Migrating to InTouch 9.0/10.x/11.x

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Introduction

This document provides details on considerations, specific functional enhancements, and migration scenarios for the process of migrating a pre-InTouch 9.0 Application to InTouch 9.0.

> **Note:** This Tech Note also applies to InTouch 10.x and 11.x.

Alarming

This section is intended primarily for those customers upgrading from InTouch 7.11 (no patch) and earlier to InTouch 9.0 and 10.x. The following list contains the changes in this migration scenario.

Alarm Objects

- InTouch 7.11 provided a major enhancement to the InTouch Alarm Subsystem. This included a new Distributed Alarm Object, automatic conversion of Standard Alarm Object to Distibuted Alarm Object, and Alarm Logging to a Database.
- A Standard Alarm Object (pre-InTouch 7.11) will be automatically converted to a Distributed Alarm Object when opening the application with InTouch 9.0.
- Group Var tags work only with the Standard Alarm Object. They will not automatically be converted. Replace Group Var tags with calls to **AlmQuery()** to change the alarm query for a Distributed Alarm Object.
- If the application uses Page Up and Page Down buttons to manipulate the Standard Alarm Display, replace the button action scripts with **almMoveWindow()** or eliminate the buttons and use the built-in scroll bars in the Distributed Alarm object.
- Mixing Alarm Clients (also known as Alarm Consumers) and Alarm Providers from different InTouch Versions. InTouch 9.0 Alarm Clients, such as the Distributed Alarm Object and Alarm Viewer ActiveX Control, can query Alarm Providers from InTouch 7.11 and later. However, the Alarm Clients from older InTouch versions are not able to query InTouch 9.0 Alarm Providers.

Alarm Logging

- Pre InTouch 7.11 logged alarms to a file or to a SQL Server database using the Alarm Logger Utility. Alarm Databases created with the InTouch 7.0 or InTouch 7.1 Alarm Logger Utility are not able to migrate to Alarm Databases from later versions of InTouch.
- InTouch 9.0 uses the Alarm Printer Utility to log alarms to a file. Use the menu command **Configure/File Logging** (Figure 1 below):
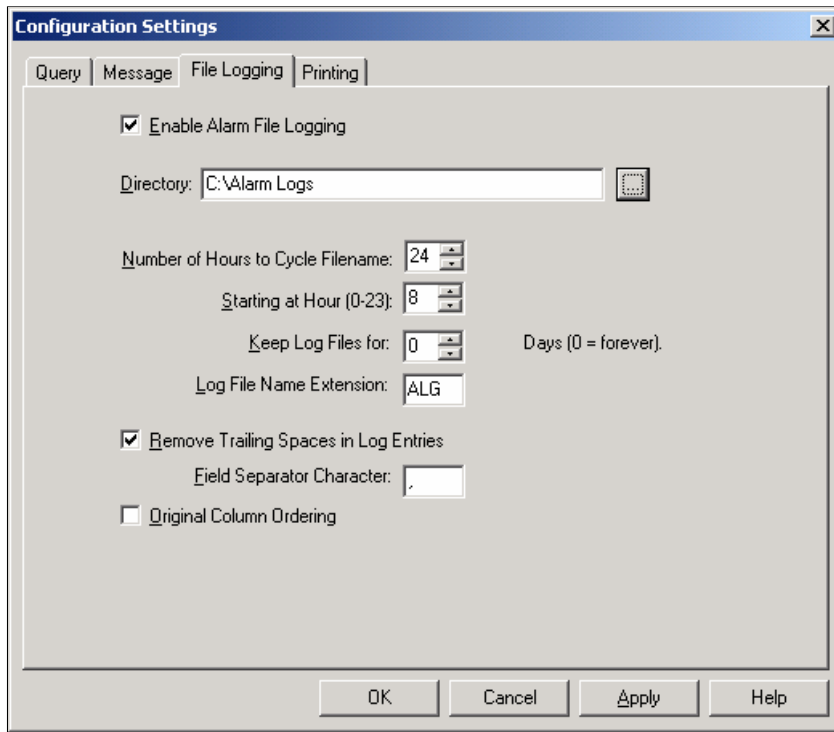
FIGURE 1: ALARM PRINTER CONFIGURATION OPTIONS

- Most customers will use InTouch 9.0 to log alarms to a SQL Server Database. This involves the following tasks:
  - **Install the database.** This is either Microsoft SQL Server 2000 or Microsoft SQL Server 2000 Desktop Engine (MSDE 2000), which is a "light" version of Microsoft SQL Server 2000. The following table provides a brief comparison:

		SQL Server	**MSDE**
Scalability	DB Size	Can reach terabytes	Limited to 2 GB
	Concurrent Users	Capable of hundreds or thousands of user connections	Less than 5 is recommended.
	Multiprocessor support	Max. 32 (Enterprise Edition)	Max. 2
	Clustering	Yes	Yes
Business-Critical	Transaction Logging	Yes	Yes
	Can be used for 24x7 applications	Yes	Yes
Security	Can tie to Windows NT/2000 Security	Yes	Yes
Administration	Management diagnostics and troubleshooting tools/utilities	• Service Manager • Microsoft Management Console • Client Network Utility • Enterprise Manager • Server Network Utility • SQL Server Performance Monitor • SQL Server Profiler • SQL Server Query Analyzer	• Service Manager

Installation of Microsoft SQL Server 2000 is from the Microsoft SQL Server 2000 CD included with Wonderware Products. Follow the steps in the article **Microsoft SQL Server Installation** in the attached document (**SQLServer_Install.doc**).

Installation of MSDE 2000 is from the FactorySuite A2 Prerequisites 1.1 CD in the folder **\MSDE**.

  - **Install SP3 for the Database.** Installation of the Microsoft SQL Server 2000 SP3 is accomplished by following the steps in the article **Microsoft SQL Server Installation** in the attached document (**SQLServer_Install.doc**).

Installation of MSDE 2000 SP3 is done by following the steps in **Tech Note 335 Configuring MSDE 2000 SP3 for Historical Alarms and Events in InTouch 7.11 and Later.**

  - Configure the Logging of alarms to the database and the viewing of the Alarms in InTouch by following **Tech Note 281 InTouch 7.11: Setting-up the Alarm DB Logger Manager and the Alarm DB View ActiveX Control**.

Note that it is recommended for optimum query performance to create a **Detailed Mode Alarm Database** and configure the Alarm DB View ActiveX Control for Query Time Zone = UTC.
- The Alarm Database structure is different for InTouch 7.11, InTouch 8.0, and InTouch 9.0.

When the InTouch 9.0 Alarm DB Logger Manager first connects to an InTouch 7.11 or 8.0 Alarm Database, it will

automatically get converted to the new InTouch 9.0 Alarm Database format. There will be a message in the Logger that the database schema has been updated.
- InTouch Applications that are logging alarms to a SQL Server database using AlarmSuite may consider migrating the AlarmSuite database to an InTouch Alarm Database by using the AlarmSuite History Migration Utility. The executable for this utility is **AlmHisMig.exe** found in **\Program Files\Wonderware\InTouch**.

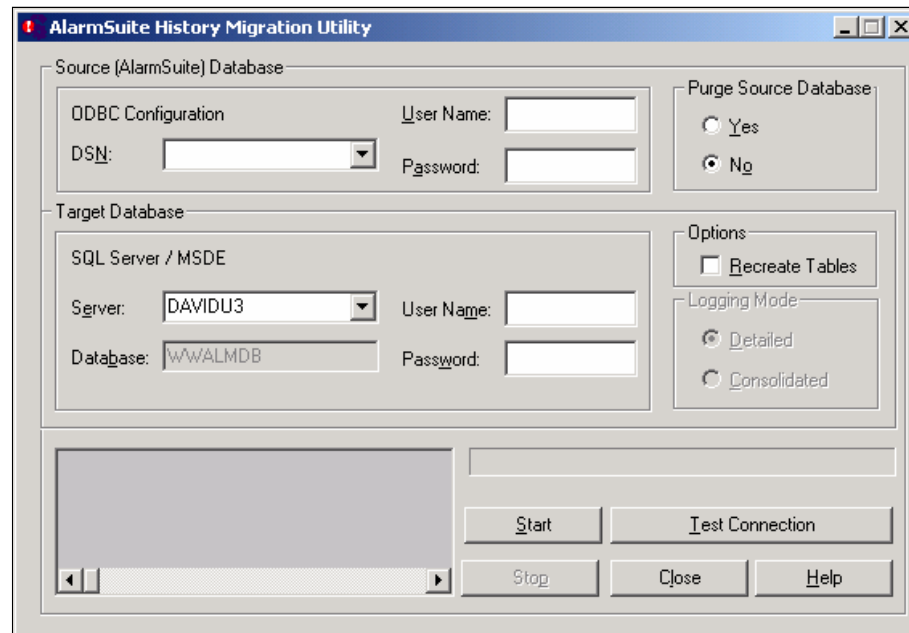> **Note:** At some point in the future AlarmSuite will no longer be supported with InTouch.

FIGURE 2: ALARMSUITE HISTORY MIGRATION UTILITY

History

- A time-shift problem problem with historical retrieval was resolved with InTouch 7.0 SP2 P04 and InTouch 7.1 P03. The workaround for the time-shift required having the TZ variable in the autoexec.bat and a TZ environment variable in **Control Panel/System/Environment**.

  Details are found in **Tech Note 144 How the Time Zone & Daylight Savings Time Affect InTouch 7.0 Historical Logging**.

  This means that an upgrade to InTouch 9.0 requires removing the TZ variable in the autoexec.bat and the TZ Environment Variable.

- InTouch 9.0 P01 Supports Automatic Daylight Savings Time. (This fix was also made to InTouch 8.0 SP2 P03 and InTouch 7.11 P07). This means that the scripting to handle Daylight Savings Time transition must be removed from the application if using Automatic Daylights Savings Time. The scripting and also the setting for Automatic Daylight Savings Time can be found in **Tech Note 144 How the Time Zone & Daylight Savings Time Affect InTouch 7.0 Historical Logging**.
- InTouch 9.0 can access history from older versions of InTouch, enabling "mixing" history from different InTouch versions. Older versions of InTouch can act as History Providers for InTouch 9.0. However, older versions of InTouch cannot retrieve history from newer versions of InTouch.

Security

InTouch 8.0 provided a major enhancement to the InTouch Security sub-system. Included in this enhancement was support for two new Security Models - Operating System Security and ArchestrA Security (along with keeping the InTouch Security model), and a new script function to replace the Key Trap script functions.

- Use of the new Security Models is documented in **Tech Note 295 Security Features in InTouch 8.x**. Included in this Tech Note is a link to a Demo Application called **Security Features Demo for InTouch 8.x**. After the InTouch application is migrated to InTouch 9.0 the InTouch Developer can decide which Security Model to implement.
- It is no longer necessary to install the Keyboard Filter Driver. InTouch 9.0 includes a script function called **EnableDisableKeys()**, to disable the use of certain keys. Details of this script function can be found in the InTouch Reference Guide.

  The Key Trap script functions KeyTrapSet() and KeyTrapStatus() must be replaced after the conversion of the InTouch application to 9.0. The easiest way to find these script functions is to use **File/Print** in WindowMaker and print all selections to a text file, then search the text file for the phrase **keytrap**.

SQL Access Manager

InTouch 7.11 P01 provided the following enhancement to the SQL Access Manager component of InTouch: Previously SQL Access

Manager accessed databases through an ODBC Driver. InTouch 7.11 P01 and later supports connections using native OLE DB Providers.

• Connecting to a database using a native OLE DB Provider provides tremendous performance improvements over connections with ODBC Drivers. To connect with a native OLE DB Provider involves changing the **SQLConnect()** Connection String. This is documented with examples in the InTouch 9.0 SQL Reference Guide in the documention for SQLConnect().

• After migration, the Bind List may have to be changed due to InTouch 7.11 P01 allowing true tag-to-field binding. Details of this are found in **Tech Note 253 InTouch 7.11 P01 Bind Lists**.

SPC and SPC Pro

InTouch 6.0 and earlier included a component called SPC that worked with files. InTouch 6.0 SP1 and later have SPCPro that works with a database.

• If you need to convert from SPC to SPC Pro, please refer to **Tech Note 127 Converting From InTouch SPC to FactorySuite SPCPro**.

Recipe Manager

Recipe Manager migration is automatic (no tasks are necessary to migrate).

Versions of InTouch to Convert

Pre-InTouch 7.0

Follow the steps in **Tech Note 151 Tips on Converting Applications to InTouch 7.0 and Later** to convert the InTouch application to InTouch 7.0.

InTouch 7.0, 7.1, 7.11, and 8.0

These versions should convert directly to InTouch 9.0.

When to Uninstall InTouch Before Installing InTouch 9.0

InTouch 8.0 was the first InTouch version to use an MSI Install. Therefore it is necessary to completely uninstall any *pre*-InTouch 8.0 installation before installing InTouch 9.0. The steps to perform this complete uninstall are in **Tech Note 179 Manually Uninstalling InTouch 7.0/7.1**.

InTouch 9.0 can be installed on top of InTouch 8.0.

Productivity Pack

InTouch 9.0 does not support the Productivity Pack.

• The 16-Pen Trend is now an InTouch 9.0 installation option.

• Symbol Factory is now an InTouch 9.0 installation option.

• DocViewer must be replaced before migration by the Microsoft Web Browser ActiveX Control and then the Navigate() method used to open a file. See Tech Note 117 "Using the InTouch 7.0 ActiveX Container" for an example of how to use the Microsoft Web Browser ActiveX Control.

• **Wizgen** functionality is replaced by InTouch 9.0 SmartSymbols. There is no conversion from a Wizgen wizard to a SmartSymbol. However, Wizards created by Wizgen will automatically get converted to InTouch Cells when migrating to InTouch 9.0 and will work the same as the Wizgen wizard.

• SQLGrid should be replaced before migration by wwGenericSQLGrid. This ActiveX Control can be found on the Wonderware Knowledgebase CD in the section Apps and Add-Ons/Utilities and Script Functions/InTouch Utilities.

Migrating to a New Machine

Use the following steps when migrating an older InTouch application to a new machine with InTouch 9.0:

1. Verify that the new machine meets the Hardware and Software Requirements. These can be found in the InTouch 9.0 Readme file.

   The Software Requirements including compatibility for InTouch Service Packs and Patches can be found in the Compatibility Matrix on the Wonderware Tech Support web site:

FIGURE 3: INTOUCH COMPATABILITY MATRIX

2. Install the FS 2000 Common Components *before* installing InTouch 9.0 (if there is any future possibility of installing a Factory Suite 2000 I/O Server on this machine). Details are in **Tech Note 313 Installing FactorySuite A2 Components Alongside FactorySuite 2000 Components**.

    As a general rule it is safest to install the FS 2000 Common Components first before installing other Wonderware Products.

3. Install InTouch 9.0 and select the components (SQL Access Manager, SPC Pro, Recipe Manager, 16 Pen Trend, Symbol Factory) used by the InTouch application during the installation.

    • If your InTouch application uses SPC Pro, it will be necessary to create the ODBC DSN for connecting to the SPC Pro database.

4. Install the latest InTouch 9.0 patch.

5. Install Third Party ActiveX Controls used by the InTouch application and follow the procedure in **Tech Note 361 Maintaining Wizards and ActiveX Controls in InTouch Applications**.

    Note that the InTouch Application Publisher can be used to create a package file that includes the ActiveX Controls, which can then be copied to the InTouch 9.0 node.

6. Install Add-On Script Function Libraries and Wizards used by the InTouch application. The Add-On Script Function Libraries are found on the original machine in the InTouch installation directory as **.wdf** files.

    For example, the file **WWTechSp.wdf** indicates that the Tech Support Script Function Library was installed. The Wizards used by the InTouch application can be found by looking in the Wizard Selection box in WindowMaker on the original machine.

7. Copy the pre-InTouch 9.0 application to an empty directory.

8. Open the pre-InTouch 9.0 application in InTouch WindowMaker and convert the application.

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