Tech Note 907

Troubleshooting Wonderware Information Server (WIS) Part Seven: ArchestrA Graphics – Writeback

All Tech Notes, Tech Alerts and KBCD documents and software are provided "as is" without warranty of any kind. See the Terms of Use for more information.

Topic#: 002718 Created: December 2012

Introduction

This troubleshooting guide is the seventh in a projected series.

Write-back is a form of the Data communication between Client and Server. When Write-back request is issued by WIS client, WIS ArchestrA Graphics subsystem checks for the following:

- Write-back Feature line in the WIS Portal License file
- The WIS user role and ArchestrA OS security to control the data write back permission.

Note: AADataSvc is the predefined Virtual Directory which is the entry point for WIS ArchestrA Graphics between IIS and IE clients. We will often use **AADataSvc** in this *Tech Note*.

Application Versions

- WIS 4.0 and later
- Windows 2003 Server SP2
- Windows 2008 Server and later

Case Scenarios

- No Write-back License Feature Line. Checking the Write-back settings
- WIS User role
- ArchestrA Object Security Classification

Scenario: No Write-back License feature Line. Check the Write-back Settings.

When we set a new value from WIS to a writable InTouch tag or ArchestrA user attribute, the Write-back request is sent as **new value**

of data through communication channel through WCF Client (IE), WIS (Portal) and LMXPublisher to ArchestrA Galaxy or InTouch. To make this channel open up, the Write-back License feature line has to be applied successfully.

To verify this, open the WIS page (Figure 1 below):

Worderware Wor	derware ORMATION SERVER 2012
Dustomize	
Launch Pad	× License Manager
System Administration Application Manager User Manager License Manager Portal Configuration Data Source Manager Factory Alarm Manager	Active Licenses Query License History License History Tag Server Writeback © Enabled for ALL tag server nodes © Enabled for selected tag server nodes © Disabled This page will be enabled if the Write-back Feature line is applied.

FIGURE 1: TAG SERVER WRITEBACK PORTAL SETTING

If the above page is disabled (grayed out), make sure that the Write-back Feature line, **FEATURE SVoyager_WriteEnable...** (Figure 2 below)

- Is located in the license file and is at [C]:\[Program Files (x86)]\Common Files\ArchestrA\License\ArchestrA.lic, and
- Has the correct WIS Version number and is not expired.



FIGURE 2: WRITEENABLE LICENSE ELEMENT

If you re-install the ArchestrA.lic, re-start the License Server, RdbHandler and refresh the above page, and the page is *still* disabled, please call Wonderware Support for further assistance.

Scenario: WIS User Role

If you have already set **Enabled for All tag server nodes**, but the Write-back function is not working, the next step is to check the WIS User role.

For the default IE settings, you should see the Status bar at the bottom of the web page. WIS tells us what the problem is using the caption bar (Figure 3 below).



FIGURE 3: IE STATUS BAR DISPLAYS THE PROBLEM

Do the following to Diagnose/Repair

In this case, you must add the current user to the Engineer Role of the WIS COM+ Application (Figure 4 below).

1. Open Administrator Tools/Component Services and expand Computers/My Computer.

- 2. Expand COM+ Applications, then System Application/Wonderware SuiteVoyager.
- 3. Expand the Engineer item, then right-click and click Properties.

🖃 💩 Component Services	δ	
Computers	IOMLKF008	
🖃 🌉 My Computer		
🖃 🧰 COM+ Applications		
🕀 🞬 .NET Utilities		
🕀 🍄 COM+ Explorer		
표 쓸 COM+ QC Dead Letter Qu	eue Lister Select Users or Groups	? X
🕀 🍄 COM+ Utilities		
🕀 🍄 COM+ Utilities (32 bit)	Select this object type:	
🖃 🥪 System Application	Users, Groups, or Built-in security principals	Object Tupes
🛨 🧰 Components		Object Types
🛨 🧰 Roles	From this location:	
CE 🚔 Wonderware SuiteVoyage	IOMLKF0089D	Locations
🛨 🔛 Components)	
표 🧮 Legacy Components	Enter the object names to select (<u>examples</u>):	
🖃 🧰 Roles	corp\LogonLiset	Check Names
🕀 🔝 <u>Administ</u> rator		Check Names
Callo Engineer		
🖃 🚞 Users		
	39D\aaRe	OK Cancel
🕀 🥾 No Access User	Auvariceu	
🖂 🌆 🖉 🖉		

FIGURE 4: ADDING THE LOGONUSER TO THE ROLE

If you do not see the Status Bar

When you troubleshoot the Write-back failed issue, make sure to turn on the IE Status Bar (Figure 5 below).

• Right-click the tab bar and click Status Bar.



1. After you make/save any changes on the WIS Server side, delete the IE Cache (Figure 6 below) and try the write-back again.

Internet Opti	ons ?X	Delete Browsing History	×
General Sec Home page	curity Privacy Content Connections Programs Advanced	Preserve Favorites website data Keep cookies and temporary Internet files that enable your favorite websites to retain preferences and display faster.	3
	To create home page tabs, type each address on its own line. http://localhost/Wonderware/useng/main/default.asp	Copies of webpages, intages, and media that are saved for faster	
Browsing hi	Use current Use default Use blank	Cookies Files stored on your computer by websites to save preferences such as login information.	
e	Delete temporary files, history, cookies, saved passwords, and web form information.	History List of websites you have visited.	
	Delete browsing history on exit Delete Settings	Form data Saved information that you have typed into forms.	
	Change search defaultsSettings	Passwords Saved passwords that are automatically filled in when you sign in to a website you've previously visited.	
Tabs —	Change how webpages are displayed in	InPrivate Filtering data Saved data used by InPrivate Filtering to detect where websites ma be automatically sharing details about your visit.	зу
Appearance Color	e Languages Fonts Accessibility	About deleting browsing history Delete Cancel	
	OK Cancel Apply		

FIGURE 6: DELETING THE IE CACHE

Scenario: ArchestrA Object Security Classification

Object Security Classification settings will also impact WIS Write-back availability.

Using the Configure classification attribute and the Write-back requires that the deployed Object be in the Running-Off-Scan mode.

In this example we have a userdefined object with a UDA with the **Configure** Security classification:

- Object: UserDefined_001
- UDA: d2 (Integer / User Writable/ Configure)

🐹 ArchestrA IDE				
<u>G</u> alaxy <u>E</u> dit <u>Vi</u> ew <u>O</u> bject <u>W</u> indow <u>H</u> elp				
🛩 🔄 🖉 🔲 (S) 🖉 🖉 🕼 🕼 🖾 🗙 🔛 Sy 😒 🛸 💊 😂 🖉 🚱 E 🖉 -				
🕲 Template Toolbox 🚽 🗸	×	WritebackUDA		
🖅 🚰 WriteBack	-	Field Attributes Object Information Scripts UDAs Extensions Graphics		
		+ VDA name: StringWriteBack		
		UDAs:		
		Name Data type: String		
		Category: User writeable		
		Value		
		This is an array 🔲 Buffered		
		Number of elements:		
		Good morning!		
		Free Access		
		Ø Operate		
		Secured Write		
		Inherited UDAs:		
		Name		
		Configure Read Only		
		Tread only		

FIGURE 7: THE UDA SECURITY CLASSIFICATION CONFIGURE SETTING

Changing the value when the Object is **On-Scan** from the Portal fails (Figure 8 below).

6 Wonderware			🏠 🔻 🗟 👻 🖃 🗭 Safety 👻 Tools 👻 🕡 🗸
Wonderwone"	Wonde INFO	erware RMATION SI	ERVER 2012
Customize			🙆 Home 🥐 Help 🛞 About 😑 Log off
Launch Pad	×	WritebackTest	
System		WritebackTest	
 Administration Process Graphics Factory Alarms Custom Links Table Weaver ArchestrA Graphics WindowSet001 WriteBack MyWritebackTest WritebackTest ActiveFactory Reports 		Write back value: Set new value	good 1 good 1
			© 2000-2011 Invensys Systems, Inc. All rights reserved.
: Galaxy Message: [Security error	r: Object must	be offscan to modify attribute	es that have an MxSecurityConfigure security da 🛛 🚽 🗸 Trusted sites Protected Mode: Off 🛛 🖓 👻 🔍 100% 👻

FIGURE 8: CANNOT WRITE-BACK FROM PORTAL: OBJECT IS ON-SCAN

After changing the AppEngine to Running Off Scan mode, the write-back is successful.

🎸 SMC - [ArchestrA System Management	Console (IOMLKF008	9D)\Platform Manag	er\WriteBacl	k[CORP\edwardx]\WinPl	
File Action View Help					
(= -> 2 📷 E 🛛 📷 🔳 🖃 💋					
🍎 ArchestrA System Management Console (IC	Engine Name	Engine Category	Engine ID	Engine Status C	
🛨 🛅 Historian	AppEngine_001	Application	2	Running Off Scan	
🛨 📃 Galaxy Database Manager					
🛨 🛃 DAServer Manager					
🖃 🛄 Log Viewer					
🖃 🖳 Default Group					
🖳 Local					
🛨 🖳 WriteBack					
Opened Log Files					
🖃 🖳 Platform Manager					
WriteBack[CORP\edwardx]					
WinPlatform_001					

FIGURE 9: ENGINE RUNNING OFF SCAN

E. Xu, K. Nourbakhsh

Tech Notes are published occasionally by Wonderware Technical Support. Publisher: Invensys Systems, Inc., 26561 Rancho Parkway South, Lake Forest, CA 92630. There is also technical information on our software products at Wonderware Technical Support.

For technical support questions, send an e-mail to wwsupport@invensys.com.

Back to top

2012 Invensys Systems, Inc. All rights reserved. No part of the material protected by this copyright may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying, recording, broadcasting, or by anyinformation storage and retrieval system, without permission in writing from Invensys Systems, Inc. Terms of Use.