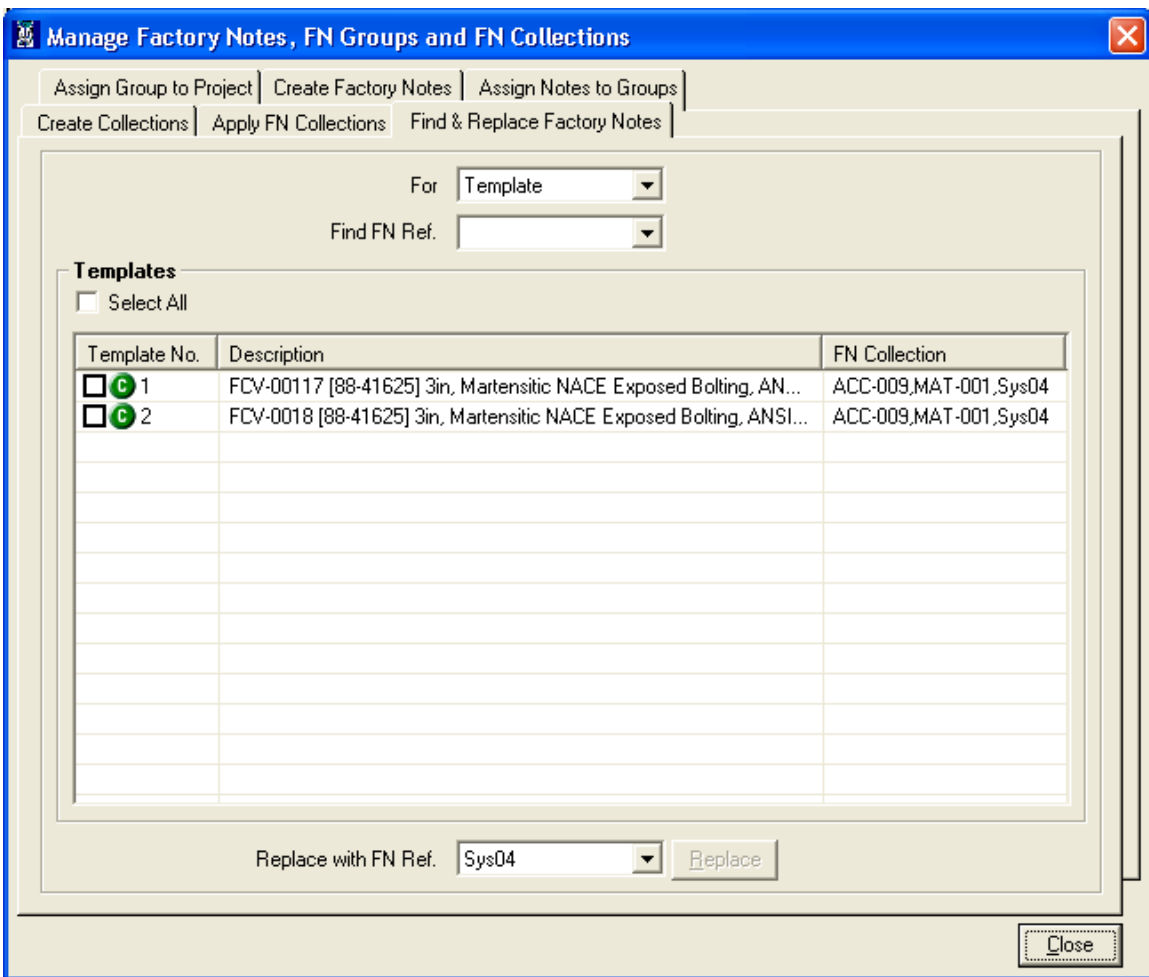
To Find a particular Factory note in templates select Template option from the For combo box. To Find templates that contains a specific Factory Note Reference, Select that Reference in the Find FN Ref. combo box and then click on the **Find** button. After clicking on Find button all Templates that has selected factory note applied are listed under the Templates list. Then Select the another Note reference into the Replace with FN Ref. combo box and select the Templates for which notes are replaced. After the selection of line items, Replace buttons are enabled as shown in the following screen.



Then click on the Replace button. This will replace the find reference with the replace reference and message box is displayed as shown below.



After clicking OK button, the list displays the updated FN Collections of Templates as shown below.

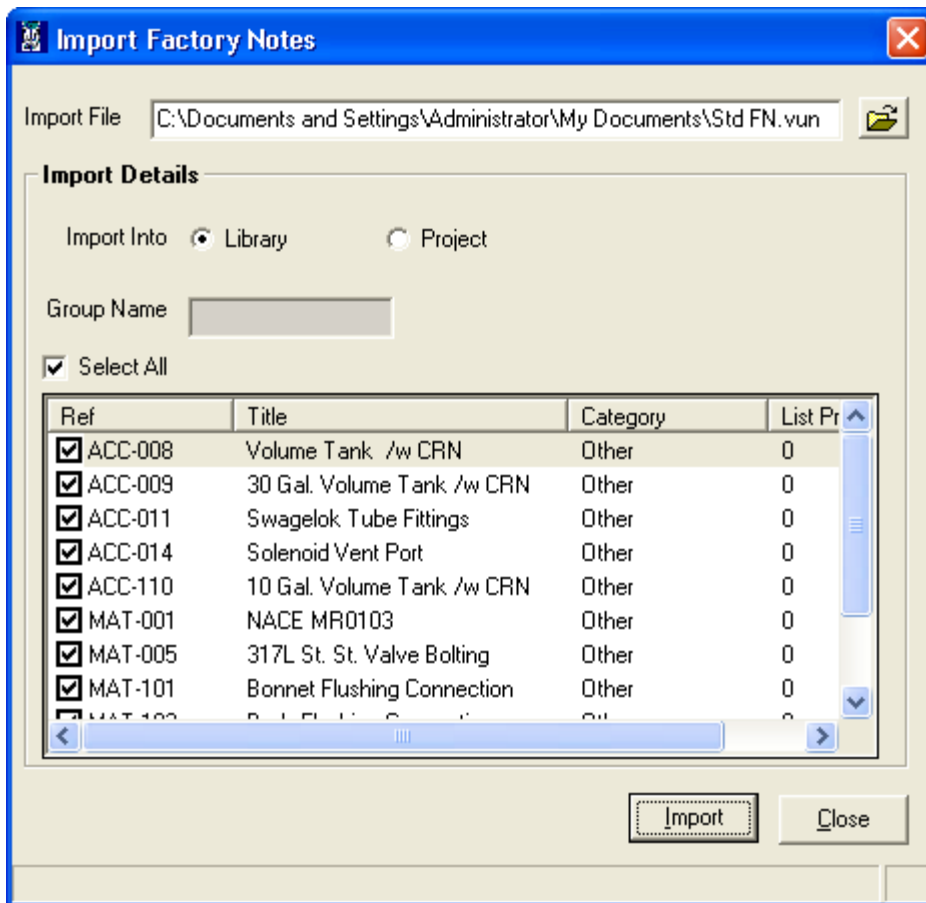


To remove the factory note reference from the applied FN Collections select the Nothing option in the Replace with FN ref combo box.

Import Factory Notes

To invoke Import Factory Notes, select **Settings -> Factory Notes Library->Import Factory Notes** option.

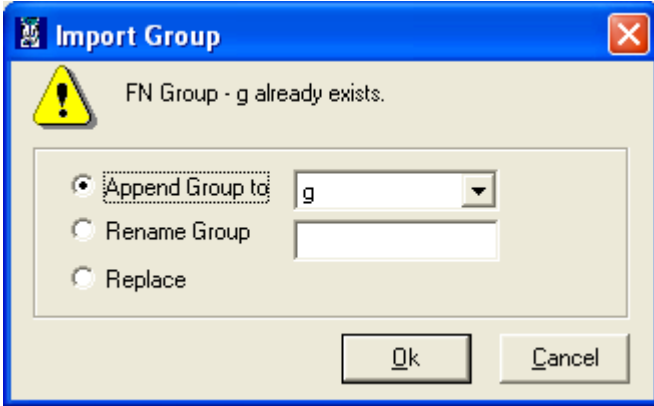
After clicking on Import Factory Notes option, the following screen will be displayed.



User can select an already exported .vun file using the open folder icon.
The factory notes/group in the exported file can be imported either in the library or in the project.
If the file contains group then the group name will be displayed in the Group Name text box.

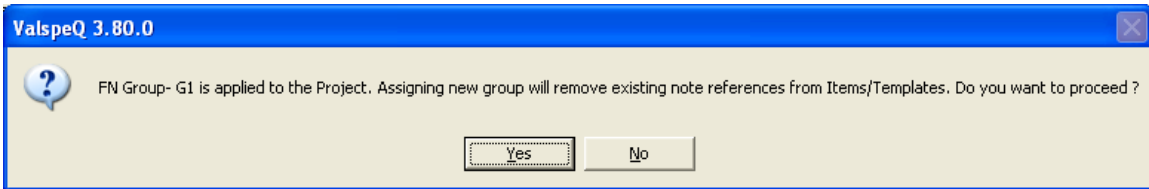
If group is to be imported then the factory notes in the group cannot be deselected.
If factory notes are to be imported then the factory notes can be selected or deselected.

If the group with the same name exists in the Library then after clicking on Import button the following window will be displayed.



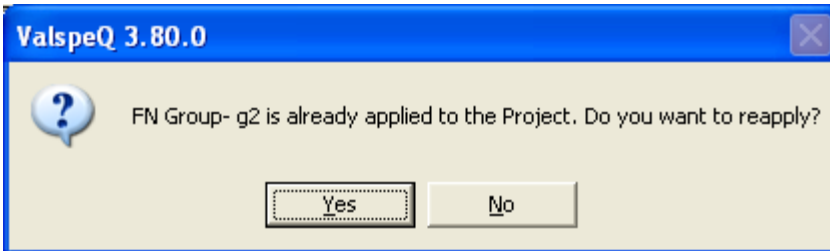
User can Append the group to existing group or Rename the group with different name or Replace the existing group with the new group.

If Project contains a group assigned to it then while importing the group with different name into Project the follow message will be displayed.



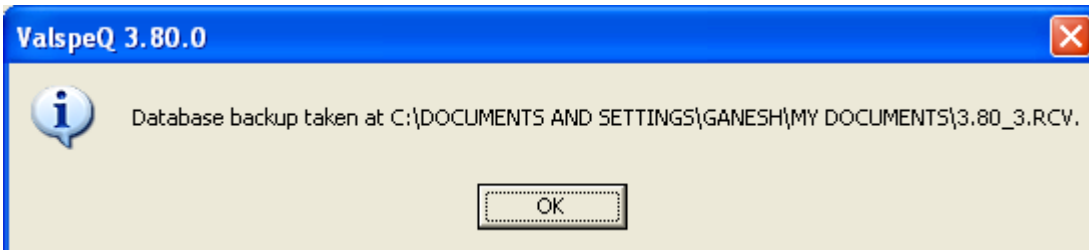
Click on Yes button will remove the existing group and clicking No button will cancel the process.

If Project contains a group which has the same name as the group being imported then the following message will be displayed.

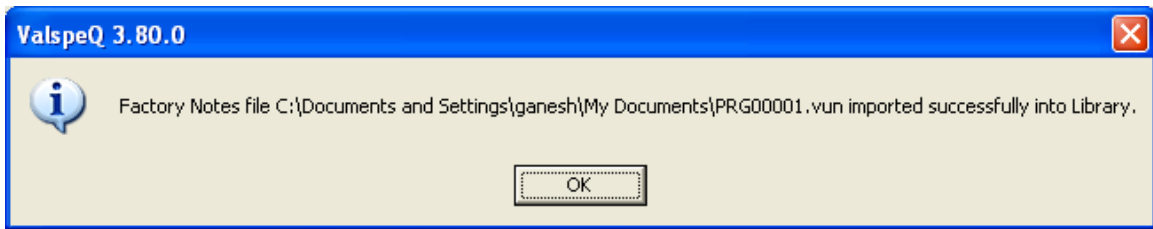


Clicking on Yes button will reapply the group and clicking on the No button will stop the process.

After clicking on Ok & Yes button of the above three windows the backup of the current project is taken in User's personal folder and the following message is displayed.



When the Import Factory Notes is done successfully the following message is displayed.

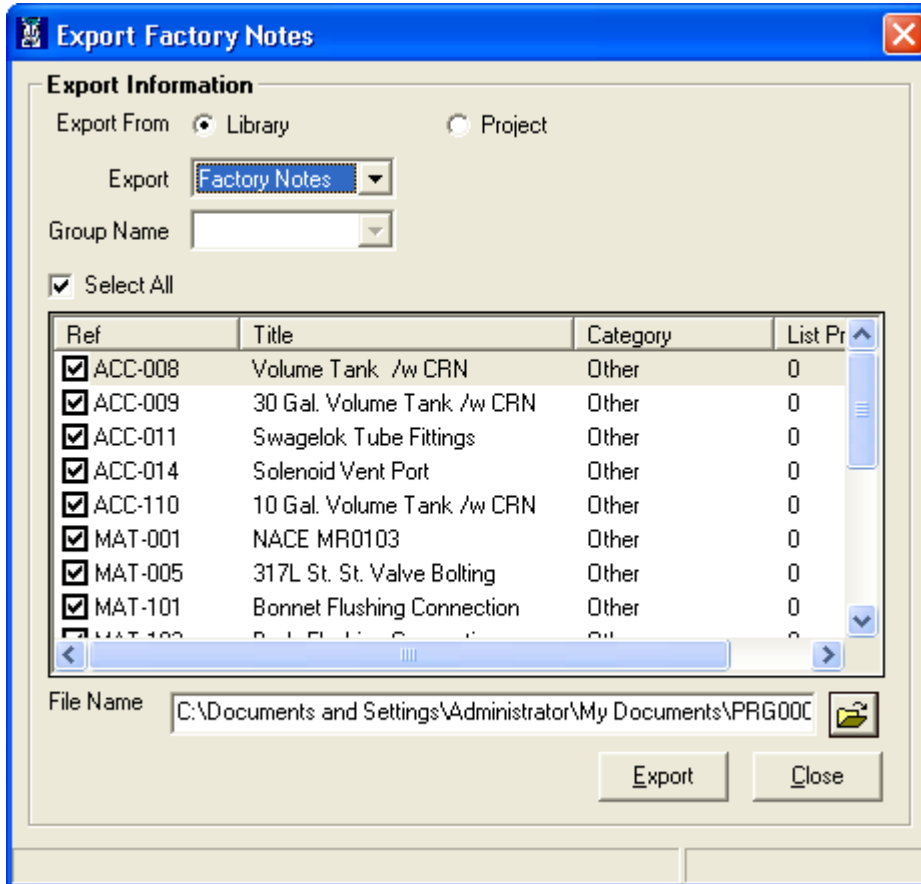


The Import Factory Notes window can be closed using the Close button or **ALT + C** key.

Export Factory Notes

To invoke Export Factory Notes, select **Settings -> Factory Notes Library->Export Factory Notes** option.

After clicking on Export Factory Notes option, following screen will be displayed.



User can export the factory notes/group either from Library or Project by selecting the Library or Project radio button respectively.

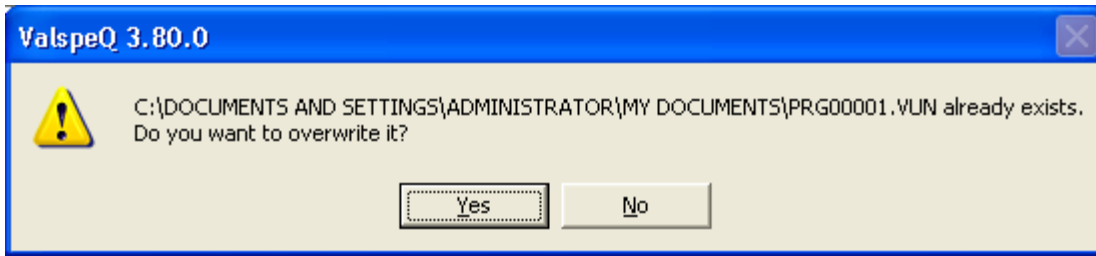
The option for factory notes or group is available in the Export combo box.

When Group option is selected the available groups are displayed in the Group Name combo box and all the factory notes in that group are displayed in the list view. The check box before the factory notes is disabled.

When factory notes option is selected all the factory notes in the project are displayed in the list view. The factory notes can be selected or deselected.

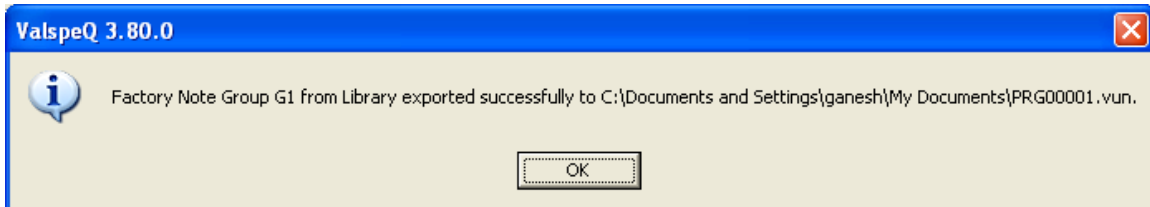
By default the export file path will be personal folder of the current user (Generally My Documents folder) and the file name will be PRG00001.vun. However user can change the default path and file name.

If PRG00001.vun already exists on the same path then a following message will be displayed after clicking on Export button.



Click on Yes button will overwrite the existing file and clicking on No button will close the message box.

After the file is exported successfully the following message will be displayed.



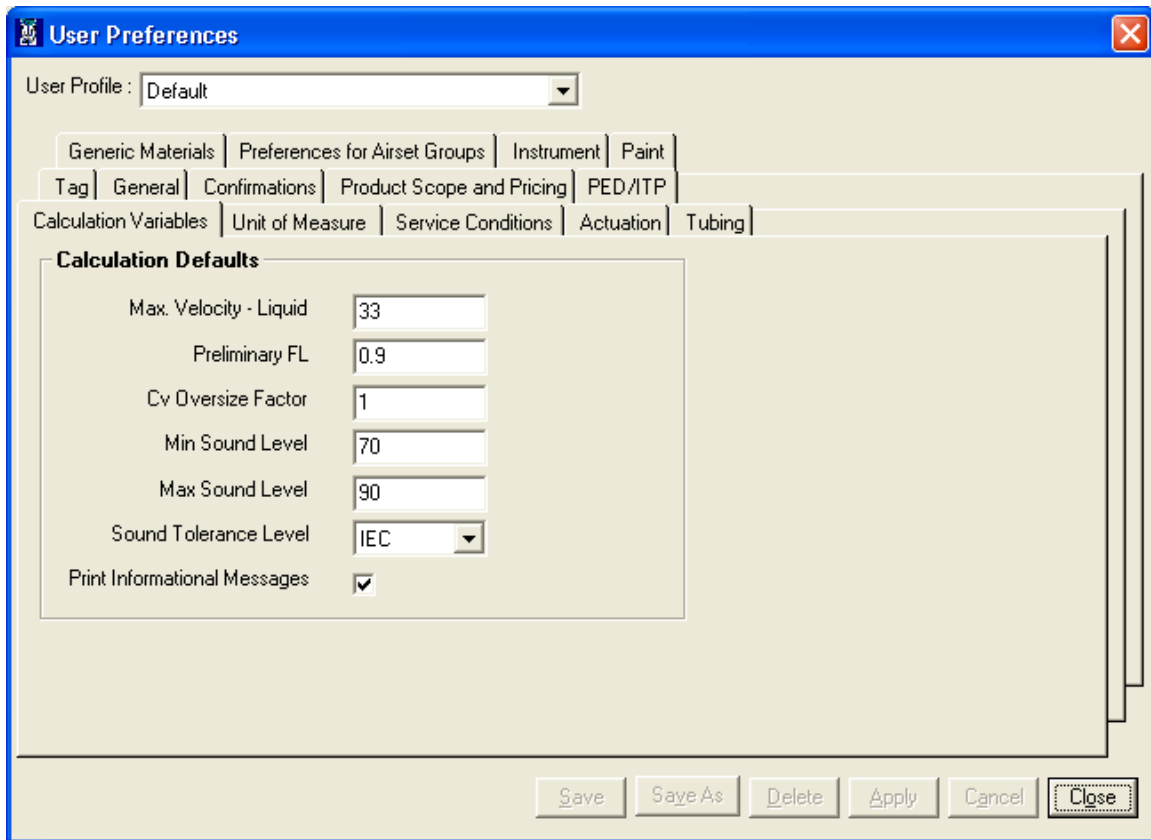
The Export Factory Notes window can be closed using shortcut key **Alt + C** or clicking Close button.

User Preferences option

User Preferences facilitates the user to define his preferences while working on ValSpeQ. User preferences are defaulted to Project Preferences whenever a new project is created. User has the flexibility to change the preferences.

This option can be invoked by selecting **User Preferences** option under the **Settings** menu or by pressing **Alt + S & U** keys.

The following screen is displayed.



User preferences are segregated for ease of understanding & can be accessed by selecting the appropriate tab page as given below

1. Calculation Variables.
2. Unit of Measure.
3. Service Conditions.
4. Actuation.
5. Tubing
6. Tag.
7. General.
8. Confirmations.
9. Product Scope & Pricing.
10. PED/ITP

11. Generic Materials
12. Preferences for Airset Groups.
13. Instrument.

By default Calculation Variables Tab is displayed.

User Profiles option

User Preferences provides a feature to maintain different profiles. A user profile named **Default** is used unless a different user profile is created & applied i.e. set to be used.

Default user profile cannot be deleted.

By default, **S**ave, **S**ave **A**s, **D**elete, **A**pply, **C**ancel buttons are disabled.

Save, **S**ave **A**s & **C**ancel are enabled only on change of any preferences.

Select **S**ave option to save the changes made to the active profile & **C**ancel to discard any changes made to active profile.

Select **S**ave **A**s option to save changes made to a different profile.

The new profile will not be active unless it is applied. Select the **A**pply option to apply a new profile. The **A**pply button is enabled only if a profile selected is not currently active. Once a new profile is applied & a new project is invoked, the values from user preferences of the new profile will be defaulted to the project preferences of the new project.

Select the **D**elete option to delete a selected profile. The **D**elete button is enabled when a profile other than Default is selected & facilitates the user to delete an existing profile.

Calculation Variables Tab

These values are used while performing sizing calculation. For every new project, User Preferences values set for Calculation Variables for the active user profile are defaulted to Project Preferences.

The screenshot shows the 'User Preferences' dialog box with the 'Calculation Variables' tab selected. The 'User Profile' is set to 'Default'. The 'Calculation Defaults' section contains the following settings:

Parameter	Value
Max. Velocity - Liquid	33
Preliminary FL	0.9
Cv Oversize Factor	1
Min Sound Level	70
Max Sound Level	90
Sound Tolerance Level	IEC
Print Informational Messages	<input checked="" type="checkbox"/>

At the bottom of the dialog, there are buttons for 'Save', 'Save As', 'Delete', 'Apply', 'Cancel', and 'Close'.

Max. Velocity – Liquid – The value specified

Preliminary FL

Cv Oversize Factor – The **oversize Req Cv** in the grid displayed on **Sizing & Selection** screen for a Control Valve is calculated based on the factor provided here.

Min Sound Level & Max Sound Level - By specifying the Min Sound Level & Max Sound Level, the application is able to validate the service conditions against the selected valve as to whether the noise is within the valid permitted range. If the Sound is beyond the range specified, an appropriate message is displayed.

Sound Tolerance Level

Print Informational Messages

User can change the default values and save by clicking on the **Save** button. An message "Defaults saved successfully." is displayed. The preferences for selected user profile are updated.

These updates if made to the active profile will be applied to all new projects created subsequently. However if updates are made to the profile which is not active, then it will not be applied to the new projects created subsequently.

Unit of Measure Tab

The Unit of Measure tab page allows the user to define the Units he prefers to be defaulted to every project. For every new Project, User Preferences values for Unit of Measure for the active user profile are defaulted to Project Preferences. On selecting the Unit of Measure tab, the following screen will be displayed.

The screenshot shows the 'User Preferences' dialog box with the 'Unit of Measure' tab selected. The 'User Profile' is set to 'Default'. The 'Default U/M selection' section contains the following settings:

	flow rate	gas density
liquid	gpm	
gas	scfh	
steam	lb/h	
two phase	lb/h	lb/ft ³ 14.73 psi a, 60 F

inlet pressure	psi a
temperature	deg F
liquid velocity	ft/s
length	in
Calibration	psi g

Buttons at the bottom: Save, Save As, Delete, Apply, Cancel, Close.

It allows the user to define **Unit of Measure** for **Liquid Flow Rate, Gas Flow Rate, Steam Flow Rate, Two Phase Flow Rate, Two Phase Gas Density, inlet Pressure, Temperature, Liquid Velocity, Length and Calibration.**

User can change the default values as per his preference and save by clicking on the **Save** button. The preferences for selected user profile are updated.

These updates if made to the active profile will be applied to all new projects created subsequently. However if updates are made to the profile which is not active, then it will not be applied to the new projects created subsequently.

Service Conditions Tab

The Service Conditions tab page allows the user to define the titles / labels which would best describe the four Service Condition data under that column. It also allows the user to set default values for Design pressure & Design Temperature.

For every new Project, **User Preferences** values for **Service Conditions** for the active user profile are defaulted to **Project Preferences**. On selecting the **Service Conditions** tab, the following screen will be displayed.

The screenshot shows a software window titled "User Preferences" with a close button (X) in the top right corner. At the top, there is a dropdown menu for "User Profile" set to "Default". Below this is a series of tabs: "Generic Materials", "Preferences for Airset Groups", "Instrument", "Paint", "Tag", "General", "Confirmations", "Product Scope and Pricing", "PED/ITP", "Calculation Variables", "Unit of Measure", "Service Conditions" (which is selected and highlighted with a dashed border), "Actuation", and "Tubing". The "Service Conditions" tab contains a section titled "Default Service Condition" with the following fields:

First Heading	Min	
Second Heading	Norm	
Third Heading	Max	
Fourth Heading	Other	
Design pressure	0	psi a
Design temperature	100	deg F

At the bottom of the dialog box, there are six buttons: "Save", "Save As", "Delete", "Apply", "Cancel", and "Close".

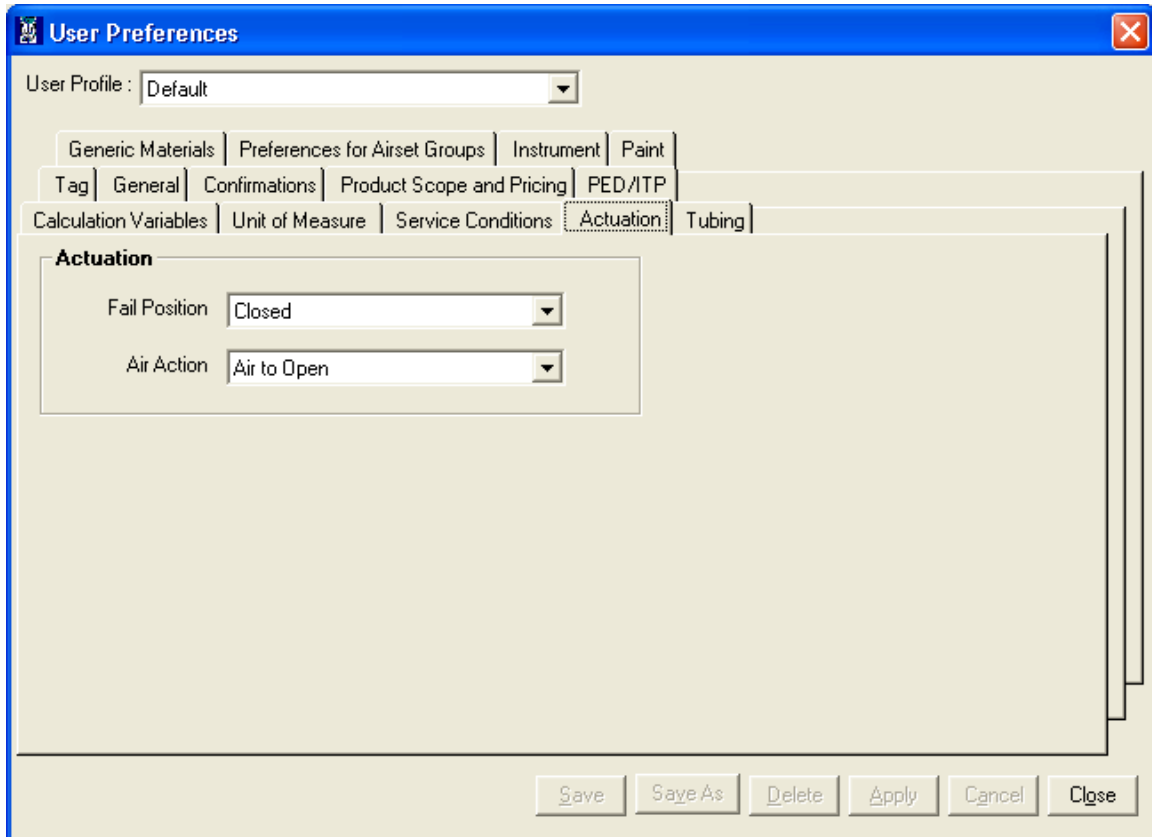
User can change the default values as per his preference and save by clicking on the **Save** button. The preferences for selected user profile are updated.

These updates if made to the active profile will be applied to all new projects created subsequently. However if updates are made to the profile which is not active, then it will not be applied to the new projects created subsequently.

Actuation Tab

The Actuation tab page allows the user to define the default Fail Position and Air Action values the user prefers to work with.

For every new project, User Preferences values for Actuation is defaulted to Project Preferences. On selecting the Actuation tab, the following screen will be displayed.



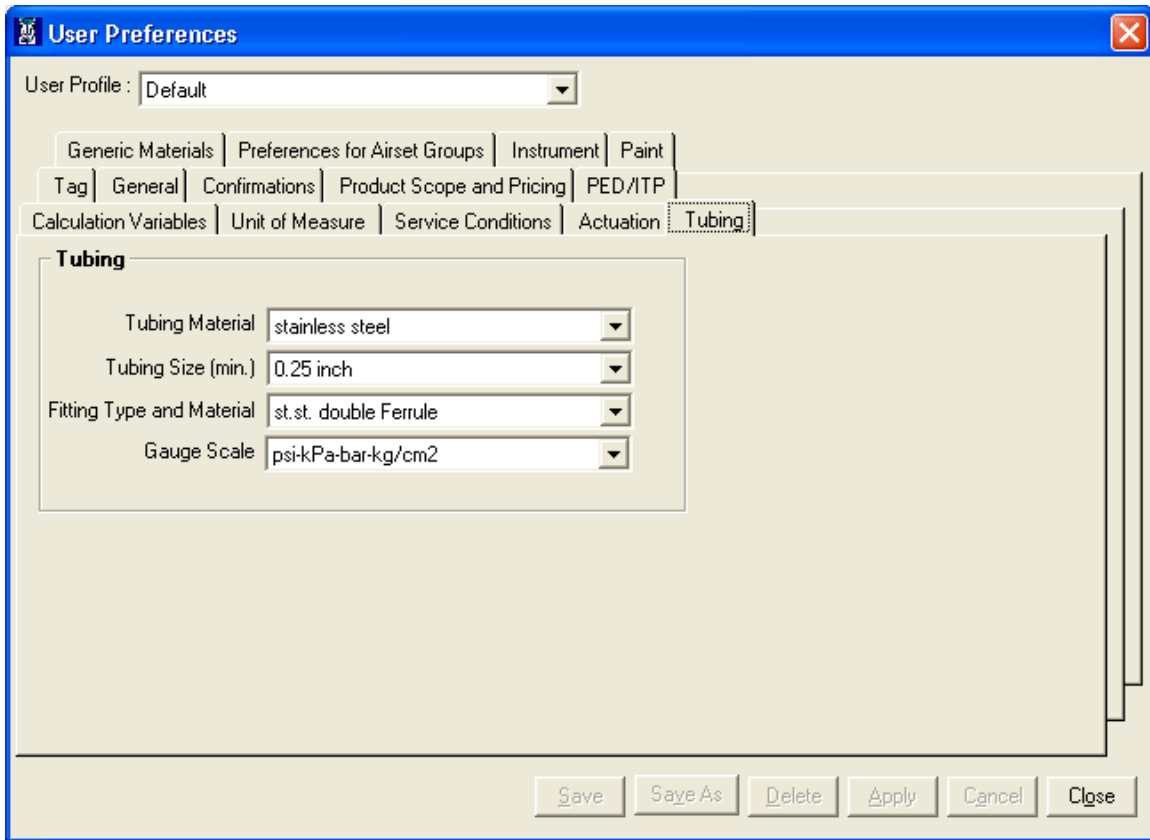
User can change the default values as per his preference and save by clicking on the **Save** button. The preferences for selected user profile are updated.

These updates if made to the active profile will be applied to all new projects created subsequently. However if updates are made to the profile which is not active, then it will not be applied to the new projects created subsequently.

Tubing Tab

The Tubing tab page allows the user to define the default Tubing Material, Fitting Size, Fitting Type and Material and Gauge Scale values as per his preference.

For every new project, User Preferences values for Tubing are defaulted to Project Preferences. On selecting the Tubing tab, the following screen will be displayed.



The screenshot shows the 'User Preferences' dialog box with the 'Tubing' tab selected. The 'User Profile' is set to 'Default'. The 'Tubing' section contains four dropdown menus: 'Tubing Material' (stainless steel), 'Tubing Size (min.)' (0.25 inch), 'Fitting Type and Material' (st.st. double Ferrule), and 'Gauge Scale' (psi-kPa-bar-kg/cm2). At the bottom, there are buttons for 'Save', 'Save As', 'Delete', 'Apply', 'Cancel', and 'Close'.

User can change the default values as per his preference and save by clicking on the **Save** button. The preferences for selected user profile are updated.

These updates if made to the active profile will be applied to all new projects created subsequently. However if updates are made to the profile which is not active, then it will not be applied to the new projects created subsequently.

Tag Tab

Tag tab provides a facility to the user to enable or disable auto tag numbering or tag masking on New Items as per rules or definition.

For every new project, **User Preferences** values for **Tag** are defaulted to **Project Preferences**. On selecting the **Tag** tab, the following screen will be displayed.

The screenshot shows the 'User Preferences' dialog box with the 'Tag' tab selected. The 'User Profile' is set to 'Default'. The 'Tag' tab is active, showing the 'Default Tag Mask and Increment' section. This section includes a checkbox for 'Use Tag Masks on New Project' (unchecked) and a 'Tag Mask' section with ten text input fields: Valve Tag, Positioner Tag, Transducer Tag, Booster Tag, Switch Tag, Solenoid Tag, Transfer Lockup Valve1 Tag, Transfer Lockup Valve2 Tag, Transfer Lockup Valve3 Tag, and Airset for Transfer Lockup Valve Tag. To the right of these fields are two more input fields: 'Initial Value' and 'Increment Value'. At the bottom of the dialog are buttons for 'Save', 'Save As', 'Delete', 'Apply', 'Cancel', and 'Close'.

Note:

Tag Mask works with Control Valve line item only.

Use Tag Mask on New Project – When this option is checked, the selected Tag Masks are applied to New Project. All the fields are enabled when this option is checked. If this option is unchecked, the different tag values defined are not defaulted to the new project. All the fields are disabled when this option is unchecked.

When invoked for the first time, this option by default is unchecked.

Tag Mask – Valve Tag - This field value is used as the prefix for the auto generated tag for Control Valve line item.

Tag Mask – Accessory (Positioner, Transducer, Booster, Switch & Solenoid) – These field values are used as the prefix for the auto generated tag for the corresponding appropriate accessory selected at the time of configuring a control valve line item that is yet to be saved.

Tag Mask is not mandatory & can be left blank.

Initial Value – This field is used for specifying the start value for generating the default tags. **Initial Value** is mandatory & minimum value should be 1.

Increment Value – The **Increment Value** is the value which is added to derive the tag number. **Increment Value** is mandatory & minimum value should be 1.

User can change the default values as per his preference and save by clicking on the **Save** button. The preferences for selected user profile are updated.

These updates if made to the active profile will be applied to all new projects created subsequently. However if updates are made to the profile which is not active, then it will not be applied to the new projects created subsequently.

General Tab

General tab facilitates user to specify **User Name**, **Location**, **Phone** & **Email** information. It allows defining the **Serial Plate** & **Contractual Language** to be used. In addition it facilitates to define the **Default Configurator**, **Default Language** & number of project files to be listed under **Recently used file list**.

For every new project, User Preferences values for General are defaulted to values in Project Preferences except that for User Name, Location, Phone & Email. User Name, Location & Phone are directly defaulted to a new line item & are reflected on Item Data screen. On selecting the General tab, the following screen will be displayed.

The screenshot shows the 'User Preferences' dialog box with the 'General' tab selected. The 'User Profile' is set to 'Default'. The 'Configuration Defaults' section includes: 'Default Configurator' set to 'Control Valve', 'Serial Plate Language' set to 'English', 'Default Language' set to 'English', 'Contractual Language' set to 'English', and 'Recently used file list' set to '4'. The 'User Information' section includes: 'User Name' 'SAM', 'User Location' 'SPL', 'User Phone' '897988758979', and 'User Email' 'sam@spl.com'. At the bottom, there are buttons for 'Save', 'Save As', 'Delete', 'Apply', 'Cancel', and 'Close'.

User can select a **Default Configurator** to be invoked on **ValSpeQ** startup or when a new project is invoked. The following table provides information about the blank configurator screen displayed based on the **Default Configurator** being set in the **User Preferences**.

Default Configurator	Screen Displayed on ValSpeQ Startup
Control Valve	Sizing & Selection
Levels	Service & Level
Accessories	

Actuation	Actuator
Positioner	Positoner
Transducer	Transducer
Booster	Booster
Switch	Switch
Solenoid	Solenoid
Airset	Airset
Regulator	Regulator

Default Language is English and currently this is the only available language.

Note:

Thou ValSpeQ architecture is designed to support multiple languages, the current available language is only English.

Default value for **Recently used file list** is 4 i.e. the last 4 project files opened in ValSpeQ are listed in the **Project** menu for facilitating quick & easy opening of recently opened project file directly instead of having to go thru the **Project**→**Open...** functionality.

Note:

1. Max a list of last 10 opened project files can be viewed.
2. Change to this value is applied with immediate effect provided the changes are made to the active profile.

Select **Serial Plate & Contractual Language** as per the preference. These values are defaulted to Project Preferences on invoking a new project subsequently & later to the line items. These values are reflected on the **Item Data** screen of the line item.

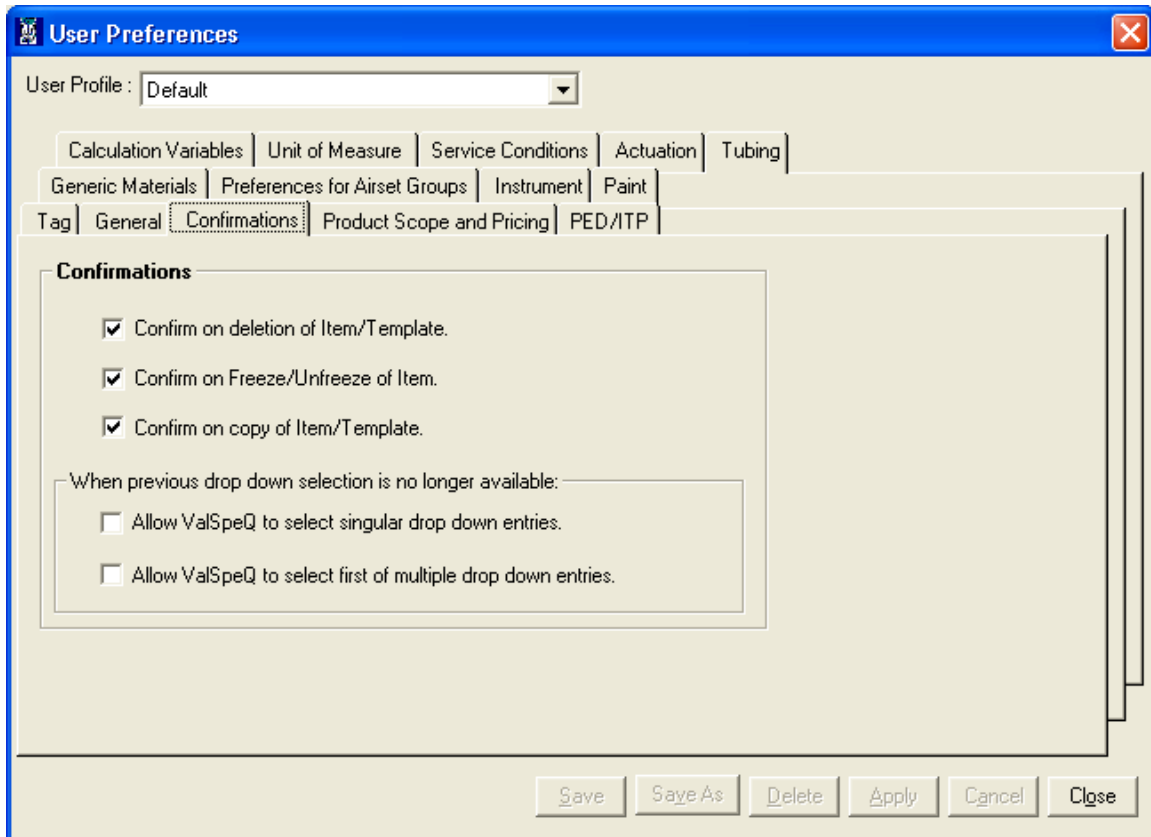
Default values for **User Name, User Location, User Phone & User Email** are populated from the information provided during the installation process. User has the flexibility to change the same. The changes made are applied immediately to any new line items added subsequently on the existing project provided the changes are made & stored in the active user profile.

Select the **Save** option to update preferences. Preferences for selected user profile are updated.

As described above, based on the attributes changed the effects will be applied either immediately or when **ValSpeQ** is invoked or a **New Project** is invoked.

Confirmation Tab

Confirmation tab facilitates the use to define ValSpeQ behavior for confirmations on deleting an item/template, freeze/unfreeze an item, copy an item/template. In addition it allows user to define how ValSpeQ should react when an attribute value for an item/template is modified that affects several subsequent dependent attribute values that are populated.



Confirm on deletion of Item/Template

Select this option if ValSpeQ should provide a confirmation message prior to deleting a line item or template. If this option is unchecked, the line item or template will be deleted without a confirmation.

Confirm on Freeze/Unfreeze of Item

Select this option if ValSpeQ should provide a confirmation message prior to freeze or unfreeze a line item. If this option is unchecked, the line item will be set to freeze or unfreeze without a confirmation.

Confirm on Copy of Item/Template

Select this option if ValSpeQ should provide a confirmation message prior to copying a line item or template. If this option is unchecked, the line item or template will be copied without any confirmation.

When Previous Drop Down Selection is No Longer Available

- **Allow ValSpeQ to select singular drop down entries**

Select this option if **ValSpeQ** should auto-select any singular drop down entry or value for an attribute (drop down) when the original value is no longer available due to repopulation of data triggered by a modification made on one of the previous attribute (drop down) value e.g. if Product Type is Control Valve then on **Sizing & Selection** screen if value for attribute **Plug Material** is changed, then value for **Seat Material** is auto selected.

Uncheck this option if **ValSpeQ** should not auto-select any singular drop down entry or value & display the same in invalid state i.e. in red color when the original value is no longer available due to repopulation of data triggered by a modification made on one of the previous attribute (drop down) value.

- **Allow ValSpeQ to select first of multiple drop down entries**

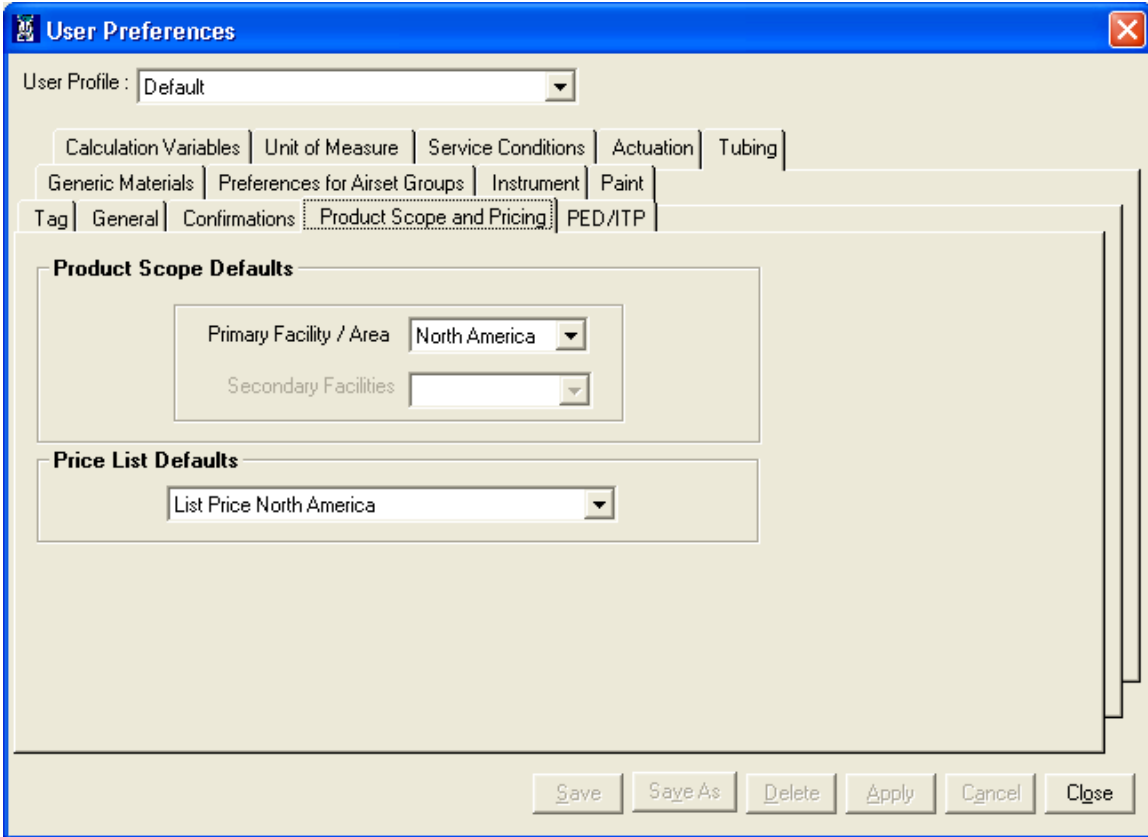
Select this option, if **ValSpeQ** should always auto-select the first drop down entry or value from a set of values for an attribute (drop down) when the original value is no longer available due to repopulation of data triggered by a modification made on one of the previous attribute (drop down) value.

Uncheck this option, if **ValSpeQ** should not auto-select the first drop down entry or value from a set of values & display the same in invalid state i.e. in red color when the original value is no longer available due to repopulation of data triggered by a modification made on one of the previous attribute (drop down) value.

Click the **Save** option to update the changes to the selected profile. If the changes are updated the active profile then ValSpeQ behavior is immediately set as per the definition. However if the changes are updated to a profile which is not active, then ValSpeQ behavior will not have any changes & will behave as per the active profile definition.

Product Scope and Pricing Tab

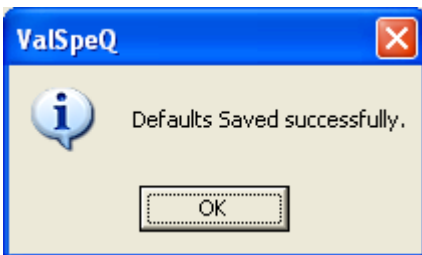
Product Scope and Pricing Tab displays the default Primary Source Facility and Price List as shown in the following screen.



Price List combo box lists all the price list of the selected Product Facility in the Primary source facility.

Note – If ValSpeQ Standard or Lite edition is installed then the Price List Default frame is not displayed on the User Preferences form.

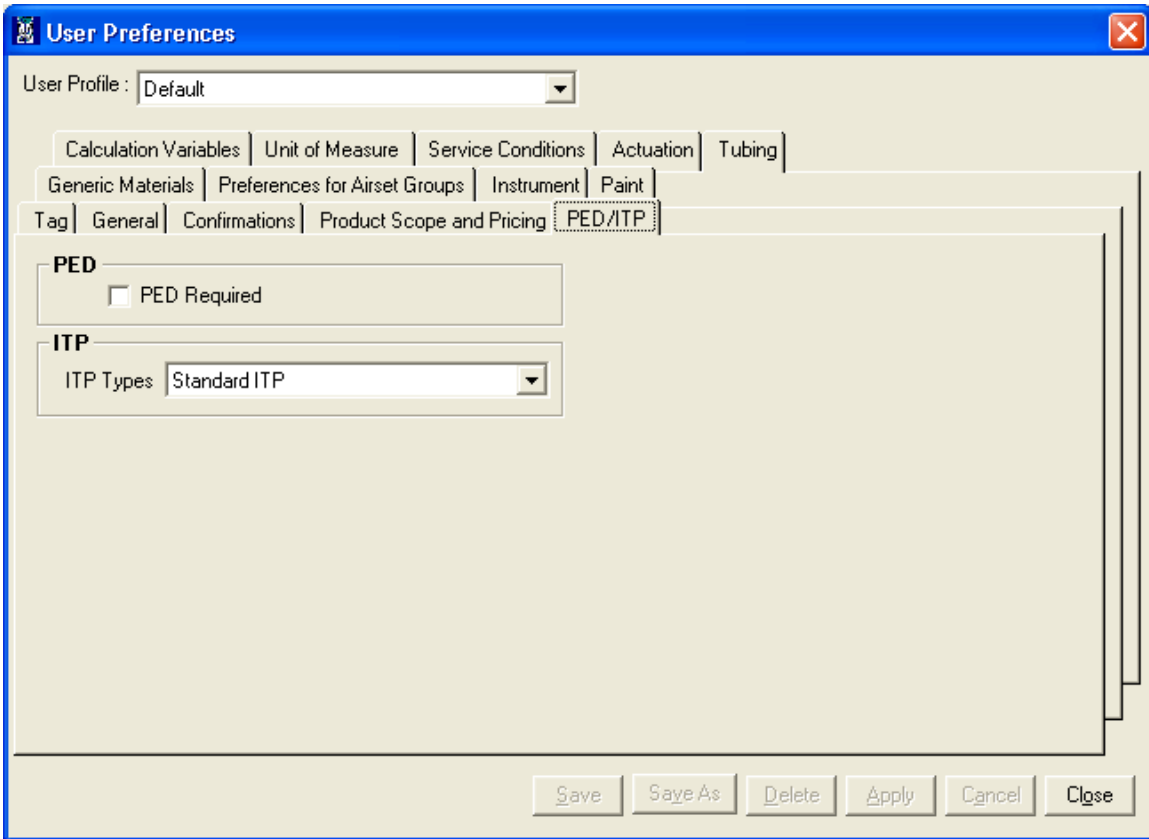
To change the Product Scope and Price List Defaults for new projects, select the entries in the corresponding combo box and click on the Save button. After Successfully saving the Defaults a Message box “Defaults Saved successfully.” is displayed on the screen.



After saving the Product Scope and Pricing defaults when the new project is created these defaults are copied from the user library to new project and applied to added line items and templates in that project.

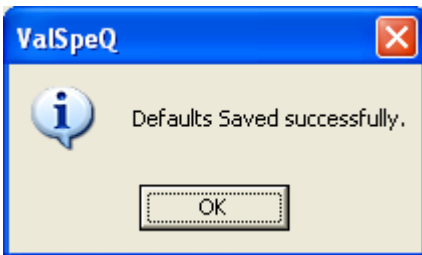
PED/ ITP Tab

After clicking on tab the following screen is displayed.



This tab contains the 'PED Required' check box and 'ITP Types' combo box. By default check box is unchecked and the default value of ITP Types combo box is Standard ITP.

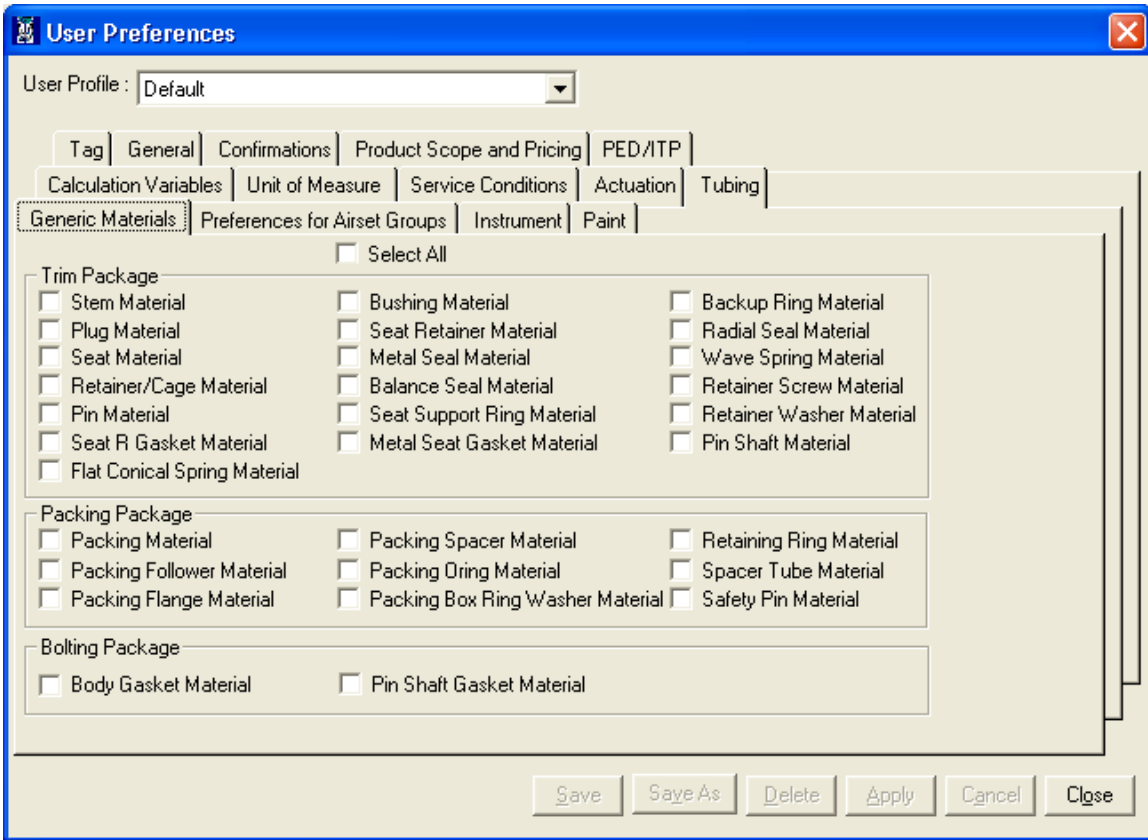
After saving the changes the following message is displayed.



After saving the changes when New Project is created the values from Library are copied to New Project and applied to newly added Control Valves/Level/Regulators & Accessories.

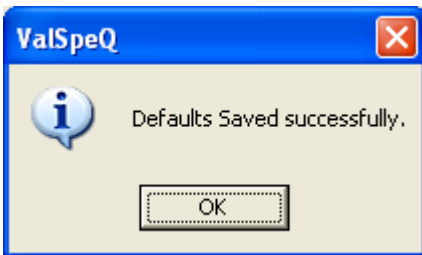
Generic Materials Tab

After clicking on Generic Materials tab the following screen is displayed.



This tab contains the values for Trim Package, Packing Package and Bolting Package materials. By default all check boxes are unchecked. After selecting Select All check box, all the check boxes on this tab get selected.

After saving the changes the following message is displayed.



After saving the changes when New Project is created the values from Library are copied to New Project and applied to newly added Control Valves

Preferences for Airset Groups Tab

Airset Groups preferences facilitates user to define various air appliances to be assigned to the configuration on the occurrence of pre-defined conditions. This allows for a more consistent airset and air filter piping practice to be released from the factories.

Note:

Currently only the NIIMCO standard is available in ValSpeQ since NIMCO facility has published Air Group piping guidelines. However all common Air Group piping practices are being looked at from various facilities in order to come up with a global Air Group piping scheme that will ensure consistent airset and air filter piping practices for Masoneilan. The user can choose to use this model or simply remove any air accessories from the Airset Groups preferences if not to use the NIMCO guidelines.

For every new project, **User Preferences** values for **Preferences for Airset Groups** are defaulted to **Project Preferences**. On selecting the **Preferences for Air Groups** tab, the following screen will be displayed.

The Airset Groups preference screen allows for the user to select Air Accessories to be used for the following:

- Normal Capacity Low Set Pressure Air Set
- Normal Capacity High Set Pressure Air Set
- High Capacity Low Set Pressure Air Set
- High Capacity High Set Pressure Air Set
- Airset Gauge when to prefer and when to use it.
- Air Filter

The screenshot shows the 'User Preferences' dialog box with the 'Preferences for Airset Groups' tab selected. The 'User Profile' is set to 'Default'. The 'Air Groups for Automatic Selection' section contains the following settings:

Series	Set Range	Unit
Airset	10 - 20	kPa
Airset w/Gauge	10 - 20	kPa
Airset (Hi-Cap)	10 - 20	kPa
Airset (Hi-Cap) w/Gauge	0 - 0	kPa

The 'Airset Gauge' is set to '1.5 inch st. st.' and 'When used' is set to '(If necessary)'. The 'Air Filter' is set to 'Model AF40'. At the bottom of the dialog are buttons for 'Save', 'Save As', 'Delete', 'Apply', 'Cancel', and 'Close'.

Select a preferred air set to be used. ValSpeQ displays the initial air set range for the selected airset model. User can choose to keep these ranges or fine tune them further. However the value for minimum Set Pressure & maximum Set Pressure should not be beyond the initial range of value displayed for the selected airset model. ValSpeQ will display an appropriate message in the event if the values are fine tuned are beyond the initial range of values displayed for the selected airset model.

Select the **Airset Gauge & When Used**. The **Airset Gauge** combo box displays different options available for Airset Gauge & the **When Used** combo box allows the user to specify whether selected option is applied on all line items irrespective of whether it is required or not or applied on when necessary.

Select **Air Filter** to be used.

Limitation

Airset to use based on Calculated Set Pressure requires selection of Positioner & Boosters. However in ValSpeQ's current design, it allows the user to select Airset on Positioner & Booster screen, thus it restricts from overwriting the selected options with the recommended option calculated.

For example: To make an air group recommendation in Air Group logic, the following must be known::

- Instrument Air Pressure Range (Min and Max)
- Actuator Model
- Positioner Model
- Booster Qty
- Fail Position

Once this is known, the Air Group Logic has the ability to determine the following:

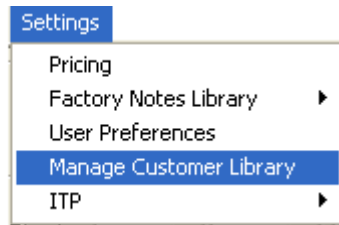
- Positioner Airset, Positioner Airset Qty, Positioner Airset Gauge
- Booster Airset, Booster Airset Qty, Booster Airset Gauge
- Volume Tank / Chamber Airset, Airset Qty, and Airset Gauge

In ValSpeQ, the Airset for the Positioner is selected on the Positioner screen. The Booster Airsets are also depicted on the Booster Screen. So in essence, the Positioner preferred airset can not be estimated until a Booster Model and Booster Qty is selected. The Auto Selection button on the Booster screen will determine the necessary Boosters to have when there is a stroke / response time requirement. Only then can the system suggest to change the Positioner airset on the positioner screen.

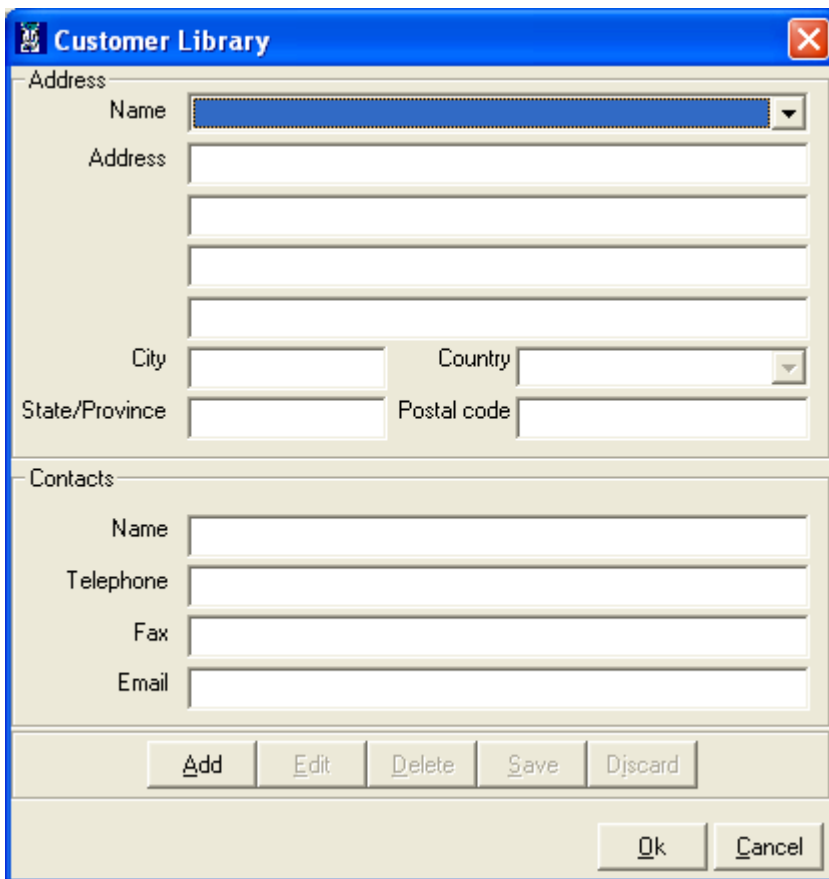
Select the **Save** option to save user preferences to the selected user profile.

These updates if made to the active profile will be applied to all new projects created subsequently. However if updates are made to the profile which is not active, then it will not be applied to the new projects created subsequently.

Manage Customer Library



After clicking on Manage Customer Library option the following screen is displayed.

A screenshot of a dialog box titled 'Customer Library'. The dialog is divided into two main sections: 'Address' and 'Contacts'. The 'Address' section contains a 'Name' dropdown menu, an 'Address' text box, a 'City' text box, a 'Country' dropdown menu, a 'State/Province' text box, and a 'Postal code' text box. The 'Contacts' section contains 'Name', 'Telephone', 'Fax', and 'Email' text boxes. At the bottom of the dialog, there are buttons for 'Add', 'Edit', 'Delete', 'Save', 'Discard', 'Ok', and 'Cancel'.

Customer Library screen has two sections 1) Address 2) Contacts

Address section has following options:

Name: Name of the customer can be entered in Name combo box.

Address: Address of the customer can be entered in Address text box.

City: City of the customer can be entered in City text box.

Country: Country of the customer can be selected from Country Combo box.

State/Province: State of the customer can be selected from State/Province text box.

Postal code: Postal code of the customer can be entered in Postal code text box.

Contacts section has following options:

Name: Name of the contact person can be entered in Name text box in Contacts frame.

Telephone: Telephone number of the contact person can be entered in Telephone text box.

Fax: Fax number of the contact person can be entered in Fax text box.

Email: Email of the contact person can be entered in Email text box.

Add: Details for new customer can be added by clicking on Add button.

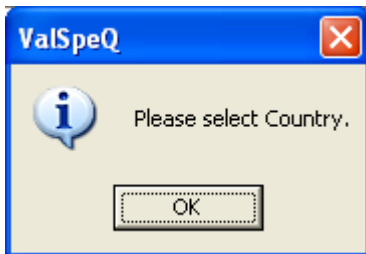
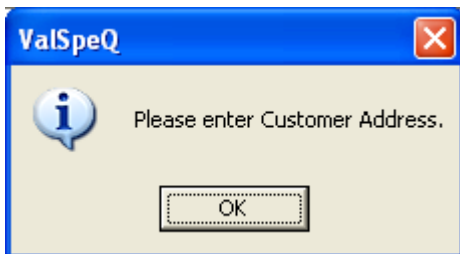
Edit: Details of existing customer can be edited by clicking on Edit button .

Delete: Details of existing customer can be deleted by clicking on Delete button

Save: Details of customer after adding/editing can be saved be clicking on Save button

Discard: Details being added/edited can be discarded by clicking on Discard button.

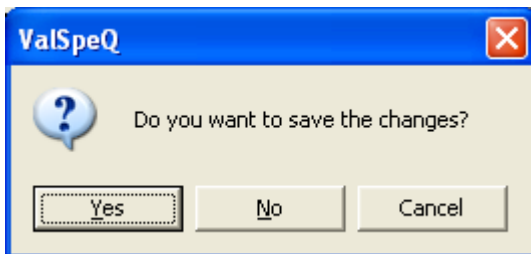
Name, Address, Country, Postal code and Email are mandatory fields for adding a new customer. If user tries to omit any of these fields a message is given as follows for each missing field.





If values in all the fields are being entered/edited and if user clicks on Ok button then the details get saved, but if user has omitted any of the mandatory field then a corresponding message is displayed for the field which has been omitted.

While adding/editing if user clicks on Cancel button then a following message is displayed.



Else the Customer Library window gets closed.

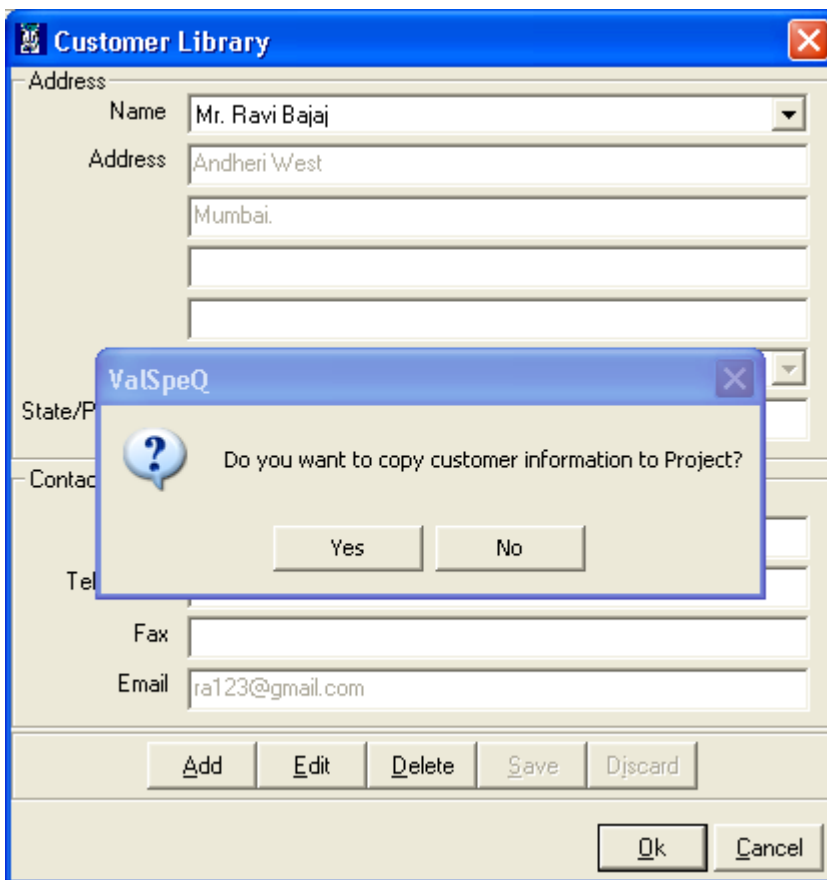
Customer Library window can also be invoked by clicking on Browse button on Customer/Salesperson tab on Project General Information tab as shown below.

The screenshot shows a software window with two main tabs: 'General' and 'Customer/Salesperson'. The 'Customer Information' section is expanded, showing sub-tabs for 'Shipping', 'Billing', and 'End User'. The 'Shipping' sub-tab is selected. It contains several input fields: 'Name', 'Address', 'City', 'State/Province', 'Country', and 'Postal code'. A small 'Browse...' button is located at the end of the 'Name' field, highlighted with a red rectangle. Below these fields is a 'Contacts' section with fields for 'Name', 'Telephone', 'Fax', and 'Email'. At the bottom of the form, there is a 'Copy Information From' section with two buttons: 'Billing' and 'End User'.

Functionality of all the fields and buttons will be same except for Ok button of Customer Library.

If customer information is already available in Customer Library and user click on Ok button

Then the following message will be displayed.



Clicking on Yes button will copy the details of selected customer to the tab on which the Customer Library window is invoked. Clicking on No button will close the Customer Library window without copying information.

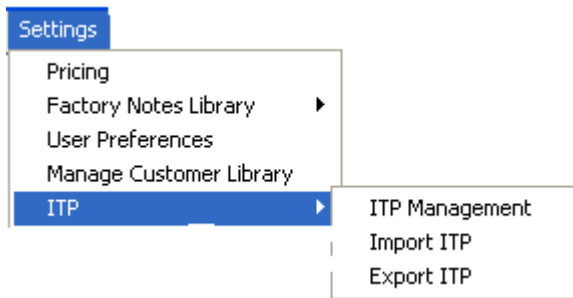
ITP Management

This option facilitates the user to create or define Inspection & Test Plan consisting of Regulations compliance, Testing & Certification requirements for Raw Material & Finished Parts, Cleaning, Painting & Packing requirements for a Project.

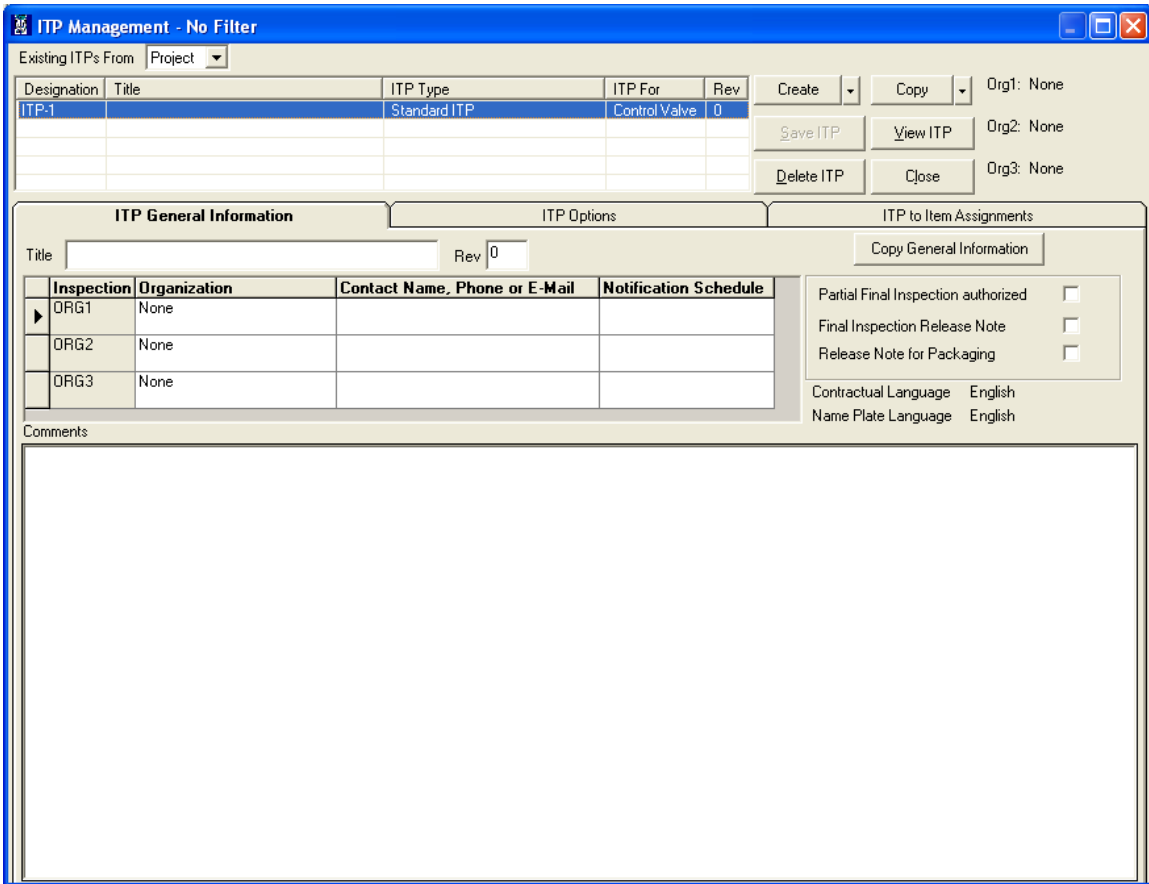
A Project can have multiple ITP definitions to cater to the different Inspection & Test Plan requirements to satisfy different line item configuration requirements.

The ITP Management also facilitates assigning an ITP to one or more line items or template to quickly & easily apply an ITP to a set of line items or templates having similar requirement rather than having to apply the same after navigating on the individual line items.

ITP Management functionality can be invoked by selecting **Settings→ITP→ITP Management** or press **ALT+S+I+I**.



On invoking **ITP Management** option, the following screen will be displayed.



Filter status along with filtered Line Items is displayed on title bar of the **ITP Management** window.

ITP consists of two parts

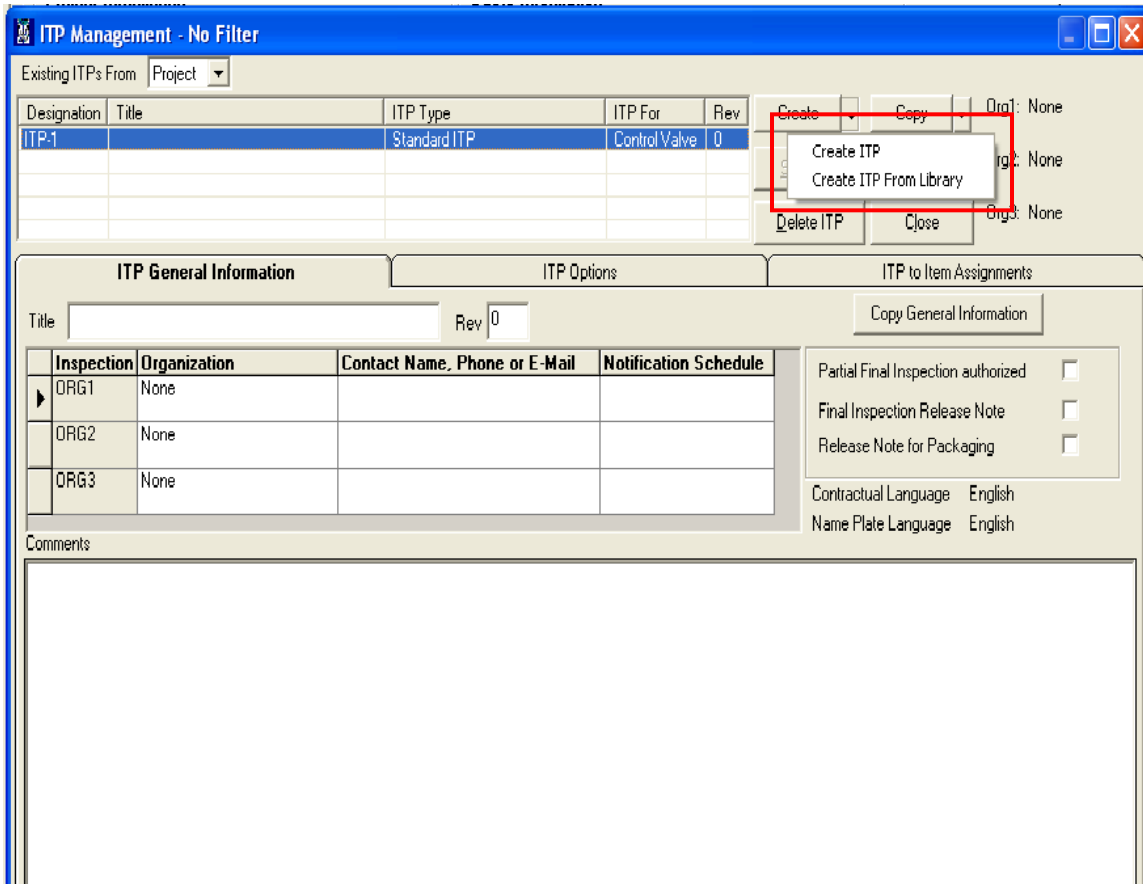
1. ITP General Information

Information regarding inspection agency, contact information & notification schedule is recorded in this part.

2. ITP Options

This section allows the user to define Inspection & Test Plan consisting of Regulations compliance, Testing & Certification requirements for Raw Material & Finished Parts, Cleaning, Painting & Packing requirements for a Project

Following important elements are visible on the ITP Management screen.



- Existing ITPs From**
 This drop down contains option to list existing ITP from **Project** or **Library**. By default **Project** option is selected and existing ITPs from Project are displayed.

- **Create – drop down options**

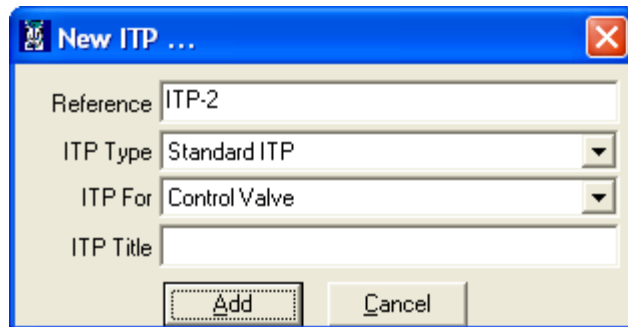
This option facilitates user to define a new ITP. **Create – drop down options** contains two options viz

- **Create ITP** and **Create ITP From Library** options are available when **Project** option from **Existing ITPs From** is selected.
- **Create ITP** and **Create ITP From Project** options are available when **Library** option from **Existing ITPs From** is selected.

By default this button & its associated drop down is enabled. It is disabled only when any information within **ITP General Information** or **ITP Options** is being modified. It is enabled as soon as the modified data is saved or discarded.

- **Create button or Create ITP option listed in the drop down adjacent to Create button**

To add a new ITP, click on **Create** button or choose the **Create ITP** option listed in the drop down list just adjacent to the **Create** button. The following window will be displayed.



- **Reference**

The next incremented reference number appears in **Reference** text box. User can edit only digit part in **Reference** text box. An appropriate message is displayed to the user if the ITP reference with the same number already exists.

- **ITP Type**

ITP Type provides the following options when **ITP For** is **Control Valve**.

1. Standard
2. Standard + Nace
3. Standard + PMI
4. Standard + ASME B16-34 special class
5. Standard + European Directive
6. Standard + European Directive + Nace
7. Standard + European Directive + PMI
8. Standard + European Directive + ATEX
9. Special

ITP Type provides the following options when **ITP For** is **Levels** or **Regulators**

1. Standard
2. Standard + European Directive
3. Standard + European Directive + ATEX
4. Special

- **ITP For**
The content indicates the Product Type for which the ITP has been defined i.e. Control Valve, Level or Regulators. The **ITP Type** values listed vary based on the value selected in the **ITP For**.

Note:

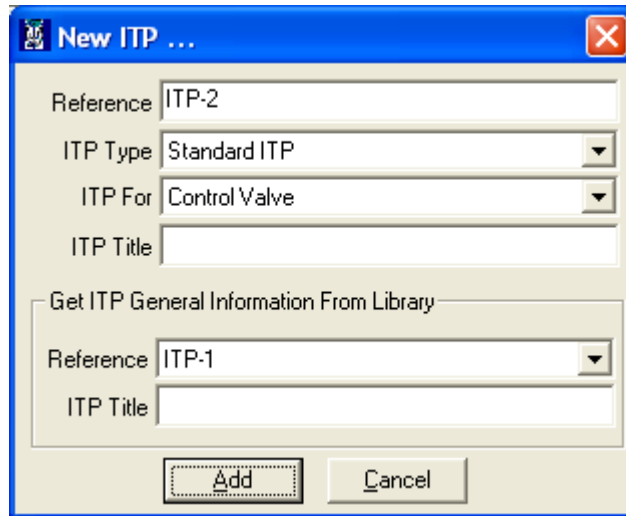
ITP is not applicable for Accessory line items.

- **ITP Title**
ITP Title allows the user to specify an appropriate title which can be meaningful for anyone to understand & can easily identify or distinguish each ITP while working on Projects having multiple ITPs as per the project requirements.

ITP Title is not mandatory & can be left blank or can be updated later from the **ITP Title** listed on the **ITP General Information** tab.

- **Add button**
Select **Add** button to add new ITP to the **Project** or **Library** depending on selection made in **Existing ITPs From**. The **New ITP...** window is closed & the new ITP is reflected in the existing ITP grid.
- **Cancel button**
Select **Cancel** button to close the **New ITP...** window without adding new ITP.

- **Create - ITP From Library option listed in the drop down adjacent to Create button**
Select this option to add a new ITP in project from an existing ITP available in Library. This option is available only when **Project** option from **Existing ITPs From** is selected.



Note:

Functionality of **Reference**, **ITP Type**, **ITP For**, **ITP Title** and **Add/Cancel** buttons remains unchanged or similar to as explained in **Create ITP**.

- **Get ITP General Information From Library section**
This section facilitates user to select a ITP by listing ITP References from the library. On selecting a reference, the ITP title of the selected ITP is displayed.

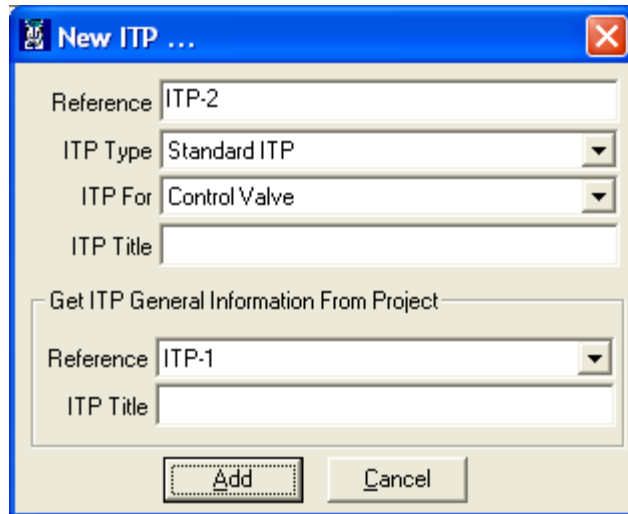
Select the **Add** button to add the selected ITP from the library into the project.

Information or data on **ITP General Information** tab for the selected ITP from library is copied to the ITP created in the project. However **ITP Title & ITP Options** are not copied.

- **Create - ITP From Project option listed in the drop down adjacent to Create button**
Select this option to add a new ITP in library from an existing ITP available in project. This option is available only when **Library** option from **Existing ITPs From** is selected.

Note:

Functionality of **Reference, ITP Type, ITP For, ITP Title** and **Add/Cancel** buttons remains unchanged or similar to as explained in **Create ITP**.



- **Get ITP General Information From Project section**
This section facilitates user to select a ITP by listing ITP References from the project. On selecting a reference, the ITP title of the selected ITP is displayed.

Select the **Add** button to add the selected ITP from the project into the library.

Information or data on **ITP General Information** tab for the selected ITP from project is copied to the ITP created in the library. However **ITP Title & ITP options** are not copied.

Note:

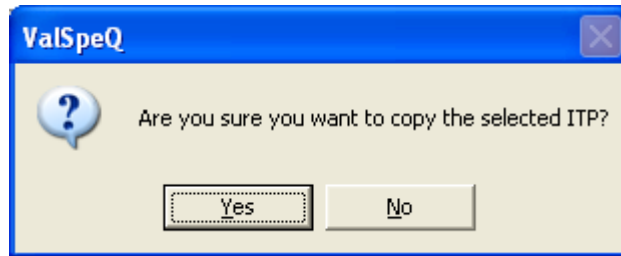
For more information on **ITP General Information & ITP Option** refer to sections down below in the document.

- **Copy – drop down options**
This option facilitates user to copy an existing ITP as a new ITP. Information or Data on **ITP General Information & ITP Options** tabs of source ITP is copied to the new ITP as against to **Create ITP From Project** or **Create ITP From Library** option where only **ITP General Information** data is copied to the new ITP without copying **ITP Options** data. **Copy – drop down options** contains two options viz
 - **Copy ITP** and **Copy ITP From Library** options are available when **Project** option from **Existing ITPs From** is selected.

- **Copy ITP** and **Copy ITP From Project** options are available when **Library** option from **Existing ITPs From** is selected.

By default this button & its associated drop down is enabled. It is disabled only when any information within **ITP General Information** or **ITP Options** is being modified. It is enabled as soon as the modified data is saved or discarded.

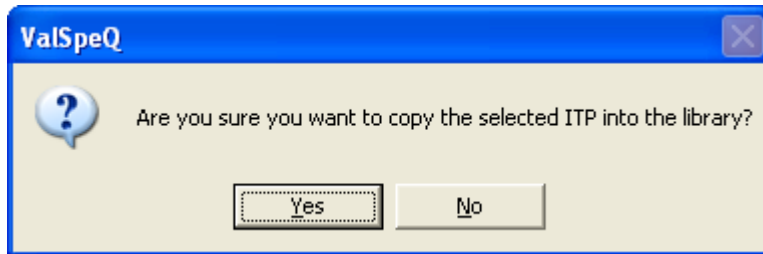
- **Copy button or Copy option listed in the drop down adjacent to Copy button**
To copy an ITP, select the ITP to copy & click on **Copy** button or choose the **Copy** option listed in the drop down list just adjacent to the **Copy** button. ValSpeQ will prompt for a confirmation.



On confirmation, the source or selected ITP will be copied along with data for **ITP General Information & ITP Options** to a new ITP having next logical sequential **Reference** number (also displayed as **Designation** in the grid).

- **Copy - ITP To Library option listed in the drop down adjacent to Copy button**
Select this option to copy an existing ITP from project to library. This option is available only when **Project** option from **Existing ITPs From** is selected.

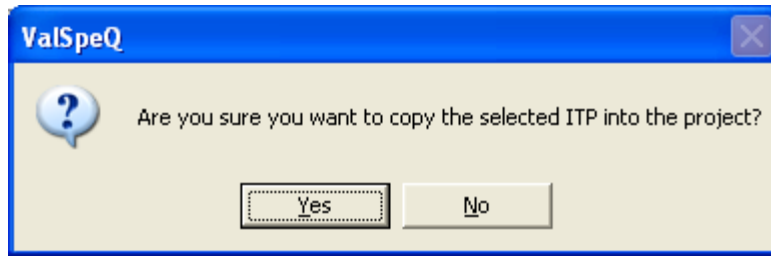
To copy an ITP, select the ITP to copy & select **Copy To Library** option listed in the drop down list just adjacent to the **Copy** button. ValSpeQ will prompt for a confirmation.



On confirmation, the source or selected ITP from project will be copied to library along with data for **ITP General Information & ITP Options** as a new ITP having next logical sequential **Reference** number (also displayed as **Designation** in the grid).

- **Copy - ITP To Project option listed in the drop down adjacent to Copy button**
Select this option to copy an existing ITP from library to project. This option is available only when **Library** option from **Existing ITPs From** is selected.

To copy an ITP, select the ITP to copy & select **Copy To Library** option listed in the drop down list just adjacent to the **Copy** button. ValSpeQ will prompt for a confirmation.

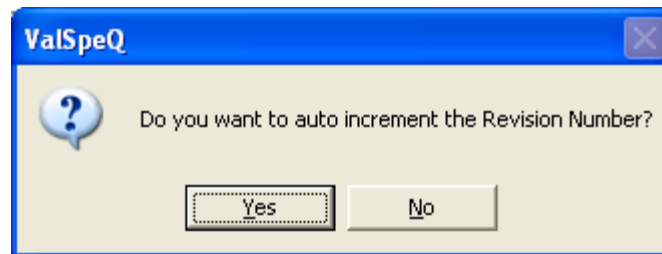


On confirmation, the source or selected ITP from library will be copied to project along with data for **ITP General Information & ITP Options** as a new ITP having next logical sequential **Reference** number (also displayed as **Designation** in the grid).

- **Save ITP** button
This option is enabled when any changes are made to an ITP i.e. any data on **ITP General Information** or **ITP Options** tab is modified.

Select the **Save ITP** option to save changes to the ITP. ValSpeQ checks to find out whether the revision number associated with the ITP should be auto incremented.

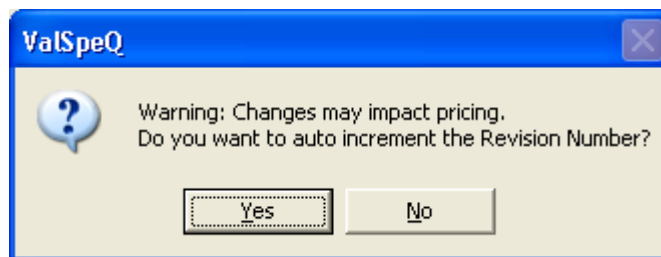
If changes are made only to **ITP General Information** then the following message is displayed.



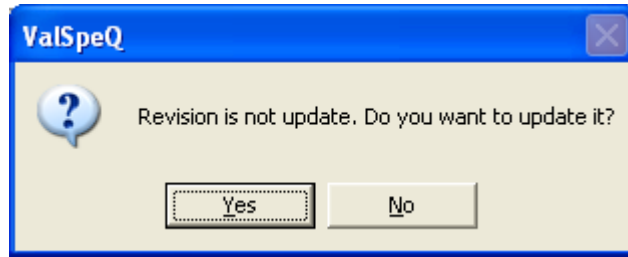
If **ValSpeQ** edition is **Professional** and changes are made to **ITP Options** that may impact the pricing, the following message is displayed.

Note:

This message is not displayed in case **ValSpeQ** edition is **Standard** or **Lite**.

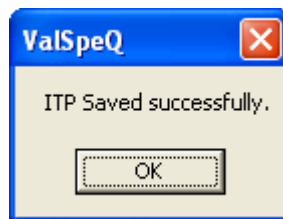


On accepting, ITP will be saved by incrementing the revision number by one. On rejecting another message prompting that revision is not updated & does the user intend to update i.e. manually.



Select **No** button to reject the manual revision & save the changes to ITP without incrementing revision number. Select **Yes** to manually update the revision. User can manually change the revision number on **ITP General Information** or on **ITP Options**.

After manually changing the revision number user can click on the **Save ITP** option to store the manually updated ITP revision number. ValSpeQ displays a successful save message.



Select the **OK** button to close the message window. The changes are updated to the selected ITP from the project or library appropriately.

If **ValSpeQ** edition is **Professional** & one or more **ITP Options** are modified for which a warning with regards to impact on pricing is displayed then pricing node status & the line item status for all line items associated with the modified ITP will be invalidated.

However if **ValSpeQ** edition is **Standard** or **Lite**, there is no change in the status.

View ITP

This option provides an easy overview or snapshot of all the selected ITP Options without having to navigate on individual categories. ITP Options which are not selected are not listed.

Select the **V**iew ITP option to view all the selected ITP options for an ITP.

Sub Category	Requirement	Standard	Acceptance Criteria	Testing
Regulation & Design Code	ASME B16-34			
Pressure containing parts(body, bonnet, c	Melt chemical analysis and mechanical pr	CMTR / EN 10204 3.1 / ISO 10474 3.1B		ITP iter
	Visual Examination accessible areas	MSS SP 55		ITP iter
Pressure retaining parts(Trim)	Melt chemical analysis and mechanical pr	CDC / EN 10204 2.1 / ISO 10474 2.1		ITP iter
Body bonnet bolting	Melt chemical analysis and mechanical pr	CDC / EN 10204 2.1 / ISO 10474 2.1		ITP iter
NDT/Inspection	Visual inspection of BW	ASME B31.3 / B31.1		BW iter
Testing	Hydrostatic Test	ASME B16.34/EN 12266.1/IEC 60534-4/ISA S 75.19		ITP iter
	Plug/Seat Leakage Test	FCI 70.2/IEC 60534-4/EN 1349		ITP iter
	Packing Leakage Test	IEC 60534-4		ITP iter
	Standard Functional Test	IEC 60534-4		ITP iter
Final inspection	Inspection of Assembled Product	Visual / Dimensional / Marking / Identification / Painting visual Check and Document Review		ITP iter
Cleaning	Standard			ITP iter
Painting	Masonellan standard	CES 1036		ITP iter
Packaging	Masonellan standard			ITP iter
Certification	NDT operators level II	SNT TC1A or EN 473 or equivalent		
	Process & welders certified	ASME IX		

View ITP facilitates to navigate to the **Next ITP** or **Previous ITP** by selecting the appropriate option. These buttons navigate thru the various ITPs available within the Project or Library depending on what has been selected in **Existing ITPs From**. **ITP Options** selected for the next or previous ITP are displayed.

The user can only view data & cannot modify the same.

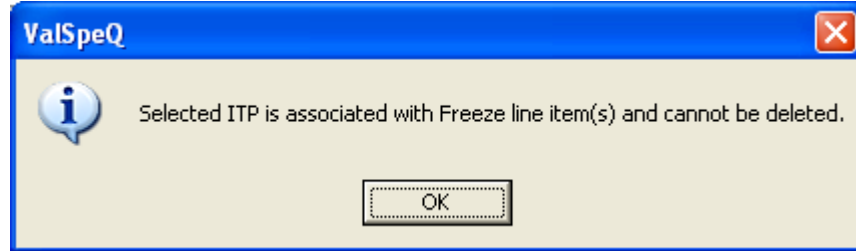
Select the **C**lose option to close the view window.

Delete ITP

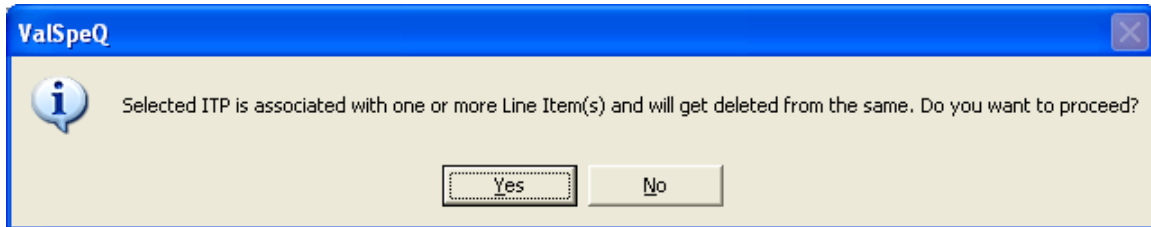
This option facilitates to delete a selected ITP from Project or Library. Select the ITP to delete from Project or Library & select the **Delete ITP** option.

If the selected ITP is from Library, a confirmation message is displayed. On confirming, the selected ITP will be deleted from the Library. On rejecting, the selected ITP will not be deleted.

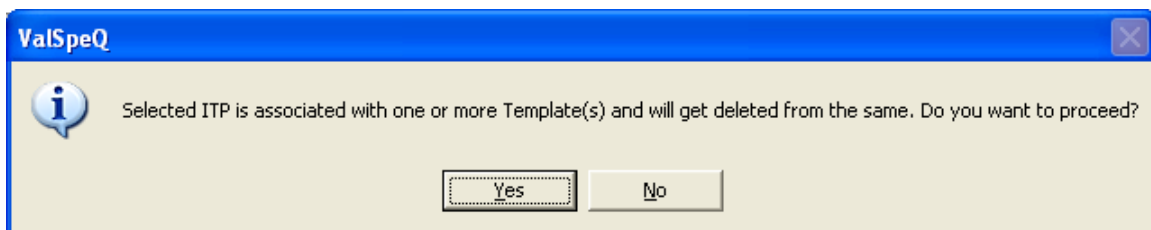
ValSpeQ restricts an ITP from a project to be deleted if it is associated with a line item having freeze status. An appropriate message is displayed.



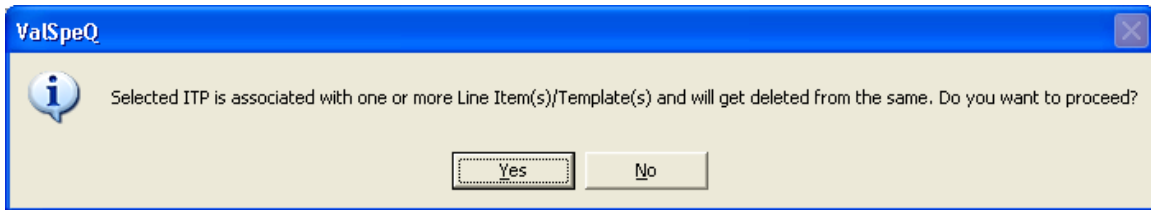
If the ITP being deleted is associated with one or more line items within a project and none of them are with freeze status then a warning cum confirmation message to proceed is displayed. The warning informs about the items using the ITP will have no ITP associated if the same is deleted.



Similarly if the ITP being deleted is associated with one or more Templates then a warning cum confirmation message to proceed is displayed. The warning informs about templates using the ITP will have no ITP associated if the same is deleted.



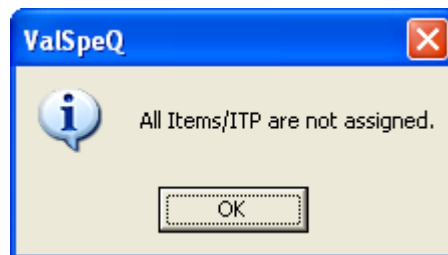
Similarly if the ITP being deleted is associated with one or more Items or Templates then a warning cum confirmation message to proceed is displayed. The warning informs about items or templates using the ITP will have no ITP associated if the same is deleted.



If confirmed, the association of the selected ITP with the items or templates using the same ITP is removed & the selected ITP is then deleted

Close

Select the **C**lose option to close the ITP Management screen. ValSpeQ checks & displays an appropriate message if one or more line items in the project do not have any ITP associated or if one or more ITPs created within the project is not associated with a single line item.

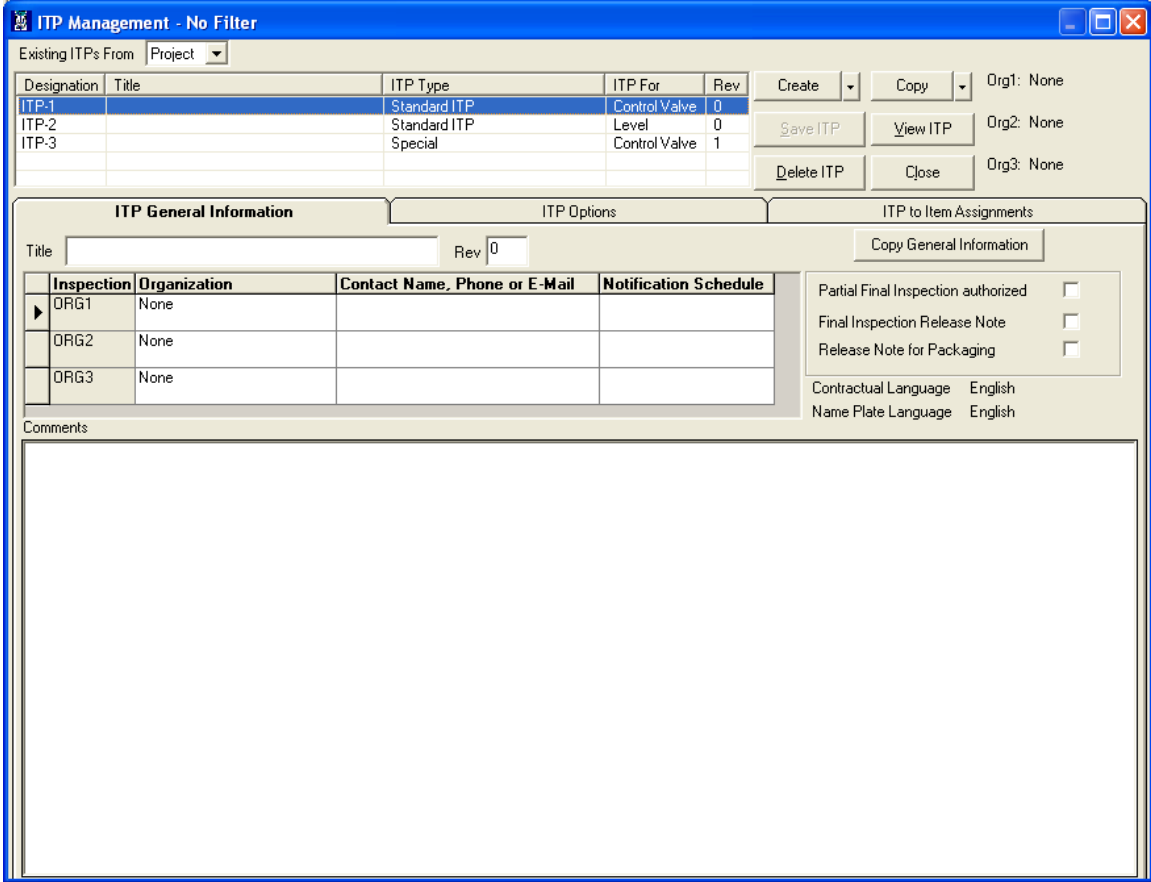


ITP General Information tab

As expressed in the document above an ITP comprises of **ITP General Information & ITP Options**.

On selecting an ITP, the **ITP General Information** tab displays Information regarding inspection agency, contact information & notification schedule of the selected ITP. User can edit any of this information, if required, for ITPs associated with valid, invalid or cancelled line items.

Note: In case of ITP associated with Freeze line item(s), user is not allowed to change any information under ITP General Information tab.

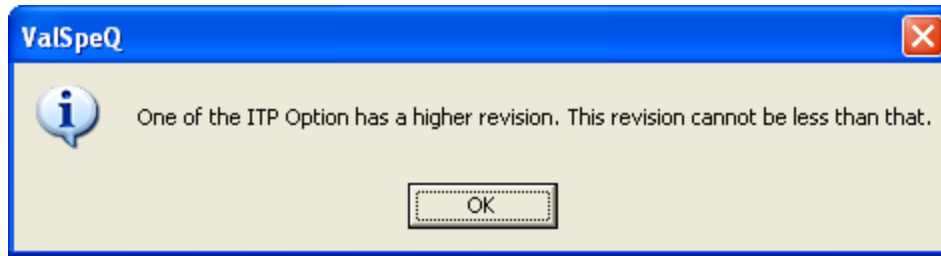


- **ITP Title**

ITP Title is something that can easily identify the specific ITP requirements that are addressed by selecting appropriate ITP Options. **ITP Title** is editable & user can enter an appropriate title (maximum allowable length is 50 characters).

- **Rev**

The revision number for selected ITP is displayed. The revision number is editable & represents the number of times the ITP has been revised. ValSpeQ restricts from entering a number which is lesser than the max revision number entered on different ITP options & displays an appropriate message.



On clicking the **OK** button, original revision number is displayed again.

- **Copy General Information button**

Multiple ITPs can be created in order to address various line item ITP requirements. However many of the occasions most of the information besides Title & Revision number remains similar.

Instead of having to enter the same information for all the ITPs within the project, this option facilitates to copy the information of the selected ITP to all other ITPs within the project.

- **Inspecting Organization grid**

ValSpeQ provides facility to store information about 3 inspecting organizations. By default in all three rows of **Organizational** column has 'None' in it. Provide the **Organization** name, the Contact Details – **Name, Phone** or **Email** & the **Notification Schedule (maximum allowable length is 50 characters.)**

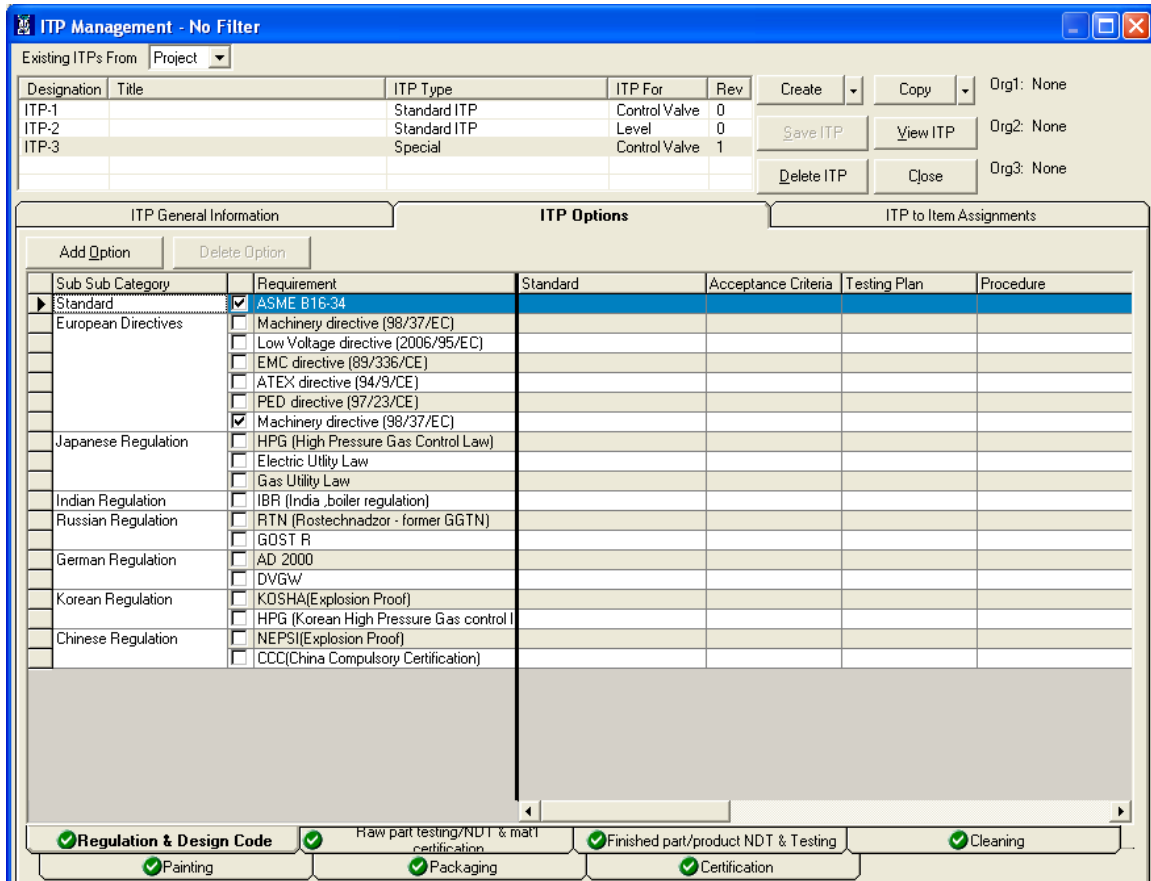
User can select the check boxes for **Partial Final Inspection authorized, Final Inspection Released Note and Release Note for Packaging** options. These selections are reflected in **VReports**. By default the check boxes are unchecked.

Contractual language and **Name Plate language** labels display Contractual and Name Plate language from **Project Preferences**.

The **Comment** area facilitates user to write specific comments for the ITP.

ITP Options tab

The ITP Options tab facilitates the user to define a particular Inspection & Test plan requirements by selecting appropriate ITP Options available on the various category tabs.



ITP Options have been segregated for ease of selecting the appropriate options. The categories in which the ITP Options have been segregated are as per the following:-

- **Regulation & Design Code**
- **Raw part testing/NDT & mat'l certification**
- **Finished part/product NDT & Testing**
- **Cleaning**
- **Painting**
- **Packaging and**
- **Certification**

Within the category (also referred to as sub tabs) tabs, the ITP Options are further segregated for simplifying selection.

User can select/de-select the options for the selected ITP associated with valid, invalid and cancelled line item by clicking their corresponding check boxes.

Note: In case of Freeze line Item user is not allowed to select/deselect the options.

By default all the sub tabs are displayed with valid status i.e. with green tick mark. When **Standard + NACE, Standard + PMI, Standard + European + NACE and Standard + European + PMI** ITP is created the **Raw part testing/NDT & mat'l certification** tab is displayed with

invalid status i.e. in red cross mark. ValSpeQ requires the user to visit that tab so as to review the ITP Options & turns its status to valid.

Any specific information with respect to the selected ITP option can be entered in **Testing Plan** and **Procedure column**.

Select the **Report** checkbox to specify inspection report requirements of the customer. Select **% to be inspected** from the available values or enter the value manually to specify what % of the items need to be inspected.

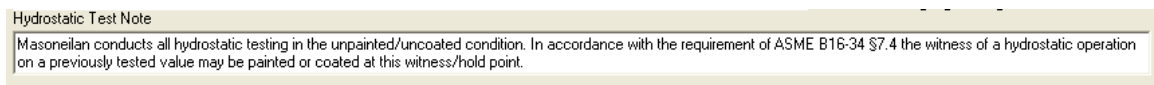
Select the **W-Witness**, **H-Hold Point** or **R-Review** requirements for each of the inspecting agencies.

- **Witness** indicates that the inspecting agency has been notified of the test date. However if they do not witness the test at the scheduled date, manufacturing will resume.
- **Hold Point** indicates that inspecting agency has been notified of the test date. However manufacturing will not resume until witnessed by the inspecting agency.
- **Review Point** indicates review of documentation only. This should be used when inspecting agencies do not witness the test itself but only review the results.

Enter revision number manually in the **Revision** column or use the auto increment option that is displayed at the time of saving the ITP.

Note:

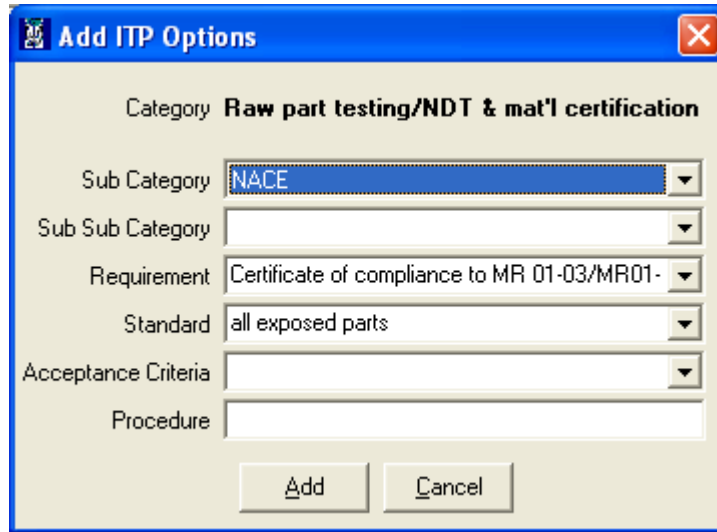
If **Witness** or **Hold point** has been set for any one of the Inspecting Organizations for **Finished part/product NDT & Testing→Testing→Basic tests→Hydrostatic Tests**, then a **Hydrostatic Test Note** is displayed on the **ITP General Information** tab just above the **Comments** area.



This note is displayed above the **Comments** text box.

- **Add button**

A provision to add a user defined ITP Option is available to define ITP requirements not catered by existing ITP Options.



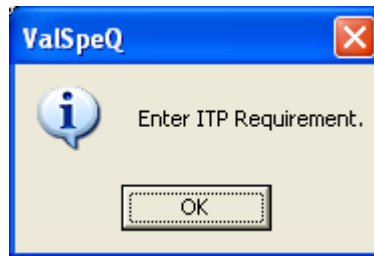
The category tab which is selected when the **Add** button is invoked is the one in which the **ITP Option** will be added to and is displayed.

Select **Sub Category**, **Sub Sub Category**, **Requirement**, **Standard** and **Acceptance Criteria**. The values populated are appropriately based on the previous selections. e.g. **Sub Sub Category** data population is based on value selected on **Sub Category**. User can select or manually type **Requirement**, **Standard** & **Acceptance Criteria**.

Enter the **Procedure (maximum allowable length is 50 characters)** to be followed for the new ITP option.

➤ **Add button**

Select **Add** button to add the new ITP Option. If **Requirement** is not defined i.e. a value is not selected or manually entered & remains blank, then an appropriate message is displayed.



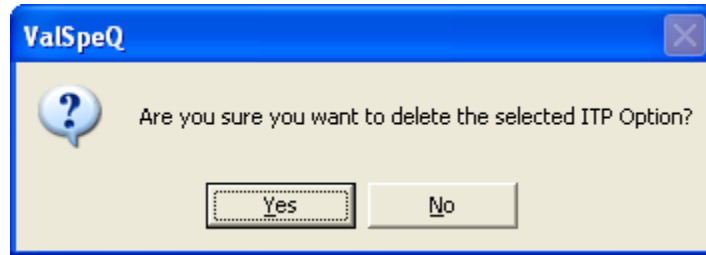
The **Add ITP Options** window is closed & new **ITP Option** will be reflected under the appropriate **Category** & within **Sub Category**.

➤ **Cancel button**

Select the **Cancel** option, to close the Add ITP Options window without adding a new ITP.

• **Delete Option**

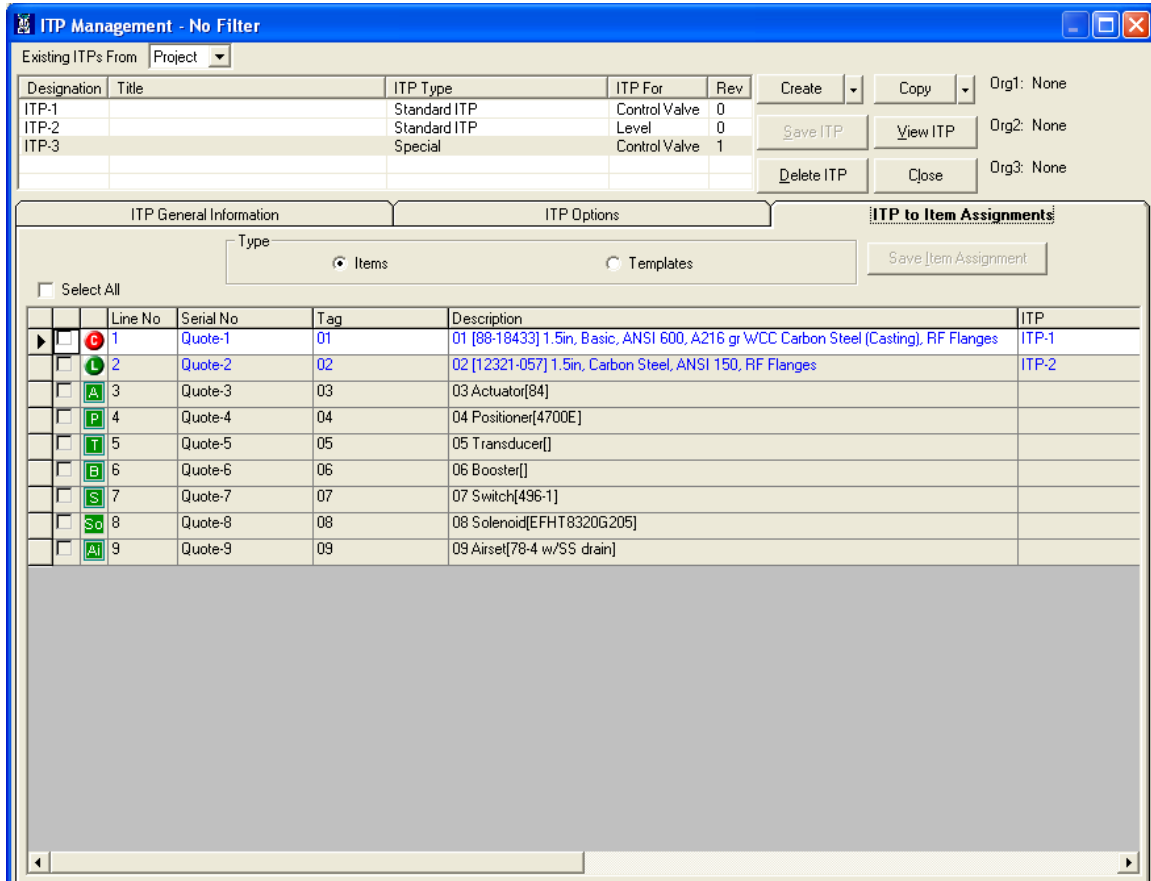
The **Delete Option** button is enabled only when a user defined ITP Option is selected. The **Delete Option** button remains disabled to prevent a selected default system ITP Options from being deleted. Select the **Delete Option** to delete a selected user defined ITP Option. A confirmation message is displayed.



On confirming the user defined ITP Option is deleted & removed from the grid. On rejecting the same is not deleted.

ITP to Item Assignments tab

This option facilitates easy & speedy assignment of a selected ITP to multiple line item or templates within a project. Select the **ITP to Item Assignments** tab. This tab is available for selection only if **Project** is selected from **Existing ITPs From** list of options.



Note:

On a new project, when there are no line items & templates, the **Items** & **Templates** options are disabled & the grid does not display any information.

- **Items radio button option**

By default, **Items** option is selected and all the line items within the project are displayed. If Filter is active, all line items that meet the filter criteria are displayed.

If project does not have any line items, this option is disabled & **Templates** option is selected & all templates within the project.

On selecting an ITP within the Project

- Line items associated with the selected ITP are displayed in dark (bold text) blue color.
- Line items associated with any other ITP besides the selected ITP are displayed in light blue color.
- Line items not associated with any ITP are displayed in normal black color.

Line items which belong to a different Product Type than the selected ITP Type e.g. selected ITP is for Control Valve & line item Product Type is Level then the line item is displayed with a gray background restricting the user to check or uncheck.

Items belonging to the same ITP type have a white background & can be checked or unchecked provided the item status is not set to freeze. Items belonging to the same ITP type but are with a freeze/cancel status are displayed with a gray background restricting the user to check or uncheck.

Check the line item if you want to associate the selected ITP with the line item. Uncheck the line item to remove association with the selected ITP. User can check or uncheck multiple line items to associate or disassociate the selected ITP.

Warning:

If you check or uncheck line items & select another ITP without saving i.e. selecting the **Save Item Assignment** option will result in loss of all the checks or uncheck actions performed.

Note:

The checkbox remains disabled for all accessories.

- **Template radio button option**

This option is enabled if the Project has one or more templates. On selecting this option all templates within the project are displayed.

On selecting an ITP within the Project

- Templates associated with the selected ITP are displayed in dark (bold text) blue color.
- Templates associated with any other ITP besides the selected ITP are displayed in light blue color.
- Templates not associated with any ITP are displayed in normal black color.

Templates which belong to a different Product Type than the selected ITP Type e.g. selected ITP is for Control Valve & Template Product Type is Level then the template is displayed with a gray background restricting the user to check or uncheck.

Templates belonging to the same ITP type have a white background & can be checked or unchecked.

Check the template if you want to associate the selected ITP with the template. Uncheck the template to remove association with the selected ITP. User can check or uncheck multiple line item or templates to associate or disassociate the selected ITP.

Warning:

If you check or uncheck templates & select another ITP without saving i.e. selecting the **Save Item Assignment** option will result in loss of all the checks or uncheck actions performed.

Note:

The checkbox remains disabled for all accessories.

- **Select All checkbox**

This allows checking or unchecking all line items to be associated or disassociated with the selected ITP instead of having to check or uncheck on individual item or template.

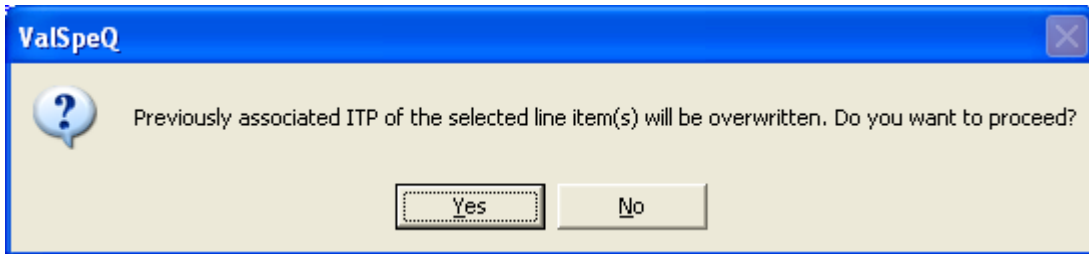
Check or uncheck the **Select All** check box to select or de-select all the items / templates. Only line items that qualify i.e. have a white background (i.e. items with status as not freeze & belonging to the same ITP type) are checked or unchecked.

- **Save Item Assignment button**

Select this option to save the selected ITP association or disassociation with the line items or templates. By default **Save Item Assignment** button is disabled & is enabled state only when any Line Item/Template for a selected ITP is either checked or unchecked.

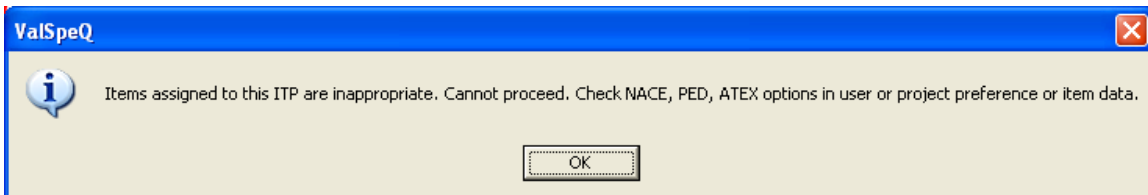
Appropriate message is displayed on saving the changes made to the line items or templates for a selected ITP successfully.

If the selected ITP is being applied to a Line Item/ Template that is already associated with another ITP besides the one selected, then a confirmation message is displayed prior to overwriting the earlier ITP association with the selected ITP.

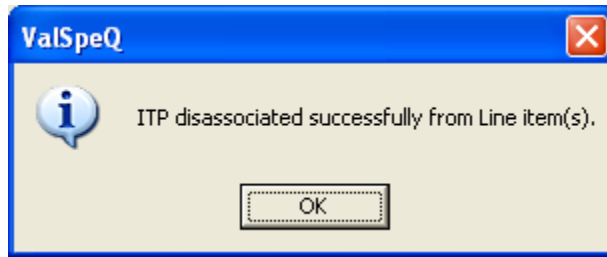


On confirming, the previous ITP will be overwritten with the selected ITP. On rejecting none of the checks & uncheck actions for line items/templates are updated.

If the selected ITP is not appropriate for the selected Line Item/ Template then the following message is displayed.



Uncheck the line item/template to disassociate the same with the selected ITP. On selecting the **Save Item Assignment** option, an appropriate message is displayed.



Additional Information

A standard ITP Type is automatically created for every new project. Based on the **Default Configurator** settings set in **User Preferences (Settings→User Preferences→General→Default Configurator)** & based on the ITP Type settings set in User Preferences (**Settings→User Preferences→PED/ITP→ITP Types**).

The following table indicates the way default ITP for a new project is created based on the **ITP Type & Default Configurator** selections.

Default Configurator set in User Preferences	ITP Type set in User Preferences	Default ITP Created in the Project
Control Valve	Standard	Standard ITP for Control Valve
Level	Standard	Standard ITP for Level
Accessories <ul style="list-style-type: none"> • Actuator • Positioner • Transducer • Booster • Switch • Solenoid • Airset 	Standard	Standard ITP for Control Valve Note: Since ITP is not applicable for accessory line items, a default ITP for Control Valve is created.
Regulator	Standard	Standard ITP for Regulator
Control Valve	Standard + European Directives	Standard + European Directives ITP for Control Valve
Level	Standard + European Directives	Standard + European Directives ITP for Level
Accessories <ul style="list-style-type: none"> • Actuator • Positioner • Transducer • Booster • Switch • Solenoid • Airset 	Standard + European Directives	Standard + European Directives ITP for Control Valve Note: Since ITP is not applicable for accessory line items, a default ITP for Control Valve is created.
Regulator	Standard + European Directives	Standard + European Directives ITP for Regulator

If a line item in a project has NACE requirements, with PED field checked and ATEX unchecked (in Item data form), an ITP Type of Standard + European Directives + NACE is auto created & also auto assigned to the same at the time of saving the line item.

If a line item in a project has NACE requirements, with PED and ATEX fields unchecked, an ITP Type of Standard + NACE is auto created & also auto assigned to the same at the time of saving the line item.

If a line item in a project has NACE requirements, with ATEX field selected but PED unchecked, an ITP Type of Special is auto created & also auto assigned to the same at the time of saving the line item.

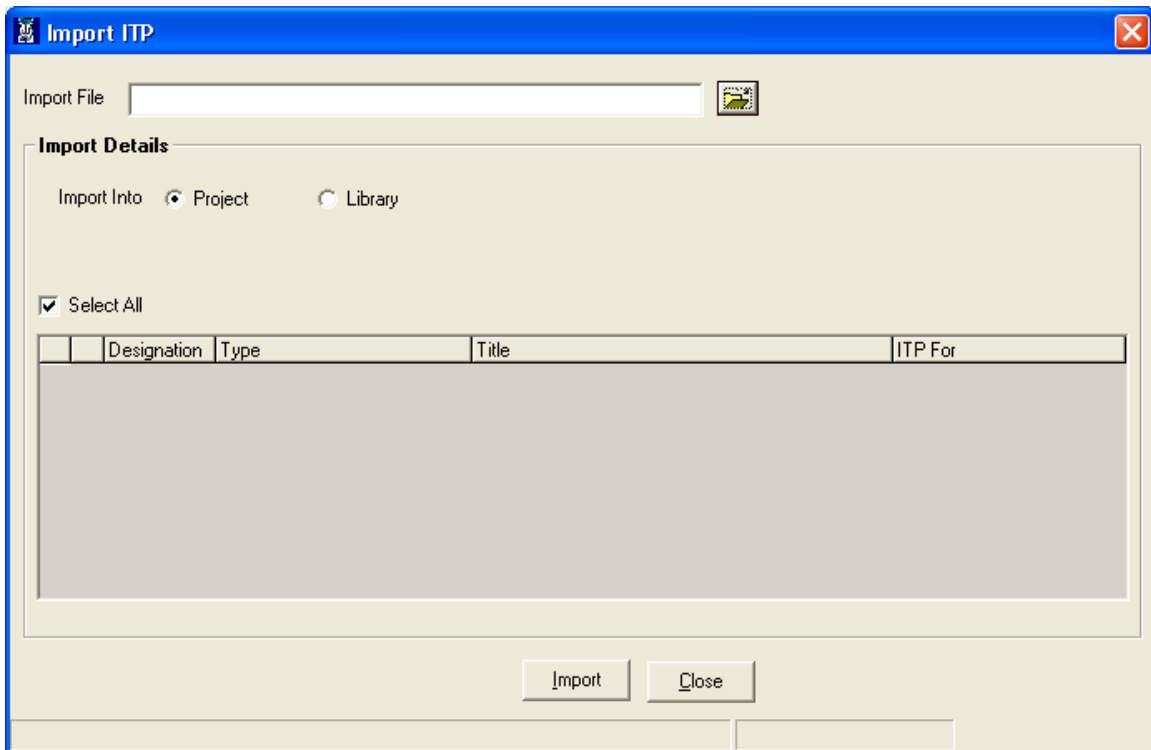
If a line item in a project has NACE requirements, with both ATEX and PED fields checked, an ITP Type of Special is auto created & also auto assigned to the same at the time of saving the line item.


Import ITP

This option facilitates the user to import ITPs into the current Project / Quote from another project via previously exported file having “.vin “extension.

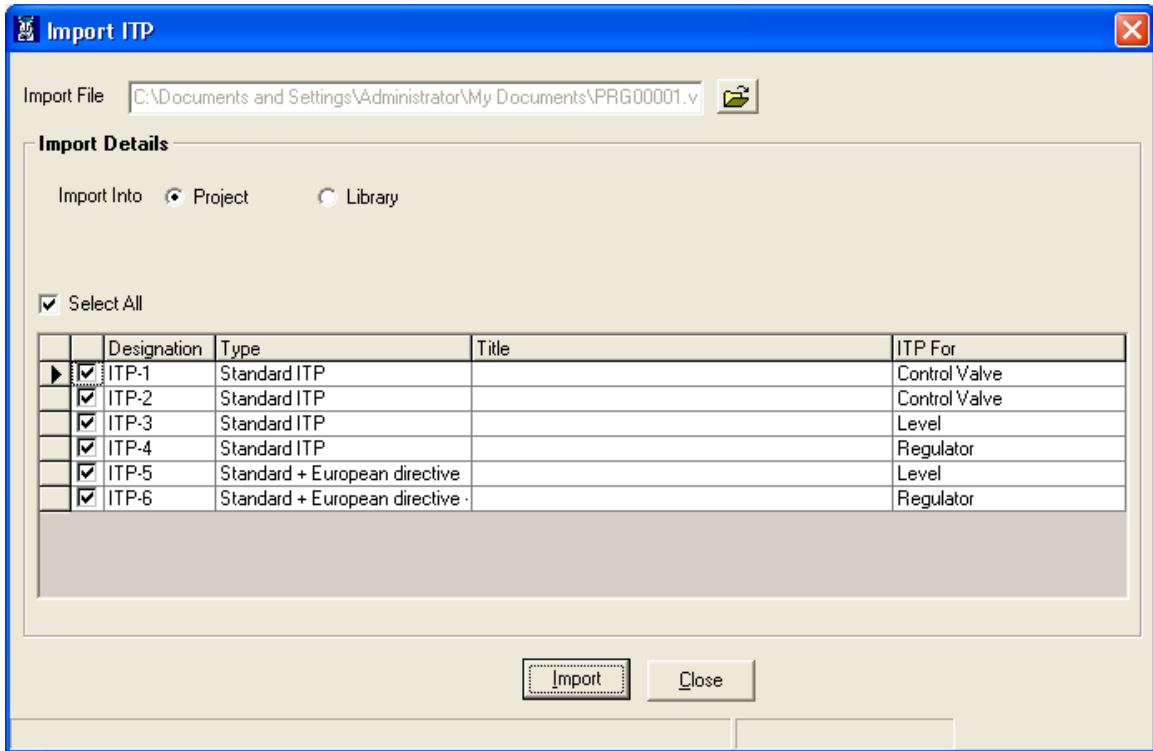
This option is available under ITP option of Settings menu. The same option should be invoked using the shortcut keys- **Alt+S+I+M**.

After clicking on Import ITP option, the following screen will be displayed.



Select the already exported .vin file by clicking on the  (Open Folder) button. The application will display the Name of the exported file.

User can import ITP either into project or library by selecting the Project or Library radio button respectively, by default Import From- Project is selected.



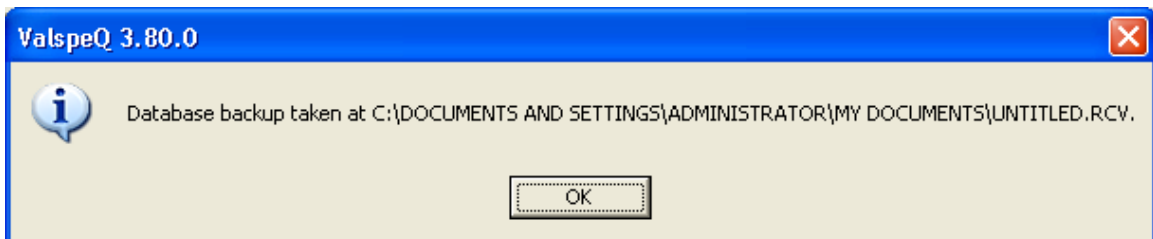
All the ITPs in the Project will be displayed in the list view & selected by default. The user has the option to de-select all and select a few.

When Library option is selected, all the ITPs in the Library are displayed in the list view. The ITPs can be selected or deselected

Click on the **Import** button or press **Alt+I** key to start the import process.

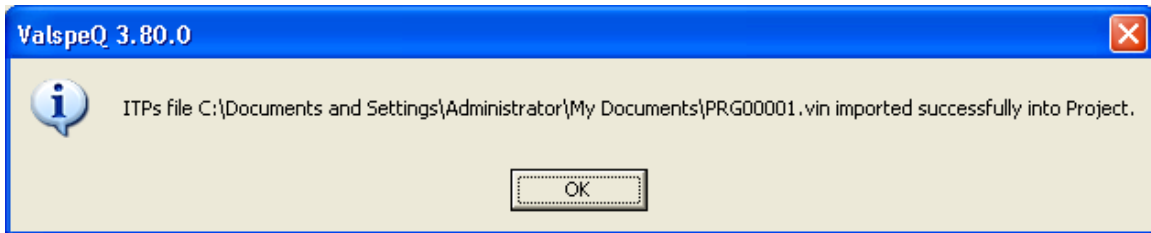
Before starting the import process, the application takes a backup of the current project and the user will be informed about the backup location. This helps the application to restore the database from the backup in case of an unsuccessful import operation. But if the application fails to restore the backup, the user will have to manually restore the backup.

The backup of the current project is taken in the personal folder of current user and the following message is displayed



As the utility starts, the progress bar will be displayed.

When the import is done successfully the following message is displayed



Close

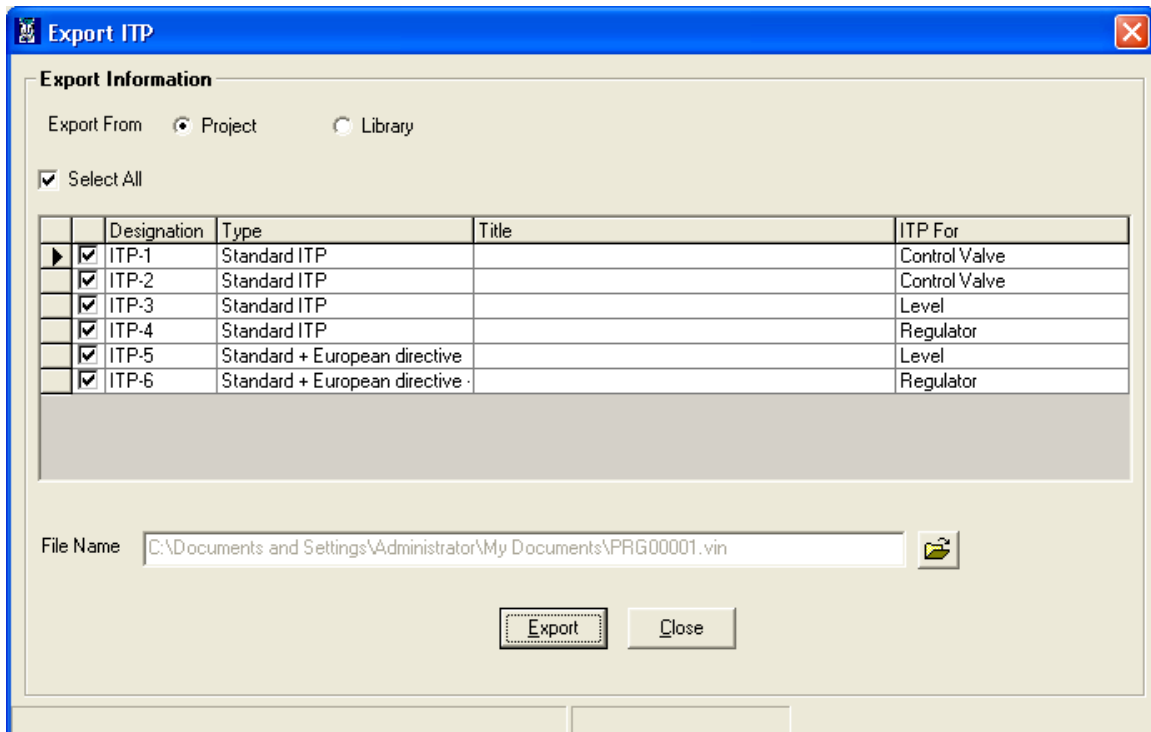
Click on the **C**lose button or press the **Alt+C** keys to close the Import Form.

Export ITP :

This utility facilitates the users to export the ITPs of current Project to other ValSpeQ user. The exported ITPs can then be imported in any other Project.

This option is available under ITP option of Settings menu. The same option should be invoked using the shortcut keys- **Alt+S+I+X**.


After clicking on Export ITP option, following screen will be displayed.



User can export the ITP either from project or library by selecting the Project or Library radio button respectively, by default Export From- Project is selected.

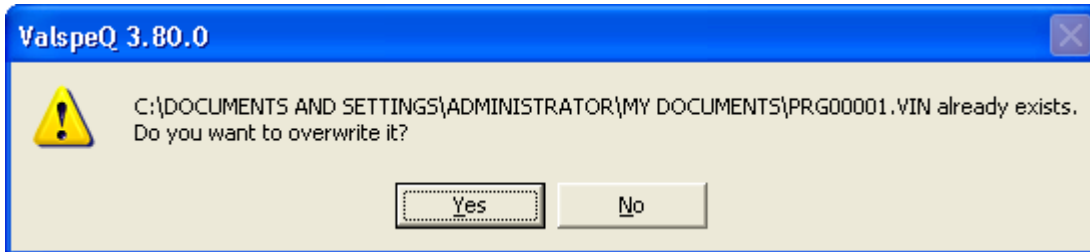
All the ITPs from the Project will be displayed in the list view & selected by default. The user has the option to de-select all and select a few.

When Library option is selected all the ITPs in the Library are displayed in the list view. The ITPs can be selected or deselected.

By default the export file path will be in personal folder of the current user and the file name will be **PRG00001.vin**. However user can change the default path and file name by clicking on the  (open folder) button.

Click on the **Export** button or press **Alt+E** key to start the export process

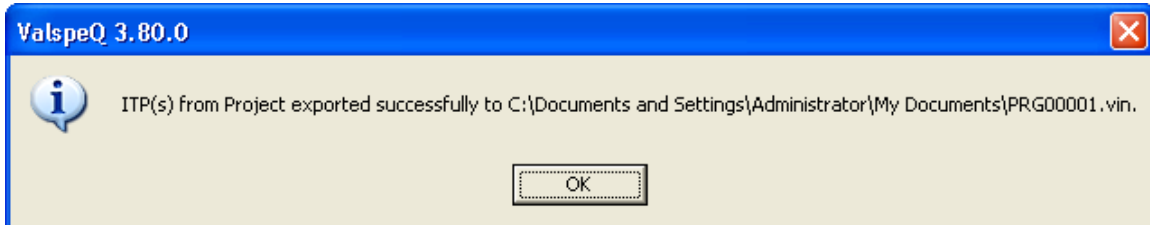
If **PRG00001.vin** already exists on the same path then the following message will be displayed after clicking on Export button.



Clicking on Yes button will overwrite the existing file and clicking on No button will close the message box.

As the utility starts, the progress bar will be displayed.

After the file is exported successfully the following message will be displayed



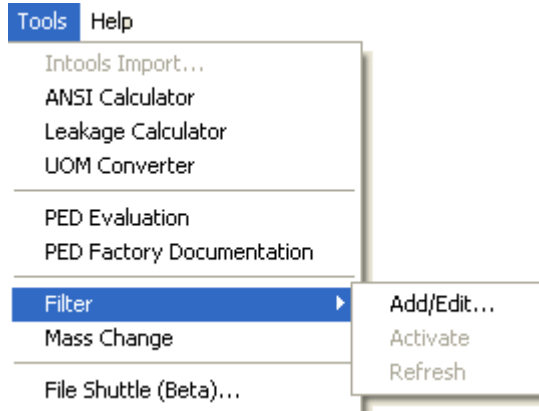
Close

Click on the **Close** button or press the **Alt+C** keys to close the Export Form.

Tools

The **T**ools menu on the application menu bar facilitates the user to invoke ValSpeQ related utilities.

Following are the different options available under Tools Menu.



Note:

The **I**ntools **I**mport... option is for a feature that will be added in the future & currently will remain disabled.

ANSI Calculator

This tool allow the user to determine

- The minimum ANSI rating for a given body material, pressure and temperature.
- Allowable working pressure for a given body material, rating and temperature.
- Hydrostatic test pressure for a given Valve size, body material and rating.

RATING

Select calculation mode

minimum rating

allowable working pressure

hydrostatic test pressure

ANSI

body material A216 gr WCC

100 deg F

100 psi a

Minimum ANSI rating

Calculate minimum rating

Leakage Calculator

Allow the user to calculate the Allowable Leakage for a given Line, Valve Size, Rating, Trim Type, Plug Type, Flow Direction, Rated CV and Leakage Class.

The screenshot shows a software window titled "Seat Leakage" with a blue border and a close button in the top right corner. The window contains the following elements:

- Standards:** "ANSI / FCI 70-2" and "IEC 534-4" displayed in large black text.
- Input Fields:**
 - valve size: 10000 (dropdown)
 - valve size: 2 (dropdown) and in (dropdown)
 - rating: ANSI (dropdown) and 150 (dropdown)
 - trim type: Linear Contoured (dropdown)
 - plug type: Linear Contoured (dropdown)
 - flow direction: Flow to Ports (dropdown)
- Manual Mode:** An unchecked checkbox labeled "Manual".
- Additional Inputs:**
 - rated Cv: 48 (dropdown)
 - Leakage Class: II (dropdown)
- Requirement:** A text box containing "0.5% of rated valve capacity".
- Fluid Selection:** Radio buttons for "Water" (selected) and "Air".
- Output Fields:** Three yellow boxes for "Allowable Leakage" with units "GPM", "liters/min", and "ml/min".
- Button:** A button labeled "Calculate Allowable Leakage" at the bottom.

User has to select fluid to be considered i.e. Water or Air to calculate Allowable Leakage.

The user can also derive the Allowable leakage value by specifying Manual specifications like Rated CV, Leakage Class and Test pressure.

ANSI / FCI 70-2
IEC 534-4

Manual

rated Cv 48
Leakage Class II
test pressure 50 psi g

Requirement 0.5% of rated valve capacity

Water Air

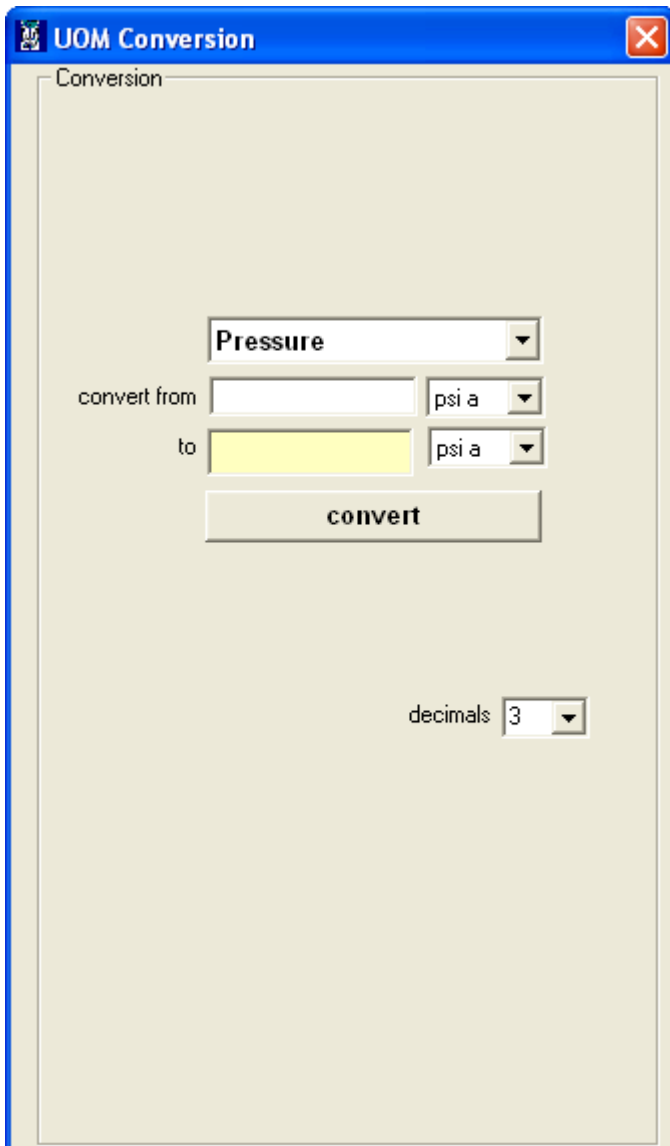
Allowable Leakage GPM liters/min ml/min

Calculate Allowable Leakage

User has to select fluid to be considered i.e. Water or Air to calculate Allowable Leakage.

UOM Converter

Allow the user to convert One Unit value to different Unit for Pressure, Temperature and Length.

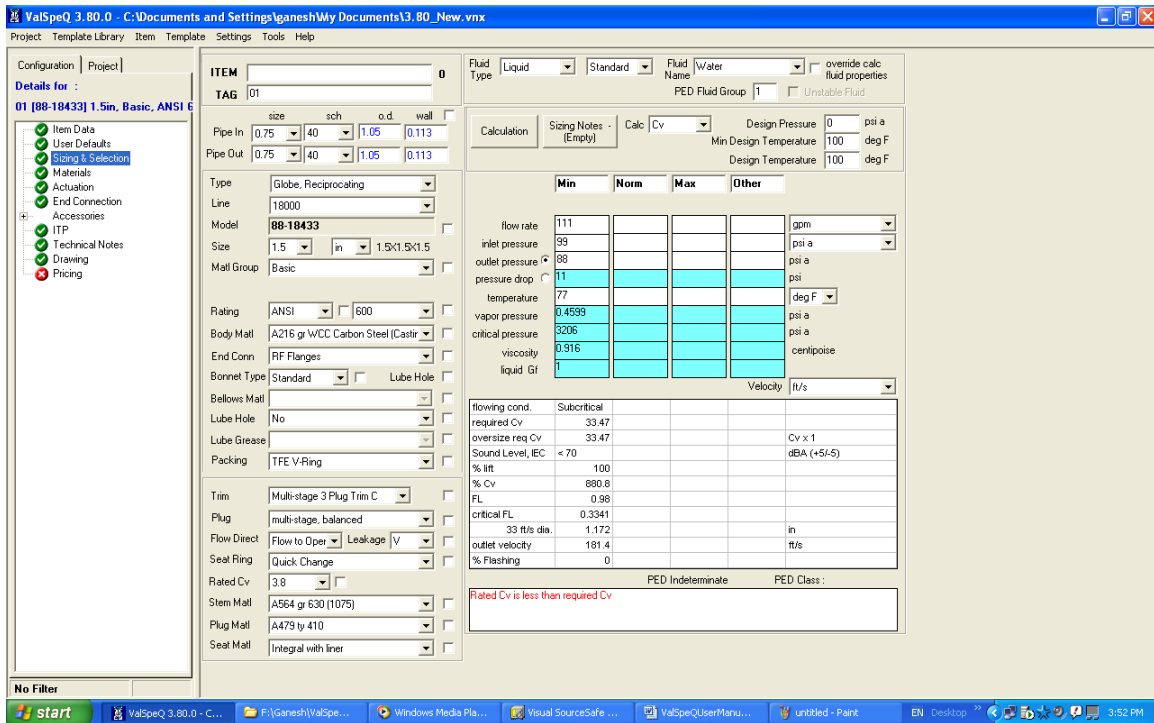


The image shows a software dialog box titled "UOM Conversion" with a close button in the top right corner. The dialog has a light beige background and a blue border. At the top left, the word "Conversion" is written. The main area contains a "convert from" section with a dropdown menu set to "Pressure", an empty text input field, and a "psi a" dropdown menu. Below this is a "to" section with a yellow-highlighted text input field and another "psi a" dropdown menu. A "convert" button is positioned below these fields. At the bottom right, there is a "decimals" label followed by a text input field containing the number "3" and a small dropdown arrow.

PED Evaluation

With the desired record displayed in Valspeq PED evaluation is selected. The data for the input fields is populated from the sizing/selection screen data. If the valve definition is incomplete or if at least one service condition/design condition is not present a warning message is shown.

The subroutine will translate the specification data into the format used by the underlying spreadsheet, which remains hidden during the entire process. The data will then be entered in the required spreadsheet cells. A screen that cannot be edited displays the converted input variables, calculation data and evaluation. Sample Valspeq and PED Evaluation screens are shown below:



PED

File

Order No.

Product: 18400
 Size: 1 1/2 in
 End Conn: FLANGED
 Rating: CL 600
 Body/Bonnet Matl: ASTM A 216 Gr WCC
 Bolt Material: ASTM A 193 Gr B7

Service Conditions

	Minimum	Normal	Maximum	Other	Design	
Inlet Pressure	5.8					bar g
Inlet Temperature	25				37.8	deg C

Class: 34 0 0 0 0
 Rating: ok ok ok ok ok

Calculation Results

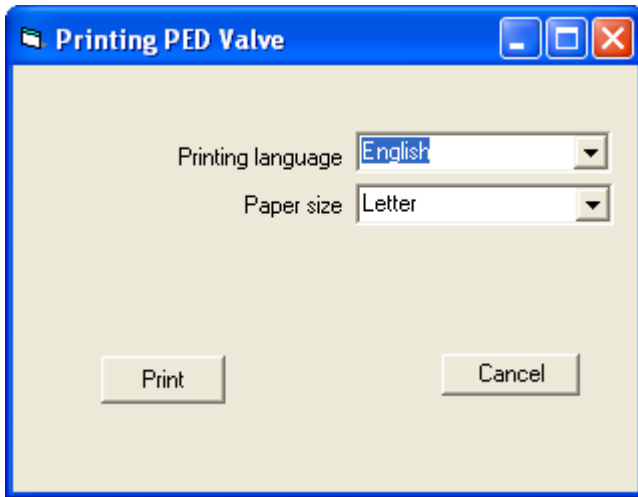
Validation	YES
P eh (bar)	156

T (deg C)	P (bar)	OBS
-29 to 20	103.4	Rating OK
50	103.4	Rating OK
100	103.1	Rating OK
150	100.4	Rating OK
200	97.5	Rating OK
250	92.6	Rating OK
300	85.7	Rating OK
350	80.4	Rating OK
375	77.1	Rating OK
400	69	Rating OK
425	57.5	Rating OK
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-

Note that the PED screen cannot be edited with the exception of the Order No..

Two selections are available from the File menu:

Selecting "Print" will print a Design check report using a underlying spreadsheet macro. An intermediate screen allows choices for printing language and paper size.



The second selection from the "File" menu is "**Exit**". Selecting this option will dismiss the PED screen, save the evaluation result to ValSpeQ memory, and return focus to ValSpeQ.

Filter

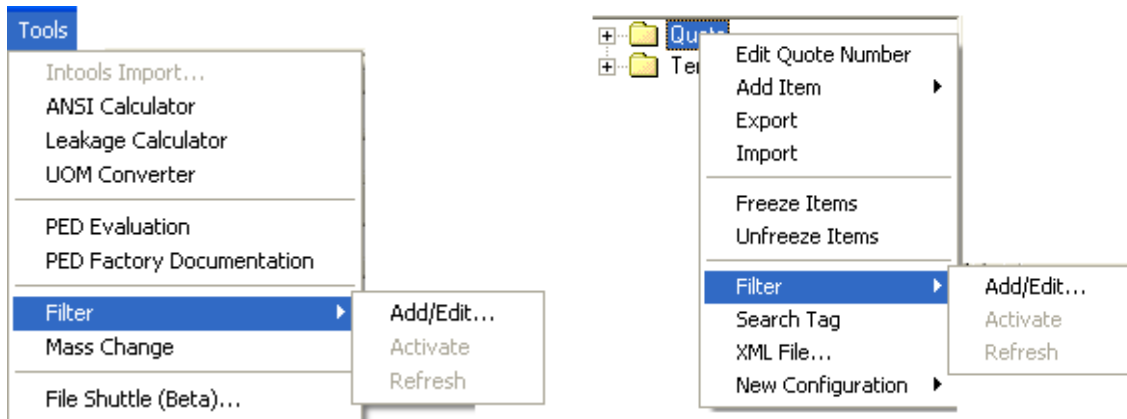
While working on a big project having a considerable number of line items, the Filter feature facilitates to work on a similar set of line items by applying filter by defining criteria. User is displayed only line items that meet the criteria instead all the project line items.

The filter functionality allows to create or modify a filter & its criteria, activate or de-activate a filter or refresh the data.

Invoking Quote Item Filter (QIF)

Filter functionality can be invoked by clicking on the **Tools**→**Filter**→& then selecting appropriate feature as required or by right clicking on the **Project/Quote** node & then selecting appropriate feature as required from the **Filter** sub option.

An appropriate message will be displayed if no line items exist for the project & will not proceed further.



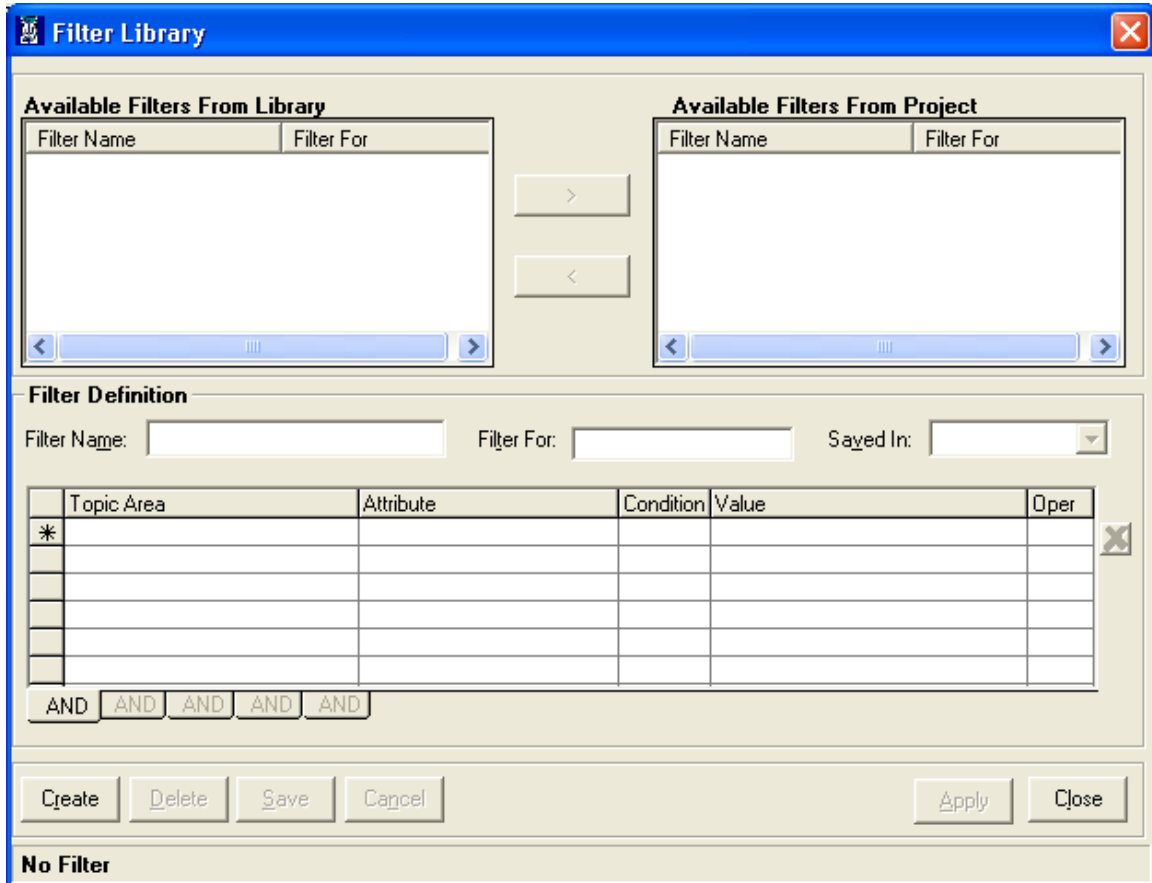
QIF 1 - Tools menu.

QIF 2 - Right click on Project/Quote node.

Filter Management

To create or modify or delete a filter, select **Tools→Filter→Add/Edit...** option available under Filter option from Tools menu as shown in image QIF 1. The same can be invoked by right clicking on the Project/Quote node & then selecting Filter & Add/Edit... option as shown in image QIF 2.

On invoking this option, following screen is displayed.



ValSpeQ allows managing & storing filters within Project (VNX) & User Library (VUL) to support re-usability of the filter on different projects.

Available Filters From Library

All filters available in User Library (VUL) are listed under Available Filters From Library section.

Available Filter From Project

All filters available in Project (VNX) are listed under Available Filters From Project section.

Filters that exist in Library as well as in the active project are displayed in red color.


If the Project & Library do not have any filters, then a blank form will be displayed.

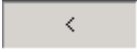
If Library & Project both have existing filters but no filter is active, then the details of the first filter from the Library are displayed & the same is highlighted.

If Library does not have any filter but Project does have an existing filter & the filter is not active then details of the first filter from Project are displayed & the same is highlighted.

If Library & Project both have existing filters but a filter is active, then the details of the active filter from the Project are displayed & the same is highlighted.

Selecting any filter within Library or Project will display the filter details below in Filter Definition section.

Use  button to copy one or more selected filters from User Library to Project. When the filter is copied from Library to Project, it will be displayed in Red color under Available Filters From Library and Available Filters From Project. If the filter with same name exists in project, an appropriate message is displayed with a confirmation request to replace. On confirming, the Library filter will replace the Project filter.

Similarly use  button to copy one or more selected filters from Project to User Library. When the filter is copied from Project to Library, it will be displayed in Red color under Available Filters From Library and Available Filters From Project. If the filter with same name exists in project, an appropriate message is displayed with a confirmation request to replace. On confirming, the Project filter will replace the Library filter.

After copying a filter from Project to User Library or vice-versa the source filter remains selected and its details are displayed in Filter Definition. If multiple filters are selected, details of the last selected filter in multiple selections will be displayed.

Filter Definition

This area displays the selected Filter information like Filter Name, Filter for (Product Type), Saved In i.e. Project or Library followed by the filter grid that displays filter conditions. Filter Condition grid displays Topic Area, Attribute, Condition, Value and Operator. The selected filter can be edited.

Filter Name

Selected filter name is displayed. Filter name cannot be edited & is editable only at the time of creating a filter.

Filter For

Filter For represents/indicates the product type e.g. Control Valve, Levels for the filter. Filter can be for Control Valves/Levels/Accessories/Regulator. Filter For field is non-editable & is available for selection only at the time of creating a new filter.

Saved In

Saved In indicates the location of the filter i.e. within Project or User Library. Saved In drop down is non-editable & available for selection only at the time of creating a new filter.

Filter Condition Grid

The grid displays the filter conditions or criteria defined for selecting the set of line items. The grid facilitates user to define multiple conditions all of which have to be satisfied or any one can be satisfied depending on the way the filter condition is defined.

User can modify the filter conditions for an existing filter.

As user clicks on the cell the dropdown associated with the cell appears. The dropdown will have all corresponding values populated so that user can select value from the list. Also after the cell loses the focus the selected value appears into the cell.


- **Topic Area**
Different **Topic Areas** based on the **Filter For** i.e. product type are populated & available for selection. **Topic Areas** are by & large, the important configuration nodes or important piece of information that make up the product e.g. in Control Valve – Sizing & Selection, Actuation, Actuator, Item Data, User Defaults, ...
- **Attribute**
Attribute values are populated based on **Topic Area** selected. **Attribute** values are by & large, the attributes (or labels on screen) that are associated with the selected **Topic Area** (i.e. Configuration node) e.g. in the case of Control Valve where Topic Area selected is Item Data, the Attributes populated are Area Classification, Area Name...
- **Condition**
ValSpeQ filter allows the user to specify the 3 conditions – **Equals, Not Equals & Contains**
 - **Equals**
Select Equals condition, to filter items where item Attribute value Equals to selected Attribute value of the filter condition. E.g. Filter all items where Attribute Valve Type Equals Globe Rotary.
 - **Not Equals**
Select Not Equals condition, to filter items where item Attribute value does Not Equals to the selected Attribute value. E.g. Filter all items where Attribute Valve Type Not Equals Globe Rotary.
 - **Contains**

Select Contains condition, to filter those items where item Attribute value Contains the selected Attribute value. E.g. Filter all items where Attribute Valve Tag Contains 'Tel'.

- **Value**
Distinct values for the selected **Attribute** are populated from the existing line items within the active project belonging to the same product type for which the filter is being defined. User can select a value if the **Condition** selected is **Equals** or **Not Equals**. User can manually enter a value if the **Condition** selected is **Contains**. A maximum of 250 characters is permitted.
- **Oper (Operator)**
On entering the second condition on the second row of the grid, the OR operator will be automatically added into the last cell of previous row under the column titled Oper.
 - **OR**
Each AND tab has multiple rows on the grid each separated by OR operator facilitating the user to define maximum of five conditions of which any one can be satisfied in order for the line item to become eligible candidate for the filtered set. E.g. in order to define two conditions of which any one needs to be satisfied, enter both the conditions on different rows of the same AND tab page.
- **AND Tab**
The AND tabs on the grid facilitates to specify multiple conditions all of which need to be satisfied by line items in order to become eligible candidate for the filtered set of line items. E.g. in order to define two conditions both of which need to be satisfied, enter first condition on the first AND tab page & the second condition on the second AND tab page.

To summarize, the most complex filter can have a maximum of 5 groups of conditions all of which have to be true & each group can have maximum of 5 conditions of which at least one condition should be true in order for the line item to become an eligible candidate for the filtered set.

Delete Filter Condition

To delete a filter condition, select the filter condition to be deleted click on the  button adjacent to the filter grid. This button will be disabled when there are no filter conditions defined.

An appropriate message will be displayed if a filter condition is not selected.

Note:

To select a filter condition to delete, move the mouse pointer on the row on which the filter condition to be deleted is located and on to the left most grey colored column (i.e. column prior to Topic Area) till the mouse pointer changes to a right arrow selection pointer & click the mouse button. The filter condition selected will be highlighted in grey.

A warning message is displayed to avoid accidental delete.

On making any changes to the filter condition of the selected filter, the Create & Delete buttons are disabled and Save & Cancel buttons are enabled for the user to either save or discard the changes.

Save

Select the **Save** option to update the changes made to the filter conditions of the selected filter. The application will flash an appropriate message if all filter conditions are deleted & the filter is being saved. Similarly if a filter condition is incomplete, an appropriate message is displayed.

If an active filter is modified and being saved then a message to reapply the same is displayed with a confirmation request. On confirming the updated filter will be reapplied. On rejecting, the current applied filter will be de-activated and the project will populate all the items.

Cancel

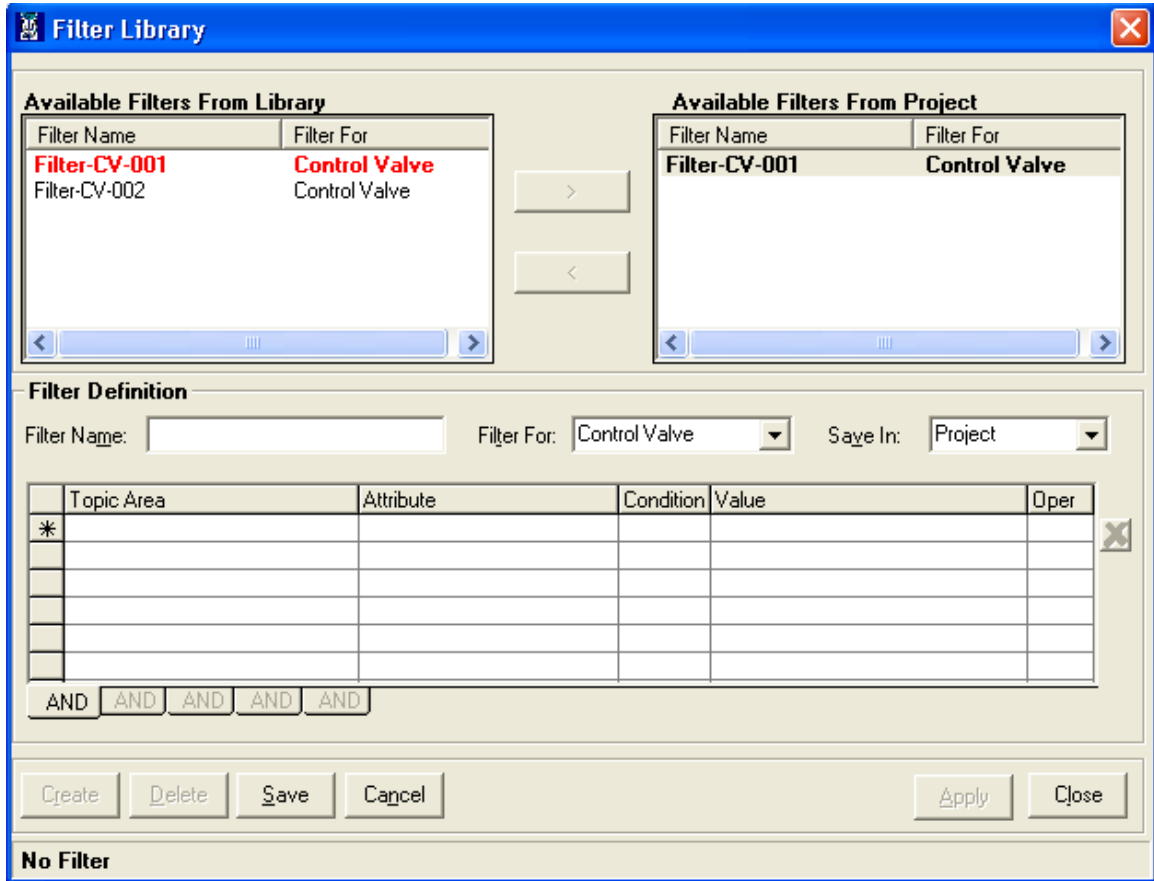
Select the **Cancel** option to discard the changes made to the filter condition/s of the selected filter.

Save & Cancel buttons are disabled & **Create & Delete** buttons are enabled on saving or discarding the changes.

Create button

Select the **Create** option to add a new filter. By default this option is enabled. This option is disabled when an existing filter is changed or as soon as this button is hit to add a new filter.

Any previous information in Filter Definition is cleared. The focus will be set to Filter Name text box. Filter name can be of maximum 50 characters & cannot be blank.



Data for **Filter For** is populated based on the product type of existing line items within the current project.

Select the **Save In** i.e. Project or User Library (location) to save the filter. **Project** is default. Select the **Library** to save the filter to User Library.

Enter the filter conditions within the grid similar to that as explained above.

Click the **Save** button to save the new filter. An appropriate message is displayed if a filter with same name & same product type already exists. The application will flash an appropriate message if no filter condition is defined & the filter is being saved. Similarly if a filter condition is incomplete, an appropriate message is displayed.

Available Filters From Library or **Available Filters From Project** is refreshed to display the new filter name depending on the **Save In** option selected.

Click the **Cancel** button to cancel the Create Filter process.

Delete button

Select the Delete option to delete one or more selected filter from either User Library or Project. A confirmation message is displayed to avoid accidental delete.

If an active Filter is being deleted, a warning message is displayed & confirmation requested. On confirming, the active filter is deleted & the filter will be deactivated.

Apply button

Select Apply option to apply selected filter to the project items. The Apply button is disabled

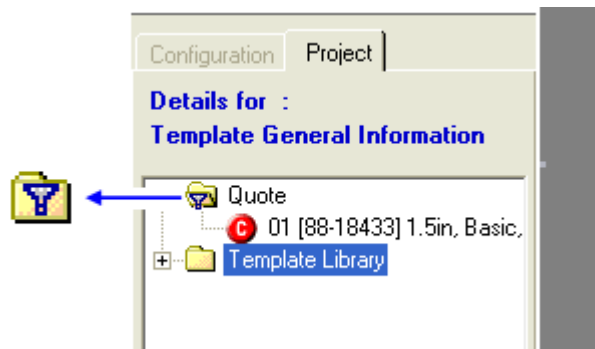
- if multiple filters from Available Filters From Project are selected
- if one or more filters from Available Filters From Library are selected
- if the selected filter from Available Filters From Project is an Active filter.

Apply option is enabled if any one Filter from Available Filters From Project is selected.

On applying the filter if no items are found that meet the filter criteria, an appropriate message is flashed & the filter is not applied.

If one or more items meet the filter criteria, the filter is applied & the Filter Library screen is closed.

On the Project tab page, the Quote / Project folder icon under which the filtered line items are listed is replaced with a new folder icon having funnel representing that filter is active.



The status bar will display Filter status as Filter On instead of Filter Off / No Filter.



On moving the mouse button on the status bar showing Filter On, a tool tip will display Filter Name with number of filtered items out of total number of items from the project.

The Activate/Deactivate toggle option under Tools→Filter is enabled & the option is set to Deactivate. Similarly the Deactivate option is also enabled under Filter option on pop up menu displayed on right click on Project/Quote node

Close button

Select the Close option to close the Filter Library window.

Activate/Deactivate toggle option

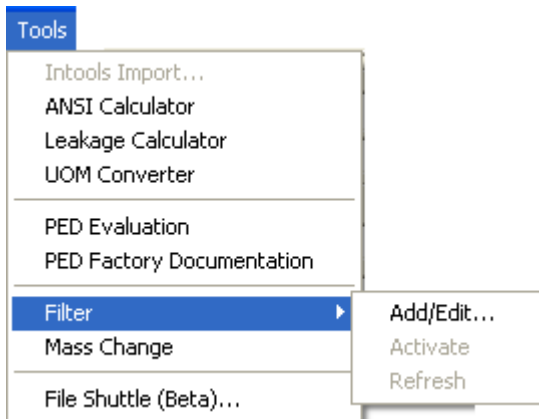
The Activate / Deactivate toggle option facilitates to activate a deactivated filter or deactivate an active/applied filter. This provides an easy way to activate or deactivate a filter instead of having to go thru the Filter Library screen.

The Tools→Filter→Deactivate option is enabled only once a filter is applied. Similarly the Deactivate option is enabled under Filter option on popup menu displayed on right click on Quote/Project node. This option toggles from Activate to Deactivate on selection.

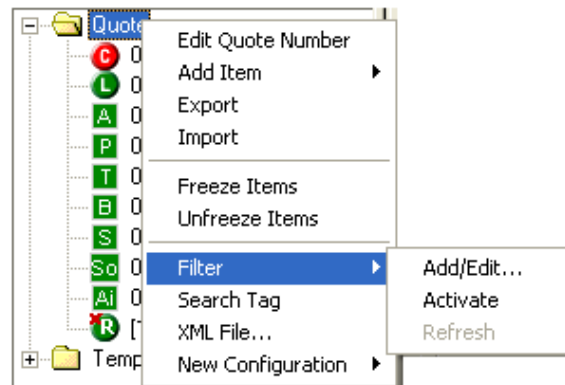
If the filter is applied the Deactivate option is enabled. On selecting Deactivate option, the same is toggled to Activate. On selecting the Activate option, the same is toggled back to Deactivate.

On selecting the Deactivate option, the applied filter is deactivated & all line items with the project are displayed. The deactivated filter name is stored in the memory. Filter status is set to off & all other visual indicators are set to indicate filter is inactive.

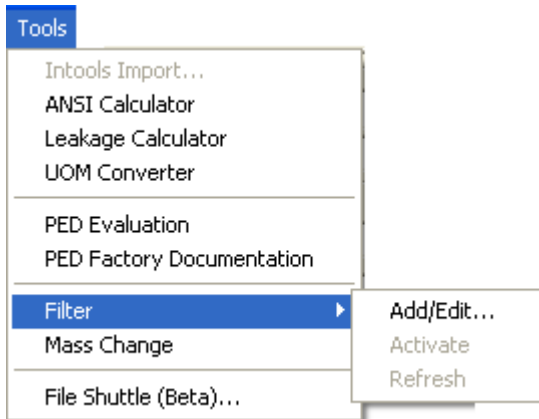
On selecting Activate option the filter present in the memory will be activated. Line items that meet the filter criteria are displayed. Filter status is set to on & all other visual indicators are set to indicate filter is active.



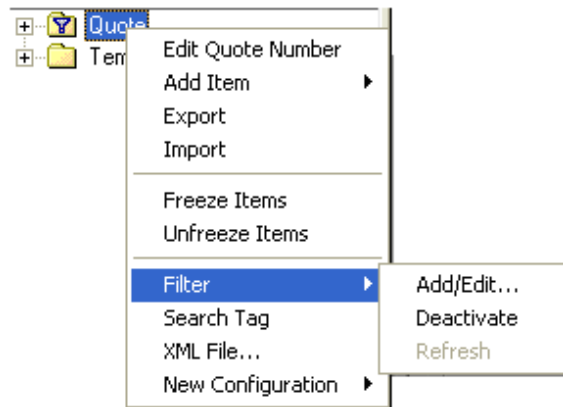
Tools Menu



Right Click on Project / Quote node



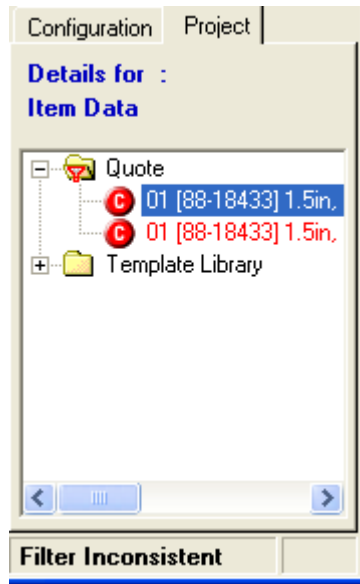
Tools Menu



Right Click on Project/Quote node

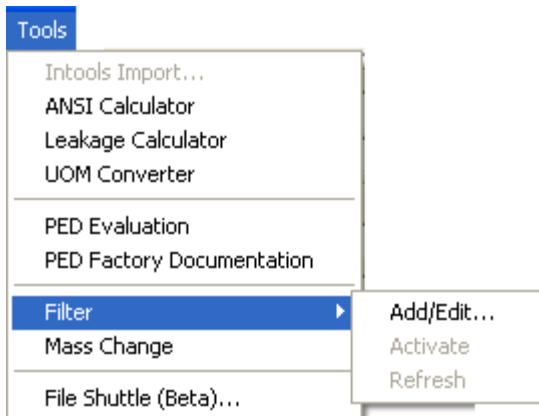
Refresh

When a filter is active and a new item is added which does not fit the filter criteria or any existing line item within the filtered set of items is modified in such a way that it now violates the filter criteria then the filter becomes inconsistent and the line item is displayed in red.

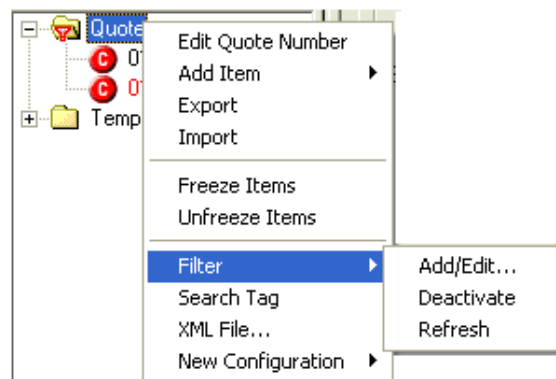


The status bar displays Filter Inconsistent. The **T**ools→**F**ilter→**R**efresh option is enabled only when a filter is inconsistent & when invoked re-applies the filter criteria to display only the line items that meet the filter criteria thus removing any line items that were previously violating the filter.

The Refresh option can also be invoked by right clicking the mouse on the Project/Quote node & selecting the Refresh option available under the Filter option.



Tools Menu



Right Click on Project/Quote node

NOTE: When user works with Filter functionality in any way, following functionalities get affected directly or indirectly:

1. Import / Export line Item.
2. Freeze / Unfreeze
3. Search Tag
4. Spreadsheet View
5. Overlay Template
6. Pricing
7. Manage Factory Notes
8. ITP Management
9. Mass Change

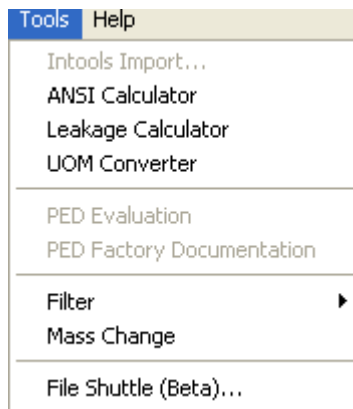
Mass Change

The **Mass Change** feature provides the ease & speed to apply changes to accessories of all Control Valve or Levels line items or filtered set of line items if filter is active excluding line items with freeze and cancelled status. An additional option to auto-calculate the price reduces the effort further to calculate price by navigating on individual line item.

The following accessories are available for mass change.

- **Positioner**
- **Transducer**
- **Booster**
- **Switch**
- **Solenoid**
- **Transfer / Lock-up Valves**
- **Tubing & Airset**

Invoke Mass Change feature by selecting **Tools**→**Mass Change** option.



An appropriate message is displayed if no Control Valve or Level line items or items with only freeze or only cancelled status exists within the project & mass change is not invoked further.

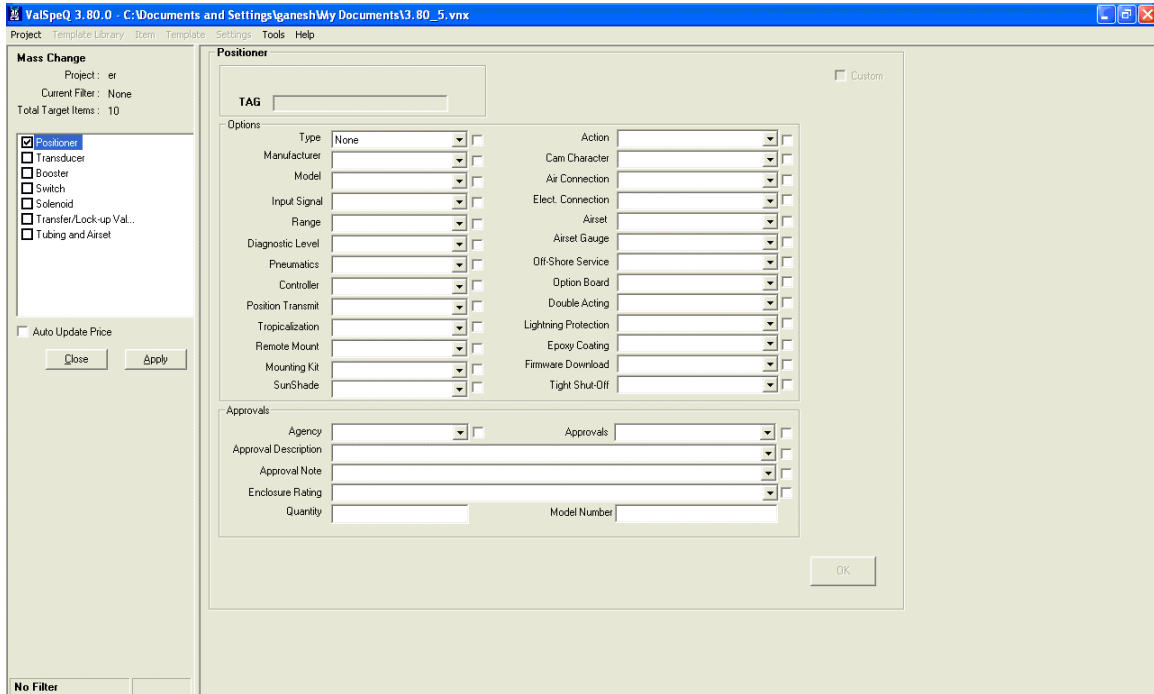
The Mass Change interface displays the **Project** i.e. project name, **Current Filter** & the **Total Target Items**.

If no filter is applied then **Current Filter** displays None. If any filter is active, the name of the active filter is displayed.

Total Target Items displays total number of unfreeze Control valve & Level line items. If a filter is active, then it displays the total number of Control Valves & Level line items from within the filtered set of line items.

Mass change does not update line items with freeze status.

Check the accessory checkbox to display the accessory screen. Select the values or set any custom values. One or more accessory values can be selected in the same manner.



Once completed, select the **Apply** (button) option.

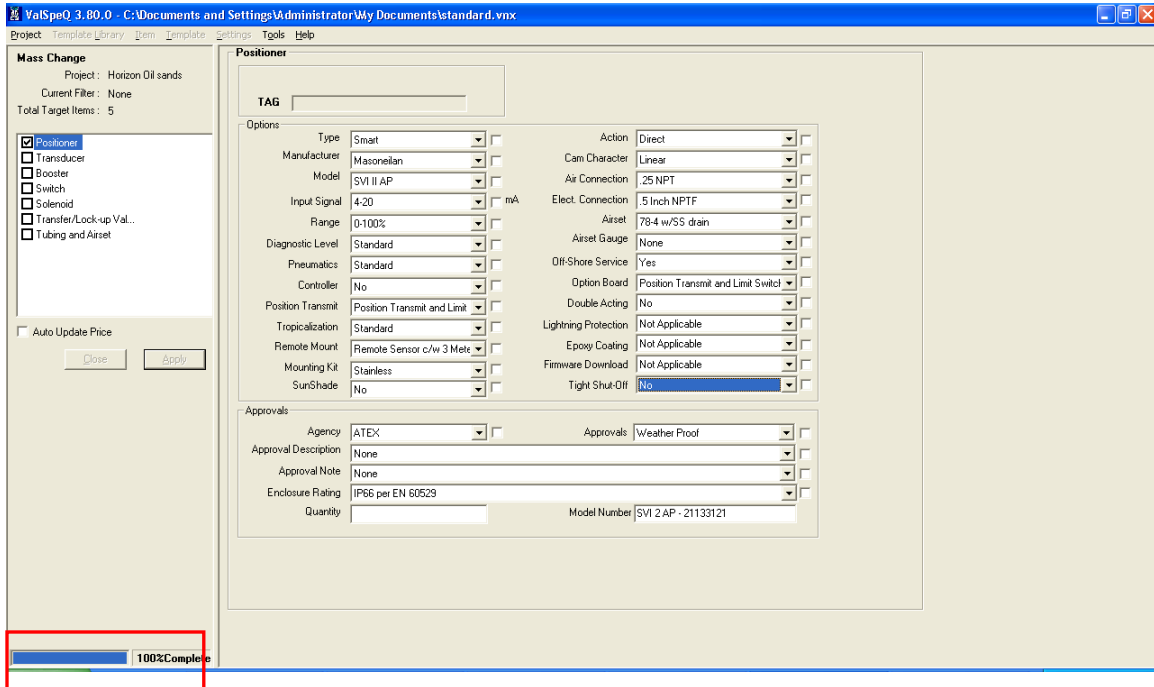
All attribute values of the accessory selected are applied to the line items within the project.

Warnings:

1. If filter is active, mass change is applied only on the filtered set of line items.
2. Line items with freeze status are excluded.
3. Line items with cancelled status are excluded.
4. All accessory selections made, except that on Additional Airset and Tubing frame of **Tubing & Airset** accessory are only applicable to Control Valves. Selections made on Additional Accessories frame of **Tubing & Airset** accessory are applicable to Control Valve & Levels both.
5. All attribute values of one or more selected accessory will overwrite existing values of the line items. i.e. even blank value or custom value set in the mass change option will overwrite any existing standard value.

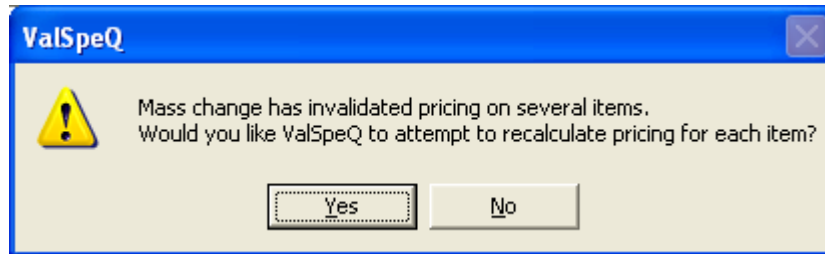
Note:

As a precaution, a backup of the project file prior to applying the mass change is taken at the same location where the project file is currently stored but with a “.rcv” extension. An appropriate message displaying the path or location of the backup file is displayed. This file is not deleted automatically at the end of the mass change process. To restore the project file prior to the mass change, rename the existing project file first & rename the backup file i.e. “.rcv” file to “.vnx”.



A progress bar is displayed when the mass change process is applying the changes to the line items.

If **ValSpeQ** edition is **Professional**, a message about the need to re-calculate pricing is displayed with a confirmation request to allow **ValSpeQ** to attempt to recalculate the pricing for each of those items affected by mass change.

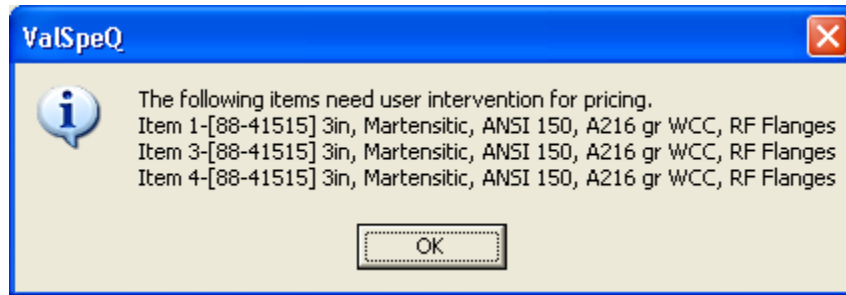


On rejecting, the pricing will not be re-calculated. The **Pricing** node of all line items updated during the mass change process will be invalidated & the line item will also be set to invalid.

On providing the confirmation, pricing will be re-calculated.

If **Auto Update Price** option is checked, the above confirmation message will not be displayed & **ValSpeQ** will auto calculate the price. This option is available only if **ValSpeQ** edition is **Professional**.

Items for which **ValSpeQ** is unable to calculate pricing automatically & which requires a manual intervention, **ValSpeQ** will flash an appropriate message with details of the line items.



The status of valid line items updated during the mass change is retained if price is computed successfully. However the status of valid line item is changed to invalid & the pricing node is also set to invalid if the price could not be computed automatically & requires a user intervention.

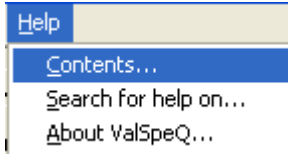
At the end of the mass change process, a successful completion message is displayed.

Help

Options that would be available under this menu are: -

Contents...
Search for help on...
About ValSpeQ...

The following screen displays the above-mentioned options under the Help menu.



Contents... / Search for help on...

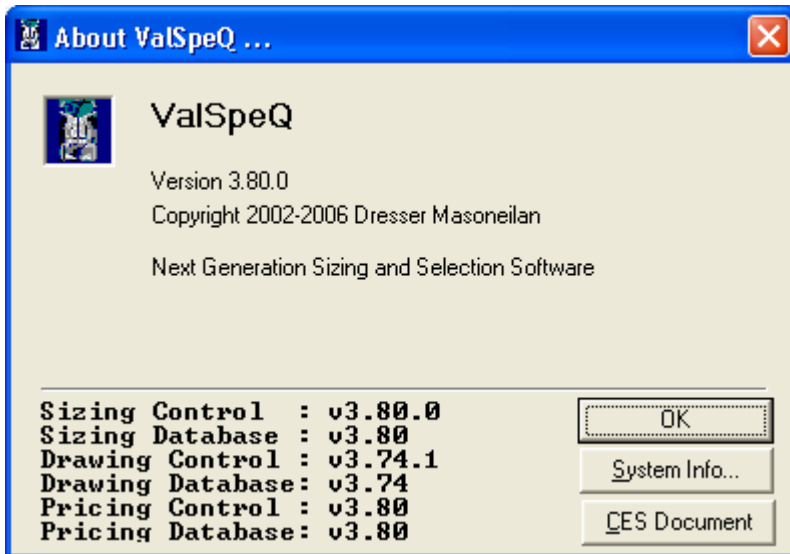
Use these 2 menus to invoke the ValSpeQ help file.

About ValSpeQ

Functionality

Select this option to view versions of existing components on the machine.

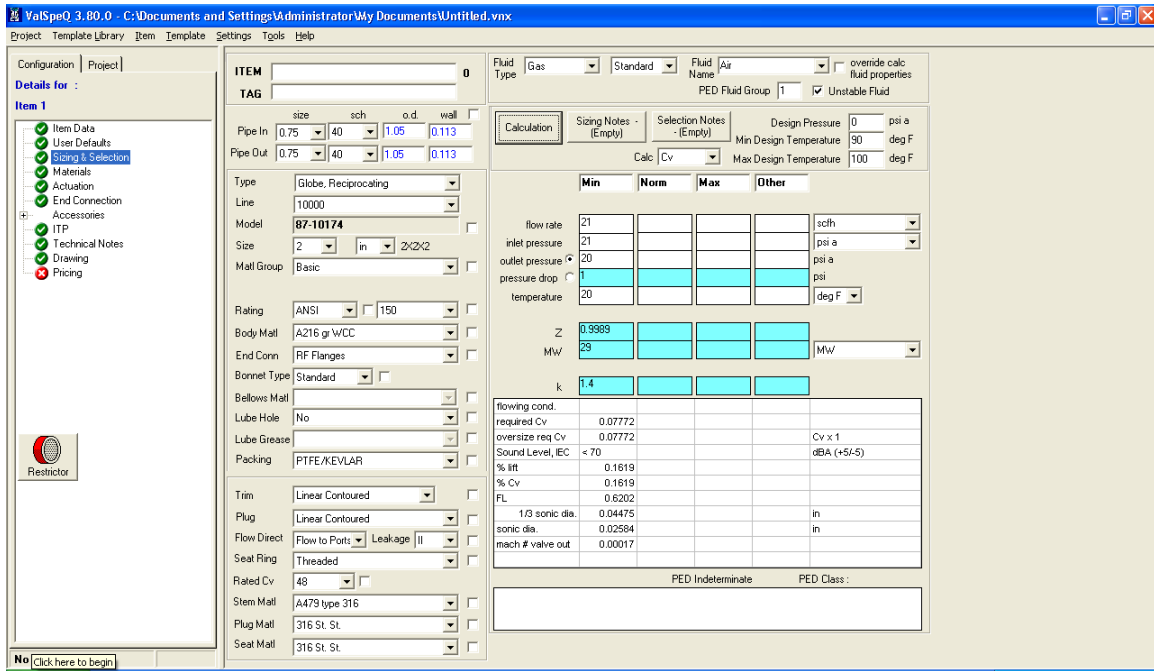
The **About ValSpeQ** option can be invoked by selecting the **Help** option from the application menu bar or **Alt+H** and then **A** for About ValSpeQ. Following screen will be displayed.



LODB Restrictors

If the fluid type in the “Sizing and Selection” form is “Steam” or “Gas” the Restrictor Button is displayed on the Configuration Tab.

The Following figure shows the Restrictor Button:
On clicking the Restrictor button the Restrictor form is displayed.



The following is the screen shot of the Restrictor form

On the Restrictor Form the “**qty**” field is initially 0 so no restrictor are seen .If the value of the qty field is set to either 1,2,3 then those many restrictors are seen in the diagram

If the “**Calculate System**” button is clicked the required calculations are performed and the results are displayed on the Restrictor form.

The following figure is when the qty value is 2 and the “Calculate System “ Button is clicked:

L0dB plates/cartridges & vent calculation

Flow Rate 21 scfh	P1 system 21 psi a	P2 valve 20 psi a	P R1/R2 20 psi a	P R2/R3 20 psi a	P2 system 20 psi a
-------------------------	--------------------------	-------------------------	------------------------	------------------------	--------------------------

0.75 in SCH 40 2 IN SCH 40

Value
Series 10000 0.07772 0.1 .
Size 2
Trim Linear Contoured
Rated Cv 48 required Cv dBA Mach dBA Mach dBA Mach dBA Mach dBA

System Selection
 MANUAL
 ASSIST
 desired sound level 85 dBA

LO-DB Cartridge qty 3

Valve close coupled to restrictor system
 vent to atmosphere

	Restrictor 1	Restrictor 2	Restrictor 3
Size	2	2	2
Pipe Sch.	40	40	40
Cv	21	21	21
Conn. Type	Flange Mtd.	Flange Mtd.	Flange Mtd.
Housing Matl	Carbon Steel	Carbon Steel	Carbon Steel
Internal Matl	304 St. St.	304 St. St.	304 St. St.

close coupled system -11.9 dBA

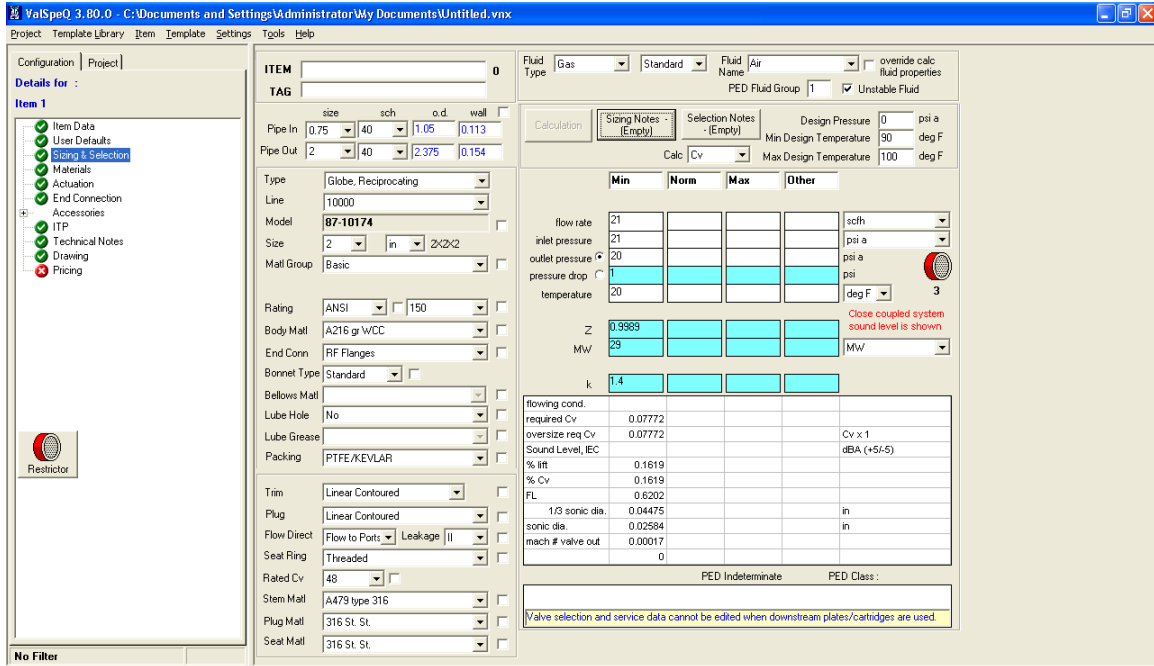
Calculate system

MANUAL

On clicking the “**Accept system**” button the restrictor calculation details are applied for the corresponding Item or Template on the “Sizing and Selection” form and the Sizing & Selection form is disabled.

On clicking the “**Cancel system**” button the restrictor calculation details are discarded and previous Item configuration values are recalculated for the corresponding Item or template. Sizing & Selection form is enabled.

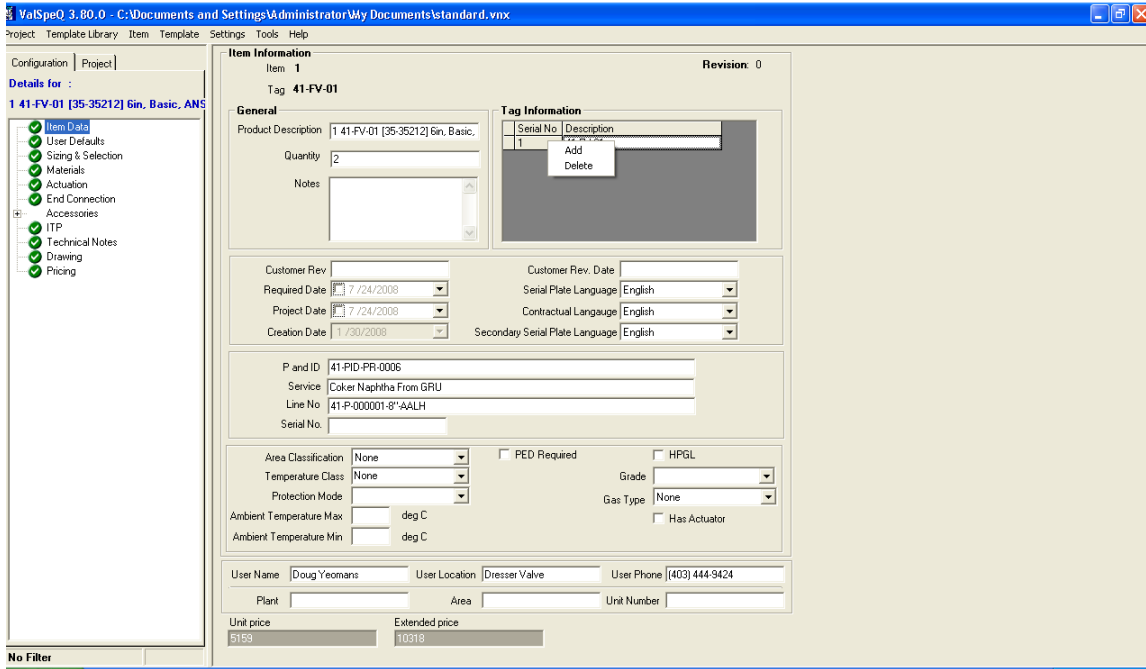
The following figure is after clicking on the “Accept System” button:



Tag

For every Item, Tag information or data can be added from the Item Data screen.

Right click within the Tag Information section on the Item Data screen. A popup menu with option to Add or Delete is displayed as shown below.



Add Tag

Right click on the Tag Information section of the Item Data screen & select Add option. The Add option is available for selection only if the number of Tag entries entered is less than the Quantity. The Add option is disabled when the number of Tag entries entered is equal to the Quantity.

On selecting the Add option a record is added & displayed in the grid. Click on the blank description & provide the Tag details. Click outside the field anywhere on the form & the Tag details will be stored.

Edit Tag

Double click on the Tag description that is to be modified. The background for the Tag Description will turn to yellow to indicate it is ready for editing. Click anywhere outside the grid row to store or update the Tag description.

Delete Tag

A dotted border will be displayed around the currently selected Tag description. Right click on the Tag Information section & select the Delete option. Confirmation message appear before deleting the selected Tag. The Delete option is disabled when there are no Tags to be deleted.

Note:

The tag with the serial number 1 (i.e. first tag entry in the grid) can not be deleted but can be left blank.

Valve Tags Mapping:

- 1) Whenever a user enters/modifies a tag with serial number 1 on the Item Data form it is displayed in the Tag text box of Sizing & Selection / Service & Level / individual accessory /Regulator screen.
- 2) When user enters/modifies a tag description in the Tag text box of Sizing & Selection / Service & Level / individual accessory / Regulator, then the same will be reflected as the first tag on the Item Data form
- 3) When user creates a blank tag description in the Tag text box of Sizing & Selection / Service & Level / individual accessory / Regulator, then the tag description for the first tag on the Item Data form is made blank.
- 4) When user makes the first tag description blank on the Item Data form, then the Tag value on the Sizing & Selection / Service & Level / individual accessory / Regulator form will be cleared.

ValSpeQ Messages

ValSpeQ Message	Reason for occurrence	How to Resolve
Export		
No Items Available.	when the export option is invoked & the current Project contains all canceled or no line Item(s).	Invoke the option when un-canceled or valid/invalid line item exist in the current Project.
No Templates Available.	when the export option is invoked & the current Project does not contain any Template(s).	Invoke the option when Templates exist in the current Project.
Directory [DIRECTORY NAME/PATH] does not exists.	The directory/folder path specified in the "Save As" dialog box does not exists.	Create the specified directory/folder or specify the directory/folder path that already exists.
Invalid file extention.Project Export file name should have .vxp extention. Project Export Files should have ".vxp" extension.	When exporting Items the export file extension specified is other than ".vxp".	Provide a filename with a ".vxp" extension or do not provide any file extension, the same would be appended automatically by the application.
Invalid file Name. Template Export Files should have ".vxt" extension.	When exporting Templates the export file extension specified is other than ".vxt".	Provide a filename with a ".vxt" extension or do not provide any file extension, the same would be appended automatically by the application..
Select Item(s) to Export.	No Item/s is/are selected when user click on the Export button	Minimum one Item should be selected before clicking on the Export button.
Select Template(s) to Export.	No Template/s is/are selected when user click on the Export button.	Minimum one Template should be selected before clicking on the Export button.
Please provide file name.	Export button is clicked without specifying file name.	Specify export file name & then click on Export button
An error occurred while exporting Project PRG00001 to File C:\TEST.VXP. Export file will be Deleted.	The export process failed due to some error.	Try Re-generating the export file. If the problem still persists contact ValSpeQ Support.
Invalid File Name.	If specified file name is invalid.	Specify a valid file name.
Failed to create file C:\TEST.VXP.	The export operation is failed to create the file.	Specify another file name or Check for available disk space.

Import		
Invalid file selected. Select a file having ".vxp" or ".vxt" extension.	The selected file's extension is other than .vxp or .vxt.	Select the file with valid extension i.e. .vxp or .vxt.
Invalid Project header information. Parity Check failed.	The data in the header section of the export file is corrupted or not as per the expected format.	Generate the export file again.
Select File to Import.	User has clicked on the Import button without selecting the import file.	Select an export file that is to be imported & then click on the Import button.
Select Item(s) to Import.	If item is not selected for import.	Select at least one Item & then click on the Import button
Select Template(s) to Import.	If template is not selected for import.	Select at least one template and then click on the Import button
Data Integrity Mismatch	The Type information in the header section of the export file is balnk.	Generate the export file again.
Invalid Quote header information. Parity check failed.	If import files QUOTE section contain invalid information.	Generate the export file again.
Unknown section UNKNOWN found in Import File C:\TEST.VXP. Import process will be aborted...	The import file contains an unidentified section.	Check recover.ini file for more information and correct the file if possible & try importing it again.
The associated Price List 'PRICELIST' does not exist. Do you still want to continue?	When the price list is used while configuring the Item from the import file does not exists on the workstation that is importing the data.	User can abort the import process or proceed with import process.
Import Completed. Error(s) occurred while importing following factory note(s) for some of the Items.	This message is displayed when length of new name generated for importing factory note is greater than 50.	There is no problem in import process except displayed factory notes can not be imported.
Inconsistent Import file. END section not found.	When END section missing in exported file.	Generate the export file again.
Filter		
Filter name cannot be blank	If filter name is not specified & user click on the save button of filter.	Specify the filter name before saving the filter.
Filter for combo box cannot be blank	If filter for combo box is blank.	Specify the configurator type before saving the filter.
Save In combo box cannot be blank	If Save In combo box is blank	While saving filter Select Project or Library from Save In combo.
Are you sure you want to delete the filter group ?	When user has selected condition(s) and clicked on red cross button, message is displayed to avoid accidental deletion of filter condition(s).	Click on "Yes" to delete selected filter condition(s) and "No" to avoid accidental deletion.

No filter condition selected.	When user clicks on red cross button without selecting any condition.	Select filter condition prior to delete filter condition.
Are you sure you want to delete following filter(s) from library? {Filter Name(s)}	when user has selected filter(s) from library and trying to delete them, message is displayed to avoid accidental deletion of filter(s).	Click on “Yes” to delete selected filter(s) from library and “No” to avoid accidental deletion.
Are you sure you want to delete following filter(s) from project? {Filter Name(s)}	when user has selected filter(s) from project and trying to delete them, message is displayed to avoid accidental deletion of filter(s).	Click on “Yes” to delete selected filter(s) from project and “No” to avoid accidental deletion.
{Filter Name} already exists in Project. Would you like to replace it?	when the user has selected filter from library and copying it to project and project consists of filter with the same name, message is displayed to avoid accidental replacement of filter(s) in project,	Click on “Yes” if want to replace the existing filter from project with the selected filter in library. Otherwise click on “No”.
{Filter Name} already exists in Library. Would you like to replace it?	When the user has selected filter in project and trying to copy in library and library consists of filter with the same name a message is displayed to avoid accidental replacement of filter(s) in library.	Click on “Yes” if want to replace the existing filter in library with the selected filter in project. Otherwise click on “No”.
Invalid Filter Condition. Check the input	When user has entered invalid filter condition and trying to save it or trying to move to next “AND” tab.	Check the input and make the condition(s) valid.
Do you want to save filter {Filter Name} ?	When user has edited current filter and without saving it tries to close the filter screen.	Click on “Yes” to save the filter. Otherwise click “No”
Create Factory Notes		
Entry required in Note Reference field.	Note Reference text box is blank while saving factory note.	Enter data into the Note Reference text box.
Entry required in Note Title field.	Note Title text box is blank while saving factory note.	Enter data into the Title text box.
Entry required in Note Text field.	Note Text text box is blank while saving factory note.	Enter description into the Note Text text box.
A numeric entry is required for price.	Net Price text box is blank while saving factory note.	Enter numeric value into the Net Price text box.
Select Category.	Category combo box is blank while saving factory note.	Select category from the Category combo box.
Factory Note Reference Exists in Project.	Try to save note with the reference, which is already exist in Project.	Enter another reference, which is not exist in Project.

FN Group		
Atleast one item should exist in Notes Assigned to Group Listview.	When no factory note/s exist in Assigned to group list while saving group.	Move one or more Factory notes form Available Factory notes in library list to Notes Assigned to group.
FNGroup Name cannot be blank.	FN Group Name Text is blank while saving group.	Enter Group name into the FN Group text box.
FN Group Name already exist.	Try to save FN Group with the existing FN Group name.	Enter different Group name into the FN Group text box
Create Collections		
FN Collection string already exists. Please create another FN Collection.	Try to save the collection, which is already exist for applied group.	Select different combination of notes for the collection
FN Collection string is already exists.	While editing collection is selected that is already exist in that group.	Change the notes in the collection.
At least one Factory Note should be checked. Please select Factory Notes.	While adding new collection, before selecting factory note user select another tab.	Select at least one factory note and then swtich to another tab.
Please select FN Group.	FN Group from Library/Project is blank or empty before clicking on Add button.	Select FN Group from the FN Group combo box.
Please select atleast one Factory Note.	While saving collection, No Note from the list is checked.	Select at least one note from the list.
Find & Replace Factory Note		
Find and replace factory note reference are same.	When Find Note Reference and Replace Note Reference are equal.	Select different Note References in Find and Replace combo boxes.
User Preference		
Max Sound Level must be greater than Min Sound Level.	When Min Sound Level entered is greater than Max Sound level Value while saving settings.	Enter Min Sound Level less than Max Sound Level.
Min Sound Level must be less than Max Sound Level.	When Max Sound Level entered is less than Min Sound Level Value while saving settings.	Enter Max Sound Level greater than Min Sound Level.
Please Enter Initial/Increment Tag Value.	When Use Tag Mask on new project option is selected and Initial and Increment text boxes are blank.	Enter Initial and Increment Values in corresponding text boxes for tag.
Please Select Default Price List.	When no Price List is selected in Price List Default combo box when saving changes.	Select Price List from Price List Default Combo box.
Please select a Primary Source Facility.	When no Primary Source Facility is selected in Primary Source Facility combo box.	Select Primary Source facility from Primary Source Facility Combo box.

Project Defaults		
Please Enter Initial/Increment Tag Value.	When Use Tag Mask on new project option is selected and Initial and Increment text boxes are blank.	Enter Initial and Increment Values in corresponding text boxes for tag.
Freeze Item		
Item cannot be freeze.	If the process of freeze Item fails due to some error.	Validate the line item and invoke freeze option again.
Freeze All		
No Items to Freeze. Cannot Proceed.	Freeze All Option is invoked when no valid unfreeze line item is present in the project.	Invoke Freeze All option when there is at least one valid unfreeze item present in project.
Unfreeze Item		
Item cannot be unfreeze	If the process of Unfreeze Item fails due to some error.	Select Item and invoke unfreeze option again.
Unfreeze All		
No Items to Unfreeze. Cannot Proceed.	Unfreeze All option is invoked when no valid freeze line item is present in the project.	Invoke Unfreeze All option when there is at least one valid freeze line item present in project.
Mass Change		
Failed to take backup. Aborting Mass change process...	If the process of taking backup is failed due to some error.	Try to apply mass change again.
No lines for mass change. Cannot proceed for mass change.	Mass Change option is invoked when there is no unfreeze line item present in current project.	Invoke Mass Change option when there is at least one unfreeze line item present in current project
Records are frozen/Canceled. Cannot proceed for mass change.	Mass Change option is invoked when only freeze line items are present in the current project	Invoke Mass Change option when there is at least one unfreeze line item present in current project
Please select atleast one accessory for Mass Change.	If Apply button is clicked without selecting any accessory from the list.	Select and change at least one accessory for Mass Change.
No changes for Mass update. Please make sure you have changed Accessory information.	If without changing any accessory Mass Change option is invoked.	Change at least one accessory and click Apply Mass change again.
Others		
Application already running!	The application is already open.	Check whether the 2 nd instance of the application is running.
Cannot open Database. Check Database files.	<ol style="list-style-type: none"> 1. The Application tries to copy the ValspeQNx.vnt file with a new name. 2. While trying to open the file from recently used locations and the file does not exist 	Reinstall the software