FX Tools Express Software Package

FX Tools Express is a Windows® based software package for configuring, downloading and commissioning of predefined standard Heating, Ventilating, and Air Conditioning (HVAC) applications for Facility Explorer field controllers.

The FX Tools Express software package includes FX Builder Express and FX CommPro N2. FX Builder Express allows you to select and configure applications from a predefined library for the Facility Explorer field controllers, and FX CommPro N2 provides complete N2 controller commissioning capabilities.

Both FX Builder Express and FX CommPro N2 use the same graphic user interface. FX CommPro N2 includes feature to allow you to view parameters, tune controls, and save parameter values for use with other controllers. FX CommPro N2 enables the monitoring and control of connected Facility Explorer controllers.

Features and Benefits

- **Graphical User Interface**  
  Shows the application to the user as it is being defined

- **Standard Applications**  
  Optimizes and minimizes engineering time using a set of standard proven HVAC preconfigured applications

- **Online Commissioning**  
  Allows users to read, modify, and tune signal values while the application is running in the FX controller

- **Drop-Down Selection Menus for Configuration Options**  
  Allows users to quickly and easily create and set parameters for control applications
Fx Builder Express Tool
The Fx Builder Express is an easy-to-use and simplified version of Fx Builder that is used to select an application from a library of standard Facility Explorer field controller (Figure 2) applications and to configure that application using graphical plug-ins.

Figure 2: Facility Explorer FX Controllers
The library of standard applications includes the most common Heating, Ventilating, Air Conditioning, and Refrigeration (HVACR) applications such as air handling units, boilers, chillers, water distribution circuits (Figure 3) and zoning control applications.

The user is guided through an intuitive wizard process to enable/disable predefined functions and strategies of the standard applications (Figure 4).

Fx Builder Express generates an application file that is fully compatible with the standard Fx Builder where more advanced modifications can be made to the application (if necessary).

Fx Builder Express also defines the control logic functions that the Facility Explorer controllers execute, depending on the configuration options selected.

Fx Builder Express provides a network profile to represent the interface of the controller application to the network. Variables within the network profile of an application can be monitored and changed by supervisory systems such as LONWORKS® networks.

In addition, plug-ins are available to configure additional features for the standard applications.

Figure 3: FX Builder Express Screen - Standard Application Selection
FX Builder Express Features
FX Builder Express has been designed for ease of use and has the following features:

- intuitive menu selection and graphic configuration environment to create applications
- configuration procedure that does not require programming skills
- a library of validated and proven standard applications to lower the engineering, testing, and validation time
- configuration options which are not applicable are disabled and red-flagged, preventing the user from making improper application choices

Library of Standard Applications
FX Tools Express includes a library of standard applications (Figure 5) that include predefined network profiles for network integration, alarm and event management, display configurations and application algorithms.
Application Compatibility
The application files are fully compatible with the comprehensive programming tool called FX Builder. This allows the user to modify the standard application if necessary.

Standard Application Documentation
The FX Builder Express provides access to integrated technical documentation for the standard applications within the library for rapid information recovery.

FX CommPro N2
FX CommPro N2 is used for the downloading and commissioning of applications in the Facility Explorer controllers.

FX CommPro enables the user to test the control application in the connected Facility Explorer controllers. Parameter setting and control tuning is performed in the online mode. The tool enables you to read the device status, read and write input/output network variables, and to both configure parameters in the network profile and automatically upload them to the controller.

The parameters can be saved onto a hard disk for later archiving.

The controllers need to have an N2 Open card installed in order to be able to communicate with FX CommPro N2. Refer to the Facility Explorer documentation for the appropriate controller ordering information.

<table>
<thead>
<tr>
<th>Product Code</th>
<th>Product Description</th>
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<tbody>
<tr>
<td>LP-FXTEXP-0</td>
<td>FX Tools Express CD ROM (FX Builder Express, FX CommPro N2)</td>
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Figure 6: FX CommPro N2 Main Screen
## Technical Specifications

### System Requirements

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Details</th>
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<tbody>
<tr>
<td><strong>Operating System</strong></td>
<td>Microsoft® Windows 98</td>
</tr>
<tr>
<td></td>
<td>Microsoft Windows NT® Version 4.0</td>
</tr>
<tr>
<td></td>
<td>Microsoft Windows 2000 (with Service Pack 4 or later)</td>
</tr>
<tr>
<td></td>
<td>Microsoft Windows XP (with Service Pack 1 or later)</td>
</tr>
<tr>
<td><strong>Processor</strong></td>
<td>Intel® Pentium® Processor, 500 MHz or higher</td>
</tr>
<tr>
<td><strong>RAM</strong></td>
<td>Minimum 512 MB RAM</td>
</tr>
<tr>
<td><strong>Hard Disk</strong></td>
<td>60 MB available hard disk storage</td>
</tr>
<tr>
<td><strong>Display</strong></td>
<td>Display resolution 800 x 600 16-bit (32,768) color minimum</td>
</tr>
<tr>
<td><strong>Interface</strong></td>
<td>RS232, USB</td>
</tr>
<tr>
<td><strong>Software Requirements</strong></td>
<td>Microsoft Internet Explorer Version 5.0 or later</td>
</tr>
</tbody>
</table>

The performance specifications are nominal and conform to acceptable industry standards. For application at conditions beyond these specifications, consult the local Johnson Controls office. Johnson Controls, Inc. shall not be liable for damages resulting from misapplication or misuse of its products.