

Procus Pack provides an effective solution for accessing information from various control systems in a stand-alone version. The Client/Server version distributes this information to multiple clients.

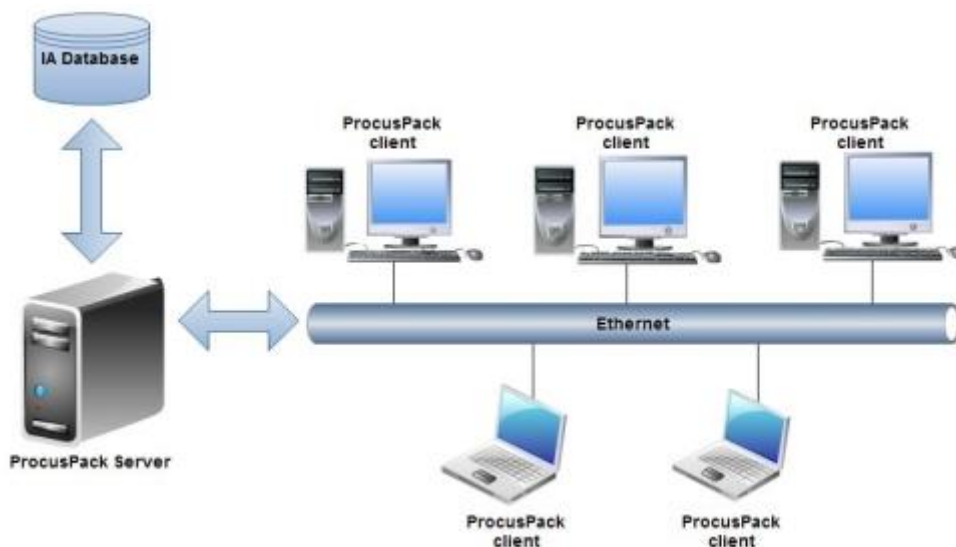
Working with Procus Pack allows you to find the required information from your control system quickly and easily.

We currently offer 2 versions of PPack:

- [Client / server - Enterprise Edition](#)
- [Standalone - Engineering Edition](#)

## Client / server edition

Client / server version is designed for environments with multiple users who access information from a central Control Database.



It is most suitable to use in scenarios with non-I/A users accessing information from the Control System. In this scenario there is one administrator user who prepares queries for the users centrally. Queries are distributed to the clients automatically after they log in to their client application. Users can simply access their required data and focus on their work related tasks.

Client / server architecture provides the following benefits:

### Central data administration

Data from the Control System are centrally managed on the SQL server. This ensures that all clients connecting to the server are working with the same data.

### Scheduled imports

Scheduled import allows data from the IA System to be automatically loaded to the database at a specified time. This offer an effective way to keep the data in the database up to date.

### **Central query administration**

A central user (administrator) prepares queries. The user does not need to know anything about querying or underlying database structures. The user accesses his data and optionally exports to other formats according to his needs.

Typical users would be Instrumentation Personnel or Operational Staff.

Central data administration and central query administration ensures that all users receive the same results all the time.

### **Central maintenance**

All updates to the client software come within the server itself. No further administration to keep the whole system up to date is necessary. The administrator simply needs to put an update on the server to distribute it to all clients during the log in.

## **Core functionality**

Procus Pack Enterprise edition and Engineering edition provide the same core functionality.

### **General functionality**

- [Querying](#)
- [Generating reports](#)
- [Exporting](#)

### **FOXBORO I/A Series System**

- [Data Comparison](#)
- [Browsing and searching](#)
- [Logic visualization](#)
- [Automated instruction check for blocks with logic](#)
- [Block parameter view](#)
- [Connections visualization](#)
- [Advanced connections visualization](#) 
- [ICC Driver Task script generator](#)
- [Human machine interface configuration extract – HMI extract](#)
- [Sequences extract](#)
- [Block comparison](#)
- [Product configuration manager](#)
- [FBM browser](#)
- [Calc simulator](#)
- [System report](#)
- [Historian configuration manager](#)

## Triconex System

- [Triconex configuration import](#)

## Honeywell Experion PKS System

- [Honeywell Experion PKS browser](#)
- [Honeywell HMI](#) **NEW**

## ABB 800xA System

- [ABB 800xA Browser](#)

# New Procus Pack version 2.0 is available

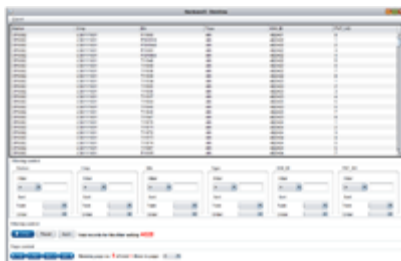
New Procus Pack version 2.0 supersedes the previous version in implementation of multisystem platform capabilities. Users can now easily access and work with IA Foxboro System, Honeywell Experion PKS System and ABB 800xA control system database directly from Procus Pack.

Procus Pack v2 provides robust and intuitive control, quick and easy information access, dependability, new design, a more user-friendly interface and new tools. This ensures the desired goals are obtained more easily.

Both editions are aimed at Foxboro IA, Honeywell Experion PKS and ABB 800xA engineers. The purpose of Procus Pack is to make the engineers' life easier. It allows easy data import from these systems, [querying](#), [data comparing](#) (Foxboro IA System only), [reports generation](#), [exporting](#) and [browsing and searching](#) the data in comfortable and user-friendly way.

## Querying

Enterprise Edition can be connected to most common relational database systems. The engineering edition comes with an integrated database engine that provides powerful tool for data querying. It easily handles even large amounts of data. Results of the queries can be easily filtered, sorted and exported as needed.

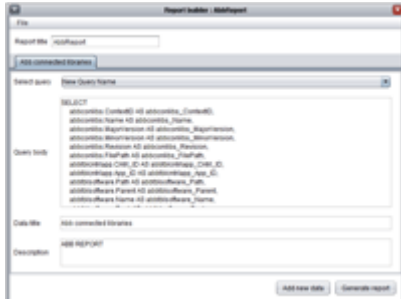


After the query is created it can be used transparently between projects. Queries can be easily shared, imported or exported as needed. A set of most useful queries is provided by default.

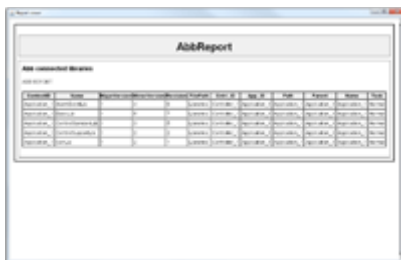
**Generating reports** (Honeywell Experion PKS System and ABB 800xA System only)

## Report builder

This tool allows reports generation from sql queries. Name the report, choose a predefined query or create your own one, give the query a proper data title and brief description and finally generate the report. The generated report is tabular, well-arranged and very easy to read. The user gets exactly what is required so no data waste is generated.



Reports are in a standard HTML format, but can be exported to a pdf file format by default. This simplifies all standard document operations such as printing, viewing or publishing data on the intranet. Visual, content, layout and almost everything about the report can be customized according to the user's needs.



## Exporting

Data from the queries / comparison can be easily exported to various formats. Export to MS Excel comes by default.

## Data Comparison (Foxboro IA System only)

Data comparison is very easy. With only a few clicks, two versions of the data can be compared. Results are presented in a tabular way which allows easy filtering for all relevant differences.



## Browsing and searching

Effective browsing stations, compounds, blocks and their parameters are provided. Navigation between blocks is achieved by clicking on their links. To find the required items in a few seconds, a search function is also provided.



Procus Pack v2 can be easily enhanced by various plug-ins which provide additional functionality. These plug-ins are highly customisable according to the user needs. Plug-ins delivered by default with Procus Pack v2 are mentioned below.

### **Logic visualization** (Foxboro IA System only)

The purpose of logic visualisation is to simplify working with the logic of CALC, CALCA, LOGIC and MATH blocks.

Main benefits:

Two way visualisation. When the user clicks on the step of the logic, visual representation of this step is highlighted. The other way around is also possible – by clicking on the block which visually represents this part of the logic, the step related to this block is highlighted.



Logic visualisation includes an error and warning detection system. If instructions contain syntax error – for example, a wrong name of the instruction or a missing operand, an error is detected and the row containing this error is highlighted.



Error detection also evaluates expressions. For example, an instruction that is working with operands on the stack expects two operands but there is only one on the stack. This type of error is detected.

A warning system informs the user about situations which are not errors but potentially undesirable situations. For example, if the user calculates and stores some value on the stack, but this value is never used, the user will be informed about this in the form of a warning.

Additional benefits:

Integrated tool tips in the form of a short description for instructions of the CALC, CALCA, LOGIC and MATH blocks are shown by hovering over the icon.

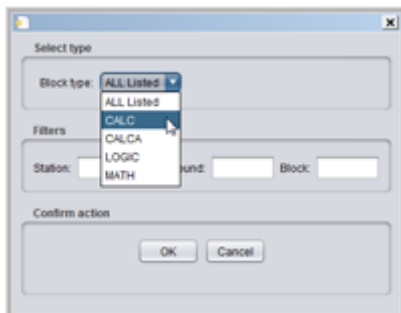
### **Automated instruction check for blocks with logic (Foxboro IA System only)**

The main purpose of the Instruction checker tool is to perform a bulk automated instructions check for Foxboro IA System blocks that contain programmable logic (CALC, CLACA, MATH and LOGIC).

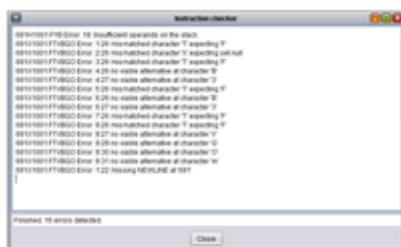
Main benefits:

The instruction checker tool allows a bulk check for errors in the logic of the whole system or selected parts. This can be very useful as a final check in situations where there are a number of modifications running on the system using the ICC driver task script.

The procedure is very simple. The user selects the desired block type with optionally filtering on station, compound or block name.



All blocks matching specified criteria are checked and the results are presented to the user.



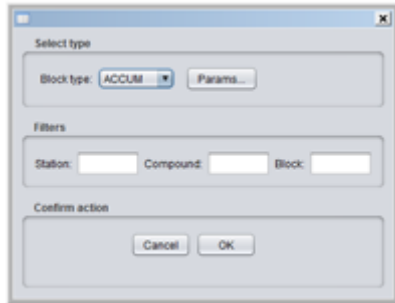
### **Block parameter view (IA Foxboro System only)**

The main purpose of Block parameter view is to enable users quick access to the parameters of the selected block type from the system.

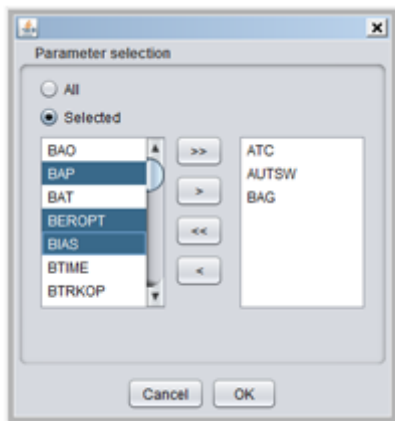
Main benefits:

Block type view allows users easy viewing of the parameters of the selected block type without creating any special queries.

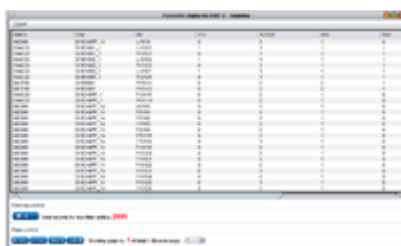
The procedure is very simple. The user picks the desired block type.



Optionally parameters of that block type can be selected if not all of them are required.



Results are presented in a standard way which allows additional features such as filtering, sorting and exporting.



### **Connections visualization** (Foxboro IA System only)

The purpose of connections / loop visualization is to get a quick understanding of the selected loop on the system. Loop visualization shows graphical representation of the connections between the blocks of the control system.



Main benefits:

Colour highlighting - blocks that run with the same period and phase in the system are drawn in the same colour.

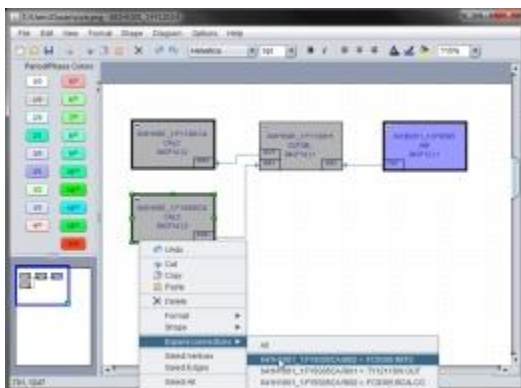
Block processing order – the order in which the visualised blocks are processed in their station is also displayed. If additional connections are expanded and new blocks are displayed, the processing order is recalculated.

Saving visualization in png file format – the user can save the existing viewed loop visualization in the graphics png file format for additional processing (printing, using in documentation etc.)

Dynamically expanding / collapsing visualization – the user can expand the connections of the selected block or can remove the selected block from visualization according to his needs.

### Advanced Connections visualisation (Foxboro IA System only)

Advanced Connections visualisation provides additional functionality to the connection visualisation.



Main benefits:

Customisable colour highlighting - it is possible to specify a colour which is used for all blocks that run within the same period and phase in the system.

Full support of undo and redo. Undo and redo can be applied to all operations in the loop visualisation - changing visual styles of the blocks / connection, expanding connections, deleting blocks or connection from visualisation etc.



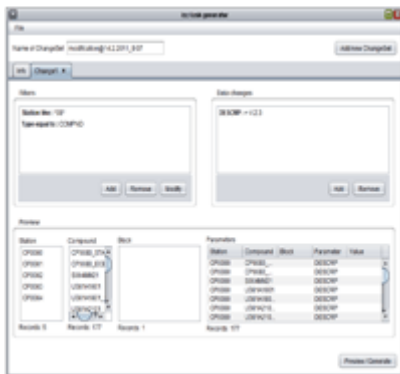
Saving and loading visualisation to and from file. It is possible to save current loop visualisation to the file and continue working on it later by loading it from the file.

Validation of a saved visualisation. When loading a saved visualisation all elements are validated against the current control database. If a block or a link from a visualisation has been deleted in the control database it is drawn in a dashed pattern. This can be useful for logging changes performed on the system.

Dynamically expanding / collapsing visualisation – user can expand all connections of the selected block or just the desired ones using the pop-up menu.

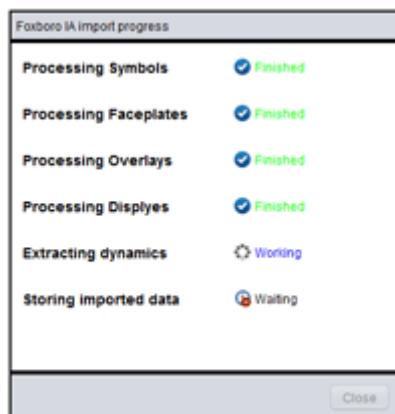
### ICC Driver Task script generator (IA Foxboro System only)

The ICC Driver Task script generator provides an easy-to-use solution for generating complex ICC driver Task scripts based on user selection. Complex logic is wrapped in an intuitive graphics user interface, so that the user does not need to know specific details about ICC itself. The picture below shows an ICC Driver Task script generator interface.



### Human machine interface configuration extract – HMI extract (Foxboro IA System only)

HMI extract allows the import of information about the configured Compound:Block from Foxview display g-files.



It supports following Compound:Block configurations:

- Direct configurations.

- Configurations using Symbols. Import of Symbols g-files is required.
- Configurations using Faceplates. Import of Faceplates g-files is required.
- Overlay calls are also supported. Import of Overlay g-files is required. (Calls of overlays are simulated to extract information about configured dynamics in Overlays.)

Extracted information is displayed in Foxboro IA Browser. When the user selects a specific Compound:Block, the detail section will show all displays where this element is configured, together with information about its configuration.

### **Sequences extract** (Foxboro IA System only)

This plug-in imports information about configured Compound:Block from compiled sequences of code in an i-file format.



At the moment only fully specified references in sequences are supported.

Extracted information is displayed in Foxboro IA Browser. When the user selects a specific Compound:Block, the detail section will show all sequences where this element is used.

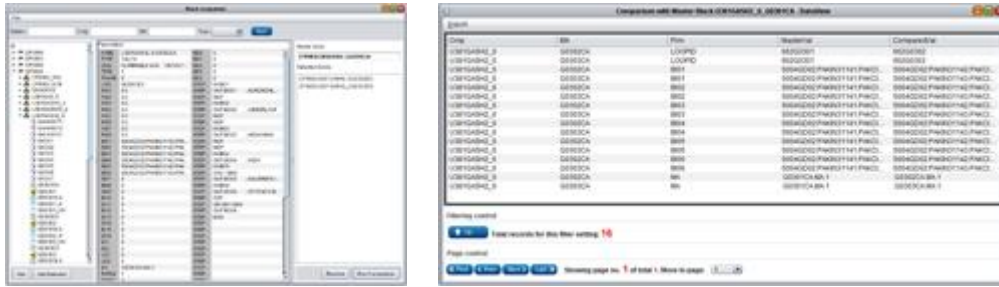
### **Block comparison** (Foxboro IA System only)

The purpose of the Block comparison plug-in is to provide a quick and simple way of block comparison.

Main benefits:

An effective tree style of browsing stations, compounds, blocks and their parameters is provided. The comparison procedure is very simple. The user picks the desired blocks with optional filtering on station, compound, block name and type of block. Firstly, a master block has to be set and other selected blocks are compared against the master block. There is also a possibility to save the current selection of blocks for future usage.

Results are presented in a standard way which allows additional features such as filtering, sorting and exporting.

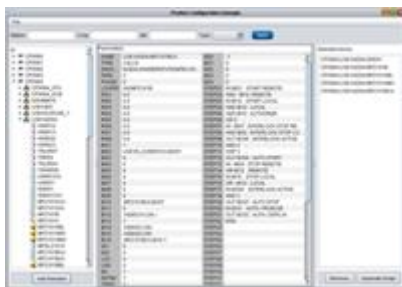


### Product configuration manager (Foxboro IA System only)

This plug-in allows the configuration of the current blocks to be saved on the ICC driver task script.

Main benefits:

The product configuration manager provides an easy-to-use solution for generating ICC driver task scripts based on user selection from system blocks. This feature allows the blocks configuration to be saved with the current parameters and future usage of this configuration.



### FBM browser (Foxboro IA System only)

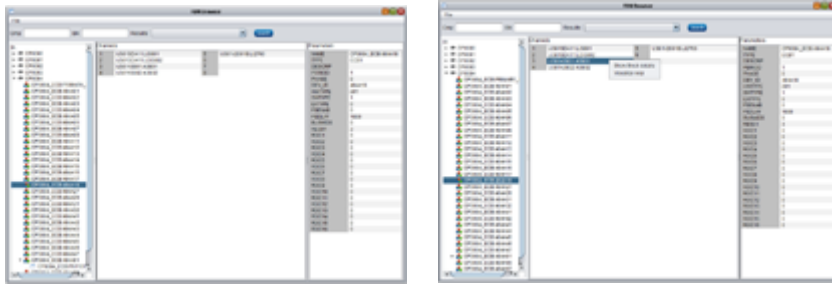
The FBM browser plug-in provides a quick and simple way of browsing fieldbus modules and displaying IO allocations of blocks to these modules.

Main benefits:

An effective way of browsing fieldbus modules, displaying IO allocations, search based on FBM name or block name is provided.

It is possible for each block allocated to FBM channel to quickly display its parameters using context menu and displaying it via Foxboro IA Browser. It is also possible for each block allocated to FBM channel to quickly show all its connections to other blocks using the context menu and showing the loop via Loop visualisation.

The possibility of exporting the existing fieldbus module report to pdf file format is also provided.



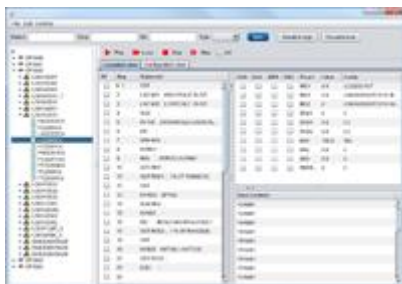
### **Calc simulator** (Foxboro IA System only)

The purpose of Calc simulator plug-in is to simulate logic which is integrated in CALC, CALCA, LOGIC and MATH blocks.

Main benefits:

This plug-in allows browsing only between these blocks. When the user clicks on the required block, the whole block logic is displayed in a stepwise format. The user can simulate the block's logic within the existing or a new configuration, which the user can execute also in this plug-in. There is a possibility to choose a single run, a continuous or a stepwise simulation.

A quick and easy interaction with logic and loop visualisation for selected block is also provided.



### **System report** (Foxboro IA System only)

The IA System report plug-in provides a data integrity check of the control database.

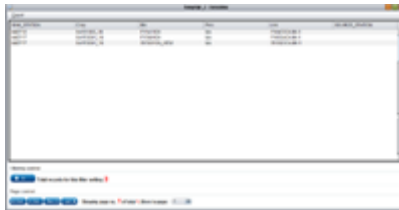
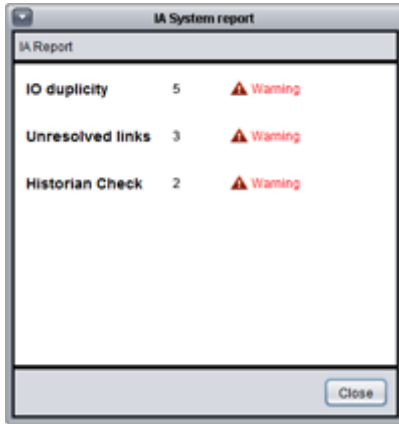
Main benefits:

System reports are generated automatically when new data is imported to the project. These checks can be easily extended according to specific customer needs. Currently, following checks are implemented.

IO duplicity informs the user about INPUT/OUTPUT addresses which are used by more than one block.

The unresolved links feature checks the validity of the links for source blocks existence.

The Historian Check feature checks historical configuration against the control database.



### Historian configuration manager (Foxboro IA System only)

The purpose of this plug-in is to inform the user about which parameters of the blocks are archived by the historians and to assist the user with the historical configuration.

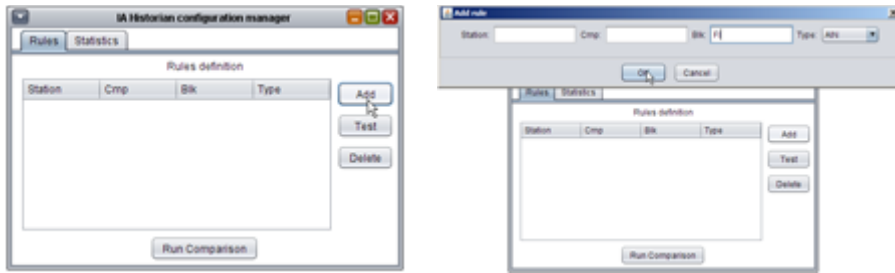
Main benefits:

In order to use this plug-in, first of all the user has to import the historical configuration to Procus Pack v2. After successful import the user is able to see the historical configuration for each selected block through the IA Browser. The names of historians and parameters are displayed.



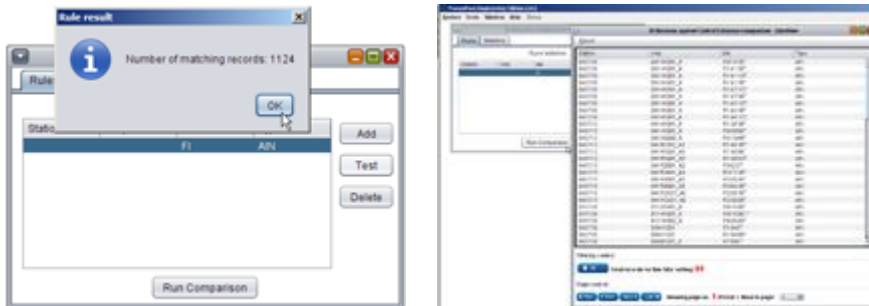
This plug-in provides the user another useful functionality. The user can compare the control database with the historical configuration to ensure that all blocks from the control database which should be in the historical configuration are present.

First the user has to define the rules which the blocks from the control database should be archived by the historian.



When a rule is defined the user can test it. By clicking on the Test button a number of blocks which match the defined rule are displayed.

By clicking on the Run Comparison button a comparison procedure is executed. The list of blocks that match the defined rule and also figure in the historical configuration, is displayed.



The statistics part informs the number of points which are configured for particular historians.

Historian	Number of points
mor06h	2169
mor07h	3159
mor08h	2695
mor09h	2186
mor10h	1995
mor11h	3251
mor12h	2547
mor13h	2463
mor15h	751
mor20h	1382

### Triconex configuration import

Procus Pack v2 allows the Triconex exported data to be imported in a dbf file format. After importing the data, the user can easily create a custom cross query with DCS data according to his specific needs and requirements.

The Procus Pack v2 supports the following new systems - Honeywell Experion PKS and ABB 800xA. The main benefits of using Procus Pack v2 with these two systems are described below.

## Procus Pack v2 and Honeywell Experion PKS System

Procus Pack v2 includes useful tools for working with Honeywell Experion PKS export files. Honeywell Experion PKS export file is in xml format. This file is further processed in Procus Pack v2 for querying or in Honeywell Experion PKS browser which is briefly described below.

## **Honeywell Experion PKS browser**

Honeywell Experion PKS browser (later browser) is a tool for detailed off-line browsing and reporting of the user's Honeywell projects' database.

### *Browser basics*

The picture below shows a typical view of a browser containing a Honeywell control database. The browser provides an efficient way of viewing the system database tree, including all CPMs and Control Modules with the respective embedded blocks and their parameters.



Browser consists of two main areas : tree and report.

Tree part shows Honeywell system in the form of an Application Browser, so the user is able to use it intuitively – avoiding time consuming documentation reading.

The report part shows information about the selected item in the tree. Information is shown in a standard table layout for better orientation and easy printability in a mirror image format. The user is able to see and browse the data in an efficient one sheet form which allows quicker access to the desired information.

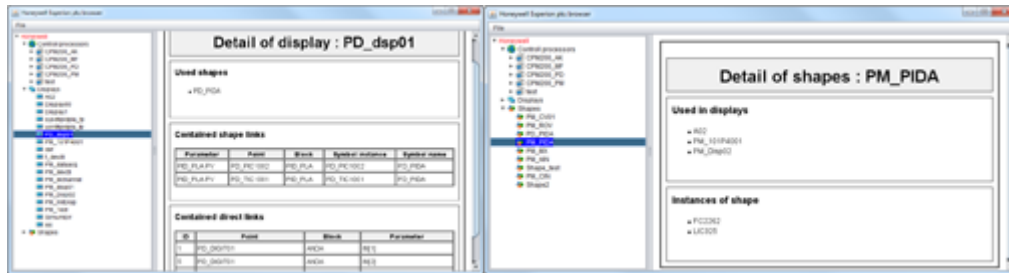
Tree and reports are highly customisable and can be easily modified according to the user's needs.

## **Honeywell HMI**

After importing HMI data by using the Honeywell HMI importer, the browser also allows the reporting of information about displays and shapes.

The display represents a visualisation screen for a certain part of the plant. The shape represents a template of graphic objects which are used for logic visualisation.

The user has a quick and easy access to display information such as which shapes are used in the display and parameters of the shapes. The shapes section provides information about interconnection of shape to display and examples of the shapes are also displayed.



### *How It works*

After successful import from the control system, the user is able to browse data anywhere without having access to the Honeywell network system. Data can also be easily moved and imported anywhere without the need to connect to the plant network.

Data from the Honeywell export file are stored in an internal database, in a documented database format. Therefore, besides browsing Honeywell through the browser, the user can query it using standard tools of Procus Pack v2 and get the specific data which is required.

### **Main benefits of Procus Pack v2 from Honeywell Experion PKS perspective**

- Hardware and software expectancy to run Procus Pack v2 are very low.
- Clean and intuitive managing of the whole application.
- All data related to specific item are displayed in simple, tabular, one sheet form.
- Quick and easy access to information from the system database.
- No additional installation of any libraries or application is needed.
- The user does not work with online data. There is no possibility of human error causing harm to the control system, causing system failure or a safety state alarm.

## **Procus Pack v2 and ABB 800xA System**

Procus Pack v2 also includes useful tools for working with ABB 800xA control system export files. These export files are in a standard pdf file format and after their import into Procus Pack v2, they are processed and stored in an internal database for further use. A useful tool for working with these files is described below.

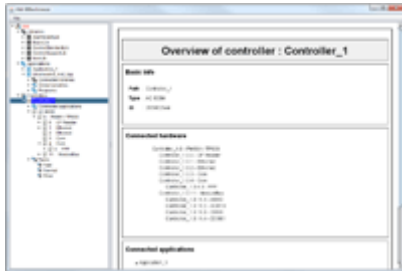
### **ABB 800xA Browser**

ABB 800xA browser (later browser) offers a convenient way to view the control system hardware configuration, parameters, libraries, division of tasks, applications and programs contained therein and variables used in applications and programs. Data is presented in a way which is familiar to the ABB 800xA control system and displays all information from ControlBuilder M/C. This makes the period required for user to get familiar with the browser considerably shorter.

### *Browser basics*

The following picture displays a typical view of a browser containing the ABB 800xA control database.





It consists of two main areas : tree and report.

Tree part shows the ABB 800xA system in the form of Application Browser of MyePlant, so the user is able to use it intuitively avoiding time consuming documentation reading.

The report part shows information about the item which is selected in the tree. Information is shown in a standard table layout for better orientation and easy ability to print in a mirror image format.

Tree and reports are highly customisable and can be easily modified according to the user needs.

#### *How It works*

The browser works in the environment of Procus Pack v2 and uses all advantages of its system for using different DCS databases concurrently. After successful import the user is able to browse data anywhere, without having access to the ABB 800xA network system. Data can also be easily moved and imported anywhere without the need of connecting to the plant network.

Data from the ABB 800xA export file is stored in internal database, in a documented database format, so besides browsing ABB 800xA through the browser, it is possible to query it using the standard tools of Procus Pack v2 and get specific data according to the user's needs.

Procus Pack v2 arguably brings very similar benefits for the ABB 800xA control system users as it does for the Honeywell Experion PKS.

#### **Main benefits of Procus Pack from ABB 800xA perspective**

- Hardware and software requirements to run Procus Pack v2 are very low.
- Clean and intuitive managing of the whole application.
- Quick and easy access to information from the system database.
- No additional installation of any libraries or applications is needed.
- The user does not work with online data. There is no possibility of human error causing harm to the control system, causing system failure or a safety state alarm.

## **Additional benefits of using Procus Pack**

- Saving time and money.
- With Procus Pack the user does not only get the software but also our support according to their needs.

- Our team is able to create queries or help the user in the unlikely event of a technical issue.
- Our team is also ready to customise the existing program modules according to user's needs.
- It is also possible to create new program modules which are compatible with various decentralised control systems (DCS) and safety systems (PLC).