



ReviewAdapter

Manual

ENGINEERED EFFICIENCY



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1 Introduction

ReviewAdapter captures 3D graphics and attributes from Intergraph SmartPlant Review and stores it in a file (*.upvc). This file is used as input for CAXperts **UniversalPlantViewer Builder** to generate Universal Plant Viewer or 3D PDF session.

1.1 General conventions

This document contains many visual cues to help you understand the meaning of certain words or phrases. The use of different fonts for different types of information allows you to scan the document for key concepts or commands. Symbols help abbreviate and identify commonly used words, phrases, or groups of related information

Typefaces

| | |
|-------------------------|---|
| <i>Italic</i> | Indicates a system response, which is an explanation of what the software is doing. For example, <i>The text is placed in the viewing plane.</i> |
| Bold | Indicates a command name, parameter name, or dialog box title. Command paths are shown using an arrow between command names. For example, Choose File → Open to load a new file. |
| Normal typewriter | Indicates an actual file or directory name. For example, The ASCII report is stored in the layout.rpt file. |
| Bold type-writer | Indicates what you literally type in. For example, Key in original.dat to load the ASCII file. |

Symbols

This document uses the following symbols to identify special information:

-  Note – important supplemental information.
-  Map or path – shows you how to get to a specific command or form.
-  More information – indicates there is additional or related information.

2 Installation

Requirements:

- Hardware (minimum):
 - CPU: double-core, 2.5 GHz
 - RAM: 3 GB
- Hardware (recommended):
 - CPU: quad-core, >=3.4 GHz
 - RAM: >=8GB
 - OS, %TEMP%, input and output folders on SSD
 - Full HD resolution
- Supported operating systems:
 - Microsoft Windows 7-10
 - Microsoft Windows 2008-2012R2
- Intergraph SmartPlant Review 2014 R1 or later (32 or 64 bit)
- Intergraph SmartSketch 2014 or later (32 bit)
- Microsoft .NET Framework 4.0

Administrator rights are required on each computer to install CAXperts **ReviewAdapter**. “Run as” is not supported.

Uninstall

To uninstall the software, select **Control panel** from the start menu. Then on large or small icon view, click **Programs and features**. If you are using category view, under **Programs**, click **Uninstall a program**.

Select the program you want to remove, and click Uninstall/Remove. Alternatively, right-click the program and select **Uninstall**.

Setup command line (for administrators)

The following command line options are supported by the installer:

/S:<<optional ini file>>

Allow an install to be run in silent mode. As a result, no screens or dialogs will be shown.

This command line option also has an optional INI file that can be passed containing session variable values. For example:

```
"C:\output\setup.exe" "/S:C:\setupvars.ini"
```

This will cause the session variables in the INI file to be used for the setup. The INI file should be in the format:

```
[SetupValues]
```

%AppFolder%=C:\Program Files\MyProduct

/U:<<XML config file>>

This command line option must be used when calling the uninstall program from the command line. This command also has an optional XML file that can be passed containing session variable values. For example:

```
"C:\Program Files\MyProduct\uninstall.exe" "/U:C:\Program Files\MyProduct\irunin.xml"
```

2.1 Licence

CAXperts software supports two types of licences:

Site licence (local)

Domain based licences are restricted to machines within a 5 miles (8 kilometres) radius at a specific geographic location (building) for which the licence key file was issued for. There is no limitation regarding the number of users or machines.

CAXperts will need your **Current domain name** to issue a licence file (.lic).

The licence file has to be stored on a local or network location accessible by the machine running the CAXperts product; a licence server is not required.

The location of the licence file should be defined on every machine with the CAXperts product installed, which can be done

- Either by setting the environment variable
CAXPERTS_LICENSE_FILE=C:\Program Files (x86)\CAXperts\Licensing\
- Or by setting the registry key
HKEY_CURRENT_USER\Software\FLEXlm License
Manager\CAXPERTS_LICENSE_FILE=C:\Program Files
(x86)\CAXperts\Licensing\

Multiple licence key file locations should be separated by semicolons (“;”).

-  Note: If the licence key file location is not defined, “C:\Program Files (x86)\CAXperts\Licensing\” is used
-  Note: The licence key file may be renamed (including the extension). The CAXperts product will check the content of all files in the licence folder(s) for valid keys.
-  Note: Changes to the key path (in the environment variable or registry key) are read during the next start of the CAXperts product.

Floating (server) licence

Floating licences require a FlexNET server (ladmin or lmgrd) accessible by the machine running the CAXperts product. The licence key file is typically located on the FlexNET server machine. The licence key file defines the maximum number of seats which can be used at the same time.

-  Note: Every running instance of the CAXperts software product will require one seat, no matter if the application is running multiple times on the same or different machine(s).

New instances can only be started as long as seats are available and the FlexNET server is accessible.

The location of the licence server must be defined on every machine with the CAXperts product installed, which can be done

- Either by setting the environment variable
CAXPERTS_LICENSE_FILE=@YourServerName
- Or by setting the registry key
HKEY_CURRENT_USER\Software\FLEXlm License
Manager\CAXPERTS_LICENSE_FILE=@YourServerName

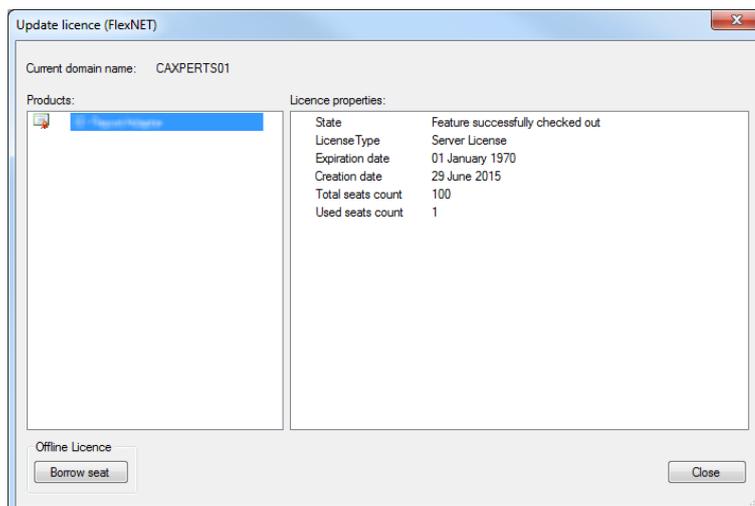
Every computer name must be preceded by the @ symbol. Multiple licence server locations should be separated by semicolons (“;”).

YourServerName is the Windows computer name of the machine running lmadm (FlexNET server). If lmadm is running on a non-default port, the port number should be defined like this: port@ YourServerName.

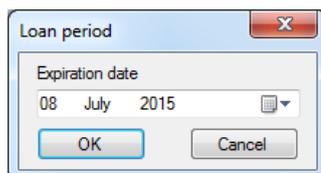
 Note: Changes to the server path (in the environment variable or registry key) are read during the next start of the CAXperts product.

Borrowed licences

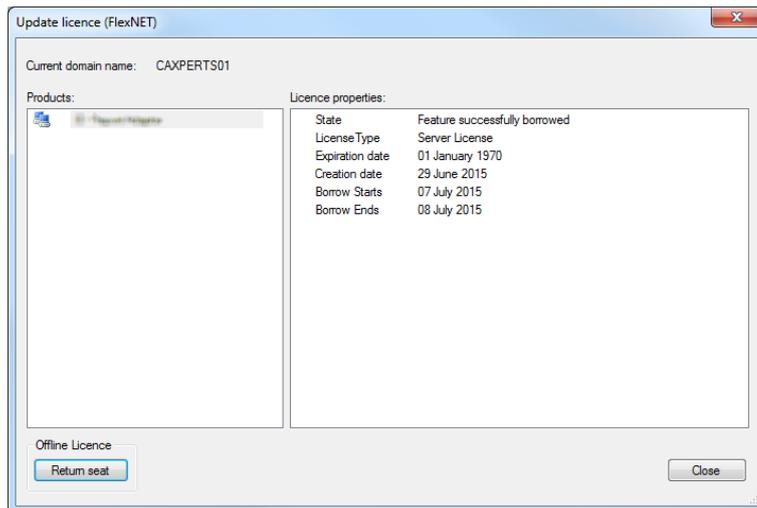
Licence seats can be borrowed for a period of time from the server and saved to the local machine. Once the seat has been borrowed the CAXperts application can be used without any connection to the FlexNET server.



To borrow a licence seat press the **Borrow seat** button, define the loan period (up to 7 days) and press OK. When the borrowed seat expires it gets automatically returned back to the FlexNET server.



The seat can be returned earlier by pressing the **Return borrowed seat** button.

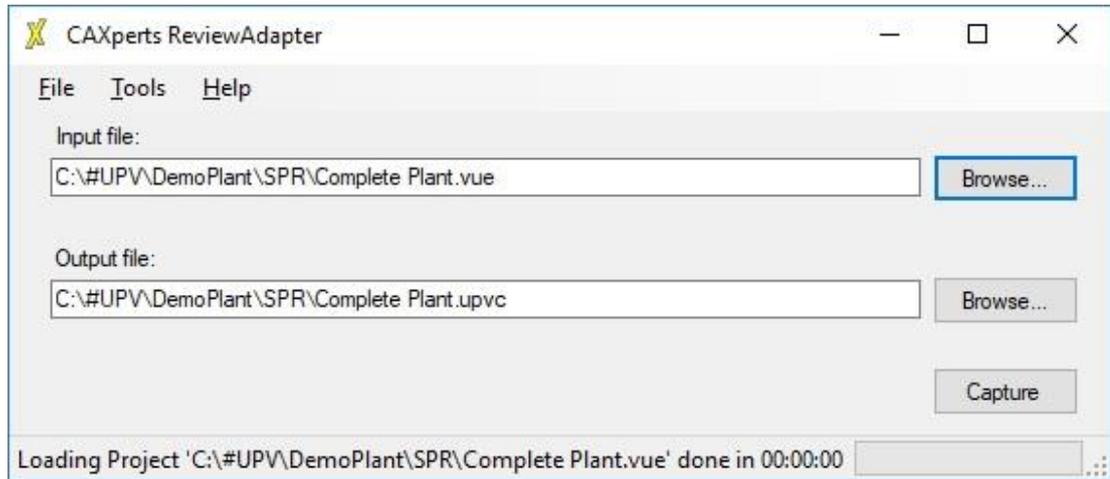


 Note: Without a valid licence file the software will run in demo mode.

3 Using ReviewAdapter

ReviewAdapter Setup detects automatically the platform of Intergraph SmartPlant Review (32 or 64 bit) and copies to disc appropriate version of ReviewAdapter. (64 bit version of ReviewAdapter is required to work with 64 bit version of SmartPlant Review).

Start **ReviewAdapter** and select an **input file**. These Intergraph SmartPlant Review files are supported: *.vue, *.svf and *.dri.

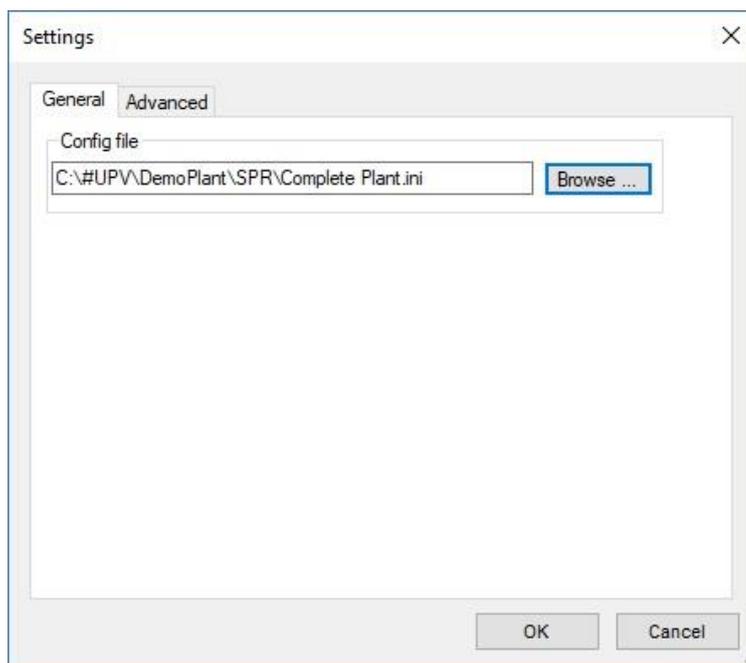


Output file: defines the path to the *.upvc output file. The file contains all required information (like graphics or attributes) in order to generate UniversalPlantViewer or 3D PDF output using CAXperts **UniversalPlantViewer Builder** software.

If the *.upvc output file already exists, **ReviewAdapter** will work in update mode and re-capture changes only.

3.1 Settings

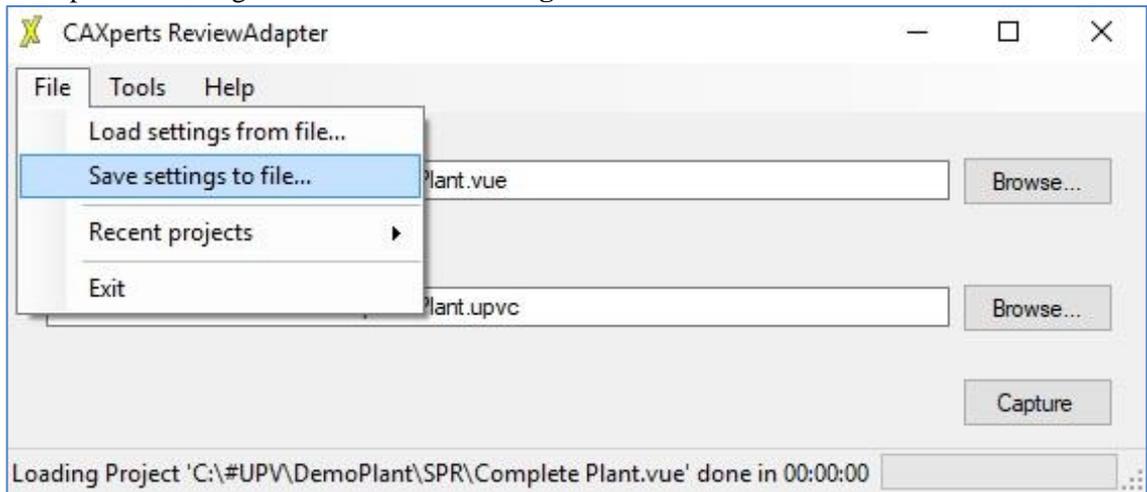
All settings are stored automatically in the configuration file of the user profile. The location of the configuration file can be changed in the **Tools** → **Settings** menu.



General

Configuration File:

To export the settings use **File** → **Save settings to file**:



To import the settings from file use **File** → **Load settings from file**.

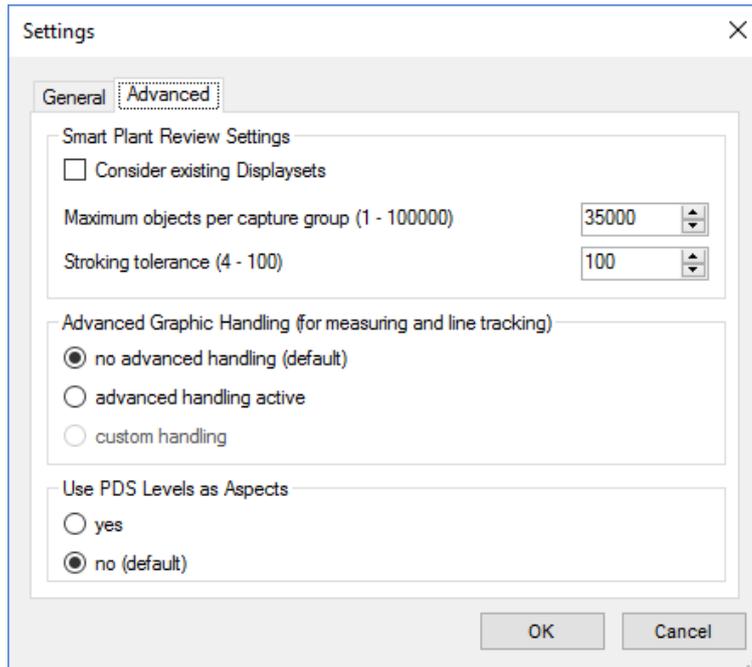
 Note: “Load settings from file” doesn’t change the current location of the configuration file. Once the settings have been imported any further changes are stored in the current configuration file displayed in the **Tools** → **Settings** menu.

Aspects:

All aspects from the SmartPlantReview session are captured automatically.

No additional settings are required

Advanced



Consider existing Display Sets - if enabled existing the visibility and colours are retaken from existing SmartPlant Review Display Set.

Maximum objects per capture group - This is the maximal number of objects captured at one time. Higher value increase performance but may also cause an over of SmartPlant Review MDB file (which is limited to max 2 Gb). SmartPlant Review needs longer to start with the high number of display sets.

Stroking tolerance - Defines the quality of exported graphic. Higher values means better graphical quality, but also significantly increases the size of outputted graphic (slower performance in Universal Plant Viewer).

Advanced Graphic Handling if this option is activated, advanced measurement option will be available in Universal Plant Viewer (like snapping to edges). Takes addition time while capturing.

Use PDS Levels as Aspects: (applicable for DRI session only). If enabled, every Microstation Level is treated as a separate aspect. Takes addition time while capturing.

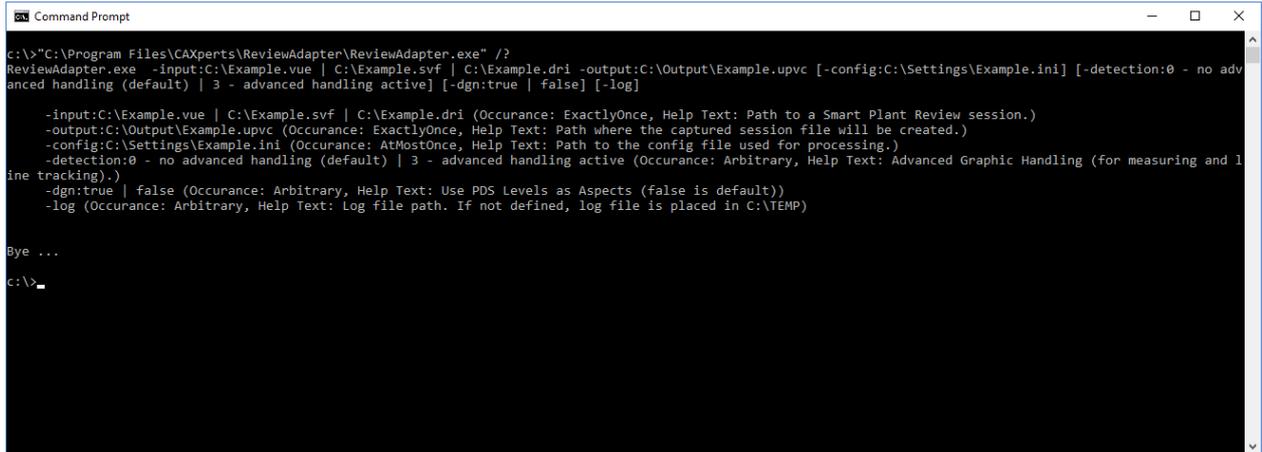
3.2 Command line mode

 Note: Due to some restrictions in SmartPlant Review, absolute paths must be used in ReviewAdapter command line commands.

ReviewAdapter can also be used in command line mode. Use the following command to show the command line arguments:

```
C:\>"C:\Program Files\CAXperts\ReviewAdapter\ReviewAdapter.exe" /?
```

Command line arguments:



```

c:\>"C:\Program Files\CAXperts\ReviewAdapter\ReviewAdapter.exe" /?
ReviewAdapter.exe -input:C:\Example.vue | C:\Example.svf | C:\Example.dri -output:C:\Output\Example.upvc [-config:C:\Settings\Example.ini] [-detection:0 - no advanced handling (default) | 3 - advanced handling active] [-dgn:true | false] [-log]

-input:C:\Example.vue | C:\Example.svf | C:\Example.dri (Occurance: ExactlyOnce, Help Text: Path to a Smart Plant Review session.)
-output:C:\Output\Example.upvc (Occurance: ExactlyOnce, Help Text: Path where the captured session file will be created.)
-config:C:\Settings\Example.ini (Occurance: AtMostOnce, Help Text: Path to the config file used for processing.)
-detection:0 - no advanced handling (default) | 3 - advanced handling active (Occurance: Arbitrary, Help Text: Advanced Graphic Handling (for measuring and line tracking).)
-dgn:true | false (Occurance: Arbitrary, Help Text: Use PDS Levels as Aspects (false is default))
-log (Occurance: Arbitrary, Help Text: Log file path. If not defined, log file is placed in C:\TEMP)

Bye ...
c:\>_

```

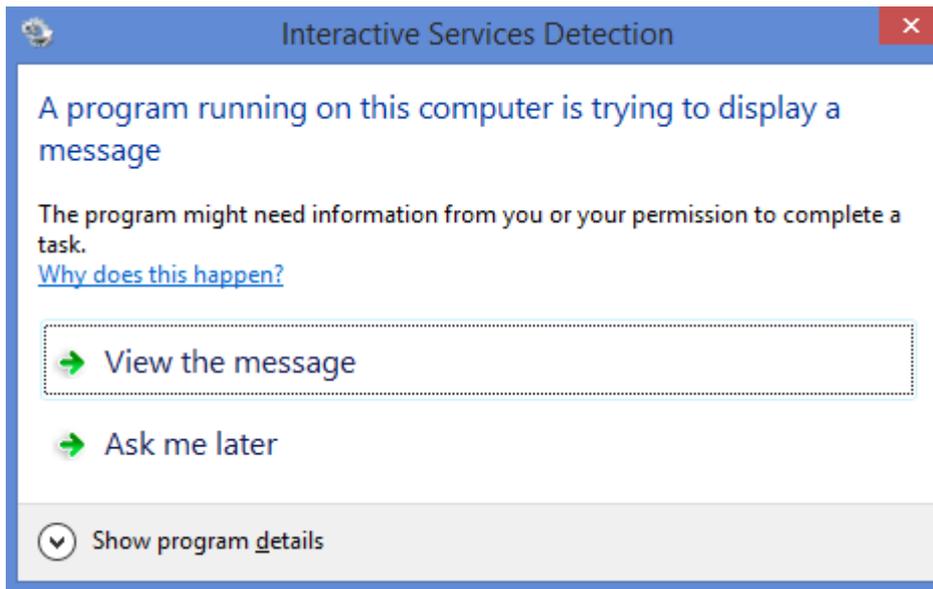
ReviewAdapter requires access to the desktop (to run **SmartPlant Review**), therefore to be able to run the software as a scheduled task following steps are required:

1. Download <https://download.sysinternals.com/files/PSTools.zip> and save to disk (e.q. into D:\PSTools\ folder).
2. Create BAT file (e.q. D:\ReviewAdapter_Batch.bat) which is used to run ReviewAdapter from command line. Adjust ReviewAdapter path and parameters:

```
D:\PSTools\psexec.exe -s -i 0 /accepteula "C:\Program Files\CAXperts\ReviewAdapter\ReviewAdapter.exe" -input:C:\Example.vue -output:C:\Output\Example.upvc
```

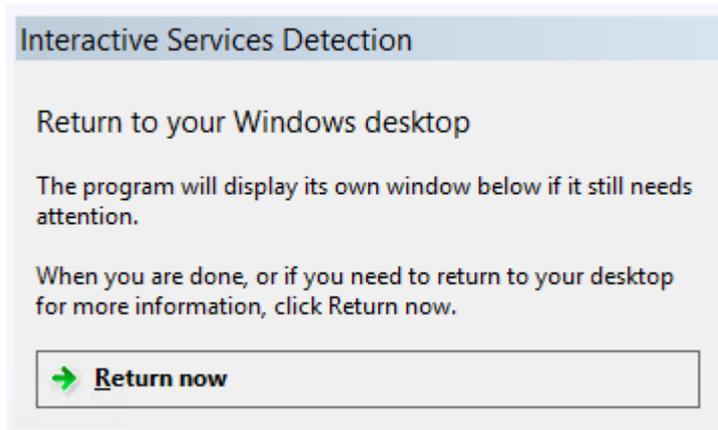
Notes:

- psexec.exe executes ReviewAdapter in a separate console – session 0. Software UI won't be accessible or visible on the active desktop. In order to switch to session 0 press "View the message" button on the Interactive Service Detection window, which will appear automatically after D:\ReviewAdapter_Batch.bat has been started.



If this window won't be shown, make sure "Interactive Services" services is enabled in a control panel of windows.

To revert back from session 0 console to the main desktop press button:



- D:\ReviewAdapter_Batch.bat is running in a separate session, the active user can continue working with windows or logoff. The session 0 will be executed in the background.
- D:\ReviewAdapter_Batch.bat script is executed under LocalSystem account with limited permissions without network access. Input and output files must be located on the local drive. If you need to access the network (e.q. copy result upvc file to a network drive) add corresponding at the end of D:\ReviewAdapter_Batch.bat.

4 Advanced features

4.1 Advanced configuration for capturing graphics

This chapter is for advanced users. You may ignore this chapter if advanced configuration is not required. Using an .ini file, users can define custom object types and rules for how **ReviewAdapter** should handle these objects.

Number of objects

The file size of the resulting PDF file depends noticeably on the number of objects captured. Ignoring less-meaningful objects (e.g. welds in **SmartPlant 3D** sessions) is one approach for reducing the overall 3D PDF file size.

The following syntax is used to define a custom object type in the.ini file:

```
[ObjectDefinition]
ObjectType=AttributeName Operator Value
```

Example:

```
[ObjectDefinition]
MyWeld=Component=Weld
```

[ObjectDefinition] is the section name in the .ini file. **MyWeld** is the object type name, which can be freely defined. **Component** is an attribute name, which must exist in the design review session. The “=” character after **Component** is the operator. The operator may be “=” and “<>” for equality or “like” and “not like” when using wildcards. **Weld** is the attribute value.

The example defines that an object type **MyWeld** exists for the objects, whose attribute **Component** equals the value **Weld**. Users can build rules to ignore objects of type **MyWeld** using the following syntax in the .ini file:

```
[IgnoreObject]
MyWeld=1
```

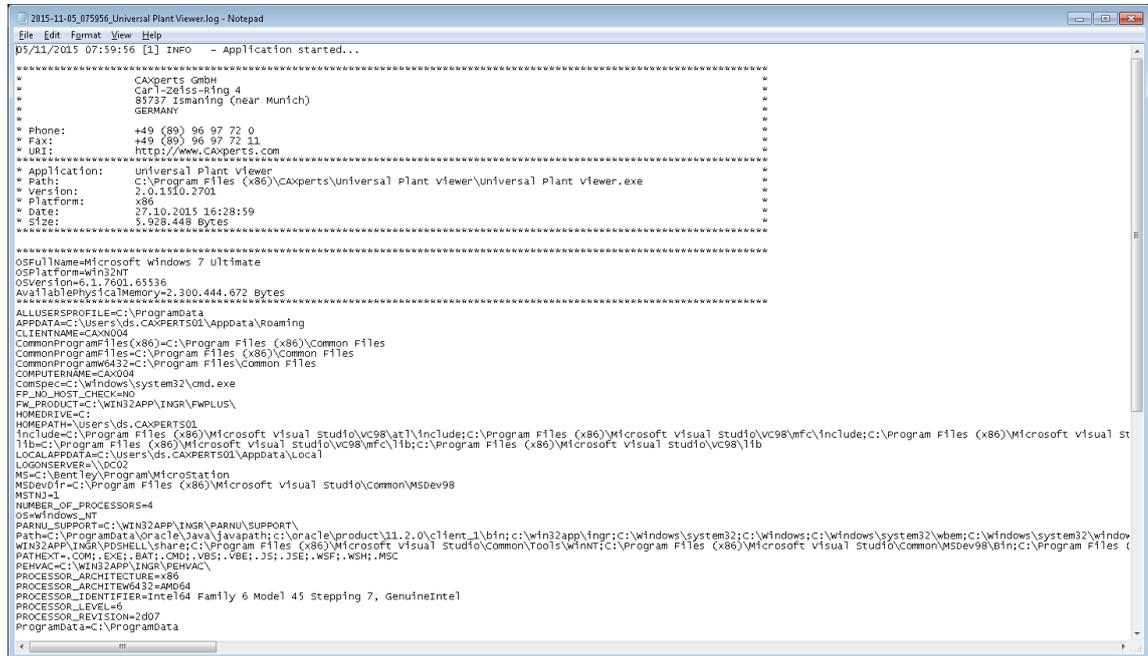
The .ini file name is `ReviewAdapter.ini` and is copied automatically from the installation template to the folder of the design review session loaded in **ReviewAdapter**. By default the following definitions exist in the .ini file to ignore welds of **Smart 3D** sessions:

```
[ObjectDefinition]
Weld=Component=Weld
Weld1=Commodity type Like *weld*
```

```
[IgnoreObject]
Weld=1
Weld1=1
```

5 Log files

The software creates log files in the local TEMP directory (e.g. “C:\Temp\ReviewAdapter\”). The user can also open these files by double-clicking on the CAXperts **ReviewAdapter** status bar:



```

2015-11-05_075956_Universal Plant Viewer.log - Notepad
File Edit Format View Help
05/11/2015 07:59:56 [1] INFO - Application started...
*****
* CAXperts GmbH *
* Carl-Zeiss-Ring 4 *
* 89377 Ismaning (near Munich) *
* GERMANY *
* *
* Phone: +49 (89) 96 97 72 0 *
* Fax: +49 (89) 96 97 72 11 *
* URL: http://www.CAXperts.com *
*****
* Application: Universal Plant Viewer *
* Path: c:\Program Files (x86)\CAXperts\Universal Plant Viewer\Universal Plant Viewer.exe *
* Version: 2.0.1510.2701 *
* Platform: x86 *
* Date: 27.10.2015 16:28:59 *
* Size: 5.928.448 Bytes *
*****
OSFullName=Microsoft Windows 7 Ultimate
OSPlatform=win32NT
OSVersion=6.1.7601.65536
AvailablePhysicalMemory=2.300.444.672 Bytes
*****
ALLUSERSPROFILE=c:\Programdata
APPDATA=c:\Users\ds.CAXPERTS01\AppData\Roaming
CLIENTNAME=CAXN004
CommonProgramFiles(x86)=c:\Program Files (x86)\Common Files
CommonProgramFiles=c:\Program Files (x86)\Common Files
CommonProgramW6432=c:\Program Files (x86)\Common Files
COMPUTERNAME=CAX004
ComSpec=c:\Windows\system32\cmd.exe
FP_NO_HOST_CHECK=NO
FW_PRODUCT=c:\WIN32APP\INGR\FWPLUS\
HOMEDRIVE=C:
HOMEPATH=Users\ds.CAXPERTS01
Include=c:\Program Files (x86)\Microsoft Visual Studio\VC98\at1\Include;c:\Program Files (x86)\Microsoft Visual Studio\VC98\vmfc\Include;c:\Program Files (x86)\Microsoft Visual S
lib=c:\Program Files (x86)\Microsoft Visual Studio\VC98\vmfc\lib;c:\Program Files (x86)\Microsoft Visual Studio\VC98\lib
LOCALAPPDATA=c:\Users\ds.CAXPERTS01\AppData\Local
LOGONSERVER=\\DC02
MS=c:\Bentley\Program\MicroStation
MSDev01=c:\Program Files (x86)\Microsoft Visual Studio\Common\MSDev98
MSTN3=1
NUMBER_OF_PROCESSORS=4
OS=Windows_NT
PARNUSUPPORT=c:\WIN32APP\INGR\PARNUSUPPORT\
Path=c:\Programdata\Oracle\Java\javapath;c:\Oracle\product\11.2.0\client_1\bin;c:\win32app\Ingr;c:\Windows\system32;c:\Windows\system32\wbem;c:\Windows\system32\Windows
PATHEXT=.COM;.EXE;.BAT;.CMD;.VBS;.VBE;.JS;.JSE;.WSF;.WSH;.MSC
PERVAC=c:\WIN32APP\INGR\PERVAC\
PROCESSOR_ARCHITECTURE=x86
PROCESSOR_ARCHITECTURE_ID=64
PROCESSOR_IDENTIFIER=Intel64 Family 6 Model 45 Stepping 7, GenuineIntel
PROCESSOR_LEVEL=6
PROCESSOR_REVISION=2d07
Programdata=c:\Programdata

```

6 Technical support

Need more help? Contact CAXperts support by email, online, or phone:

[mailto: support@caxperts.com](mailto:support@caxperts.com)

www.caxperts.com