

Tech Note 511

InTouch® 10.0 & Wonderware Application Server 3.0 System Upgrade and Application/Galaxy Migration Steps

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Introduction

This *Tech Note* outlines the requirements and steps required to upgrade previous versions of InTouch 10.0 and Application Server 3.0. Upgrading InTouch applications and Galaxy migration steps are also included.

This document contains the following sections:

- [Upgrading from Previous InTouch Versions](#)
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- [Basic InTouch Application Migration Steps \(for Standalone and Managed Applications\)](#)
- [Creating a Galaxy Backup *.cab File](#)
- [Basic Application Server Upgrade/Migration Sequence](#)
- [Migrating the Galaxy Database](#)
- [Migrating a version 2.1 Galaxy Backup .Cab File \(Optimized method for non-deployed galaxies\)](#)
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Upgrading from Previous InTouch Versions

Note: For important Software Requirements information refer to the InTouch 10.0 Readme file and Wonderware's Product [Compatibility Matrix](#).

You can upgrade to InTouch 10.0 from InTouch version 8 and later. When upgrading from InTouch version 8 or later, the installation procedure detects which InTouch components are currently installed and updates them accordingly. Adding or removing components during the upgrade is not recommended.

Upgrading to InTouch 10.0 may require a reboot if the Microsoft MDAC version currently installed on the computer is not at the prerequisite version level. The InTouch requires, at a minimum, MDAC 2.7 SP1 for Windows XP Professional and MDAC 2.8 for Windows Server 2003. The version of MDAC installed on the computer is verified during the installation of version 10.

Upgrading from InTouch Version 7.11

If you are upgrading from InTouch version 7.11 to InTouch 10.0, uninstall InTouch 7.11 before you install the new version.

If InTouch 7.11 is installed and you have Alarm DB Logger set to run as a service, change the service mode to manual before you uninstall InTouch and reboot your computer. You must also ensure that this service is not running before you install InTouch 10.0. Otherwise, the installation cannot update the files properly. If you uninstall InTouch 7.11 with Alarm DB Logger in automatic mode, the InTouch installation does not complete properly.

Upgrading from InTouch Terminal Services

Install InTouch Terminal Services on a stand-alone server. We strongly recommend that you not install InTouch Terminal Services on any computer that also acts as a database server such as Wonderware Historian, RAS server, or PPTP server.

InTouch and InTouch Terminal Services are not supported and should not be installed on a computer configured as a domain controller. InTouch Terminal Services is designed to perform like Windows 2000 Professional at the end-user level and it will not assign top priority to critical domain-level processes. Installing InTouch Terminal Services on domain controllers can significantly degrade the performance of your InTouch applications.

Important! If you copy the contents of the InTouch installation CD to a folder on your hard drive and then run the installation from this folder, the full path name of the folder must not contain a blank space.

Upgrading from Previous Application Server Versions

Note: For important Software Requirements information refer to the Application Server 3.0 Readme file and Wonderware's Product [Compatibility Matrix](#).

You can upgrade from the following Application Server versions:

- Version 2.0 Patch 01 or later
- Version 2.1, including all patches and service packs

You can upgrade the following separate components of Application Server:

- The Galaxy Repository node
- The IDE and Galaxy database
- A run-time node

Upgrading the Bootstrap on any computer removes the running Platform and Engines. They are marked as undeployed if they are running on a node other than the Galaxy Repository node. You'll need to redeploy them after the upgrade. If a remote node is disconnected from the Galaxy Repository node or if you upgrade the remote node before you upgrade the Galaxy Repository node, the remote Platform is not marked as undeployed. You must undeploy and redeploy the Platform.

The run-time functionality of the system continues throughout the upgrade process, except during a run-time node upgrade. Configuration, however, must be done using components that are at the same version level. For example, you cannot use the Galaxy Browser in InTouch on a non-upgraded node to view or select attributes from an upgraded Galaxy. You can, though, view or modify run-time data using an InTouch window or the Object Viewer.

Before You Begin the Upgrade

- Review the InTouch 10.0 Readme file and Wonderware's Product [Compatibility Matrix](#).
- Ensure that any Add-On functions or ActiveX controls are installed in the new system prior to migrating the application. For additional migration information please review [Tech Note 404](#) and [Tech Note 496](#).

- Backup your InTouch application by making a copy of the Application directory and placing it in a safe location.
- Backup the Galaxy. See the [Creating a Galaxy Backup *.cab File](#) section for Galaxy backup information.
- Schedule InTouch and Galaxy backups at regular intervals as a general practice.
- Upload any run-time changes for critical application objects. You cannot upload any run-time changes after you upgrade the system.

Basic InTouch Application Migration Steps

You can migrate InTouch application versions 7.11 and later to InTouch 10.0 & Wonderware Application Server 3.0.

Application versions prior to version 7.11 must first be migrated to version 7.11. After migrating to version 7.11, you can then migrate to version 10.0.

Important! Ensure that any Add-On functions or ActiveX controls are installed in the new system prior to migrating the application. For additional migration information please review [Tech Note 404](#) and [Tech Note 496](#).

Prior to migrating create a backup of your InTouch application by making a copy of the Application directory and placing it in a safe location. Backups of your InTouch application should also be done at regular intervals as a general practice.

To upgrade in InTouch WindowMaker™ as a Standalone Application (as in previous InTouch versions):

1. Locate the application with the InTouch Application Manager.
2. Open the application in WindowMaker and choose **Yes** when prompted to convert.

To upgrade the application in the IDE as a Managed Application

1. Create a new \$InTouchViewApp Derived Template, then open it (Double-click or right-click and click **Open**).

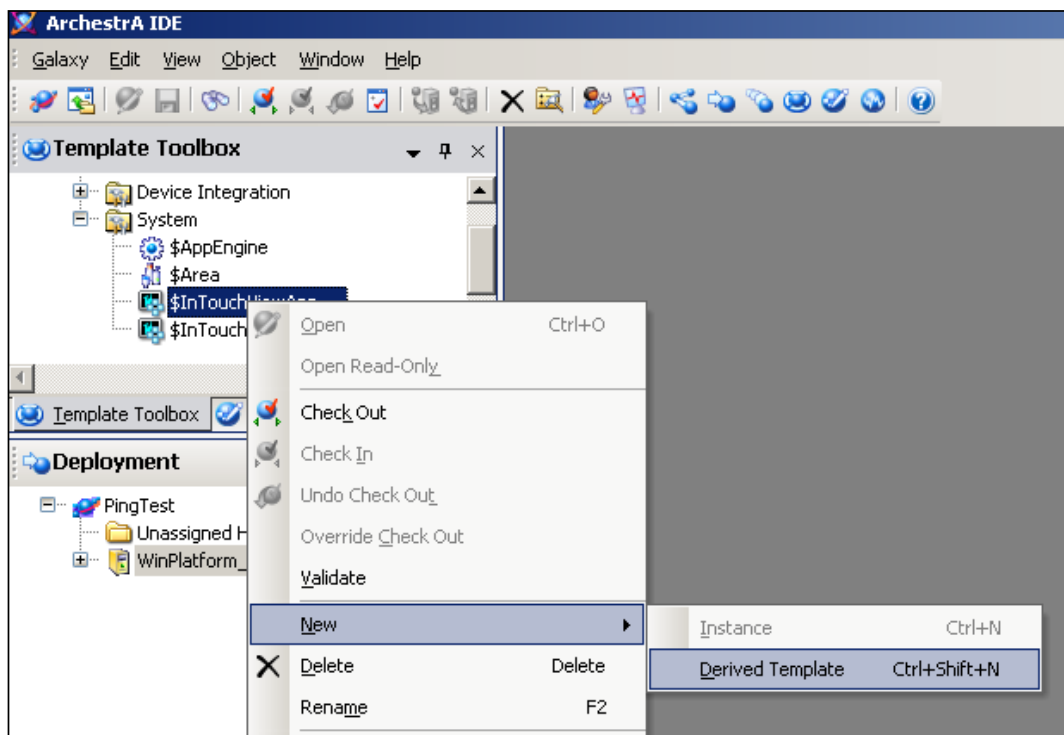


Figure 1: \$InTouchView Derived Template

2. Select **Import Existing InTouch Application**.

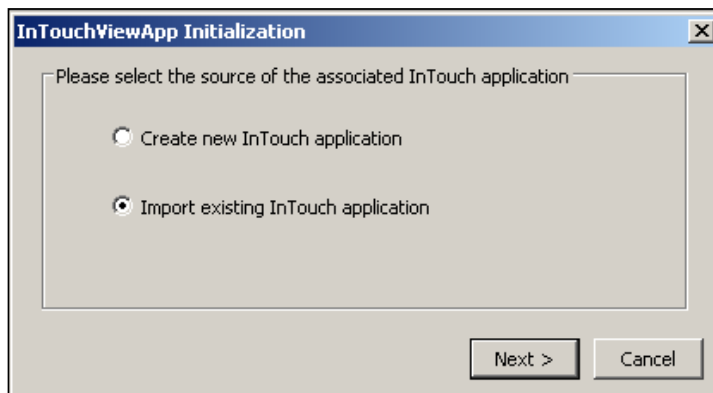


Figure 2: Import Existing Application

3. Navigate to your old/previous version application.
4. Accept the default application name (from previous version) or modify the name.
5. Choose **Yes** when prompted to Convert.

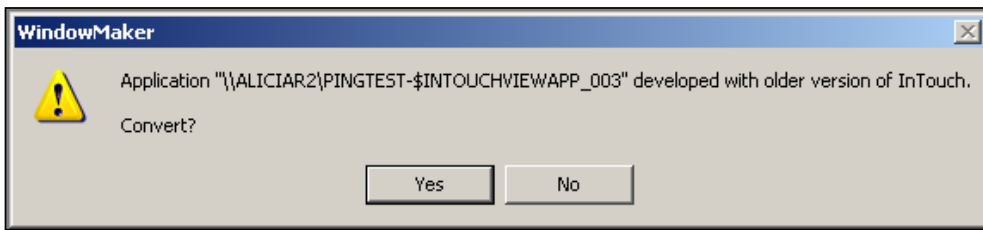


Figure 3: Convert Your Application

6. After it is converted, the \$InTouchViewApp Derived Template opens in WindowMaker.
7. At this point you can test the application in Runtime.

To deploy and run the Managed Application

1. In the IDE, create an instance of the \$InTouchViewApp Derived Template created above.
2. Assign your new InTouchViewApp object to an Instance of the \$ViewEngine System object (which must be assigned to a Platform).
3. Deploy the ViewEngine and InTouchViewApp objects (with or to a deployed Platform).

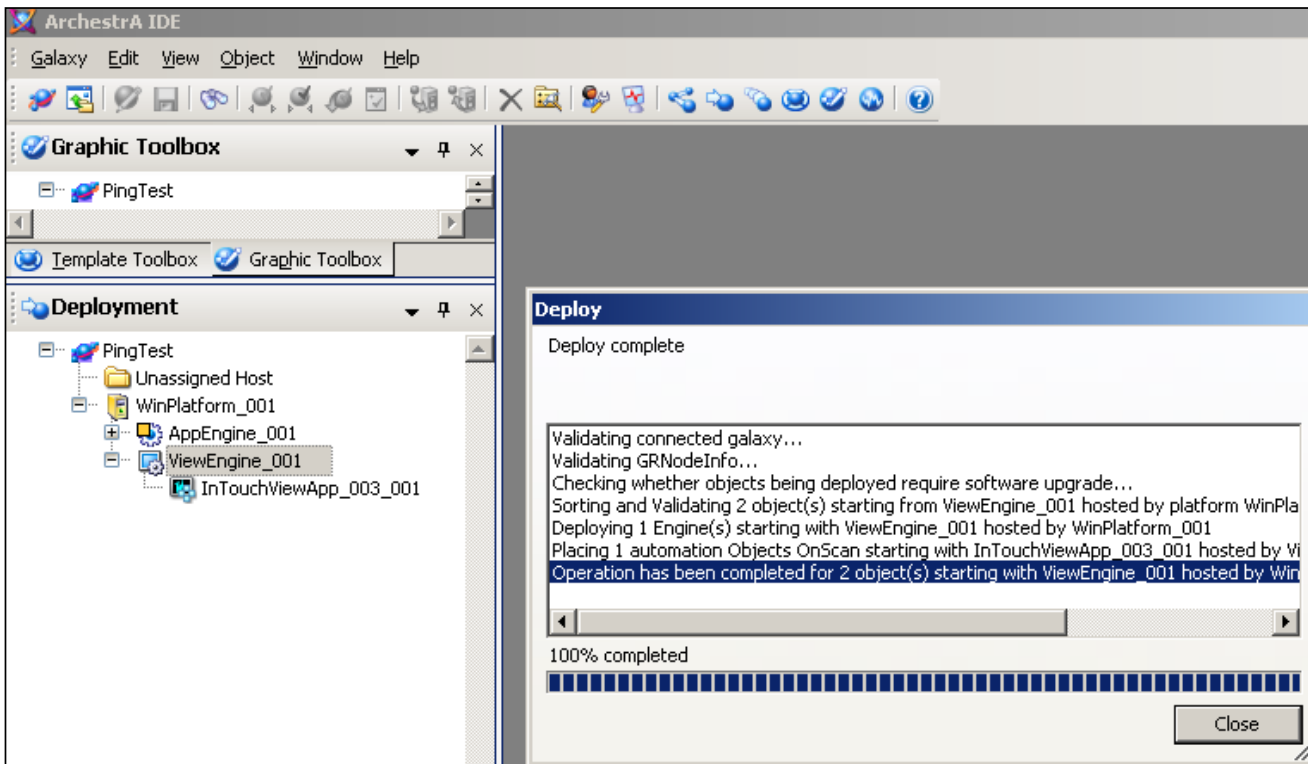


Figure 4: Deploy Your InTouchView Application

4. The deployed - Managed Application appears in the InTouch Application Manger on the node it is deployed to.

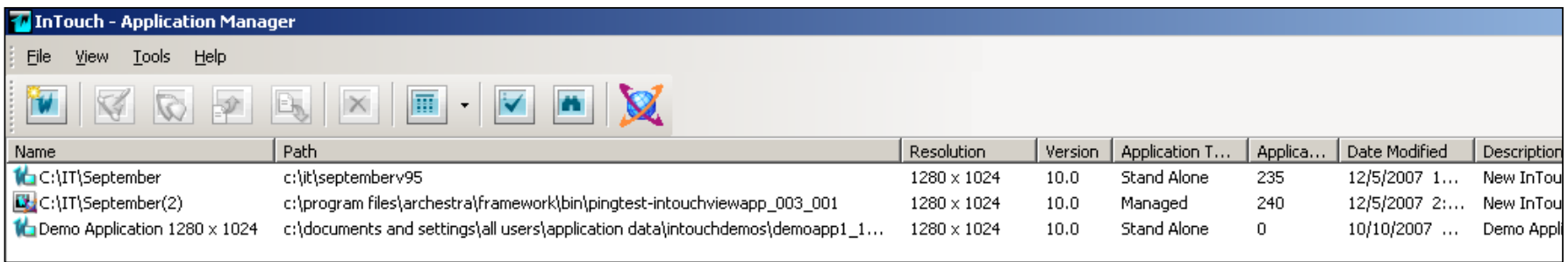


Figure 5: Managed Application in Application Manager

5. Highlight the application and start it in WindowViewer.
6. Refer to the ITAAIntegration.pdf for additional information.

Note: Smart Symbols do migrate and can remain Smart Symbols or they can easily be converted to Archestra Graphics. However, there are some limitations when converting them to Archestra Graphics. Reference Chapter 13 of the AAGraphics.pdf for details.

Creating a Galaxy Backup *.cab File

Prior to any product upgrades or galaxy migration a backup of the galaxy should be created. Backups of your galaxy should also be done at regular intervals as a general practice.

To backup the galaxy (v1.x thru v3.x):

1. Open the SMC from **Start/Programs/Wonderware/System Management Console**.
2. Expand the Galaxy Database Manager.
3. Right-click your galaxy and select **Backup**.

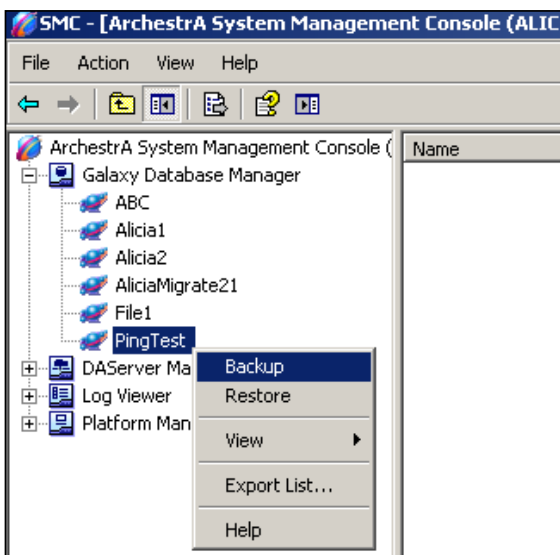


Figure 6: Backup Your Galaxy

Note: Database writes will not take place during the backup process.

- Specify your Galaxy backup *.cab file location. Then click **Save** to begin the backup process.
- When the backup has completed successfully it shows **100% completed** in the Galaxy Database Manager window.

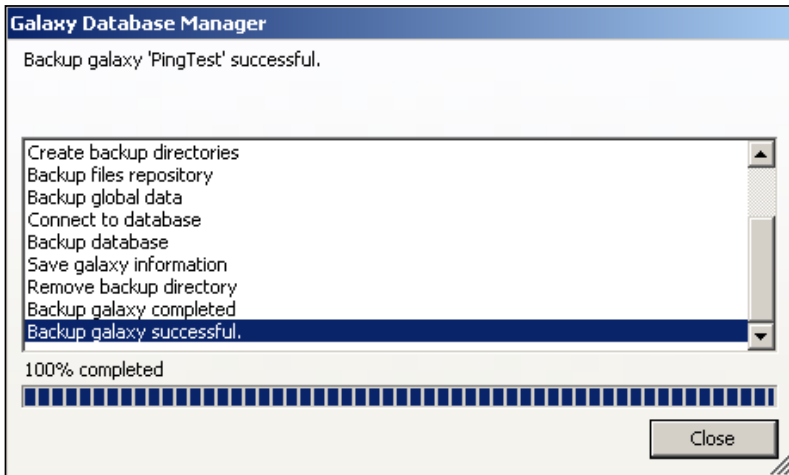


Figure 7: Backup Successful

- To restore the galaxy simply choose the **Restore** option in the example above and navigate to your previously created galaxy *.cab file.

Note: To use the optimized migration method and migrate a version 2.1 *.cab file to version 3.0 use the backup *.cab created in step 5 and refer to the [Migrating a version 2.1 Galaxy Backup .Cab File](#) section.

Basic Application Server Upgrade/Migration Sequence

Important! Back up the Galaxy using the previous section, [Creating a Galaxy Backup *.cab File](#) before starting the upgrade. Also, upload any run-time changes for critical objects. You cannot upload any run-time changes after you upgrade the system.

The basic upgrade sequence is:

- Upgrade your hardware and prerequisite software to the required versions (OS, SQL Server, etc.). See the Software Requirements section of the product ReadMe file.
- If you are upgrading the SQL Server on the Galaxy Repository node, you must undeploy the Galaxy Repository node before starting the SQL Server upgrade.
- Upgrade the Galaxy Repository node. For more information, see the Help File: *Upgrading a Galaxy Repository Node*.
- Upgrade at least one IDE installation. If you upgrade the Galaxy Repository node, that IDE installation is upgraded. However, if you have any IDE-only nodes, you'll need to upgrade them separately. For more information, see the Help File: *Upgrading an IDE-only Node*.
- Use the upgraded IDE to connect to the upgraded Galaxy Repository node and migrate the Galaxy database.

For more information, see the following section [Migrating the Galaxy Database](#).

6. Deploy the Galaxy Repository Platform.
7. Upgrade run-time nodes.
8. Upgrade non-redundant run-time nodes one at a time and redeploy them. For more information, see the Help File: *Upgrading Run-Time Nodes*.
9. Upgrade redundant pairs as a set. For more information, see the Help File: *Upgrading Redundant Pairs*.

Note: If you upgrade a remote Platform node before you migrate the Galaxy database, the remote Platform and hosted objects show the **software upgrade pending** icon after you migrate and deploy the Galaxy. To resolve this, undeploy, then redeploy the remote Platform. The preferred sequence of upgrade is to upgrade the Galaxy Repository node, migrate the Galaxy database, and then upgrade the remote Platforms. Review [Tech Note 496](#) for additional migration information.

Migrating the Galaxy Database

When migrating the Galaxy database:

- The IDE you use to migrate the database must be the current version.
- The Galaxy Repository node must already be upgraded to the current version.
- Make sure that all the connections to Galaxy database are closed before migrating the database.
- After you migrate the Galaxy, deployed objects are marked with a Pending Software Upgrade status.
- Only Galaxy administrators are granted the graphic management permission by default. Operating system based administrators or roles that are granted permissions for all of the IDE are not automatically granted the graphic management permissions. If you want specific users and roles to have graphic management permissions, you must manually configure the permissions for them.

To migrate the Galaxy database

1. Start the IDE.
2. Connect to the Galaxy database to migrate. You are prompted to migrate it.
3. Follow the prompts to complete the migration.

Migrating a version 2.1 Galaxy Backup .Cab File

Optimized migration method for non-deployed systems/galaxies:

1. On your AS 3.0 GR Node, place the version 2.1 backup *.cab file in the **C:\Program Files \Archestra\Framework\Bin\BackupGalaxies** directory.

Note: For instructions on creating a backup *.cab file see [Creating a Galaxy Backup *.cab File](#).

2. Start the IDE.
3. Create a new galaxy using the version 2.1 CAB file (referenced above) as the Galaxy Type.

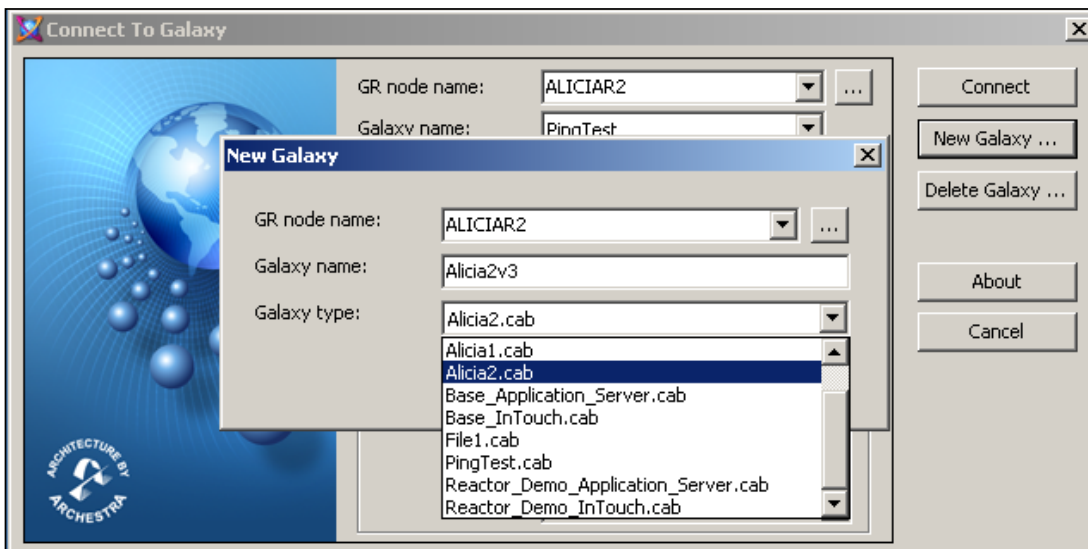


Figure 8: Create a New Galaxy Using the .CAB File as the Galaxy Type

4. Choose **Yes** when asked to migrate the application.

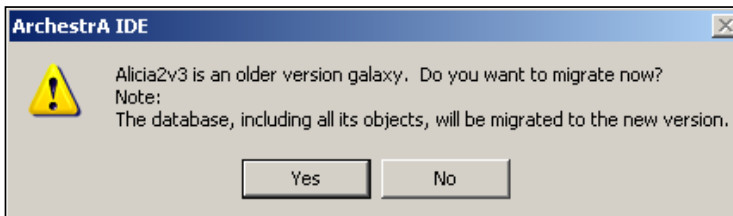


Figure 9: Migrate Your Older Galaxy

Using this method, the migration process will take a fraction of the time it takes using the IDE method.

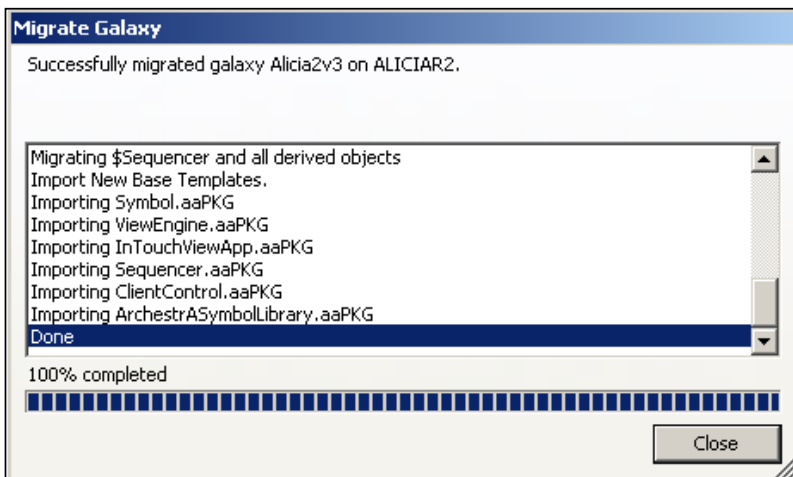


Figure 10: Migration Successful

5. Once migration is complete, create a backup cab file of the freshly-migrated version 3.0 Galaxy.

Note: This method is currently supported for version 2.1 migrations only. It can only be used to migrate non-deployed galaxies.

Wonderware Product Licensing for InTouch 10.0 and Application Server 3.0

PROPER LICENSE IMPLEMENTATION IS ESSENTIAL FOR EACH PRODUCT IN ORDER TO HAVE A FULLY FUNCTIONING PRODUCTION SYSTEM. READ THIS ENTIRE SECTION.

If you are licensed for a Wonderware System Platform (license bundle) or the Wonderware Application Server (formerly Industrial Application Server), you can use all the functionality in these products up to the limits in your license files.

If you are licensed for only InTouch 10.0 with or without I/O, you are licensed to use:

- All InTouch product software capabilities.
- InTouch tags up to the licensed limit.
- The IDE to centrally manage your applications in a Galaxy Repository.
- ArchedrA graphics.
- Only the InTouchViewApp Object template in the IDE.

You are not licensed to use or deploy in production any Object templates in the IDE other than InTouchViewApp Object.

However, you can use the additional functionality in the Wonderware Application Server in a Demo mode as you learn about its capabilities and consider the advantages of upgrading to full Wonderware System Platform license.

Wonderware provides you with most or all of the product software in a demonstration, or **Demo**, mode. Demo mode lets you learn about and experience the full breadth of the Wonderware product line, technology, and capabilities without requiring a legal license file to run the software.

[To check for license compliance](#)

Your Wonderware license sets maximum usage counts for your ArchedrA applications. The License Information utility shows the current counts of your application's local and remote I/O data points.

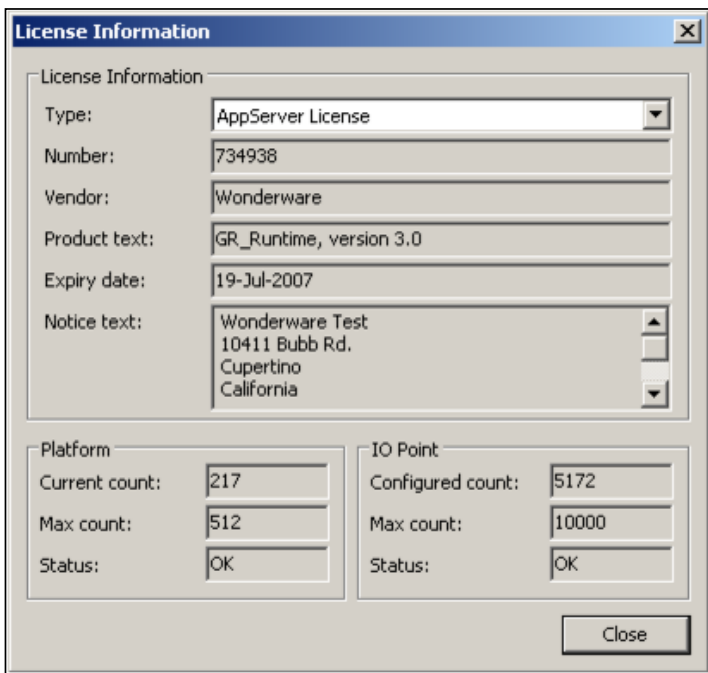


Figure 11: License Information Utility

You receive a warning when your ArchestrA application is no longer in compliance with your license. A warning icon appears on your Wonderware application status bar.



Figure 12: Warning Icon

You can use the License Information utility to see whether the current local or remote I/O counts exceed the maximum specified by your Wonderware license.

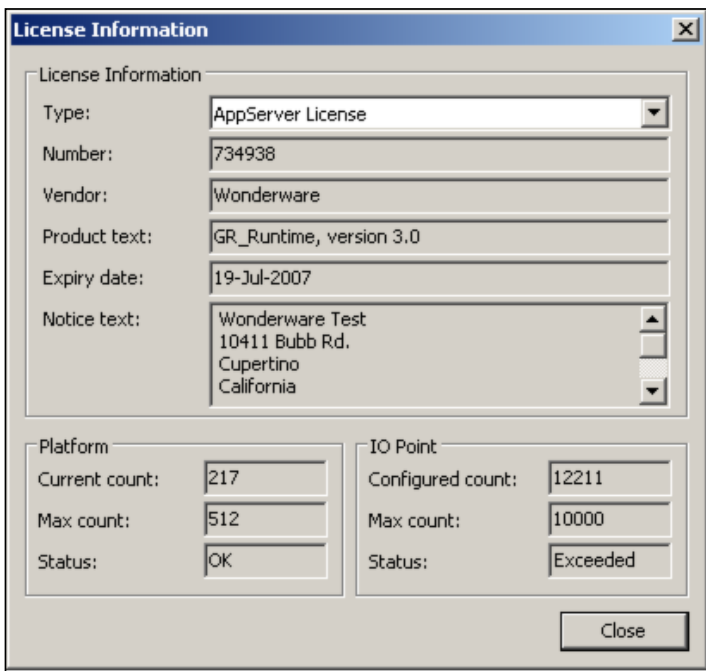


Figure 13: Compare Platform and IO Point Counts

In addition, carefully read the License Certificate documentation, which describes the licensed products you received. The License Certificate is included with your Licensing CD.

Attempting to deploy unlicensed functionality to a production environment is illegal and results in problems when upgrading to a future version. Deploying unlicensed functionality is not supported by Wonderware.

For further explanation of licensing compliance, see **Appendix B** of the InTouch Data Management Guide installed with the software. Or, contact your local Wonderware Distributor or Wonderware Technical Support.

Additional Resources and References

Related Tech Notes

- [496 InTouch® 10/Wonderware® Application Server 3.0 Release – Important Upgrade and Migration Information](#)
- [404 Migrating to InTouch® 9.0](#) (this *Tech Note* also applies to version 10.0)
- [505 Pseudo Properties in ArchestrA Graphics](#)

Documentation

- ITAAIntegration.pdf, IAppManagement.pdf, ITConcepts.pdf
- IDE.pdf, GalaxyManagement.pdf, AAGraphics.pdf
- The Installation and Product Help files including, Install-InTouch.chm and Install-AppServer.chm.
- InTouch 10.0 and Application Server 3.0 Product Readme.html files

Tools

Websites

www.Archestra.biz

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