



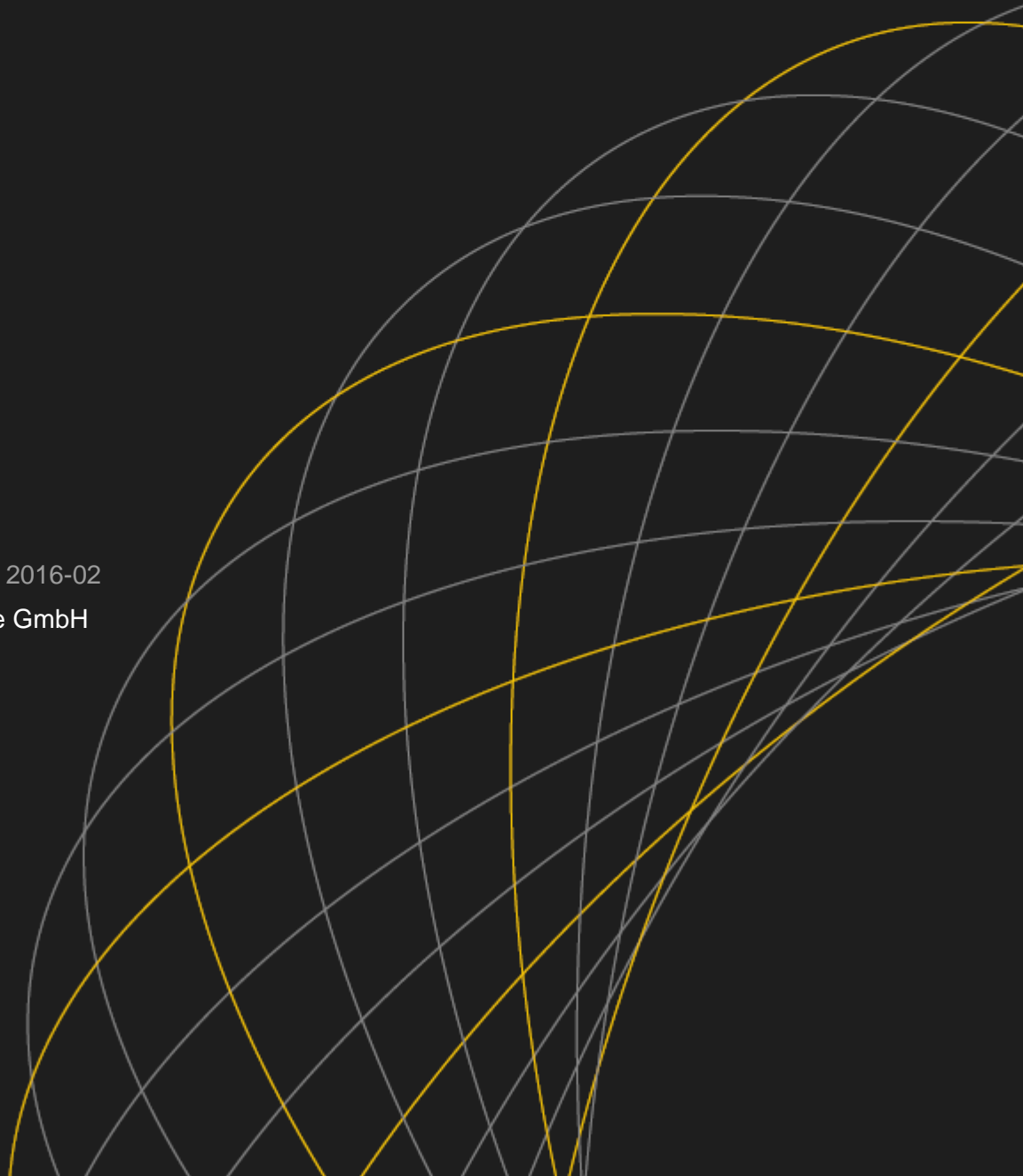
# Dollar Universe

## Installation Guide

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Automatic Software GmbH



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# 1 Release Notes

The following is the change history. Information on bug-fixes and known errors is available in the Workload Automation Release Notes and by contacting Automic technical support.

Date	Key Features
2014-11	Dollar Universe user manuals change their look to integrate to the Automic world.
2015-01	New prerequisites to install Dollar Universe on Windows (Microsoft Visual C++ 2008 Redistributable 32bits libraries)
2015-05	Warning in the case of cancelling an upgrade on Windows
2015-06	Backup before upgrading a company on Windows
2015-09	Documentation of the <b>universion</b> command Dollar Universe Manager for SAP Solutions prerequisites
2015-11	The installation of DUAS v6 on OpenVMS requires an ODS-5 volume.
2016-03	The RSY engine supports checking the status of jobs with DQM.

## 2 Introduction

---

Welcome to the Dollar Universe Installation Guide!


---

This manual addresses the needs of those who wish to install and carry out initial configuration of Dollar Universe V6.x Application Servers.

This manual details the installation, simple configuration and uninstallation of Dollar Universe V6.x Application Server.

Dollar Universe V6 brings many new architectural variations for example:

- Simplified installation in a Passive-Active Cluster environment
- Binary sharing between multiple instances on UNIX/Linux
- Installation in secure environments under non-root user accounts on UNIX/Linux

 Dollar Universe Application Server V6 does not provide a graphic user interface. UniViewer Console and UniViewer Management Server are required to manage operations on Dollar Universe Application Servers. Refer to the *UniViewer Administrator Manual* for installation and configuration details.  
UniViewer provides a JAVA based graphic user interface common to all Workload Management Suite: Dollar Universe and its Managers (SAP, OAPPS, JAVA, HPOM...), Publisher, Reporter and UniJob.

### 2.1 Before You Start

Dollar Universe Application Server installation proposes a number of new possibilities that may need a little consideration before launching the installation program.

#### 2.1.1 UNIX/LINUX Binary Sharing

Several instances may share the same binaries directory. Upgrade or patching of multiple instances can be carried out in one shot. The common binaries directory will only be deleted when the last sharing instance is uninstalled.

#### 2.1.2 Cluster Installation

A specific installation for secondary cluster nodes avoids the need switch the shared disk over just for Dollar Universe Application Server installation.

#### 2.1.3 UNIX/LINUX Non Privileged Installation

Dollar Universe Application Server instances can be installed under non-root user accounts. All Dollar Universe Application Server objects belong to the installation user account, no SETUID bit is set so jobs can only be launched under the installation user account.

Refer to section "[Installation Account](#)" on page 35.

---



## 2.2 Network Installation

The Company is the highest level of the environment in Dollar Universe. It allows the user to identify the physical architecture of the application. In the case of distributed automation architecture, the same Company name is used to install Dollar Universe on each node.

For Dollar Universe to be able to communicate with a remote server:

- The remote server name must be known to the server Dollar Universe is located on
- The remote server name must be declared on the UniViewer Management Server: it must appear the node list.

To verify the remote server name is declared locally, run the command:

```
PING hostname
```

Where *hostname* is the name of the remote server

If the server responds, the network is configured correctly. If the remote server does not respond, run the command:

```
PING ip_address
```

Where *ip\_address* is the IP address of the remote server

If the remote server responds but the previous command failed:

- On Windows, UNIX or OpenVMS, the remote server name associated with its IP address must be declared in the **hosts** file in the local **etc** directory.
- On OS/400, use the command **ADDTCPHTE** to add the remote server name with its corresponding IP address (under the account QSECOFR).
- If the remote server does not respond, the configuration must be reviewed by the system administrator or the network administrator.

## 2.3 Installed Version

If a Dollar Universe Company is already installed, the **universion** command, located in the Company binaries directory, displays information on Dollar Universe version and its installation history.

Executing this command requires the Company logical environment (please execute `<COMPANY>_<node>\unienv.bat` on Windows or `<COMPANY>_<node>/unienv.ksh` on Unix).

**Syntax:**

```
universion -help -version -major -minor -maintenance -build -product -kitos  
-mode -history -hasfix -fixlist -check
```

Only the first parameter entered is taken into account.

Parameter	Description
-help	Displays the command online help
-version	Displays the Company version using the format V.MM.mm, e.g. 6.5.01
-major	Displays the major version V, e.g. 6
-minor	Displays the minor version MM, e.g. 5
-maintenance	Displays the maintenance version mm, e.g. 01
-build	Displays the build number, e.g. 3
-product	Displays the product name: Dollar Universe
-kitos	Displays the operating system of the kit used to install the Company

Parameter	Description
-mode	Displays the Company installation mode: install or upgrade
-history	Displays the full history of installations/upgrades
-hasfix	Displays if a fix has been installed or not
-lastfix	Displays the last fix installed
-fixlist	Displays the list of installed fixes
-check	Check if the binairies and data have the same version (case of a cluster secondary node for example)

Example:

```
universion -mode  
Upgrade
```

## 3 Software Delivery

### 3.1 Delivery

Software can be either downloaded from the FTP site or delivered on a CD-ROM.

- In most cases, software is downloaded by the customer from the FTP site. Technical Support will provide a link to the relevant FTP directory.
- The Dollar Universe CD-ROM **Jobsched** directory contains installation kits for the main platforms on which Dollar Universe is available.

### 3.2 Kit Format

The installation kit is a compressed file. The file name is **du\_as\_6.m.nn\_<os>.<ext>**

- **m** is the minor version
  - **nn** is the release
  - **<os>** is the target operating system
  - **<ext>** is the file extension, it depends on the targeted operating system
  - On Windows, the kit is a compressed file with the extension *.zip*.
  - On UNIX, the kit is a compressed archive with the extension *.tar*.
  - On OpenVMS, the kit is a self-extracting file with the extension *.sfxexe*.
  - On OS/400, the kit is a self-extracting zip file with the extension *.exe*. It must be unzipped on Windows before being transferred by FTP (in binary mode) on AS/400.
  - The files with the extension *.unipkg* can be used by UniViewer Console to update Dollar Universe. Refer to the UniViewer User Manual or online help.
-

## 4 Installation on Windows

The standard installation/upgrade of the Dollar Universe Application Server is described below.

Installation/upgrade can be carried out in one of these modes:

- **Interactive mode:** (English only). The user responds to questions in a sequence of dialog boxes. Refer to section "[Windows Interactive Installation and Upgrade](#)" on page 14.
- **Silent mode:** This mode does not require any input from the user but instead requires an ISS answer file, created by an installation in interactive mode, which must be edited and updated (company name, node, directories...). Refer to section "[Windows Silent Installation and Upgrade](#)" on page 21.
- **Command mode:** The **uniinstaller** command, located in the installation kit directory, installs or updates Dollar Universe. Refer to section "[Windows Command Mode Installation and Upgrade](#)" on page 25.


### 4.1 Prerequisites on Windows

#### 4.1.1 Disk Space

Dollar Universe V6 requires 400 MB minimum disk space to install correctly.

#### 4.1.2 Windows Operating System

For more information on operating systems and compatibility with other ORYSP products, refer to the compatibility matrix on the Customer Service website in the **Content** tab.

 To install Dollar Universe on Windows, the WoW64 sub-system (Windows-on-Windows 64-bit) must be activated. This is usually the case, but it may have been disabled and the system is no longer compatible with 32bit applications including Dollar Universe installation utility: InstallShield.


Microsoft Visual C++ 2008 Redistributable 32bits libraries must be installed on the system to install Dollar Universe for Windows 32 bits.

Microsoft Visual C++ 2008 Redistributable 64bits libraries must be installed on the system to install Dollar Universe for Windows 64 bits.

#### 4.1.3 Software Requirements

A UniViewer Management Server should be accessible (on UNIX or Windows) to register the Dollar Universe Application Server. If at the time of installing Dollar Universe Application Server V6, the UniViewer Management Server is unreachable, registration may be carried out manually at a later moment.

A valid UniViewer Management Server license for Dollar Universe Application Server must be present or registration of the Dollar Universe Application Server will fail.

 On Windows 32bits, to install or upgrade Dollar Universe Manager for SAP Solutions, prerequisites must be met for the use of the SAP NetWeaver RFC library, otherwise the Manager for SAP Solution process (*UniSapManager*) may not start correctly. Please refer to the SAP note 1025361 which indicates how to proceed.

---

## 4.1.4 Installation Account

Installation of the Dollar Universe Application Server should be carried out under a Windows Administrator account, either Local or Domain, since the installation procedure needs to create a number of Windows Services.

## 4.1.5 Company Start/Stop

In case of a V5 to V6 upgrade, the Company must be **started** in order to run the upgrade procedure.

In case of a V6 to V6 update, Windows instance services must all be **stopped** before the update. If not stopped, a message will inform the user of the services to stop, for example:

```
Univer$e <COMPANY>_<NODE> interactive desktop
Univer$e <COMPANY>_<NODE> user administrator
Univer$e <COMPANY>_<NODE>_EEP_X
Univer$e <COMPANY>_<NODE>_IO_X
```

The user must stop all services:

- By using the Windows menu:  
Start - Programs - AUTOMIC – <COMPANY> <NODE>- Stop all
- Or in using Windows **Services** administration tool.

## 4.2 The Windows Installation Kit

The Dollar Universe installation kit needs no particular uncompressing command. Simply double click on the kit executable to start the installation program:

```
du_as_6.<m.nn>_<os>.zip
```

Where *m* is the minor version number and *nn* is the build number. Two installation kits exist on Windows:

- a 32-bit kit: du\_as\_6.<m.nn>\_windows.zip
- a 64-bit kit: du\_as\_6.<m.nn>\_windows64.zip

 In the particular case of a Dollar Universe Company upgrade from v5 32 bits to v6 64 bits, please refer to the section [Upgrade 32 bits / 64 bits](#) below.

- Unzip the installation kit du\_as\_6.<m.nn>\_<os>.zip
- Change to the du\_as\_6.<m.nn>\_<os> directory

Double-click the **du\_as.exe** kit binary to run an interactive installation

 On Windows 7 and Windows 2008, select "Run as Administrator" to execute this program

This application launches an InstallShield wizard, compliant with Microsoft Windows applications installation standards.

### 4.2.1 Upgrade 32 bits / 64 bits

**On Windows:** v5.6/v6.0 32/64b --> 6.1/6.2 64b --> 6.4 64b

In order to upgrade from Dollar Universe V5.6 or V6.0.xx to Dollar Universe V6.4.01, it is mandatory to use the Dollar Universe V6.1 or V6.2 **64 bits** kit. Once the node is upgraded

and committed, you must upgrade Dollar Universe v6.1/V6.2 64 bits to v6.4.01 64 bits using the Dollar Universe **64 bits** kit.

**On Windows 2012:** v5.6 --> v6.4 32b --> v6.4 64b

In order to upgrade from Dollar Universe V5.6 or V6.0.xx to Dollar Universe V6.4.01, it is mandatory to use the Dollar Universe **32 bits** kit. Once the node is upgraded and committed, you must upgrade Dollar Universe v6.4.01 32 bits to v6.4.01 64 bits using the Dollar Universe **64 bits** kit.

- Only the Dollar Universe Windows 64 bits kit is supported on Windows 2012.
- The Dollar Universe Windows 32 bits kit on Windows 2012 is to be used on Windows 2012 only for the upgrade path from v5.6 to v6.4 or higher.
- When a DUAS on Windows 64 bits is upgraded from version prior to 6.4.01 to version 6.4.01 or higher, DUAS changes from a 32 bits application to a 64 bits application. As a consequence the value of variable %PROGRAMFILES% changes from "C:\Program Files (x86)" (default value in a 32 bits environment) to "C:\Program Files" (default value in a 64 bits environment). This change affects all objects using the variable %PROGRAMFILES% in DUAS: Uproc scripts, Uproc / Task / MU / Node Variables, etc.

## 4.3 Windows Interactive Installation and Upgrade

The upgrade of Dollar Universe, installed in a cluster on Windows, must be carried out in four phases:

- Deactivation of the cluster switch
- Upgrade of the primary node
- Upgrade of the secondary node
- Activation of the cluster failover



Refer to the *Dollar Universe Administrator's Manual* for more details on Dollar Universe cluster architectures.

### 4.3.1 Welcome Screen

The first screen displayed is the welcome screen. No data entry is required.

- Click **Next** to go forward to the License Agreement
- Click **Cancel** to quit the installation

### 4.3.2 License Agreement

The second screen displays the General Terms and Conditions of the User Software License Agreement.

- Click **Print** to print the document
  - Click **Yes** if you accept the terms of the USLA and wish to move forward to Installation Mode Selection screen.
  - Click **No** if you do not accept the USLA. This will cancel the installation.
-

### 4.3.3 Instance Installation or Upgrade

The user can choose to install a new instance or upgrade an existing instance by selecting one of the options below:

- "Install a new Dollar Universe instance"  
The next screen is the Installation Mode Selection
- "Upgrade an existing Dollar Universe instance": upgrade from Dollar Universe Application Server V5.3 or V5.6 to V6 or V6 to V6 (i.e. the installation of cumulative patches). In the case of an upgrade:
  - The user must select the instance to be updated from the list to activate the **Next** button.
  - In the case of a V6 to V6 upgrade, the next screen asks if the user wants to do a full backup of the Company before the upgrade.  
Click Yes to do the backup. In the directory targeted by the node setting UNI\_AUTOUPD\_BCK (UNI\_DIR\_ROOT\backup by default), the backup creates a folder named *manual\_upgrade\_<COMPANY>\_<NODE>\_MM-DD-YYYY\_HH\_MM\_SS*, containing the backup file named *full\_backup\_<COMPANY>\_<NODE>\_YYYYMMDD\_HHMMSS.zip* as well as two information files.  
Or click No to continue the upgrade without doing a backup of the Company.
  - The next screen is the summary: refer to the paragraph "[Installation Summary](#)" on page 20.
- Click **Back** to return to the License Agreement screen
- Click **Next** to go forward
- Click **Cancel** to quit the installation


### 4.3.4 Installation Mode Selection

This screen proposes a choice between a typical (default) and a custom installation.

The typical installation will install with default values shown in the table below:

Parameter	Default Value
UniViewer Management Server Port Number	4184
UniViewer Management Server registration	Immediate
Company Name	UNIV65
Node name	Host name in capital letters
Installation Root directory	C:\Program Files (x86)\AUTOMIC\DUAS\<COMPANY>_<NODE>
Installation Exec directory	C:\Program Files (x86)\AUTOMIC\DUAS\<COMPANY>_<NODE>\bin
Installation Log directory	C:\Program Files (x86)\AUTOMIC\DUAS\<COMPANY>_<NODE>\log
TCP Port sequence base number	10600

- Click **Back** to return to the previous screen
- Click **Next** to go forward to the next screen
- Click **Cancel** to quit the installation

 You must ensure that any firewall on the path to/from the DUAS is correctly configured to allow communication between the selected DUAS and UVMS ports.

For a "Typical" installation refer to section: [UniViewer Management Server Registration](#) on page 17.

### 4.3.5 Custom Mode Selection

This screen proposes a choice of three radio buttons.

#### Standard Installation

This selection installs Dollar Universe by modifying one or several default values.


#### Primary Cluster Installation

Refer to the Dollar Universe Administration Manual for more detailed discussion of Dollar Universe Cluster Architectures.

In an Active-Passive cluster only one node is active.

On the active node, a full Dollar Universe instance is installed on a shared disk. Binary directory however must be directed to a local disk.

Selection of the Primary Cluster Installation sets the variable "UNI\_INST\_CLUSTER=PRIMARY" in the local settings (...\\data\\values.xml).


 Binaries must be on a local disk since Windows does not allow Windows Services to be created for binaries which are not stored locally.

#### Secondary Cluster Installation

Refer to the Dollar Universe Administration Manual for more detailed discussion of Dollar Universe Cluster Architectures.

In an Active-Passive cluster only one node is active.

A data-less Dollar Universe instance is installed. Dollar Universe Settings and binaries will be installed locally.

 The notion of Secondary Cluster Installation allows you to install the necessary elements of Dollar Universe without having to switch the shared disk back and forth.

- Click **Back** to return to the previous screen
- Click **Next** to go forward to the next screen
- Click **Cancel** to quit the installation

#### 4.3.5.1 Choose Destination Location

This screen appears only if Secondary Cluster Installation was requested on the Custom Mode Selection screen.

Key in the access path to the *values.xml* file

Secondary Cluster Node installation requires access to the *values.xml* file which contains the instance settings. *Values.xml* is stored in the *ldata* sub-directory normally located on the shared disk. If the shared disk is not currently accessible from the secondary node, it will be necessary to copy the *values.xml* from the primary cluster node to a work directory (e.g. C:\\temp) on the secondary node, key in C:\\temp\\values.xml for example.

The copy is only necessary for the duration of the secondary node installation and can be deleted afterwards.

- Click **Back** to return to the previous screen
  - Click **Next** to go forward to the "[Installation Summary](#)" screen on page 20"
-



- Click **Cancel** to quit the installation

### 4.3.6 UniViewer Management Server Registration

This screen is common to all installations.

#### Register with UniViewer Management Server now

Check **Yes** or **No**.

Details of the Dollar Universe Application Server V6 installation must be registered on the UniViewer Management Server. The DUAS will then be added to the UniViewer Node List and connection status will be displayed. This avoids both manual declaration and bulk import of Dollar Universe nodes to the UVMS Node List.



You must ensure that the firewall on the DUAS path is properly configured to allow communication between the selected ports of DUAS and UVMS.

Changes to UniViewer Management Server Node List, logins and roles will be distributed to known Dollar Universe Application Servers via the synchronization engine.

If the UniViewer Management Server is reachable check: **Yes**. If it is not reachable, registration should be carried out later using the **unims -register** command. Refer to section: [Manual Registration on UniViewer Management Server](#) on page 79.



When Dollar Universe V6 is installed in upgrade mode, the V6 node is registered to UVMS with the information in the *mgrluxsrv.sck* file of the V5 node.

#### Server Hostname

Enter the Host name of the UniViewer Management Server. The name must comply with RFC 952.

#### Server Port

Enter the TCP Port number used by the UniViewer Management Server. The port number was specified during installation of the UniViewer Management Server, it is by default 4184.

#### Login Name

This is the administrator login specified during installation of the UniViewer Management Server.

#### Password

This is the administrator login password specified during installation of the UniViewer Management Server.

- Click **Back** to return to the previous screen.
- Click **Next** to go forward to the DUAS Instance Definition screen.

Connection to the UVMS will be verified with the values entered and an error message will be displayed if any of the values prove to be incorrect.

- Click **Cancel** to quit the installation.

### 4.3.7 Instance Definition

#### Company Name

Enter the name of the Company to install. This code must be exactly 6 uppercase characters. The default is UNIV65. The authorized characters are A to Z, 0-9 and “\_”.



In a network configuration, all Dollar Universe instances should use the same Company Name, failing which they will not be able to communicate with each other.

### Node Name

Enter the Dollar Universe Node Name (maximum 64 alphanumeric characters). The authorized characters are A to Z, 0-9, \_ (underscore) and – (dash). Space characters and all other characters are forbidden.

Several instances of the same Company may be installed on the same host; they must use different Node Names.

Click on **Validate**. At this point a request is sent to the UniViewer Management Server which checks UniViewer Management Server registration requirements:

- Reachability of the UniViewer Management Server
- Availability of the Company/Node identifier
- Availability of the default TCP Port base number
- Presence of a valid UniViewer Management Server license for Dollar Universe Application Servers.

If any of the above cannot be verified, an error message will be displayed indicating the source of the failure. You may either correct the problem and move forward or cancel the installation.

### Installation Directory

By default, the Dollar Universe Application Server directory tree will be created in

```
C:\Program Files (x86)\AUTOMIC\DUAS\<COMPANY>_<NODE>
```



DUAS can be installed on a path containing the space character.

If you wish to install the product elsewhere either enter the path to the directory or click **Browse...** to point to an alternative installation directory in the file system.

The directory entered will replace the entire default path, so if for example you enter:

```
D:\UNIV65
```

The directory specified must be inexistent or empty.

The procedure will create:

```
D:\UNIV65
D:\UNIV65\bin
D:\UNIV65\data
D:\UNIV65\log
```

In a custom installation, the product binaries could be directed elsewhere, by default:

```
C:\Program Files (x86)\AUTOMIC\DUAS\<COMPANY>_<NODE>\bin
```

- Click **Back** to return to the UniViewer Management Server Declaration screen.
- Click **Next**:
  - Personalized Installation: Manager's Installation screen
  - Typical Installation: Installation Summary screen

The root directory entered above must be empty or nonexistent. If this is not the case, an error message is displayed.

- Click **Cancel** to quit the installation

## 4.3.8 Manager Installation

Dollar Universe V6 Managers are integrated with Dollar Universe. Some of them can be installed and activated or deleted during installation.

### Usage of Manager for SAP Solutions

---

- Remove manager: The manager is deleted. It isn't installed and will not be visible in Dollar Universe.
- Keep manager: The manager is installed but not activated (process visible but not started). The activation procedure can be done with the help of the UniViewer Console.
- Activate manager: The manager is installed and activated (process started). The deactivation procedure can be done with the help of the UniViewer Console.

For the activation of Dollar Universe V6 Manager for SAP Solutions, the user can enter the name of the directory containing the *uxjcs.ini* configuration file, and it will be immediately taken into account. If this directory is not entered, it can be using the UniViewer Console.

Prerequisites must be met to install or upgrade Dollar Universe Manager for SAP Solutions; please refer to section "[Software Requirements](#)" on page 12.

#### Usage of ODB, EJB, JMS, WSC Managers (Activation of Java Service)

- Remove service: The manager is deleted. It isn't installed and will not be visible in Dollar Universe.
- Keep service: The manager is installed but not activated (process visible but not started). The activation procedure can be done with the help of the UniViewer Console.
- Activate service: The manager is installed and activated (process started). The deactivation procedure can be done with the help of the UniViewer Console.

For the activation of the Java service, the user can enter the path of the folder of a valid JRE/JDK service (version 1.6 or higher), and it will be immediately taken into account.


### 4.3.9 Advanced Parameters

#### Dollar Universe Base Port:


Dollar Universe reserves 19 consecutive TCP port numbers. The default range starts at **10600** (base port number) and is attributed as shown in the table below:

Area	I/O	EEP	BVS	CDJ	DQM	GSI
X	<b>10600</b>	10604	10605	10611	10615	16018
S	10601		10606	10612		
I	10602		10607	10613		
A	10603		10608	10614		

- Dollar Universe Manager for SAP Solutions is configured on the port number 10609.
- Dollar Universe Manager for Oracle Application is configured on the port number 10610 (on UNIX only).
- The Java service is configured on the port number 10616.

 In a typical installation only the Production Area (X) is enabled, in this case only ports 10600, 10604, 10605, 10611, 10615 and 10618 are actually used.

If the sequence 10600 to 10618 is unavailable, click the **Custom Value** radio button and enter an alternative base port number (with the 19 free consecutive TCP port numbers).

 It is no longer required that nodes within the same Company share the same TCP port sequence to be able to communicate. Node information is maintained centrally on the UVMS and regularly synchronized across all Dollar Universe Application Servers. Refer to the *Dollar Universe Administrator's Manual* for more details about synchronization.

#### Server Host Name

The system local hostname will be displayed here by default. There is normally no need to change this with the exception of logical hosts in a cluster attached to floating IP addresses. The name must comply with RFC 952.

### Node Tags

Node Tags are free text identifiers that characterize a node. If you specify a Tag that is included in a Node View, the DUAS being installed will be dynamically included in the corresponding Node View for operations monitoring.

### Areas

In a Typical installation, only the Production Area is enabled. If additional Areas are required, a Custom installation is necessary. Check the additional Areas that you want to enable.

Areas can be enabled after installation with the **unims** command, refer to section "[Update](#)" on page 83.

Click **Back** to return to the previous screen

Click **Next** to go to the next screen

Click **Cancel** to stop the installation

## 4.3.9.1 Installation Directories

### Exec Directory

Binary directory sharing is not available on Windows platforms. The binary directory should only be redirected (to a local disk) in the case of a Primary Cluster installation.

Click on **Browse** to select an empty or inexistent directory on a local disk. The "*bin*" subdirectory will be created by the installation program.

### Log Directory

The log directory should only be redirected (to a local disk) in the case of a Primary Cluster installation.

Click on **Browse** to select an empty or inexistent directory on a local disk. The "*log*" subdirectory will be created by the installation program.


- Click **Back** to return to the previous screen (when possible)
- Click **Next** to go forward to the next screen
- Click **Cancel** to quit the installation

## 4.3.10 Installation Summary

The installation / upgrade summary resumes all the parameters entered during the installation dialog or recovered in the existing instance in the case of an update:

- Installation type cluster
  - Company Name
  - Node Name
  - Node tags
  - Host Name
  - Complementary Areas
  - Manager SAP
  - Java Service
  - Installation Directory
-

- Executables Directory
- Log Directory
- TCP Port Numbers used
- UniViewer Management Server
  - UniViewer Management Server Hostname
  - UniViewer Management Server Port Number
  - User connection
- Current version (in the event of an update)
- Click **Back** to return to the previous screen
- Click **Cancel** to quit the installation
- Click **Install>** to start the installation

 In case of an upgrade only: If the user clicks the **Cancel** button while the update is running. This will abort the upgrade procedure and a manual restoration of a previous backup will be needed in order to restore the DUAS node.

Installation finishes with the message "Setup is completed". Click **OK** to close the dialog box.

An upgrade of V5 to V6 ends with the message: "DUAS instance <COMPANY> <NODE> V6 has been installed successfully. It is partially started and ready for data upgrade."

At this point, the upgrade of V5 to V6 has not completed, there are other required steps: security import, design and production data import, validation. It is recommended to refer to the "*Dollar Universe Upgrade Manual Version 5 to Version 6*" for the complete description of the version 5 to version 6 upgrade.

## 4.4 Windows Silent Installation and Upgrade

Silent mode enables the installation or upgrade of Dollar Universe Application Servers in batch mode without user intervention.

An initial instance is installed or upgraded interactively. The answers provided are recorded in a text file (ISS). The ISS file needs to be adapted for each installation target, notably concerning the Company and Node names.

The installation or upgrade procedure takes its input from the ISS file in lieu of interactive user input.

### 4.4.1 Recording the Response File

To launch the silent installation/upgrade, an ISS file is mandatory. This file respects a particular structure. To create the file automatically, the user must launch the interactive installation/upgrade procedure at least once as described below (**do not use the Back** button during the dialogue phase):

For example:

```
du_as.exe /r /f1"c:\temp\duas6.iss"
```

Syntax:

du_as.exe	InstallShield installation/upgrade procedure.
/r	Record an ISS response file.
/f1"ISS file"	Specifies the path and the name of the ISS file to record. If the /f1 option is not specified, the file will be created in c:\Windows or c:\Winnt.

There should be no spaces between options and filenames. The files should be located on the current disk.

To install a Dollar Universe Application Server, two installation scenarios are possible. The corresponding ISS files are described below:

#### Example of an ISS file for a "Typical" installation

Convention: [Description of the keywords]

```
[InstallShield Silent]
Version=v7.00
File=Response File
[File Transfer]
OverwrittenReadOnly=NoToAll
[{B801D14E-99C1-42A9-892F-DC0FB624A4EF}-DlgOrder]
Dlg0={B801D14E-99C1-42A9-892F-DC0FB624A4EF}-Welcome-0
Count=7
Dlg1={B801D14E-99C1-42A9-892F-DC0FB624A4EF}-SdLicense-0
Dlg2={B801D14E-99C1-42A9-892F-DC0FB624A4EF}-AskOptions-0
Dlg3={B801D14E-99C1-42A9-892F-DC0FB624A4EF}-EnterLoginPswUVMS-0
Dlg4={B801D14E-99C1-42A9-892F-DC0FB624A4EF}-EnterTypical-0
Dlg5={B801D14E-99C1-42A9-892F-DC0FB624A4EF}-ConfirmDialog-0
Dlg6={B801D14E-99C1-42A9-892F-DC0FB624A4EF}-PrintfBox-0
[{B801D14E-99C1-42A9-892F-DC0FB624A4EF}-Welcome-0]
Result=1
[{B801D14E-99C1-42A9-892F-DC0FB624A4EF}-SdLicense-0]
Result=1
[{B801D14E-99C1-42A9-892F-DC0FB624A4EF}-AskOptions-0]
Result=1
Sel-0=1
Sel-1=0
[{B801D14E-99C1-42A9-892F-DC0FB624A4EF}-EnterLoginPswUVMS-0]
RegisterToUvms_Enter_Yes_or_No=Yes
Login=admin
Password=admin
Host=FRWPMDEV08
Port=4184
Result=1
[{B801D14E-99C1-42A9-892F-DC0FB624A4EF}-EnterTypical-0]
Company_code=UNIV65
Node_code=FRWPMDEV08
Installation_directory=c:\AUTOMIC\DUAS\UNIV65_FRWPMDEV08
Result=1
[{B801D14E-99C1-42A9-892F-DC0FB624A4EF}-ConfirmDialog-0]
Result=1
[{B801D14E-99C1-42A9-892F-DC0FB624A4EF}-PrintfBox-0]
Result=1
```

#### Example of an ISS file for a "Custom" installation

```
[InstallShield Silent]
Version=v7.00
File=Response File
[File Transfer]
OverwrittenReadOnly=NoToAll
[{B801D14E-99C1-42A9-892F-DC0FB624A4EF}-DlgOrder]
Dlg0={B801D14E-99C1-42A9-892F-DC0FB624A4EF}-Welcome-0
Count=11
Dlg1={B801D14E-99C1-42A9-892F-DC0FB624A4EF}-SdLicense-0
Dlg2={B801D14E-99C1-42A9-892F-DC0FB624A4EF}-AskOptions-0
Dlg3={B801D14E-99C1-42A9-892F-DC0FB624A4EF}-EnterCustomChoice-0
Dlg4={B801D14E-99C1-42A9-892F-DC0FB624A4EF}-EnterLoginPswUVMS-0
Dlg5={B801D14E-99C1-42A9-892F-DC0FB624A4EF}-EnterTypical-0
Dlg6={B801D14E-99C1-42A9-892F-DC0FB624A4EF}-EnterManager-0
Dlg7={B801D14E-99C1-42A9-892F-DC0FB624A4EF}-EnterAdvanced-0
Dlg8={B801D14E-99C1-42A9-892F-DC0FB624A4EF}-EnterAdvancedDir-0
Dlg9={B801D14E-99C1-42A9-892F-DC0FB624A4EF}-ConfirmDialog-0
Dlg10={B801D14E-99C1-42A9-892F-DC0FB624A4EF}-PrintfBox-0
[{B801D14E-99C1-42A9-892F-DC0FB624A4EF}-Welcome-0]
```

```

Result=1
[{B801D14E-99C1-42A9-892F-DC0FB624A4EF}-SdLicense-0]
Result=1
[{B801D14E-99C1-42A9-892F-DC0FB624A4EF}-AskOptions-0]
Result=1
Sel-0=0
Sel-1=1
[{B801D14E-99C1-42A9-892F-DC0FB624A4EF}-EnterCustomChoice-0]
Customchoice_Standard_C_primary_P_secondary_S=C
Result=1
[{B801D14E-99C1-42A9-892F-DC0FB624A4EF}-EnterLoginPswUVMS-0]
RegisterToUvms_Enter_Yes_or_No=Yes
Login=admin
Password=admin
Host=FRWPMDEV08
Port=4184
Result=1
[{B801D14E-99C1-42A9-892F-DC0FB624A4EF}-EnterTypical-0]
Company_code=UNIV65
Node_code=FRWPMDEV08
Installation_directory=c:\AUTOMIC\DUAS\UNIV65_FRWPMDEV08
Result=1
[{B801D14E-99C1-42A9-892F-DC0FB624A4EF}-EnterManager-0]
TypeInstallMgrSap=2
ConfigMgrSap=<NA>
TypeInstallMgrJava=2
ConfigMgrJava=<NA>
Result=1
[{B801D14E-99C1-42A9-892F-DC0FB624A4EF}-EnterAdvanced-0]
Host=default_value
Port_Enter_Value_or_N_for_default_value=N
NodeTags=newtag
AreaApplication_Enter_Y_or_N=Y
AreaSimulation_Enter_Y_or_N=N
AreaIntegration_Enter_Y_or_N=N
Result=1
[{B801D14E-99C1-42A9-892F-DC0FB624A4EF}-EnterAdvancedDir-0]
BinaryInstallDirectory=c:\AUTOMIC\DUAS\UNIV65_FRWPMDEV08\bin
LogDirectory=c:\AUTOMIC\DUAS\UNIV65_FRWPMDEV08\log
Result=1
[{B801D14E-99C1-42A9-892F-DC0FB624A4EF}-ConfirmDialog-0]
Result=1
[{B801D14E-99C1-42A9-892F-DC0FB624A4EF}-SprintfBox-0]
Result=1

```

To upgrade a Dollar Universe Application Server, the following information is recorded in the ISS file:

Example of an ISS file for an upgrade V6 to V6 with backup (AskOptions):

```

[InstallShield Silent]
Version=v7.00
File=Response File
[File Transfer]
OverwrittenReadOnly=NoToAll
[{B801D14E-99C1-42A9-892F-DC0FB624A4EF}-DlgOrder]
Dlg0={B801D14E-99C1-42A9-892F-DC0FB624A4EF}-Welcome-0
Count=5
Dlg1={B801D14E-99C1-42A9-892F-DC0FB624A4EF}-SdLicense-0
Dlg2={B801D14E-99C1-42A9-892F-DC0FB624A4EF}-CustomDialog-0
Dlg3={B801D14E-99C1-42A9-892F-DC0FB624A4EF}-AskOptions-0
Dlg4={B801D14E-99C1-42A9-892F-DC0FB624A4EF}-ConfirmDialog-0
[{B801D14E-99C1-42A9-892F-DC0FB624A4EF}-Welcome-0]
Result=1
[{B801D14E-99C1-42A9-892F-DC0FB624A4EF}-SdLicense-0]
Result=1
[{B801D14E-99C1-42A9-892F-DC0FB624A4EF}-CustomDialog-0]
choice_INSTALL_or_UPGRADE=upgrade
InstanceSelected=UNIV64 FRWPMDEV53
Result=1

```

```
[{B801D14E-99C1-42A9-892F-DC0FB624A4EF}-AskOptions-0]
Result=1
Sel-0=1
Sel-1=0
[{B801D14E-99C1-42A9-892F-DC0FB624A4EF}-ConfirmDialog-0]
Result=1
```

## 4.4.2 Installation/Upgrade from a Response File

Edit the answer file to specify the **<DUAS node name>** you want to install or upgrade. Start the installation or upgrade procedure by executing the command **du\_as.exe** from its directory with the options described below:

For example:

```
du_as.exe /s /f1"c:\temp\duas6.iss" /f2"c:\temp\duas6.log"
```

The ISS file contains all the answers to the screens displayed in the interactive mode. The ISS file corresponds in fact to an installation/upgrade scenario.

Syntax:

du_as.exe	InstallShield installation/upgrade procedure.
/s	Launch the installation/upgrade in silent mode.
/f1"ISS file"	Responses file for the silent mode. If this parameter is not specified, the command uses a <i>setup.iss</i> file in the current directory. If the file does not exist, the installation/upgrade aborts. See <i>setup.log</i> file.
/f2"log file"	Result of the silent installation/upgrade. If this parameter is not specified, the <i>setup.log</i> file is generated in the c:\WINDOWS or c:\WINNT like the <i>Setup.iss</i> file.

If no option is specified, installation/upgrade will use the default options.

Do not leave spaces between the options and the file names. The files should reside on the current disk drive.

## 4.4.3 Silent Installation or Upgrade Return Code

The **/f2"log file"** option handles the result of the installation/upgrade. By default, the *setup.log* file is generated in the *c:\windows* or *c:\winnt* like the *Setup.iss* file.

Example of *setup.log* file:

```
[InstallShield Silent]
Version=v7.00
File=Log File
[ResponseResult]
ResultCode=0
```

This file contains the *ResultCode* keyword, whose value corresponds to the return code of the installation. Possible values are listed below:

Code	Description
0	Success
-1	General error
-2	Invalid mode
-3	Required data not found in the ISS file
-4	Insufficient memory



Code	Description
-5	File does not exist
-6	Cannot write to the response file
-7	Unable to write to the log file
-8	Invalid path to the InstallShield Silent (.iss) response file
-9	Not a valid list type (string or number)
-10	Data type is invalid
-11	Unknown error during setup
-12	Dialog boxes are out of order
-51	Cannot create the specified folder
-52	Cannot access the specified file or folder
-53	Invalid option selected

## 4.5 Windows Command Mode Installation and Upgrade

The **uniinstaller** command, located in the kit installation directory, installs or updates Dollar Universe. It creates a response file and launches a silent installation/upgrade.

The parameters must be entered to indicate the different installation modes, selected options, etc.

Syntax:

```
uniinstaller <-install|-upgrade|-upgradev5|-help> [options]
```

Several distinct modes are usable:

- -install: Installs a new Dollar Universe instance
- -upgradev5: Upgrades a Dollar Universe V5 instance
- -upgrade: Upgrades a Dollar Universe V6 instance
- -help: Displays the online help of the command

### 4.5.1 Windows Command Mode Installation

The **uniinstaller -install** command installs a new Dollar Universe instance with the command line. Additional parameters must be entered using the format parameter=value.

Setting	Mandatory / Optional	Description
clustertype	Optional	Cluster installation type, the possible values are: No: Default value, no cluster installation Primary: Primary node installation Secondary: Secondary node installation, in this case only the parameter cluster_secondary_datapath is mandatory. <a href="#">"Custom Mode Selection"</a> on page 16
cluster_secondary_datapath	Mandatory if clustertype = secondary	Full path of the <i>values.xml</i> file of the primary cluster node. <a href="#">"Choose Destination Location"</a> on page 16
uvmsnow	Optional	Register to UVMS, the possible values are:

Setting	Mandatory / Optional	Description
		Y: Default value, the centralhost, centralport, centrallogin and centralpwd (or central encryptpasswd) parameters are mandatory. N: No registration to UVMS during the installation procedure, it must be done manually afterwards. <a href="#">"UniViewer Management Server Registration"</a> on page 17
centralhost	Optional	UVMS hostname (this name must respect the RFC 952 standard)
centralport	Optional	UVMS port number (4184 by default in interactive)
centrallogin	Optional	UVMS administrator name (admin by default in interactive)
centralpasswd	Optional	UVMS administrator password. Incompatible with centralencryptpasswd
centralencryptpasswd	Optional	Complete path of the file containing the encrypted password of the UVMS administrator. Incompatible with centralpwd. <a href="#">"Encoding"</a> on page 80
company	Mandatory	Dollar Universe Company name to install. <a href="#">"Instance Definition"</a> on page 17
node	Mandatory	Dollar Universe node name in the Company. The key word "default_value" attributes the hostname as the default value.
nodehost	Mandatory	Hostname. The key word "default_value" attributes the hostname as the default value. <a href="#">"Server Host Name"</a> on page 19
nodetag	Optional	List of node tags to add to the node in the "tag1;tag2" format. <a href="#">"Node Tags"</a> on page 20
portdef	Optional	Y: Uses the default value (10600 to 10618) N: Does not use the default value; in this case the parameter port= is mandatory. <a href="#">"Dollar Universe Base Port"</a> page 19
port	Optionnel	Enter the first number of the TCP ports attributed to the Company
installdir	Mandatory	Root directory of the Company. The key word "default_value" attributes the default value: /var/opt/AUTOMIC/DUAS/<COMPANY>_<node> <a href="#">"Installation Directory"</a> on page 18
execpath	Mandatory	Directory that contains the <i>bin</i> sub-directory of the company. The key word "default_value" attributes the default value: /var/opt/AUTOMIC/DUAS/<COMPANY>_<node> <a href="#">"Exec Directory"</a> on page 20
logpath	Mandatory	Directory that contains the sub-directory <i>log</i> in the company. The key word "default_value" attributes the default value. /var/opt/AUTOMIC/DUAS/<COMPANY>_<node> <a href="#">"Log Directory"</a> on page 20
area_a	Optional	Y or N, Y activates the Application area. <a href="#">"Areas"</a> on page 20
area_i	Optional	Y or n, Y activates the Integration area

Setting	Mandatory / Optional	Description
area_s	Optional	Y or n, Y activates the Simulation area
install_sap	Optional	Installation/activation of the Manager for SAP Solutions: r: Does not install the Manager k: Installs the Manager but does not activate it (by default) a: Installs and activates the Manager <a href="#">"Manager Installation"</a> on page 18
config_sap	Optional	Full path of the <i>uxjcs.ini</i> configuration file for the Manager for SAP Solutions. This configuration is optional, it can be done afterwards.
install_java	Optional	Installation/activation of the Java Service used by the Managers for Java (JMS/EJB), for Web Services and for Oracle Database: r: Does not install the service k: Installs the service but does not activate it (by default) a: Installs and activates the service
java_path	Optional	You must provide the path for a valid "java" command (version >= 1.6). Enter the full path of the java command.

Example:

```
uniinstaller -install uvmsnow=y centralhost=FRWPMDEV53 centralport=4184
centrallogin=admin centralpasswd=admin company=UNIV65 node=FRWPMDEV53
nodehost=default_value installdir=default_value execpath=default_value
logpath=default_value
```

The installation ends with the message:

```
End of installation with success.
Installation log file is
D:\_INSTALL\UNIV65_FRWPMDEV53\log\orsyp_installation.log
```

## 4.5.2 Windows Command Mode Upgrade

The **uniinstaller** command upgrades a Dollar Universe instance using the command line.

- **uniinstaller -upgradev5** upgrades a V5 instance to version 6.
- **uniinstaller -upgrade** upgrades a V6 instance.

Additional parameters must be entered using the parameter=value format. The parameters are different if the upgrade concerns a version 5 or version 6 Company.

### 4.5.2.1 Upgrading a Version 5 Instance on Windows

The command **uniinstaller -upgradev5** upgrades a Dollar Universe instance using the command line.

Syntax:

```
uniinstaller -upgradev5 ...
```

Setting	Mandatory / Optional	Description
envfile	Optional	Full path of the environment file <i>uxsetenv</i> of the Company to upgrade.
MANAGER_SAP_UPGRADEV5	Mandatory	Upgrade the Manager for SAP Solutions from V5 to V6.

Setting	Mandatory / Optional	Description
		Yes: Upgrades the Manager for SAP Solutions No: Does not upgrade the Manager for SAP Solutions
centralhost	Optional	UVMS hostname (this name must respect the RFC 952 standard)
centralport	Optional	UVMS port number (4184 by default in interactive)
centrallogin	Optional	UVMS administrator name (admin by default in interactive)
centralpasswd	Optional	UVMS administrator password. Incompatible with centralcryptpasswd
centralcryptpasswd	Optional	Full path of the file containing the encrypted password of the UVMS administrator. Incompatible with centralpwd. "Encoding" on page 80

Example:

```
uniinstaller -upgradenv5 envfile=D:\_INSTALL\UNIV56\mgr\uxsetenv.bat
manager_sap_upgradenv5=no centralhost=FRWPMDEV53 centralport=4184
centrallogin=admin centralpasswd=admin
```

The upgrade ends with the message:

```
=====
====
IMPORTANT NOTE:
-----
These new ports will be used definitively or temporarily:
Port 10615 is affected to DQM server.
Port 10617 is affected to GSI server.
Port 10620 is affected to temporary IO server of area X.
Port 10623 is affected to temporary IO server of area A.
Port 10624 is affected to temporary DQM server.

It is possible to change those port values by following the procedure of
Upgrade documentation (see chapter unims -rollback5)

=====
====
DUAS instance v6 has been installed successfully,
it is partially started and is so ready for data upgrade.
=====
=====
```

#### 4.5.2.2 Upgrading a Version 6 Instance on Windows

The **uniinstaller -upgrade** command upgrades a Dollar Universe instance from the command line.

Setting	Mandatory / Optional	Description
envfile	Optional	Environment file <i>unienv</i> of the Company to be upgraded. If the environment is already loaded, this parameter is optional, if not, it is mandatory.
backup	Optional	Used with -upgrade only. N : Value by default. No Company backup before the upgrade. Y : Full backup of the Company before the upgrade. In the directory targeted by the node setting UNI_AUTOUPD_BCK (UNI_DIR_ROOT\backup by default), the backup creates a folder named <i>manual_upgrade_&lt;COMPANY&gt;_&lt;NODE&gt;_MM-DD-YYYY_HH_MM_SS</i> , containing the backup file named <i>full_backup_&lt;COMPANY&gt;_&lt;NODE&gt;_YYYYMMDD_HHMMSS.zip</i> as well as two information files.

Example:

```
uniinstaller -upgrade envfile=D:\_INSTALL\DUAS\UNIV65_FRWPMDEV53\unienv.bat
```

The upgrade ends with the message:

```
=====
====
DUAS instance has been upgraded successfully.
=====
====

=====
====
You can start DUAS with the command:
D:\_INSTALL\DUAS\UNIV65_FRWPMDEV53\bin\unistart.bat
=====
====

Upgrade log file is D:\_INSTALL\UNIV65_FRWPMDEV53\log\maintenance.log
```

## 4.6 Results of the Windows Installation Procedure

The results of the V5 to V6 upgrade procedure are described in the “*Dollar Universe Upgrade Manual Version 5 to Version 6*”.

### 4.6.1 Disk Organization

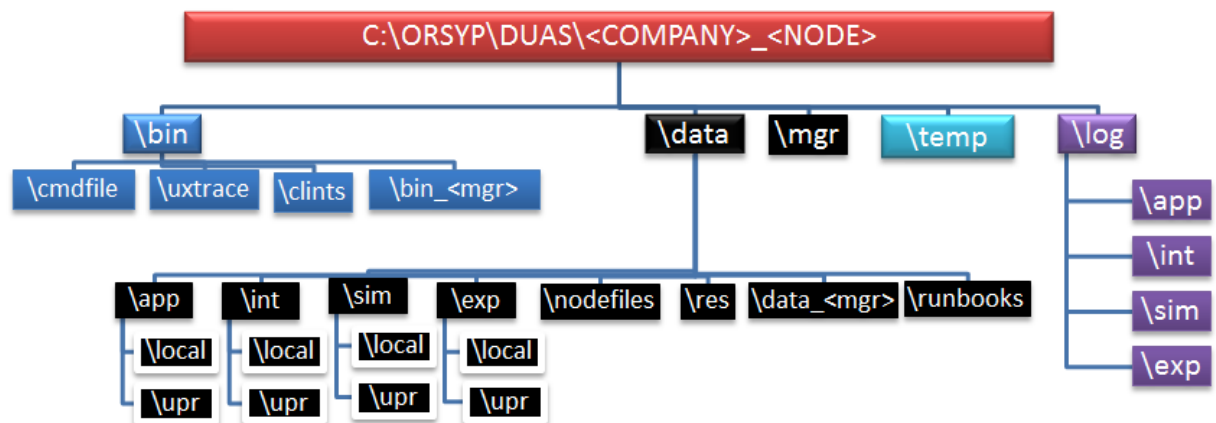


Figure 1: Disk Organization on Windows

The diagram above shows a standard installation (all elements in the same directory tree). The optional Area directories, framed in yellow, are present.


### 4.6.2 Windows Services

The following Windows Services are created by the installation program:

Full Name	Service Name	Description
Univer\$e <COMPANY>_<NODE> Interactive Desktop	uni_desktop_<COMPANY>_ <NODE>	Dollar Universe interactive desktop service
Univer\$e <COMPANY>_<NODE> user administrator	univ_administrator_<COMPANY>_ <NODE>	Dollar Universe user service
Univer\$e <COMPANY>_<NODE>_EEP_X	<COMPANY>_<NODE>_EEP_X	Dollar Universe External Event Processor. Supervises the Resources.
Univer\$e <COMPANY>_<NODE>_IO_X	<COMPANY>_<NODE>_IO_X	Dollar Universe application server.

The name and number of Windows Services is constant however many Areas are enabled.

The Services are declared as "Automatic" and are started by the installation program.

 The Dollar Universe Application Server shutdown procedure does not stop the User Service or the Desktop Service as this could damage synchronization with running jobs.

### 4.6.3 Windows Processes

The number of processes started does vary with the number of active Areas:

Parent Process	Area Sub Processes	Sub Processes	Description
UniServUser.exe			Users Service
UniServDesktop.exe			Desktop Service
UniServEEP.exe			External Event Processor
UniServIO.exe			IO Server Production Area
	uxcdjsrv.exe		Production Area
	uxbvssrv.exe		
	uxdqmsrv.exe		
	uxiosrv.exe		Simulation Area
		uxcdjsrv.exe	
		uxbvssrv.exe	
	uxiosrv.exe		Integration Area
		uxcdjsrv.exe	
		uxbvssrv.exe	
	uxiosrv.exe		Application Area
		uxcdjsrv.exe	
		uxbvssrv.exe	

Each Area enabled will add 3 processes.

## 4.7 Automatic Startup on Windows

All requested Areas are started by the installation procedure. The Windows Services are declared with automatic startup.

## 4.8 Starting and Stopping the Instance on Windows

The starting and stopping procedures must be executed under the administrative account that has installed the Company.

The startup procedure starts the functional services:

```
Windows Start - Programs - AUTOMIC - <COMPANY> <NODE> - start
```

The shutdown procedure stops the functional services:

```
Windows Start - Programs - AUTOMIC - <COMPANY> <NODE> - Stop
```

The following procedure stops all the services:

```
Start Windows - Programs - AUTOMIC - <COMPANY> <NODE> - Stop all
```

Or

Load the logical environment:

```
C:\Program Files (x86)\AUTOMIC\DUAS\<COMPANY>_<NODE>\unienv.bat
```

Then run the following command to start the instance:

```
%UNI_DIR_EXEC%\unistart
```

Similarly the following command will stop the instance:

```
%UNI_DIR_EXEC%\unistop
```

The following command stops the instance as well as the Desktop and user services:


```
%UNI_DIR_EXEC%\unistop all
```

The following command stops all the Company processes if certain ones are not stopping:

```
%UNI_DIR_EXEC%\unistop force
```

## 4.9 Uninstalling from Windows

Uninstallation of a Dollar Universe Application Server instance, in compliance with Windows standards, is launched from the **Add/Remove Programs** function in the Windows Control Panel.

 If Dollar Universe V6 was installed in upgrade mode on a Dollar Universe V5 node, the uninstallation procedure is only possible when the node has the status "ready to upgrade". Dollar Universe V6 cannot be uninstalled at any other stage of the Dollar Universe V5 to V6 upgrade procedure.

### 4.9.1 Stop Company Services

All Windows services concerning the Company to be uninstalled must be stopped before launching the uninstall program.


The shutdown procedure stops the functional services:

```
Windows Start - Programs - AUTOMIC - <COMPANY> <NODE > - Stop all
```

Or

```
%UNI_DIR_EXEC%\unistop all
```

If there are Dollar Universe processes that are still not stopped, the following command can be used :

 `%UNI_DIR_EXEC%\unistop force`**Note:** The "all" argument causes the forced shutdown of the "Interactive Desktop" service and the "user Administrator" service which are not stopped by the normal shutdown because they would abort any running jobs.

## 4.9.2 Uninstalling Cluster Nodes on Windows

Since we cannot be sure whether only one or all nodes of the cluster will be uninstalled, behavior will be the same for primary or secondary nodes:

- The cluster will not be unregistered from the UniViewer Management Server. This should be done manually from the UniViewer Console if required.
- Binary, data and log folders are removed on demand.
- Local settings are removed from the registry as for a standard uninstallation.

## 4.9.3 Launch the Windows Uninstall Program

`Windows Start > Control Panel > Add Remove Programs`

When the installed programs list has been generated:

- Select Dollar Universe 6
- Click **Remove**

### 4.9.3.1 Welcome Screen

The InstallShield program displays a welcome screen indicating the start of the uninstall procedure.

- Click **Next** to continue with the "Instance Uninstallation" screen (Instance selection to uninstall.)
- Click **Cancel** to abandon the uninstallation.

### 4.9.3.2 Instance Uninstall

The list of Dollar Universe Application Server V6 instances present on the node is displayed.

- Select the instance you wish to uninstall.

 You must click on the instance to activate the **Next** button.

- Click **Next** to continue to the Uninstallation Summary.
- Click **Cancel** to abandon the uninstallation program.

### 4.9.3.3 Uninstallation Summary

This screen recalls the main elements identifying the instance that will be uninstalled:

- Company Name
  - Node name
  - Installation Directory
  - Executables Directory
  - Log Directory
-



- Click **Back** to return to the Instance Uninstall Screen
- Click **Cancel** to abandon the uninstallation program.
- Click **Uninstall** to proceed with the uninstallation of the selected instance.

Uninstallation finishes with the following message "Setup is completed". Click **OK** to close the dialog box.

Check in the installation directory path to make sure that all elements have been deleted.



The uninstallation does not delete the internal scripts of the Uproc, Uproc execution logs nor the items created by the user in the *data\nodefiles* folder.

The instance has been removed from the UniViewer Management Server.

---

# 5 Installation on UNIX / LINUX

The standard installation/upgrade of the Dollar Universe Application Server is described below.

Installation/upgrade can be carried out in one of these modes:

- **Interactive mode:** (English only). The user responds to questions in a sequence of dialogs. Refer to sections "[UNIX/Linux Interactive Installation](#)" on page 38 and "[UNIX/LINUX Interactive Upgrade](#)" on page 45.
- **Silent mode:** This mode does not require any input from the user but instead requires an answer file, created by an installation in interactive mode, which must be edited and updated (company name, node, directories...). Refer to section "[UNIX/LINUX Silent Installation and Upgrade](#)" on page 49.
- **Command mode:** The **uniinstaller** command, located in the kit installation directory, installs or updates Dollar Universe. Refer to section "[UNIX/LINUX Command Mode Installation and Upgrade](#)" page 51.

## 5.1 Prerequisites on UNIX/LINUX


### 5.1.1 Disk Space

Dollar Universe V6 requires 400 MB minimum disk space to install correctly.

### 5.1.2 UNIX Operating Systems

For more information on operating systems and compatibility with other ORYSP products, refer to the compatibility matrix on the Customer Service website in the **Content** tab.

On AIX, SOLARIS and Linux, Dollar Universe is a 32bits application: on 64bits OS, the compatibility 32bits libraries must be installed for the product to install and operate. On some distributions (Linux for example), default installation on 64bits OS does not include those libraries, the corresponding package must be explicitly installed.

 The basic *sh* shell is not supported, the shell must be at least a ksh, bash ...

### 5.1.3 Software

A UniViewer Management Server should be accessible (on UNIX or Windows) to register the Dollar Universe Application Server. If at the time of installing Dollar Universe Application Server V6, the UniViewer Management Server is unreachable registration may be carried out manually at a later moment.

A valid UniViewer Management Server license for Dollar Universe Application Server must be present or registration of the Dollar Universe Application Server will fail.

On Linux, the use of Dollar Universe Manager for SAP Solutions will only be possible if the library *libstdc++* is installed. This library must be a 32 bits version.

On Linux 32 bits, prerequisites must be met for the use of the SAP NetWeaver RFC library, otherwise the Manager for SAP Solution process (*uxagtsap*) may not start correctly. Please refer to the SAP note 1025361 which indicates how to proceed.

From Dollar Universe V6.0.01 and later, on UNIX and Linux, the library *libidn.so.11* must be installed.

---

## 5.1.4 Installation Account

Installation of the Dollar Universe Application Server is traditionally carried out under a **root** user account, since the scheduler generally needs to submit jobs on behalf of other user accounts. However, certain customers with high security requirements do not allow software to be installed with and run under generic accounts like root.

Dollar Universe Application Server V6 can now be installed under non-privileged user accounts.

### 5.1.4.1 Non-root Installation Account

In that case, all Dollar Universe Application Server objects belong to the installation user account, no SETUID bit is set so jobs can only be launched under the installation user account. If jobs must be launched under other user accounts then the SUDO utility will be necessary to allow the installation user account to execute the *u\_batch* (batch envelope) as **root**. Refer to the *Dollar Universe Administrator Manual* for more details.

The following steps must be executed as follows to insure the installation success. We assume that the non-root user "TOM" has already been created.

As a **root** user, execute the following commands:

```
mkdir -p /var/opt/AUTOMIC
```

Even though the installation will create this directory, we need to "pre-create" it in order to give the non-root user the right on it.

```
chown -R TOM /var/opt/AUTOMIC
```

This is to ensure the user "TOM" will be able to write in the */var/opt* directory during the installation procedure.

```
chown -R TOM /<COMPANY_path>
```

This is to ensure the user "TOM" will be able to write in the directory where the installation is going to take place; in this case, the user is installing Dollar Universe V6 in */<COMPANY\_path>*.


```
su TOM
```

Log in as the regular non-root user and proceed to the standard installation.

### 5.1.4.2 Non-root Administrator Account

As a temporary solution, you can install Dollar Universe using the root account and create a non-root user as the administrator of the Company. In this case, the Company files belong to this administrator and SETUID is properly positioned. Jobs can then run with any submission account, including root.

### 5.1.4.3 SE Linux security

 This applies to both root and non-root users.

If the Linux on which you are operating has a SE Linux security, you will also need to do the following manipulation:

You must deactivate the SE Linux temporarily. As the root user, execute the command:

```
echo 0 >/selinux/enforce
```

Otherwise, error types such as the one below are displayed:

```
error while loading shared libraries:../bin/lib/libunicomm.so: cannot
restore segment prot after reloc: Permission denied
```

Note that the SE Linux must stay disabled the whole time, and not just during the installation, otherwise, there might be some problems with job executions.

To avoid this security risk, there is a "safer" solution:


**After** installing the kit, you can execute these commands (as root):

```
chcon -t texrel_shlib_t libunicomm.so
chcon -t texrel_shlib_t libunisur_cli.so
chcon -t texrel_shlib_t libuniftapi.so
```

And then reactivate the SE Linux security:

```
echo 1 >/selinux/enforce
```

This will change the permission on the *designated* libraries, which allows them to do text relocations. This way, Dollar Universe can operate with the security enabled.

 This information applies to Linux installations, and not necessarily to all UNIX installations.

#### 5.1.4.4 Cron Jobs import

Dollar Universe needs to be installed under root user or a user with Administrator profile to be able to import cron jobs defined in the following:

```
/etc/cron.d
/var/spool/cron/<username>
/etc/[cron.daily|cron.weekly|cron.hourly|cron.monthly]/
```

### 5.1.5 Company Start/Stop

In case of a V5 to V6 upgrade, the Company must be **started** in order to run the upgrade procedure.

In case of a V6 to V6 update, the Company must be **stopped** before the update. If not stopped, a message will inform the user.

## 5.2 The UNIX/LINUX Installation Kit

Installation kits are delivered in the following format:


```
du_as_6.<m.nn>_<os>.taz
```

Examples:

```
du_as_6.<m.nn>_aix_53.taz
du_as_6.<m.nn>_hpux.taz
du_as_6.<m.nn>_hpuxia32.taz
du_as_6.<m.nn>_linux_26.taz
du_as_6.<m.nn>_linux_26_64.taz
du_as_6.<m.nn>_solaris_intel.taz
du_as_6.<m.nn>_solaris_sparc.taz
```

Where *m* is the minor version number and *nn* is the build number. Two installation kits exist on Linux:

- a 32-bit kit: du\_as\_6.<m.nn>\_linux\_26.taz
- a 64-bit kit: du\_as\_6.<m.nn>\_linux\_26\_64.taz

 In the particular case of a Dollar Universe Company upgrade from v5 32 bits to v6 64 bits, two steps are required: the first – upgrading v5 32 bits to v6 **32 bits**, the second – upgrading v6 32 bits to v6 **64 bits**.

---

 All examples below will refer to the Linux\_26 Installation.

## 5.2.1 Uncompressing the Installation Kit

The installation kit delivered consists in a compressed tar file: `du_as.<m.nn>_linux_26.taz`

- Download the compressed tar file from the FTP Server to a work directory.
- Or copy the compressed tar file from the CDROM to the current directory, for example:

```
cp /mnt/cdrom/du_as_6.<m.nn>_hpux.taz ./du_as_6.<m.nn>_hpux.taz
```

### On UNIX

- Rename the kit to `du_as_6.<m.nn>_hpux.tar.Z`
- Uncompress the file using the `uncompress` or `gunzip` command (according to the operating system), for example:

```
uncompress ./du_as_6.<m.nn>_hpux.tar.Z
```

The command creates the "`du_as_6.<m.nn>_hpux.tar`" file.

- Unarchive the tar file using the command:

```
tar -xvf ./du_as_6.<m.nn>_hpux.tar
```

### On Linux:

- Unarchive the tar file using the command:

```
tar -xvzf ./du_as_6.<m.nn>_linux_26.taz
```

## 5.2.2 The Kit Directory

The kit untars to a sub-directory called:

```
du_as_6.<m.nn>_linux_26
```

## 5.2.3 Launch the Procedure

The same procedure can be used to install, upgrade and uninstall a Dollar Universe Application Server.

```
cd du_as_6.<m.nn>_linux_26
./unirun
```

---

Installation/Upgrade/Uninstallation/Patch procedure (c) AUTOMIC 2011

---

```
find ksh
You can install a new DUAS, upgrade or remove an existing one .
Please enter your choice:
--> "i" to install an instance
--> "u" to upgrade an instance
--> "d" to delete an instance
--> "p" to install a patch
--> "r" to remove a patch
--> choice ?
```

## 5.3 UNIX/Linux Interactive Installation

### 5.3.1 Instance Installation

The user can choose to install a new instance:

- Enter "i" to launch the interactive installation.

### 5.3.2 User Software License Agreement

```
Welcome to the DUAS installation procedure
...
=====
Starting installation in interactive mode.
# -----
# AUTOMIC license agreement:
# Please, read AUTOMIC license agreement, press <space bar> to read next
page
# Press return to continue
```

[Return] advances line by line

[Space bar] advances page by page.

```
Do you accept the agreement ?
--> ("y" to accept, "n" to decline and abort procedure)?  y
=====
```

Enter "y" if you accept the terms of the USLA. If you do not accept the USLA ("n"), this will cancel the installation.

### 5.3.3 Company Administrator

```
Your installation has been done with the user "root".

if you want to administrate this instance with another user than "root",
Give the already existing username, by default root user will be
administrator [root] :
```

This option allows you to assign instance files to another owner than "root". However, batches can be submitted by any user account including "root" and the instance will benefit from starting automatically.



This is different from the installation under a different account than root.

If the instance is installed under another user account than root, the instance files belong to that user, auto-start is not configured and batches can only be submitted by the user account.

### 5.3.4 UNIX Cluster Node

```
=====
Do you want to install a cluster node ("y" or "n")? [n] :
=====
```

By default "n" will proceed with a standard local installation.

If a cluster installation is required:

---

### 5.3.4.1 UNIX Primary Cluster Node

```
Do you want to install a cluster node ("y" or "n")? [n] : y

To install a cluster correctly, logs and root/data folders must be installed
on a disk shared by all cluster nodes.
The binaries folder can be installed locally or in a shared folder.

Do you want to install a primary or secondary cluster node ("s" or "p")? : p
```

Refer to the Dollar Universe Administration Manual for more detailed discussion of Dollar Universe Cluster Architectures.

In an Active-Passive cluster only one node is active.

On the primary node, a full Dollar Universe instance is installed on a shared disk.

Selection of the Primary Cluster Installation sets the variable "UNI\_INST\_CLUSTER=PRIMARY" in the local settings (...data/values.xml).

### 5.3.4.2 UNIX Secondary Cluster Node

```
Do you want to install a primary or secondary cluster node("s" or "p")? : s

The secondary node will be installed with information collected from the
primary node installation.
Enter the path to the "values.xml" file from the primary installation:
```

The secondary node must be installed after the primary node as it needs access to the "values.xml" generated by the primary node installation.

If the shared disk on which the primary node was installed cannot be switched to the secondary node, the *values.xml* file should be copied to a work directory. The file is necessary just for the installation phase.

No data is installed, only binaries are installed in a similar folder as the primary node and only if the binaries folder has not been installed in a shared folder upon installation of a primary node.

If there is a shared binaries folder, the folder must be reachable by the secondary node during installation.

## 5.3.5 Registration on the UniViewer Management Server

Registration requires you to provide the hostname of the UniViewer Management Server (the name must comply with RFC 952), the TCP port number used by the Management Server (default =4184), the administrator login and password specified during the installation of the UniViewer Management Server.

```
You have to register on a UniViewer Management Server (UVMS). This can be
done later but this is not recommended.
Do you want to register to the UVMS now? [y] :

UVMS registration information:
-----
UniViewer Management Server hostname : <hostname>

UniViewer Management Server port number [4184] :

UniViewer Management Server administrator login ID [admin] :

UniViewer Management Server administrator password : xxxxxx

executing command :
./unims ...
```

```
UVMS on <hostname>/4184 reachable, version 6.x.yy
UniViewer Management Server is reachable.
```

This phase checks the connectivity of the UniViewer Management Server, the Dollar Universe Application Server is not registered at this point in the procedure.

If for some reason the UniViewer Management Server is unreachable at the time of installing the Dollar Universe Application Server, you can register manually with the **unims** command shown above. Refer to section "[Manual Registration on UniViewer Management Server](#)" on page 79 for details about the **unims** command.

### 5.3.6 Instance Definition

The node name by default assumes the value of the local hostname. It is limited in length to 64 alphanumeric characters. The node name in Dollar Universe Application Server V6 is however a free identifier.

```
DUAS Company name          [UNIV65] :
DUAS Node name             [<hostname>] :
executing command :
./unims ...
Couple node/company is validated by UVMS.
```

Multiple instances of the same Company can be installed on the same host on condition that the Node name is unique. Installation will be refused if the Company-Node name couple has already been registered on the UniViewer Management Server.

The *.Installer* subdirectory in */var/opt/AUTOMIC* contains details of instances already installed on the machine. This is particularly useful for the uninstall process.

### 5.3.7 Node Tags

Node Tags are free text identifiers that characterize a node. If you specify a Tag that is included in a Node View, the DUAS being installed will be dynamically included in the corresponding Node View for operations monitoring.

```
DUAS node tags             :
```

No default values are provided. Input is optional.

### 5.3.8 Hostname

The Dollar Universe Application Server hostname by default is the same as the local hostname. But in cluster configurations the Dollar Universe Application Server Hostname may be a logical identifier permitting TCP Access. The name must comply with RFC 952.

```
Change the "DUAS hostname" only if you need to set a different logical
network name
(useful for cluster configuration).
DUAS hostname              [<hostname>] :
```

### 5.3.9 Root Directory

By default the instance directory is */var/opt/AUTOMIC/DUAS/<COMPANY>\_<node>*.

The instance's root directory is accessible via the environment variable `${UNI_DIR_ROOT}` which is set in the **unienv.ksh** procedure.

```
DUAS Root directory (full path) [/var/opt/AUTOMIC/DUAS/<COMPANY>_<NODE>] :
```



In the case of a primary cluster node, the root directory should be located on a **shared** disk.

In the case of a secondary cluster node the root directory should be located on a **local** disk.

### 5.3.10 Area Selection

Each DUAS contains four environments called Areas corresponding to the operations life cycle, starting with the initial development of operations procedures (Application Area) through various phases of test (Integration Area) and pre-production (Simulation Area) before go live in the Production Area.

All four Areas will not be necessary on every instance, by default only the Production Area is activated. Areas can be enabled after installation with the **unims** command, refer to section "[Update](#)" on page 83.

```
By default only the Production area (X) is deployed.
Others areas: Integration (I), Simulation (S) and Application (A) can be
configured.
Do you want to configure these areas now? [n] : y

Do you want to configure DUAS Application Area (A)? [n]:
Do you want to configure DUAS Integration Area (I)? [n]:
Do you want to configure DUAS Simulation Area (S)? [n]:
```

### 5.3.11 Managers Installation

Some Managers are integrated with Dollar Universe. They can be installed and activated or deleted during installation.

```
By default, all available DUAS managers in this package will be installed
but not yet activated (i.e. kept).

You can also choose to remove or activate a manager (i.e. installation +
registration on UVMS).

Do you want to manage installations of any DUAS managers ("y" or "n")? [n] :
y
```

Choose the answer **"y"** to intervene in the installation of one or more Managers. If you answer **"n"** go straight to the next paragraph.

#### Usage of Manager for SAP Solutions

```
Selecting "remove" will remove the possibility to use the manager in the
future without reinstallation.

You can provide an already defined configuration file or configure one
later.

Do you want to remove(r), keep(k) or activate(a) the manager for SAP
solutions ("r", "k" or "a", default is "keep")? [k] : a
```

Depending on the selected Manager, additional information may be requested:

```
You can provide an already defined configuration file or configure one
later.
If you have already defined a configuration, give the full path of the
folder containing your "uxjcs.ini" file, or hit return? :

Default configuration file will be used.
```

Entering the *uxjcs.ini* configuration file is optional; it can be done later using the UniViewer Interface Console.

Prerequisites must be met to install or upgrade Dollar Universe Manager for SAP Solutions; please refer to section "[Software](#)" on page 34.

### Usage of Manager for Oracle Applications

Selecting "remove" will remove the possibility to use the manager in the future without reinstallation.  
You can provide an already defined configuration file or configure one later.

Do you want to remove(r), keep(k) or activate(a) the manager for Oracle Application ("r", "k" or "a", default is "keep")? [k] : a

You can provide an already defined configuration file or configure one later.

If you have already defined a configuration, give the full path of the folder containing your "uxoapp\_db\_user.xml" file, or hit return ? :

Default configuration file will be used.

Entering the *uxoapp\_db\_user.xml* configuration file is optional; it can be done later using the UniViewer Interface Console.

### Usage of the ODB, EJB, JMS, WSC Managers

If you won't use one these managers, select the remove switch "r", this will remove the possibility to use the corresponding manager(s) in the future without reinstallation.

If you may use one of these managers, select the "k", to keep possibility to activate it later.

If you are sure to use one of these managers, select the "a", to (pre)activate the usage of the(se) manager(s).

Selecting "k" or "a" will require a post-configuration from the console to fully activate the corresponding manager(s).

Make your choice concerning these managers: ODB, EJB, JMS, WSC ?  
("r(emove)", "k(eep)" or "a(ctivate)", default is "keep")? [k] : a

You must provide the path of a valid "java" command (version >= 1.6).  
Give the full path of the command [/usr/bin/java] :

## 5.3.12 TCP Port Numbers

Default port numbers can be provided by your UniViewer Management Server, or you may set them yourself.

Do you want to use default port numbers? [y] :

executing command :

./unims ...

Ports set is validated by UVMS.


Dollar Universe reserves 16 consecutive TCP port numbers. The default range starts at **10600** (base port number) and is attributed as shown in the table below:

Area	I/O	EEP	BVS	CDJ	DQM	EEP	GSI
X	<b>10600</b>	10604	10605	10611	10615	10604	16018
S	10601		10606	10612			
I	10602		10607	10613			
A	10603		10608	10614			


Dollar Universe Manager for SAP Solutions is configured on the port number 10609.

Dollar Universe Manager for Oracle Application is configured on the port number 10610.

Dollar Universe Manager for Java is configured on the port number 10616.

 In a default installation only the Production Area (X) is enabled, in this case only ports 10600, 10604, 10605, 10611, 10615 and 10618 are actually used.

If the sequence 10600 to 10618 is unavailable, enter an alternative base port number (with the 19 free consecutive TCP port numbers).

 You must ensure that any firewall on the path to/from the DUAS is correctly configured to allow communication between the selected DUAS and UVMS ports.

**Example:** If the sequence 10600 to 10618 is unavailable:


```
Do you want to use default port numbers? [y] : n

You will need to declare 11 tcp/ip port socket numbers.

Enter the DUAS TCP port base number : 12600

Port for IO server of Production area (X) will be      : 12600
Port for Business Views Server of Production area (X) will be : 12605
Port for CDJ Production area (X) will be              : 12611
Port for DQM server will be                          : 12615
Port for Supervisor server will be                   : 12604
Port for Generic Integration Server will be           : 12617
Port for manager for Sap Solutions                   : 12609
Port for manager for Oracle Application              : 12610
Port for Java manager                               : 12616
Port for IO server of Application area (A) will be    : 12603
Port for Business Views Server of Application area (A) will be : 12608
Port for CDJ Application area (A) will be            : 12614
```

The number of ports reserved depends on the number of Areas and Managers activated.

 It is no longer required that nodes within the same Company share the same TCP port sequence to be able to communicate. Node information is maintained centrally on the UVMS and regularly synchronized across all Dollar Universe Application Servers. Refer to the *Dollar Universe Administration Manual* for more details about synchronization.

## 5.3.13 The Binaries Directory

### 5.3.13.1 Default Binaries Dialog

You can share binaries with another DUAS instance.  
This option is useful for upgrading all your instances at the same time, in this case:

- 1) All instances must have the same version level.
- 2) If you want to share binaries with another instance, it is best to select a directory outside of this instance's directory structure.
- 3) If the shared directory already exists, enter the existing path.
- 4) For the first shared instance installation, the directory must not exist, it will be created with a "bin" subfolder.

If you want a standard installation, use the proposed default path for your binaries directory.

Enter the full path to the binaries directory  
[/var/opt/AUTOMIC/DUAS/<COMPANY>\_<NODE>/bin] :

Using a new non shared Executables folder.

By default the *bin* subdirectory is created, and the binaries will be loaded under the installation directory in:

```
/var/opt/AUTOMIC/DUAS/<COMPANY>_<node>/bin
```

### 5.3.13.2 Shared Binaries Dialog

If you wish to share binaries with multiple instances, specify a directory outside the structure of your instance that does not exist.

#### Example

```
Enter the full path to the binaries directory  
[/var/opt/AUTOMIC/DUAS/<COMPANY>_<NODE>/bin] :
```

```
/DUAS_Common/bin
```

```
Using a new non shared Executables folder.
```

Successive installations sharing the same binaries will display the following message:

```
Use of an existing and shared Executables folder.
```

### 5.3.14 The Log Directory

You may also wish to position the log directory outside of the instance structure. Log files tend to expand rapidly when problems occur, so positioning them in file systems where lack of space can do the least harm is probably a good idea.

```
You may define a separate directory for log files.  
This directory must not exist, it will be created with a "log" subfolder.  
Enter the full path to the log directory  
[/var/opt/AUTOMIC/DUAS/<Company>_<Node>] : /orosp/<Company>_<Node>  
Installation is going to start...Press return to continue or Ctrl C to abort
```



The installation actually begins at this step.

### 5.3.15 End of installation

#### Example

```
=====
====
DUAS instance has been installed successfully.
=====
====

=====
====
Registering the DUAS instance to the UniViewer Management Server :
=====
====

=====
====
Registration of DUAS instance to UniViewer Management Server FRWPMDEV08
=====
====
--> executing :
/var/opt/AUTOMIC/DUAS/UNIV65_vmstluni99.automic.com/bin/unims -register -
login admin -pwd xxxxxx -mgrSAP
passphrase=<b9f9II=<T4@@=_aClHdw>
12 ports received.
<IO > A = 12603
<BVS> A = 12608
<CDJ> A = 12614
<IO > X = 12600
<BVS> X = 12605
<CDJ> X = 12611
```

---

```

<DQM> X = 12615
<EEP> X = 12604
<GSI> X = 12617
<SAP> X = 12609
<OAP> X = 12610
<JEE> X = 12616
1 UVMS host received.
[FRWPMDEV08:4184]
Registration with UVMS FRWPMDEV08_MgtServer (FRWPMDEV08/4184) successful.
The registration of DUAS on the UniViewer Management Server ends with
success.
=====
====

=====
Instance registered.
=====
DUAS environment loaded for Company UNIV65 Node vmstluni99.automic.com.


=====
====
Starting DUAS instance with the command:
"/var/opt/AUTOMIC/DUAS/UNIV65_vmstluni99.automic.com/bin/uxioserv UNIV65 X
vmstluni99.automic.com"
=====
====


..
# -----
# DUAS instance is started.
# -----
End of installation with success.
Installation log file is
/var/opt/AUTOMIC/DUAS/UNIV65_vmstluni99.automic.com/log/orsyp_installation.1
og

```

## 5.4 UNIX/LINUX Interactive Upgrade

The “Upgrade” option for the **unirun** procedure is for the upgrade of the Dollar Universe Application Server V5 to V6 or V6 to V6 (cumulative installation of patches). However, the upgrade dialog and procedure differs for each case.

 Two upgrades from V5 to V6 cannot be completed in succession using one command prompt, as the V6 environment erases the V5 environment. It is recommended to open a new command window before performing the upgrade from V5 to V6.

 In the particular case of a Dollar Universe Company upgrade from v5 32 bits to v6 64 bits, two steps are required: the first – upgrading v5 32 bits to v6 **32 bits**, the second – upgrading v6 32 bits to v6 **64 bits**.

### 5.4.1 Upgrading a Cluster Environment


The upgrade of Dollar Universe, installed in a cluster on UNIX/Linux, must be carried out in four phases:

- Deactivation of the cluster switch
- Upgrade of the primary node
- Upgrade of the secondary node
- Activation of the cluster switch

In the case of a cluster that uses shared binaries, the upgrade of the secondary node is not required.


 Refer to the *Dollar Universe Administration Manual* for more details on Dollar Universe cluster architectures.

## 5.4.2 Upgrading a Version 6 Instance

 For a V6 to V6 upgrade, the Company must be **stopped** to run the upgrade procedure.

The user can choose to update the existing instance. Enter “u” to start the upgrade. For an upgrade, the user must:

- Accept the license agreement
- Enter the number of the instance to upgrade
- Confirm the selection
- Confirm the instance to upgrade is stopped
- Accept or decline a backup of the Company
- Confirm the upgrade

 When Dollar Universe V6 is installed in upgrade mode, the V6 node is registered to UVMS with the information in the *mgr/uxsrsrv.sck* file of the V5 node.

Example of the Dollar Universe V6 to V6 upgrade dialog:

```
Checking file access rights...
OK.
=====
Upgrade of DUAS to version 6.4.01: 20140202-165000
=====
Welcome to the DUAS upgrade procedure
Kit directory is /var/UNIVERSE/Kits/DUS600/du_as_6.4.01_linux_26
Started at 20130402-165000
=====
Starting upgrade in interactive mode.
# -----
# AUTOMIC license agreement:
...
Do you accept the agreement ?
--> ("y" to accept, "n" to decline and abort procedure)? y
# -----
No environment is loaded, You must choose one among the registered
instances:

List of the known instances of product DUAS (version higher than 6.0)
already installed on this machine:
    1) Company="UNIV65
       Nodename="duas6_linux"
       Installation directory="/var/opt/AUTOMIC/DUAS/UNIV65_duas6_linux"
       Bin directory="/var/opt/AUTOMIC/DUAS/UNIV65_duas6_linux/bin"

If you want to update one of these instances, enter its number.
Or, if you want to upgrade a non registered DUAS instance, you first have to
load its environment then relaunch the upgrade binary.

Enter instance number : 1
DUAS environment loaded for Company UNIV65 Node duas6_linux.

Please confirm that you want to upgrade this DUAS instance :
    - Installed in the folder "/var/opt/AUTOMIC/DUAS/UNIV65_duas6_linux"
    - With company name="UNIV65"
    - With node name="duas6_linux"
```

```

If this is not a valid configuration, restart this upgrade with an
environment loaded in a clean console.
--> ("y" to continue, "n" to choose other instance or Ctrl C to abort) ? y


Please confirm that your DUAS instance is stopped.
--> ("y" to continue, "n" to abort procedure or Ctrl C to abort)? y
Upgrade is going to start...Press return to continue or Ctrl C to abort
Current DUAS version is 6.3.01

Update 6.4.01 can be applied on current version 6.3.01
Update for LINUX can be applied (current is LINUX)
Checking if instance is stopped...
.
# -----
# DUAS instance ("UNIV65", "duas6_linux") is stopped.
# -----
Ok : instance is stopped.
--> executing : chmod -R u+w
/var/opt/ORSYP/.Installer/DUAS/UNIV65_duas6_linux

It is highly advised to backup your current installation before upgrading
it.
Before analyze the space needed for backup
Please confirm that you want to make a backup.
--> ("y" to backup, "n" for NO backup)?
...
=====
DUAS instance has been upgraded successfully.
=====
You can start DUAS with the command :
/var/opt/AUTOMIC/DUAS/UNIV65_duas6_linux/bin/unistart
=====
Upgrade log file is
/var/opt/AUTOMIC/DUAS/UNIV65_duas6_linux/log/orsyp_upgrade.log

```

### 5.4.3 Upgrading a Version 5 Instance

 For a V5 to V6 upgrade, the Company must be **started** to run the upgrade procedure.

To upgrade a Dollar Universe V5.3 or V5.6 instance to version 6:

- In a **new** command prompt, load the Company environment, for example:

```
. /var/UNIVERSE/UNIV56/mgr/uxsetenv
```

- Run the installation utility:

```
./unirun -u
```

```
Installation/Upgrade/Uninstallation/Patch procedure (c) AUTOMIC 2011
```

```
find ksh
Checking file access rights...
OK.
```

```
=====
Upgrade of DUAS to version 6.4.01: 20140203-114457
=====
```

```
=====
Welcome to the DUAS upgrade procedure
Kit directory is /var/UNIVERSE/Kits/DUS600/du_as_6.4.01_linux_26
Started at 20140203-114457
=====
```

```

Starting upgrade in interactive mode.
# -----
# AUTOMIC license agreement:
...

Do you accept the agreement ?
--> ("y" to accept, "n" to decline and abort procedure)? y
# -----
A Dollar Universe V5 instance environment is loaded and you want to upgrade
it.

Please confirm that you want to upgrade this DUAS instance :
  - Installed in the folder "/root/opt/UNIV56"
  - With company name="UNIV56"
  - With node name="vmstluni99"
If this is not a valid configuration, restart this upgrade with an
environment loaded in a clean console.
--> ("y" to continue, "n" to choose other instance or Ctrl C to abort) ? y

UVMS registration information:
-----
UniViewer Management Server hostname           : <hostname>

UniViewer Management Server port number         [4184] :

UniViewer Management Server administrator login ID [admin] :

UniViewer Management Server administrator password :
Password saved in file /tmp/cpf_26090

executing command :
./unims ...
UVMS on <hostname>/4184 reachable, version 4.0.14
UniViewer Management Server is reachable.

executing command :
./unims ...
Couple node/company is validated by UVMS.
Upgrade is going to start...Press return to continue or Ctrl C to abort

Current DUAS version is 5.6.0

--> executing : ...
...
Please confirm that you have backuped your DUAS instance version V5 before
upgrading.
--> ("y" to continue, "n" to abort procedure)? Y
...
=====
DUAS instance V6 has been installed successfully,
it is partially started and is so ready for data upgrade.
=====

Upgrade log file is /root/opt/DUS560/log/orsyp_upgrade.log

```

An upgrade of V5 to V6 ends with the message: "DUAS instance <COMPANY> <NODE> V6 has been installed successfully. It is partially started and is ready for data upgrade."

At this point, the upgrade of V5 to V6 has not completed, there are other required steps: security import, design and production data import, validation. It is recommended to refer to the "*Dollar Universe Upgrade Manual Version 5 to Version 6*" for the complete description of the version 5 to version 6 upgrade.



If the user creates a sub-directory in *mgr* containing *root* files (rights 755), the update procedure will flag an error because it cannot move those files.



## 5.5 UNIX/LINUX Silent Installation and Upgrade

Silent mode enables the installation or upgrade of Dollar Universe Application Servers in batch mode without user intervention.

### 5.5.1 Recording the Response File

An initial instance is installed or upgraded interactively to record the installation/upgrade parameters in a text file which will be used for the silent installation/upgrade.

Installation:

`./unirun -i -r -f <responses file path>` Upgrade:

```
./unirun -u -r -f <responses file path>
```

The commands above launch the interactive installation/upgrade. Answers will be recorded in the output file specified by the `-f` argument.

If no output file is specified, answers will be recorded in the *install.file* file located in the kit directory.

Example of *install.file* for an interactive installation

```
#
# CLUSTERTYPE :
CLUSTERTYPE no

# UVMSNOW : Do you want to register to the UVMS now
UVMSNOW y

# CENTRALHOST : UniViewer Management Server hostname
CENTRALHOST vmstluni99.automic.com

# CENTRALPORT : UniViewer Management Server port number
CENTRALPORT 4184

# CENTRALLOGIN : UniViewer Management Server administrator login ID
CENTRALLOGIN admin

# CENTRALPASSWD : UniViewer Management Server administrator password
CENTRALPASSWD LjY+DCoGUEE8JTwXIBVZVyw5

# COMPANY : DUAS company name
COMPANY TST600

# NODE : DUAS node name
NODE default_value

# NODETAG : DUAS node tags
NODETAG

# NODEHOST : DUAS hostname
NODEHOST default_value

# INSTALLDIR : DUAS root directory (full path)
INSTALLDIR /var/opt/AUTOMIC/DUAS/TST600_vmstluni99.automic.com

# AREA_A : Do you want to configure DUAS Application area (A)?
AREA_A n

# AREA_I : Do you want to configure DUAS Integration area (I)?
AREA_I n

# AREA_S : Do you want to configure DUAS Simulation area (S)?
AREA_S n
```

```
# INSTALL_SAP : Do you want to remove(r), keep(k) or activate(a) a manager
for SAP solutions ("r", "k" or "a", default is "k")?
INSTALL_SAP k

# CONFIG_SAP : If you have already defined a configuration, give the full
path of the folder containing your "uxjcs.ini" file or hit return.
CONFIG_SAP

# INSTALL_OAPP : Do you want to remove(r), keep(k) or activate(a) a manager
for Oracle Application ("r", "k" or "a", default is "k")?
INSTALL_OAPP k

# CONFIG_OAPP : If you have already defined a configuration, give the full
path of the folder containing your
"uxoapp_db_user.xml" file or hit return.
CONFIG_OAPP

# INSTALL_JAVA : Do you want to remove(r), keep(k) or activate(a) a manager
for Java ("r", "k" or "a", default is "k")?
INSTALL_JAVA k

# JAVA_PATH : Give the full path of the command?
JAVA_PATH

# PORTDEF : Do you want to use default port numbers?
PORTDEF n

# PORT : Enter the DUAS TCP port base number
PORT 12600

# ADMUSER : Give the already existing username, by default root user will be
administrator
ADMUSER root

# EXECPATH : Enter the full path to the binaries directory
EXECPATH default_value

# LOGPATH : Enter the full path to the log directory
LOGPATH default_value
```

To upgrade a Dollar Universe Application Server, the following information is recorded in the *install.file*:

Example of an install file for an interactive upgrade:

```
#
# ENVFILE :
ENVFILE /var/opt/AUTOMIC/DUAS/<company>_<node>/unienv.ksh

# UPGRADETYPE :
UPGRADETYPE DUAS_V6
```

## 5.5.2 Installing/Upgrading from the Response File

Run the command shown below:

```
./unirun -i -s -f <install file path>
```

Run the command shown below:

```
./unirun -u -s -f <install file path>
```

The `-f` argument is mandatory in the installation/upgrade phase.

---

## 5.6 UNIX/LINUX Command Mode Installation and Upgrade

The **uniinstaller** command, located in the kit installation directory, installs or updates Dollar Universe. It creates a response file and launches a silence installation/upgrade.

The parameters must be entered to indicate the different installation modes, options, selections, etc.

Syntax:

```
uniinstaller <-install|-upgrade|-upgradev5|-help> [options]
```

Several distinct modes are usable:

- -install: Installs a new Dollar Universe instance
- -upgradev5: Upgrades a Dollar Universe V5 instance
- -upgrade: Upgrades a Dollar Universe V6 instance
- -help: Displays the online help of the command

### 5.6.1 UNIX/Linux Command Mode Installation

The **uniinstaller -install** command installs a new Dollar Universe instance with the command line. Additional parameters must be entered using the format parameter=value.

Setting	Mandatory / Optional	Description
admuser	Optional	Company administrator name. Usable if the account used is root. <a href="#">"Company Administrator"</a> on page 38
clustertype	Optional	Cluster installation type. The possible values are: No: Default value, no cluster installation. Primary : Primary node installation Secondary: Secondary node installation, in this case only the parameter cluster_secondary_datapath is required. <a href="#">"UNIX Cluster Node"</a> on page 38
cluster_secondary_datapath	Mandatory if clustertype = secondary	Full path of the <i>values.xml</i> file of the primary cluster node <a href="#">"UNIX Secondary Cluster Node"</a> on page 39
uvmsnow	Optional	Register to UVMS, the possible values are: Y: Default value, the centralhost, centralport, centrallogin and centralpwd (or central_encryptpasswd) parameters are mandatory. N: No registration to UVMS during the installation procedure, it must be done manually afterwards. <a href="#">"Registration on the UniViewer Management Server"</a> on page 39
centralhost	Optional	UVMS hostname (this name must respect the RFC 952 standard)
centralport	Optional	UVMS port number (4184 by default in interactive)
centrallogin	Optional	UVMS administrator name (admin by default in interactive)
centralpasswd	Optional	UVMS administrator password. Incompatible with central_encryptpasswd
central_encryptpasswd	Optional	Complete path of the file containing the encrypted

Setting	Mandatory / Optional	Description
		password of the UVMS administrator. Incompatible with centralpwd. "Encoding" on page 80
company	Mandatory	Dollar Universe Company to install. "Instance Definition" on page 40
node	Mandatory	Dollar Universe node name in the Company. The key word "default_value" attributes the hostname as the default value.
nodehost	Mandatory	Hostname. The key word "default_value" attributes the hostname as the default value. "Hostname" on page 40
nodetag	Optional	List of node tags to add to the node in the "tag1;tag2" format. "Node Tags" on page 40
portdef	Optional	Y: Uses the default value (10600 to 10618) N: Does not use the default value; in this case the parameter port= is mandatory. "TCP Port Numbers" on page 42
port	Optional	Port number
installdir	Mandatory	Root directory of the Company. The key word "default_value" attributes the default value: /var/opt/AUTOMIC/DUAS/<COMPANY>_<node> "Instance Definition" on page 40
execpath	Mandatory	Directory that contains the <i>bin</i> sub-directory of the company. The key word "default_value" attributes the default value: /var/opt/AUTOMIC/DUAS/<COMPANY>_<node> "The Binaries Directory" on page 43
logpath	Mandatory	Directory that contains the sub-directory <i>log</i> in the company. The key word "default_value" attributes the default value. /var/opt/AUTOMIC/DUAS/<COMPANY>_<node> "The Log Directory" on page 44
area_a	Optional	Y or N, Y activates the Application area. "Area Selection" on page 41
area_i	Optional	Y or N, Y activates the Integration area
area_s	Optional	Y or N, Y activates the Simulation area
install_sap	Optional	Installation/activation of the Manager for SAP Solutions: r: Does not install the Manager k: Installs the Manager but does not activate it (by default) a: Installs and activates the Manager "Managers Installation" on page 41
config_sap	Optional	Full path of the <i>uxjcs.ini</i> configuration file for the Manager for SAP Solutions. This configuration is optional, it can be done afterwards.
install_oapp	Optional	Installation/activation of the Manager for Oracle Applications r: Does not install the Manager k: Installs the Manager but does not activate it (by

Setting	Mandatory / Optional	Description
		default) a: Installs and activates the Manager
config_oapp	Optional	Full path of the <i>uxoapp_db_user.xml</i> configuration file of the Manager for Oracle Applications. This configuration is optional and can be done afterwards.
install_java	Optional	Installation/activation of the Java Service used by the Managers for Java (JMS/EJB), Web Services and Oracle Database: r: Does not install the service k: Installs the service but does not activate it (by default) a: Installs and activates the service
java_path	Optional	You must provide the path for a valid “java” command (version >= 1.6). Enter the full path of the java command.

Example:

```
./uniinstaller -install admuser=root uvmsnow=y centralhost=vmstlce6u3
centralport=4184 centrallogin=admin centralpasswd=admin company=UNIV65
node=vmstlce6u3 nodehost=default_value installdir=default_value
execpath=default_value logpath=default_value
```

The installation ends with the message:

```
End of installation with success.
Installation log file is
/var/opt/AUTOMIC/DUAS/UNIV65_vmstlce6u3/log/orsyp_installation.log
```

## 5.6.2 UNIX/Linux Command Mode Upgrade

The **uniinstaller** command upgrades a Dollar Universe instance using the command line.

- **uniinstaller -upgradenv5** upgrades a V5 instance to version 6.
- **uniinstaller -upgrade** upgrades a V6 instance.

Additional parameters must be entered using the parameter=value format. The parameters are different if the upgrade concerns a version 5 or version 6 Company.

### 5.6.2.1 Upgrading a Version 5 Instance

The **uniinstaller -upgrade** command upgrades a Dollar Universe instance from the command line.

Syntax:

```
./uniinstaller -upgradenv5 ...
```

Setting	Mandatory / Optional	Description
envfile	Optional	Full path of the <i>uxsetenv</i> environment file of the Company to upgrade.
manager_sap_upgradenv5	Mandatory	Upgrades the Manager for SAP Solutions from V5 to V6. Yes: Upgrades the Manager for SAP Solutions No: Does not upgrade the Manager for SAP Solutions
centralhost	Optional	UVMS hostname (this name must respect the RFC 952 standard)
centralport	Optional	UVMS port number (4184 in interactive)

Setting	Mandatory / Optional	Description
centrallogin	Optional	UVMS administrator name (admin by default in interactive)
centralpasswd	Optional	UVMS administrator password. Incompatible with centralcryptpasswd
centralcryptpasswd	Optional	Full path of the file containing the encrypted password of the UVMS administrator. Incompatible with centralpwd. <a href="#">"Encoding"</a> on page 80

Example:

```
./uniinstaller -upgradev5 envfile=/var/opt/AUTOMIC/DUAS/UNIV56/mgr/uxsetenv
manager_sap_upgradev5=no centralhost=vmstlce6u3 centralport=4184
centrallogin=admin centralpasswd=admin
```

The upgrade ends with the message:

```
=====
====
IMPORTANT NOTE:
-----
These new ports will be used definitively or temporarily:
Port 10615 is affected to DQM server.
Port 10617 is affected to GSI server.
Port 10620 is affected to temporary IO server of area X.
Port 10623 is affected to temporary IO server of area A.
Port 10624 is affected to temporary DQM server.

It is possible to change those port values by following the procedure of
Upgrade documentation (see chapter unims -rollback5)

=====
====
DUAS instance v6 has been installed successfully,
it is partially started and is so ready for data upgrade.
=====
=====
```

### 5.6.2.2 Upgrading a Version 6 Instance

The **uniinstaller -upgrade** command upgrades a Dollar Universe instance from the command line.

Setting	Mandatory / Optional	Description
envfile	Optional	Environment file <i>unienv</i> of the Company to be upgraded. If the environment is already loaded, this parameter is optional, if not, it is mandatory.

Example:

```
./uniinstaller -upgrade
envfile=/var/opt/AUTOMIC/DUAS/UNIV65_vmstlce6u3/unienv.ksh
```

The upgrade ends with the message

```
=====
====
DUAS instance has been upgraded successfully.
=====
=====
=====
You can start DUAS with the command:
/var/opt/AUTOMIC/DUAS/UNIV65_vmstlce6u3/bin/unistart
```

```
=====
====
Upgrade log file is
/var/opt/AUTOMIC/DUAS/UNIV65_vmstlce6u3/log/maintenance.log
```

## 5.7 Results of the UNIX/LINUX Installation Procedure

### 5.7.1 Disk Organization

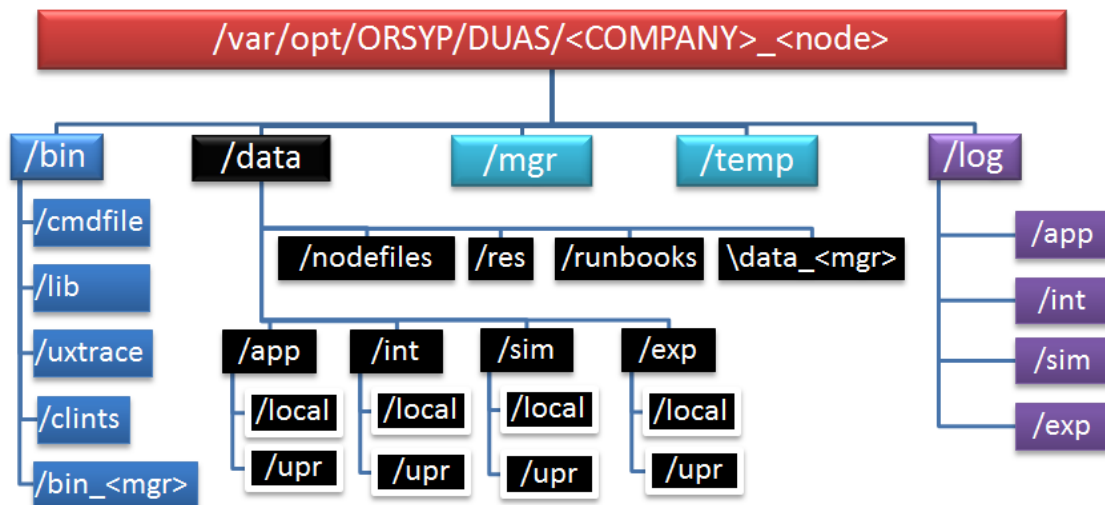


Figure 2: Disk Organization on UNIX

## 5.7.2 UNIX Processes

The number of processes started varies with the number of active Areas:

Area Processes	Description
uxioserv <Company> A <Node>	Application Area
uxcdjsrv <Company> A <Node>	
uxbvssrv <Company> A <Node>	
uxioserv <Company> I <Node>	Integration Area
uxcdjsrv <Company> I <Node>	
uxbvssrv <Company> I <Node>	
uxioserv <Company> S <Node>	Simulation Area
uxcdjsrv <Company> S <Node>	
uxbvssrv <Company> S <Node>	
<b>uxioserv &lt;Company&gt; X &lt;Node&gt;</b>	<b>Production Area</b>
<b>uxeepsrv start &lt;Company&gt; X &lt;Node&gt;</b>	
<b>uxgsisrv start &lt;Company&gt; X &lt;Node&gt;</b>	
<b>uxcdjsrv &lt;Company&gt; X &lt;Node&gt;</b>	
<b>uxbvssrv &lt;Company&gt; X &lt;Node&gt;</b>	
<b>uxdqmsrv &lt;Company&gt; X &lt;Node&gt;</b>	

Each Area enabled will add 3 processes.

## 5.8 Automatic Startup on UNIX/LINUX

All requested Areas are started by the installation procedure.

The startup/shutdown procedures are inserted in the system boot tables.

Startup services are declared as in the following run levels:

DUAS\_<COMPANY>\_<node> 0:off 1:off 2:off 3:on 4:on 5:on 6:off

## 5.9 Starting and Stopping the Instance on UNIX/LINUX

The starting and stopping procedures must be executed under the administrative account that has installed the Company.

Load the logical environment:

```
. /var/opt/AUTOMIC/DUAS/<Company>_<Node>/unienv.ksh
```

Then run the following command to start the instance:

```
${UNI_DIR_EXEC}/unistart
```

Similarly the following command will stop the instance:

```
${UNI_DIR_EXEC}/unistop
```



## 5.10 Uninstalling from UNIX/LINUX

### 5.10.1 Installation Database

Each installed instance is registered in an installation database which is by default in:

```
/var/opt/ORSYP/.Installer/DUAS
```

Sub-directory <COMPANY>\_<node> contains installation logs, as well as the Company uninstall utility: **uniinstanceremove**.

Uninstallation can also be executed using procedure **unirun** in the tools sub-directory in the installation kit. The **unirun** procedure makes it possible to uninstall any given Dollar Universe instance on the system.

### 5.10.2 Stop Company

All processes concerning the Company to be uninstalled must be stopped before launching the uninstall program.

The shutdown procedure stops all the processes:

```
${UNI_DIR_EXEC}/unistop
```

### 5.10.3 Special Uninstallation Modes

#### 5.10.3.1 Uninstalling UNIX/LINUX Cluster Nodes

Since we cannot be sure whether only one or all nodes of the cluster will be uninstalled, behavior will be the same for primary or secondary nodes:

- The cluster will not be unregistered from the UniViewer Management Server. This should be done manually from the UniViewer Console if required.
- Binary, data and log folders are removed on demand
- External libraries (*/var/opt/AUTOMIC/libs*) are never removed. This should be done manually only when uninstalling the last instance of the cluster.

#### 5.10.3.2 Uninstalling an Instance with Shared Binaries on UNIX/LINUX

The list of instances sharing a given set of binaries is stored in the directory above the reference *bin* directory.

The shared binaries directory will only be deleted when there is only one instance remaining in the list of instances sharing the binaries in question.

#### 5.10.3.3 Uninstalling after upgrade V5 to V6

If Dollar Universe V6 was installed in upgrade mode on a Dollar Universe V5 node, the uninstallation procedure is only possible when the node has the status “ready to upgrade”. Dollar Universe V6 cannot be uninstalled at any other stage of the Dollar Universe V5 to V6 upgrade procedure.

### 5.10.4 Uninstallation Dialog on UNIX/LINUX



The items created by the user in the *data/nodefiles* folder are not deleted by the uninstaller.

### 5.10.4.1 Instance Uninstallation

Launch the instance uninstallation utility if you do not have a Dollar Universe V6 kit:

```
cd /var/opt/ORSYP/.Installer/DUAS/<COMPANY>_<node>
./uniinstanceremove
```

Refer to section "[Confirmation of Instance to be Deleted](#)" on page 59.

Example:

```
-----
DUAS Installation/Upgrade/Uninstallation procedure (c) AUTOMIC 2011
-----
find ksh
Checking file access rights...
OK.
=====
=====
Welcome to the DUAS uninstallation procedure
The kit directory is /var/opt/ORSYP/.Installer/DUAS/UNIV65_vmstluni99
At 20120312-114323
=====
=====
DUAS environment loaded for Company UNIV65 Node vmstluni99.

Please confirm that you want to uninstall this DUAS instance :
  - Installed in the folder "/var/opt/AUTOMIC/DUAS/UNIV65_vmstluni99"
  - With company name="UNIV65"
  - With node name="vmstluni99"
--> ("y" to continue, "n" to abort procedure)? y
Please confirm that your DUAS instance is stopped.
--> ("y" to continue, "n" to abort procedure)? Y
Processing a full uninstallation ...
...
=====
=====
The DUAS instance has been successfully uninstalled.
=====
=====
Log file is /tmp/17587_orsyp_remove.log
```

### 5.10.4.2 Global Uninstallation

Launch the uninstallation utility from a Dollar Universe V6 kit:

```
cd du_as_6.4.01_linux_26
./unirun -d
```

#### Select Instance to Delete

The list of installed instances, contained in the installation base, is displayed. Enter the number corresponding to the instance you wish to remove.

If the instance you want to uninstall is not listed, you can enter the full path to the instance environment file instead.

Example

```
/var/opt/AUTOMIC/DUAS/<COMPANY>_<node>/ unirun -d
-----
Installation/Upgrade/Uninstallation/Patch procedure (c) AUTOMIC 2011
```

```

find ksh
Checking file access rights...
OK.

=====
====
Welcome to the DUAS uninstallation procedure
The kit directory is /var/UNIVERSE/Kits/DUS600/du_as_6.4.01_linux_26
At 20130403-111158
=====
====

List of known instances of the DUAS product installed on this machine:
  1) Company="UNIV65  Nodename="aunty"    Installation
     directory="/var/opt/AUTOMIC/DUAS/UNIV65_aunty"
  2) Company="UNIV65  Nodename="titi"    Installation
     directory="/var/opt/AUTOMIC/DUAS/UNIV65_titi"
  3) Company="UNIV65  Nodename="uncle"    Installation
     directory="/var/opt/AUTOMIC/DUAS/UNIV65_uncle"
  4) Company="UNIV65  Nodename="vmsdlceref.automic.com"    Installation
     directory="/var/opt/AUTOMIC/DUAS/UNIV65_vmsdlceref.automic.com"

Enter the number of the instance that you want to uninstall or hit "Enter"
to specify the instance environment file: 1
DUAS environment loaded for Company UNIV65 Node aunty.

```

### Confirmation of Instance to be Deleted

```

Please confirm that you want to uninstall this DUAS instance :
- Installed in the folder "/var/opt/AUTOMIC/DUAS/UNIV65_aunty"
- With company name="UNIV65"
- With node name="aunty"
--> ("y" to continue, "n" to abort procedure)? y

```

### Confirmation that Instance has been Stopped

All binary sharing instances should be stopped for the uninstallation to succeed.

Uninstallation:

- Resets synchronization data
- Unregisters the instance on the UniViewer Management Server.

```

Please confirm that your DUAS instance is stopped.
--> ("y" to continue, "n" to abort procedure)? y
Processing a full uninstallation.

```

Example of output:

```

# -----
# DUAS instance ("UNIV65", "aunty") is stopped.
# -----

Starting uninstallation ...

OS is LINUX_REDHAT
=> Uninstalling service...
--> executing : chkconfig --del DUAS_UNIV65_vmstluni99.automic.com
--> executing : rm -f /etc/init.d/DUAS_UNIV65_vmstluni99.automic.com
Service DUAS_UNIV65_vmstluni99.automic.com has been uninstalled.
The Binaries folder is a candidate for removal because it is no longer used.
Uninstallation of all components.

--> Full deletion of installation

```

```
--> Deleting file(s)
...
--> Deleting folder(s):
...
=====
====
The DUAS instance has been successfully uninstalled.
=====
=====
```

#### 5.10.4.3 Uninstallation Log File

If the uninstallation fails, the name of the log file is displayed:

```
/tmp/<PID>_orsyp_remove.log
```

Where <PID> is the process identification number

The log file contains error messages generated during uninstallation.

## 6 Installation on OS/400

The standard installation/update of the Dollar Universe Application Server is described below.

### 6.1 Prerequisites on OS/400

It is required to be connected with an administrator account (**QSECOFR** by default) to carry out the operations described below (or as another user with the same rights).

The required space is 500 MB for the main library, 1 MB for the system library and 25 MB for the Company data files. To check the available space, use the command **WRKDSKSTS**.

For more information on operating systems and compatibility with other ORYSP products, refer to the compatibility matrix on the Customer Service website in the **Content** tab.

### 6.2 The OS/400 Installation Kit

Open an AS400 session (5250 terminal emulation)

Perform the following operations:

#### 6.2.1 Preparing for Kit Transfer

Create the reception library for the kit:


```
CRTLIB INSTALL
```

Create the reference to the SAVF file for the Dollar Universe kit in the library INSTALL:

```
CRTSAVF FILE(INSTALL/DUAS_65)
```

#### 6.2.2 Transferring an Installation Kit from Windows

Decompress the file **du\_as\_6.m.nn\_OS400.exe** into the temporary Windows directory (C:\Temp for example) to retrieve the file **DUAS\_65.SAVF**.

 Make sure to switch to binary mode **bin** before starting the transfer.

Transfer the file from the temporary Windows directory to the local repertory on AS400 using FTP protocol.

```
ftp « IP address of the AS400 server »
bin
cd INSTALL
put C:\Temp\DUAS_65.SAVF
```

#### 6.2.3 Installation Preparation

Create the restoration library for the Dollar Universe kit:

```
CRTLIB DUAS_65
```

Restore all the objects located in the SAVF.

```
RSTOBJ +F4
```

- Parameters to enter:
  - OBJECT.... \*ALL
  - Library of object backups ....DUAS\_65
  - Unit.....\*SAVF
  - Backup files .....DUAS\_65
  - Library.....INSTALL

Add the library DUAS\_65 at the highest level of priority in the online libraries.

```
ADDLIBLE DUAS_65
```

## 6.3 OS/400 Interactive Installation

Start the installation procedure:

```
INSTALL +F4
```

The user must enter the following information:

**Company name:** Company name with exactly six letters in uppercase

In a network of machines managed by Dollar Universe, all the Dollar Universe installations must have the same Company name in order for them to communicate.

**Node name:** Dollar Universe node name in quotations

This code is composed of ten alphanumeric characters (0 to 9, a to z and “\_” are authorized, “+”, “-” and others are not authorized).

If several instances from the same Company must be installed on the same machine, the node names are different.

**Installation IFS directory:** IFS directory (in quotations) Company files are installed in (principally data files).

It is recommended to enter the directory in */qopensys*, for example:

```
'/qopensys/AUTOMIC/<COMPANY>_<NODE>'
```

**Installation Library:** Enter the Company object library (binaries)

It is recommended to name this library the same as the Company. A second library called <COMPANY>SYS will also be created with the installation procedure.

**Register with UVMS now?**

Enter **Yes** or **No**.

The information from the Dollar Universe installation must be registered on UniViewer Management Server. DUAS will then be added to nodes list in UniViewer and the connection status will be displayed. This avoids manual declaration.



Make sure that the firewall on the DUAS path is properly configured to allow communication between the ports of the selected DUAS and UVMS.

The modification on the UniViewer Management Server nodes list, the user accounts and roles are distributed, via engine synchronization, to the declared Dollar Universe nodes.

If the UniViewer Management Server is accessible, enter: **Yes**. If it is not accessible, enter: **No**, in this case, the declaration must be done by using the command **UNIMSREGIS**. Refer to the section [“Manual Registration on UniViewer Management Server”](#) page 79.

---

**UVMS declaration: Server Host:** Enter the name of the UniViewer Management Server host in quotations. This name must respect the RFC 952 format.

**UVMS declaration: Server port:** Enter the number of the TCP port used by UniViewer Management Server. This port number was specified during installation, the default value is 4184.

**UVMS declaration: Admin Login:** Name of the UniViewer Management Server administrator account (in quotations) specified during installation.

**UVMS declaration: Password:** Password for the UniViewer Management Server administrator account (in quotations) specified during installation.

**Confirmation:** Enter **Yes** if you want to install Dollar Universe immediately.

If you want to enter additional parameters (below):

- Leave **No**
- Type **F10** to display the additional parameters (below)
- Go to this field
- Enter **Yes** to start the installation

Example of installation dialog:

```
Company name          ECA614
Node name             'frsdi611'
Installation ifs directory  '/qopensys/AUTOMIC/ECA614_frsdi611'
Installation library     ECA614
Register with UVMS now?  *YES
Uvms declaration : Server host  'frwpmdev07'
Uvms declaration :      port    4184
Uvms declaration : Admin login  'admin'
Uvms declaration :      password 'admin'
Confirmation          *YES
```

**Dollar Universe base port:** Enter the first port number of a series of 17 that will be used for the operation of Dollar Universe: 10600 by default.

Dollar Universe processes communicate locally on the network, via TCP sockets. Verify that the TCP/IP port numbers are available in the services with the command **WRKSRVTBLE**.

**Server hostname:** There is normally no need to change the hostname of the local system except in the case of logical hosts in a cluster attached to a floating IP address. This name must conform to the RFC 952 format.

**Node tags:** The node tags are free text identifiers that identify a node. If you specify a label that is included in a UniViewer Node View, the DUAS node being installed will be dynamically added to the group of nodes corresponding to the operations related to production monitoring.

**Additional areas:** In a typical installation, only the Production Area is activated. If other Areas are required, enter the additional Areas that you want to activate: A (Application), I (Integration), S (Simulation).

Areas can also be activated after installation with the command **UNIMSUPDAT**, refer to the section "[Update](#)" on page 83.

**Log files directory:** the log directory can be redirected. Specify the name of the directory where the subdirectory *log* will be created by the installation program.


**Company SBS name:** name of the sub-system the Company engines are run

**Company SBS library:** name of the system library: <COMPANY>SYS by default. This library's name must be different from the main library's name mentioned in the "[Installation Library](#)" question. In case a few Dollar Universe nodes are installed on the same machine, this name must be different for each instance.

**Company OUTQ name:** name of the output used by the Company engines

**Company JOBQ name:** name of the queue used by the Company engines

**Asp device name:** location of the IASP of the Company.

 Confirm the installation by entering **YES** in the **Confirmation** field. The installation trace is displayed on the screen.


#### End of installation example

The installation ends with the declaration of the Dollar Universe node on UniViewer Management Server:

```
...
Registration with UVMS <nodename> (<hostname>/<port>) successful
Press ENTER to end terminal session
Version file successfully updated
Press ENTER to end terminal session
#####
End of installation with success
#####

Press ENTER to end terminal session

Installation duas: <COMPANY>/<node>
```

 The output of the installation procedure is only displayed on the screen. The message “Press ENTER to end terminal session” allows the user to read what has been done by the installation procedure and to take a break. After the user selects Enter, the procedure continues to the next message, etc.

## 6.4 OS/400 Interactive Update

In general, Dollar Universe updates are available on the [FTP site](#)

The modifications made by the update are listed in the associated readme file.

For each update, the procedure "Installation of an Update" below must be applied where *nnnnn* is replaced by the update number.

### 6.4.1 Stopping Dollar Universe

Stop the Company with the command:

```
UNISTOP +F4
```

Stop the sub-system <COMPANY> with the command:

```
ENDSBS <COMPANY>
```

### 6.4.2 Installation of an Update

The kit must be decompressed on the Windows platform and then transferred by FTP to the OS/400 system in binary mode.

Create the restoration library FXnnnnn:

```
CRTLIB FXnnnnn
```

Create the reference to the SAVF file in the FXnnnnn library:

```
CRTSAVF FXnnnnn +F4
```

Visualize the members contained in the SAVF with command **DSPSAVF**. Note the original library.



Restore the member with the following command (it is required to press F4 and then F10 to modify the parameters “Database option member” on \*ALL instead of \*MATCH and “Admit object difference” on \*ALL instead of \*NONE):

```
RSTOBJ OBJ(*ALL) SAVLIB(FXnnnnn) DEV(*SAVF) SAVF(INSTALL/FXnnnnn)
ADDLIB LIB(FX2nnnnn)
```

Install the update:

```
UPGRADE +F4
```

You can restart the sub-system and the Company after all the updates have been applied.

## 6.5 Results of the OS/400 Installation Procedure

The installation procedure executes the following actions:

- Installation of libraries:
  - <COMPANY>, location of the Company program files and the logical environment
  - <COMPANY>SYS, location of the Company sub-system and JOBD that cannot be installed on IASP.

To verify the creation of library, for example, you can run the commands:

```
WRKOBJ <COMPANY>
WRKOBJ <COMPANY>SYS
```

These libraries are also accessible on IFS in /qsyslib/<COMPANY>\*

- Creation of IFS directories

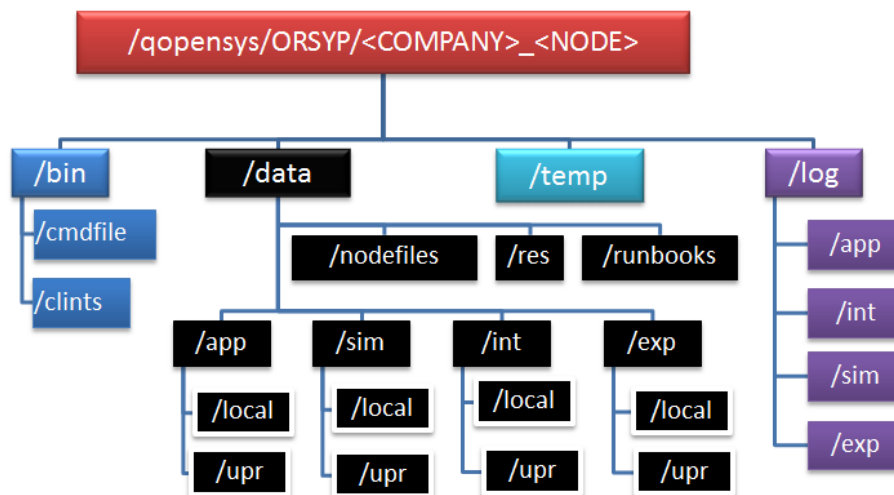


Figure 3: Disk Organization on OS/400

To verify the creation of IFS directories, you can, for example, execute the command:

```
WRKLNK obj(' /qopensys/AUTOMIC/<COMPANY>_<NODE>/'*)
```

- Creation of needed system objects
- Creation of four input queues:
  - <COMPANY>X for Dollar Universe process submissions in the Production Area.
  - <COMPANY>S for Dollar Universe process submissions in the Simulation Area.

- <COMPANY>I for Dollar Universe process submissions in the Integration Area.
- <COMPANY>A for Dollar Universe process submissions in the Application Area.

 Use the command **WRKJOBQ** for see the output files.

- Creation of a queue named SYS\_BATCH dedicated to submitting jobs (SYS\_BATCH is the default queue used by Dollar Universe for submitting jobs).
- Creation of four output queues:
  - <COMPANY>X for Dollar Universe processes in the Production Area
  - <COMPANY>S for Dollar Universe processes in the Simulation Area
  - <COMPANY>I for Dollar Universe processes in the Integration Area
  - <COMPANY>A for Dollar Universe processes in the Application Area

 Use the command **WRKOUTQ** to see the output queues.

- Creation of a JOBD object, the name of the JOBD corresponds to the name of the installed Dollar Universe Company.
- Creation of a SBS object to define the sub-system the Dollar Universe processes are executed in. The name of the sub-system corresponds to the name of the installed Dollar Universe Company <COMPANY>.

To verify that the sub-system has started (started by the installation procedure), you can, for example, run the command:

```
WRKACTJOB SBS (<COMPANY>)
```

- UNIENV command configuration


## 6.6 Automatic Startup on OS/400

After an installation, the sub-system is started with the installation procedure. If the sub-system is stopped, or if the AS400 server is restarted, the sub-system is restarted.

It is recommended to include the sub-system automatic startup in the startup of the AS400 server. In order for this to take place, **QSTRUP** must be modified. It is also possible to create a program that runs automatically when the sub-system has been started and that starts selected services. This program is not delivered during installation.

## 6.7 Starting and Stopping the Instance on OS/400

The starting or stopping procedure must be carried out under the administrator account that was installed on the Company.

 The Company libraries must be declared in order for the Dollar Universe commands to function, with the help of the commands **ADDLIBLE <COMPANY>** and **ADDLIBLE <COMPANY>SYS**.

### 6.7.1 Startup

Two steps allow for the Company to be started:

---

- Start the sub-system (if it is not already started) with the command:

```
STRSBS SBSD (<COMPANY>SYS/<COMPANY>)
```

- Start the Company with the command

```
UNISTART +F4
```

An additional parameter allows for the data files to be reorganized (Yes) or not (NO) at startup.

You can also run the command:

```
UNISTART REORGSTART (YES|NO)
```



The command **WRKACTJOB** allows the user to verify if the Dollar Universe sub-system and processes are started.

## 6.7.2 Shutdown

Two steps allow for the Company to be stopped:

- Stop the Company with the command

```
UNISTOP
```

- Stop the sub-system with the command

```
ENDSBS SBSD (<COMPANY>)
```



The command **WRKACTJOB** allows the user to verify if the Dollar Universe sub-system and processes are stopped.

This procedure stops all Dollar Universe processes and engines, even if some were not started. This may result in warning messages in the general log of Dollar Universe.

## 6.8 Uninstalling from OS/400

To uninstall a Dollar Universe Company, the user account **QSECOFR** must be used.

- Add the Dollar Universe DUAS 65 software delivery library to the list of current libraries:

```
ADDLIBLE DUAS_65
```

- Stop the Company

```
UNIENV
```

```
UNISTOP
```

The command **WRKSBSJOB <COMPANY>** allows the user to verify the Company has been stopped.

- Stop the sub-system

```
ENDSBS <COMPANY>
```


- Check that the Company libraries are not locked with the following commands:

```
WRKOBJLCK OBJ(QSYS/<COMPANY>) OBJTYPE(*LIB)
```

```
WRKOBJLCK OBJ(QSYS/<COMPANY>SYS) OBJTYPE(*LIB)
```

- Run the command

```
UUNINSTALL + F4
```

-  In the screen for entering parameters, type **F11** to display either the parameter name or the associated commentaries.

#### Example of uninstallation dialog

```
Starting universe uninstall (UUNINSTALL)

Indicate your selection, then press ENTER.


Company name . . . . . <COMPANY>
Company library name . . . . . <COMPANY>
Confirmation . . . . . YES          NO, YES
```

Or directly:

```
UUNINSTALL COMPANY(<COMPANY>) LIBCOMPANY(/<COMPANY>) CONFIRM(YES)
```

This command:

- Empties the output queue (OUTQ) of the Dollar Universe Company (option 14 on the OUTQ of the Company are accessed with the command **WRKOUTQ**).
- Removes the Company libraries (<COMPANY> and <COMPANY>SYS).
- Uninstalls all directories or files created in the IFS environment. Files and directories created after the installation are not removed
- Removes the libraries <COMPANY>BCKP and <COMPANY>TMP containing the SAVF updates.


-  The items created by the user in the *data/nodedefiles* folder are not deleted by the uninstaller.
-

# 7 Installation on OpenVMS

The standard installation/update of the Dollar Universe Application Server is described below.

Installation/upgrade can be carried out in one of two modes:

- **Interactive mode:** (English only). The user responds to questions in a sequence of dialogs. Refer to sections "[OpenVMS Interactive Installation](#)" on page 70 and "[OpenVMS Interactive Update](#)" on page 71.
- **Silent mode:** This mode does not require any input from the user but instead requires an answer file, created by an installation in interactive mode, which must be edited and updated (company name, node, directories...). Refer to section "[OpenVMS Silent Installation and Upgrade](#)" on page 72.

 In the installation dialog, all responses that contain special characters or lowercase must be entered in quotations.

## 7.1 Prerequisites on OpenVMS

The installation procedure can be performed from any user account so long as it has the following privileges: *impersonate* (*previously detach*), *netmbx* and *tmpmbx*. During the installation, to assign an instance to another user, the installation user account must have:

- The privilege *grpdrv* if the user is in the same user group
- Or the privilege *sysprv* if the user is not in the same user group.

The required disk space is 200 MB for the *bin* directory, 200 MB for the *data* directory and 100 MB for the *log* directory. To verify the disk space, use the command: *show device/mounted/size*.

If the three directories are installed on the same disk, the required space is 500 MB.

 The installation of DUAS v6 on OpenVMS requires an ODS-5 volume.

For more information on operating systems and compatibility with other ORYSP products, refer to the compatibility matrix on the Customer Service website in the **Content** tab.

## 7.2 The OpenVMS Installation Kit

Installation kits are delivered in the following format:

```
<product name>_<version>_<os-name>.sfxexe
```

The kit is auto-extractible and is uncompressed when it is run.

Create a temporary directory for the kit:

```
create/directory <user_temporary_folder>
```

Go into the temporary directory:

```
set default <user_temporary_folder>
```

Uncompress the kit:

```
run du_as_6501_openvms_ita.sfxexe
```

## 7.3 OpenVMS Interactive Installation

Start the installation procedure:


```
@unirun -i
```

The user must enter the following information:

**Accept the license agreement:** Y

**Do you want to install a cluster node:** Yes or No. No by default

On OpenVMS, only an active-passive cluster configuration is supported where one Dollar Universe instance is installed on a shared disk with binaries installed (on the shared disk) for each member. The Dollar Universe instance can be accessed by multiple members and only one node is active.

 Only homogenous clusters are supported on OpenVMS.

**Give the already existing username, by default “USER” will be administrator:** [JWN]

**Register with UVMS now?**

Enter **Yes** or **No**.

The information from the Dollar Universe installation must be registered on UniViewer Management Server. DUAS will then be added to nodes list in UniViewer and the connection status will be displayed. This avoids manual declaration.

**UVMS declaration: Server Host:** Enter the name of the UniViewer Management Server host in quotations. This name must respect the RFC 952 format.

**UVMS declaration: Server port:** Enter the number of the TCP port used by UniViewer Management Server. This port number was specified during UVMS installation, the default value is 4184.

**UVMS declaration: Admin Login:** Name of the UniViewer Management Server administrator account (in quotations) specified during UVMS installation.

**UVMS declaration: Password:** Password for the UniViewer Management Server administrator account (in quotations) specified during UVMS installation.

**Company name:** Company name with exactly six letters in uppercase in quotations.

In a network of machines managed by Dollar Universe, all the Dollar Universe installations must have the same Company name in order for them to communicate.

**Node name:** Dollar Universe node name in quotations.

This code is composed of 64 alphanumeric characters (0 to 9, a to z and “\_” are authorized, “+”, “-” and others are not authorized).

If several instances from the same Company must be installed on the same machine, the node names are different.

**Node tags:** The node tags are free text identifiers that identify a node. If you specify a label that is included in a UniViewer Node View, the DUAS node being installed will be dynamically added to the group of nodes corresponding to the operations related to production monitoring.

**Dollar Universe hostname:** By default this name is the local hostname. Change the DUAS hostname only for cluster installation (refer to the *Administrator's Manual* for more information on cluster installations).

**Installation directory:** The path where the DUAS instance will be installed. For cluster installations, the installation directory must be located on the shared disk.

**Additional areas:** By default, only the Production Area is activated. You can activate other Areas by entering [Y] and then specifying the Areas (A, I or S) that you want to be activated. Areas can be enabled after installation with the **unims** command, refer to section ["Update"](#) on page 83.

---

**Default port numbers:** TCP port numbers for DUAS processes. You can use the TCP port numbers proposed by UVMS or enter different ones.

**Bin files directory:** The path where the Company *bin* directory will be created. For cluster installations, the user must define a separate directory for binaries and utilities.

**Log files directory:** The path where the Company *log* directory will be created

Press <Enter> to continue with the installation, or <Ctrl Z> to abort the procedure.

#### Installation Example:

```
Do you accept the agreement ?
--> ("Y" to accept, "N" to decline and abort procedure)?y

If you want to administrate this instance with another user than "JWN"

Give the already existing username, by default JWN user will be
administrator [J
WN] :

You have to register on a UniViewer Management Server (UVMS),
this can be done later but this is not recommended.
Do you want to register to the UVMS now                [Y] :y

UVMS registration information:
-----
UniViewer Management Server hostname                []:"calpmjwn"
UniViewer Management Server port number             [4184] :
UniViewer Management Server administrator login ID   [admin] :
UniViewer Management Server administrator password  : "password"
UVMS on calpmjwn/4184 reachable, version 6.4.01

DU_AS company name                                [UNIV65] :
DU_AS node name                                   [casdvita01] : "casdvita01"
```

## 7.4 OpenVMS Interactive Update

Dollar Universe updates are available on the [FTP site](#).

The modifications made by the update are listed in the associated *release notes* file.

For each update, the procedure must be applied.

### 7.4.1 Stopping Dollar Universe

Load the logical environment of the Company:

```
@dev: [path_installation]unienv.com
```

Stop the Company with the command:

```
unistop
```

### 7.4.2 Installation of an Upgrade

The upgrade procedure has the option to create a backup in a specified directory. If a directory is not specified, the default is the backup directory in the root installation directory.

Install the upgrade:

```
@unirun -u
```

You can restart the Company after all the updates have been applied.

 The upgrade procedure on VMS can only be applied for upgrades from Dollar Universe V6.x to Dollar Universe V6.x. The upgrade from Dollar Universe V5 to V6 is not available.

## 7.5 OpenVMS Silent Installation and Upgrade

Silent mode enables the installation of Dollar Universe Application Server with no user intervention.

### 7.5.1 Recording the Response File

In record mode, an initial instance is installed or upgraded interactively to record the installation or upgrade parameters in a text file which will be used for the silent installation/upgrade.

Installation:

```
@unirun -i -r -f <responses_file_path>
```

Upgrade:

```
@unirun -u -r -f <responses_file_path>
```

The commands above launch the interactive installation or upgrade. Answers will be recorded in the output file specified by the `-f` argument.

If no output file is specified, answers will be recorded in the *install.file* file located in the current directory.

Example of answers recorded in the *install.file* for an interactive installation

```
# Silent installation records file:
UNICLUSTER=N
UNIADMUSER=JWN
UNIUVMSNOW=Y
UNIUVMSHOST=calpmjwn
UNIUVMSPORT=4184
UNIUVMSLOGIN=admin
UNIUVMSPWD=LjY+DCoGUEE8JTwXIBVZVyw5
UNICOMPANY_NAME=UNIV65
UNINODE_NAME=casdvita01
UNINODE_TAGS=TAG
UNIHOSTNAME=casdvita01
UNIDEFAREA=Y
UNIAREAI=Y
UNIAREAS=Y
UNIAREAA=Y
UNIDEFFPORTS=N
UNIPORTVAL=10400
UNIDIRINST=DKA0:[USERS.JWN.AUTOMIC.DUAS.UNIV65_CASDVITA01]
UNIDIREXEC=DKA0:[USERS.JWN.AUTOMIC.DUAS.UNIV65_CASDVITA01]
UNIDIRLOG=DKA0:[USERS.JWN.AUTOMIC.DUAS.UNIV65_CASDVITA01]
[End of file]
```

To upgrade a Dollar Universe Application Server, the following information is recorded in the *install.file*:

Example of an install file for an upgrade:

```
# Silent upgrade records file:
UNIAGREELIC=Y
ENVFILE=UNI_DIR_ROOT:unienv.com
[End of file]
```

---



## 7.5.2 Installing/Upgrading from the Response File

Edit the answer file to specify the **<DUAS node name>** you want to install. Then run the command shown below:

```
@unirun -i -s -f <install file path>
```

Edit the answer file to specify the **<DUAS node name>** you want to upgrade. Then run the command shown below:

```
@unirun -u -s -f <install file path>
```

The **-f** argument is mandatory in the installation/upgrade phase.

## 7.6 Results of the OpenVMS Installation Procedure

### 7.6.1 Disk Organization

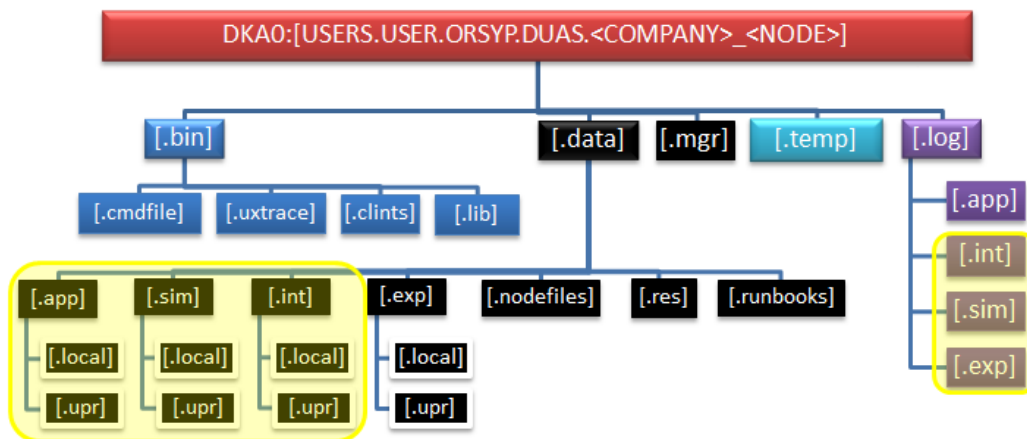


Figure 4: Disk Organization on OpenVMS


### 7.6.2 OpenVMS Processes

The following Dollar Universe processes are started on VMS:

- **<Company><short\_node\_name>IOX**
- **<Company><short\_node\_name>CDX**
- **<Company><short\_node\_name>BVX**
- **<Company><short\_node\_name>DQX**
- **<Company><short\_node\_name>EEX**
- **<Company><short\_node\_name>GSX**

Each Area that is enabled will add three processes:

- **<Company><short\_node\_name>IO<Area>**
- **<Company><short\_node\_name>CD<Area>**
- **<Company><short\_node\_name>BV<Area>**

 If the node name is longer than 6 characters, the node name is truncated in the process name.

The process name is composed of 6 characters for the Company, 6 characters for the node name, 2 characters for the server name and 1 character for the Area. If the node name is truncated, the short node name can be accessed with the logical `NODE_SHORTNAME` (in the environment).

## 7.7 Automatic Startup on OpenVMS

The automatic startup is not activated during the installation on VMS.. The administrator must add a call to the `@unistart` command in the file `SYS$MANAGER:SYSTARTUP_VMS.COM` to start the server.

## 7.8 Starting and Stopping the Instance on OpenVMS

The starting and stopping procedures must be carried out under the user account that is the owner/administrator of the instance.

### 7.8.1 Startup

Load the logical environment for the Dollar Universe instance with the command:

```
@unienv.com
```

Start the Company with the command:

```
@uni_dir_exec:unistart
```

### 7.8.2 Shutdown

Load the logical environment for the Dollar Universe instance with the command:

```
@unienv.com
```

Stop the Company with the command:

```
@uni_dir_exec:unistop
```

This procedure stops all Dollar Universe processes and engines, even if some were not started.

### 7.8.3 unicheckstart

To verify if an instance is started or stopped, run the command **unicheckstart**.

**Syntax:**

```
unicheckstart [-s server_code] [-m mode] [-t timeout]
```

Arguments	Description
-s server_code	Optional. Incompatible with -m. Enter the code of the server to check: IOX, CDX, BVX, DQX, EEX, IOA, CDA, BVA, IOS, CDS, BVS, IOI, CDI, BVI. If the tested server is not started, the command will run the test every second until the end of the timeout.
-m mode	Optional. Incompatible with -s. The only authorized value is "full". If a process is not started, the command will run the test every second until the end of the

---

	timeout.
-t timeout	Timeout in seconds, (5 seconds by default)

If used without arguments, the command will verify if at least one process is started. The timeout will therefore have no impact.

#### Example:

```
unicheckstart -m full -t 20
```

Verifies that all servers are started and repeats the check until the 20 second timeout has completed if one server is not started.

#### Return codes:

In default mode:

268435458 (%X10000002): all servers are stopped.

1: at least one server is running.

In "full" mode:

268435458 (%X10000002): one server is not stopped.

1: all servers are running.

## 7.9 Uninstalling from OpenVMS

To uninstall a Dollar Universe Company, the user must have the privileges *impersonate* (previously *detach*), *netmbx* and *tmpmbx*.

 The items created by the user in the *DATA.NODEFILES* folder are not deleted by the uninstaller.

Load the environment of the Dollar Universe instance with the command:

```
@dev: [path_installation]unienv.com
```

Stop the Company with the command:

```
unistop
```

The uninstallation procedure can be run two ways:

- With the kit :  
Go to the temporary directory where the kit is located

```
Set default <installation kit directory>
```

Run the uninstallation procedure:

```
@unirun -d
```

- With the uniuninstall tool:  
Go to the mgr directory located in the root directory of the Company.  
Run the uniuninstallation tool:

```
@uniuninstall.com
```

Example of uninstallation dialog:

```
Do you confirm the uninstallation of this DU_AS instance: y
Node name: CASDVITA01
Company name: UNIV65
Version: 6.4.01
Installation data
location: DKA0: [USERS.JWN.AUTOMIC.DUAS.UNIV65_CASDVITA01]
```

```
Installation executables and libraries
location:DKA0:[USERS.JWN.AUTOMIC.DUAS.UNIV65_CASDVI
TA01.bin]
Installation logs
location:DKA0:[USERS.JWN.AUTOMIC.DUAS.UNIV65_CASDVITA01.log]
--> ("Y" to accept, "N" to decline and abort procedure)? Y
Uninstallation successful
```

# 8 Implementation

This chapter presents all aspects of Dollar Universe configuration: License, network, start-up and shutdown.

## 8.1 Licenses

A DUAS license is required for UniViewer Management Server. Without this license no Dollar Universe Application Server installation will be able to register on the UniViewer Management Server. This license must be entered in the UVMS **node settings** with the help of the UniViewer Console.

Each Dollar Universe Application Server stores locally license keys for its component parts. A temporary license enables use of Dollar Universe for one month. The permanent license should be stored either:

- In the Dollar Universe node settings, using the UniViewer console
- Or in the *u\_fali01.txt* file, found in the instance's sub-directory: *data*

Refer to the UniViewer User Manual for more details.

## 8.2 Network Configuration



Local network configuration is not necessary. Dollar Universe Application Servers no longer have to share the same range of TCP port numbers.

Changes to the UniViewer Management Server Node List, logins and roles will be distributed to known Dollar Universe Application Servers via the synchronization engine.

Refer to the UniViewer User Manual for more details.

## 8.3 Start-up and Shutdown

The Dollar Universe Company can be started or stopped:

- In command mode: the **unistart** or **unistop** commands are located in the Company *bin* directory.
-  The **uxstartup** and **uxshutdown** commands are maintained in the *mgr* directory for compatibility reasons only.
- In graphic mode on Windows: the Windows menu: Start - Programs - AUTOMIC - <COMPANY> <NODE> **Start** or **Stop**.
-  In Windows, the **Stop All** menu stops the Company and the additional services: Interactive Desktop and User. This is useful before an update for example.

The configuration of the starting and the stopping of the Company is set within the DUAS V6 Node Settings > Startup and Shutdown.

## 8.3.1 UniViewer Console

The UniViewer Console transaction **Monitoring Mode > Monitoring > Server Engines** can be used to display status, start or stop any of the services displayed in the table below.

Service	Function	Description
IO	I/O Server	Manages access to Dollar Universe data.
CDJ	CDJ Server	Manages dynamic display of the graphical job monitor.
CAL	Calculator	Calculates the scheduling.
LAN	Launcher	Submits the jobs.
EXC	Exchanger	Manages network exchanges.
SUR	Supervisor	Supervises the physical Resources.
BVS	Business Views Server	Calculates the status of a view.
ALM	Alarm	Transmits alarms to the supervision tool
RSY	Resynchronization	Checks the job statuses with DQM
DQM	Distributed Queue Manager	Manages batch queues (under Windows and Unix).
EEP	External Event Processor	Supervises physical resources.
SYN	Synchronization	Synchronizes DUAS/UVMS nodes: list, rights, alarms...
GSI	Generic Server Integration	Server for the integration of Managers
SAP	Manager for SAP Solutions	
OAPP	Manager for Oracle Applications	

## 8.3.2 Commands

### 8.3.2.1 List the Services

The Command **uxlst fnc** will display the status of one or all of the services.

**Syntax:**

```
uxlst fnc fnc=<service> <AREA>
```

- <service>: Target service. Refer to the codes in the table below
- <AREA>: Target area: APP for Application, INT for Integration, SIM for Simulation, EXP for Production.

Example **uxlst fnc**:

The command below displays this information for the I/O server in the Production Area.

```
uxlst fnc fnc=IO exp
```

```

FNC COMPANY NODE
STOP      AT    ACTIVE      AT    PID          AREA STATUS  START      AT
CYCLE
-----
IO UNIV65  frlpmdev04      X    Started 04/29/2013 0756
448      0

```

### 8.3.2.2 Start a Service

The Command **uxstr fnc** will start one or all of the services above.

**Syntax:**

```
uxstr fnc fnc=<service> <ESP>
```

- <service>: Target service. Refer to the codes in the table below
- <AREA>: Target area: APP for Application, INT for Integration, SIM for Simulation, EXP for Production.

Example uxstr fnc:

The command below starts the Production Area Launcher.

```
uxstr fnc fnc=LAN exp
```

**8.3.2.3 Stop a Service**

The Command **uxend fnc** will stop one or all of the services above.

**Syntax:**

```
uxend fnc fnc=<service> <ESP>
```

- <service>: Target service. Refer to the codes in the table below
- <AREA>: Target area: APP for Application, INT for Integration, SIM for Simulation, EXP for Production.

Example uxend fnc:

The command below stops the Production Area Launcher.

```
uxend fnc fnc=LAN exp
```

## 8.4 Manual Registration on UniViewer Management Server

The command **unims** interacts with the UniViewer Management Server.

Dollar Universe registration to UVMS is necessary for:

- Receiving centralized information (alert rules, security, Company nodes)
- Authenticating UniViewer console connections. When UVC is connected to a DUAS node, it checks the identity of the client (UVC) with UVMS.



The Dollar Universe Application Server logical environment (unienv) must be loaded. On OS/400, programs and commands are located in the <COMPANY> and <COMPANY>SYS libraries.

**8.4.1 Syntax**

On Windows/UNIX/OpenVMS, enter **unims** without arguments to display the usage text.


The command offers the following major options:

- **-help**: Displays the command's online help.
- **-genpwd**: Encodes the password in a file that is usable by the other commands.
- **-register**: Registers the Dollar Universe node on the UVMS.
- **-unregister**: Removes the Dollar Universe node from the UVMS node list.
- **-update**: Updates node information and synchronizes with UVMS.

- **-remove**: Deactivates Areas or Managers.
- **-checkms**: Checks the connection with the UVMS.

On OS/400, the following commands are available:

- UNIMSREGIS: equivalent to **unims -register**
- UNIMSUNREG: equivalent to **unims -unregister**
- UNIMSUPDAT: equivalent to **unims -update**
- UNIMSREMOV: equivalent to **unims -remove**

 Entering commands on OS/400 is described in the paragraph “[OS/400 Command Syntax](#)” on page 87.

On OS/400, the UNIMS program can be used with the same syntax:

```
CALL PGM(UNIMS) PARM('-register' '-login' 'val' '-pwd'...)
```

## 8.4.2 Encoding

 Not available on OS/400

This command enables the encoding of the user's password in a file. This file can then be used directly by the other **unims** commands.

### Syntax

```
unims -genpwd -pwd <arg> [-pwdfile <arg>]
```

- **-pwd**: Password of the UniViewer user with Dollar Universe Node registration privileges (such as the Admin account for example)
- **-pwdfile**: Full name of the file which stores the encoded password.

Example:

```
unims -genpwd -pwd Ah13kZ5i -pwdfile "c:\temp\pwd.file"
Password saved in file c:\temp\pwd.file
```

The password was encoded and stored in the file provided

## 8.4.3 Register

This command declares the Dollar Universe node to UVMS. It calculates a passphrase (a password) and sends it to UVMS. UVMS registers the DUAS node and starts the synchronization on that node.

It should be used if the registration of Dollar Universe to UVMS could not be done during the Dollar Universe installation procedure.

 We recommend doing the registration during the installation process.

### Syntax on Windows/UNIX/VMS

```
unims -register -login <arg> -pwd <arg> [-pwdfile <arg>]
[-mshost <arg>] [-msport <arg>] [-host <arg>] [-label <arg>]
[-Xservers <arg>] [-Sservers <arg>] [-Iservers <arg>]
[-Aservers <arg>] [-areaS] [-areaI] [-areaA] [-mgrSAP] [-mgrOAP]
[-mgrJEE] [-actSAP] [-actOAP] [-actJEE]
```

### Syntax on OS/400

```
UNIMSREGIS +F4
```

Dollar Universe must be stopped.





If a parameter is not supplied, its value will be issued from the current DUAS *values.xml* file. If a parameter is supplied, its value overrides anything in the *values.xml* file. The *values.xml* file is then modified. No cancellations are possible. This file contains data configuration from the server. It is strongly recommended not to change a parameter manually.

- **-login:** UniViewer user account with « Dollar Universe Node Registration » permissions. (Administrator's account for example).
- **-pwd:** password
- **-pwdfile:** Full name of the file which stores the encoded password.
- **-mshost:** UVMS hostname or IP address
- **-msport:** UVMS TCP port number
- **-host:** hostname of the DUAS instance to register
- **-label:** label (in UVMS) of the instance to register
  
- **-Xservers:** defines the TCP port numbers of servers in the Production area.
- **-Sservers:** defines the TCP port numbers of servers in the Simulation area.
- **-Iservers:** defines the TCP port numbers of servers in the Integration area.
- **-Aservers:** defines the TCP port numbers of servers in the Application area.

Syntax: "<server>=<port>,<server>=<port>,..."

- **Server:** Server code to configure:  
Areas A, I, S and X: IO, BVS, CDJ  
Area X only: DQM, EEP, OAP, SAP, JEE, GSI
- **Port:** Server TCP port number

For example: -Aservers "IO=10603,CDJ=10614,BVS=10608"



If a port number is specified for a server with the **-\*servers** option, the corresponding Area is automatically activated. The usage of the **-area\*** option is then not required. Similarly, if a port number is specified for a manager, the manager is automatically activated. The use of **option-act\*** is not required.

- **-areaS:** enable the Simulation area
- **-areal:** enable the Integration area
- **-areaA:** enable the Application area
- **-mgrSAP:** the Manager for SAP Solutions is installed but not activated
- **-mgrOAP:** the Manager for Oracle Applications is installed but not activated
- **-mgrJEE:** the Manager for Java is installed but non-activated
- **-actSAP:** enable the Manager for SAP Solutions
- **-actOAP:** enable the Manager for Oracle Applications
- **-actJEE:** enable the Manager for Java

Example of registration using the values set during installation:

```
unims -register -login admin -pwd admin
passphrase=<X[W^xnF[EsXN<?d9qX4n>
10 ports received.
<IO > A = 10603
```

```

<BVS> A = 10608
<CDJ> A = 10614
<IO > X = 10600
<BVS> X = 10605
<CDJ> X = 10611
<DQM> X = 10615
<EEP> X = 10604
<SAP> X = 0
<JEE> X = 0
1 UVMS host received.
[FRWPMDEV08:4184]
Registration with UVMS FRWPMDEV08_MgtServer (FRWPMDEV08/4184) successful.

```

In this example, the Application Area BVS server is configured to start on the TCP port number 10608: installation value by default.

Example of a registration overwriting a predefined value:

```

unims -register -login admin -pwd admin -Aservers "BVS=10609"

passphrase=<rgB1>ouhbbaHp5NkrAmC>
10 ports received.
<IO > A = 10603
<BVS> A = 10609
<CDJ> A = 10614
<IO > X = 10600
<BVS> X = 10605
<CDJ> X = 10611
<DQM> X = 10615
<EEP> X = 10604
<SAP> X = 0
<JEE> X = 0
1 UVMS host received.
[FRWPMDEV08:4184]
Registration with UVMS FRWPMDEV08_MgtServer (FRWPMDEV08/4184) successful.

```

In this example, the Application Area BVS Server is set to start on TCP port 10609. This new value overwrites the previous and the values.xml file from the Dollar Universe instance is modified accordingly.

#### Errors:

- If Dollar Universe is started
- If the node is already registered in UVMS
- If a port number is already used by this host
- If the syntax is correct

## 8.4.4 Unregister

This command removes the Dollar Universe node declaration from the nodes list of UVMS.

Dollar Universe must be stopped.

#### Syntax on Windows/UNIX/VMS

```

unims -unregister [-login <arg>] [-pwd <arg>] [-pwdfile <arg>]
[-mshost <arg>] [-msport <arg>]

```

#### Syntax on OS/400

```

UNIMSUNREG +F4

```



If login/password are provided, login authentication is made; otherwise, passphrase authentication is used.

- -login: UniViewer administrator login

- -pwd: UniViewer administrator password
- -pwdfile: Full name of the file which stores the encoded password.
- -mshost: UVMS hostname or IP address
- -msport: UVMS port number

Example:

```
unims -unregister
Reset of previous sync data.
Unregistration from UVMS FRWPMDEV08/4184 successful.
```


Errors:

- If Dollar Universe is started
- If the node is not registered in UVMS
- If the passphrase or if the login/password is invalid
- If the syntax is incorrect

## 8.4.5 Update

Dollar Universe must be stopped.

This command allows you to change the Dollar Universe node registration in the list of UVMS nodes and thus change the Dollar Universe instance startup configuration: host name, port numbers and activation of servers, areas or managers, update the passphrase.

 This command can be used if the Dollar Universe host name has been changed (unims -update -host NEWHOST) or to create a new passphrase (unims -update -login XXX -pwd YYY -passphrase ZZZ).

**Syntax on Windows/UNIX/OpenVMS**

```
unims -update -login <arg> -pwd <arg> -passphrase <arg> [-pwdfile <arg>] [-
host <arg>]
[-label <arg>] [-Xservers <arg>] [-Sservers <arg>] [-Iservers <arg>]
[-Aservers <arg>] [-areaS] [-areaI] [-areaA] [-mgrSAP] [-mgrOAP]
[-mgrJEE] [-actSAP] [-actOAP] [-actJEE]
```

**Syntax on OS/400**

```
UNIMSUPDAT +F4
```

Refer to « [Register](#) » for item descriptions.

Examples:

```
unims -update -label newlabel
```

This command updates the description associated to the node in the UVMS nodes list.

```
unims -update -Aservers "IO=12603,BVS=12608,CDJ=12614"
```

This command updates the TCP ports numbers of the servers in the Application area.

- If login/password are provided, login authentication is made; otherwise, passphrase authentication is used.
- If the command activates an Area, the user must ask for a full synchronization of the node in UVC (administration mode > Nodes > Nodes, select the Dollar Universe node > Display > Full Synchronization).
- Caution: Updating of the servers' TCP port numbers must be carried out carefully. You must make sure that two servers do not have the same TCP port, or one of them will no longer be able to communicate.

**Errors:**

- If Dollar Universe is started
- If the node is not registered in UVMS
- If the passphrase or the login/password are invalid
- If the syntax is incorrect

## 8.4.6 Deactivation of a Manager or an Area

Dollar Universe must be stopped.

This command deactivates an Area or a Manager. On OS/400 only an Area can be deactivated.

**Syntax on Windows/UNIX/VMS**

```
unims -remove [-login <arg>] [-pwd <arg>] [-pwdfile <arg>]
[-mshost <arg>] [-msport <arg>] [-areaS] [-areaI] [-areaA] [-mgrSAP] [-mgrOAP] [-mgrJEE]
```

**Syntax on OS/400**

```
UNIMSREMOV +F4
```



If login/password are provided, login authentication is made; otherwise, passphrase authentication is used.

- -login: UniViewer user account with « Dollar Universe Node Registration » permissions. (Administrator's account for example).
- -pwd: password
- -pwdfile: Full name of the file which stores the encoded password.
- -mshost: UVMS host name or IP address
- -msport: UVMS TCP port number
- -areaA: deactivate Application Area
- -areaI: deactivate Integration Area
- -areaS: deactivate Simulation Area
- -mgrSAP: deactivate the Manager for SAP Solutions
- -mgrOAP: deactivate the Manager for Oracle Applications
- -mgrJEE: deactivate the Manager for Java

**Example:**

```
unims -remove -areaI
```

This command disables the integration Area. The servers and engines will not be started; it will not be accessible to UVC or for production.

**Errors:**

- If Dollar Universe is started
- If the node is not registered in UVMS
- If the passphrase or the login/password are invalid
- If the Area or the Manager is already deactivated
- If the syntax is incorrect

## 8.4.7 Verification


 Command not available on OS/400, use the **UNIMS** program.

Dollar Universe can be started or stopped.

This command verifies the Dollar Universe connection to UVMS.

### Syntax

```
unims -checkms -login <arg> -pwd <arg> [-pwdfile <arg>]
[-mshost <arg>] [-msport <arg>]
```

 If login/password are provided, login authentication is made; otherwise, passphrase authentication is used.

Refer to « [Register](#) » for item descriptions.

### Examples:

```
unims -checkms
UVMS on FRWPMDEV08/4184 reachable, version 400
```

Dollar Universe is registered on the UVMS indicated.

```
unims -checkms
Error -1 connecting to UVMS (see log for more info)
```

Dollar Universe is not registered on a UVMS.

### Errors:

- If the node is not registered in UVMS
- If the passphrase or the login/password are invalid
- If the syntax is incorrect

## 8.5 Refactoring Instance

The command **unirefactorinst** allows to change the identification of a newly installed Company, without user settings. Typically, this command allows to instantiate a Dollar Universe Company during a virtual machine deployment.

Prerequisites:

- Full stop of the Company to change (**Stop all** on Windows)
- Execute the Company logical environment **unienv**

Syntax:

```
unirefactorinst -company <arg> -node <arg> -host <arg> -port <arg> -tags
<arg> -label <arg> -mslogin <arg> -mspwd <arg> -msport <arg> -mshost <arg>
```

Parameters:

Parameter	Mandatory / Optional	Description
-company	Optional	New name of the Company. This code must be exactly 6 uppercase characters. The authorized characters are A to Z, 0 to 9 and _ (underscore)
-node	Optional	New name of the Dollar Universe node. Maximum 64 alphanumeric characters. The authorized characters are A to Z, 0 to 9, _ (underscore) and - (dash). The space and all other characters are forbidden.
-host	Optional	Host name of the machine. This name must conform to RFC 952.

Parameter	Mandatory / Optional	Description
-port	Optional	The first number in a range of 19 consecutive TCP port numbers allocated to the Company.
-tags	Optional	List of tags to add to the node in the format "tag1,tag2"
-label	Optional	Description (in UVMS) of the DUAS instance
-mslogin	Mandatory	UVMS administrator user name, specified during UVMS installation.
-mspwd	Mandatory	Password of the UVMS administrator, specified during UVMS installation.
-msport	Mandatory	TCP port number used by UniViewer Management Server, specified during UVMS installation. Its default value is 4184.
-mshost	Mandatory	UniViewer Management Server host name. This name must conform to RFC 952.

Example: Changing the Dollar Universe node name:

```
unirefactorinst -node FRWPMDEV_ECA -mshost FRWPMDEV53 -msport 4184 -mslogin
admin -mspwd admin > c:\temp\unirefactorinst.log
```

The output of the command is long enough, it is recommended to redirect it to a file.

Extract from the command execution:

```
=====
Instance refactoring procedure is starting ...
=====
Getting instance information:
=====
Current company name: UNIV6X
Current node name: FRWPMDEV53_ECA
Current IO X port: 31000
Current data folder: D:\_INSTALL\DUAS\UNIV6X_FRWPMDEV53_ECA\data
Current instance hostname: FRWPMDEV53.automic.com
Current instance cluster type: no
SAP module is installed.
JEE module is installed.
=====
Check parameters:
=====
...
Reorganization log file is:
"D:\_INSTALL\DUAS\UNIV6X_FRWPMDEV53_ECA\log\reorganization.log"
=====
Reorganization successful.
=====
The operations have been done with success.
```

 Using this command on an already parameterized Company is not recommended.

After each execution of the **unirefactorinst** command, the user must absolutely reload the Dollar Universe environment (**unienv**) for the command mode to work correctly.

# 9 Appendices

## 9.1 Introduction to OS/400-iSeries

### 9.1.1 OS/400 Command Syntax

Dollar Universe commands on OS/400 respect the standard syntax of the system to enter the parameters;

```
<COMMAND> + F4
```

You can also call the corresponding program:

```
CALL PGM(<PROGRAM>) PARM('ARG1' 'ARG2' 'ARGn')
```

Quotes must be used to define a parameter that uses the = sign and to preserve the case.

For example:

```
CALL PGM(UNIVERSE) PARM('-server' '-name' 'CDJ' '-area' X)
CALL PGM(UXLST) PARM(FNC 'fnc=')
```

### 9.1.2 Data Architecture

#### 9.1.2.1 Objects

Nearly every element is treated as an object, from programs to data files.

An object has two main characteristics:

- Attributes (Name, Disk size, Creation date...)
- Data

An object is always linked to a library

#### 9.1.2.2 Libraries

A \*LIB type object. It references system objects and information about them.

Within a library, two objects of the same type cannot have the same name.

As it's also an object, all libraries are linked to the special QSYS library.

#### 9.1.2.3 Members

Data within a data file is grouped together as members.

I.e.: UANTEUPROC is a member of the TEMPLATE file within the <COMPANY> library

#### 9.1.2.4 Online Libraries

A program is normally called by specifying the library to which it is linked.

The library of the program may be “online”, i.e. in a search list of libraries. In this case the associated library does not have to be specified.

 By default, QGPL and QTEMP are the only online libraries.

You can either put a library online with a command or directly edit the libraries list.

If a program is present with the same name in different libraries, the OS/400 will take the first occurrence found in the online list.

### 9.1.2.5 IFS Integrated File System

IFS is a Unix-like file system environment.

Any number of directory levels can be created within it.

QSHELL commands are used on the file system.

Dollar Universe uses both Libraries and Integrated File Systems and write to both during the installation procedure.

## 9.1.3 Function Keys

OS/400 uses 24 function keys unlike the 12 keys in other Operating Systems.

Function keys ranging from 1 to 12 are accessed by pressing F1 to F12.

Function keys ranging from 13 to 24 are accessed by pressing SHIFT+F1 to F12.

F3 : Exit

F4 : Expand the command parameters on the Command Prompt.

F9 : Retrieve the last command executed from the prompt line

F10 : Expand the OS/400 Command Prompt to secondary parameters

F12 : Cancel

## 9.1.4 OS400 Command Language

### 9.1.4.1 Administration

#### **ENDSBS SUBSYSTEM**

Stop a given sub-system.

Stopping the main sub-system leads the OS/400 to stop all child sub-systems.

#### **STRSBS SUBSYSTEM**

Start a given sub-system. A sub-system is the equivalent of a UNIX process.

A sub-system can restart children that were stopped when the sub-system was stopped.

Example:

```
UNIV61      (Father sub-system)
UNIV61_node_IO_X
UNIV61_node_CDJ_X
```

#### **WRKDSKSTS**

Check the available disk space

#### **WRKENVVAR**

Display environment variables. Equivalent of UNIX 'env'

#### **WRKSPLFIL**

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Work with spool files. Spool files contain the standard output and system logs of the OS/400.

They contain the program execution log, and are useful for debugging or diagnosing the behavior of the Dollar Universe Application Server.

### **WRKSRVTBLE**

Work with TCP/IP allocation table. Display the list of already allocated TCP/IP ports on the OS/400.

Use this command to find out which ports are already in use.

### **WRKUSRPRF**

Work with user profiles. Create (1), Modify (2) or Delete (3) a user. Use this option to duplicate Dollar Universe users in the case you want to add new users, or rename those created by the installation process.

Use F10 to extend the options at prompt screen.

## **9.1.4.2 Working with Files and Compiling Programs**

### **CRTCLPGM PGM ('LIBRARY\PROGRAM' 'LIBRARY/SOURCEFILE'...)**

Compilation of a program written in OS/400 Control Language

Parameters are:

- Program: Output file as a result of the compilation.
  - Library: Output library where the program will be located.
- Source File: Input Control Language file. The file type must be \*.SRC.
  - Library: Input library where the source file is located.
- Source member: Member of the source file to compile.

### **COPYF fromfile (LIBRARY/FILE) tofile (LIBRARY2/FILE2) crtfile (\*yes) fntopt (\*cvtsrc)**

File copy from data to source.

- Source File: Input file.
  - Library: Input library where the source file is located.
- Target File: Output copy.
  - Library: Output library where the copy will be located.

### **STRPDM**

Edit a member from a Data file

Example: UANTEUPROC is a member of the TEMPLATE file within the <COMPANY> library

### **DSPFD**

Display a data file.

### **DSPPFM**

Display a physical file.

### **CRTSAVF SAVFFILE**

Create a \*SAVF file. SAVF is the OS/400 archive file format.

### **RSTOBJ \*All**

Restore all objects from a SAVF file. This is the Unix equivalent of an `unzip`.

## **9.1.4.3 Working with Libraries**

### **EDTLIBLE LIBRARY**

Edit the list of online libraries. This can be viewed as the PATH variable in UNIX. All programs located within an online library do not need to have their library specified when called. As programs with the same name can exist in different libraries, it is important to pay attention to the order of libraries within the list.

### **WRKLIB**

Work with libraries. You can create, modify, delete or display the content of online libraries on the AS/400 server.

### **DSPLIB LIBRARY**

Display the content and attributes of the given library.

### **CRTLIB LIBRARY**

Create a library

### **ADDLIBLE LIBRARY**

Put a library online. Use this command in addition to optional parameters to set its position within the online list. Position can be important as programs can have the same name within different libraries, i.e. two different Dollar Universe companies loaded on the same OS/400 server instance.

## **9.2 Introduction to OpenVMS**

### **9.2.1 OpenVMS Command Syntax**

OpenVMS uses the command language DCL which is not case sensitive. The commands can also be abbreviated (ex. “show default” can be “sh def”).

Dollar Universe commands on OpenVMS must respect the standard syntax of the system to enter the parameters.

### **9.2.2 Tree Structure**

The VMS environment is composed of disks (physical or virtual), directories and subdirectories.

#### **9.2.2.1 Accessing Files and Directories**

To access files and directories through the command line, the user can enter an absolute path or relative path.

- Absolute path: to access a directory directly from any directory or sub-directory. The path is composed of the disk name, directory and any applicable sub-directories.

```
set default DISK$USER: [directory.subdirectory]
```

- Relative path: to access a directory by moving up or down through the tree structure. The [-] symbol is used to move up one level, the [.] symbol is used to move down a level.

```
set default [..directory.subdirectory]
```

#### **9.2.2.2 Disks**

Each disk has a master directory [000000]. The diagram below demonstrates how directories and sub-directories are connected to the master directory.

---

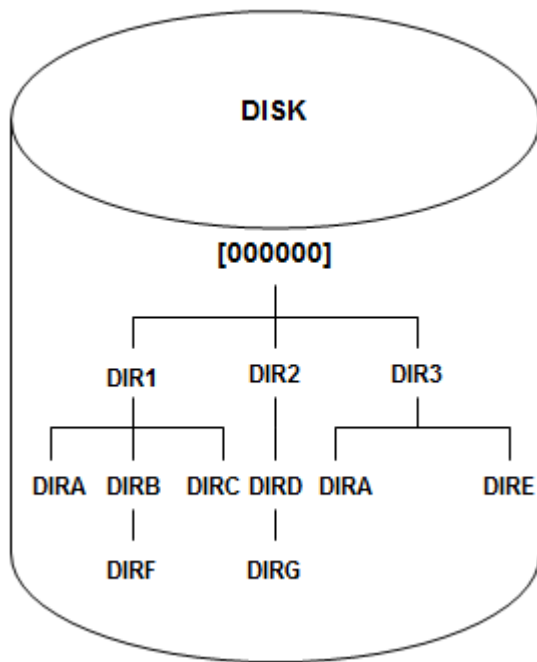


Figure 5: OpenVMS Directory Structure

## 9.2.3 OpenVMS Command Language

### 9.2.3.1 Administration

Verify the privileges for the current user:

```
show process/privilege
```

Grant a specific privilege to the current user:

```
set process/privilege=(privilege_name)
```

Grant all privileges to the current user:

```
set process/privilege=all
```

### 9.2.3.2 Files and Directories

Files can have the following rights: Read, Write, Execute and Delete.

The uninstallation procedure needs to be able to delete files.

To add the license to the `u_fa/01i.txt` file, the file must have the read, write and edit rights.

Adding rights to a file (owner rights in this example):

```
set security/protection=(O:RWED) filename.txt
```

List the files in the current directory:

```
directory
```

List the files in a specific directory:

```
directory disk:[directory.sub-directory]
```

Show the contents of the current directory:

```
show default
```

Move up a directory:

```
set default [-]
```

Move down a directory:

```
set default [.sub-directory]
```

To copy a file into a sub-directory:

```
copy <file_name> [.sub-directory]
```

To launch a command in a specific sub-directory of the current directory:

```
@[.directory]uninstall
```

Delete a directory:

```
delete directory_name.dir;*
```

Delete contents of a directory:

```
delete/tree [.directory...]*.*;*
```

## 9.3 Troubleshooting

To recreate an instance from a backup on Windows:

- If the DUAS installation registers are destroyed, they can be recreated with the script `bin/unireginst.cmd` then the DUAS installation can be upgraded.
- If the Dollar Universe Windows services `IO/EEP/GSI/Desktop/Administrator` have been uninstalled, they will be recreated during the upgrade.

# 10 About Automic Software, Community and Services

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This topic introduces the Automic Software company and how to leverage the full potential of our solutions to you.

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You can also obtain Automic documentation online from <http://docs.automic.com/>.

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## 10.1 Automic Software Company

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Automic Software is dedicated to business automation.

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Automic is the world's most comprehensive platform in automating businesses. Founded 1985, Automic pioneered the largest, independent, globally deployed automation platform which powers the enterprise, application and infrastructure. Now, as the consumerization of IT accelerates, Automic is re-imagining how organizations integrate next generation service models such as Cloud, DevOps and Big Data. Today, our software automates tens of millions of operations a day for over 2,000 customers worldwide. We challenge conventional thinking, enabling our customers to be faster, smarter, in control. Automic – the standard in business automation.

Find out more at our website [www.automic.com](http://www.automic.com).

## 10.2 Automic Community

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Want to connect with other Automic users to compare notes or learn how others are tackling problems that you're running into?

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Talk with other users from around the world to learn how they optimize their business automation with Automic. Interact with the Automic Team to get ONE Automation Platform tips and tricks straight from the source.

Join the Automic Community and become an Automic Insider and be among the first to get news about new products and events, even before they are generally announced!

## 10.3 Download Center

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Make sure that you are using our products to their fullest potential.

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The Download Center is the place where you find product downloads, documentation and information on new releases and hot-fixes about your Automic solution. It's all in one place: from service hotfixes, release notes, and all guides. You will also find patch descriptions, known bugs or workarounds.

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## 10.4 Technical Support

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We have a support team you can trust.

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Our team of professionals is ready to support you, anytime and anywhere. Three support centers located in Europe, the United States, and Asia Pacific build the core of the Automic support organization.

Our Technical Support Team makes sure that your closest Automic experts are never more than a few hours flight away, no matter on which continent your subsidiaries and data centers are located. Automic Software is designed to provide global connectivity for international companies. You are employing Automic software on a global scale and therefore you can expect global service.

## 10.5 Training and Services

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Do you want to learn even more about Automic solutions?

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We offer a range of training options on how to get the most out of your Automic solution. Depending on your location, either open training sessions at an Automic Software Service Center, or personalized training sessions at your company's site suits best. Visit the training site and get detailed information about currently offered courses.

