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Introduction

The **ICONICS InTouch To GraphWorX32 Translator** uses SAX2 to parse and convert exported .xml InTouch windows into GraphWorX32 .gdf files. Therefore, implementation of XML 3.0 or higher must be installed on your computer in order to run this utility successfully.

IMPORTANT NOTE

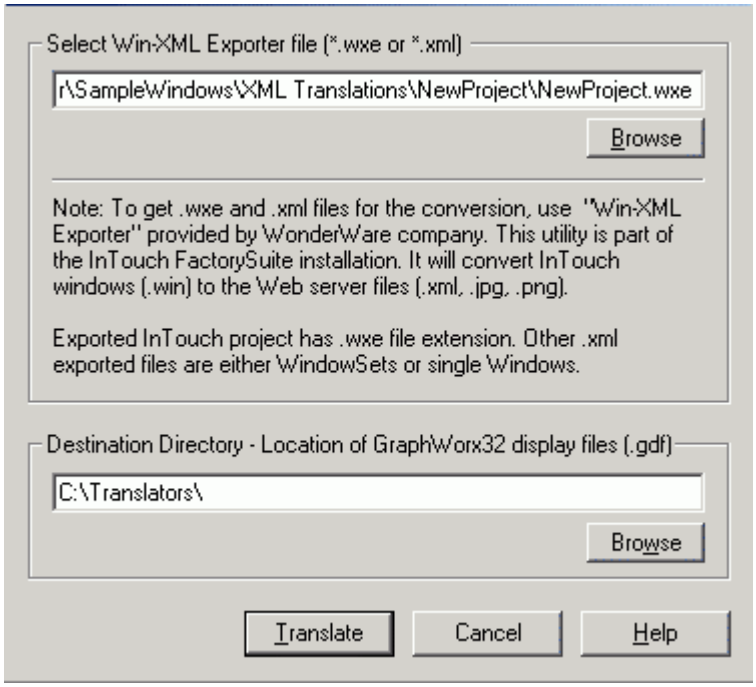
It is highly suggested that you run the ICONICS InTouch to GraphWorX32 Translator on a machine with GraphWorX32 v7.x (or GENESIS32 v7.x) or higher installed. Since Wonderware pictures are saved in JPG or PNG format and GraphWorX32 v6.1 does not support importing *.jpg and *.png files, you can get expected results only with GraphWorX32 v7.x or higher. The translator utility will still work with GraphWorX32 v6.1, but no pictures will be created inside the converted window.

InTouch To GraphWorX32 Translator

The **InTouch to GraphWorX32 Translator,** shown in the figure below, was designed to enable the conversion of Wonderware™ InTouch™ windows into ICONICS GraphWorX32 displays as easily as possible. It can provide the conversion either for a single window, a set of windows or the whole project.

You can specify file(s) to export in the **Select Win-XML Exporter file** edit box (or browse for the file by clicking the **Browse** button). You can either select a single window file (*.xml), Window Set file (wwcfg.xml) or Project file (*.wxe) as the source for translation. By default, it points to the Win-XML Exporter project file, which was created or worked on the last time the Win-XML Exporter was launched. (For more information about the Win-XML Exporter, please see the "InTouch to GraphWorX32 Conversion Tutorial" section below.)

Then, fill in the **Destination Directory** path where you want to place your converted GraphWorX display files. By default, the GENESIS32 Working Directory is preset in the edit box. The GENESIS32 working directory can be changed using the GraphWorX application by selecting **Set Working Directory** from the **Tools** menu.



InTouch Translator Utility

Conversion Specifics

The **InTouch to GraphWorX32 Translator** utility creates one GraphWorX display file per each exported InTouch window file. When the Window Set file is selected, it converts all windows within the Window Set.

When the project file is selected, all Window Sets included in the project are converted. A subdirectory named after the Window Set is created for all project Window Sets. All windows in all Window Sets being converted are created under the corresponding subdirectory.

Supported Conversion Types

The table below lists conversion object pairs. The InTouch object on the left is converted into GraphWorX32 object on the right.

Static Objects

WonderWare InTouch	ICONICS GraphWorX32
Line	GwxLine
H/V Line	GwxLine
Polyline	GwxLine
Polygon	GwxLine
Rectangle	GwxRectangle
Rounded Rectangle	GwxRectangle
Text	GwxText
Bitmap	GwxBitmap
Real-time Trend	NOT CONVERTED
Historical Trend	NOT CONVERTED
Button	GwxButton

Dynamic Objects

Wonderware InTouch		ICONICS GraphWorX32
Line Color	Discrete	GwxDigitalColor
	Analog	GwxDigitalColor
	Discrete Alarm	NOT CONVERTED
	Analog Alarm	NOT CONVERTED
Fill Color	Discrete	GwxDigitalColor
	Analog	GwxDigitalColor
	Discrete Alarm	NOT CONVERTED
	Analog Alarm	NOT CONVERTED
Text Color	Discrete	GwxDigitalColor
	Analog	GwxDigitalColor
	Discrete Alarm	NOT CONVERTED
	Analog Alarm	NOT CONVERTED
Object Size	Height	GwxSize
	Width	GwxSize
Location	Vertical	GwxLocation
	Horizontal	GwxLocation
Percent Fill	Vertical	GwxSize
	Horizontal	GwxSize
Miscellaneous	Visibility	GwxHide
	Blink	GwxFlash
	Orientation	GwxRotation
	Disable	GwxHide
Value Display	Discrete	GwxProcessPoint
	Analog	GwxProcessPoint
	String	GwxProcessPoint
User Inputs	Discrete	NOT CONVERTED
	Analog	NOT CONVERTED
	String	NOT CONVERTED
Sliders	Vertical	GwxLocation
	Horizontal	GwxLocation
Touch Pushbuttons	Discrete Value	GwxPick
	Action	NOT CONVERTED
	Show Window	GwxPick
	Hide Window	NOT CONVERTED

Functional Limitations

Functional limitations of the **InTouch to GraphWorX32 Translator** are imposed by the limitation of the GraphWorX32 OLE automation interface and limitations of Win-XML Exporter utility.

The InTouch to GraphWorX32 Translator does not translate expressions and does not convert DDE tags into OPC tags.

What Will Not Convert?

Throughput of the process is fundamentally limited by Wonderware's WIN-XML Exporter utility. The Wonderware utility does not convert:

- Historical trends created using the Wonderware Historical Trend Wizard.
- Alarm/event displays created using the Wonderware Alarm/event display wizard.
- Statistical process control (SPC) elements.
- QuickScripts, application scripts, window while showing scripts, data change scripts, or condition scripts.
- Some objects from Wonderware's Symbol Factory.

NOTE The Win-XML Exporter works only with InTouch 7.1 or greater. Earlier InTouch windows must at minimum be opened and saved in InTouch 7.1 before conversion.

The trend, alarm, and event elements can easily be created in GraphWorX through simple drop/drag/configure techniques. Much scripting required with Wonderware becomes unnecessary as ICONICS standard graphics objects, animations, and tools contain much if not more of the same functionality. Complex or custom scripting can easily be embedded using VBA, VBX, or Jscript within the ICONICS product.

Translation Impurities

Text Object

GraphWorX32 text object has a gap/space between the string and its frame, while InTouch frame is close-knit to the text string. Therefore, GraphWorX32 text objects must be resize to approximately reflect the font size of InTouch text object.

Orientation Dynamic

The Orientation dynamic is translated as GwxRotation dynamic. The conversion utility creates the GwxRotation object filled with available attributes. It does not set the pivot and angle of rotation. Adjust them to make them precisely reflect the original situation.

Value Display Dynamics

Wonderware's Value Display dynamic can be directly translated as a process point only if its text object string is empty. When it is not, such Value Display will be translated into two GraphWorX32 objects, static text object displaying the string and process point displaying the value. The frame of the process point will be placed next to the text object. User then has to adjust its size and position.

Value Display Discrete Dynamic

The GraphWorX32 equivalent of Wonderware's Value Display Discrete dynamic is a process point with its states set up. Unfortunately, GraphWorX32 v 6.x automation does not allow setting up the States of a process point. Therefore, the message strings belonging to the discrete values are placed into the custom data field of translated GraphWorX32 process point.

To finish the translation of Value Display Discrete dynamic, please remove these strings (from custom data field) and use them to configure the states in State Field Configuration dialog. The first line of the custom data is the Wonderware's "On Message," while the second line is "Off Message."

Touch Pushbuttons and Show Window

Only the very first InTouch window stated in the exported list of windows to open will be used. The rest of the InTouch windows are ignored.

Win-XML Exporter

The Win-XML Exporter utility is distributed with Wonderware' SuiteVoyager.

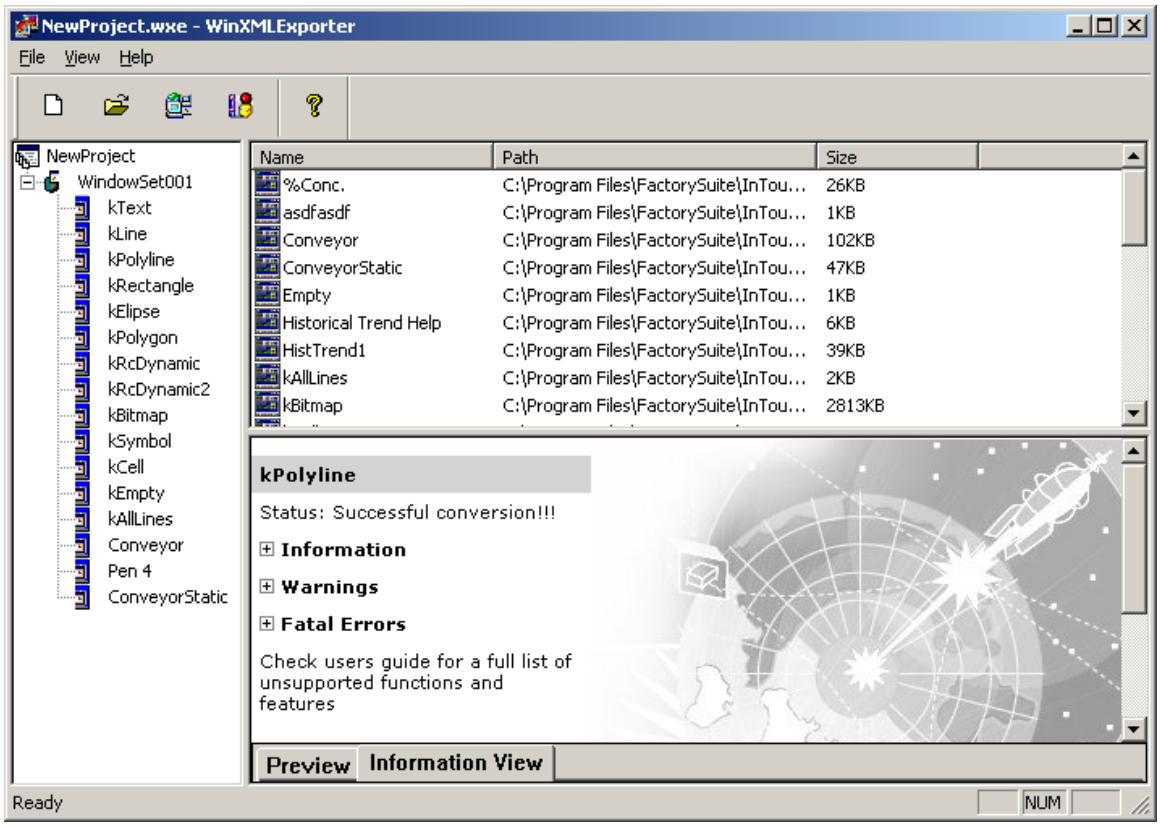
To install the Win-XML Exporter:

1. From the SuiteVoyager Portal Home Page (obtain the URL or address from your SuiteVoyager Administrator) click the Converter Tool download link. The **File Download** dialog box appears.
2. Choose **Run this program from its current location**. Click **OK.** The **Security Warning** dialog box appears. Click **Yes.** The Suite Voyager Win-XML Exporter Installation Wizard dialog box appears, as shown in the figure below. Click the **Next** button to begin the installation. Then following the installation steps in the wizard.

Win-XML Exporter Installation Running

3. The files are installed. When the **Setup Complete** dialog box appears, click **Finish.**
4. To launch the Win-XML Exporter (shown in the figure below) from the Windows **Start** menu, select **Programs > Wonderware > InTouch > Win-XML Exporter.**

Note: For more information about the Win-XML Exporter, please see the "InTouch to GraphWorX32 Conversion Tutorial" section below.)



Win-XML Exporter

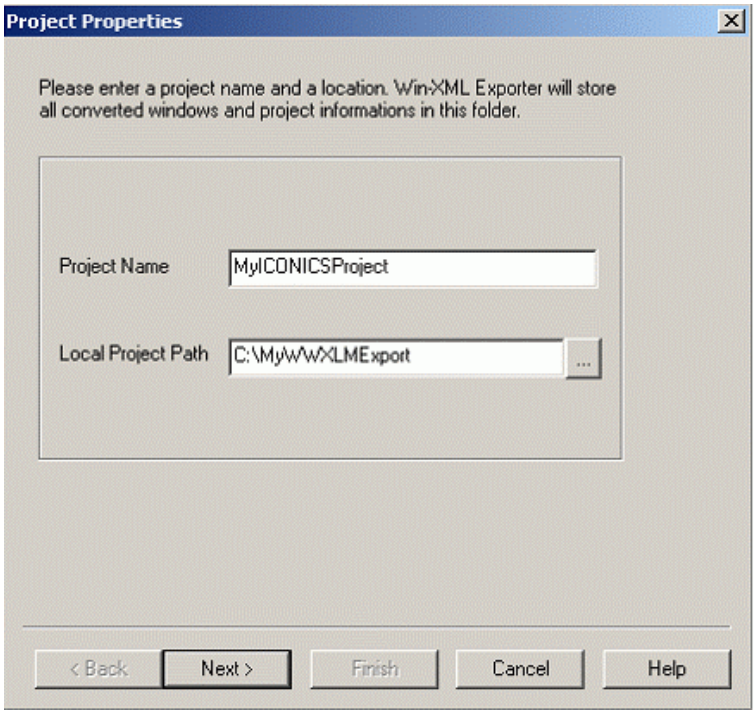
InTouch to GraphWorX32 Conversion Tutorial

The process of converting a Wonderware InTouch application (Version 7.11 or 8.0) to ICONICS GraphWorX32 (Version 7.x or 8.x) is a fairly straightforward and simple procedure the requires two basic steps. First, the Wonderware application windows will be converted from Wonderware's proprietary .WIN format to XML using the Wonderware SuiteVoyager WIN-XML Exporter (Version 2) utility. Second, the new exported XML windows will be imported into GraphWorX using the ICONICS WWToGwxTranslator.exe utility.

Step 1: Exporting InTouch Application .WIN's to XML

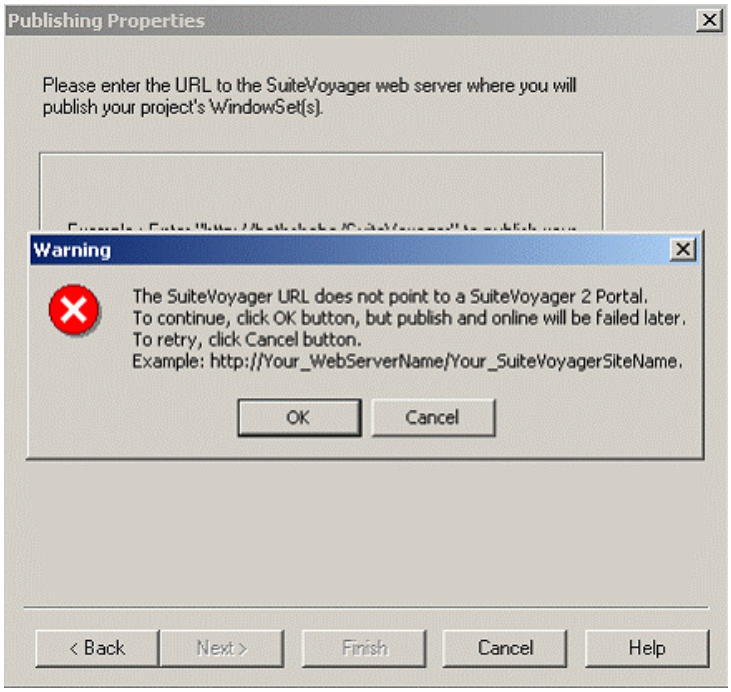
To convert the Wonderware application windows from Wonderware's proprietary .WIN format to XML, use the SuiteVoyager WIN-XML Exporter utility and install it on the same node as the InTouch application. The installation will place the exporter in your Wonderware/InTouch Program Group. The exporter is called "Win-XML Exporter." Launching the program and selecting the "?" button on the toolbar will provide online Help.

1. Launch the program. Select **File > New Project,** and select a **Project Name** and **Local Project Path,** as shown in the figure below. Click the **Next** button.



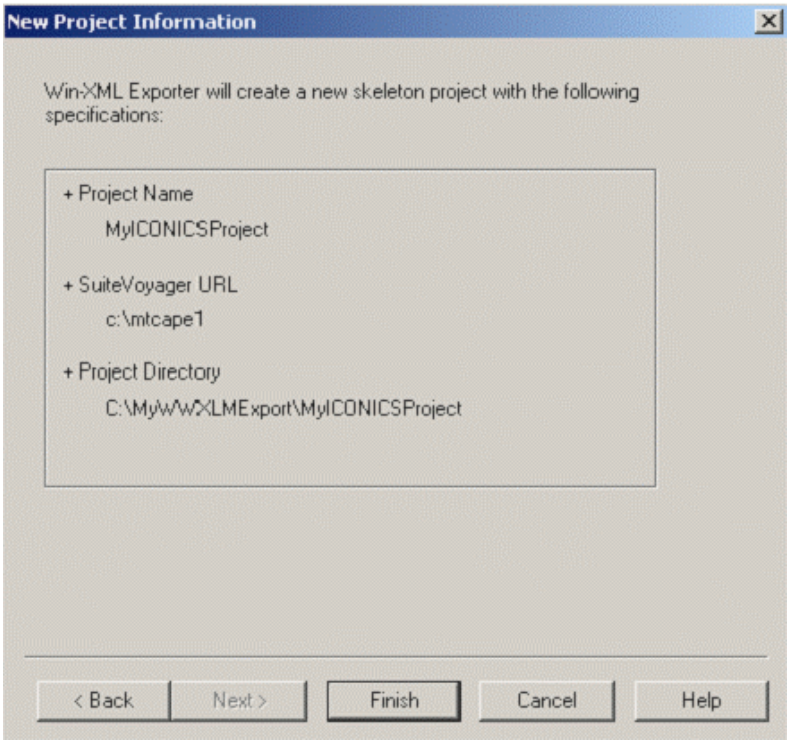
Specifying Project Name and Location

2. Fill in anything for the SuiteVoyager URL, as you will not be publishing to SuiteVoyager. Click **Next.** Click **OK** at the Warning dialog, as shown in the figure below. Then click **Next** twice.



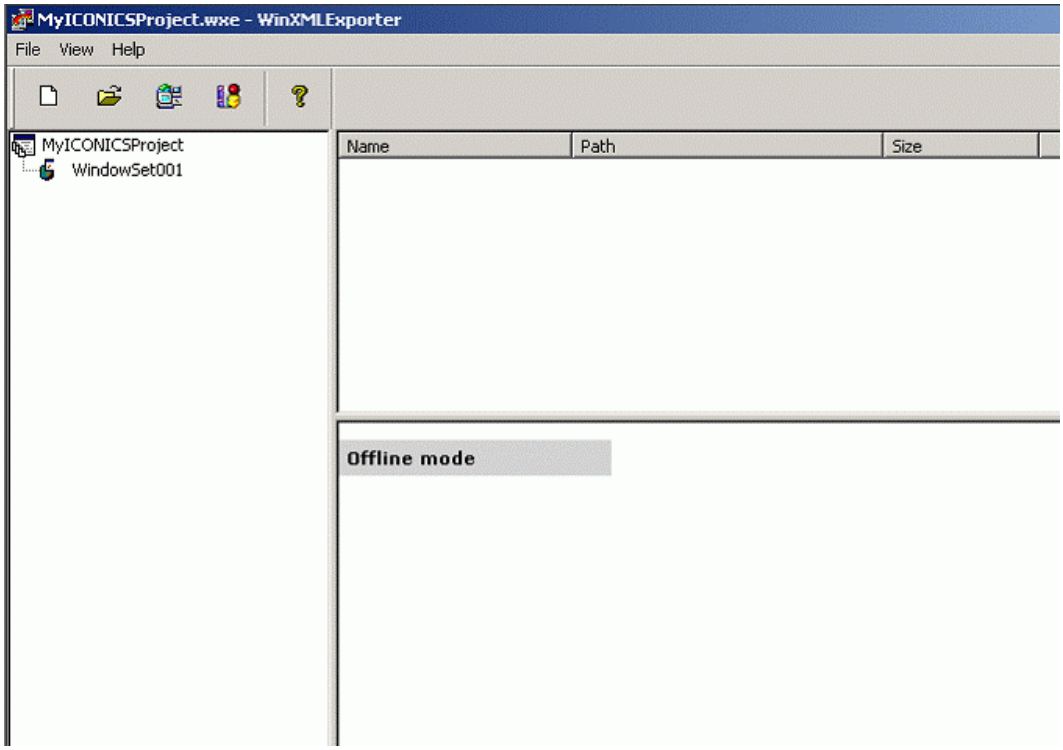
Publishing Properties

3. Your project summary appears, as shown in the figure below. Click **Finish.**



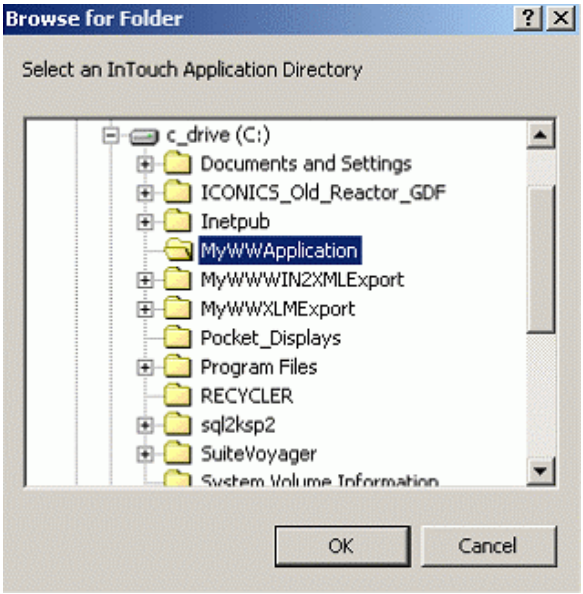
New Project Information

4. Your project with a WindowSet001 folder appears, as shown in the figure below.



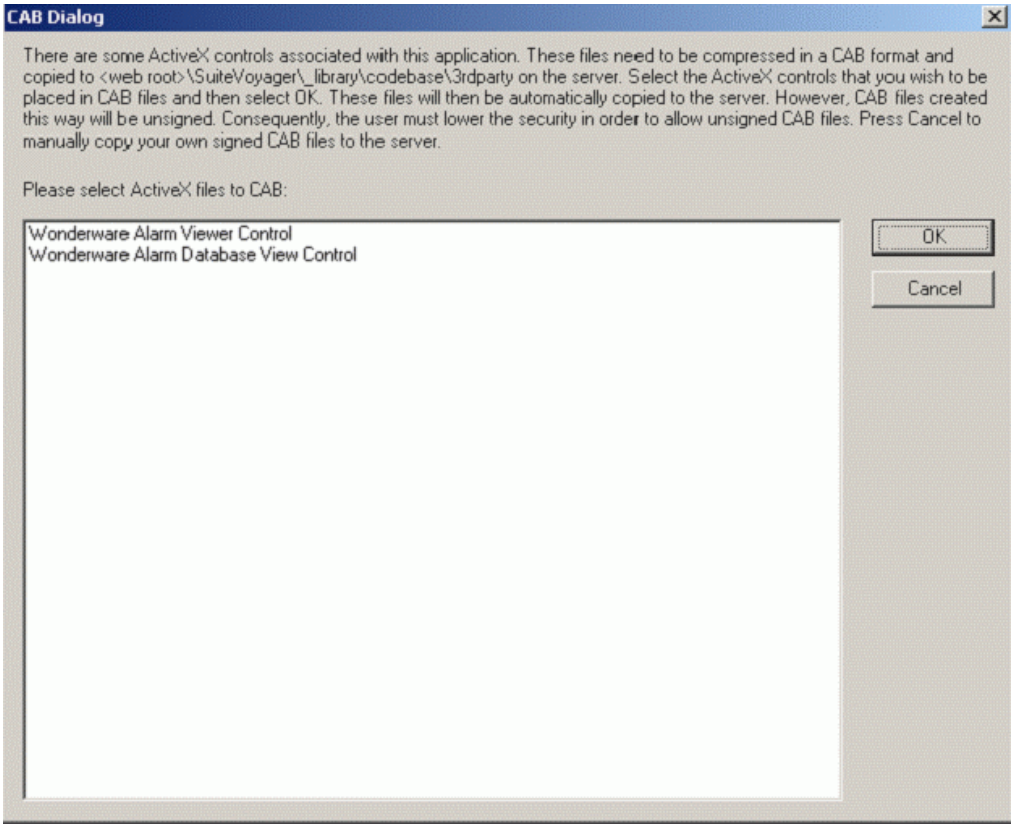
New Project in WinXML Exporter

5. Select **File > Open InTouch Application…** and browse to the InTouch application folder that you are exporting to XML, as shown in the figure below. Click **OK.**



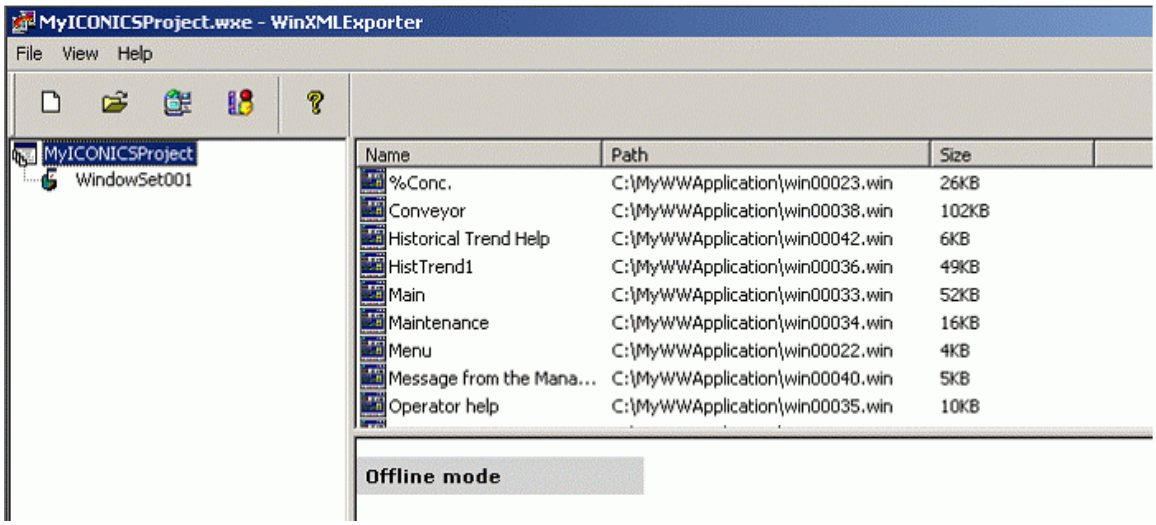
Selecting Folder to Export

6. With some ActiveX elements you may get the following dialog, as shown in the figure below. Click **Cancel.**



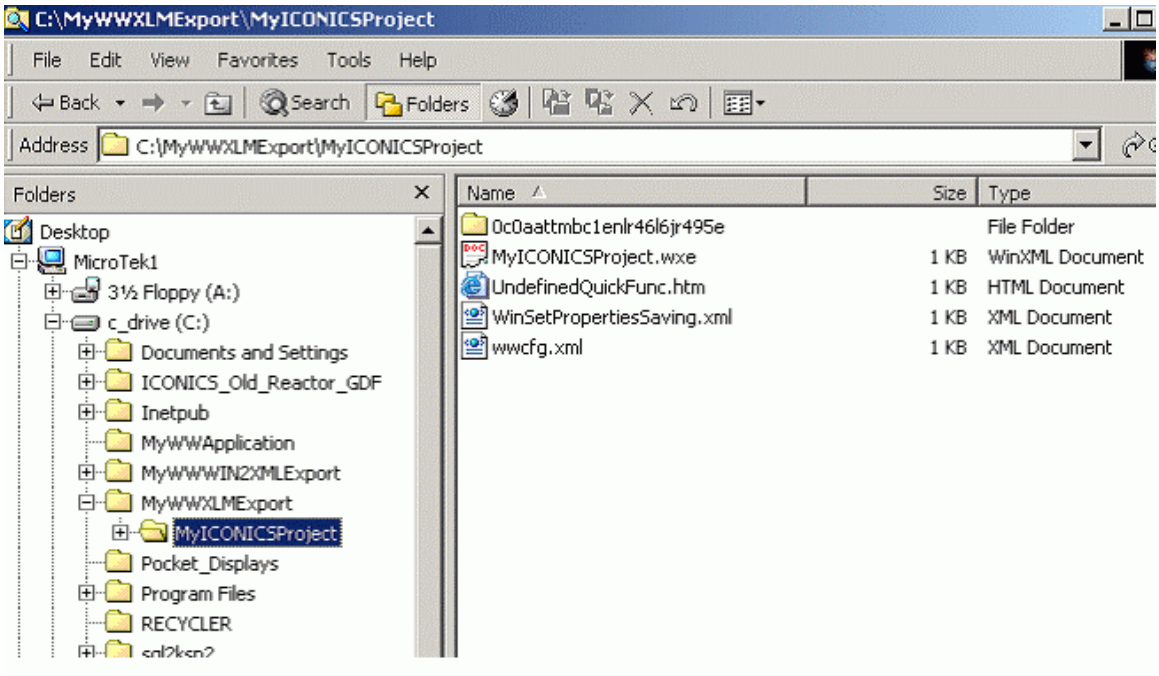
CAB Dialog

7. Select a window that you wish to export with the left mouse button and drag it to the WindowSet001 folder. This will invoke the Win-XML Exporter, as shown in the figure below.



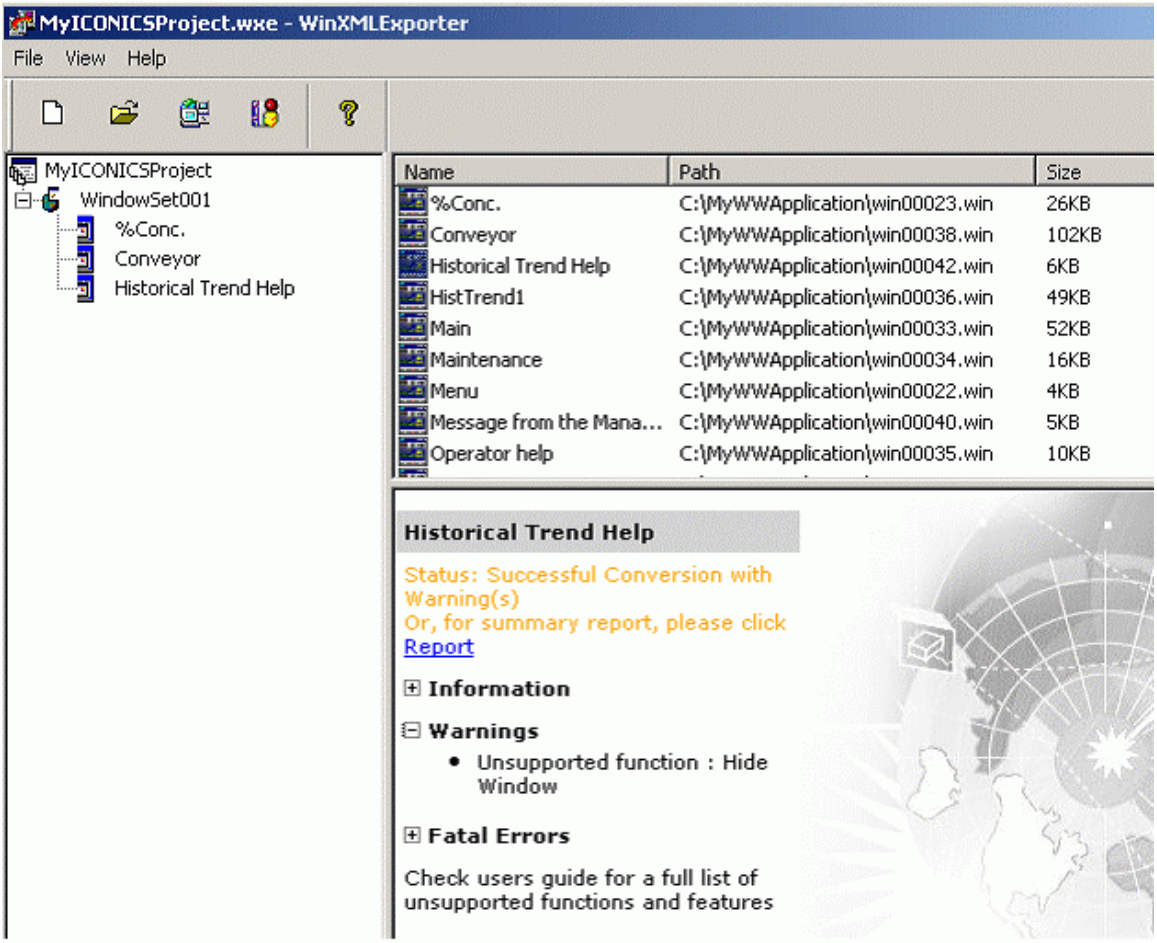
Exporting Application

8. The XML representation of the window will be created in your destination folder (this example c:\MyWWXLMExport\MyICONICSProject.), as shown in the figure below.



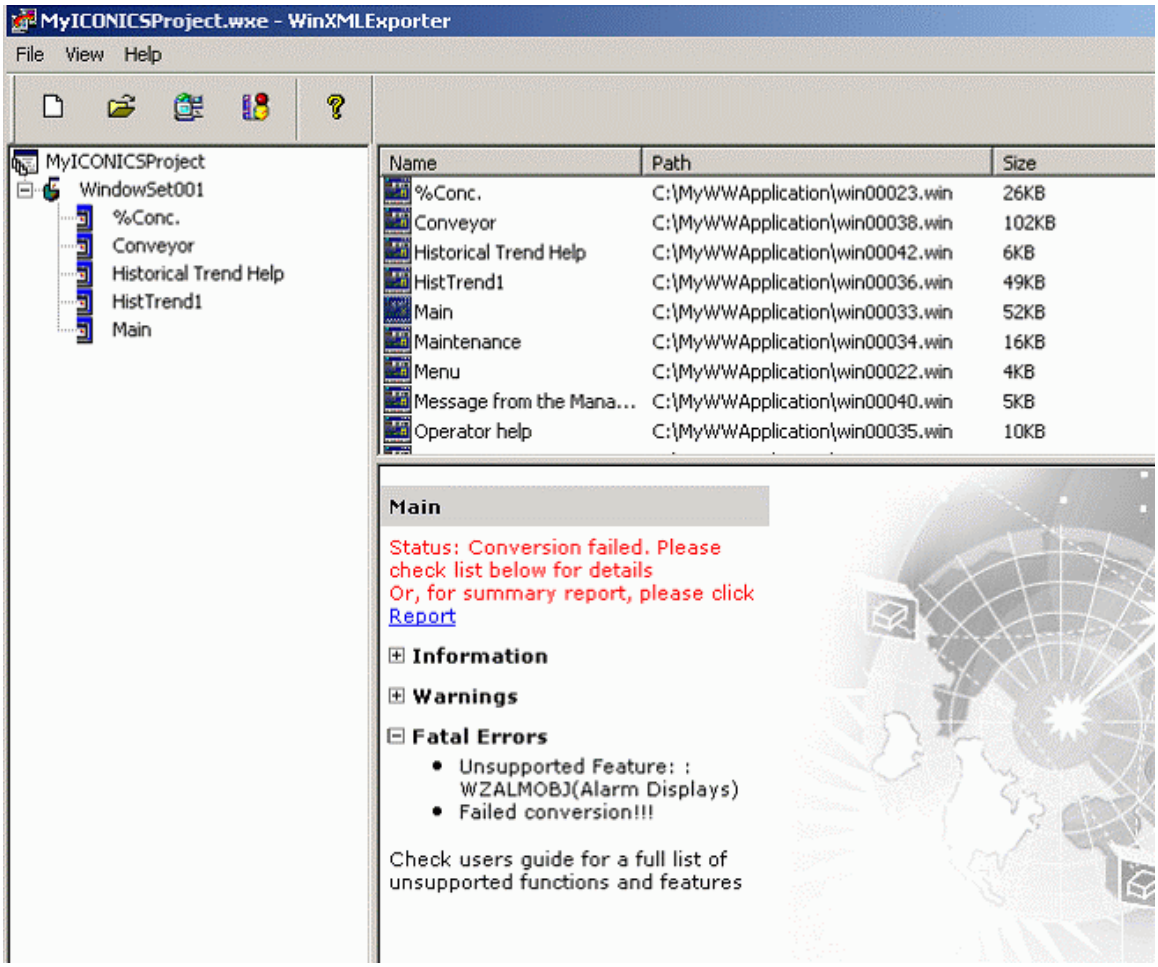
Destination Folder

9. Continue to drag and drop the windows to export from the upper right view window to the WindowSet001 folder. If warnings or errors are incurred, they will be displayed in the right bottom status window, as shown in the figure below.



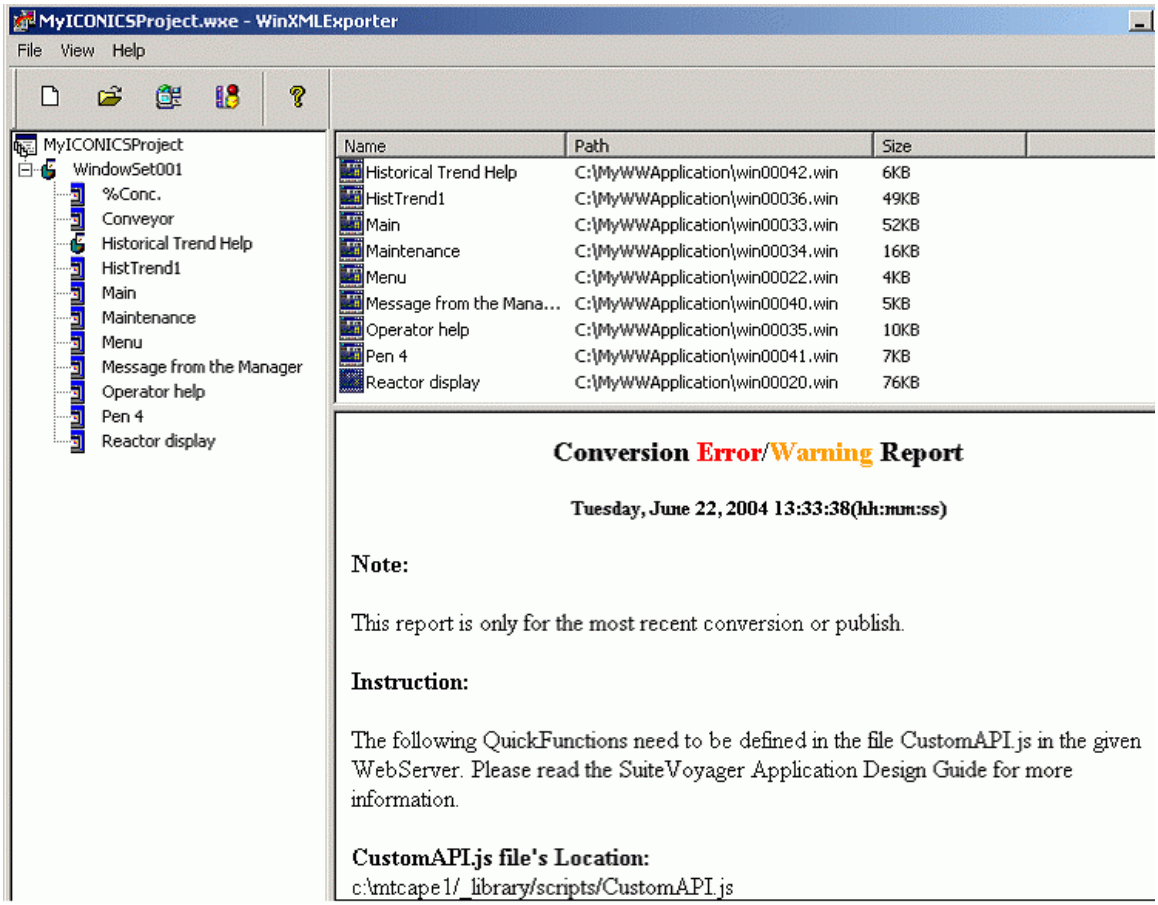
Exporting Windows to Target Location

10. Conversion failures are also indicated in the status window, as shown in the figure below.



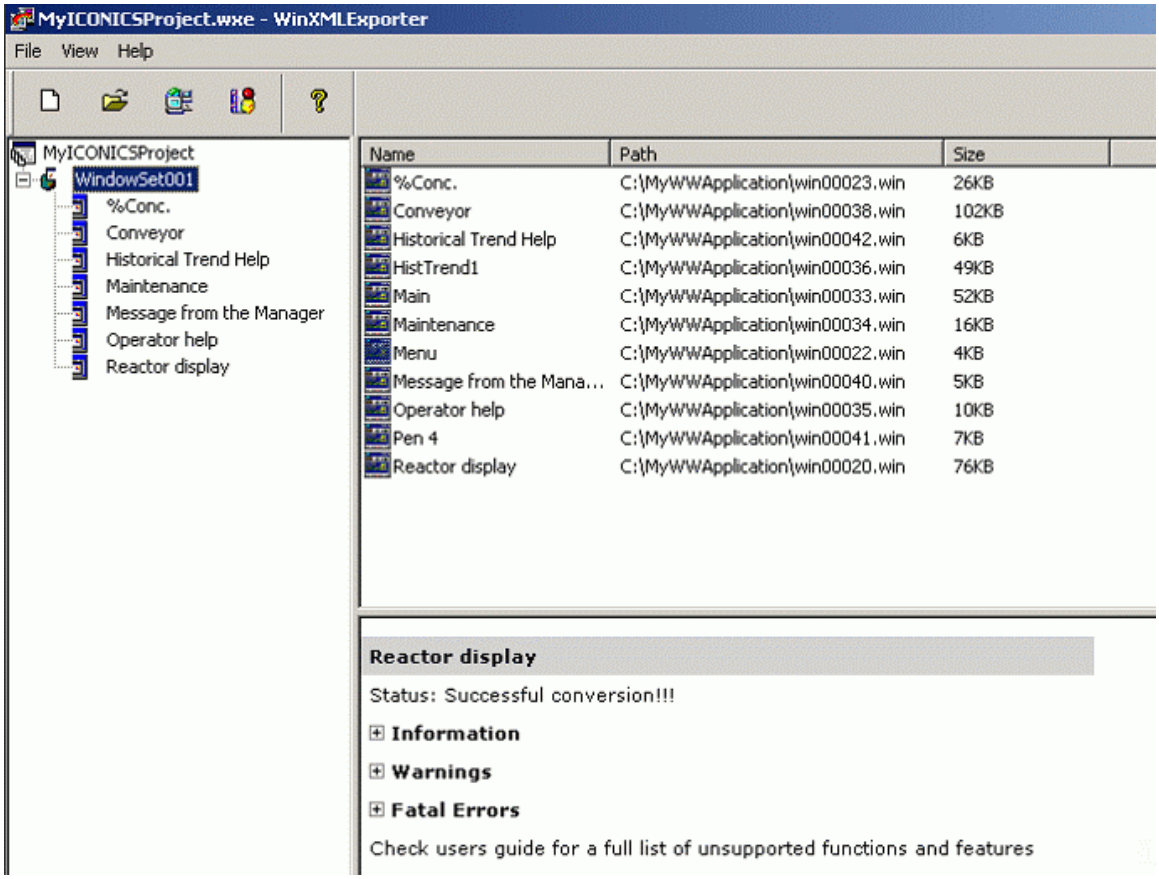
Conversion Failures

11. A conversion error/warning report is generated for any window without a full export, as shown in the figure below. Select **Report** in the status window to view the report specifics.



Conversion Error Report

12. Once all desired windows are exported into the Project folder, you must delete any windows that failed to export from the WindowSet001 folder by right-clicking on the window name and selecting **Delete.**

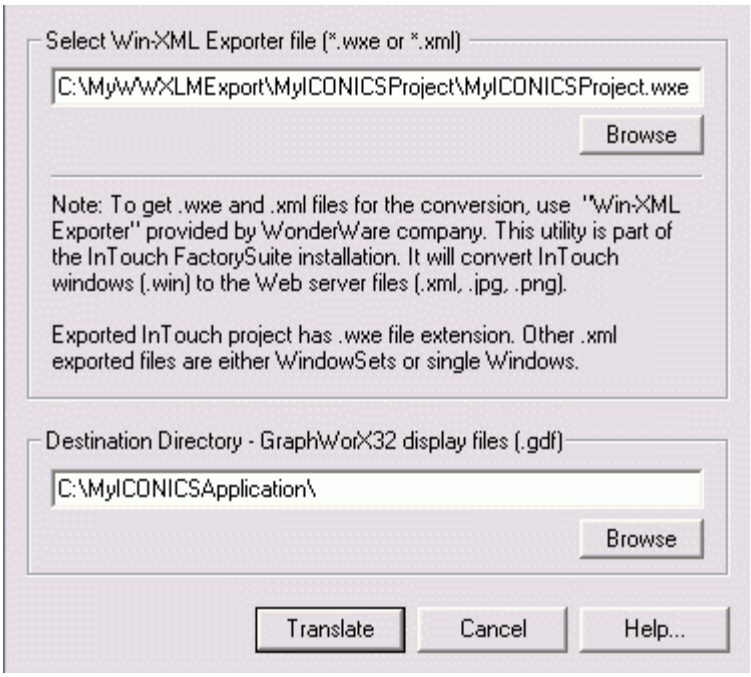


Deleting Windows That Failed To Export

Step 2: Run the Wonderware to GraphWorX32 Translator

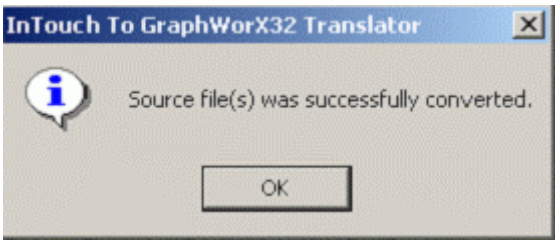
The second step in the conversion process is to import the new exported XML windows into GraphWorX using the ICONICS WWToGwxTranslator.exe utility:

1. Launch the GENESIS32 WWtoGwxTranslator.exe utility from the Windows **Start** menu by selecting **Programs > ICONICS Tools > Translators > Wonderware Converter.** Click **Browse** to select the Win-XML Exporter file (use the .wxe Project file), as shown in the figure below. Browse to a **Destination Directory** to place the GraphWorX .gdf display files. Click **Translate** to begin a window-by-window translation.



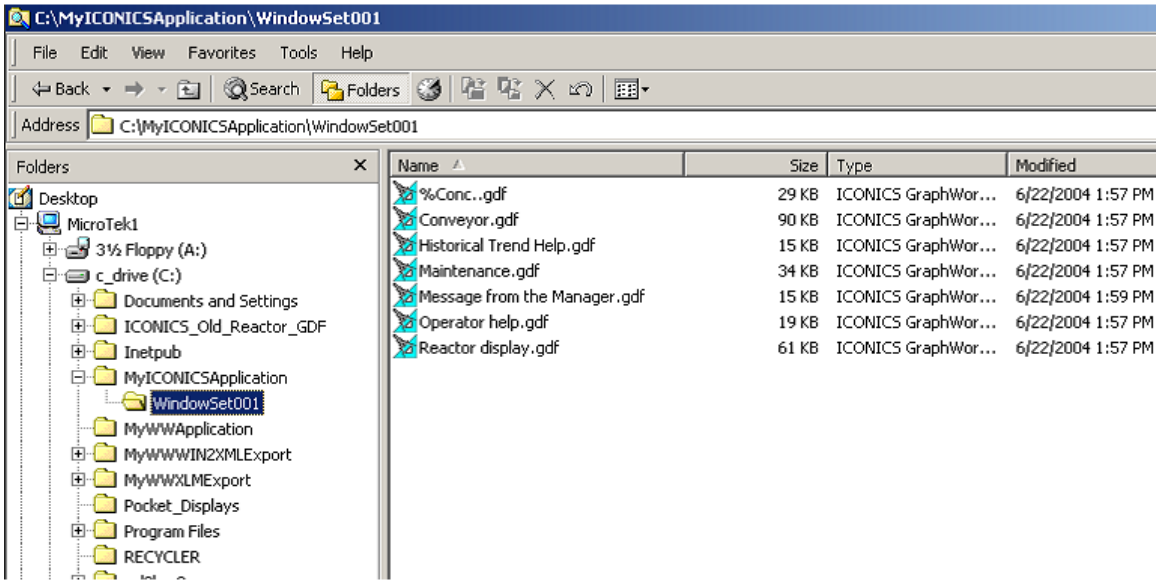
Running the ICONICS InTouch to GraphWorX32 Translator

2. Upon completion you should see a message box confirming that the file was successfully converted, as shown in the figure below.



Source File Conversion Successful

3. The .gdf displays are contained in the subfolder WindowSet001 in your specified destination directory, as shown in the figure below.



Converted GraphWorX32 Display Files