

CitectSCADA 7.10

Release Notes for Service Pack 4

The V7.10 Service Pack 4 includes several product updates and enhancements, providing improvements in stability, performance and functionality.

Important:

As per recommended practice, all projects should be backed up prior to commencing the Service Pack installation.

Important:

All projects *must* be upgraded and recompiled after installing this Service Pack. Failure to do so will result in conflicting database size messages. To force an upgrade, edit the Citect.ini file and set [CTEDIT] UPGRADE=1. Ensure that the **Incremental Compile** menu option (in Project Editor→Tools→Options) is not checked, or set [CTEDIT] INCREMENTALCOMPILE=0. Customers should also do an **Update Pages** (in Graphics Builder→Tools→Update Pages) on any projects using CSV_Include templates.

Important New Changes:

- **Windows 7 Compatibility**

The application of the V7.10 Service Pack 4 will allow users to run the product on the Windows 7 operating system.

To run on Windows 7, please install your SCADA product using your product DVD. Ignore any warnings that drivers may not be compatible with Windows 7 - the majority of the drivers have been tested and will function correctly.

Updated drivers stamped for Windows 7 are available for download from our [DriverWeb website](#).

After installing the product, please install V7.10 Service Pack 4 to ensure Windows 7 compatibility. **Lastly, restore your projects and recompile to run on Windows 7.**

- **Citect.frm file change**

The *Citect.frm* file was necessarily modified in V7.10 Service Pack 2. This caused issues for some users who had **modified their *Citect.frm* file previously**.

The recommended upgrade procedure is to backup all project files (including the *Citect.frm* file) before installing V7.10 Service Pack 4.

If you have a modified *Citect.frm* file, you will need to **edit the new *Citect.frm* file** to get your changes back.

Important Note: Please do not restore your old backed-up *Citect.frm* file or you will get errors in your project.

Please contact [Schneider Electric SCADA Global Support](#) if you require assistance or advice regarding this procedure.

- **Tagdriv.ini file change**

The *Tagdriv.ini* file was necessarily modified in V7.10 Service Pack 4.

The recommended upgrade procedure is to backup *Tagdriv.ini* before installing V7.10 Service Pack 4.

If you have a modified *Tagdriv.ini* file, you will need to **edit the new *Tagdriv.ini*** file to get your changes back.

Important Note: Please do not restore your old backed-up *Tagdriv.ini* file.

Please contact [Schneider Electric SCADA Global Support](#) if you require assistance or advice regarding this procedure.

Hot Fixes

Customers who have hot fixes installed should check the release notes to ensure the applicable fix is included in V7.10 Service Pack 4 - please contact [SCADA Global Support](#) if in any doubt.

SCADA Global Support recommends V7.10 users apply the Service Pack as soon as practically possible.

This Service Pack accumulates all of the updates included in V7.10 Service Packs 1, 2, and 3, so it is not necessary to install the older Service Packs first.

Note:

For general information about service packs, see Knowledge Base article Q2181.

This service pack applies to three of the products shipped with CitectSCADA version 7.10:

- CitectSCADA
- CitectSCADA Web Server
- CitectSCADA Internet Display Client

Separate service pack installers have been created for each of these products, allowing you to choose which products you wish to upgrade to Service Pack 4, depending on your requirements.

Known Issues:

This Service Pack contains the known issues described below.

Issue Number	Issue Title and Description
43725	<p>"Incorrect arguments" compile error after uninstalling service pack</p> <p>After uninstalling service pack 4 (back to the release version) all projects that use the CSV_Include project (including the CSV_Example and Facilities projects) give a compile error indicating "incorrect arguments".</p> <p>Customers experiencing this issue should do an Update Pages (in Graphics Builder→Tools→Update Pages) on any affected projects.</p>
42749	<p>WebServer Service Pack cannot be independently uninstalled on Windows Vista and Windows 7</p> <p>On Microsoft Vista and Windows 7, the Web Server Service Pack cannot be uninstalled independently from the base application. Instead the CitectSCADA Web Server must be uninstalled to remove both the base product and Service Pack, and then the base product may be reinstalled. This has been documented in Knowledge Base article Q5450.</p>

Issue Number	Issue Title and Description
51661	<p data-bbox="357 315 967 344">IDC Service Pack should not be independently uninstalled</p> <p data-bbox="357 383 1370 443">Uninstalling Service Pack 4 for CitectSCADA IDC requires uninstalling Service Pack 4 for CitectSCADA. Otherwise, CitectSCADA will not work correctly.</p>

Table of Contents

Service Pack Installation.....	5
Service Pack Uninstall	7
Updated Files – CitectSCADA – IDC.....	13
Updated Files – CitectSCADA – SCADA.....	15
Added Files – CitectSCADA – SCADA.....	20
Added Files – CitectSCADA – Web Server	20
Issues Resolved in this Service Pack	21

Service Pack Installation

Upgrading CitectSCADA 7.10 to Service Pack 4

The procedure for installing Service Pack 4 for CitectSCADA depends on whether you are an existing user of CitectSCADA version 7.10 or a new user.

Existing CitectSCADA version 7.10 Users

1. Run patch file "CitectSCADA SCADA 7.10 Service Pack 4.exe".
2. Open Citect Explorer, wait until upgrade has completed.
3. For any project using CSV_Include templates:
 - a. Select the project in Citect Explorer.
 - b. In Citect Graphics Builder, select Tools→Update Pages, then click Yes to continue.
4. Ensure the Incremental Compile menu option (in Project Editor→Tools→Options) is turned OFF then recompile each project.
5. For any webclient project whose graphics pages were updated in step 3, redeploy:
 - a. Run Citect Explorer→Tools→Web Deployment Preparation.
 - b. Follow the steps below for "Upgrading CitectSCADA 7.10 Web Server to Service Pack 4" and re-save the project deployment.

New CitectSCADA 7.10 Users

1. Install CitectSCADA 7.10.
2. Open Citect Explorer for the first time and then close.
3. Run patch file "CitectSCADA SCADA 7.10 Service Pack 4.exe".
4. Open Citect Explorer, wait until the upgrade has completed.
5. For any project using CSV_Include templates:
 - a. Select the project in Citect Explorer.
 - b. In Citect Graphics Builder, select Tools→Update Pages, then click Yes to continue.
6. Ensure the Incremental Compile menu option (in Project Editor→Tools→Options) is turned OFF then recompile each project.

Upgrading CitectSCADA 7.10 Web Server to Service Pack 4

Installing Service Pack 4 for CitectSCADA Web Server requires that you install Service Pack 4 for CitectSCADA as well otherwise the web client will not work correctly. You should perform this installation as per one of the above two scenarios, then:

1. On your web server(s) (machines running IIS), run patch file "CitectSCADA WebServer 7.10 Service Pack 4.exe". This will install an updated CAB file: CitectSCADAWebClient_7_10_4_44.cab, which will become available to all your web clients.
2. On all your web client machines, take the following actions:
 - a. Open ARP (Add or Remove Programs) by choosing Start→Settings→Control Panel→Add or Remove Programs.
 - b. Locate the entry 'Citect Web Client 7.10' and click 'Remove'. If this item is not listed in ARP, you should delete the %windir%\system32\citect\webclient\710 directory. (NB: %windir% indicates the default windows installation directory.)
 - c. In the CitectSCADA Web Deployment Configuration (in Internet Explorer):
 - i. Select 'CitectSCADAWebClient_7_10_4_44.cab' from the *Client Control* drop down menu.
 - ii. Save the deployment by selecting the action to save deployment.

Upgrading CitectSCADA 7.10 IDC to Service Pack 4

Installing Service Pack 4 for CitectSCADA IDC requires that you install Service Pack 4 for CitectSCADA on your servers otherwise the IDC will not work correctly. You should perform installation as per one of the scenarios mentioned earlier (existing CitectSCADA users versus new ones), and then run patch file "CitectSCADA IDC 7.10 Service Pack 4.exe" on each of your IDC machines.

Note:

CitectSCADA IDC is not supported on Windows Vista or Windows 7.

Service Pack Uninstall

The procedure for removing (rolling back) Service Pack 4 depends on which Operating System you are running.

All Windows Versions

Before following one of the procedures below, backup your citect.ini file to a temporary location. You can use the Computer Setup Editor (via Tools menu) to determine the location of this file. This step is required as the uninstall procedure may revert some settings back to their default. Additionally, unless you are restoring your projects to the backups made prior to Service Pack upgrade, you will also need to backup the citect.frm file from the Bin directory. Restore the citect.ini file (and possibly citect.frm) to their original location upon completion of the uninstall procedure.

During the uninstallation process the user will be prompted to specify the CitectSCADA 7.10 installer location if it is no longer accessible. The following message is shown if CitectSCADA 7.10 has been installed from a DVD: "The feature you are trying to use is on a CD-ROM or other removable disk that is not available". Hence when uninstalling SCADA service pack 4 the user will have to specify the CitectSCADA 7.10 installer location. Locate the MSI installer for the CitectSCADA 7.10 product via the Browse button, then click OK. The SCADA installer is located in the "Citect" folder under the main installation directory (e.g. your DVD drive).

Microsoft Windows Vista and Windows 7

Note:

On Microsoft Vista and Windows 7, the Web Server Service Pack cannot be uninstalled independently from the base application. Instead the Citect Web Server must be uninstalled to remove both the base product and Service Pack, and then the base product may be reinstalled. This has been documented in Knowledge Base article Q5450.

Follow these steps to uninstall products other than the Web Server:

1. From the bin directory of your Citect installation, run patch file "CitectSCADA SCADA 7.10 Uninstallation Patch.exe". *(This will ensure that Service Pack 4 and future service packs may be uninstalled).* For further information, see Knowledge Base article Q5444.
2. Open "Programs and Features" by typing its name in the Start Search bar then selecting it from the list:

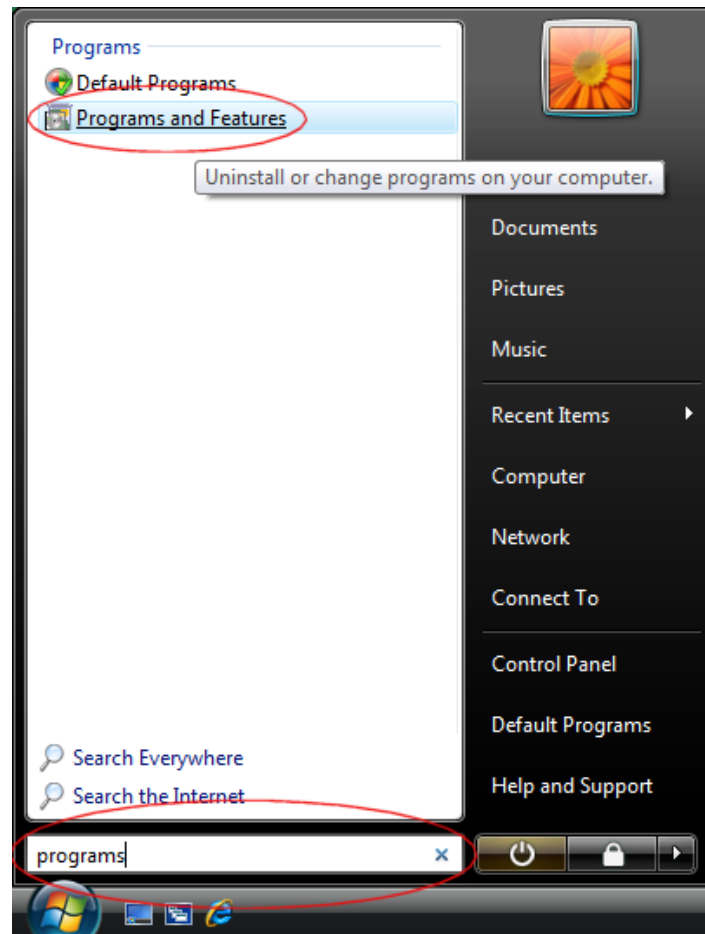


Figure 1: Programs and Features on Windows 7

3. Select "View installed updates" from the side panel that is presented:

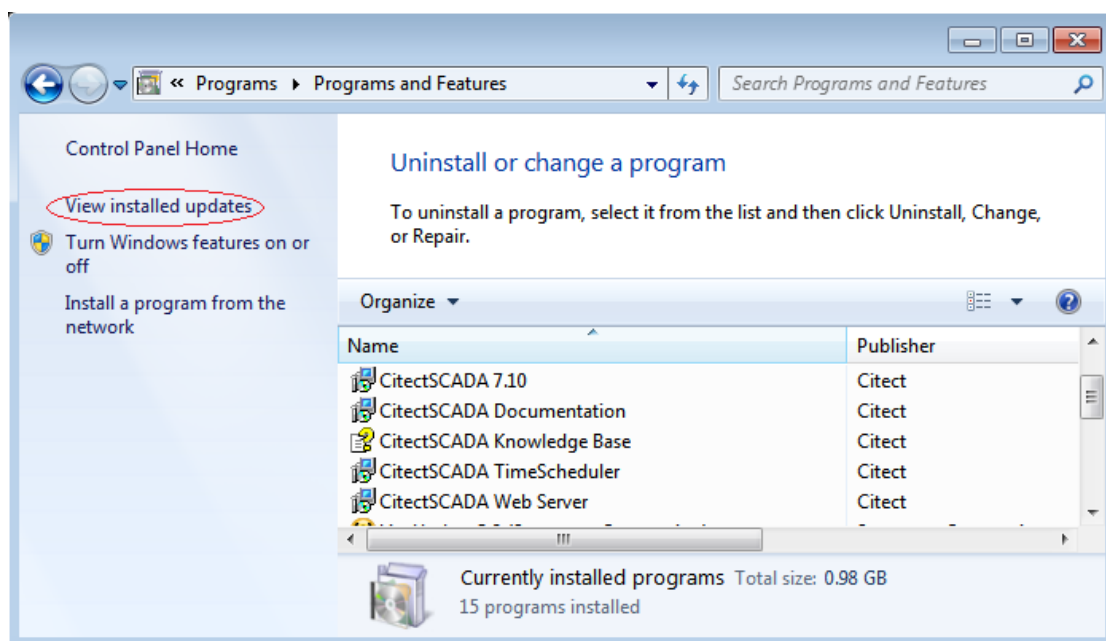


Figure 2: View installed updates on Windows 7

4. Select "Service Pack 4" for the appropriate product then click Uninstall:

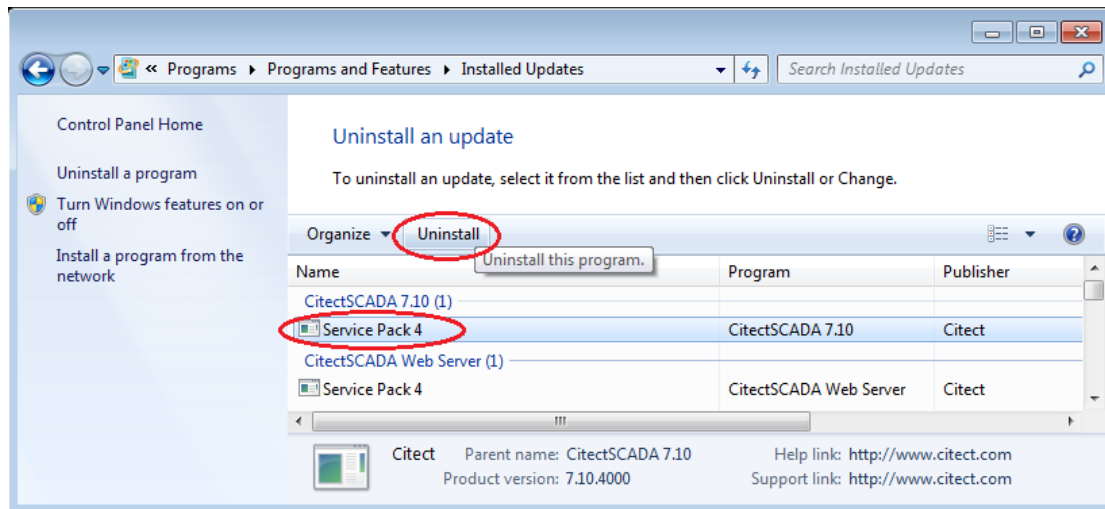


Figure 3: Uninstall an update on Windows 7

Note:

If you have User Access Control switched on in Windows Vista, the orange UAC dialog will be displayed before the uninstaller is launched. Select allow and proceed with the uninstallation. This is a limitation imposed by the User Access Control and cannot be avoided.

5. Once the removal is complete, return to the Uninstall or change a program page via the "Uninstall a program" link on the side panel.
6. Select the parent product's entry (in this case 'CitectSCADA 7.10') and click Repair:

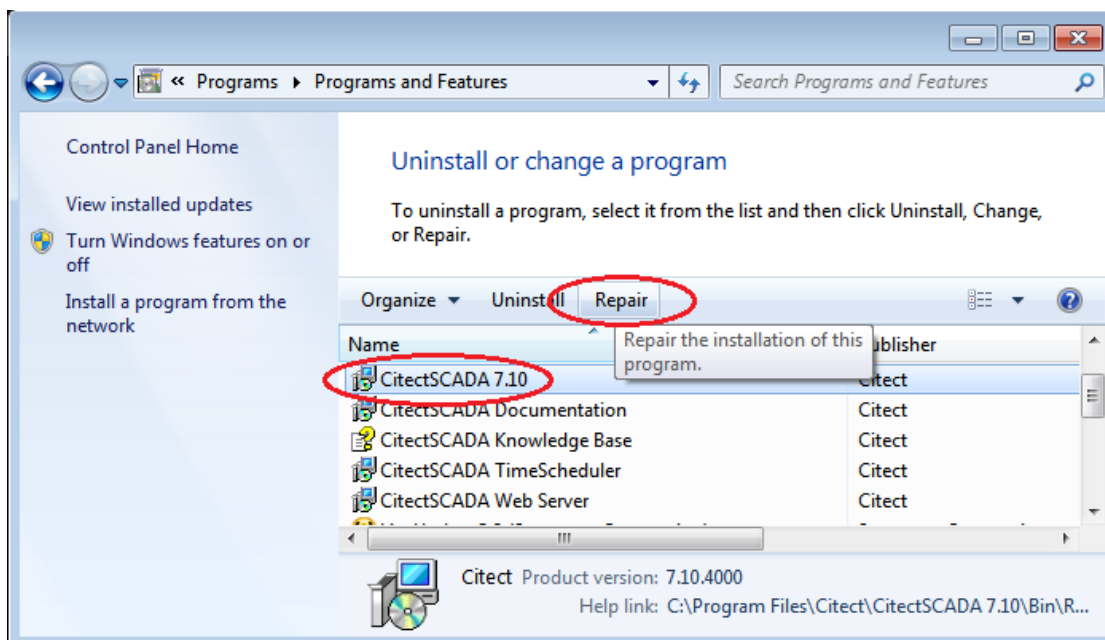


Figure 4: Repair on Windows 7

Note:

As in step 4, if User Access Control is on the orange UAC dialog will be displayed before the repair is launched. Select allow and proceed with the repair.

7. Open Citect Explorer, wait until upgrade has completed.
8. For any project using CSV_Include templates:
 - a. Select the project in Citect Explorer.

- b. In Citect Graphics Builder, select Tools→Update Pages, then click Yes to continue.
9. Ensure the Incremental Compile menu option (in Project Editor→Tools→Options) is turned OFF then recompile each project.

Microsoft Windows XP SP2 or Server 2003

Follow these steps to uninstall:

1. From the bin directory of your Citect installation, run patch file "CitectSCADA SCADA 7.10 Uninstallation Patch.exe". (This will ensure that Service Pack 4 and future service packs may be uninstalled). For further information, see Knowledge Base article Q5444.
2. Open ARP (Add or Remove Programs) by choosing Start→Settings→Control Panel→Add or Remove Programs.
3. Make sure the 'Show Updates' checkbox is ticked as follows:

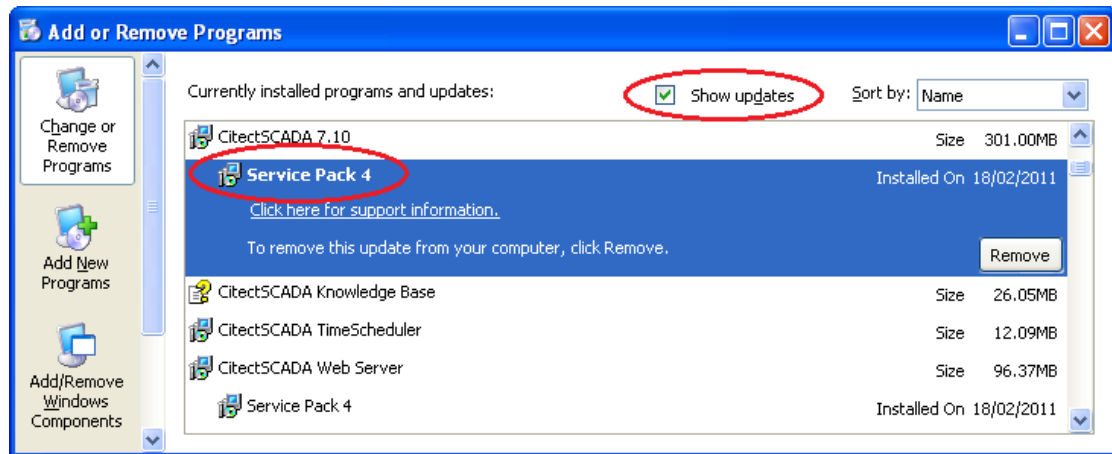


Figure 5: Service Pack 4 visible as an update

4. You should see the service pack listed as a sub-entry under the parent product.
5. Select this sub-item and click 'Remove'.
6. Once the removal is complete, highlight the parent product's entry (in this case 'CitectSCADA 7.10') and click the underlined link 'Click here for support information'. The following popup will appear:

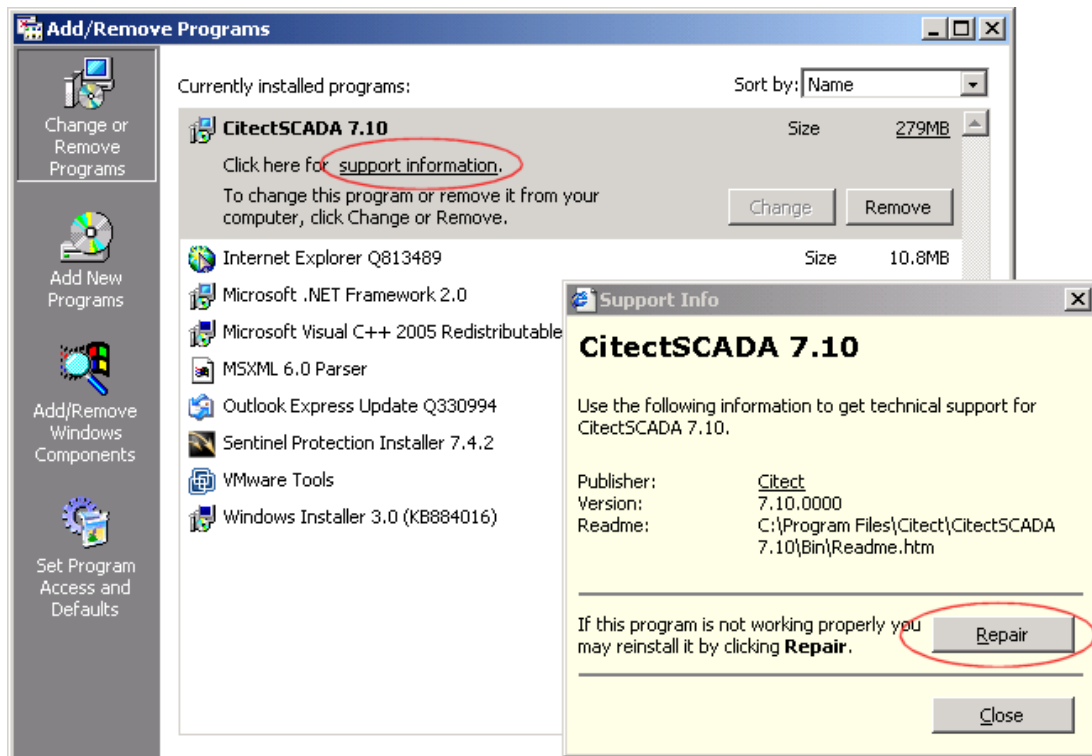


Figure 6: Support Info dialog in Windows XP SP2 and Windows 2003

7. Click 'Repair'.
8. Open Citect Explorer, wait until upgrade has completed.
9. For any project using CSV_Include templates:
 - a. Select the project in Citect Explorer.
 - b. In Citect Graphics Builder, select Tools→Update Pages, then click Yes to continue.
10. Ensure the Incremental Compile menu option (in Project Editor→Tools→Options) is turned OFF then recompile each project.

Microsoft Windows XP SP1 or earlier or Microsoft Windows 2000

The 'Show Updates' feature of ARP (as shown in Figure 1) is not available under these operating systems, so an uninstall of the service pack must be performed manually as follows:

1. From the bin directory of your Citect installation, run patch file "CitectSCADA SCADA 7.10 Uninstallation Patch.exe". (This will ensure that Service Pack 4 and future service packs may be uninstalled). For further information, see Knowledge Base article Q5444.
2. Open a command prompt e.g. Start→Run→"cmd"→[enter].
3. For each product you wish to uninstall:
 - a. Copy the uninstall command from Table 1 and paste into the command prompt, and press <enter>.

Table 1: Service Pack 4 manual uninstall commands

Product	Uninstall Command
CitectSCADA SCADA 7.10 Service Pack 4	msiexec /uninstall {5D3C7751-ED9C-45E6-9DF0-5EF83113688A} /package {3582EEF6-782C-4884-9278-E54D015B1AD3} /qb
CitectSCADA WebServer 7.10 Service Pack 4	msiexec /uninstall {99CBFCA5-08D4-49A9-848F-F65454CAD60A} /package {B7A02776-729C-4594-AF91-EF18F349E3BE} /qb
CitectSCADA IDC 7.10 Service Pack 4	msiexec /uninstall {EEC4CDF0-88F6-40A6-BB05-085B9A0224E5} /package {75C5890B-59A9-4BDC-B490-1816F8F06174} /qb

- b. Open ARP (Add/Remove Programs) by choosing Start→Settings→Control Panel→Add/Remove Programs (or press F5 to refresh if already open).
- c. You should now see the product name has returned to the original pre-service pack name.
- d. Highlight the parent product's entry (in Figure 3, this is 'CitectSCADA 7.10') and click the underlined link 'Click here for support information'. The following popup will appear:

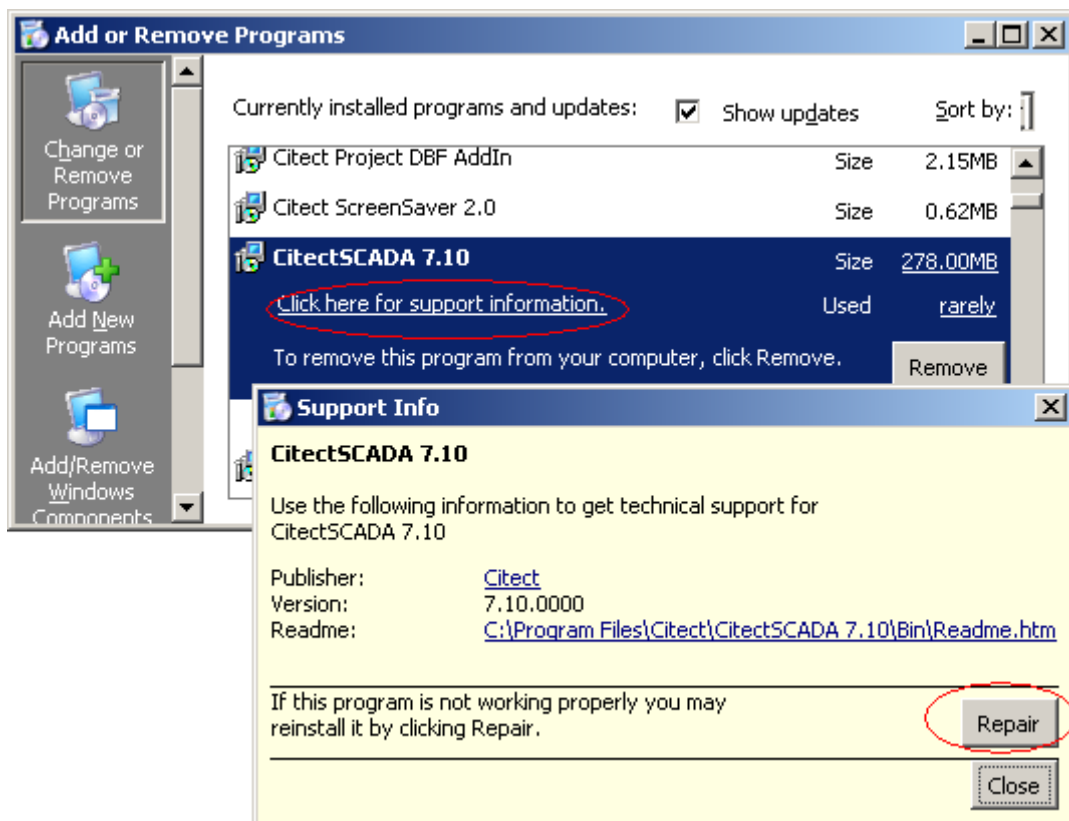


Figure 7: Support Info dialog in Windows XP SP1 and Windows 2000

- e. Click 'Repair'.
4. Open Citect Explorer, wait until upgrade has completed.
5. For any project using CSV_Include templates:
 - a. Select the project in Citect Explorer.
 - b. In Citect Graphics Builder, select Tools→Update Pages, then click Yes to continue.
6. Ensure the Incremental Compile menu option (in Project Editor→Tools→Options) is turned OFF then recompile each project.

Updated Files – CitectSCADA – IDC

Listed below are the files that will be updated in the CitectSCADA /DC product after installing 7.10 service pack 4.

Install Path and File updated	Notes
ProgramFilesFolder\Citect\CitectSCADA IDC 7.10\Bin\WinUtil.dll	
CommonFilesFolder\Citect\Analyst.dll	
ProgramFilesFolder\Citect\CitectSCADA IDC 7.10\Bin\Rscite32.exe	
ProgramFilesFolder\Citect\CitectSCADA IDC 7.10\Bin\PluginHost.dll	
ProgramFilesFolder\Citect\CitectSCADA IDC 7.10\Bin\Techdo32.dll	
ProgramFilesFolder\Citect\CitectSCADA IDC 7.10\Bin\CtVersion.dll	
ProgramFilesFolder\Citect\CitectSCADA IDC 7.10\Bin\CtUtil.dll	
ProgramFilesFolder\Citect\CitectSCADA IDC 7.10\Bin\CtRender.dll	
ProgramFilesFolder\Citect\CitectSCADA IDC 7.10\Bin\CtEng32.dll	
ProgramFilesFolder\Citect\CitectSCADA IDC 7.10\Bin\Ctcomdlg.dll	
ProgramFilesFolder\Citect\CitectSCADA IDC 7.10\Bin\CSAPSI.dll	
ProgramFilesFolder\Citect\CitectSCADA IDC 7.10\Bin\Client.dll	
ProgramFilesFolder\Citect\CitectSCADA IDC 7.10\Bin\Citect32.exe	
ProgramFilesFolder\Citect\CitectSCADA IDC 7.10\Bin\CiExceptionMailer.dll	English
ProgramFilesFolder\Citect\CitectSCADA IDC 7.10\Bin\CiExceptionmailer.exe	
ProgramFilesFolder\Citect\CitectSCADA IDC 7.10\Bin\CiDebugHelp.dll	
ProgramFilesFolder\Citect\CitectSCADA IDC 7.10\Bin\Citect.CitectSCADA.RuntimeConfiguration.dll	
ProgramFilesFolder\Citect\CitectSCADA IDC 7.10\Bin\RuntimeConfiguration.dll	
ProgramFilesFolder\Citect\CitectSCADA IDC 7.10\Bin\CtKC.dll	
ProgramFilesFolder\Citect\CitectSCADA IDC 7.10\Bin\CtApi.dll	
CommonFilesFolder\Citect\CtApi.dll	
ProgramFilesFolder\Citect\CitectSCADA IDC 7.10\Bin\Ct_ipc.dll	
CommonFilesFolder\Citect\Ct_ipc.dll	
ProgramFilesFolder\Citect\CitectSCADA IDC 7.10\Bin\CtUtil32.dll	
ProgramFilesFolder\Citect\CitectSCADA IDC 7.10\Bin\Dlg32.dll	
ProgramFilesFolder\Citect\CitectSCADA IDC 7.10\Bin\Ctg32.dll	
ProgramFilesFolder\Citect\CitectSCADA IDC 7.10\Bin\CtRegion.dll	
CommonFilesFolder\Citect\ItemList.ocx	
CommonFilesFolder\Citect\ItemList.exe	
CommonFilesFolder\Citect\MsgBox.exe	
CommonFilesFolder\Citect\MenuBar.ocx	
CommonFilesFolder\Citect\CiTextBox.ocx	
CommonFilesFolder\Citect\CiTreeView.ocx	
ProgramFilesFolder\Citect\CitectSCADA IDC 7.10\Bin\CtVersion.xml	
ProgramFilesFolder\Citect\CitectSCADA IDC 7.10\Bin\Citect32.exe.config	
CommonFilesFolder\Citect\CtRes32.DLL	English
CommonFilesFolder\Citect\CtRes32.dll	German
CommonFilesFolder\Citect\CtRes32.dll	Spanish
CommonFilesFolder\Citect\CtRes32.dll	French
CommonFilesFolder\Citect\CtRes32.dll	Italian
CommonFilesFolder\Citect\CtRes32.dll	Japanese
CommonFilesFolder\Citect\CtRes32.dll	Korean
CommonFilesFolder\Citect\CtRes32.dll	Russian
CommonFilesFolder\Citect\CtRes32.dll	Chinese

ProgramFilesFolder\Citect\CitectSCADA IDC 7.10\Bin\CtRes32.DLL	English
ProgramFilesFolder\Citect\CitectSCADA IDC 7.10\Bin\CtRes32.dll	German
ProgramFilesFolder\Citect\CitectSCADA IDC 7.10\Bin\CtRes32.dll	Spanish
ProgramFilesFolder\Citect\CitectSCADA IDC 7.10\Bin\CtRes32.dll	French
ProgramFilesFolder\Citect\CitectSCADA IDC 7.10\Bin\CtRes32.dll	Italian
ProgramFilesFolder\Citect\CitectSCADA IDC 7.10\Bin\CtRes32.dll	Japanese
ProgramFilesFolder\Citect\CitectSCADA IDC 7.10\Bin\CtRes32.dll	Korean
ProgramFilesFolder\Citect\CitectSCADA IDC 7.10\Bin\CtRes32.dll	Russian
ProgramFilesFolder\Citect\CitectSCADA IDC 7.10\Bin\CtRes32.dll	Chinese
Citect.Platform.XmlUtils.dll	
Citect.Platform.Threading.dll	
Citect.Platform.PSI.MessagesV1.dll	
Citect.Platform.PSI.Interfaces.dll	
Citect.Platform.PSI.ConnectorLoader.dll	
Citect.Platform.PSI.Connector.dll	
Citect.Platform.PSI.ClusterManager.dll	
Citect.Platform.PSI.PSIClient.dll	
Citect.Platform.PSI.BaseConnector.dll	
Citect.Platform.PluginFramework.dll	
Citect.Platform.Net.Session.Tcpip.dll	
Citect.Platform.Net.SessionManager.dll	
Citect.Platform.Net.Session.dll	
Citect.Platform.Net.Session.Null.dll	
Citect.Platform.Net.dll	
Citect.Platform.Net.Message.dll	
Citect.Platform.Net.Discovery.dll	
Citect.Platform.Net.Common.dll	
Citect.Platform.Logging.TraceListeners.dll	
Citect.Platform.Logging.dll	
Citect.Platform.Logging.Formatters.dll	
Citect.Platform.Instrumentation.PerformanceCounters.dll	
SUPPORTFILEFOLDER\Citect.Platform.Instrumentation.PerfCounterInstaller.dll	
Citect.Platform.DatasourceDevelopmentKit.XmlTagValueStorer.dll	
Citect.Platform.DatasourceDevelopmentKit.XmlTagDefinitionSource.dll	
Citect.Platform.DatasourceDevelopmentKit.MemoryDatasource.dll	
Citect.Platform.DatasourceDevelopmentKit.BinaryTagValueStorer.dll	
Citect.Platform.DatasourceDevelopmentKit.BaseDatasource.dll	
Citect.Platform.Crypto.dll	
Citect.Platform.Collections.dll	

Updated Files – CitectSCADA – SCADA

Listed below are the files that will be updated in the **CitectSCADA** SCADA product after installing 7.10 Service Pack 4.

Install Path and File updated	Notes
_ProgramFilesFolder\Citect\CitectSCADA 7.10\Bin\ERRSTR.DBF	
_ProgramFilesFolder\Citect\CitectSCADA 7.10\Bin\FUNC0.DBF	
_CommonAppDataFolder\Citect\CitectSCADA 7.10\User\Include\LABELS.DBF	
_ProgramFilesFolder\Citect\CitectSCADA 7.10\Bin\SCATEGOR.DBF	
_ProgramFilesFolder\Citect\CitectSCADA 7.10\Bin\SDEVICES.DBF	
_ProgramFilesFolder\Citect\CitectSCADA 7.10\Bin\SKEYS.DBF	
_ProgramFilesFolder\Citect\CitectSCADA 7.10\Bin\SUSERS.DBF	
_ProgramFilesFolder\Citect\CitectSCADA 7.10\Bin\ERRSTR.NDX	
_CommonAppDataFolder\Citect\CitectSCADA 7.10\Data\CSV_Example.ctz	
_CommonAppDataFolder\Citect\CitectSCADA 7.10\User\System\HARDALM.txt	
_CommonAppDataFolder\Citect\CitectSCADA 7.10\User\System\HARDALM.DBF	
_CommonAppDataFolder\Citect\CitectSCADA 7.10\User\CSV_Include\changes.DBF	
_CommonAppDataFolder\Citect\CitectSCADA 7.10\User\CSV_Include\pages.DBF	
_CommonAppDataFolder\Citect\CitectSCADA 7.10\User\CSV_Include\pgbutton.DBF	
_CommonAppDataFolder\Citect\CitectSCADA 7.10\User\CSV_Include\pgkey.DBF	
_CommonAppDataFolder\Citect\CitectSCADA 7.10\User\CSV_Include\pgtouch.DBF	
_CommonAppDataFolder\Citect\CitectSCADA 7.10\User\CSV_Include\csv_alarms.ctm	
_CommonAppDataFolder\Citect\CitectSCADA 7.10\User\CSV_Include\CSV_AdminTools.ctF	
_CommonAppDataFolder\Citect\CitectSCADA 7.10\User\CSV_Include\CSV_Alarm.ctF	
_CommonAppDataFolder\Citect\CitectSCADA 7.10\User\CSV_Include\CSV_AlarmDisabled.ctF	
_CommonAppDataFolder\Citect\CitectSCADA 7.10\User\CSV_Include\CSV_AlarmHardware.ctF	
_CommonAppDataFolder\Citect\CitectSCADA 7.10\User\CSV_Include\CSV_AlarmSummary.ctF	
_CommonAppDataFolder\Citect\CitectSCADA 7.10\User\CSV_Include\CSV_Analyst.ctF	
_CommonAppDataFolder\Citect\CitectSCADA 7.10\User\CSV_Include\CSV_File.ctF	
_CommonAppDataFolder\Citect\CitectSCADA 7.10\User\CSV_Include\CSV_Start.ctF	
_CommonAppDataFolder\Citect\CitectSCADA 7.10\User\CSV_Include\CSV_Trend.ctF	
_CommonAppDataFolder\Citect\CitectSCADA 7.10\User\CSV_Include\CSV_TrendDouble.ctF	
_CommonAppDataFolder\Citect\CitectSCADA 7.10\User\CSV_Include\CSV_AdminTools.ctg	
_CommonAppDataFolder\Citect\CitectSCADA 7.10\User\CSV_Include\CSV_Alarm.ctg	
_CommonAppDataFolder\Citect\CitectSCADA 7.10\User\CSV_Include\CSV_AlarmDisabled.ctg	
_CommonAppDataFolder\Citect\CitectSCADA 7.10\User\CSV_Include\CSV_AlarmHardware.ctg	
_CommonAppDataFolder\Citect\CitectSCADA 7.10\User\CSV_Include\CSV_AlarmSummary.ctg	
_CommonAppDataFolder\Citect\CitectSCADA 7.10\User\CSV_Include\CSV_Analyst.ctg	
_CommonAppDataFolder\Citect\CitectSCADA 7.10\User\CSV_Include\CSV_File.ctg	
_CommonAppDataFolder\Citect\CitectSCADA 7.10\User\CSV_Include\CSV_Start.ctg	
_CommonAppDataFolder\Citect\CitectSCADA 7.10\User\CSV_Include\CSV_Trend.ctg	
_CommonAppDataFolder\Citect\CitectSCADA 7.10\User\CSV_Include\CSV_TrendDouble.ctg	
_CommonAppDataFolder\Citect\CitectSCADA 7.10\User\CSV_Include\CSV_Alarms.ci	
_CommonAppDataFolder\Citect\CitectSCADA 7.10\User\CSV_Include\CSV_Form.ci	
_CommonAppDataFolder\Citect\CitectSCADA 7.10\User\CSV_Include\CSV_ListBox.ci	
_CommonAppDataFolder\Citect\CitectSCADA 7.10\User\CSV_Include\CSV_Math.ci	
_CommonAppDataFolder\Citect\CitectSCADA 7.10\User\CSV_Include\CSV_MessageBox.ci	

CommonAppDataFolder\\Citect\\CitectSCADA 7.10\\User\\CSV_Include\\CSV_MultiMonitors.ci	
CommonAppDataFolder\\Citect\\CitectSCADA 7.10\\User\\CSV_Include\\CSV_Navigation.ci	
CommonAppDataFolder\\Citect\\CitectSCADA 7.10\\User\\CSV_Include\\CSV_ProcessAnalyst.ci	
CommonAppDataFolder\\Citect\\CitectSCADA 7.10\\User\\CSV_Include\\CSV_Trend.ci	
CommonAppDataFolder\\Citect\\CitectSCADA 7.10\\User\\CSV_Include\\CtCicode.ci	
CommonAppDataFolder\\Citect\\CitectSCADA 7.10\\User\\CSV_Include\\activex.zip	
CommonAppDataFolder\\Citect\\CitectSCADA 7.10\\Data\\CSV_InstantTrend.ctz	
CommonAppDataFolder\\Citect\\CitectSCADA 7.10\\Data\\Example.ctz	
CommonAppDataFolder\\Citect\\CitectSCADA 7.10\\User\\Include\\citect.ci	
CommonAppDataFolder\\Citect\\CitectSCADA 7.10\\User\\Include\\CTUTIL.CI	
CommonAppDataFolder\\Citect\\CitectSCADA 7.10\\User\\Include\\export.ci	
CommonAppDataFolder\\Citect\\CitectSCADA 7.10\\User\\Include\\graph.ci	
CommonAppDataFolder\\Citect\\CitectSCADA 7.10\\User\\Include\\info.ci	
CommonAppDataFolder\\Citect\\CitectSCADA 7.10\\User\\Include\\numpad.ci	
CommonAppDataFolder\\Citect\\CitectSCADA 7.10\\User\\Include\\tag.ci	
CommonAppDataFolder\\Citect\\CitectSCADA 7.10\\User\\Include\\trend.ci	
CommonAppDataFolder\\Citect\\CitectSCADA 7.10\\User\\Include\\zoom.ci	
ProgramFilesFolder\\Citect\\CitectSCADA 7.10\\Bin\\WinUtil.dll	
CommonFilesFolder\\Citect\\Analyst.dll	
ProgramFilesFolder\\Citect\\CitectSCADA 7.10\\Bin\\ReIndex.exe	
ProgramFilesFolder\\Citect\\CitectSCADA 7.10\\Bin\\TrendServer.dll	
CommonFilesFolder\\Citect\\CiTrendManager.dll	
CommonFilesFolder\\Citect\\CiTrendArchiveInterpolator.dll	
CommonFilesFolder\\Citect\\CiTrendArchiveFileOffset.dll	
CommonFilesFolder\\Citect\\CiTrendArchiveFileOffset8Byte.dll	
ProgramFilesFolder\\Citect\\CitectSCADA 7.10\\Bin\\ComputerSetupEditor.exe	
ProgramFilesFolder\\Citect\\CitectSCADA 7.10\\Bin\\Rscite32.exe	
ProgramFilesFolder\\Citect\\CitectSCADA 7.10\\Bin\\ReportServer.dll	
ProgramFilesFolder\\Citect\\CitectSCADA 7.10\\Bin\\PolledDataSource.dll	
ProgramFilesFolder\\Citect\\CitectSCADA 7.10\\Bin\\PluginHost.dll	
ProgramFilesFolder\\Citect\\CitectSCADA 7.10\\Bin\\CtExplor.exe	
CommonFilesFolder\\Citect\\CTODBC32.dll	
ProgramFilesFolder\\Citect\\CitectSCADA 7.10\\Bin\\IoServer.dll	
ProgramFilesFolder\\Citect\\CitectSCADA 7.10\\Bin\\Diskdrv.dll	
ProgramFilesFolder\\Citect\\CitectSCADA 7.10\\Bin\\Techdo32.dll	
ProgramFilesFolder\\Citect\\CitectSCADA 7.10\\Bin\\FtpSvr.exe	
ProgramFilesFolder\\Citect\\CitectSCADA 7.10\\Bin\\ExprWiz.exe	
ProgramFilesFolder\\Citect\\CitectSCADA 7.10\\Bin\\CtVersion.dll	
ProgramFilesFolder\\Citect\\CitectSCADA 7.10\\Bin\\CtUtil.dll	
ProgramFilesFolder\\Citect\\CitectSCADA 7.10\\Bin\\CtSetup.exe	
ProgramFilesFolder\\Citect\\CitectSCADA 7.10\\Bin\\CtRender.dll	
ProgramFilesFolder\\Citect\\CitectSCADA 7.10\\Bin\\CtProj.dll	
ProgramFilesFolder\\Citect\\CitectSCADA 7.10\\Bin\\CtIndex.dll	
CommonFilesFolder\\Citect\\CtEng32.dll	
ProgramFilesFolder\\Citect\\CitectSCADA 7.10\\Bin\\CtEng32.dll	
ProgramFilesFolder\\Citect\\CitectSCADA 7.10\\Bin\\CtDraw32.exe	
ProgramFilesFolder\\Citect\\CitectSCADA 7.10\\Bin\\CtEdit32.exe	
ProgramFilesFolder\\Citect\\CitectSCADA 7.10\\Bin\\Ctcmdlg.dll	

ProgramFilesFolder\Citect\CitectSCADA 7.10\Bin\CtCicode.exe	
ProgramFilesFolder\Citect\CitectSCADA 7.10\Bin\CSAPSI.dll	
ProgramFilesFolder\Citect\CitectSCADA 7.10\Bin\IOConnectors.dll	
ProgramFilesFolder\Citect\CitectSCADA 7.10\Bin\CtCmp32.exe	
ProgramFilesFolder\Citect\CitectSCADA 7.10\Bin\Client.dll	
ProgramFilesFolder\Citect\CitectSCADA 7.10\Bin\Citect32.exe	
ProgramFilesFolder\Citect\CitectSCADA 7.10\Bin\CiExceptionMailer.dll	English
ProgramFilesFolder\Citect\CitectSCADA 7.10\Bin\CiExceptionmailer.exe	
CommonFilesFolder\Citect\CiDebugHelp.dll	
ProgramFilesFolder\Citect\CitectSCADA 7.10\Bin\CiDebugHelp.dll	
ProgramFilesFolder\Citect\CitectSCADA 7.10\Bin\CtBack32.exe	
ProgramFilesFolder\Citect\CitectSCADA 7.10\Bin\Tools32.dll	
CommonFilesFolder\Citect\CiTagBrowse.dll	
CommonFilesFolder\Citect\CiSchneiderTagBrowse.dll	English
CommonFilesFolder\Citect\CiOPCTagBrowse.dll	English
CommonFilesFolder\Citect\CiMitsubishiTagBrowse.dll	
ProgramFilesFolder\Citect\CitectSCADA 7.10\Bin\CTTAGDB.dll	
CommonFilesFolder\Citect\CiTrans.dll	
CommonFilesFolder\Citect\CiSchneiderDrv.dll	English
CommonFilesFolder\Citect\CiOPCDrv.dll	English
CommonFilesFolder\Citect\Cimitsubishidrv.dll	
CommonFilesFolder\Citect\CiDBFDrv.dll	
CommonFilesFolder\Citect\CiASCDrv.dll	
ProgramFilesFolder\Citect\CitectSCADA 7.10\Bin\Citect.CitectSCADA.RuntimeConfiguration.dll	
ProgramFilesFolder\Citect\CitectSCADA 7.10\Bin\RuntimeConfiguration.dll	
ProgramFilesFolder\Citect\CitectSCADA 7.10\Bin\CTOPC32.exe	
ProgramFilesFolder\Citect\CitectSCADA 7.10\Bin\CtOpc32.dll	
ProgramFilesFolder\Citect\CitectSCADA 7.10\Bin\CtMenu32.dll	
ProgramFilesFolder\Citect\CitectSCADA 7.10\Bin\CtKC.dll	
CommonFilesFolder\Citect\CtApi.dll	
ProgramFilesFolder\Citect\CitectSCADA 7.10\Bin\CtApi.dll	
CommonFilesFolder\Citect\Ct_ipc.dll	
ProgramFilesFolder\Citect\CitectSCADA 7.10\Bin\Ct_ipc.dll	
CommonFilesFolder\Citect\CtUtil32.dll	
ProgramFilesFolder\Citect\CitectSCADA 7.10\Bin\CtUtil32.dll	
ProgramFilesFolder\Citect\CitectSCADA 7.10\Bin\Dlg32.dll	
ProgramFilesFolder\Citect\CitectSCADA 7.10\Bin\Ctg32.dll	
ProgramFilesFolder\Citect\CitectSCADA 7.10\Bin\CtRegion.dll	
ProgramFilesFolder\Citect\CitectSCADA 7.10\Bin\AlarmServer.dll	
ProgramFilesFolder\Citect\CitectSCADA 7.10\Bin\Citect.CitectSCADA.Migration.exe	
ProgramFilesFolder\Citect\CitectSCADA 7.10\Bin\TimeSyncConfig.exe	
ProgramFilesFolder\Citect\CitectSCADA 7.10\Bin\RuntimeManager.exe	
ProgramFilesFolder\Citect\CitectSCADA 7.10\Bin\Citect.CitectSCADA.TagGen.dll	
CommonFilesFolder\Citect\ItemList.ocx	
CommonFilesFolder\Citect\ItemList.exe	
CommonFilesFolder\Citect\MsgBox.exe	
CommonFilesFolder\Citect\DatabaseExchange.ocx	
CommonFilesFolder\Citect\MenuBar.ocx	

CommonFilesFolder\Citect\MsgBox.ocx	
CommonFilesFolder\Citect\CiTextBox.ocx	
CommonFilesFolder\Citect\CiMeterX.ocx	
CommonFilesFolder\Citect\CiTreeView.ocx	
ProgramFilesFolder\Citect\CitectSCADA 7.10\Bin\CtVersion.xml	
ProgramFilesFolder\Citect\CitectSCADA 7.10\Bin\ParameterLUT.xml	
CommonAppDataFolder\Citect\CitectSCADA 7.10\Config>tagdriv.ini	
CommonAppDataFolder\Citect\CitectSCADA 7.10\Config\Citect32.exe.config	
CommonFilesFolder\Citect\CtRes32.DLL	English
CommonFilesFolder\Citect\CtRes32.dll	German
CommonFilesFolder\Citect\CtRes32.dll	Spanish
CommonFilesFolder\Citect\CtRes32.dll	French
CommonFilesFolder\Citect\CtRes32.dll	Italian
CommonFilesFolder\Citect\CtRes32.dll	Japanese
CommonFilesFolder\Citect\CtRes32.dll	Korean
CommonFilesFolder\Citect\CtRes32.dll	Russian
CommonFilesFolder\Citect\CtRes32.dll	Chinese
ProgramFilesFolder\Citect\CitectSCADA 7.10\Bin\CtRes32.DLL	English
ProgramFilesFolder\Citect\CitectSCADA 7.10\Bin\CtRes32.dll	German
ProgramFilesFolder\Citect\CitectSCADA 7.10\Bin\CtRes32.dll	Spanish
ProgramFilesFolder\Citect\CitectSCADA 7.10\Bin\CtRes32.dll	French
ProgramFilesFolder\Citect\CitectSCADA 7.10\Bin\CtRes32.dll	Italian
ProgramFilesFolder\Citect\CitectSCADA 7.10\Bin\CtRes32.dll	Japanese
ProgramFilesFolder\Citect\CitectSCADA 7.10\Bin\CtRes32.dll	Korean
ProgramFilesFolder\Citect\CitectSCADA 7.10\Bin\CtRes32.dll	Russian
ProgramFilesFolder\Citect\CitectSCADA 7.10\Bin\CtRes32.dll	Chinese
Citect.Platform.XmlUtils.dll	
Citect.Platform.Threading.dll	
Citect.Platform.PSI.MessagesV1.dll	
Citect.Platform.PSI.Interfaces.dll	
Citect.Platform.PSI.ConnectorLoader.dll	
Citect.Platform.PSI.Connector.dll	
Citect.Platform.PSI.ClusterManager.dll	
Citect.Platform.PSI.PSIClient.dll	
Citect.Platform.PSI.BaseConnector.dll	
Citect.Platform.PluginFramework.dll	
Citect.Platform.Net.Session.Tcpip.dll	
Citect.Platform.Net.SessionManager.dll	
Citect.Platform.Net.Session.dll	
Citect.Platform.Net.Session.Null.dll	
Citect.Platform.Net.dll	
Citect.Platform.Net.Message.dll	
Citect.Platform.Net.Discovery.dll	
Citect.Platform.Net.Common.dll	
Citect.Platform.Logging.TraceListeners.dll	
Citect.Platform.Logging.dll	
Citect.Platform.Logging.Formatters.dll	
Citect.Platform.Instrumentation.PerformanceCounters.dll	

SUPPORTFILEFOLDER\Citect.Platform.Instrumentation.PerfCounterInstaller.dll	
Citect.Platform.DatasourceDevelopmentKit.XmlTagValueStorer.dll	
Citect.Platform.DatasourceDevelopmentKit.XmlTagDefinitionSource.dll	
Citect.Platform.DatasourceDevelopmentKit.MemoryDatasource.dll	
Citect.Platform.DatasourceDevelopmentKit.BinaryTagValueStorer.dll	
Citect.Platform.DatasourceDevelopmentKit.BaseDatasource.dll	
Citect.Platform.Crypto.dll	
Citect.Platform.Collections.dll	
ProgramFilesFolder\Citect\CitectSCADA 7.10\Bin\TagGen.dll	
ProgramFilesFolder\Citect\CitectSCADA 7.10\Bin\citect.frm	Chinese
ProgramFilesFolder\Citect\CitectSCADA 7.10\Bin\citect.frm	English
ProgramFilesFolder\Citect\CitectSCADA 7.10\Bin\citect.frm	German
ProgramFilesFolder\Citect\CitectSCADA 7.10\Bin\citect.frm	Spanish
ProgramFilesFolder\Citect\CitectSCADA 7.10\Bin\citect.frm	French
ProgramFilesFolder\Citect\CitectSCADA 7.10\Bin\citect.frm	Italian
ProgramFilesFolder\Citect\CitectSCADA 7.10\Bin\citect.frm	Japanese
ProgramFilesFolder\Citect\CitectSCADA 7.10\Bin\citect.frm	Korean
ProgramFilesFolder\Citect\CitectSCADA 7.10\Bin\citect.frm	Russian
ProgramFilesFolder\Citect\CitectSCADA 7.10\Bin\CiUSAFE.exe	English
ProgramFilesFolder\Citect\CitectSCADA 7.10\Bin\CiUSAFE.exe	German
ProgramFilesFolder\Citect\CitectSCADA 7.10\Bin\CiUSAFE.exe	Spanish
ProgramFilesFolder\Citect\CitectSCADA 7.10\Bin\CiUSAFE.exe	French
ProgramFilesFolder\Citect\CitectSCADA 7.10\Bin\CiUSAFE.exe	Italian
ProgramFilesFolder\Citect\CitectSCADA 7.10\Bin\CiUSAFE.exe	Japanese
ProgramFilesFolder\Citect\CitectSCADA 7.10\Bin\CiUSAFE.exe	Korean
ProgramFilesFolder\Citect\CitectSCADA 7.10\Bin\CiUSAFE.exe	Russian
ProgramFilesFolder\Citect\CitectSCADA 7.10\Bin\CiUSAFE.exe	Chinese
ProgramFilesFolder\Citect\CitectSCADA 7.10\Bin\de\Citect.CitectSCADA.Migration.resources.dll	German
ProgramFilesFolder\Citect\CitectSCADA 7.10\Bin\es\Citect.CitectSCADA.Migration.resources.dll	Spanish
ProgramFilesFolder\Citect\CitectSCADA 7.10\Bin\fr\Citect.CitectSCADA.Migration.resources.dll	French
ProgramFilesFolder\Citect\CitectSCADA 7.10\Bin\it\Citect.CitectSCADA.Migration.resources.dll	Italian
ProgramFilesFolder\Citect\CitectSCADA 7.10\Bin\ja\Citect.CitectSCADA.Migration.resources.dll	Japanese
ProgramFilesFolder\Citect\CitectSCADA 7.10\Bin\ko\Citect.CitectSCADA.Migration.resources.dll	Korean
ProgramFilesFolder\Citect\CitectSCADA 7.10\Bin\ru\Citect.CitectSCADA.Migration.resources.dll	Russian
ProgramFilesFolder\Citect\CitectSCADA 7.10\Bin\zh-CHS\Citect.CitectSCADA.Migration.resources.dll	Chinese

Added Files – CitectSCADA – SCADA

Install Path and File added	Notes
ProgramFilesFolder\Citect\CitectSCADA 7.10\Bin\CitectSCADA SCADA 7.10 Uninstallation Patch.exe	
CommonAppDataFolder\Citect\CitectSCADA 7.10\Config\OFS.fmt	
CommonAppDataFolder\Citect\CitectSCADA 7.10\Config\OFSViaOPC.fmt	

Added Files – CitectSCADA – Web Server

Listed below are the files that will be added to the **CitectSCADA WebServer** product after installing 7.10 Service Pack 4.

Install Path and File added	Notes
Citect\client\710\CitectSCADAWebClient_7_10_4_44.cab	

Issues Resolved in this Service Pack

This Service Pack resolves the issues described below. If you have any hotfixes installed on your current version, please check if they are included in this service pack. If the hotfix is not included in the list below, or you have any concerns regarding the issues covered, please contact Support *before* installing this Service Pack.

Issue Number	Issue Title and Description
24451	Only 7 of the 8 characters in EngUnits field are displayed at runtime The compiler was failing to allocate enough space for all 8 characters of the engineering units field. This has now been resolved.
37315	AssInfoEx differs from AssInfo in v7. A change in the way genie associations are processed in v7 led to a situation where AssInfo could not be called unless that tag was in use on the supergenie. This has now been fixed.
38852	Advanced Filters will not filter Alarm Summary by time and date When filtering Alarm Summaries, the current Alarm's data was being used instead of the historical data recorded within each such Alarm. This has now been fixed.
41470	Advanced filter for alarm summary state does not functioned correctly. When projects based on CSV_Include apply Advanced filters, CSV_Alarms_AdvFilterQuery() is called by CITECT which expects a Boolean result. This result controls whether an event should be displayed or not. The nVer argument passed in by CITECT needs to be used when making CSV_Alarms_AdvFilterQuery() calls so that the correct information is returned. This has now been fixed.
41996	Compiler Error Message "Tag Expected" for purely numeric User Names Customers using purely numeric user names would receive a "Tag Expected" compiler error. This has now been resolved.
42623	"Invalid Time Format" compile errors after upgrading v7.0 projects Some period strings valid in French and German installs of Citect v7.0 would fail to be upgraded in v7.10. This would result in "Invalid Time Format" errors at compile time. This fix provides an addition to the Migration Tool, where all period strings contained in French and German v7.0 projects will be upgraded.
42723	Spaces in user names are not allowed Using user names that have spaces would result in a compiler error. This issue has been resolved.
42726	Keyboard Commands (ENTER) does not register following a pop-up box / menu When a popup menu is dismissed/cancelled by clicking away from it, the enter key no longer works properly. Specifically, you need to either press the Escape key, or click something that captures keyboard focus. There were also issues when used by touch screen systems. These problems have now been fixed.
43287	WndFind Function always returns the Kernel Window as Open on the server even when closed.

	A new query to the 'CitectInfo' CICODE command has been added. Specifically you can now use CitectInfo("General", "", 32) to determine whether the Kernel Window is open in the current process (executing the CICODE). This returns TRUE (-1) if the Kernel Windows is open, and FALSE (0) otherwise.
43911	When SPC Trend Plot is printed the span may not match the displayed span
	SPC Trend Plot when printed shows the same span as the on-screen span even when the sub-group size is not 1
43920	Popup menu can cause a crash
	Under certain circumstances, such as very busy Citect32 process, multiple popup menus may be created if user clicks quickly causing a crash. This has been corrected by allowing only single popup menu thread to run.
44005	Non-English versions of CiUSAFE display garbled text in some fields
	This problem has now been resolved.
44057	Prevent alarm list requests from being serviced prior to alarms being started
	An ordered alarm list (using AlarmSetInfo) would to show no alarms when the alarm server is stopped, this empty alarm list would continue to be shown once the alarm server has resumed operation. This has now been fixed.
44137	"No server could be found" hardware alarm when Publish Alarm Properties is enabled
	No server could be found" hardware alarm when Publish Alarm Properties is enabled. This is now fixed.
44643	Tag import fails after recreating a deleted project
	If Tag Import is used to import tags into a project and that project is subsequently deleted and recreated, further attempts to import will result in an invalid template error. This error was caused by the template path being saved to the citect.ini file and not recreated with the new project. The issue has been resolved, if a template file does not exist the normal default is used.
44769	Button shows a stripe when the cursor is hovered over another graphic
	XP-style buttons with custom fill colours may be rendered with a stripe when the cursor is hovered over another graphic object. This issue has been resolved.
45495	CiTextBox doesn't allow multiline
	CiTextBox allows multiline
45780	The Min, Max and Ave returned from CitectInfo() do not match the Min, Max and Ave in the 'Unit' Kernel window
	After about 1 minute going into Runtime...The Min, Max and Ave returned from CitectInfo() do not match the Min, Max and Ave in the 'Unit' Kernel window. The statistics should not automatically reset The code to reset the statistics automatically every 80 seconds was removed.
45894	The Vijeo Citect Project Editor crashed when compiling the SP2 demoproces OPC2 project
	The problem only happened using a specific configuration and only when the pathname of the external link database is incorrect e.g.

	<p>C:\Documents and Settings\All Users\Datos de programa\Schneider Electric\Vijeo Citect 7.10\User\demoprocess_opc2</p> <p>The folder, "Datos de programa", does not exist.</p> <p>The code handled the file not found ok on open, but when the program started cleaning up a close got called and the program component still contained the last error (the fail on open).</p>
46354	<p>CSV_MessageBox() does not display the correct text for user-defined buttons on Vista</p> <p>CSV_MessageBox() does not display the correct text for user-defined buttons on Vista and Windows Server 2008 operating systems. This was caused by change in sequence of child windows (controls) in the operating system MessageBox. The fix applies text on buttons irrespective of their sequence in the parent window.</p>
46491	<p>Tag import fails for OPC tags with spaces in branch.</p> <p>Tag import is failing for OPC tags with spaces anywhere in the branch name. This has now been fixed.</p>
46528	<p>Combining Strtolnt with IODeviceInfo results in incorrect value (NULL)</p> <p>The first parameter to IODeviceInfo() is a string. So when an integer constant is supplied, a string conversion is required. With simple CICODE statements, the constant is converted to a string during compile time. With more complicated statements, however, the compiler inserts runtime conversions that produce a string which contains leading space characters.</p> <p>IODeviceInfo() will now trim leading spaces from the IODevice name parameter before executing.</p>
46692	<p>Foreground SQL is prevented by default. A hardware alarm is generated if an SQL Cicode function is invoked in foreground.</p> <p>Foreground SQL is has always been problematic, but can also cause crashes in SCADA. By default, the user SQL Cicode calls are no longer allowed in foreground Cicode.</p>
46736	<p>Runtime scales the expression for fill animations incorrectly</p> <p>If a complex expression is defined for a fill animation, the runtime produces incorrect results. This issue has been resolved.</p>
46815	<p>Message function not executed correctly from a "on page exit" event</p> <p>Calling the message() cicode function from a 'on page exit' event to display a popup message when exiting a page does not work in CitectSCADA v7.10 Spk2.</p> <p>When changing to a new graphic page, nothing happens. (No popup and no hardware alarm displayed)</p> <p>Fix:</p> <p>A hardware alarm (CiCode, Foreground Cicode cannot block, Message) is displayed when an operator causes a blocking cicode function to be executed.</p>
46861	<p>Mismatched protocols, ports and/or memory modes between Primary and Standby devices should produce compile-time warnings.</p> <p>Mismatched protocols, ports and/or memory modes between Primary and Standby devices should, by default, produce compile-time warnings. This has now been corrected, along with a new [CtEdit]UnitConsistencyWarning setting added to allow this to be disabled.</p>
47067	<p>Cannot display any object larger than the computer's display resolution</p> <p>Graphics Builder crops any symbol or genie that is larger than the current display resolution. This issue</p>

	has been resolved.
47113	Modify AlarmDsp() function to be able to get alarms from selected clusters in a multicluster system
	Added the functions AlarmDspClusterAdd, AlarmDspClusterRemove and AlarmDspClusterInUse to enable the modification of the displayed clusters that are seen in an AlarmDsp(an, count, "") display area
47145	Print Dialog Form will be obscured if parent window has topmost setting.
	Print Dialog Form will be obscured if parent window was created with WinNewAt and mode 64. This has been fixed.
47263	Date picker (ActiveX control) not updated when the associated tag value is changed.
	If you have associated a tag with the 'value' property of an ActiveX control, updating the tag value did not update the value of the ActiveX.
47431	Rectangles with dotted or dashed styles are drawn with solid lines in runtime
	Rectangles that have dotted or dashed styles in Graphics Builder are drawn with solid lines during runtime. This issue has been resolved.
47557	Saving a graphic page with many objects may corrupt the page
	It was possible to go over the limit when adding graphics objects to a page. Saving the page may corrupt it. This issue has been resolved.
48070	Externally defined CiVBA functions are not executed in some circumstances
	After installing Hotfix HF710SP246889 to enable the CiVBA code to compile, some CiVBA functions that call other CiVBA functions in another BAS file may not run. This has been addressed by changes in our code to overcome a limitation in the 3rd party VBA code. A hardware error has also been provided to provided notification if the situation happens again.
48163	Unable to set the "Period" of a "Trend Tag" to 1st or 2nd when using a East Asian language
	A work around is needed, this is : For monthly trend periods, the user must use english terms. i.e. 2nd, 1st, 4th
48179	High Alarm Server CPU usage when starting Historian
	Customers with large numbers of alarms were experiencing extended periods of high CPU usage on their Alarm processes when starting Historian.
48263	Failover sequence does not follow a "shuffled" priority order.
	When a system is configured with "shuffled" priority for redundant devices (ie devices on same IOServer do not have sequential priority), the order of priority is not followed in fail over. This has now been resolved.
48317	Browsing tags in Process Analyst results in high Alarm/Trend server CPU usage

	Tag browse sessions, used by the Process Analyst to view Alarm and Trend tags, were implemented in a suboptimal fashion for single tag searches. This has now been fixed.
48374	PropertiesInputTouch Automation Interface creates unnecessary Input Touch properties for graphic objects.
	Automation interface PropertiesInputTouchPut created unnecessary input Touch property despite setting blank Expression and Logging properties. This was rectified and PropertiesInputTouchPut function now returns S_OK without creating unnecessary Touch object.
48546	Crash during startup when accessing pages rdb using CSV Include or custom
	Due to incorrect reference counting while accessing of pages RDBs in overlapped manner (loading pages RDB more than once in non-sequential manner) from CSV Include or other CiCode could cause exception accessing deleted memory. This issue was rectified by correcting reference counting. Additional diagnostics of RDBs was added with [Debug] RdbTrace INI parameter.
48550	The display client won't reconnect to servers if the first attempt on startup was unsuccessful.
	In multi-process mode, the display client will never attempt to re-connect to a server process if the initial attempt was unsuccessful. This can happen when a server process experiences a fatal startup error. As soon as the problem is rectified and the server starts, the display client remains disconnected and needs to be restarted. This problem has been fixed.
48633	CtOPc32.exe crash when writing to tags or disconnecting
	Under heavy loads, or when deleting groups on client disconnection, Citect's OPC server would occasionally crash. This has now been fixed.
48735	Accumulation server redundancy improvements
	This fix provides improvements to Accumulation server redundancy so that switchovers are more reliably performed in phase. Refer to KB article Q5827 for more information.
48756	FileOpen succeeds for a file that does not exist when opened in read only mode
	When attempting to open a file that does not exist using the FileOpen() Cicode command, no error was recorded. This has now been fixed.
48854	Compilation error "Close bracket expected" rather than warning "Tag not defined"
	This error is produced when "(cluster.undefined_tag)" syntax is used in a Citect project, or "cluster.undefined_tag" is used in fields such as Fill Level (which indirectly generate the required brackets). This problem has now been resolved.
48866	Windows cannot shutdown while Citect is running despite [Kernel]WinShutdown=1
	Runtime manager was halting Windows shutdown, even when [Kernel]WinShutdown=1. This has now been fixed. N.B. use of [Kernel]WinShutdown=1 is not recommended on server processes, as it may result in trend or alarm data loss.
48890	Tag import from OFS was taking a long time if there were many tags.
	Tag import from OFS was taking a long time if there were many tags. This issue has been fixed.

48898	Tag can not be written when memorymode=TRUE and [code]writelocal=0
	Memorymode=TRUE takes precedence over [code]writelocal=0 and a tag write under this circumstance proceeds as though [code]writelocal=1 for memorymode devices
48907	QueLength() cicode function returns incorrect values.
	The QueLength function would return incorrect (negative) values for queues of lengths greater than 32767, since the return type was a signed short. This has now been corrected by changing the return type to be a signed long.
49547	Web Deployment creation fails using a non-default INI file
	Web Deployment creation fails using a non-default INI file. This has been corrected.
49718	Citect crashing at shutdown due to improper cleanup of User Cicode.
	Citect crashing at shutdown due to improper cleanup of User Cicode. This has now been fixed.
49776	Retain column widths on refresh in DatabaseExchange ActiveX.
	We did not implement any code to retain changes to column widths made by the user at runtime, so that when a table refreshes, the widths reset. This has now been fixed.
49810	Windows Error Reporting prevents process restart after crash
	A dialog asking to send crash information to Microsoft can appear after the runtime crashes, in which case the process will not restart. Note that [CrashHandler]NoEmail=1 must be set to prevent the analogous Citect dialog and ensure the process restarts.
49958	The millisecond component of alarms is always formatted to be zero
	v7.10 SP3 introduced internally generated millisecond-resolution timestamps for digital and analog alarms, however this was not correctly formatted. This results in all alarms displaying a timestamp of .000. For PowerLogic SCADA customers this was also resulting in some event log entries being overwritten. This has now been fixed.
50181	IODevice cache field has no effect
	Setting Cache TRUE/FALSE dropdown on the IODevices form has no effect on whether reads are cached or not, only the Cache Time is used. This has been fixed - setting Cache to FALSE will now disable caching regardless of the configured Cache Time.
50186	A Multi-Digital alarm will trigger continuously when in an off state if state 000 is configured to trigger the alarm
	When a Multi-Digital alarm was in a state that has been configured as an off state, the state was being incorrectly set to match that of state 000 (all three variable tags with value 0). So if state 000 was configured to trigger the alarm, the alarm was then triggering every alarm scan. This problem has now been resolved.
50244	Advanced Alarm Filter does not filter Alarm Summary by Type
	The Advance Alarm Filter does not filter alarms correctly in the Alarm Summary page when filtering by Type. This issue affects CSV_Include projects only and has been resolved.

50315	Opening a genie page with an ActiveX control may produce an error
	<p>Opening a genie with an ActiveX control may result in a popup with the following message:</p> <p>"The ActiveX control is conflicting with Citect and may produce unreliable results.</p> <p>It is strongly recommended that you remove this ActiveX control from the page, save the page and then close and restart Citect Explorer to avoid further problems."</p> <p>This issue has been resolved.</p>
50502	Unity speedlink tag imports fail for IO Devices using the OFSOPC driver
	<p>This issue has been resolved with the following "database type" options available on the Citect Explorer -> Tools -> Import Tags dialog.</p> <p>OFSOPC driver: "Unity SpeedLink to OFS" OPC driver: "Unity SpeedLink to OFS via generic OPC"</p>
50621	The SCADA system should record the non-default SCADA parameter settings
	<p>A new file, "Params.dat" has been added to the log folder that contains a historical record of the non-default SCADA parameters.</p> <p>Example:</p> <pre>[Params.dat] 2010/12/01-14:42:07.847 [Code] Threads= 128 Default= 64 2010/12/01-14:42:07.852 [Code] TimeSlicePage= 5000 Default= 500 ...</pre> <p>Also, the kernel dump has been extended to include a complete list of current SCADA parameter settings.</p> <p>Example</p> <pre>CiCode: DumpKernel(0x0100, "Parameters") [kernel.dat] Citect Diagnostics Wed Dec 01 2010 02:43:53 PM ===== -----Parameters [ALARM.CLUSTER1.ALARMSERVER1] CLUSTERS= Cluster1 [ALARM.CLUSTER1.ALARMSERVER1] CPU= 0 [ALARM] ALARMDISABLE= 0 ...</pre>
50708	DspGetAnCur returns incorrect AN when object is part of an animated group
	Fixed in 7.10sp4
50764	Added hardware alarm and error code for alarm summary buffer overflow
	<p>When there is no cache entry for a displayed alarm, the text "Bad Record Identifier" is shown in place of the alarm. This is still the case, but now there is a hardware alarm when this occurs and there is a type added to the Cicode function AlarmGetInfo that will get this error code.</p>

50953	Use AlarmDspLast() cicode function in the Alarm Summary page may result crash when shutdown the client
	In a multi-cluster project, configure the project in single-process mode with TCP. When the alarm summary page (configured using AlarmDspLast()) is displayed, shutdown of the client may result in a crash. The is to due to an allocation count that wasn't set properly, and then freeing more memory than we allocated in the clean up function.
51128	DIICallEx casts return values of LONG type to SHORT
	DIICallEx casts return values of LONG type to SHORT causing incorrect data being returned from the DLL call. This issue has been resolved.
51135	A server may shutdown with a Software Protection Failure as a result of tran write failures
	When running some large projects, the following message was noticed in the IoServer Syslog file: TranWrite(0, 246): State != TRAN_STATE_ONLINE, state=0 This was due to an incorrect connection state transition on the connection established between the IoServer and the client. Eventually this error will cause the server to shutdown with the following error "Software Protection Failure. Cannot connect to Client." This problem is fixed.
51145	Reports are not executed if a Standby Report is defined in the project.
	If a Standby Report Server is defined in a CITECT project, neither of the Report Servers would run reports. This has now been corrected.
51150	LogoutIdle Cicode function is inaccurate.
	LogoutIdle Cicode function is inaccurate. This issue has been resolved.
51151	When many devices are configured, losing a connection leads to a non-responsive I/O server.
	When the network disconnected for an I/O server, each device going offline caused an event which would send a heartbeat message. As the number of devices increased, the performance hit of this increased exponentially eventually leading to a system that does not respond for minutes. Heartbeat messages are now rate limited to prevent this scenario.
51759	Client process crashed when calling InfoForm on a display tag with cluster name as prefix
	A pointer wasn't initialised at declaration or by the function InfoGetClusterTag() in some cases. The function, InfoGetClusterTag() was changed to use arrays rather than addresses of pointers to null terminated char strings. The client process should not crash when calling InfoForm on a display tag with cluster name as prefix (fully qualified name).
51897	DspInfo doesn't return correct cluster for animation point's tag if it is called in a Cicode Task that does not have a Cluster Context
	Function Dspinfo with type 10 (full name of the variable tag in the form cluster.tagname) could return incorrect cluster when tags on a graphical page's animation points were used without an explicitly given cluster and CiCode task where the function was called had different Cluster Context than the page. This has now been fixed.

Originally resolved in Service Pack 3

These fixes are included in Service Pack 4.

Issue Number	Issue Title and Description
32692	<p>Manipulating alarms while using [Alarm]DisplayDisable=1 produces unexpected results.</p> <p>When using [Alarm]DisplayDisable=1 the following unexpected behaviour can be observed. - All other alarms besides the "Time Stamped Digital" and "Time Stamped Analog" alarms cause an extra alarm summary event if an alarm is disabled and then re-enabled. - Disabling and triggering a "Time Stamped", "Time Stamped Digital" or "Time Stamped Analog" alarm causes the alarms to "disappear"; meaning that the alarm neither exists on the alarm page or the disabled alarm page. A further untriggering of the alarms then makes the "Time Stamped" alarm re-appear. This has now been resolved.</p>
36222	<p>IDC displays CSV_Start page at startup instead of the user created startup page</p> <p>When a user page is created with the name startup, it should be the first page displayed at startup. However, in the Internet display client, the CSV_Start page was being displayed instead for projects including the CSV_Include project. This problem has now been fixed.</p>
36402	<p>[Win]AltEsc and [Win]AltTab parameters do not work</p> <p>Setting the [Win]AltEsc and [Win]AltTab citect.ini parameters to 0 to disable the respective hotkey combinations does not make any difference. The end user will still be able to execute these hotkeys. This problem has been resolved.</p>
36511	<p>[debug]syslogsize range issues and size increase</p> <p>The syslogsize parameter to control the size of the syslog.dat file has now been range checked to ensure valid entries. Previously a value above 32767 could cause invalid handling. The maximum allowable value has been increased to 2000000. This representing a 2G sized file.</p>
36794	<p>The compiler does not detect incomplete tokens in device format strings</p> <p>The format of a format template string ----- [text][{.width[.justification]]}[text]... Rules for valid format template display ----- 1. If the "width" value is not present then the width is set to the length of the number of characters inclusive between '{' and '}'. This means that the field value may be truncated or padded depending on the name value length. 2. If the "width" value is specified then that is the length of the field. This means that the name value length may be truncated or padded. 3. The justification is made up of a single character with the following behaviours as specified: - 'R' or 'r' will align the field on the right hand side. If the width is longer than the name value length then the left hand side of the name value is padded with spaces. - 'L' or 'l' will align the field on the left hand side. If the width is longer than the name value length then the right hand side of the name value is padded with spaces. - 'Z' or 'z' will align the field on the right hand side. If the width is longer than the name value length then the left hand side of the value is padded with zeros. - 'N' or 'n' will remove any extra padding that is used. Essentially any padding of the name value is trimmed. 4. If a justification is not specified then the name value is assumed to be left justified. 5. Any spaces appearing after the first comma onwards in the format template will be stripped out at no penalty to the user. Malformed format template display ----- There are two kinds of malformed templates and they are displayed differently. 1. Internal malformation. This is when there is a correct open and close bracer '{' and '}' but inside the format template there is a malformation. For example there may be a space not a comma separating the name and the width. In this case the whole field is ignored which means nothing between and including '{' and '}' is displayed. For example: Take the following string < { LocalTimeDate , 20 , R } > TagLabel < { Tag , 20 L } > DescriptionLabel < { Desc , 20 , L } > The output would as follows: < 2009-07-17 11:13:17 > TagLabel < > DescriptionLabel < ValidAlarm1Desc > Notice that the "Tag" name value is not outputted as the field is malformed with no ',' between the width and justification. 2. Bracer malformation. This is when there is an open bracer '{' but no closing bracer '}'. In this case the malformation is printed as a string literal. For example: Take</p>

	the following string: < { LocalTimeDate , 20 , R } > TagLabel < { Tag , 20 , L > DescriptionLabel < { Desc , 20 , L } > The output would be as follows: < 2009-07-17 11:31:44 > TagLabel < { Tag , 20 , L > DescriptionLabel < ValidAlarm1Desc > Notice that the "Tag" name value is outputted as a literal as no closing bracer '}' is detected.
37767	Alarm tag property tag.disabled always returning 0 when [alarm]displaydisable=1
	When [alarm]displaydisable=0 is set and an alarm is disabled, that alarm tag property, "tag.disabled", returns 1 When [alarm]displaydisable=1 is set and an alarm is disabled, that alarm tag property, "tag.disabled", returns 0 The fix for Bug 37767 means that when [alarm]displaydisable=1 is set and an alarm is disabled, that alarm tag property, "tag.disabled", returns 1
37821	Floating point tag displays 1.#R error and does not change back to normal
	Some drivers may legitimately return floating point NaN, in which case Citect displays 1.#R Any REAL value that starts as NaN will not update to any other, any other REAL value will not update to NaN.
40370	Using Run/Copy with a nonexistent path results in error message
	When using Run/Copy, if a project folder doesn't exist on the target machine, Run/Copy reports "Cannot locate included project 'Full Path', please ensure this path is available". This has now been fixed, and the folder is automatically created if it does not exist.
40925	TagSubscribe() callback function being called continously when the tag value is out of range of Variable tag Raw zero or Raw Full scale value
	It appears that TagSubscribe() callback function is being called continously when the tag value is out of range of Variable tag Raw zero or Raw Full scale value. This situation can occur only with a system where the Raw tag value are not set to match with the raw data coming in from the IO device. Fix Details ===== When the subscribed value is to be updated, the raw value of the quality is compared rather than the quality after the engineering ranges have been evaluated and the quality updated (e.g. quality.LimitStatus)
42122	Import Tags causes exception in CTEDIT32.exe
	Changes to the variable database format in version V7.10 caused a buffer overrun during tag import. This has been resolved by increasing the buffer available to import tags.
42163	Using Taginfo to test existence of tags before call super genies doesn't work for alarm properties
	CiCode function Taginfo has been extended to include Alarm properties, this applies only to the "name" query (nType value of 0)
42453	Some keyboard shortcut keys do not trigger
	The following keyboard shortcuts do not trigger as expected. - Keyboard shortcuts that contain a space in the name. - Keyboard shortcuts that contain the "Shift" key. This issue has been resolved.
42603	Websignature.xml is locked at runtime
	File websignature.xml is locked at runtime. This can be a problem for some project update procedures (typically using [CtEdit]RUN, BACKUP, COPY parameters) which require deletion of project files. This problem has now been resolved.
42645	Citect reports can produce hardware alarms such as "Cicode type mismatch" and fail to produce correct output
	At compile-time, incorrect Cicode variable references can be produced for Citect reports. The incorrect reference effectively generates a reference to a variable outside the expected report which may be of the wrong type and would lead to the "Cicode type mismatch" symptom. However, if the incorrect reference happened to reference a variable of the correct type, a report might change to value of variables of other reports.

42842	BITAND not working correctly when used in Symbol Set and other graphic item features
	When using the BITAND operation in the 'ON symbol when' property of a Symbol Set, it only seems to work correctly for the first 16-bits. Anything higher and it results in 0 at all times. For example, if you use the decimal number 1895071744 (0111 0000 1111 0100 1000 0000 0000 0000) and you BITAND it with 0x00040000, you will get 1 if you call it from Cicode or even a numeric object on a page, but as soon as you do this in a symbol set, it results in 0. Other features that experience this problem; On/Off Colour MultiState Colour Array Colour Show/Hide Disable MultiState Text Array Text MultiState Set Object Array Set Object Animate Set Object Citect has been changed (Bug 42842) to use a LONG value rather than a SHORT value when processing the cicode results for the features mentioned. This cicode construct (TestLongVar0001 BitAnd 0x40000000) should be the equivalent of "TRUE" (1) for the following graphic item features; Symbol set On/Off On/Off Colour MultiState Colour Array Colour Show/Hide Disable MultiState Text Array Text MultiState Set Object Array Set Object Animate Set Object
42853	Compiler crashes in "incremental compile" mode when variable name contains spaces
	An incremental compile of a project which contains variable names with spaces (e.g. MyOPC Test!Tag1) results in a crash. This issue has been resolved.
42858	The TrnPlot() cicode function fails when passed an Animation Handle of zero.
	The TrnPlot() cicode function calls initialisation code that fails when passed an Animation Handle of zero. The failure however is not immediately noticed, and fails later on (when checked). This has now been fixed. When called with an Animation handle of zero, it now uses the properties of the first Pen (Pen zero).
43013	Cicode doesn't break when debugging with Single machine, Multi-Cluster setup.
	When testing, it is not unusual for a single computer system to be setup to run multiple Clusters. However, only one instance of the Cicode Debugger can be active on a single system. Worse still, the [Debug]CodeDebug CITECT.INI parameter did not allow one to specify exactly which Cluster you wanted to have the Debugger attach to. This has now been fixed. You can now use a dotted Cluster name and Component syntax when using [Debug]CodeDebug. For example, "MyCluster1.Alarm" to Debug the Alarm component of the Cluster named "MyCluster1". You can now also see messages in each Component's Kernel Window related to whether the Cicode Debugger can attach or not. Specifically: "Cicode Debugger disabled in this process." and "Debugger is listening."
43048	Using timestamped digital/analog alarms with long tag names results in crash
	Insufficient space was allocated internally for storing the tag name for the "Variable tag" fields of timestamped digital and analog alarm records. This has now been fixed.
43095	CSV_MessageBox() fixes for timeout, duplicates and cancel mode
	Fixes and improvements have been made to the CSV MessageBox handling and control. Timeouts now work and return a new error code. Cancellation of a box has been improved. Invoking duplicate boxes has been fixed and now returns its own cicode error code. Users are advised to read the header of the cicode function CSV_MessageBox() in CSV_MessageBox.ci in the CSV_Include project directory, for full details.
43289	The custom decimal separator setting [Intl]sDecimal in Citect.ini is not working properly
	An attempt to override the regional decimal separator character with the [Intl]sDecimal setting caused multiple issues, including incorrect presentation of numbers in Display Client and numeric pad, both sliders and TagWrite/TagRead Cicode functions not converting decimal numbers correctly, failure to insert decimal numbers into SQL database tables. This problem has been resolved.
43376	Cluster names are missing in the messages logged by both TrnSetTable and TrnEventSetTableMS functions.
	Calling the Cicode functions TrnSetTable and TrnEventSetTableMS with [Trend]TrendDebug=4 in citect.ini produces log messages without cluster names, making it difficult to identify the cluster that the

	trend belongs to. This issue has been rectified.
43547	Acknowledged ON alarms need to be reacknowledged after a restart
	The IOMServer code has been changed so that alarm values have an initial quality of GENERIC_UPDATE_INPROGRESS rather than GENERIC_NOERROR. This means that all tag values will not return good quality data by default.
43577	Express Wizard Hangs when no serial ports exist
	On PCs where no serial ports exist, the express wizard would go into a loop. This has been fixed.
43645	GB Automation Interface, oval's 'angle' properties don't appear as expected
	Angle properties set using the Automation Interface functions had values one degree less than expected. The problem was due to incorrect rounding. Example: An angle was calculated to be 119.999999998 and then truncated to 119.
43713	Events are triggered on startup when background polling is enabled and the [Event]InhibitEvent parameter is set to 1
	Events are being incorrectly fired on startup when background polling is enabled and the [Event]InhibitEvent parameter in Citect.ini file is set to 1. This problem has been rectified.
43723	Bug 43723 - [CICODE] IOMDeviceInfo() gives incorrect IOMDevice name when querying from different clusters
	Failure Details ===== IOMDeviceInfo() gave incorrect IOMDevice name when querying from different clusters Having multiple devices with the same number on different clusters, the function call of: IOMDeviceInfo(iDeviceNum, 0, sCluster) will return the name of the IOMDevice incorrectly (it will return the first IOMDevice in the first cluster). Fix Details ===== The Citect code was changed so that a server for a particular cluster only resolves units for that cluster.
43732	When acknowledging an alarm while a windows user is logged in, the alarm summary shows UserName field as 'SYSTEM'
	From a remote client, or from the local client when in multi-process mode, acknowledging an alarm while a windows user is logged in leads to the alarm summary displaying a value of "System" for the UserName field. This problem has now been fixed.
43735	When new users are created with the usercreate function, their areas and privileges are not recognized until a restart.
	When new users are created with the usercreate function, their areas and privileges are not recognized until a restart. It is possible to see that the user record is added to the System>users form with the right areas and privileges. The compiler was failing silently - Application event log records "Faulting application ctcmp32.exe, version 7.10.3.19, faulting module ntdll.dll, version 5.1.2600.3520, fault address 0x0000120e." In debug version; Debug Error! Run-Time Check Failure #2 - Stack around the variable 'tokens' was corrupted.
43738	IOMDeviceInfo() mode 3 always returns 0 for memory devices
	The code for IOMDeviceInfo() mode 3 didn't support memory devices. The code for IOMDeviceInfo() mode 3 now supports memory devices.
43847	No OPC tags imported with some OFS file types
	Performing an OPC tag import from some file types produced by OFS (eg CSV or FEF) would complete with message "0 OPC tags imported", failing to import any tags. This problem has now been resolved for all but string tags, which will still be filtered out if they have the VT_ARRAY bit set in OPC Item Property 1.
43872	Cannot view Alarm or Trend Pens in Process Analyst if the logged in user does not have correct privilege

	Alarm or Trend Pens cannot be viewed in the Process Analyst if the currently logged in user does not meet the privilege configured for the particular alarm or trend. This problem has now been addressed by providing new citect.ini parameters that allow these security checks to be turned on and off. The new parameters are [Alarm] FilterViewByPrivilege and [Trend] FilterViewByPrivilege. They default to 1, which enables the security checking, and if set to 0 the security check will be disabled, allowing all Alarm or Trend pens to be viewed.
43922	Incorrect conversion of periods in the Period field to English format (East Asian languages only) <p>East Asian languages have a problem converting a localized period value (for example, the value in the Period field of the Trend Tags dialog in Project Editor) to the English format used in DBF files. More specifically, the issue is related to the periods what use week days and names of months. The problem has been fixed.</p>
44040	Digital tags on scheduled devices show incorrect values when Citect is restarted <p>An issue with digital blocking causes cached digital values on remote scheduled devices to return incorrect values on if Citect is restarted. This has been resolved.</p>
44058	Shutdown("Server_Name") doesn't work in a number of scenarios. <p>A single citect server process could not be shutdown or restarted as described in the help. Shutdown() function help states that you can stop or restart a Individual Server by specifying the Server name. e.g. Shutdown("AlarmServer1","",1) Fix Details ===== The program has been changed to add the functionality to allow a single process to be restarted or shutdown as described in the help.</p>
44100	Acknowledged, cleared alarms active on redundant server after startup and synchronisation <p>During synchronization of the alarm server, dynamically set alarm properties were not being set from synchronisation data. This means that when the active alarm server is shut down the alarm properties on the redundant alarm server can be different and alarms may re-trigger or not trigger at all. Fix Details ===== During synchronization of the alarm server, dynamically set alarm properties is now being set from synchronisation data. See also Bug 44678</p>
44111	Foreground Cicode "user error"s not cleared preventing subsequent executions of Cicode <p>Foreground tasks incorrectly remembers a "user error" (e.g. "out of range") preventing subsequent executions of foreground task code from properly executing. For example, preventing tag writes(OP_STORE operations). This problem has been fixed.</p>
44156	Clients that connect to the primary alarm server while it is resyncing do not get alarm data. <p>The primary alarm server listener is now not opened until after it has finished re-syncing. This means that clients connect to the standby alarm server during this period.</p>
44162	Citect communications can be lost/dropped/closed on a mal-functioning/overloaded/unreliable network <p>Citect communications can be lost/dropped/closed on a mal- functioning/overloaded/unreliable network. Citect code is designed to be network fault tolerant and so it will close and attempt to reopen networking connections. Closing at the wrong level has only been *proven* to cause a Citect communications failure in a few extreme cases in the lab (the symptoms were only visible in wireshark traces). This has not been *proven* to be a problem in the field, but a few customers have possibly had issues related to this bug. Resolving their network hardware issues seems to have resolved those cases. Logging has been added to record information about opening/dropping/closing Citect network connections and many networking error conditions. This will help us investigate networking issues that might occur in the future. The logging is enabled by a new Citect.ini parameter. [lan] ConnectionLogging = 1 (off by default)</p>
44169	[CICODE] IODeviceInfo "IODevice,P" & "IODevice,S" unsupported in V7.1 (and v7.0) <p>IODeviceInfo does not return the correct status for the device when using the ",P" (primary) or ",S" (stand-by) qualifiers. e.g. IODeviceInfo("IODevice1,P",3)=0 IODeviceInfo("IODevice1,S",3)=0</p>

44237	CiText.Combobox does not work with style type "Simple"
	The selected text in a combobox should be able to be obtained by cicode. When combo box sytle="simple" the selected text could not be obtained. Fix details: There are two 'internal' combo box implementations, one for each style. The method that returned the selected text for the "simple" style did not selecte the correct internal combobox implementation.
44323	WinFile/WinPrint cicode functions don't capture the image of Process Analyst
	When the Process Analyst control is present on the page and either WinFile or WinPrint cicode functions are called, the image of the control's client area is not saved to the file or printed. This problem was fixed.
44420	TagRead returns the value up to the max decimal value it can display regardless when there is a format specified
	TagRead in v7.10 returned a different result that that returned in v6.10. Example: Enter a value of 123.1234 on a REAL variable tag with a default format of ###.#, then do a TagRead() function and store the return result to a STRING variable tag, the string will contain 123.12340039782... (approx.) The correct result is 123.1 This has now been changed. (Bug 44420)
44432	Items from menu appear at different locations when using different screen resolutions
	Failure Details ===== The submenus from for example the Tools menu (runtime) will display on different locations depending on the screenresolution. The higher the screen resolution the further away from the mouse cursor the submenus will show on screen Fix Details ===== Citect was incorrectly scaling x values of menu positions that should need to be scaled. There is an extra parameters in the appropriate CSV_Example cicode functions to indicate when scaling is and is not required.
44437	Compiler crash when Citect Project is linked via a UNC path and Visual Basic files exist
	This problem has now been resolved.
44464	Pulse() doesn't work, and results in a hardware alarm, on a pop-up when using substitution with data type
	Pulse() doesn't work, and results a hardware alarm, on a pop-up when using substitution with data type. For example, Pulse(?1?) works OK, but Pulse(?Digital 1?) doesn't work and raises "Invalid Argument Passed" h/w alarm. Also; Pulse(?1?) doesn't work when ?1? isn't used anywhere else other than Pulse(?1?). The compiler has been changed so that it ignores 'digital' and other types in Pulse(?Digital 1?) The labels.dbf has been changed so that Pulse(?1?) works when ?1? is not used elsewhere other than Pulse(?1?)
44505	Alarm index file corruption caused by removing and adding alarms
	Alarm index file corruption can be caused by adding and removing alarms from the project and then starting Citect. The problem is related to the deleted alarm ids being re-used by the newly created alarms.
44586	A popup window containing many symbol set array objects takes a long time to display
	This problem is observed when a user launches a popup window which contains many symbol set objects each with many array symbols. This issue has now been resolved.
44638	"Live Update" I/O Devices form parameter was working inappropriately
	To fix the problem: - Live Update was completely decoupled from Auto Refresh; Live Update box is now disabled by default, Auto Refresh is never disabled - An additional section flag has been added to the file "tagdriv.ini". It is called "SupportLiveUpdate" and it has three possible values: "true" meaning that the Live Update box is enabled and it's default value is TRUE; "false" meaning that the Live Update box is enabled and it's default value is FALSE; "disabled" (default) meaning that the Live Update box is disabled and it's value (FALSE) cannot be changed

44640	Several settings in Citect.ini are not saved properly by Computer Setup Wizard
	When running Computer Setup Wizard, the following settings were not saved: o [Win]ScreenSaver o [Page]StartupCancel o [Win]AltSpace This problem has been fixed.
44678	Alarm High value property is not being transmitted to the redundant server
	When alarm properties are dynamically changed, the changes are not transmitted to the redundant server. This means that when the active alarm server is shut down the alarm properties on the redundant alarm server can be different and alarms may re-trigger or not trigger at all. Fix Details ===== When alarm properties are dynamically changed, the changes are transmitted to the redundant server.
44768	Names of graphic pages that are displaying alarms are case sensitive
	Names of graphics pages containing ANs for displaying the alarms are case sensitive, meaning that cicode developers must observe type casing precisely. Otherwise, calling, for example, PageDisplay("Alarm") on the page named "alarm" will not update the ANs as expected (the blank ANs symptom). This behaviour is incorrect and has been modified to make page names case insensitive.
44829	TagGen does not generate Trend and Alarm tags when import from OFS with some language settings
	TagGen uses an OLEDB provider with collation set to general. With some language settings, such as Russian TagGen does not import correctly - this has been resolved.
44839	Alarm history was not read from redundant server
	Alarm history was not read from redundant server if current server does not have alarm save files and both servers are shutdown
44842	Could not search for Trends Tag using v7.0 process analyst/Citect response slow
	When the customer tries to call the "search" from the Process Analyst, the search would hang for about 1 minute and then an error message would pop up saying "CTAPI connection is offline". This was not reproduced exactly in-house; However, with the customer's project (attached to the URL), the search would take approx 7 minutes to return the trend tag list, so this *may* be related. When the problem was manifesting, the kernel window would respond very, very slowly. The problem occurred for the customer and in-house for single process configuration. The problem was not noticable when using a multi-process configuration. Fix Details ===== Citect changed to process more kernel tasks when the windows system is in an idle state. Extra logging was added to enable us to detect if a connection was terminated due to slow response; "IPCReadMemory: Disconnection due to late or missing heartbeat".
44851	Graphics builder may take a long time to load a page which contains many genies or objects
	Pages loaded via the graphics builder that contain many genies or objects may take a long time to load. By setting the ini parameter [CTEDIT]CTGMMASTERFASTLOAD=1 long load times are cut down substantially.
44858	Genie colours are not displayed correctly when using [Animator]FastDisplay=0
	When loading graphic elements with linked details (e.g. F_ONCOLOUR, F_STATECOLOURS, etc.) object properties were being incorrectly overwritten with linked object object properties when using [Animator]FastDisplay=0. Graphic elements should look the same regardless of the [Animator]FastDisplay setting Example: The PLS_Include project contains the pls_meter.generic_meter genie. The bus bar color within this genie will not change with the rest of the bus section if [Animator]FastDisplay=0. If [Animator]FastDisplay is set to 1, it will work correctly. If we deenergise this bus bar (set TEST\DI_02 to 1), the color will turn green. However, the busbar within the genie will not change color. It will remain red. If [Animator]FastDisplay=1, all the colors will change correctly. Fix Details ===== When loading graphic elements with linked details (e.g. F_ONCOLOUR, F_STATECOLOURS, etc.) the program should not overwrite object properties with linked object object properties if the object properties have been set.

44906	Numeric updown control for Page scan time in page properties dialog accepts -, + and 0 values.
	The Page scan time in the page properties dialog accepted -, + and 0 values. This could lead to an exception or communication error at runtime. This issue has now been corrected with a minimum accepted time of 1.
44908	TagInfo, TagInfoEx, AssInfo, AssInfoEx functions may return values with lost precision
	TagInfo, TagInfoEx, AssInfo, AssInfoEx functions do not correctly obtain a tag's raw or engineering scale values and lose precision when the value is returned. For example, a value of 1.10 may be returned as 1.100000024 by any of these functions. This problem has been resolved.
44920	Comment field value of infoform() dialog is not being shown as per the tag definition. Always shows the same comment.
	The _InfoFormUpdateForm function in Info.ci contained a loop that terminated at 10 instead of 11. It now terminates at 11.
44924	Comment field of alarm summary page flickers then disappears
	In the event of one or more alarm servers in a cluster being unavailable, string fields in alarm summaries (including the comment field) would display briefly then go blank. This has now been fixed.
44929	Alarm index file corruption.
	Potential Alarm index file corruption has been alleviated by writing the index file afresh whenever the alarm summary file is written.
44969	Advanced Alarm Filtering does not work on the web client
	The Advanced Alarm Filtering dialog box does not appear or it closes immediately when opened in the web client. This issue has been resolved.
44982	AlarmActive will always return 0 on start-up when running in multi-process mode
	The AlarmActive Cicode function will always return 0 on start-up when running in multi-process mode even if active alarms exist. An alarm needs to change state (e.g. go from ON to OFF) for function to start returning the correct value. This does not occur when running in single-process mode. Fix Details ===== AlarmNewConnect = TRUE is now being set when the AlarmServer receives the MSG_READ_SORT_DATA message. The MSG_READ_SORT_DATA message is sent by the client after the the client alarm cache is create which happens after the connection to the AlarmServer is made. Setting AlarmNewConnect = TRUE causes the AlarmServer to broadcast the cache data at the correct time and that fixes the problem.
44990	Trend dates display incorrectly with German localisation (CSV_Trend_GetDate)
	Using the CSV_Include templates, when displaying a trend on the single trend page the start/end date shows the first letter of the month cut off. Example: October will display as "kt" rather than "Okt", This seems specific to the German installation of Vijeo Citect as the English version doesn't have a problem displaying. Fix Details ===== The fix for this is to change the cicode so that it constructs the string out of individual date component rather than trying to extract them from a formatted string.
45056	Cluster connections were being activated incorrectly
	Clusters should be created disabled (not connected) On startup clusters should be connected if * there is no cluster list * the cluster appears in a cluster list // [Client]Clusters = C1, C2 * the cluster must be present because the servers that belong to them are running in this process.
45089	Citect OPC server does not send updates on successful string write operations
	The Citect OPC server was performing write operations and updating its internal cache values but not sending subscription notify messages to clients. This has now been fixed.
45121	Graphics Builder may crash when upgrading projects or updating pages on very large projects

	When performing an "Update Pages" or a project upgrade, on very large projects with numerous includes, Graphics Builder may either crash or produce a dialogue announcing that a queue could not be created. This issue has now been rectified.
45131	The SendKeys CiCode function blocks the Citect Kernel with 100% CPU.
	The SendKeys CiCode function has been changed so that it does not block the Citect Kernel with 100% CPU if called while the desktop is not interactive.
45201	{millisec} display field for high resolution alarms is incorrect
	The alarm field name used to show the millisecond offset (i.e. {millisec}) of high resolution alarms is always displayed as 0. This problem has been resolved.
45244	Tag writes to PLCs may be written out of order
	Values written to tags were being written out of order in some cases. For example, the sequence TagWrite("intTag1", "1"), TagWrite("intTag3", "12345"), TagWrite("intTag2", "2"), TagWrite("intTag3", "3") could result with intTag3 having the incorrect value of 12345. This issue has now been corrected.
45319	Dump Kernel Modes incorrect for DumpKernel Cicode Function from v 7.0 onwards
	The Dump Kernel Modes were incorrect: ... 0x0010 - Dump the table 0x0020 - Dump the queue 0x0040 - Dumps NOTHING and have been corrected to match the documentation: ... 0x0020 - Dump the table 0x0040 - Dump the queue ...
45339	When using more than 256 modenet devices get "Channel Offline Cannot talk" for all channels
	When a test project is with 512 channels configured, then the error "More than 250 Ports defined" does NOT appear. If the number of channels is increased to 513 or more, then the error "More than 512 Ports defined" appears. Note: The Kernel tasks was set to 32767 and Kernel Queues was set to 8000. And if not then 'Kernel tasks exceeded' and 'kernel Queues exceeded' errors show up during starting, and the IOserver never starts. The test project consists of 512 channels of which 4 channels are connected to Real PLC and the rest are connected to a MODBUS Simulator running in a remote machine. When this test project is run, NONE of the channels come ONLINE, and an error "Channel Offline Cannot talk" is logged in Syslog for all the channels. If the number of Channels is reduced to 256, then all of the Channels and Units come ONLINE. If the number is increased to 257, then one of the channel goes OFFLINE and the rest come ONLINE. If it is further increased to 258, then two of them go OFFLINE and the rest come ONLINE. In summary, based on the test results, only 256 channels are being handled properly by the MODNET driver. The driver was changed to allow for more than 250 devices, but the SCADA program also needed to be changed. The SCADA program was combining the board number and the channel number into one 16 bit integer (8 bits for each). The fix is to use only the top 4 bits for the board number (max 16) and the bottom 12 bits for the channel number (max 4096). Both the Modnet driver change and the SCADA change must be applied to allow the use of more than 256 modenet devices.
45378	Display Client displays alarm status incorrectly (German only)
	A localization problem exists in the Display Client where both ON and OFF alarm states are displayed in English rather than in German. This problem has been fixed.
45380	When the compiler detects a file cannot be removed, compilation is not stopped
	Failure Details ===== When the compiler detects a file cannot be removed, compilation is not stopped. Not stopping compilation on file removal fail could lead to/be caused by something "nasty" happening. This error "Compiler could not remove database file .." has been seen in syslogs from a number of customers, often associated with unusual bugs. If a file cannot be removed by the compiler at compile time, the integrity of the compiled project is compromised and it could fail in unusual and unpredictable ways. Fix Details ===== The compiler now generates an error if a .RDB file exists but cannot be removed prior to it being recreated. If the file is readonly the compiler will generate an error 'Cannot open file'. If the file is open in another process the compiler will generate an error 'File locked'.

45387	Trend process intermittently produces a "C++ run-time error popup"
	The trend system requires exclusive use of trend history files periodically. If some other process is using these files at that time, a "file sharing violation" can occur. This is an MS Windows condition reported by the operating system back to the Citect application. Citect normally handles this condition, but in some specific situations, the error is not handled and the run-time error is presented to the user. This has been corrected so that the run-time error is not presented to the user. Instead, the user will see a hardware alarm.
45475	WinNewAt() using mode 1 does not open a page child window
	WinNewAt() using mode 1 opens a normal page instead of a page child window. Calling PageGoto() within this window does not close it. The issue has been resolved.
45531	Fixed #COM when server running under OS with non-English locale settings
	The bug is critical as it potentially affects all language versions other than English if the language does not convert upper case characters to lower case as English language does, in particular Turkish and some Asian languages are affected. If a tag name contains at least one such character, the tags fail to resolved and will cause #COM.
45647	Page navigation from foreground cicode results in a crash
	Doing page navigation (e.g. PageNext(), PagePrev() etc.) from inside foreground cicode tasks (e.g. 'while page shown' events) results in a crash. Attempts to do this will now result in a hardware alarm saying: "Can't swap pages from foreground" Customers experiencing this hardware alarm will need to reengineer their projects so that page navigation functions are called from background tasks, keyboard events etc.
45673	Both TagInfo and TagInfoEx functions are unable to get the network number of the I/O device
	Both TagInfo and TagInfoEx functions were unable to get the network number of the I/O device as defined by the Number field of the I/O Devices form in the Project Editor. This problem has been solved by adding the new type of information called Network Number (nType = 21).
45674	SubscriptionGetAttribute() Cicode function does not provide cluster context, even when subscribed.
	This bug was apparently introduced by the Tag Point count (licensing) fix for single cluster projects, bug 36958. That fix removes the Cluster name from the Subscription details when operating in a single Cluster environment. The Side effect of that leads to this bug. This problem has now been fixed.
45675	"Unknown alarm update type" message is shown in the kernel window
	In the alarm server redundancy configuration, when either primary or standby server starts up, the process of synchronising the alarms between servers can result in the "Unknown alarm update type" message displayed in the kernel window. This problem has been fixed.
45676	Time stamped digital alarms with tag values in the description can lead to shutdown crashes and missing alarm summaries
	A shutdown crash may occur when exiting citect while repeatedly triggering time stamped digital alarms with tag values in the description. In addition the same alarms may not generate expected alarm summary events. These problems have now been resolved.
45682	Incorrect location of a popup menu when running in multimonitor mode
	When running in multimonitor mode, the DspPopupMenu function displays a popup menu with an incorrect offset along both X and Y axes. This problem has been fixed.
45686	When used in conjunction with a filter, AlmSummaryDeleteAll() should only delete the selected alarm records
	If a filtered browse session is opened using AlmSummaryOpen() and the AlmSummaryDeleteAll()

	function is used, *all* alarms summary records are deleted rather than just those in the filtered browse list. Example: Deletes 1 category of alarms sFiltre = "CATEGORY=" + IntToStr(iCat); iHnd = AlmSummaryOpen(sFiltre, "", ""); IF (iHnd <> -1) THEN AlmSummaryDeleteAll(iHnd); END Fix details: When used in conjunction with a filter, AlmSummaryDeleteAll() now only deletes the selected alarms.
45698	Cannot re-open the 'New 100% Scale value' dialog window after using the Close (X) button to close it.
	If you close the 'New 100% Scale value' dialog window using the Close (X) button at the top right corner, rather than by 'cancel', then you won't be able to open it again.
45726	Changes to underlying cicode caused CSV_InstantTrend() to run slowly.
	Changes to underlying cicode caused CSV_InstantTrend() to run slowly. This has now been rectified.
45742	Web Client doesn't open graphics pages with non-English names in IE7
	When adding graphics pages to your projects with names containing locale-specific characters (non-English names), the Web Client running in IE7 will not be able to download and display such pages on screen. The issue has been fixed. Note that this problem doesn't apply to the Display Client, and to versions of IE prior to 7.
45746	Decimal digits truncated in vertical scale in foreign locales
	When changing the vertical scale in ProcessAnalyst you can enter value with decimal in it. For regional settings that use "." (dot) as decimal separator, this works. But for regional settings where the decimal separator is different, such as a comma ",", the decimal part was truncated. This problem was affecting all versions of ProcessAnalyst prior to this fix.
45763	A crash was caused by code incorrectly passing a pointer to a pointer to an error routine rather than just a pointer to a DCB
	The code no longer passes a pointer to a pointer to an error routine rather than just a pointer to a DCB.
45801	Pasting a genie on a page (with many existing genies on page) will crash CtDraw32.exe
	When the operator attempts to add too many items on a page (create too many animation points) and the anpoints.ALLOCHND table reaches 32767 items in size, the graphics builder would crash. The program now does not allow the anpoints.ALLOCHND table to exceed 32767 items in size. If this is attempted, an error message will be displayed; e.g. "ERROR - File(.tbl.c) Line(460) - tblAllocHnd - too many items in table, Table[29]=anpoints.ALLOCHND, Length=32750
45848	Crash on startup with scheduled devices
	Changed functionality during initial connection to scheduled devices can crash with certain drivers (eg. MelsecNet, ModNet).
45858	Cannot re-connect to scheduled I/O devices after network interruption
	When a remote unit goes offline, pending reads to the remote device were not completely removed. When the remote came online again pending reads prevented new subscriptions being made and the IOserver would freeze. This issue has been fixed by cleaning up pending reads when changing the device status.
45889	The maximum value of the parameter [CODE]ShutdownTime is too low
	The [Code]ShutdownTime parameter had a maximum of 120 seconds. A maximum of 3600 seconds (60 minutes) was required. The program has been changed so that the [Code]ShutdownTime parameter now has a maximum of 3600 seconds (60 minutes).
45982	Process Analyst Pen Statistics may not refresh in Object View
	A problem was identified that under certain conditions the statistics (Min, Max, Average) may not be refreshed in Object View window of Process Analyst. The problem was happening when auto scrolling

	was disabled. The problem affected all versions and branding of Citect SCADA and web Client using Process Analyst. The problem was rectified with this fix.
46084	Added Trace logging for Report Server and Accumulator subsystems.
	There are now two new CITECT.INI settings for the Report Server and Accumulator subsystems that enable new trace logging messages: "[Report]Debug" and "[Accumulator]Debug". When set to "1", entries appear in the appropriate SYSLOG.DAT for the Report Server Process. Report Server entries are prefixed by the string "ReportServer:", and Accumulator entries prefixed by "Accumulators:".
46110	Super genie assignments when using alarm properties as tags fail in v. 7.10 SP2
	After upgrading to Vijeo Citect 7.10 SP2 a problem was introduced to super genie assignments when using alarm properties as tags. This problem has been rectified.
46117	The sound for unacknowledged alarms is not played when the CSV_Include project is used in non-English environments
	To play a sound for unacknowledged alarms, the CSV_Include project applies a locale sensitive filter to the alarm list returned from the server. The filter works in the English environment, but fails in non-English ones, and, as a consequence, the sound is not played. This problem has been resolved.
46213	Alarm printing to network printer does not print the latest generated alarm
	When using a network printer, the latest generated alarm may not be printed immediately or may be stuck in the spool until the next alarm is generated or until CitectSCADA is shutdown. This problem has been resolved.
46226	Callback function for an Alarm property subscription is called every alarm ScanTime
	The callback function for an Alarm property subscription is called every alarm ScanTime Fix Details ===== The callback function for an Alarm property subscription is now not called every alarm ScanTime
46265	Citect runtime crash when the "ObjectCallMethod()" cicode call with invalid Object AN
	Fixed Citect runtime crash when the "ObjectCallMethod()" cicode function is called with invalid Object AN. This only occurred when the cicode was in a file.
46302	Super Genie associations do not show up on popup window
	Cicode functions involving Ass() function failing. Rectified association of a Super Genie with Alarm Property Tag causing page to be blank.
46328	DNPR Clients show blank screen when switching active with Usurp
	Resolved problem when running redundant devices and using the RequestUnitActive.Standby control tag to change active IOdevices the screen will become blank on the standby when a new page is selected. The "DataSourceStatus" messages were sent to RemoteTagResolver before it was created. The RemoteTagResolver was therefore not be aware of all the datasource. when resolving the tags. The fix has been implemented to messages send when the connector received the first request from the client (The RemoteTagResolver object will be created and initialised by then).
46333	CiCode function IODeviceInfo(IODevice,17) showing server name the server is down
	CiCode function IODeviceInfo(IODevice,17) was fixed to return empty string when the server(s) are down.
46431	ABCLX writes fail without error
	When writes are sent in quick succession the IOserver attempts to block them together before passing to the driver for action. ABCLX does not support multiple writes and will ignore more than one write request. ABCLX informs the IOserver that it cannot support blocked writes, but this was ignored. This has been rectified.

46437	Initial values do not update with scheduled IO
	With remote devices the blocking optimisation can only be performed after initial connection. The IOServer uses an initial default to obtain the first update and then optimises this. The original subscription is still until a new subscription is made, for example by leaving and returning to a page. This has been resolved, tags now update after initial connection.
46439	Legacy Trend Plots displayed incorrectly
	Under some circumstances legacy trend plot images created using the Plot() cicode functions were being visually corrupted. This issue has been resolved and plots are now showing correctly.
46475	Cannot write to variable tags from CiVBA function
	Changes introduced by bug 40069 removed the initialization of CiVBA code and requests on pages. Fix Details ===== Added back in the initializes of CiVBA code to PageOpen.
46540	WebClient failes to start with error: failed to Load Database '_DigAlm' (File Not Found)
	When [General]TagDB=1, WebDeployment will now copy all required alarm RDB files to the webclient project. Otherwise, alarm RDB files will excluded.
46546	Results of ctapi calls return NO decimal separator, when Windows decimal separator is a comma
	Results of ctapi calls return NO decimal separator, when Windows decimal separator is a comma. CTAPI calls for a REAL value will return eg: 512 when the actual value is 5,12. This only happens when the Windows decimal separator is not a dot (eg: on French or German OS). A windows API call was converting internal values to and from strings based on regional settings. Fix Details ===== A different windows API call was used to ensure that internal values were converted to and from strings based on invariant settings.
46560	Scheduled device reports "Request size too big"
	Initialisation of a scheduled device could cause the incorrect unit to be used in checking blocking parameters. This could result in invalid blocking size and a "Request size too big" message plus an incorrect name being reported for the device.
46564	Write to tag fails following hardware alarm: Value is out of range (strmid("test",3,20))
	strmid("test",3,20) generates an overflow error because the parameters (source string length of 4, offset of 3 and length of 20) cause an overflow condition. A safety feature of Citect has following tags assignment statement not to be processed until the overflow condition is cleared. This overflow condition processing stop should be restricted to a very small section of CiCode (e.g. the line on which the problem occurred) Example: If StrMid("test",3,32) = "t" then <= this causes an overflow condition digtag1 = 1 <= this line should work (it was in 6.10 but not in v7.0 and v7.10 prior to this fix) Errlog("Done!") end Fix Details: When v7.0 was introduced the cicode operators changed. A two step tag value store process was replaced with a one step process and the handling of overflow errors was made to be more restrictive than in v6.10 The bugfix for Bug 46564 rectifies this issue.
46661	Re-enabling an alarm sets is as type CLEARED but still displays in alarm list and needs to be cleared again
	There were inconsistencies and errors in how different types of alarms in different states were displayed/handled.
46666	MsgBrdCst has a limit of 32767 messages
	MsgBrdCst has a limit of only 32767 messages while similar functions like MsgRead and MsgWrite can handle values of more than 32767. This problem has been resolved.
46670	Unable to change initial value of a 'disk' tag that uses scaling
	If a 'disk' tag has scaling range that doesn't include zero (eg. raw scale 1-100, eng scale 0.1 - 10) then,

	<p>These messages were being logged when they shouldn't be; (they were not actual error conditions)</p> <p>2010/03/16-14:50:09.156 TranWrite(1, 13): Name=StandbyIOServerCluster1, State != TRAN_STATE_ONLINE, state=2 2010/03/16-14:50:09.172 TranWrite(1, 13): Name=StandbyIOServerCluster1, State != TRAN_STATE_ONLINE, state=2 2010/03/16-14:50:09.359 TranWrite(1, 13): Name=StandbyIOServerCluster1, State != TRAN_STATE_ONLINE, state=2 ... 2010/03/16-14:50:13.171 TranWrite(1, 13): Name=StandbyIOServerCluster1, TranWrite failed before secure login completed (msg: 13) 2010/03/16-14:50:13.327 TranWrite(1, 13): Name=StandbyIOServerCluster1, TranWrite failed before secure login completed (msg: 13) 2010/03/16-14:50:13.359 TranWrite(1, 13): Name=StandbyIOServerCluster1, TranWrite failed before secure login completed (msg: 13) ... 2010/05/21-18:04:13.720 TranWrite(4, 10): Name=IOServer_SCluster1, TranWrite failed before secure login completed (msg: 10) ... 2010/05/24-17:03:11.426 TranWrite(5, 231): Name=Cluster1Alarm, TranWrite failed before secure login completed (msg: 231) ... 2010/04/13-10:50:07.849 ReportServer: (Redund MSG_ERROR=8200) ... 2010/05/25-09:52:09.784 TranWrite(5, 233): Name=Cluster1Alarm, State != TRAN_STATE_ONLINE, state=2</p>
47167	<p>Packing libraries in Graphics Builder may crash and may cause library corruption</p> <p>After replacing a graphics library object with another type in Graphics Builder, running Pack Libraries may crash the application and may also cause the corruption of the graphics libraries. This problem has been resolved.</p>
47245	<p>Dial up IO device in memory mode will still dial out</p> <p>The dialup system did not refer to the Memory mode when adding to the dial schedule. This has been rectified.</p>
47436	<p>IODevices fail to recover from "Driver not responding" errors</p> <p>This issue has now been resolved.</p>
47647	<p>FileXXXX cicode functions do not validate handles</p> <p>File handles passed to FileXXXX() cicode functions were not being validated before being passed through to OS file functions. Thus, handles to other OS objects could potentially be closed inadvertently because of a user cicode error. Depending on the affected object, this could be benign, or could lead to a crash. This has now been fixed.</p>
47879	<p>With CitectSCADA ODBC, tag name/value query fails if any tags fetched are #COM</p> <p>Changeover to PSI in 7.0 caused an error to be returned from CitectSCADA ODBC Server unless the tag quality is good. This has been fixed by reverting to previous behaviour of ignoring bad quality tags and returning zero instead.</p>
47880	<p>Graphics objects are distorted during runtime when pasted on top of a dynamic object</p> <p>Ellipses, arcs, and pies may be rendered incorrectly during runtime if they are dynamic or if they are pasted on top of a dynamic object. This problem has been resolved.</p>
47881	<p>Text are distorted during runtime when pasted on top of a dynamic object</p> <p>Text may be rendered incorrectly during runtime if they are dynamic or if they are pasted on top of a dynamic object. This problem has been resolved.</p>
47923	<p>Multiple alarm state changes within the same second may lead missed alarm</p> <p>If an alarmed field point changes state multiple times within the same second, not all of the corresponding alarm events may be generated. This can lead to utilities such as Process Analyst to display an incorrect alarm state.</p>
47938	<p>Increase max value of [Alarm]SummaryTimeout</p> <p>The maximum value of [Alarm]SummaryTimeout has been increased from 20000 to 35791394.</p>
48645	<p>Alarm properties read using TagRead(...) result in error "423"</p>

The default quality of alarm property values was "pending". When alarm properties were read using TagRead(...) an error "423" resulted. The default quality of alarm property values are now "good" rather than "pending".

Originally resolved in Service Pack 2

These fixes are included in Service Pack 4.

Issue Number	Issue Title and Description
24921	The tab, enter and return keys do not function as expected on popup forms in the WebClient When a user presses the tab, enter or return key on a popup form in the WebClient, the key is not processed as expected and has no effect. This problem has now been resolved.
38507	Minimum, Maximum, and Average Response times of I/O Server in Kernel are incorrect Some of the statistics (Minimum, Maximum, and Average) related to driver run time reported in Kernel:General and CitectInfo() were incorrect. In addition "Totals" always reported as 0. This issue has been resolved.
39939	Dynamically optimized writes do not work in v7+ Some code for dynamically optimizing writes was removed in v7.00, resulting in degraded write performance compared to v6.10. This code has now been reinstated.
42072	Shutdown() mode 3 doesn't log out of Windows if Citect not run from Configuration Environment When Citect Runtime is launched with no command line arguments, it successfully locates the correct 'default' INI path, but it is not storing it in the correct location for later use with RsCite32.exe. The correct 'default' INI path is now stored in the correct location for later use with RsCite32.exe.
42266	AlarmAck() doesn't work when called from alarm process Allow AlarmAck() to operate for ALM_CATEGORY and ALM_PRIORITY when it is being called from CiCode where there is no graphic page because no graphic page is required for AlarmAck(ALM_CATEGORY, ...) and AlarmAck(ALM_PRIORITY, ...).
42463	FileFind can incorrectly return that no files or folders are found Doing a FileFind() loop to completion can cause subsequent FileFind() attempts to fail with the appearance of there being no files when in fact there are
42472	InfoForm() Function no longer shows the address field for the Tag Properties When InfoForm() function is called it shows a dialog box with Eng_full and Eng_full instead of Eng_Zero and Eng_Full. This worked in CitectSCADA version 7.0 and was broken in V7.10. This has now been resolved.
42474	Crash when using AlarmSetDelayRec() when no redundant alarm server was running When a project is configured with redundant alarm servers, but only one alarm server is running, processing alarm updates may result in a crash. This has now been resolved.
42504	Importing tags from OFS or refreshing tags may corrupt the variable database Under certain circumstances, errors encountered during an OFS tag import or refresh may result in the variable database being corrupted. This issue has now been resolved.
42523	String values that are sent from the Active X Handler do not match the received string values in Citect String parameters passed into successive ActiveX/Citect event handler calls were being overwritten by the last call. This has now been fixed.
42548	On page exit command Cicode does not execute as expected Cicode that is configured to run when a page exits via the "on page exit command" field may not be

	executed as expected. Further changes have been made from the Service Pack 1 fix. This issue has now been resolved.
42650	CtApi READs return full decimal precision regardless of the format specified in the variable configuration
	Code has been added to allow customers to indicate whether or not they want the values rounded to format (default: Round to Format). New environment setting to support the selection in Citect.ini [CtAPI] RoundToFormat =1. Note: Default is RoundToFormat =1 Code to support rounding to tag format for REAL tag values without scaling has been added. REAL tag ENG values are stored as "double precision" floating point values to avoid precision problems when rendered as strings for CTAPI usage. Note: Trailing zero values are not taken into account by CTAPI for formatting regardless of the number of decimals specified in the format field.
42821	Mathematical operators and 'Disable when' fields don't work when used with constant Super Genie substitutions
	UNtyped CONSTANT on a graphics page (e.g. ?98?) defaults to type 'STRING'. Example: create a button on a popup page and set the "Disable when" field to ?98? Also, when used in comparisons, maths operations and logical operations, ?98? defaults to type 'STRING'. Examples: (?98? = 1) // Fail ?98? * 10 // Fail NOT ?98? // Fail (?INT 98? = 1) // Ok ?INT 98? * 10 // Ok NOT ?INT 98? // Ok Citect has been changed so that 'untyped constants' (genie values) are converted automatically.
42838	CTAPI doesn't handle fields with only commas & quotation marks
	Using CTAPI to retrieve fields that consisted only of commas and/or question marks would fail, due to improper escaping. This has now been fixed.
42852	CtAPI calls now use "InvariantCulture" format (use decimal points).
	Numeric string values for CtAPI tag read and write should be in "InvariantCulture" format (use decimal points) regardless of local regional settings. This change does not affect client functionality. e.g. Tag Debug TagRead will show 1000,26 (decimal comma) if the computer hosting the client is set to "French-France".
42861	Un-deprecate Cicode functions AssInfo, AssScaleStr, TagScaleStr
	Cicode functions AssInfo, AssScaleStr, TagScaleStr were deprecated in v7.00, but have now been un-deprecated.
42866	The Web Client ActiveX control fails to show the vertical scroll bar
	On the web client, an activex control would not display its vertical scroll bars. This has now been corrected.
42877	Accumulators Reset in Multiprocess mode after startup
	When the Accumulator subsystem fails-over to the standby IOserver, its initial attempts to read the Standby Tags often fail. These failures were not being dealt with correctly. This has now been corrected.
42934	Ass function returns 0 regardless if tag association fails
	Code has been added to optionally validate (default=validate) the tag names in the Ass function. New Citect.ini setting added; [General] TagAssMode Values: 0 - reserved for future use. 1 - Do NOT perform any validation checks before associating the tag. 2 - Check the local configuration to see if the tag exists before associating the tag (DEFAULT as this was the behaviour originally in the product (pre v7)). If TagAssMode=2 and tag is not found, you get a CT_ERROR_NAME_NO_EXIST cicode error.
43037	Alarm Server redundancy problems

	Alarm Servers did not re-establish redundancy after comms interruption and did not send property updates that were made (using AlarmSetThresholdRec or AlarmSetDelayRec) while another server was shutdown, these should have been queued so that the updates could be sent to the server that was subsequently started
43045	FormListBox buffer doesnt get refreshed after selecting a particular option
	The internal scratch buffer used to hold the results from a "get text" message was not being cleared. This has now been fixed.
43095	CSV_MessageBox() fixes for timeout, duplicates and cancel mode
	Fixes and improvements have been made to the CSV MessageBox handling and control. Timeouts now work and return a new error code. Cancellation of a box has been improved. Invoking duplicate boxes has been fixed and now returns its own cicode error code. Users are advised to read the header of the cicode function CSV_MessageBox() in CSV_MessageBox.ci in the CSV_Include project directory, for full details.
43126	Cannot write to the delay property of digital alarms at run time
	When the user tries to modify the delay property of a digital alarm during runtime they receive a "PLC Server Write location is protected" error. This has now been resolved.
43226	Text is displayed with different quality between Runtime and Graphics Builder
	Text objects drawn on the Citect graphic pages during runtime were not being anti-aliased correctly (they did not look smooth). Disabled/Greyed text objects drawn on the Citect graphic pages during runtime were not being anti-aliased correctly (they did not look smooth) and were not drawn using a grey text color. Text objects are now drawn using correct anti-aliased (they now look smooth). Disabled/Greyed text objects are now drawn using a grey text colour (they now look smooth and disbled).
43247	Citect crashes on shutdown when shutting down a project containing just an alarm server under some circumstances (timing).
	The shutdown code was changed to handle an exceptional condition.
43278	CSV_Include 'Export to File' feature doesn't work due to tag names truncation
	On export of trend data to .dbf pen names (clustername+.+trendtagname) are truncated to 10 characters. Pen1=Cluster1.trend1, Pen2=Cluster1.trend000002, Pen3=Cluster1.trend000003 Export to .dbf Column1=Cluster1.t, Column2=Cluster1.t, Column3=Cluster1.t and data will be missing from the columns. The export code has been changed such that if any of the pen names are too long and all the pen names are from the same cluster then the cluster name is stripped. If any of the pen names are still too long then all of the pen names are changed to Pen1, Pen2, etc.
43358	New Cicode functions: TagResolve & TagUnresolve
	Two new Cicode functions have been introduced, which permit resolving a tag without actually subscribing to it. This may be of use in tuning for faster page changes. The parameters passed to each function are exactly analogous to TagSubscribe and TagUnsubscribe. For more information, refer to KB Q5579.
43524	Cicode Functions >32 characters can cause compile errors
	If a CiCode function name exceeds 32 characters in length an error, "tag already defined" will be generated at compile time. The compiler now allows CiCode function names to be up to 250 charaters in length before generating an error, "Function name is longer than 250 characters".
43540	The Cicode function TimeSet has been re-implemented with limited functionality.
	The Cicode function TimeSet was removed in CitectSCADA 7.10 but has now been re-implement with limited functionality. TimeSet sets the new system time. You can set the time only on the computer

	<p>which this function is called. Time/date functions can only be used with dates from 1980 to 2035.</p> <p>Please note that if the user calls TimeSet but does not have privileges to change the system time they will receive a hardware alarm indicating this. Please note that when using Vista, UAC must be disabled in order for the time to be set.</p> <p>Syntax: TimeSet(Time)</p> <p>Time:</p> <p>The time/date variable to which the new time is set. Sets the time on this computer only.</p> <p>Return Value</p> <p>The error status of the set.</p> <p>Example:</p> <pre>! set the time to 11:43 on June 23 1993 time = StrToTime("11:43:00") + StrToDate("23/6/93"); TimeSet(time);</pre>
43574	Changing system time to time in the past results in stale values
	Changes in system time were not being notified to server processes, resulting in stale values being display and used for alarms, trends etc. This has now been fixed.
43839	Bulk writes via the OPC Asynchronous write methods can lead to a crash.
	The OPC server interface has two asynchronous "Write" methods. We failed to copy the incoming data into memory that we controlled the lifetime of. This has now been corrected.
43843	Various OPC Server crashes related to abnormally disconnected clients.
	<p>Four problems were found and fixed:</p> <ol style="list-style-type: none"> 1. When clients disconnected abnormally, the cleanup procedures could result in a crash. 2. Zombied Group threads were continually trying to send update notifications to the clients that had abnormally disconnected. 3. Cached ctAPI protocol objects were improperly being used after they had been freed. 4. Memory containing Group objects were being deleted twice, in certain circumstances.
43955	Client switchover delay when active io server is shutdown
	<p>When the currently active io server is shutdown, switchover to a lower priority redundant server can be delayed for 10 seconds or more on client processes.</p> <p>Clients may exhibit #COM or become unresponsive during this time. This problem has now been resolved.</p>
44002	Crash while printing a rich edit report
	A certain combination of characters in a critical location can cause Rich Text printing to crash, this has been corrected.
44076	Standby IO Server displays an incorrect dialogue if modems are only configured on primary
	<p>When a project is configured such that it has modems on the primary IO Server but no COMX board on the standby IO Server, the Standby will incorrectly advise against starting and provide the option to shutdown.</p> <p>The error message "Failed to find a COMX board defined on this server. A COMX board definition is required for communication with remote I/O Devices" is displayed. This issue has now been rectified.</p>
44078	Changing Page-Scan time doesn't effect the Tag subscription Poll-Times.

	<p>When a page is first opened, all of the Tags used by the page are subscribed using the current Page-Scan time. These subscriptions live for the duration of the page so when the Page-Scan time is changed, the existing subscriptions are not effected.</p> <p>This has now been changed such that when you use the CiCode PageSetInt(-2,...) command, it now re-subscribes all of those Tags using the new Page-Scan time.</p>
44079	<p>Crash occurs when sending an ctapi login message with the password field longer than 256 characters.</p> <p>Testing ran a series of tests with a large number of malformed CtAPI messages to test V7.0 security. Three malformed messages provoked failures. The code that handles CtAPI messages was changed to deal with the malformed messages and prevent any failures or warning conditions.</p>
44080	<p>Webclient does not display the configured startup page</p> <p>Sometimes when the webclient is started it does not display the configured start up page. This issue has been resolved.</p>
44082	<p>CitectSCADA runtime may crash on shutdown if it has been processing timestamped digital alarms</p> <p>While using timestamped digital alarms, users may find that the CitectSCADA runtime may crash during shut down. This problem has now been resolved</p>
44087	<p>When all connections lost on multiple NICs, the client may show stale data instead of #COM.</p> <p>When using network redundancy via multiple Network cards, complete network failure on all cards may result in a client displaying stale data instead of correctly flagging the tags as Bad Quality and forcing the display of #COM. This issue has now been resolved.</p>
44262	<p>CSV_Math_Rounddown() and CSV_Math_Truncate() produce incorrect results for some input values</p> <p>CSV_Math_Rounddown() and CSV_Math_Truncate() for some input values produced incorrect results due to rounding off at inappropriate points in the Cicode. This has been rectified.</p>
44266	<p>Shift key combinations can not be entered on dynamic text objects</p> <p>When a user enters a shift key combination on a dynamic object, no character is displayed. For example if the user types "shift + f" on a dynamic object the 'f' character is expected to be displayed however no character is displayed.</p>
44357	<p>Change since upgrade from SP1, reports require an output device to run cicode in a report file</p> <p>Reportserver did not run (execute reports) when an Output device had not been specified in the reports form. This was introduced when Bug 40006/Bug 42531 was fixed.</p> <p>The code has been changed to allow reports to be processed when there is no output device.</p>
44394	<p>[Code]WriteLocal=0 results in flickering values on screen.</p> <p>An inconsistency in the way caches were updated across the IOserver may result in flickering values on screen. This has now been corrected, so that all caches in the IOserver behave according to the [Code]WriteLocal ini parameter.</p>
44512	<p>No indication when a process is unable to load a dll</p> <p>During initialisation the system loads up certain server dlls(e.g. IOserver and TrendServer). The system was not checking whether or not the load was successful. The system now checks for a failed dll load and aborts with a error message. This issue has been resolved.</p>
44711	<p>PSI is slow to switch over from standby to primary device</p> <p>The PSI connector was not proactively sending datasource notification messages when a new session</p>

	was connected. Thus, changeover only occurred when the next resolve period expired, and differed greatly from one client to the next. This has been fixed by forcing a re-resolve when a new, higher priority datasource comes online.
44907	Invalid page scan times accepted by PageSetInt()
	Invalid page scan time settings were accepted by the cicode function PageSetInt(), with the use of these settings possibly resulting in a crash. This issue has now been corrected.
45550	Tag writes to PLCs may be written out of order
	Values written to tags were being written out of order in some cases. For example, the sequence TagWrite("intTag1", "1"), TagWrite("intTag3", "12345"), TagWrite("intTag2", "2"), TagWrite("intTag3", "3") could result with intTag3 having the incorrect value of 12345. This issue has now been corrected.

Originally resolved in Service Pack 1

These fixes are included in Service Pack 4.

Issue Number	Issue Title and Description
41702	Switching pages causes blank alarm page or banner Sometimes when switching between pages or other operations, the alarm page or banner will go blank. This has now been fixed.
41805	Systems with multiple IO Servers and many units experience high CPU usage In systems with many units spread across multiple IO Servers, and where there are tags in a cluster that are not defined on all IO Servers, the IO Server processes may display unusually high CPU usage. This was caused by those servers trying to service tags not defined on that server, resulting in unnecessary checks to find out if a tag exists or not. This has now been fixed.
41851	Unreliable or high-latency networks may result in high CPU for Tran.Task.Delay Networks where there is high packet-loss or high latency may experience an issue where server processes suffer unusually high CPU in the Tran.Task.Delay task. This is because connection attempts are timing out and not being correctly cleaned up. This issue has now been fixed.
41879	Cannot run more than one I/O server from a cluster on a single machine. In versions 7.0 and 7.10 it is not possible to run more than one I/O server from a cluster on a single machine. On many large sites the scalability of the I/O server processes is a significant limiting factor so this restriction has now been lifted.
41889	Incorrectly displayed font size and embossed style A graphic page containing a MS San Serif font or text with the embossed style is not correctly converted when upgraded to version 7.10. This problem has been fixed. Please note that projects with this problem need to be restored from the pre-Version 7.10 version of the project files. This is because the problem lies within the generated .ctg files produced during the upgrade process; therefore, requiring the .ctg files to be re-created.
41893	Compiler doesn't resolve tag name in IFDEF() macro if full tag name (with Cluster prefix) is specified Using the IFDEF macro with a fully qualified tag name did not work, because the cluster was stripped out. This has now been fixed.
41937	Trend file creation is slow At startup the trend server was throttling the rate at which trend files are created according to [Trend]BytesWrittenBeforeSleep (intended to be a runtime only throttle), and this value was being capped at 32768 bytes. This has been fixed by introducing a new parameter [Trend]FileCreationWriteSize to control the rate at which trend files are initialised (whether created at startup or runtime). Its default value is 16384 bytes, with valid values being in the range 1 to 2147483647. Internal testing has shown optimal performance with values of 327680 bytes or lower. File writes larger than this appear to be batched in chunks of 65536 bytes, reducing the performance benefit. Environmental factors may alter this threshold.
41969	New alarm summary entries do not immediately appear if [Alarm]SummarySort=1 When a new alarm summary entry was added with AlarmSumAppend (or AlarmSumAppendEx) cicode function, it would not appear in client if SummarySort was set to 1 in [Alarm] section of citect.ini file. This problem has been fixed.

41977	IO Redundancy doesn't fail over until the primary server is completely shutdown
	Some systems will notice an extended delay (often 10 to 15 or more seconds) when switching from an active I/O server to a secondary I/O server when the SCADA system is shutdown cleanly. This was caused by the networking layer not being shutdown at an appropriate point in the shutdown sequence. This issue has now been fixed.
42003	Enhancement to sort alarms by "Type" via the Cicode function AlarmSetInfo
	This enhancement allows a user to sort alarms by "Type". Currently users can sort alarms via Cicode funtion AlarmSetInfo by "Tag", "Name", "Category", Priority, "Area", "Priv", "Time", "State", and Cluster and . "Type" sorting orders an alarm into four different categories which are unack, ack, cleared and disabled.
42063	AlarmSumSplit does not allow control over the timestamp or redundancy
	AlarmSumSplit now has the following signature: INT AlarmSumSplit (INT Index [,STRING ClusterName=""] [,LONG onTime = 0] [,LONG onMilli = 0] [,INT bRedundant = FALSE]) By default, when none of optional parameters are provided, the behaviour of this function is unchanged - it creates a new event based on existing event with given index, setting onTime and AckTime of newEvent to current time. OffTime of original alarms is set to onTime of newly created alarm. If original event's OffTime is already set (not zero), no split is performed. When using AlarmSumSplit in a new way, onTime and onMilli must be provided - they are used to set OnTime and OnMilli of newly created event. Before event is split, function performs search for existing event with time equal to time and milliseconds provided. If such event already exists, a condition known as time conflict occurs and no split is performed. -1 is then returned to cicode and user error CT_ERROR_ALARM_TIME_CONFLICT (0x204) = 516 is set. User code must then check error code by calling IsError(). This condition indicates that user code can retry operation by providing altered timestamp (in most cases, increasing milliseconds value by 1 will be sufficient) AlarmSumSplit call now can be redundant. If bRedundant flag is set to true, server will first try to split event locally and if it succeeds, message is forwarded to redundant server, which then splits corresponding event if it exists on it. Note - it primary server could not split the event, redundant server will not be informed, i.e. it won't even try to split event too. Redundancy is off by default.
42137	Active Alarm list stops updating when scrolling through alarm pages
	An internal buffer overrun was causing a corruption resulting in the active alarm list becoming corrupted. This problem has been fixed.
42138	An "avalanche" of alarms may result in a crash
	When many alarms are triggered at once (an "avalanche") there is a race condition potentially leading to a crash. This has now been fixed.
42139	Crash when number of alarms being processed exceeds [Alarm]CacheLength
	A crash may occur when the number of alarm records being processed exceeds the alarm cache size ([Alarm]CacheLength), due to the most recently used cache record being reused. This has now been fixed.
42140	A crash occurs processing Alarm event data
	Some display clients may crash when retrieving event data from Alarm server, due to an internal race condition. This has now been fixed.
42142	Using AlarmSumSplit may cause missing event sequences
	Every time AlarmSumSplit created a new event, it was always setting that new event as current event. This had side effects when the event being split was a completed event (which already has OffTime set) from the past but there was a newer incomplete event. This leads to noticeable side effects on alarm summary page where events with certain timestamps may appear to be missing.
42392	Tracelog.dat may grow as large as 8GB, eventually leading to a crash

	The default behavior for logging in v7.0 allowed the tracelog.dat file to grow without bound, eventually leading to a crash. This was fixed by changing the default behavior to cap file size at 2MB. This can be overridden using the citect32.exe.config file.
42397	[Code]WriteLocal=0 does not work for page or user subscriptions
	Subscriptions automatically created for pages, as well as manually created by calling the TagSubscribe cicode function, were not honouring the [Code]WriteLocal parameter. Instead they were being forced to update the local cache on any write.
42442	Implicit type conversion in cicode not working in V7.0
	Added conversions to string type and trigger an error if the conversion fails
42487	Local array variable updates are delayed by one code slice resulting in invalid values when the array is subsequently read.
	To improve performance, the system uses a local cache to store variable/tag values while executing a code slice. The local cache was not being updated for local array variables. If the code being executed within the given code slice involved a read from the local array variable the result was a bad value(the read is performed on the local cache which contains an old value).
42489	Wrong Type For Text Display Hardware Alarms When Calling CSV_Alarms_PopupMenu
	A user triggers a popup via right clicking on one of the alarms from the section displaying the last 3 alarms on a CSV page and selecting the tag name. The popup opens correctly but displays the hardware alarm "Wrong Type For Text Display". This has now been resolved.
42491	The project editor find and replace feature closes graphics pages unexpectedly
	When the project editor find and replace feature is used, any open graphic pages are closed even when nothing was replaced on the page. This issue has been resolved.
42492	Page Properties Dialogs have incorrect information on the Event Tab
	When there are multiple page properties dialogs open, the information on the Event tab shows the settings from the most recently opened dialog on all dialogs. This has now been resolved.
42494	Page Titles containing special characters are not displayed correctly in the toolbar Page-Back/Forward drop-down menus.
	DspPopupMenu() uses certain (special) characters as flags for various Menu adornments. Page Titles that have any commas (','), as well as any leading Tilde ('~') or Exclamation ('!') characters are now displayed without those characters in the toolbar drop-down menus.
42500	Analogue formats with engineering units have an extra space
	Compiler no longer adds the extra space. (Recompile project for change to become evident.)
42501	Database Exchange control cannot be used in stored procedure with arguments
	An error in the coding of the Database Exchange control meant that arguments were not being relayed to stored procedures. This has now been fixed.
42502	The PageGoto Cicode function does not display the page on the active window if called from a popup page.
	The PageGoto Cicode function does not display the page on the active window if called from a popup page. This problem should only occur on multi-monitor CSV_Include projects with 1 monitor. This issue has been resolved.
42509	Long period of high CPU usage when starting a redundant Alarm server
	Alarm synchronization between redundant alarm servers was being performed in an inefficient manner, leading to a long period of high CPU usage when starting a second server. This has now been corrected

	with the duration of high CPU greatly reduced and startup times improved.
42510	Cicode function StrToLines() with maxchars "1" does not return anything
	StrToLines("AA BB CC",1,nLines) would return no lines when it should return six lines
42513	TrnPrint() cicode function doesn't display comment in v7.0
	The function _FindCommentFromPen(), used by TrnPrint(), failed to account for the possibility of cluster-specific pen names e.g. cluster.pen. This has now been fixed.
42516	Tag Import is failing for OPC Tags
	In Citect Explorer, dynamically importing OPC tags from an OPC Server fails. This has now been fixed.
42518	Crash at shutdown when using Cicode page handles
	User cicode functions that use window handles were not correctly handling shutdown situations, resulting in a crash at shutdown. This has now been fixed.
42519	Crash while calling Cicode function "WinFree" in background Cicode.
	This problem can arise when calling WinFree in background Cicode such as during the page event "while page shown". The issue has been resolved.
42522	Alarm updates not sent to redundant server when [ALARM]SaveStyle=4 set
	The implementation of the v7 UpdateStyle in the RedundantServer did not support alarm updates when SaveStyle=4. Thus the active server was sending updates but the redundant server was silently dropping them. This has now been fixed.
42524	Display clients crash intermittently when using Color thresholds in rectangle fill.
	If rectangle fill uses color thresholds, a user intermittently would experience a crash in the display client. The fix for this issue has been confirmed by customers, but the issue could not be reliably reproduced for internal testing.
42525	Citect crash when displaying a page with a symbol with a library name longer than 31 characters
	A larger maximum length for library names is now permitted
42527	Values are not being updated on Standby Write I/O Device on a single I/O Server.
	Standby Writes on a single I/O Server were being redirected to the currently Active Unit rather than special casing for *local* Standby Writes. This has now been resolved.
42529	Cannot write to some REAL (type) disk PLC tags using MODNET protocol.
	Due to differing IOserver and DISKDRV blocking algorithms, some IOserver calls lead to multiple Disk Command calls. If the address of a REAL tag happens to span two Disk Command blocks, then the REAL tag would fail validations checks. The checks are now performed using the IOserver blocks, instead.
42530	Active Alarms displaying at random on graphics in place of objects during runtime
	When switching between pages that include active alarms, the alarm text can sent to a page that is not the page that requested the alarm text. This results in the text being displayed on other graphical objects. The fix for this issue has been confirmed by customers but could not be reliably reproduced for internal testing.
42531	Report server may crash when using a group of devices as an output device
	An unnecessary assumption in the code - that output devices were always single devices - would lead to

	a crash in the report server when a group was used as an output device. This problem has now been fixed.
42532	AlarmACK function does not support alarm categories larger than 255
	A logic error was introduced when refactoring the functions that handle alarm messages based on category. This problem has now been resolved.
42533	Multiple tag subscription callbacks result in "Out of Cicode threads" error.
	Each subscription callback event requires a new Cicode thread. Thus if multiple callbacks were triggered simultaneously, this would exhaust the pool of available threads, leading to an "Out of Cicode threads" error. This has been fixed by introducing a queuing mechanism to handle subscription callbacks in order to throttle the maximum number of callback threads that will execute simultaneously. This maximum is controllable by a Citect.ini parameter [Code]CallbackThreads with a range of 1 to 512 and a default of 5.
42536	'Startup Page' and 'Project List' dropdown lists in the Computer Setup Wizard are not sorted.
	The CBS_SORT style was added to the 'Startup Page' and 'Project Lists' dropdowns. This enhancement has been made. Where included in service packs, it will only be installed on English installations of Citect.
42540	Trend name not logged when using [Trend]TrendDebug
	The trend name is not reported when [Trend]TrendDebug is enabled. Specifically in cicode functions "TrnSetTable" and "TrnEventSetTableMS". This has now been resolved.
42541	CSV_Math_RoundDown() and CSV_Math_Truncate() round up for number with decimal > 0.5
	CSV_Math_RoundDown() and CSV_Math_Truncate() have been fixed so that they always round down.
42543	Pasting text from a closed Rich Text windows crashes Citect
	Pasting text from a closed Rich Text windows no longer crashes Citect
42547	Dynamically setting the Cluster argument for the AlarmDsp function does not work
	The logic to handle dynamic cluster changes in AlarmDsp only handled transitions from single-to-multi cluster and multi-to-single cluster but not single-to-single. This resulted in alarms not being correctly filtered on screen. This has now been fixed.
42548	On page exit command Cicode does not execute as expected
	Cicode that is configured to run when a page exits via the "on page exit command" field may not be executed as expected. This issue has now been resolved.
42550	Caching of data for scheduled devices does not work correctly if the Citect application directory path contains a full-stop character.
	This problem has been resolved - the Citect application directory path can now contain a full-stop (".") character.
42670	Display Clients will not switch to Standby Server if licence is removed from Primary Server
	The Sentinel licensing routines display Dialog boxes which are run on the main thread of the various servers, thus they block (stall) waiting for a user to dismiss them. The [Debug]SysErrDsp CITECT.INI setting now also gates the display of the various Dialog boxes produced by the Sentinel licensing routines. When set to zero, [Debug]SysErrDsp prevents the display of these Dialog boxes.
42958	Writes for a StandbyWrite IO Device may be sent to the wrong IO Device
	Writes to a tag on a StandbyWrite IO Device may have been issued to the wrong IO Device. The last IO Device entry, for the same channel, in the IODevice form would receive the write request. This issue has now been rectified.

43098	Tag subscription callbacks passed negative handle when number of subscriptions exceeds 32768
	An error in the implementation of HF710R140585 meant that customers using this HF to subscribe to more than 32768 tags would receive a negative handle passed to the callback function. This was only a problem for users of the abovementioned HF (or combo HF's including Bug 40585), and has now been fixed.
43214	Pulse() function broken in v7, it was possible for the tag not to be turned off
	From v7, it was possible to leave a genie window having used the Pulse function, and for the 0 => 1 => 0 sequence not to occur. i.e. the tag was set but not reset. This would happen if the window was left before the 2 second period had expired. This bug has been fixed.
43233	When using scheduled IO, only one tag from the device is updated while all other tags keep showing #WAIT
	In Citect SCADA V7, the driver DataBase() function for remote devices can be called before InitChannel() which results in several problems - one of which is blockMax is then zero which causes the reported problem. This problem has been resolved.
43234	Crash when importing tags from Matrikon OPC Server for Mark V and Mark VI
	This crash was possible when importing tags from OPC Servers that only supported v2 or later of the OPC specification. This issue has now been resolved.
