

CATIA V5 Automotive Extensions Vehicle Architecture

Administration Guide

BPA Delivery 6 for V5R19 (V 5.6)

Symbols Used in the Manual

For better orientation in the manual the following symbols are used:

Warning symbol



The warning symbol signals *critical moments* to which you should pay attention in order to avoid problems in your work process.

Tip symbol



The lamp symbol signals a *tip* that offers you practical experience to make your work easier.

Info Symbol



The info symbol signals a background *information*.

Step Symbol



The step symbol signals that a *sequence of work operations* is given.

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* * *

1. Software and Hardware Requirements

| Hardware: | CATIA: |
|---|---|
| No additional added to the CATIA HW pre requisites | Minimal required version: V5 R19 (according current BPA version, others on demand) |
| Operation systems (minimal required versions) | |
| <ul style="list-style-type: none">– Windows XP Professional SP2 (32bit)– Windows XP Professional x64 Edition– AIX 5.3 MTL 03 or 5.3 TL4-SP1 (using 64-bit kernel)– HP-UX 11.11– SOLARIS 10 HW 03/05 <p>Note: Requirements are according to minimum level for CATIA V5R19 as defined in the Program Directory)</p> | |

2. Installing

2.1 Installing under WINDOWS



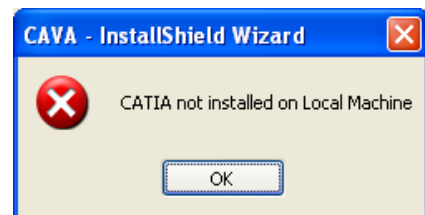
STEPS:

Do the following steps to install CAVA:

- (1) Unpack the CAVA package zip file to a location of your choice. As result you should have a collection of files as listed to the right.



- (2) Start the installation routine in WINDOWS EXPLORER by double-clicking on the `setup.exe` file
- (3) If the recommended CATIA Release is not installed on your computer, the setup procedure will abort with the following message:



- (4) If the recommended CATIA release was found, the setup procedure will continue. Follow the installation instructions displayed on the monitor, which will be explained in the following text.

After starting the CAVA setup executable file; the following welcome screen will be displayed.

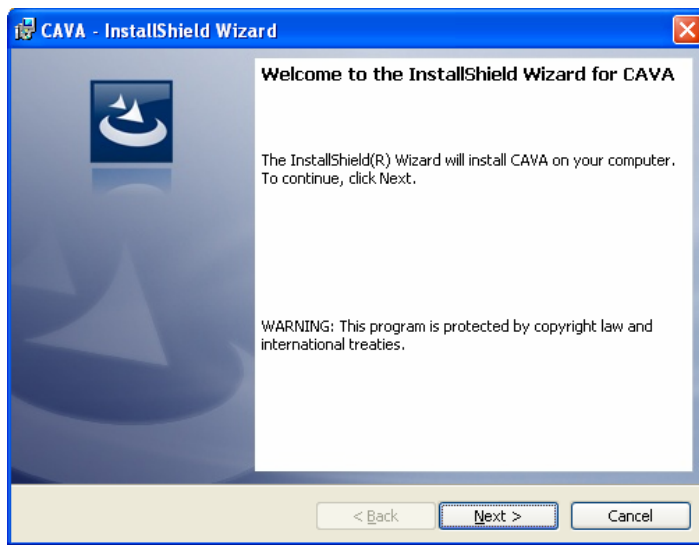


Fig. 2—1: “Welcome” screen of the CAVA installation routine

- To continue installing, click the *Next* button.
- To abort the installation, click the *Cancel* button.
The installation can be aborted in every one of the installation steps by clicking the *Cancel* button; all installation actions performed then will be undone.

Entering User and Company name

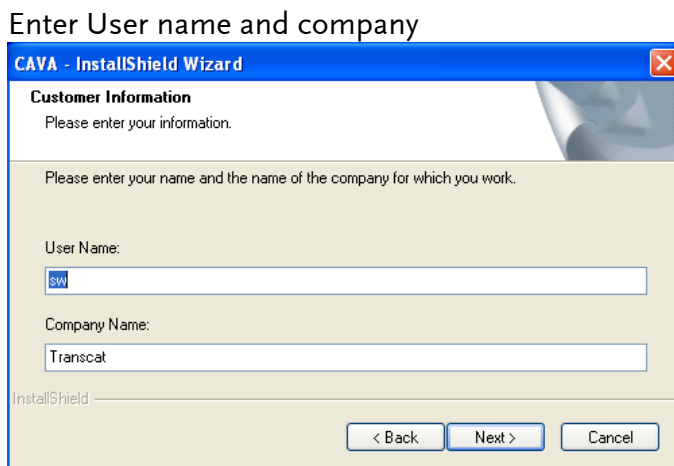


Fig. 2—2: User and Company name

Selecting the installation directory for the CAVA program files

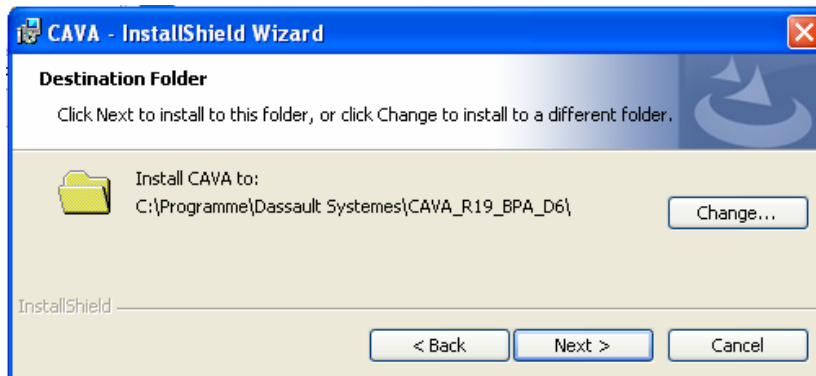


Fig. 2—3: Selecting the installation directory

In this dialog box, the installation directory for CAVA is to be selected. This window offers two alternatives:

- (1) To accept the indicated directory. To do so, press the *“Next” button*, the next installation step will be initiated.
- (2) To define your own installation directory. To do so, press the *Change* button and select in the *Choose Folder* dialog box a target directory (see Fig. 2—4).

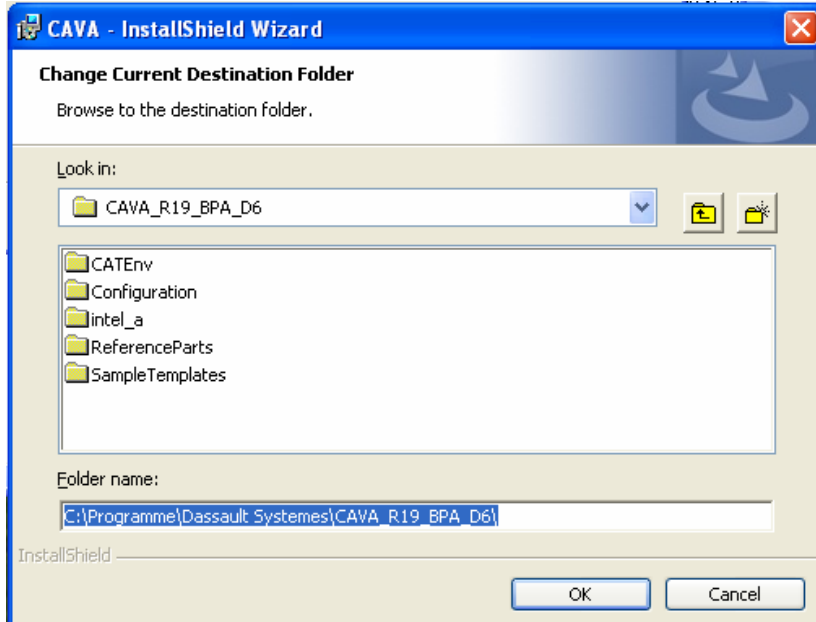


Fig. 2—4: Selecting your own installation directory

After having selected the directory, confirm the selection by clicking the *OK* button. After that, the preceding window will be reopened with the selected directory name filled in.

After clicking the *Next* button, the *CATIA installation location* dialog box will be opened.

Selecting the CATIA application directory

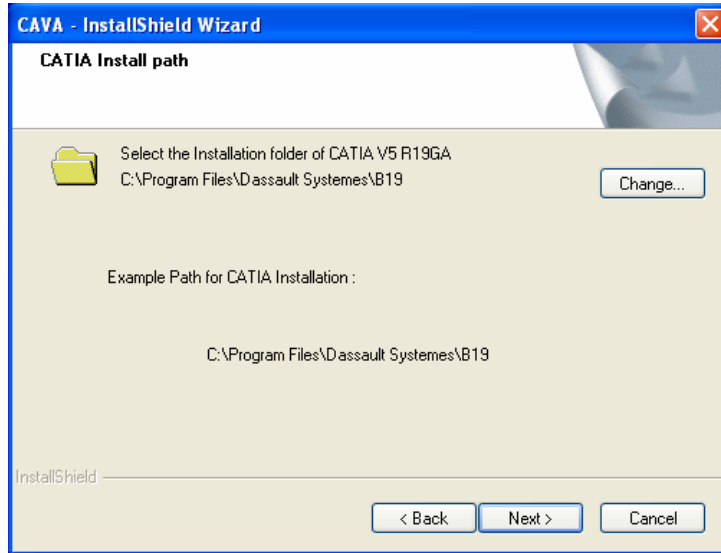


Fig. 2—5: Selection of CATIA application directory

In this dialog box, the installation directory for CATIA is to be selected. This window offers two alternatives:

- (1) To accept the indicated directory. To do so, press the *"Next"* button, the next installation step will be initiated.
- (2) To define your own installation directory. To do so, press the *browse* button and select in the *Choose Folder* dialog box a target directory (see Fig. 2—4).

Start installation

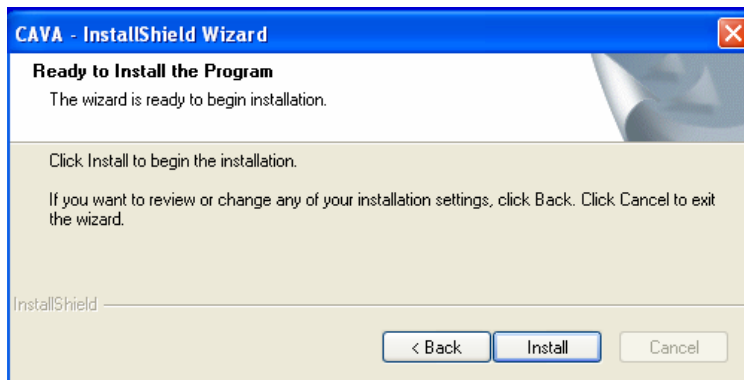


Fig. 2—6: Start installation

Click on install to copy all files in the specified directory. Additionally the setup program creates a new CATIA environment file inside a new CATEnv folder in your CAVA source directory for starting CAVA.

Finish installation

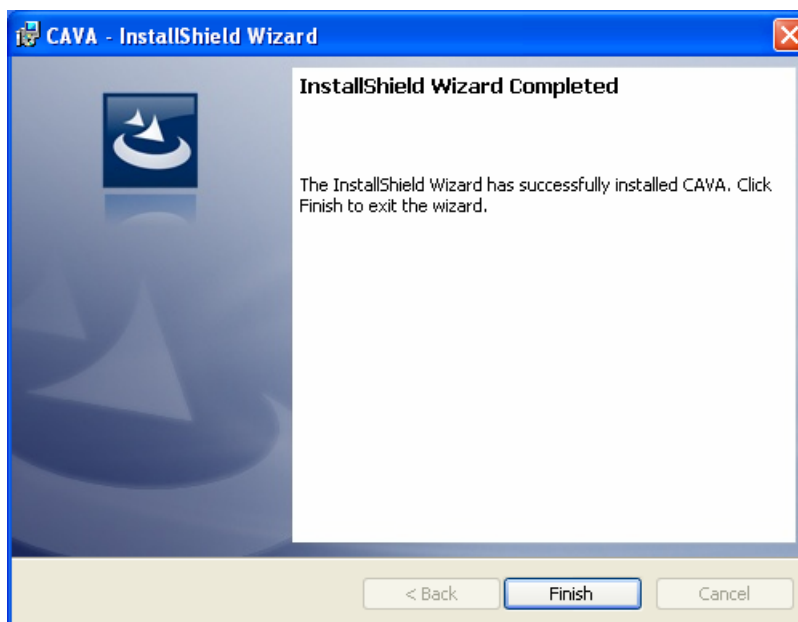


Fig. 2—7: Finish installation

Click the *Finish* button to complete the installation.

On your PC desktop you have now an icon named “CAVA_R19_GA_D6”. With this icon, you can start CATIA with integrated CAVA workbench.

The installation directory that you have selected during the installation process contains the following folders:

| | |
|------------------|--|
| •Intel_a | Contains the CAVA program files. |
| •Configuration | Contains the CAVA configuration files in several sub folders. |
| •SampleTemplates | Contains the DrawingTextConfiguration and ReportTemplates sub-directories with some pre-defined sample templates, which can be used as base to create own templates that fit to your own special need. |
| •ReferenceParts | Contains files that are referenced by certain CAVA features to create geometry. |



Before starting the work with CAVA, some basic settings must be done.

In the CAVA *General* manual you can learn which settings must be made imperatively, and which ones are optional.

2.1.1 Uninstalling



STEPS:

To uninstall CAVA, do the following steps :

- (1) Click in WINDOWS the *Start* button and select the menu sequence *Settings > Control Panel > Add/Remove Programs*.
- (2) Select CAVA and click the *Add/Remove* button.

2.2 Installing under UNIX

2.2.1 Unpacking the Files



To designate the installation files, the following representation form is used:
`CAVA_RXX_osds_Dy.tar`

where:

RXX – CATIA release
 osds – platform designation, i.e. `aix_a`
 y BPA Delivery



STEPS:

Unpacking comprises three steps. Dependent on the format of your install files, the steps (1) and/or (2) can be skipped.

(1) If the data is available as `CAVA_Rxx_osds_Dy.tar` file, do the following:

| Action | OS ¹ | Example: |
|------------------------------|-----------------|---|
| Rename the TAR-archive file. | * | <code>mv CAVA_RXX_osds_Dy.tar CAVA_RXX_osds_Dy.tar.Z</code> |

(2) If the data is available as `CAVA_RXX_osds_Dy.tar.Z` file, do the following:

| Action | OS ¹ | Example: |
|--|-----------------|--|
| Copy the TAR-archive into an installation directory of choice. | * | <code>cp CAVA_RXX_osds_Dy.tar.Z /catdat/tcsoft/CAVA</code> |
| Change directory to the installation directory. | * | <code>cd /catdat/tcsoft/CAVA</code> |
| Unpack the archive file. | * | <code>zcat CAVA*.tar.Z tar -xvf</code> |

Or: If the data is available as compressed and packed `CAVA_RXX_osds_Dy.tar.gz` file, do the following:

| Action | OS ¹ | Example: |
|--|-----------------|---|
| Copy the TAR-archive into an installation directory of choice. | * | <code>cp CAVA_RXX_osds_Dy.tar.gz /catdat/tcsoft/CAVA</code> |
| Change directory to the installation directory | * | <code>cd /catdat/tcsoft/CAVA</code> |
| Unpack the archive file | * | <code>gzip -d -c CAVA*.tar.gz tar -xvf</code> |

2.2.2 The Created Directory Structure

| Directory | OS ¹ | Description |
|--|-----------------|---|
| CAVA_RXX_osds_Dy | * | Directory for CAVA program-modules for AIX/HP/Solaris |
| CAVA_RXX_osds_Dy/aix_a or aix_a64 | AIX | Program-modules for AIX |
| Or CAVA_RXX_osds_Dy/hpux_b Or CAVA_RXX_osds_Dy/solaris_a | HP SUN | Program-modules for HP Program-modules for SUN |
| CAVA_*Dy/Configuration | * | Directory for the configuration files |
| CAVA_*Dy/SampleTemplates | | Directory for the sample template files |
| CAVA_*Dy/ReferenceParts | | Directory for the files that are referenced by certain CAVA features to create geometry |
| CAVA_*Dy/CAVAEnv.sh | * | Shell script to enlarge existing environment |
| CAVA_*Dy/CAVASEnv.sh | * | Shell script to create new environment |

2.2.3 Adapting CAVA to the Local CATIA Installation

Adapting CAVA to the local installation can be made in two ways:

- (1) Creation of a new CATIA environment and automatic creation of a CATIA-CAVA-icon in the application manager → see chapter 2.2.3.1.
- (2) Expanding an existing CATIA environment → see chapter 2.2.3.2.

2.2.3.1 Creating a New CATIA Environment

For the creation of a new CATIA environment, with the CAVA-software the shell script `CAVASEnv.sh` is delivered.

Below you will find an excerpt from this file. Check the passages marked **gray**, they might need to be adapted. The information how to do this you will find in the subchapters below.

```
...
# Name of the new environment
#
CAVA_ENV="CATIA_CAVA"
#
# Store the new environment in this directory
#
CAVA_ENV_PATH="$HOME/CATEnv"
#
# Installation directory of CAVA
#
CAVA_INSTALLATION="/catdat/tcsoft/CAVA"
#
# Catia installation directory
#
CATIA_INSTALLATION="/usr/catiav5r19/B19"
#
# Additional CATIA variables
change_cat_env()
{
    chcatenv -e $CAVA_ENV -d $CAVA_ENV_PATH -new
}
#

setcatenv -e $CAVA_ENV -d $CAVA_ENV_PATH -p $CATIA_INSTALLATION:$CAVA_INSTALLATION -new yes
-desktop yes -a global \
    && change_cat_env || echo "\aCreating the environment failed."
```

2.2.3.1.1 Adapting the Declaration to the Local CATIA Installation

The following CAVA variables must be adapted to the local installation. The entries shown in the example above are only an example.

| Variable | Description: |
|--------------------|---|
| CAVA_ENV | Name of the CAVA-CATIA environment (without file extension) |
| CAVA_ENV_PATH | Path to the folder that contain the environment file |
| CAVA_INSTALLATION | Path where CAVA is installed (Up to the folder that contains the osds folder) |
| CATIA_INSTALLATION | Path where CATIA V5 is installed |

2.2.3.1.2 Defining the Action Options

For the creation of CATIA environments different options exist:

| Variable | Value | Description: |
|----------|--------|--|
| -new | yes | An existing environment with the same name will be replaced. (Recommended) |
| | no | An environment with the same name will be not replaced; the existing environment will be maintained. |
| -desktop | yes | On the desktop an icon of the environment is created. (Recommended) |
| | no | On the desktop an icon of the environment is not created. |
| -a | global | A global environment is created. Note: To create a global environment you must have administrator rights. |
| | user | A user environment is created. |

2.2.3.1.3 Creating an Environment



To create the above-mentioned CATIA environment, execute the CAVASetEnv.sh shell script.

| Steps | OS ¹ | Example: |
|--|-----------------|-------------------------------------|
| (1) Switch to the installation directory | * | <code>cd /catdat/tcsoft/CAVA</code> |
| (2) Execute the script | * | <code>. ./CAVASetEnv.sh</code> |



Note:

To create a global environment you must have administrator rights.



Note:

The icon for the CATIA-CAVA environment that can be renamed by the user (on screenshot below named CAVA_1.1.x) will be displayed in the application manager in the CATIA directory only after re-login.

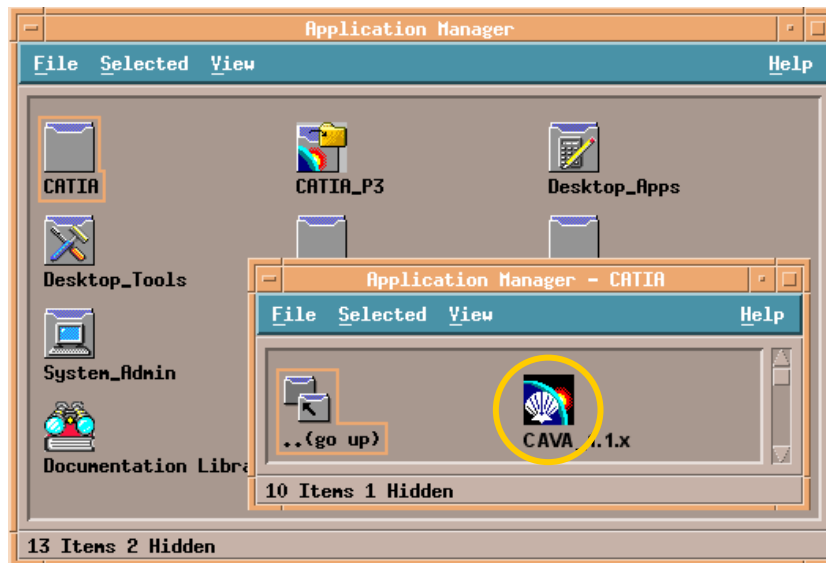


Fig. 2—8: Icon for the CAVA environment

2.2.3.2 Expanding an Existing CATIA Environment



To integrate CAVA in an existing CATIA environment, do the following steps:

(1) If necessary, adapt the shell script.

For the expansion of an existing CATIA environment, with the CAVA-software the shell scripts `CAVAEnv.sh` is delivered.

Below you will find an excerpt from a shell script file (the excerpt is only an example). Check the passages marked **gray**, they might need to be adapted.

| Variable | Description: |
|----------|------------------------------|
| CAVAPATH | Path where CAVA is installed |

```
set +u
# Install path of CAVA directory
CAVAPATH=/catdat/tcsoft/CAVA
\export CAVAPATH
```

(2) Set the CATIA environment.

Example:

```
. /transcat/CATEnv/CATIA_P3.V5R19.B19.sh  
. /catdat/tcsoft/CAVA/CAVAEnv.sh
```

(3) Start CATIA V5 by CNEXT.

2.3 Uninstalling under UNIX

To remove the CAVA Installation from your computer, do the following:

- Delete the CAVA installation directory with all its sub folders.
- Delete the CATIA environment file if it was especially created for CAVA.
- Remove the desktop icon that was created to start CATIA with the CAVA workbench.

3. How to register a License for BPAs

3.1 LUM Implementation: Environment Setup

► Precondition to enroll licenses:

On the server LUM 4.6.8 or above must be installed.



GENERAL STEPS

| Action | Details |
|---|---|
| (1) Request at DS a license with following information: | <ul style="list-style-type: none"> • Product Name: This is the BPA trigram. • License Type: <i>nodelock</i> or <i>concurrent</i> • Number of License: <ul style="list-style-type: none"> 1 for nodelock , >0 for Concurrent • LUM target ID: Provide the target ID (run i4target) • On client side for <i>Nodelock</i> • On server side for <i>Concurrent</i> |
| (2) Having received the license, enroll it. | <p>For detailed description for enrolling licenses see:</p> <ul style="list-style-type: none"> • <i>Concurrent</i> license—on page 18. • <i>Nodelock</i> license—on page 19. |


3.1.1 Enrolling a Nodelock License



WORKING STEPS TO ENROLL A NODELOCK LICENSE

Modify/Create the nodelock file by inserting the VendorID and ProductPassword.

As BPA products are not integrated into the NodelockKeyManagement of CATIA, you should input yourself the parameters of your license into the nodelock file (create it if it does not exist).

| Action | Details |
|---|--|
| (1) Open Nodelock file If the Nodelock file does not exist, create a new one. | This file is located in: <ul style="list-style-type: none"> • For windows: C:\Documents and Settings\All Users\Application Data\IBM\LUM\nodelock • For AIX: /var/ibm/lum/nodelock • For HP and Solaris: /var/lum/nodelock |
| (2) Open the licenses (.lic) file that you have purchased with a common text editor and extract the following information: | <ul style="list-style-type: none"> • VendorID (looks like a UUID) • ProductPassword (a crypted key) • ProductAnnotation (should be unset) • ProductVersion (should be set to 1) |
| (3) Insert the information in the Nodelock file by respecting the order: | # comment: put your BPA trigram and its range date <pre> vendorID ProductPassword ProductAnnotation ProductVersion </pre> |
| • Example: <pre> # CO9 from 15-Jul-08 to 14-Jul-09 c6c8ef44bcb7.4a.74.95.13.1f.00.00.00 r8ezikjzgsvk9fzf7fe3p2gn3eaa "" "1" </pre> <div>  <p>Note: The licence text line (in our example the second line) must be written in one only line!</p> </div> | |

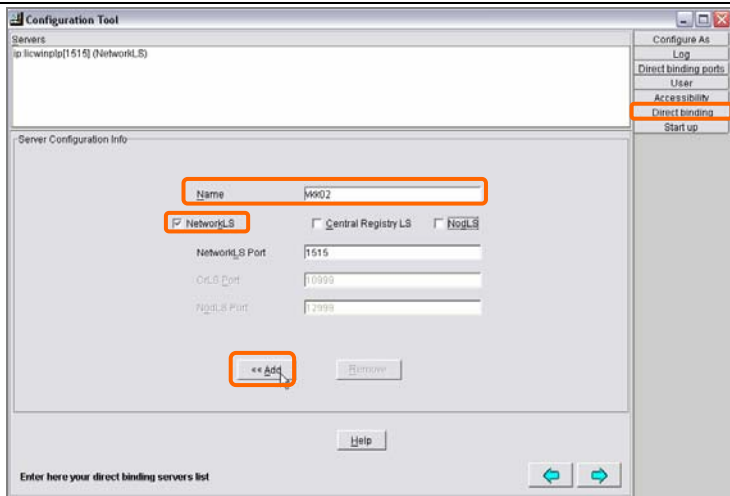
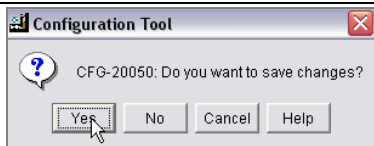
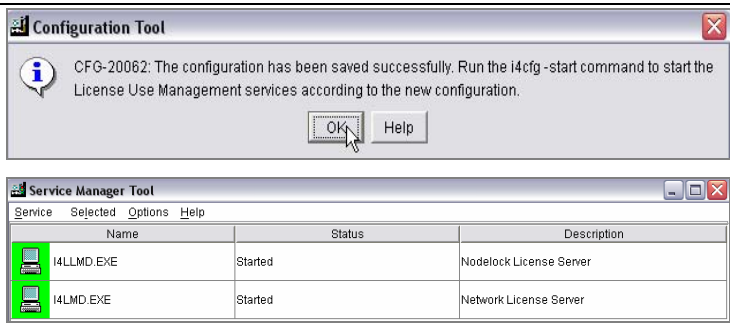
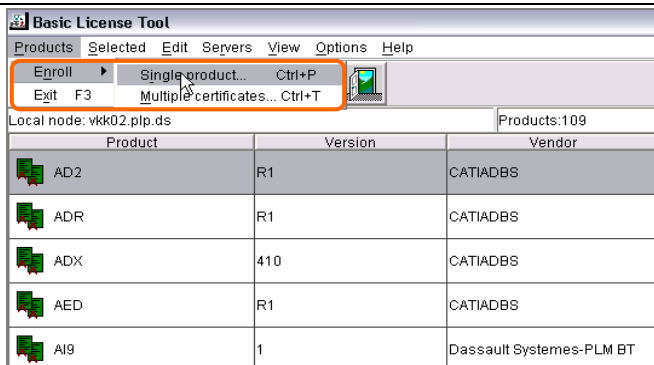
3.1.2 Enrolling a Concurrent license on the Network license server

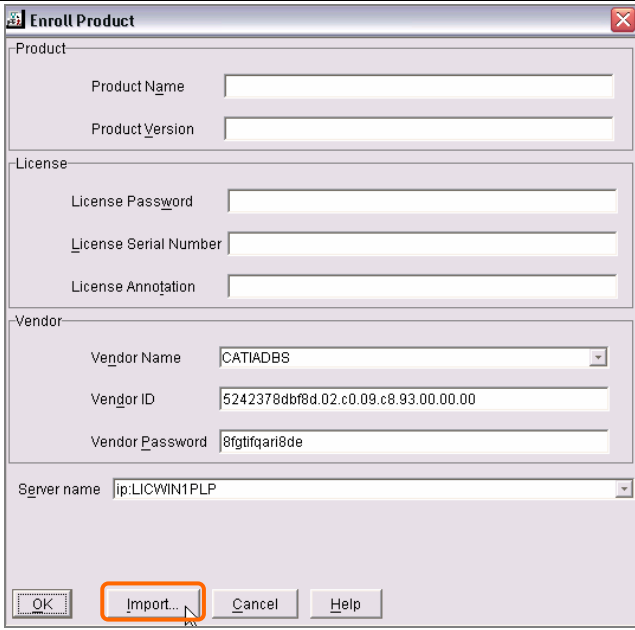
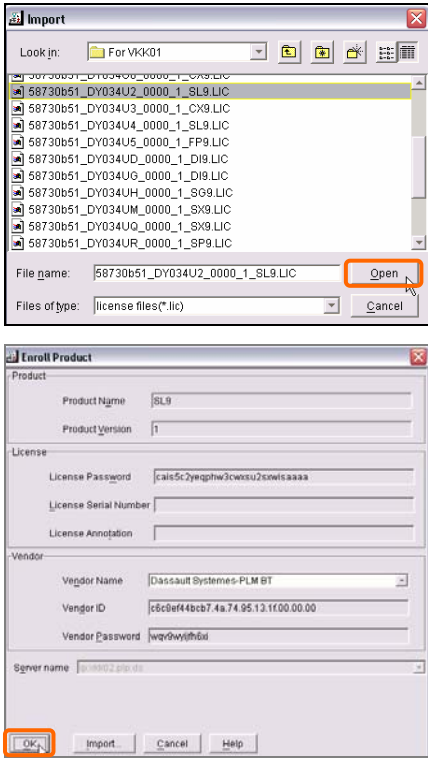
To enroll a concurrent license, you have first to set up the network license server—see (A). Only when this is done, you can enroll the concurrent license—see (B).



SETTING UP THE NETWORK LICENSE SERVER AND ENROLLING A CONCURRENT LICENSE

| Action | Details |
|--|---|
| (A) Setting up the network license server | |
| (1) Open the Configuration tool. | <i>Start > All Programs > License Use Runtime > Configuration tool</i> |
| (2) If needed, stop the service using the Service Manager Tool. | |
| (3) Ensure that the option for “Network License Server” is selected. | |

| Action | Details | | | | | | | | | | | | | | | | |
|---|--|-------------------------|----------|---------|------|------|--------|-------------|--|------------|---------|-------------------------|--|-----------|---------|------------------------|--|
| (4) Switch to the “Direct binding” tab card. |  | | | | | | | | | | | | | | | | |
| (5) In the Name text box enter the machine name of your license server. | | | | | | | | | | | | | | | | | |
| (6) Check the box for NetworkLS and click on Add button. | | | | | | | | | | | | | | | | | |
| (7) Close the Configuration Tool window and validate accepting the changes. |  | | | | | | | | | | | | | | | | |
| (8) Pass the message to restart the service (if previously it was stopped). |  <table><tr><th>Service</th><th>Selected</th><th>Options</th><th>Help</th></tr><tr><td>Name</td><td>Status</td><td>Description</td><td></td></tr><tr><td>i4LLMD.EXE</td><td>Started</td><td>Nodelock License Server</td><td></td></tr><tr><td>i4LMD.EXE</td><td>Started</td><td>Network License Server</td><td></td></tr></table> | Service | Selected | Options | Help | Name | Status | Description | | i4LLMD.EXE | Started | Nodelock License Server | | i4LMD.EXE | Started | Network License Server | |
| Service | Selected | Options | Help | | | | | | | | | | | | | | |
| Name | Status | Description | | | | | | | | | | | | | | | |
| i4LLMD.EXE | Started | Nodelock License Server | | | | | | | | | | | | | | | |
| i4LMD.EXE | Started | Network License Server | | | | | | | | | | | | | | | |
| (B) Enrolling the concurrent license | | | | | | | | | | | | | | | | | |
| (9) Open the Basic License Tool | <i>Start > All Programs > License Use Runtime > Basic License Tool</i> | | | | | | | | | | | | | | | | |
| (10) Select Product > Enroll > ... |  | | | | | | | | | | | | | | | | |
| (11) Choose Single or Multiple depending on whether you want to enroll a single or multiple licenses at a time. | | | | | | | | | | | | | | | | | |

| Action | Details |
|---|--|
| (12) Click on the Import button. |  <p>The 'Enroll Product' dialog box is shown with the following fields:</p> <ul style="list-style-type: none"> Product: Product Name, Product Version License: License Password, License Serial Number, License Annotation Vendor: Vendor Name (CATIADBS), Vendor ID (5242378dbf8d.02.c0.09.c8.93.00.00.00), Vendor Password (8ftgfqari8de) Server name (ip:LICWIN1PLP) Buttons: OK, Import..., Cancel, Help |
| (13) Locate the received Concurrent file in the file browser and click in the panels <i>OPEN</i> and <i>OK</i> respectively to get the license successfully enrolled. |  <p>The first screenshot shows a file browser window with the following details:</p> <ul style="list-style-type: none"> Look in: For Vtk01 File list: 58730b51_DY034U2_0000_1_SL9.LIC (selected), 58730b51_DY034U3_0000_1_SL9.LIC, 58730b51_DY034U4_0000_1_SL9.LIC, 58730b51_DY034U5_0000_1_FP9.LIC, 58730b51_DY034U6_0000_1_DI9.LIC, 58730b51_DY034UH_0000_1_SG9.LIC, 58730b51_DY034UM_0000_1_SX9.LIC, 58730b51_DY034UQ_0000_1_SX9.LIC, 58730b51_DY034UR_0000_1_SP9.LIC File name: 58730b51_DY034U2_0000_1_SL9.LIC Files of type: license files (*.lic) Buttons: Open, Cancel <p>The second screenshot shows the 'Enroll Product' dialog box with the following details:</p> <ul style="list-style-type: none"> Product: Product Name (SL9), Product Version (1) License: License Password (cais5c2yegphw3cwssu2cwwisaaaa), License Serial Number, License Annotation Vendor: Vendor Name (Dassault Systemes-PLM BT), Vendor ID (c8c9ef48cb7.4a.74.95.13.1f.00.00.00), Vendor Password (wqrdwywifdai) Server name (ip:19902.pplm.b3) Buttons: OK, Import, Cancel, Help |

3. HOW TO REGISTER A LICENSE FOR BPAS

| Action | Details | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------------------|--|--------------------------|----------|----------|-------------------|----------|-------------------|-----|---|--------------------------|---|---|----|-----|---|--------------------------|---|---|----|-----|---|--------------------------|---|---|----|-----|---|--------------------------|---|---|----|-----|---|--------------------------|---|---|----|-----|---|--------------------------|---|---|----|------------------------|-----|--------------------------|-------|---|----|
| <div>▶ The license is enrolled.</div> | <div><div>Basic License Tool</div><div>Products Selected Edit Servers View Options Help</div><div><div>Local node: vkk02.plp.ds</div><div>Products:109</div><table><thead><tr><th>Product</th><th>Version</th><th>Vendor</th><th>Licenses</th><th>In Us...</th><th>Bundle Components</th></tr></thead><tbody><tr><td> FP9</td><td>1</td><td>Dassault Systemes-PLM...</td><td>3</td><td>0</td><td>No</td></tr><tr><td> PF9</td><td>1</td><td>Dassault Systemes-PLM...</td><td>3</td><td>0</td><td>No</td></tr><tr><td> SG9</td><td>1</td><td>Dassault Systemes-PLM...</td><td>3</td><td>0</td><td>No</td></tr><tr><td> SL9</td><td>1</td><td>Dassault Systemes-PLM...</td><td>3</td><td>1</td><td>No</td></tr><tr><td> SP9</td><td>1</td><td>Dassault Systemes-PLM...</td><td>3</td><td>2</td><td>No</td></tr><tr><td> SX9</td><td>1</td><td>Dassault Systemes-PLM...</td><td>3</td><td>0</td><td>No</td></tr><tr><td> LicensePowerIFOR Te...</td><td>1.0</td><td>LicensePowerIFOR Test...</td><td>30000</td><td>0</td><td>No</td></tr></tbody></table></div></div> | Product | Version | Vendor | Licenses | In Us... | Bundle Components | FP9 | 1 | Dassault Systemes-PLM... | 3 | 0 | No | PF9 | 1 | Dassault Systemes-PLM... | 3 | 0 | No | SG9 | 1 | Dassault Systemes-PLM... | 3 | 0 | No | SL9 | 1 | Dassault Systemes-PLM... | 3 | 1 | No | SP9 | 1 | Dassault Systemes-PLM... | 3 | 2 | No | SX9 | 1 | Dassault Systemes-PLM... | 3 | 0 | No | LicensePowerIFOR Te... | 1.0 | LicensePowerIFOR Test... | 30000 | 0 | No |
| Product | Version | Vendor | Licenses | In Us... | Bundle Components | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FP9 | 1 | Dassault Systemes-PLM... | 3 | 0 | No | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PF9 | 1 | Dassault Systemes-PLM... | 3 | 0 | No | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SG9 | 1 | Dassault Systemes-PLM... | 3 | 0 | No | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SL9 | 1 | Dassault Systemes-PLM... | 3 | 1 | No | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SP9 | 1 | Dassault Systemes-PLM... | 3 | 2 | No | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SX9 | 1 | Dassault Systemes-PLM... | 3 | 0 | No | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| LicensePowerIFOR Te... | 1.0 | LicensePowerIFOR Test... | 30000 | 0 | No | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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