



3DEXPERIENCE platform Installation Fundamentals R2019x on Windows



3DEXPERIENCE



About this course

► Course objectives

- Familiarize with the **3DEXPERIENCE** platform architecture
- Configure the middleware pre-requisites like Apache, TomEE+ and SSL
- Configure either Oracle or SQL Server database
- Install the components of the **3DEXPERIENCE** platform
- Integrate the platform with native apps (CATIA) and Microsoft Office
- Validate functional scenarios ensuring successful installation of platform components

► Target audience

Infrastructure Architect, Infrastructure Consultant, Software Consultant

► Prerequisites

The participant must have knowledge about:

- Operating System (Windows) installation and configuration
- Database installation and configuration
- Networking concepts

Participants attending this class must have gone through the **3DEXPERIENCE** platform Architecture Overview R2019x course.



40 Hours

Disclaimer

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Caution/Warning

This document is based on various internal DS content for **3DEXPERIENCE** platform R2019x.

In some cases, this document may contain forward looking statements based on current expectations, forecasts and assumptions that involve risks and uncertainties.

Upon further communication this document is classified to be DS Confidential. It should not be distributed without DS authorization.

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- ▶ Install and configure the core components of the **3DEXPERIENCE** platform
 - 3DPassport
 - 3DDashboard
 - 3DSearch
 - 3DSpace
 - 3DNotification
 - 3DComment
 - 3DSwym
 - FCS
- ▶ Install 3DIndexing server
- ▶ Install a Fix Pack (FP) for all installations
- ▶ Install mid-market modules and preparation for integration with Native Apps
- ▶ Install the **3DEXPERIENCE** CATIA client
- ▶ Validate the installation with functional test scenarios

Details: Training Environment

Enrollees of this Installation Training course may have chosen different options during their enrollment:

- ▶ Option 1: Use the 3DS VM and workstation prepared for each attendee:
 - The **3DEXPERIENCE** platform deployment Hands-on will be performed on Linux/Windows (VM will be prepared for Windows-SQL Server Server/Oracle or Linux/Oracle).
 - Attendees will not be able to leave with a snapshot of their VM at the end of the training session.
- ▶ Option 2: Student has prepared their own laptop with a list of pre -requisites downloaded and installed prior to the training session:
 - The **3DEXPERIENCE** platform deployment hands-on will be performed directly on the student's laptop and its embedded VM.
 - At the end of the Training course the student will be able to leave with a functional **3DEXPERIENCE** platform R2019x environment for their use.



If prerequisites are not installed properly during the check operation at the beginning of the session, the student will have to use the 3DS VM prepared for the hands-on.

- 3DS licenses and third party licensing conformity is the student's responsibility.
- To build the VM, refer to the 3DS Program Directory for supported releases.

The training material provides step by step installation instructions for the hands-on with screen-shots for Windows-SQL Server Server/Oracle and Linux/Oracle

- Includes general discussions, points of attention, best practices and before the hands-on.

Training Options

Option 1



DS Training Room



3DS Desktop\Laptop

As provided by 3DS infrastructure

Option 2

DS Conference Room with no PC



Trainee Laptop + License Server

- ▶ Trainee brings their own laptop
- ▶ Trainee brings their own licenses

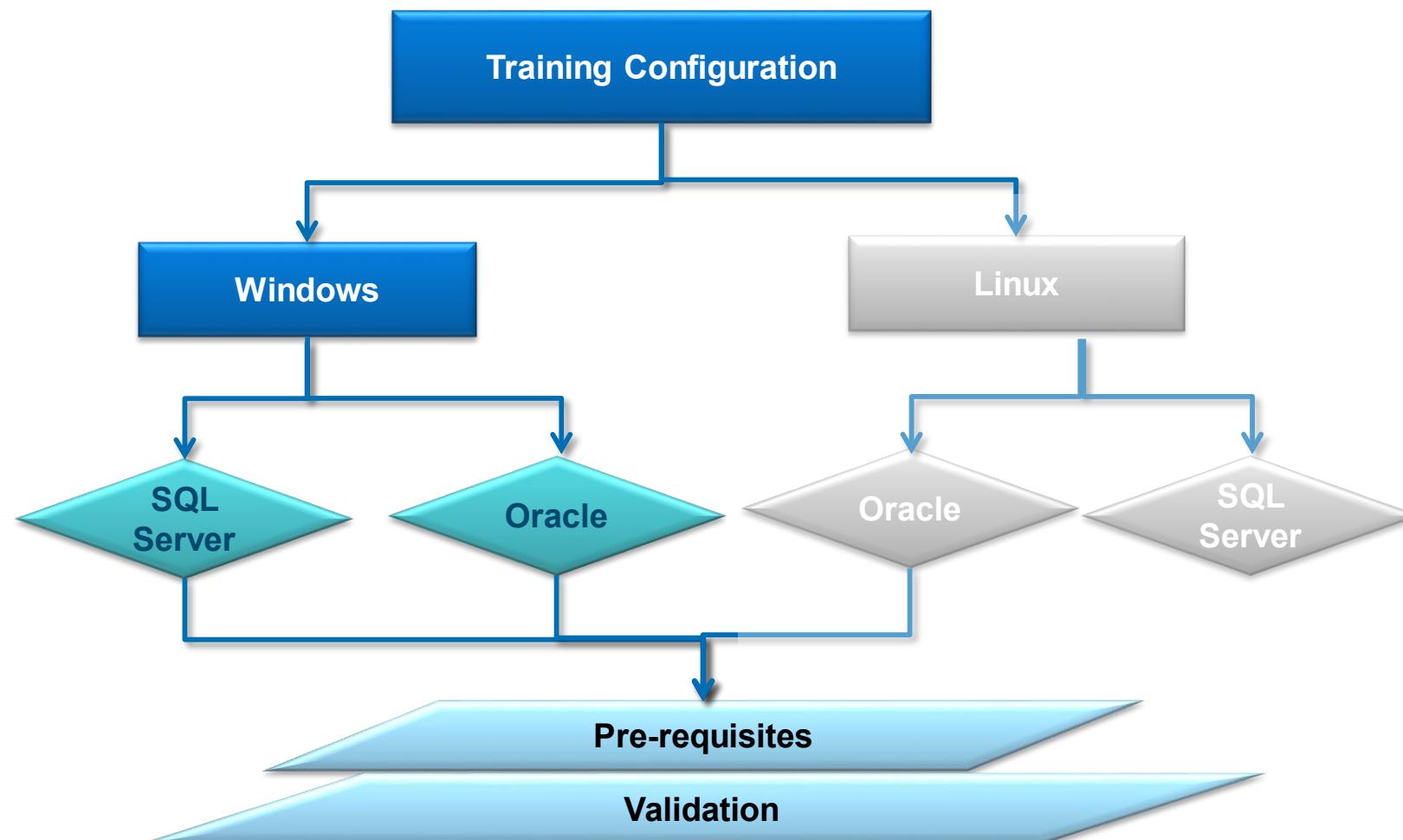
Introduction to Training

You may have your own personal installation preferences and tools, but for this training it is recommended to perform the installation as instructed. Later, if you choose, you may adapt these steps for your own specific needs.

These following components must be decided upon prior to beginning the 3DS software selection:

- ▶ Operating system
- ▶ Database

These decisions will drive your prerequisites and validation steps as listed below:



Course Flow

The course details the installation in a structured flow:

- ▶ Theory: This section provides an overview about a particular topic.
- ▶ Exercise: This section provides detailed instructions to perform the hands-on to install the **3DEXPERIENCE** platform.
- ▶ Appendix: This section covers topics that are optional for core installation. However, their know-how and installation enhances the **3DEXPERIENCE** platform experience on the whole. This is at the end of the course.
- ▶ Glossary: This section describes specific terms that aid in **3DEXPERIENCE** platform installation.

Agenda

	Monday	Tuesday	Wednesday	Thursday	Friday	
Pre Training						
9:30 – 11:00	-- WELCOME --	3DPassport configuration theory and installation (GA+FP)	3DSpace configuration theory and installation (FP)	FCS Central configuration theory and installation (GA+FP) FCS Remote configuration theory and installation (GA+FP)	Functional validation check	
	Introduction					
	Architecture overview	3DDashboard configuration theory and installation (GA+FP)				
Coffee break (11:00 – 11:15)						
11:15 - 1:00	Hands-On Check prerequisites	FedSearch configuration theory and installation (GA+FP)	Step by step installation of Mid-market modules (FP)	3DIndexing Server theory and installation (GA+FP)	Functional validation check	
		3DSpace Index configuration theory and installation (GA+FP)				
Lunch (1:00 to 2:00)						
2:00 – 3:45	Hands-On Deploy middleware Java, Apache	3DSpace configuration theory and installation (GA)	Build war and Deployment	CATIA V5 installation (SP)	Appendix Q&A	
	Hands-On Deploy TomEE+ for 3DEXPERIENCE platform	3DSpace GA (Continued)	3DNotification configuration theory and installation (GA+FP)	3DEXPERIENCE CATIA Client Installation (GA + FP)		
			3DComment configuration theory and installation (GA+FP)			
Coffee break (3:45 to 4:00)						
4:00 – 5:30	Hands-On Create Database Instance	Step by step installation of Mid-market modules (GA)	EXALEAD theory and installation (GA+FP) 3DSwym theory and installation (GA+FP)	Client connectors configuration theory and installation (GA+FP)		
	Hands-On create and deploy SSL Certificates	Continued				
	DSLS installation theory					

Conventions (1/2)

The following typographic conventions are used in this course:

- ▶ **Bold text** within a sentence denotes the name of a tool, icon, window, dialog box, button or option.
- ▶ *Italic text* within a sentence is used to denote the name of a tree item or a data file, or to apply emphasis on a key word.
- ▶ Numerical lists are used in sequential lists, such as the steps of an exercise procedure.
- ▶ Lower-case alphabetical sub-lists are typically used in the sub-steps of an exercise procedure.
- ▶ Text enclosed in these < > brackets represents the name of the keyboard key and syntax.
- ▶ Text enclosed in these [] brackets corresponds to the text that must be typed into the text field of a dialog box or prompt.

Conventions (2/2)

Courier New identifies the commands that are typed in the command prompt for a user.

Navy blue identifies the folder or file paths.

Underline1 identifies the website address.

Underline2 identifies the text that is emphasized technically.

- ▶  identifies the areas in an image that are associated with the corresponding text in a sequential list or an exercise procedure.
- ▶ Upper-case alphabetical lists are used for items that are non-sequential, such as options or definitions.
- ▶  at the top right corner of a slide indicates that the slide contains animations. Click anywhere in the contents area of the slide to view the animations.

Lesson 1: Architecture Overview

Architecture overview topics:

- ▶ **3DEXPERIENCE** platform – Services
- ▶ **3DEXPERIENCE** platform n-Tier Web Logical Architecture
- ▶ **3DEXPERIENCE** platform R2019x GA Logical Architecture On Premise



1 hour



On-Premises Architecture: Platform apps and Services



3DPassport

Identity and authentication management.



3DMessaging

Connect instantly in context and share designs with 3D snapshot.



3DPlay

Visualize and review 3D designs in real-time



3DCompass

One-click access to Service, Roles & Apps.



3DComment

Share your thoughts, engage in discussion with peers.



3DSwym

Share expertise, knowledge and skills in communities.



3DNotification

Update users about any activity on the platform.



3DDashboard

Aggregate all the information that matters to your business.



3DSpace

Manage and share structure contents as data, documents and related information.

Platform Manager



3DPassport Control Center



Collaborative Spaces Control Center



Communities Control Center



Enterprise Control Center



Members Control Center

3DEXPERIENCE®



3DOrchestrate

Distribute and parallelize the execution of simulation process
(This is not covered in this class.)



3DSearch & 6WTags

Search and discover content. Tag content along 6 dimensions (Who—What—When—How—Where—Why)

Control Centers

Apps licensed by IFW for Admins only

3DEXPERIENCE versus V6

V6 intended at leveraging product and project information collaboration. It aimed to work synchronously with ERP, SCM and CRM using technologies like SOA, SaaS and Web 2.0. It is operated with cross functional and inter-company silos.

3DEXPERIENCE platform offers an intuitive interface to experience PLM with:

- ▶ 3DPassport for authentication.
- ▶ 3DDashboard for creating widgets.
- ▶ 3DSpace for authorization and working with the 3D geometries across different industry verticals.
- ▶ 3DSwym, 3DComment, 3DNotification for collaboration and networking within communities.

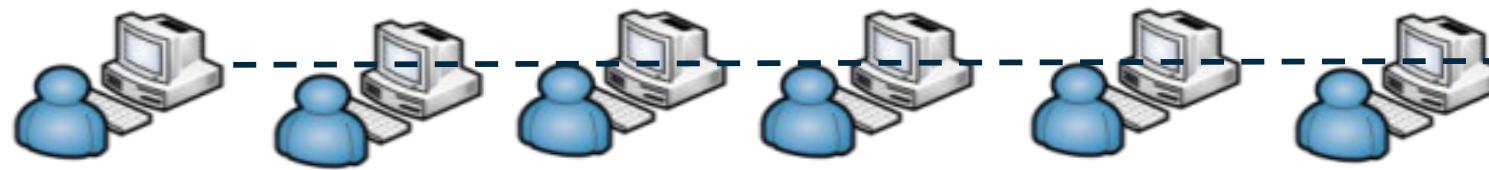
3DEXPERIENCE platform provides improved installation experience.

- ▶ Consistent installation on Linux and Windows with one installation script per service.
- ▶ Support on Oracle / MS-SQL Server. Migration tool to switch to Oracle.
- ▶ Offers three ways to execute installation: Interactive, Command and Silent.
- ▶ Install multiple services faster on the same machine with one installer.

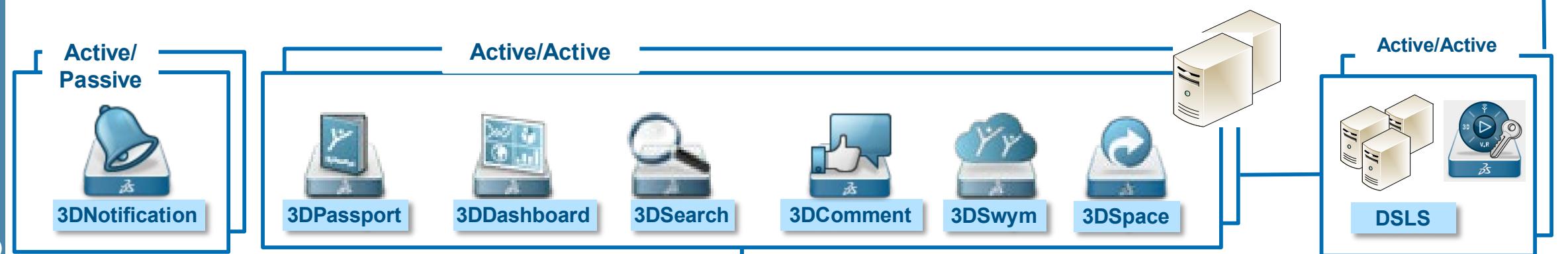


On-Premises Architecture

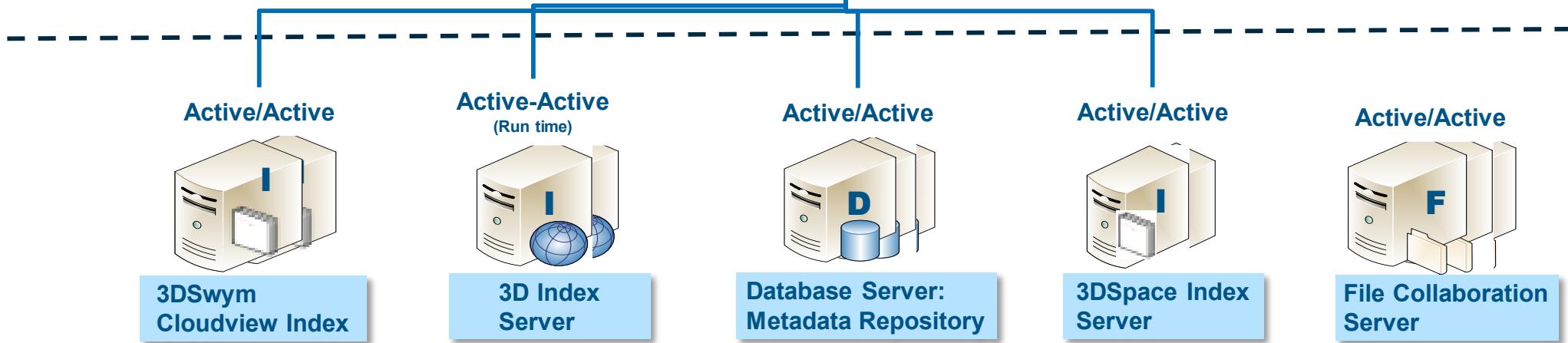
Presentation



Logic and Access



Data



Modularity: Is the degree to which a system's components may be separated and recombined.

Fail-over: In case of failure of an application server transaction is dispatched on another application server.

Load balancing: Ability to dispatch load on different Application servers or File servers.

3DEXPERIENCE platform R2019x Supported Architecture - On Premises

	3DPassport 	3DDashboard 	3DSearch 	3DComment 	3DSpace 	3DSwym 	3DNotification 	DSLS 
Load balancing	Load Balancing ^{1) 2)}							
Application Servers	TomEE+ Java8						NodeJS	
Infrastructure Services and Indexing					3DIndex (Volumetric Search)/3DX	3DSwym Media Converter		License Control
					3DSpace Index	3DSwym Index		
File Storage					3DSpace Store (FCS)	3DSwym Media Store		
Metadata Storage	Oracle 12c on RHEL, SUSE, Windows SQL Server on RHEL, SUSE, Windows							
Operating System(s)	RHEL, SUSE, Windows							

1) 3DNotification is only Active-Passive, HA compliant but not load balanced.

2) DSLS is load balanced using the internal mechanism of three server cluster.

SQL Server client driver is supported on Windows only. This implies that all components with communications to the database have to run on a Windows.

<http://www.3ds.com/support/documentation/program-directories>

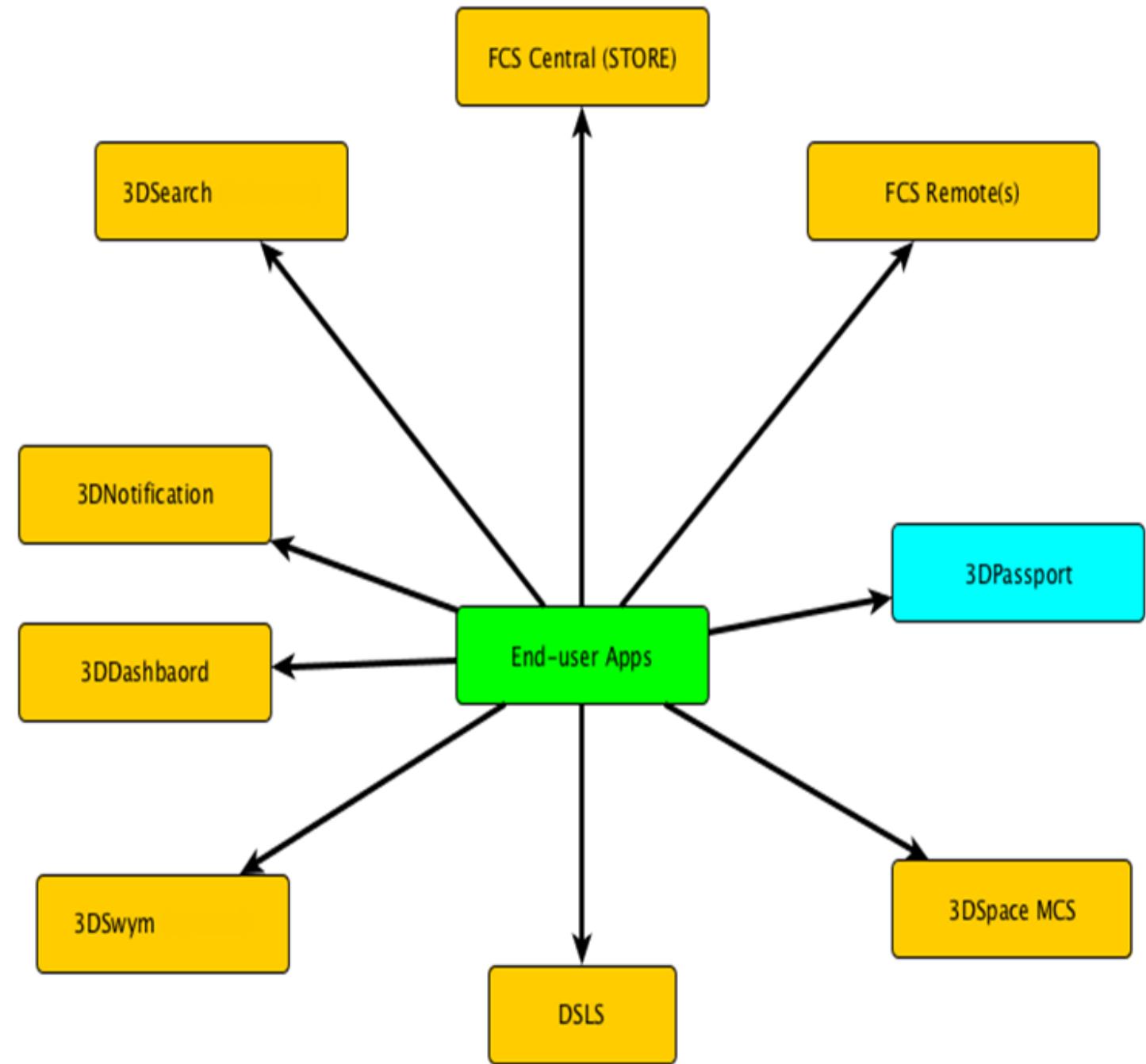
End-User Data Flow in 3DEXPERIENCE R2019x (1/2)

3DEXPERIENCE requires SSL/TLS support for secure communication for HTTP protocol and web sockets protocol. The web socket support is for 3DNotification communication with the client browser.

3DEXPERIENCE platform requires two distinct 3DDashboard FQDN as listener, prior to installation:

- ▶ the **trusted** FQDN authenticated services of the 3DEXPERIENCE platform and
- ▶ the **not trusted** FQDN which prevents by design, a widget to use the authenticated services of the 3DEXPERIENCE platform.

Trusted domain cannot be a sub-domain of untrusted domain.



End-User Data Flow 3DEXPERIENCE R2019x (2/2)

Service	Deployment	End-user Apps	End-point VIP	Data connection
3DSwym	Mandatory	Yes	One per service Else	https
3DNotification	Mandatory	Yes		https, websockets
3DComment	Mandatory	No		https
3DSpace	Mandatory	Yes		https
FCS	Mandatory	Yes	Two required for 3DDashboard	https
3DPassport	Mandatory	Yes		https
3DDashboard	Mandatory	Yes		https
3DSearch	Mandatory	Yes		https
Licensing	Mandatory	Yes	Embedded end-to-end	https
3DSpace Index	Mandatory	No	Optional	http by default
Volumetric Search	Optional	No		

3DEXPERIENCE R2019x FP1907 Strategic platform Prerequisites - On Premises

	Native OS Client			Browser Client									
Stack	Windows - 64-bit			LINUX-64bit	MacOS								
Operating Systems	Windows 10 + Office 2010, 2013, 2016			SLES 12, RHEL 7	MacOS 10.13								
Browser	Internet Explorer 11 Firefox ESR 60, Chrome			Firefox ESR 52	Safari 11								
Processor	X86 (Intel, AMD)												
Server													
	LINUX - 64bit			Windows Server- 64bit									
Stack	3DSpace / 3DDashboard / 3DSwym 3DComment / 3DPassport / 3DSearch		3D Notification	License Control	3DSpace / 3DDashboard / 3DSwym 3DComment / 3DPassport / 3DSearch	3D Notification License Control							
Apps Server	Apache TomEE+ 7.0.5		NodeJS	Not Applicable	Apache TomEE+ 7.0.5		NodeJS	Not Applicable					
Database	Oracle DB 12c R2* (including RAC)		ORACLE EXADATA		Oracle DB 12c R2 (including RAC)	ORACLE EXADATA							
	SQL Server Server 2017				SQL Server Server 2016 & 2017								
Language	JRE 8 (>=152)				JRE 8								
Operating Systems	RHEL 7 & SLES 12			Windows Server 2016 & 2017									
Virtualization	VMware ESXi 6.0, MS Hyper-V, KVM, XEN												
Processor	X86_64 (Intel, AMD)												
Hardware	Server Class												

For details refer <http://www.3ds.com/support/documentation/program-directories>

Lesson 2: Setting Up Installation Infrastructure

During the enrollment you will have chosen one of the options below. Based on your selection you will have to perform a checklist validation in order to proceed with Hands-On portion of the training.

- ▶ **Option 1:** Use the 3DS provided laptop
 - The **3DEXPERIENCE** platform Hands-on training will be performed on 3DS provided infrastructure.
 - All required media and prerequisites will be pre-staged.
- ▶ **Option 2 :** Trainee will bring their own hardware / software
 - The **3DEXPERIENCE** platform hands-on will be performed directly on the trainee's system.
 - The trainee will finish with a complete installation they can take with them.
 - 3DS licenses and third party licensing conformity are the trainee's responsibility.
 - All hardware and software will have to be checked against the 3DS Program Directory for supported releases.



80 minutes

Glossary

Dassault Systems

GA	: General Availability
HF	: Hot Fix
FD	: Fixed Delivery
FP	: Fix Pack
SP	: Service Pack
OOTB	: Out of the Box

IT Related

CORS	: Cross Origin Resource Sharing
EE	: Enterprise Edition
GUI	: Graphical User Interface
TUI	: Text User Interface
FQDN	: Fully Qualified Domain Name
LDAP	: Lightweight Directory Access Protocol
TCL	: Tool Command Language
VM	: Virtual Machine

General

LMB	: Left Mouse Button
RMB	: Right Mouse Button



Installation Environment Users and Passwords

► Users

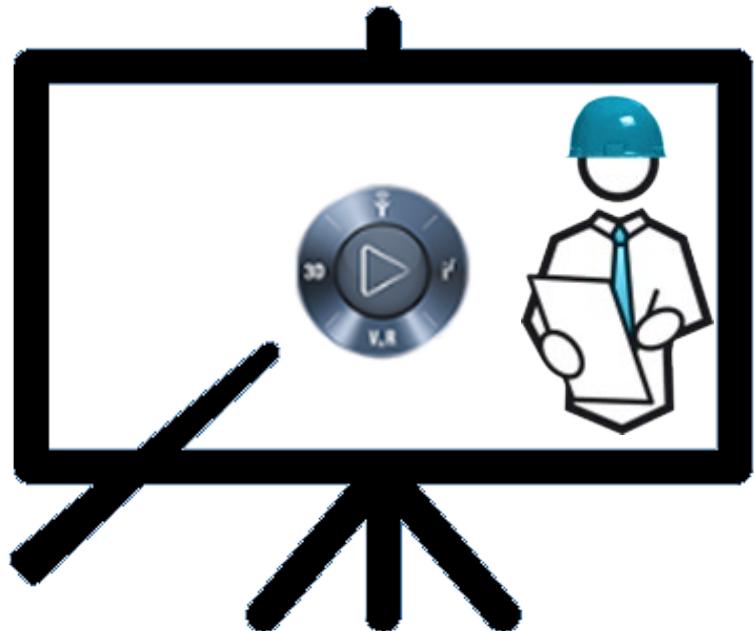
- **dsadmin**
- **dbadmin**

Use the **Zaq1@WsxCde3** password for all users.

► DS Product

- Login: admin_platform
- Password: <your password>
- Email: <your email>

Option 1 Checklist



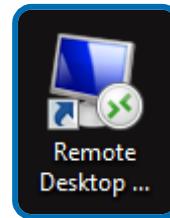
Topics to be covered:

1. Option 1 Checklist
2. Option 2 Checklist

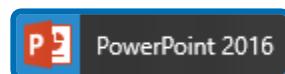
Option 1 – Laptop Checklist

3DS-Laptop checklist:

- ▶ Once you get the access to the 3DS-Laptop, Please validate against the checklists below.
 - Can you see **Remote Desktop Connection (RDP)** icon on your desktop.
 - Are you able to access the 3DS-VM using **RDP**
Verify if the following accounts exist.
 - dsadmin
 - dbadmin
 - Check that *DSLicSrv.txt* file contains DSLS in *C:\ProgramData\DassaultSystemes\Licenses* and that you can ping them.
 - Do you see the CATIA V5-6R2017 GA HF09 and MS Office icons on your desktop.



Laptop Login details will be provided prior to the training.

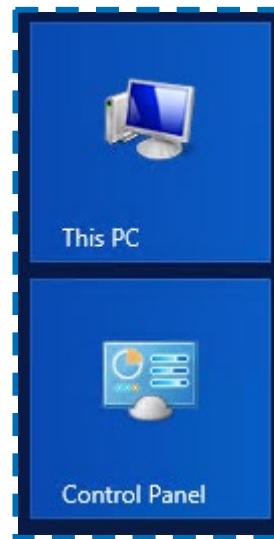


- Make sure that MD2 and MES licenses are registered in the DSLS
 - <install_path_of_native_client>\win_b64\code\bin> DSCheckLS.exe -r MD2
 - <install_path_of_native_client>\win_b64\code\bin> DSCheckLS.exe -r MES

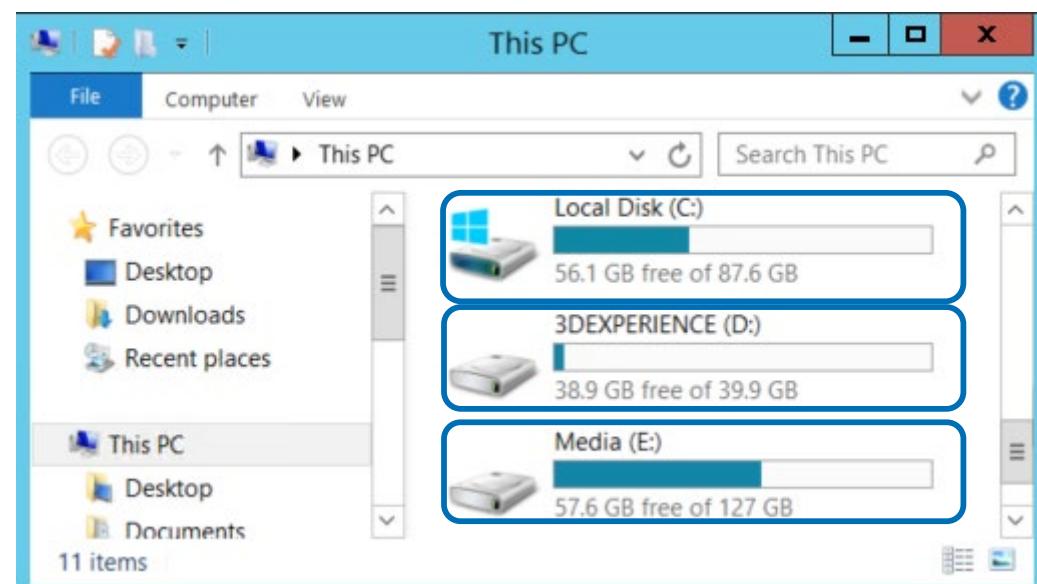
Option 1 – Server Checklist

► 3DS-VM checklist:

- Login to the 3DS-VM from your 3DS-Laptop with Remote Desktop (RDP) and verify the following.
 - Do you see **Computer** , **Network** and **Control Panel** icon on **dsadmin** desktop.



- RMB on **This PC** icon, **Click Open** and check if the C, D and E drives are present.



C: drive holds OS, Database

D: drive, where you will install the Webserver, **3DEXPERIENCE** platform

E/\$E: drive contains DS Media, that is, <your media path>. With respect to the environment provided, you can consider using **E:** and **\$E:** respective drive while browsing to the particular media. This is applicable throughout the course.

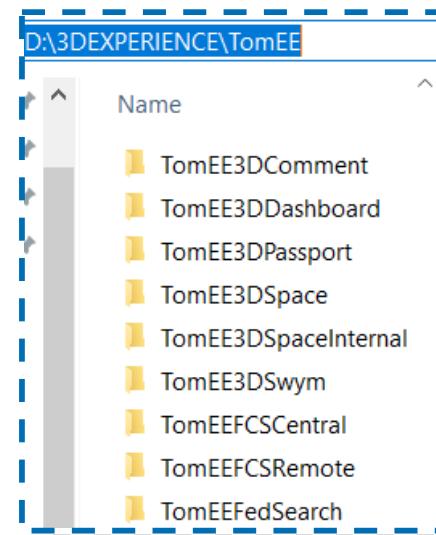


\$E refers to the mapped media drive.

Option 1 – Server Checklist

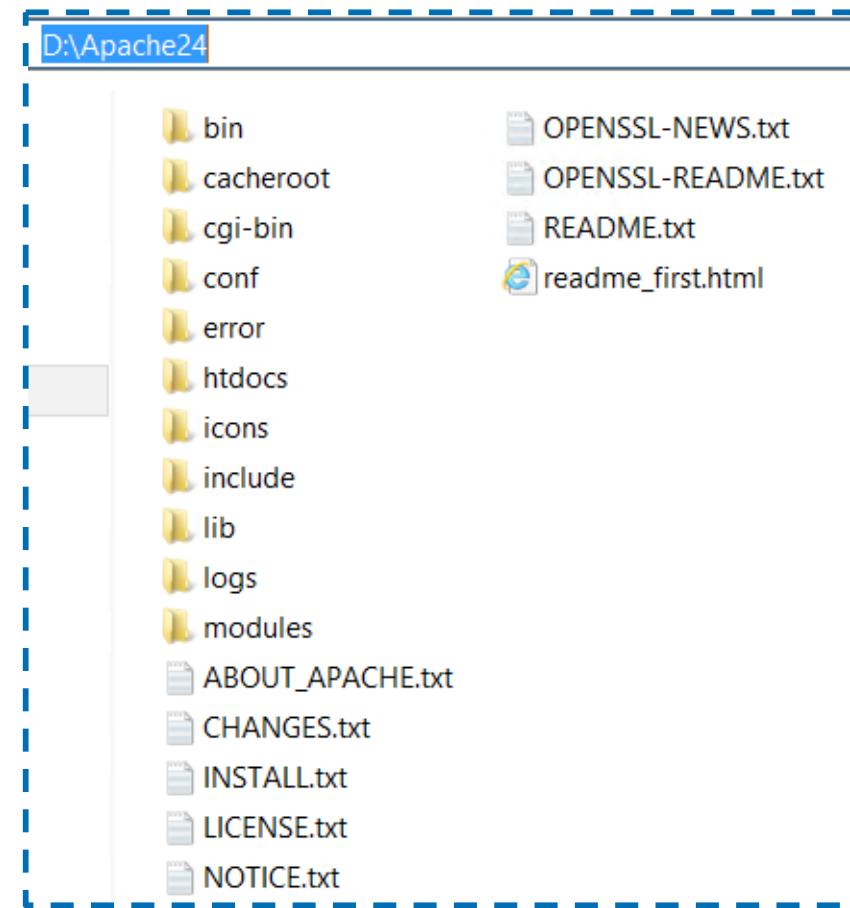
► 3DS-VM checklist:

- Does the following directory structure exist under D:\3DEXPERIENCE\TomEE



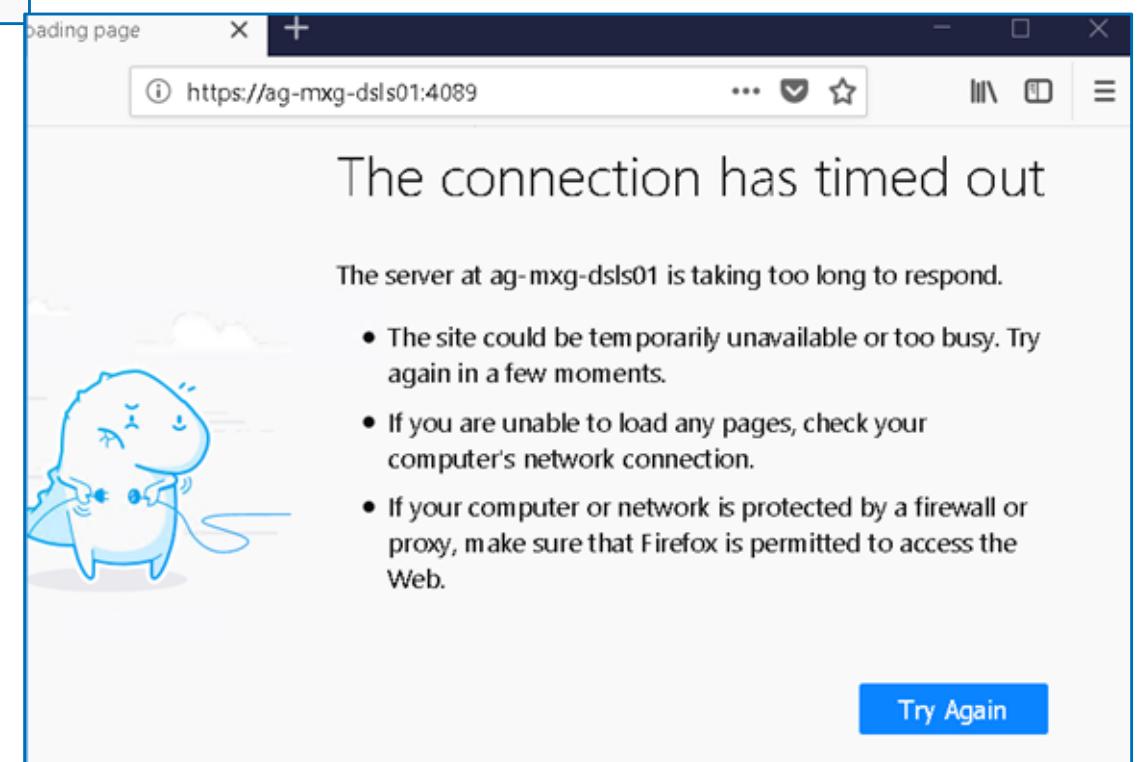
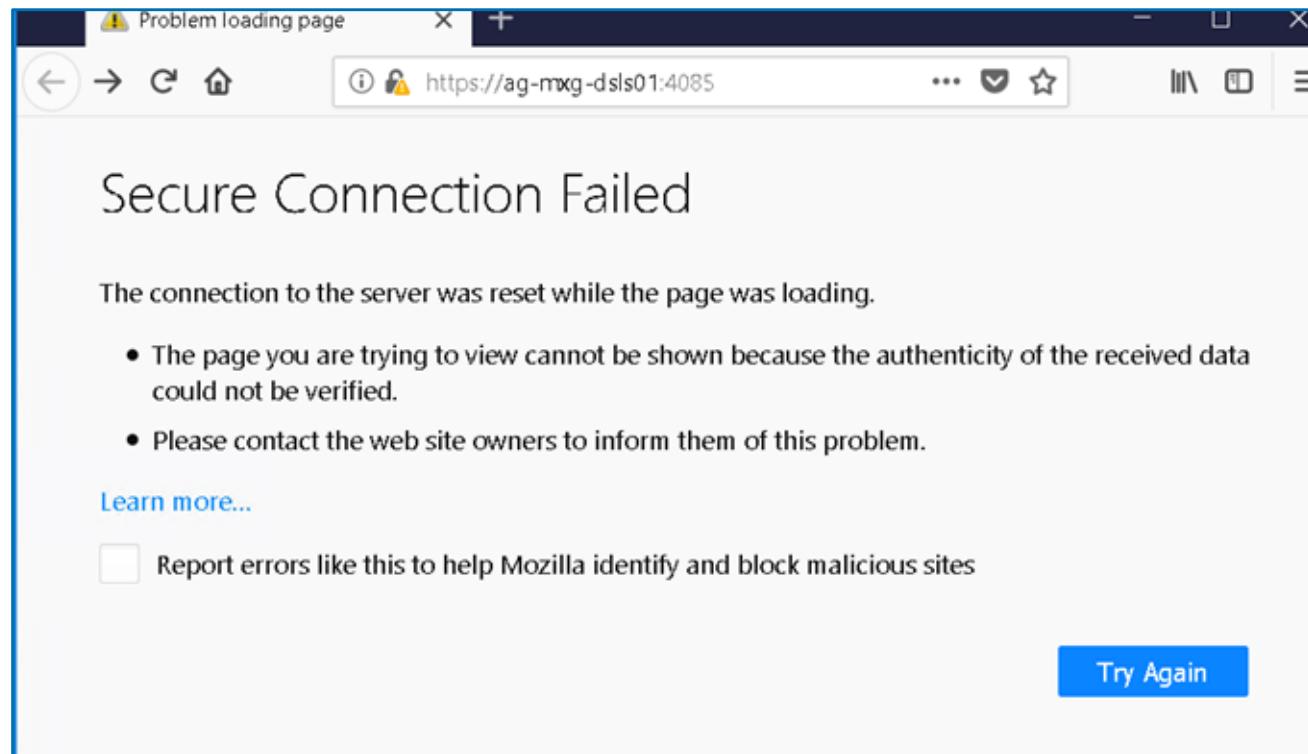
During installation you will deploy different **3DEXPERIENCE** services here.

- Confirm that you have Apache code installed under D:\Apache24 directory



Option 1 – Server Checklist

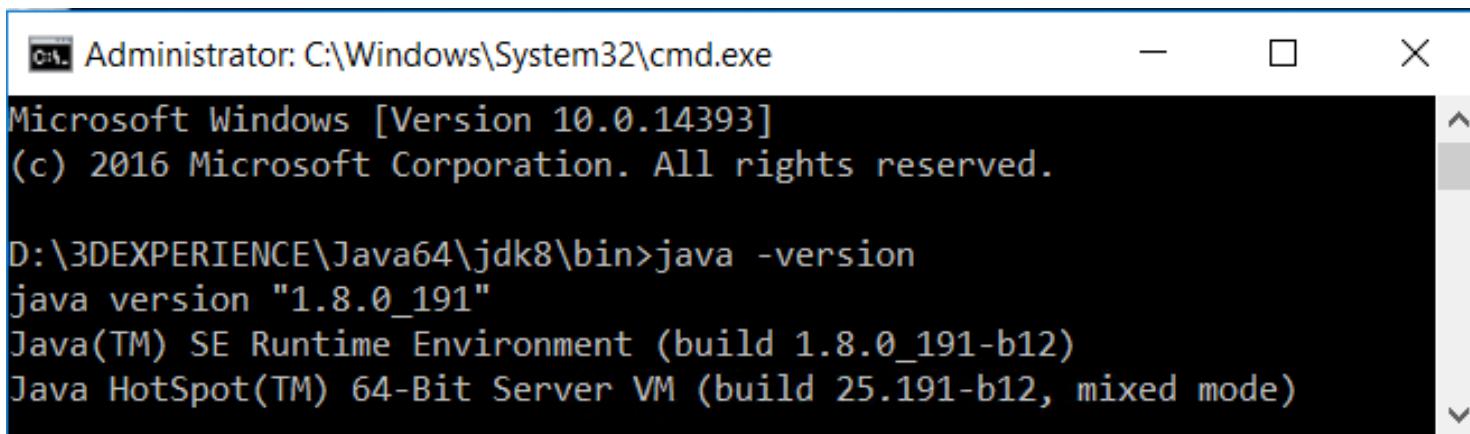
- You may not be able to ping the license server. In such case, you can go at <https://dsserverv:4085>



Option 1 – Server Checklist

- ▶ Open the command prompt window, execute the following commands and confirm the output

D:\3DEXPERIENCE\Java64\jdk8\bin\java -version



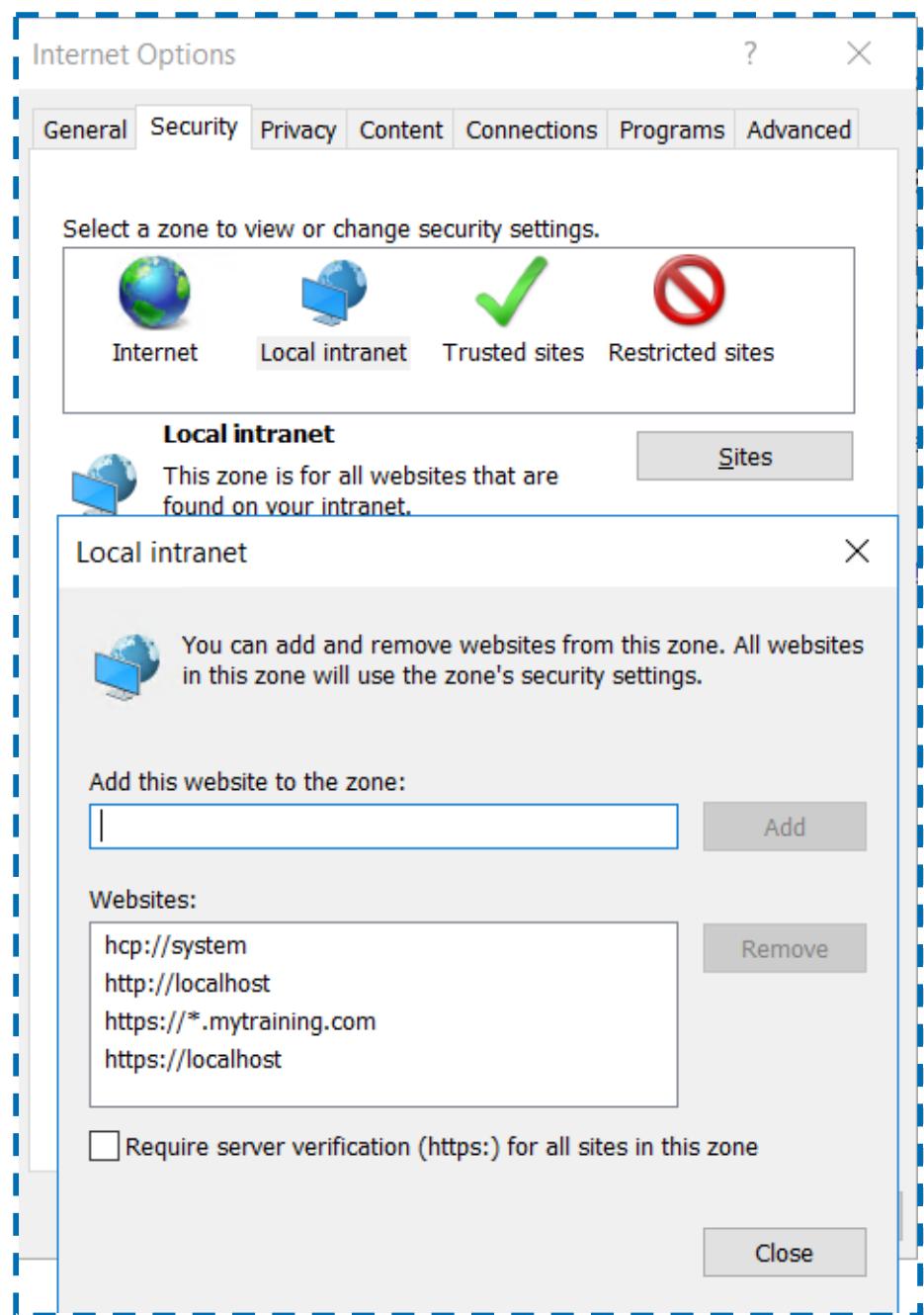
A screenshot of a Windows Command Prompt window titled "Administrator: C:\Windows\System32\cmd.exe". The window shows the following text:

```
Microsoft Windows [Version 10.0.14393]
(c) 2016 Microsoft Corporation. All rights reserved.

D:\3DEXPERIENCE\Java64\jdk8\bin>java -version
java version "1.8.0_191"
Java(TM) SE Runtime Environment (build 1.8.0_191-b12)
Java HotSpot(TM) 64-Bit Server VM (build 25.191-b12, mixed mode)
```

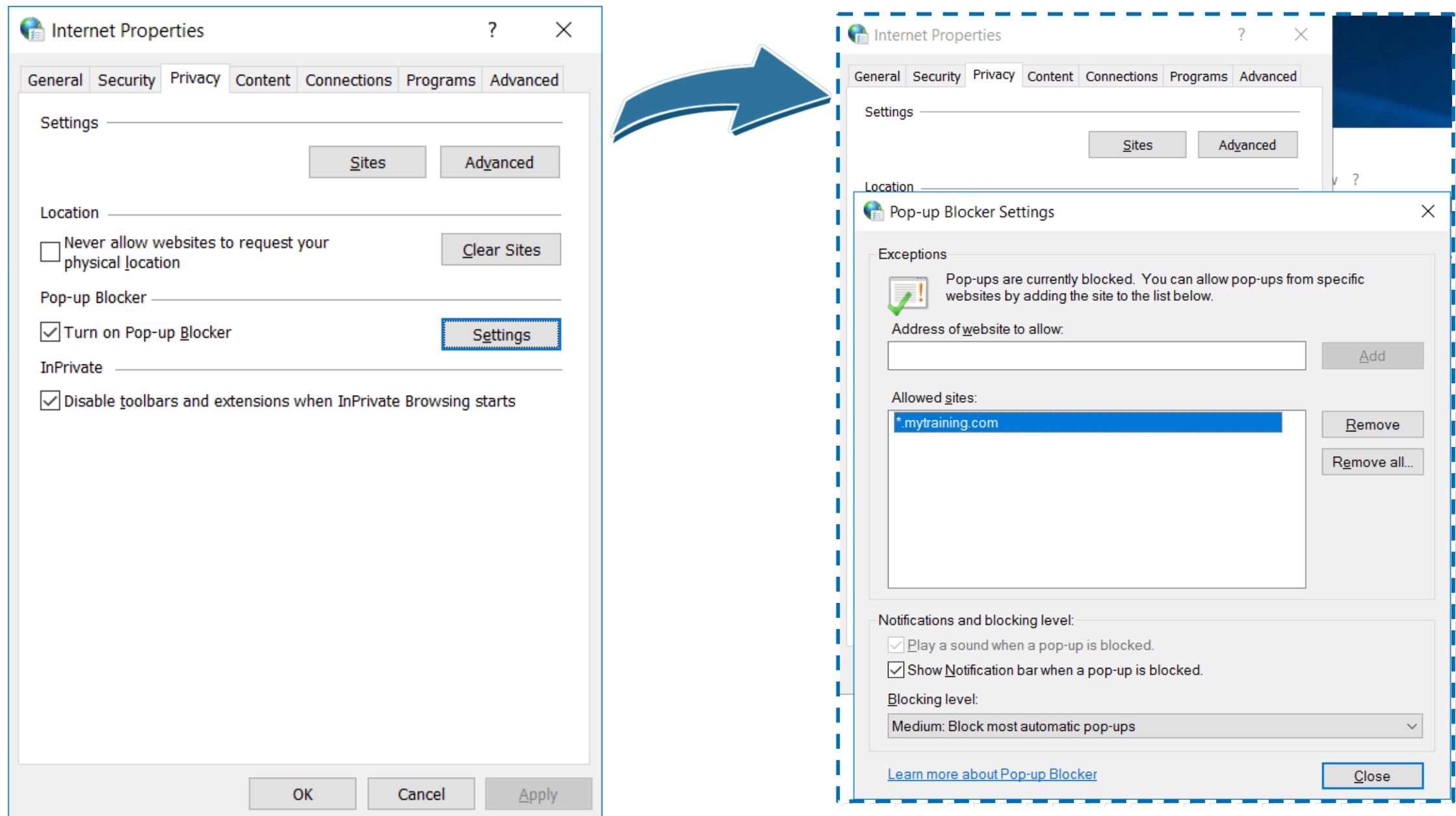
Option 1 – Server Checklist

- ▶ Confirm your **Internet Properties** includes the site https://*.mytraining.com



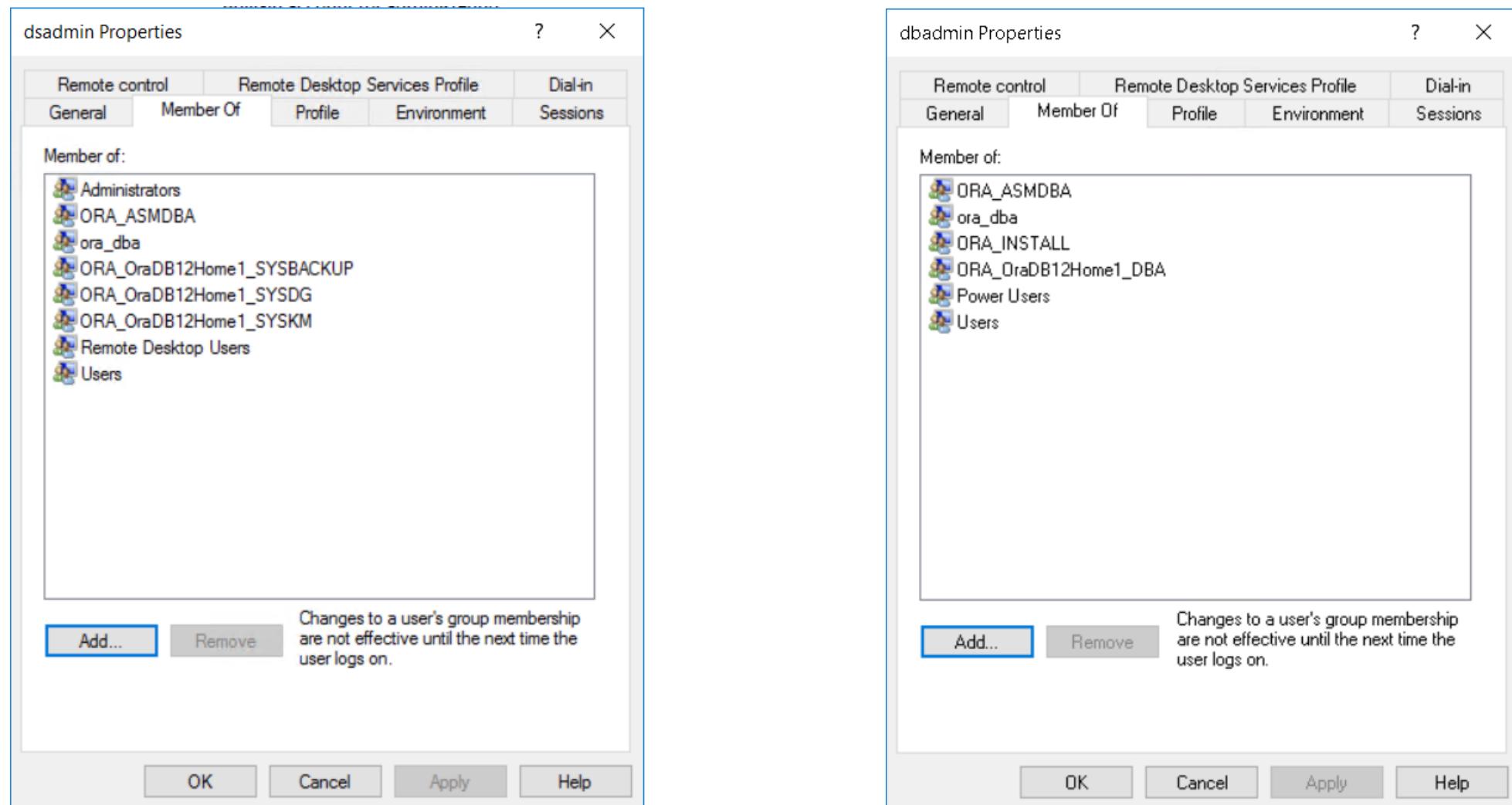
Option 1 – Server Checklist

- ▶ Confirm your Internet Properties > Privacy > Pop-up Blocker Settings contains *.mytraining.com



Option 1 – Server Checklist

1. Select Control Panel > System and Security > Administrative Tools > Computer Management.
2. Expand Local Users and Groups > Users and right-click dbadmin and dsadmin respectively.
3. Validate if the Member Of tab for the following users is correct.

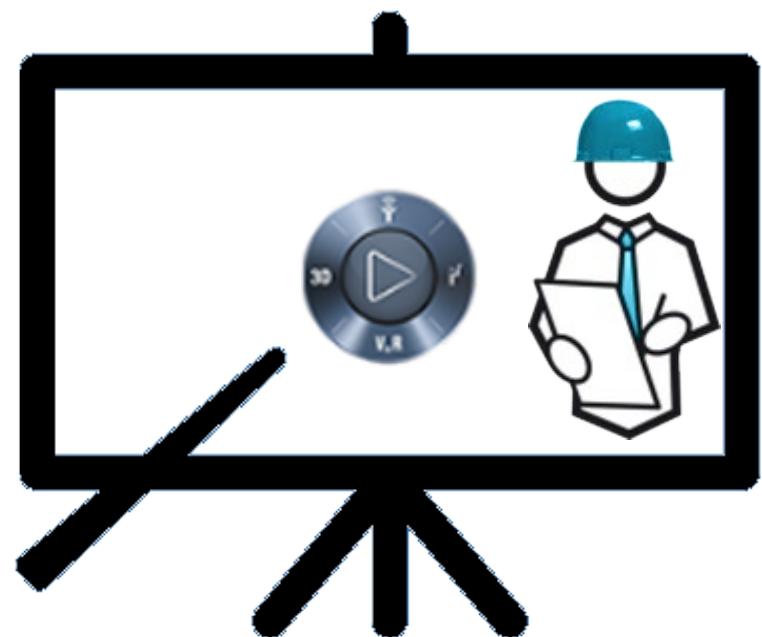


Option 1 – Server Checklist

4. Confirm the Oracle installation created the highlighted Groups

Name	Description
Performance Monitor ...	Members of this group can acces...
Power Users	Power Users are included for back...
Print Operators	Members can administer printers ...
RDS Endpoint Servers	Servers in this group run virtual m...
RDS Management Ser...	Servers in this group can perform ...
RDS Remote Access S...	Servers in this group enable users ...
Remote Desktop Users	Members in this group are grante...
Remote Management...	Members of this group can acces...
Replicator	Supports file replication in a dom...
Storage Replica Admi...	Members of this group have com...
System Managed Acc...	Members of this group are mana...
Users	Users are prevented from making ...
HelpLibraryUpdaters	
ORA_ASMADMIN	ORACLE Group
ORA_ASMDBA	ORA_ASMDBA
ORA_ASMOPER	ORA_ASMOPER
ORA_CLIENT_LISTENE...	ORA_CLIENT_LISTENERS
ora_dba	Oracle DBA Group
ORA_DB SVCACCTS	ORA_DB SVCACCTS
ORA_GRID_LISTENERS	ORA_GRID_LISTENERS
ORA_INSTALL	ORA_INSTALL
ORA_OPER	ORA_OPER
ORA_OraDB12Home1...	ORA_OraDB12Home1_DBA
ORA_OraDB12Home1...	ORA_OraDB12Home1_OPER
ORA_OraDB12Home1...	ORA_OraDB12Home1_SYSBACKUP
ORA_OraDB12Home1...	ORA_OraDB12Home1_SYSDBG
ORA_OraDB12Home1...	ORA_OraDB12Home1_SYSKM

Option 2 Checklist



Topics to be covered:

- ✓ 1. *Option 1 Checklist*
- 2. **Option 2 Checklist**

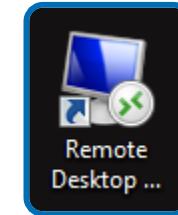
Option 2 – Laptop Checklist

Once you login to your Laptop, please validate the following items:

- ▶ Can you see Remote Desktop Connection (RDP) icon on your desktop.
- ▶ Are you able to access the VM hosted on your physical laptop using RDP.

Please check that the following accounts exist:

- dsadmin
- dbadmin

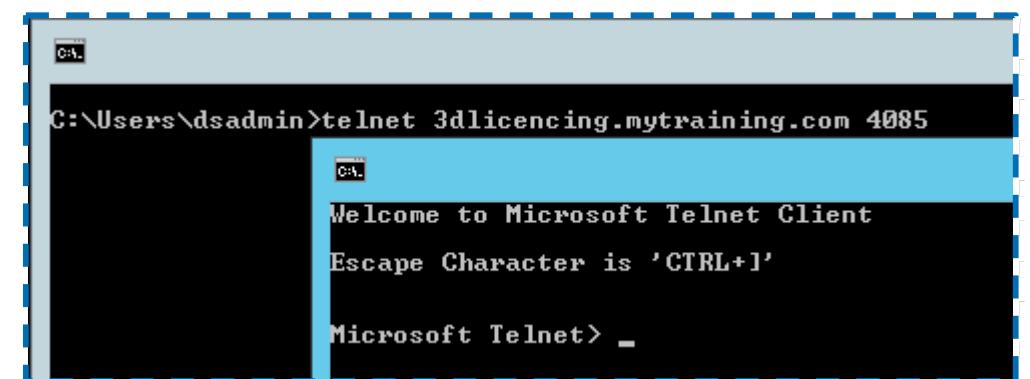


- Laptop Login details is according to your settings.
- Reminder: option 2 is for native app and CATIA V5 on participant laptop



The Passwords will be whatever you chose during VM setup.

- ▶ Check the license file at:
<C:\ProgramData\DassaultSystemes\Licenses\DSLicSrv.txt>
Use <https://servername:4085>



Option 2 – Laptop Checklist

Trainee's-Laptop checklist:

- ▶ Confirm that you have installed CATIA V5 and MS Office on your laptop.



- ▶ Make sure that MD2, MES licenses are registered in your DSLS:

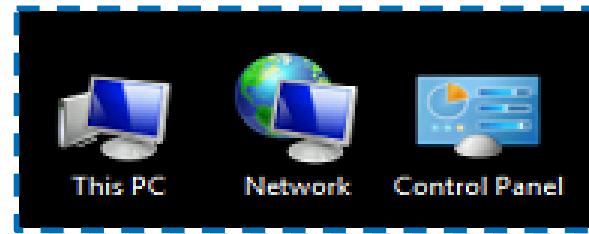
[`<Install path of native client>\win_b64\code\bin>`](#)
[`DSCheckLS.exe -r MD2`](#)

- ▶ Confirm you have procured DS media required during prerequisites and mapped them accordingly, per instructor guidelines:

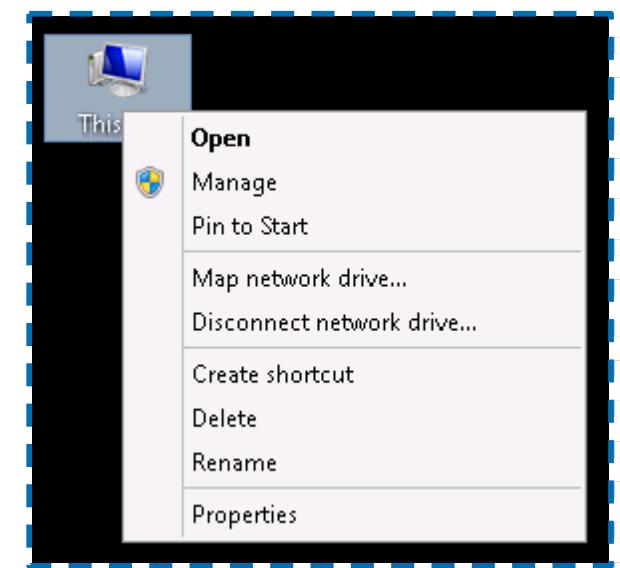
Host Machine (Laptop)	3DEXPERIENCE Server (VM)
...:\Media	E/\$E:\Media
...:\Installer	E/\$E:\Installer

Option 2 – Server Checklist

- ▶ Login to your VM from your (participant) Laptop with RDP using **dsadmin** account and verify the following:
 - Do you see the **Computer**, **Network** and **Control Panel** icons on the **dsadmin** desktop



- RMB on **This PC** icon, Click **Open** and check if the **C:**, **D:** and **E:** drives are present.



- ▶ Make sure you have at least 40GB free for 3DS software and data storage.

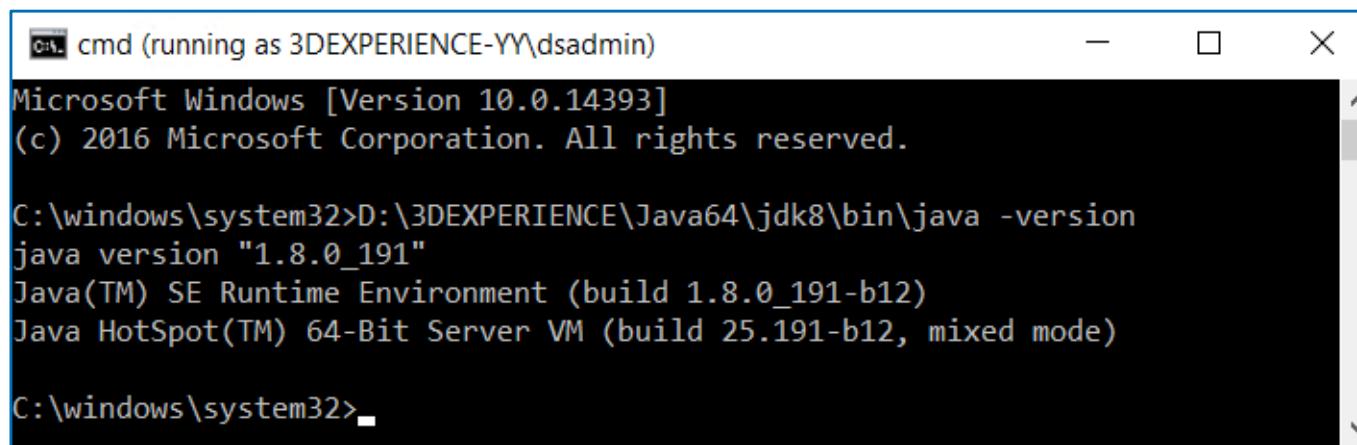


C: drive = OS, Database
D: drive = Webserver, **3DEXPERIENCE** platform installation
E/\$E: drive = DS Media folder

Option 2 – Server Checklist

- ▶ Open a command prompt and execute the following commands and confirm the output:

D:\3DEXPERIENCE\Java64\jdk8\bin\java -version



A screenshot of a Windows Command Prompt window titled "cmd (running as 3DEXPERIENCE-YY\dsadmin)". The window shows the following text output:

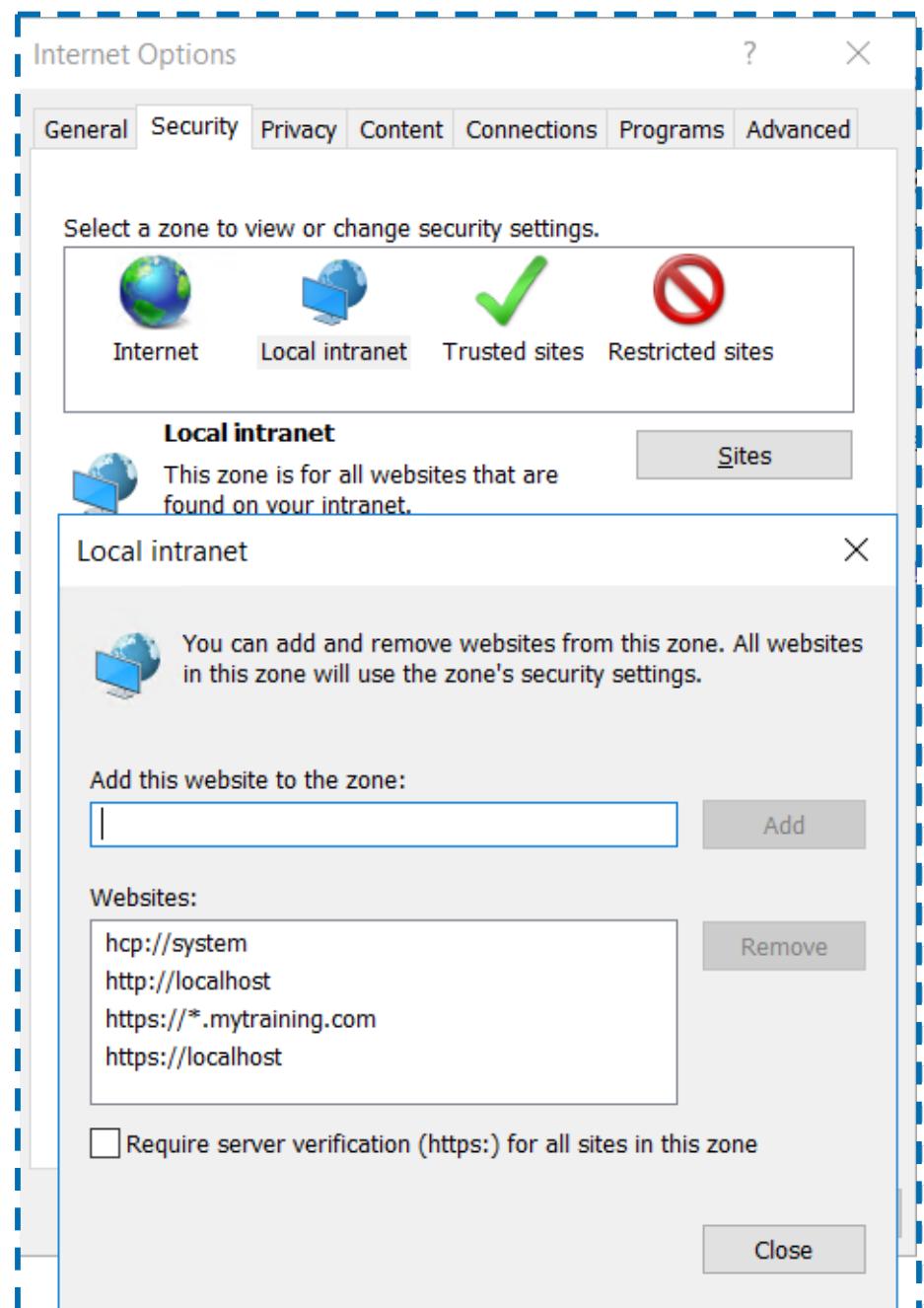
```
Microsoft Windows [Version 10.0.14393]
(c) 2016 Microsoft Corporation. All rights reserved.

C:\windows\system32>D:\3DEXPERIENCE\Java64\jdk8\bin\java -version
java version "1.8.0_191"
Java(TM) SE Runtime Environment (build 1.8.0_191-b12)
Java HotSpot(TM) 64-Bit Server VM (build 25.191-b12, mixed mode)

C:\windows\system32>
```

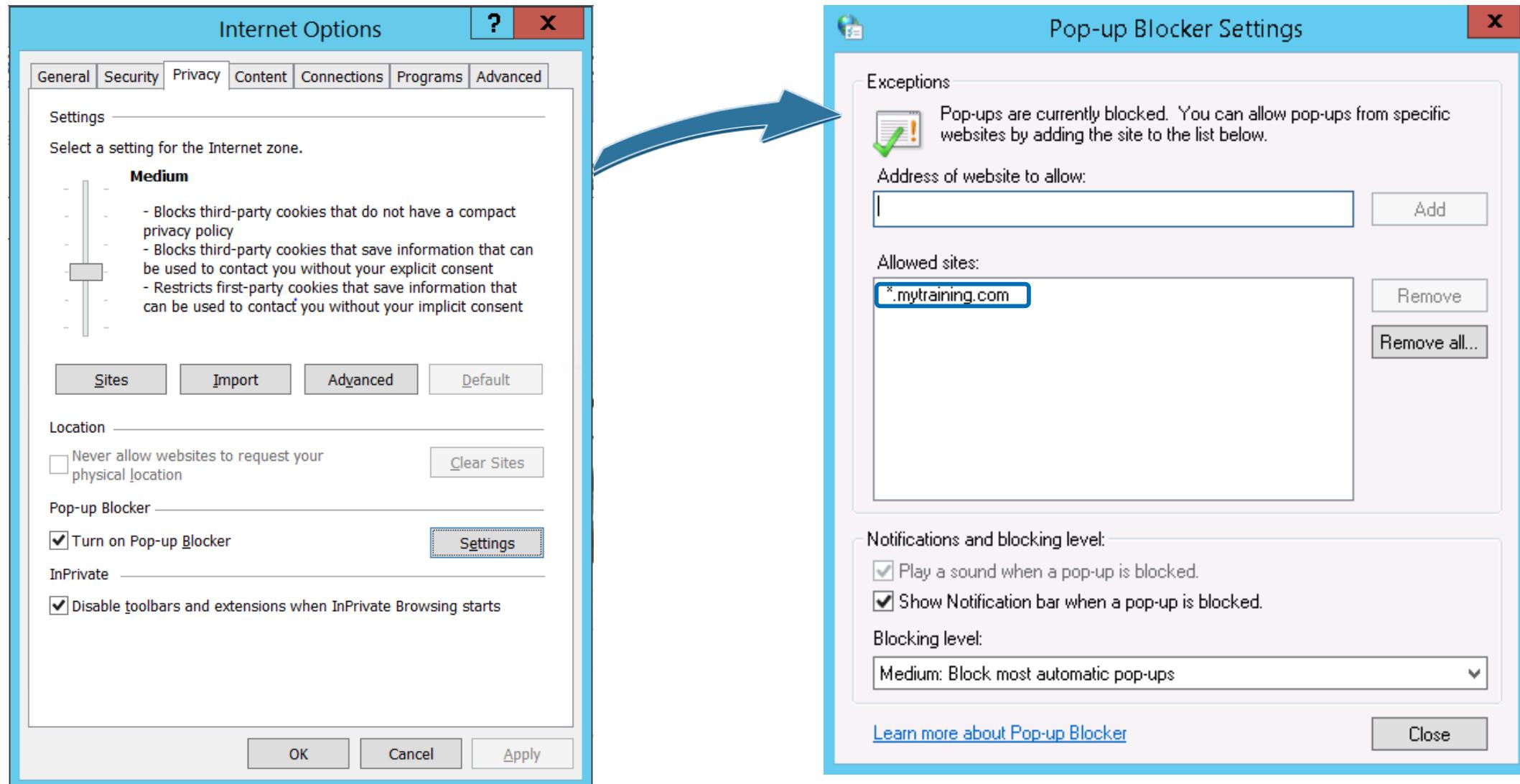
Option 2 – Server Checklist

- ▶ Confirm your **Internet Properties** includes the site
https://*.mytraining.com



Option 2 – Server Checklist

- Confirm your Internet Properties > Pop-up Blocker settings contains *.mytraining.com.

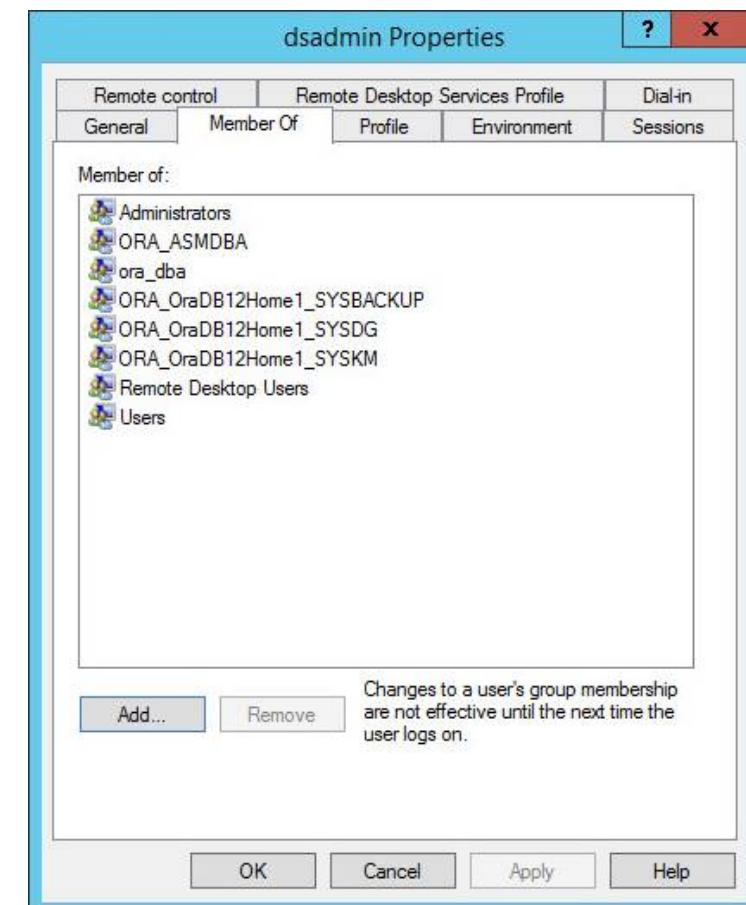
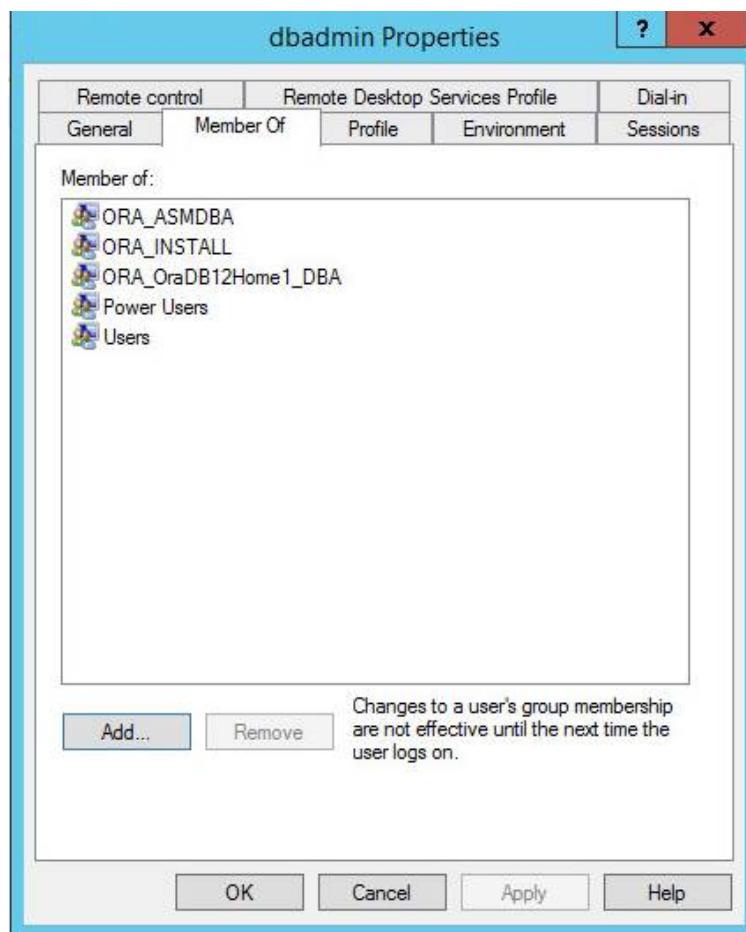


Option 2 – Server Checklist

- ▶ Go to the path **Control Panel > Computer management > Local Users and Groups**.
- ▶ Validate the **Member Of** tab for the following users is correct.
 - dsadmin
 - dbadmin



Observe that in the images you will see Oracle dedicated group, ignore if you are using only SQL Server Server.



Option 2 – Server Checklist

- ▶ Confirm the Oracle installation created the highlighted Groups.

Name	Description
Performance Monitor ...	Members of this group can acces...
Power Users	Power Users are included for back...
Print Operators	Members can administer printers ...
RDS Endpoint Servers	Servers in this group run virtual m...
RDS Management Ser...	Servers in this group can perform ...
RDS Remote Access S...	Servers in this group enable users ...
Remote Desktop Users	Members in this group are grante...
Remote Management...	Members of this group can acces...
Replicator	Supports file replication in a dom...
Storage Replica Admi...	Members of this group have com...
System Managed Acc...	Members of this group are mana...
Users	Users are prevented from making ...
HelpLibraryUpdaters	
ORA_ASMADMIN	ORACLE Group
ORA_ASMDBA	ORA_ASMDBA
ORA_ASMOPER	ORA_ASMOPER
ORA_CLIENT_LISTENE...	ORA_CLIENT_LISTENERS
ora_dba	Oracle DBA Group
ORA_DB SVCACCTS	ORA_DB SVCACCTS
ORA_GRID_LISTENERS	ORA_GRID_LISTENERS
ORA_INSTALL	ORA_INSTALL
ORA_OPER	ORA_OPER
ORA_OraDB12Home1...	ORA_OraDB12Home1_DBA
ORA_OraDB12Home1...	ORA_OraDB12Home1_OPER
ORA_OraDB12Home1...	ORA_OraDB12Home1_SYSBACKUP
ORA_OraDB12Home1...	ORA_OraDB12Home1_SYSDBG
ORA_OraDB12Home1...	ORA_OraDB12Home1_SYSKM

Option 2 – Server Checklist

- ▶ If you are using SQL Server database, then make sure that these services are present.

 SQL Server (X3DEXP)	Provides sto...	Running
 SQL Server Agent (X3DEXP)	Executes jo...	Running
 SQL Server Browser	Provides SQ...	Running
 SQL Server CEIP service (X3DEXP)	CEIP service...	Running
 SQL Server VSS Writer	Provides th...	Running

Summary

Setting Up Installation Infrastructure

- ▶ You have understood the IT infrastructure required for installation. They are:
 - Option 1: Use the 3DS provided laptop.
 - Option 2 : Trainee will bring their own hardware/software.



Lesson 3: Middleware Configuration

- ▶ Introduction
- ▶ Operating System
 - Java Configuration
 - Apache Configuration
 - TomEE+ Configuration
 - Generation and Deployment of SSL certificates



1 hour

Overview

- ▶ This document will detail the preparation for all middleware configurations.
- ▶ This chapter will allow to configure third party middleware before installing **3DEXPERIENCE** platform products. To achieve these tasks, IT Hardware and Software experiences are required.
- ▶ These tasks are related to:
 - Java configuration
 - Apache configuration
 - TomEE + configuration
 - SSL Certificate generation and deployment

Introduction

Topics to be covered:

1. **Introduction**
2. Java Configuration
3. Apache Configuration
4. TomEE+ Configuration
5. SSL Configuration

Introduction

When registering to this training each attendee had to choose how to execute the installation:

- ▶ **Option 1:** Using 3DS provided laptop
 - Get access to 3DS laptop and VM with all middleware's installed, no prior activity was needed.
 - Java, Apache, TomEE+ and Database
- ▶ **Option 2:** Use Attendee's laptop for the installation
 - A **3DEXPERIENCE** platform Installation Pre-requisite document, guiding in some generic middleware preparation for:
 - Java, Apache, TomEE+ and Database

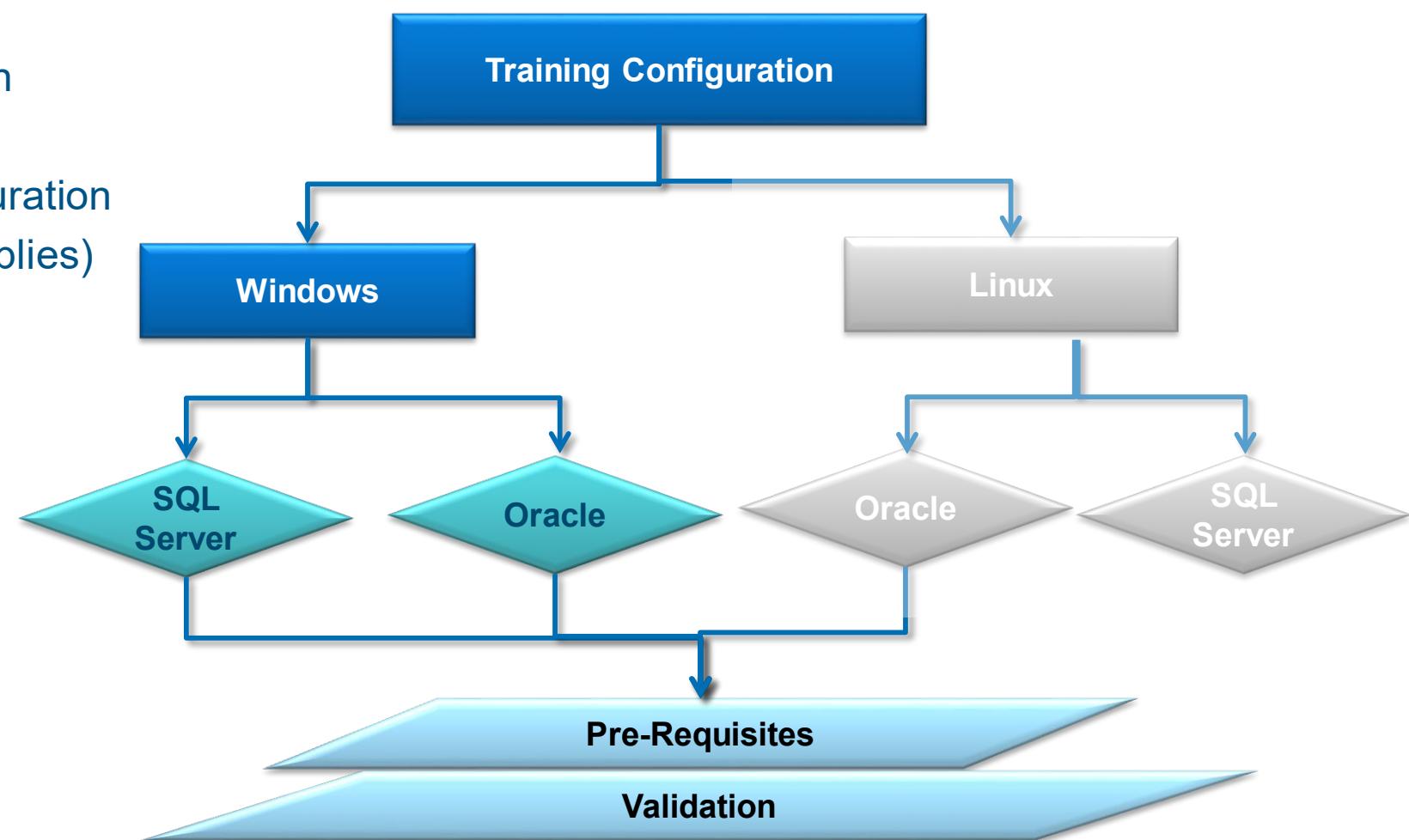
This chapter is the continuation of this middleware configuration.

Introduction

Regardless of the selected option, you are going to perform the following tasks on your **3DEXPERIENCE Server**.

This sequence ensures that all dependencies are achieved and tested prior to the next steps.

- ▶ Java Configuration
- ▶ Apache Configuration
- ▶ TomEE + Configuration
- ▶ SSL Generation and Deployment of SSL certificates
- ▶ Database Configuration
 - Database-instance creation
 - Configuring the Network
 - Database-instance Configuration
 - Table space creation (if applies)
 - User/schema creation
 - User/schema permission



All: Pre-check when using a VM

One last important fact about accessing <Your Media/Installers PATH>.

- ▶ One of the basic recommendation is not to use "blank space" in folder or file name.
- ▶ During VM build it's very common not to copy the code locally in the VM and to simply network mount a drive where all <Your Media/installers PATH> are.

- ▶ Recommendation to optimize resources utilization:
 - Close all applications not needed
 - Have a swap file in the faster disk and at least 16GB



Do not proceed if there is a space on the network folder.

3DEXPERIENCE: Server Name Configuration

Before any installation, a Server Name convention must be respected. You will edit the FQDN of the server for this training.

This is important in order to ensure a legal server name/SSL identification.

- ▶ Refer the link to name the server:

<https://support.microsoft.com/en-us/help/909264/naming-conventions-in-active-directory-for-computers,-domains,-sites,-and-ous>

- ▶ In short, avoid most character that is not alpha-numerical.

- backslash (\)
- slash mark (/)
- colon (:)
- asterisk (*)
- question mark (?)
- quotation mark ("")
- less than sign (<)
- greater than sign (>)
- vertical bar (|)
- comma (,)
- tilde (~)
- exclamation point (!)
- at sign (@)
- number sign (#)
- dollar sign (\$)
- percent (%)
- caret (^)
- ampersand (&)
- apostrophe (')
- parentheses (())
- braces ({})
- underscore (_)
- white space (blank)

3DEXPERIENCE: Server Name Configuration

For trainee's who are using the 3DS provided infrastructure, this steps is already done, but always have a look.

1. In your server and client machines, edit your hosts file: C:\Windows\System32\drivers\etc\hosts, add/check the following lines:

<Your ACTUAL IP>	3dexperience.mytraining.com
<Your ACTUAL IP>	database.mytraining.com
<Your DSLS IP>	3dlicensing.mytraining.com
<Your ACTUAL IP>	3dpassport.mytraining.com
<Your ACTUAL IP>	3ddashboard.mytraining.com
<Your ACTUAL IP>	untrusted.mytraining.com
<Your ACTUAL IP>	fedsearch.mytraining.com
<Your ACTUAL IP>	3dspaceindex.mytraining.com
<Your ACTUAL IP>	3dindex.mytraining.com
<Your ACTUAL IP>	3dspace.mytraining.com
<Your ACTUAL IP>	internal.mytraining.com
<Your ACTUAL IP>	3dcomment.mytraining.com
<Your ACTUAL IP>	3dnotification.mytraining.com
<Your ACTUAL IP>	fcscentral.mytraining.com
<Your ACTUAL IP>	fcsremote.mytraining.com
<Your ACTUAL IP>	smtp.mytraining.com
<Your ACTUAL IP>	3dszymytraining.com
<Your ACTUAL IP>	3dszymindex.mytraining.com
<Your ACTUAL IP>	help.mytraining.com

```
C:\Users\dsdmin>ipconfig  
Windows IP Configuration  
  
Ethernet adapter Ethernet:  
  
    Connection-specific DNS Suffix . . . . .  
    Link-local IPv6 Address . . . . .  
    IPv4 Address . . . . .  
    Subnet Mask . . . . .  
    Default Gateway . . . . .
```

```
#      102.54.94.97      rhino.acme.com      # source server
#      38.25.63.10       x.acme.com        # x client host

# localhost name resolution is handled within DNS itself.
# 127.0.0.1      localhost
# ::1            localhost

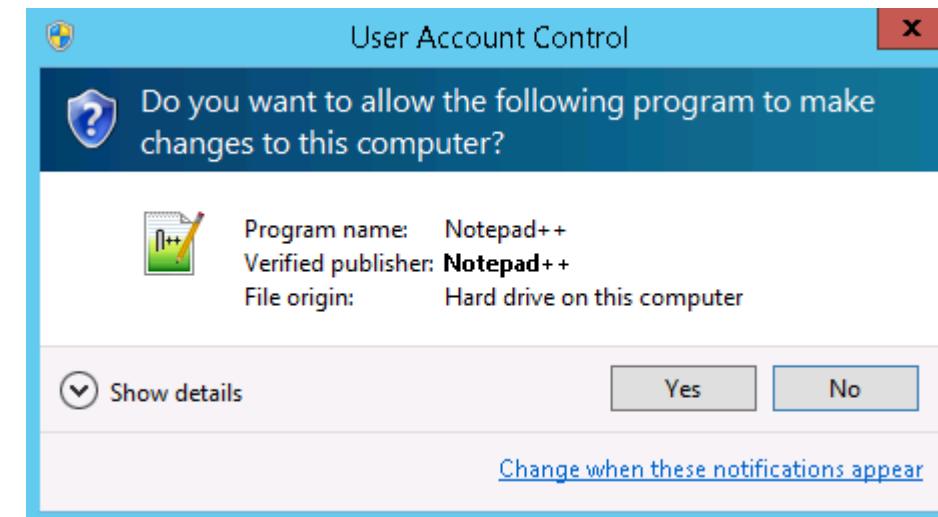
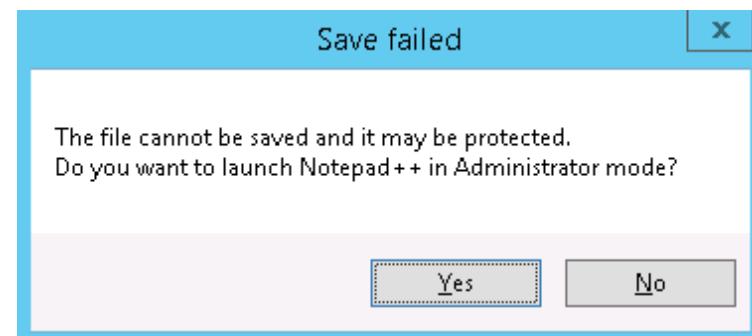
127.0.0.1      3dexperience.mytraining.com
127.0.0.1      database.mytraining.com
127.0.0.1      3dlicensing.mytraining.com dslsserverv
127.0.0.1      3dpassport.mytraining.com
127.0.0.1      3ddashboard.mytraining.com
127.0.0.1      untrusted.mytraining.com
127.0.0.1      fedsearch.mytraining.com
127.0.0.1      3dspaceindex.mytraining.com 3dspaceindex
127.0.0.1      3dindex.mytraining.com
127.0.0.1      3dspace.mytraining.com
127.0.0.1      internal.mytraining.com
127.0.0.1      3dcomment.mytraining.com
127.0.0.1      3dnotification.mytraining.com
127.0.0.1      fcscentral.mytraining.com
127.0.0.1      fcsremote.mytraining.com
127.0.0.1      smtp.mytraining.com
127.0.0.1      3dswym.mytraining.com
127.0.0.1      3dswymindex.mytraining.com 3dswymindex
127.0.0.1      help.mytraining.com
```



Ensure that your IP may change, on server class machine this is not the case or if you can add the FQDN in the DNS you do not need these entries.

3DEXPERIENCE: Server Name Configuration

Save the file. Observe that you need to restart **Notepad++** in Administrator mode. Click **Yes** so that the content will be saved.



Exercise: Create a Database User

In this exercise, you will create users to manage the database and installation of various services.



Create a Database User

During the training, you mostly log to the system as dsadmin. So it is recommended to create the bat file to quickly open command/terminal to change user without logging out. It is suggested to create bat files for these two OS users:

dbadmin: This file allows to perform database related changes.



Exercise Recap: Create a Database User

In this exercise, you have:

- ✓ Created the Database User

Java Configuration

Topics to be covered:

- ✓ 1. *Introduction*
- 2. **Java Configuration**
- 3. Apache Configuration
- 4. TomEE+ Configuration
- 5. SSL Configuration

Java configuration is a corner stone of the **3DEXPERIENCE** software dependencies.

- ▶ The **3DEXPERIENCE** platform software is an *Enterprise* wide application, like a:
 - A database or
 - The SSO/LDAP enterprise wide user/password management
- ▶ Ensure the following:
 - Do not auto update the java version
 - Java is for this application only
 - Any update needs to be managed as a minor code revision and tested thoroughly
- ▶ Notice that there are two architectures: 32 and 64 bits:
 - **64bits: For server needs exclusively**
D:\3DEXPERIENCE\Java64\jdk8
 - **32bits: For Internet Explorer, Mozilla Firefox, Google Chrome**
C:\Program Files (x86)\Java\jre1.8.0_x\bin\java

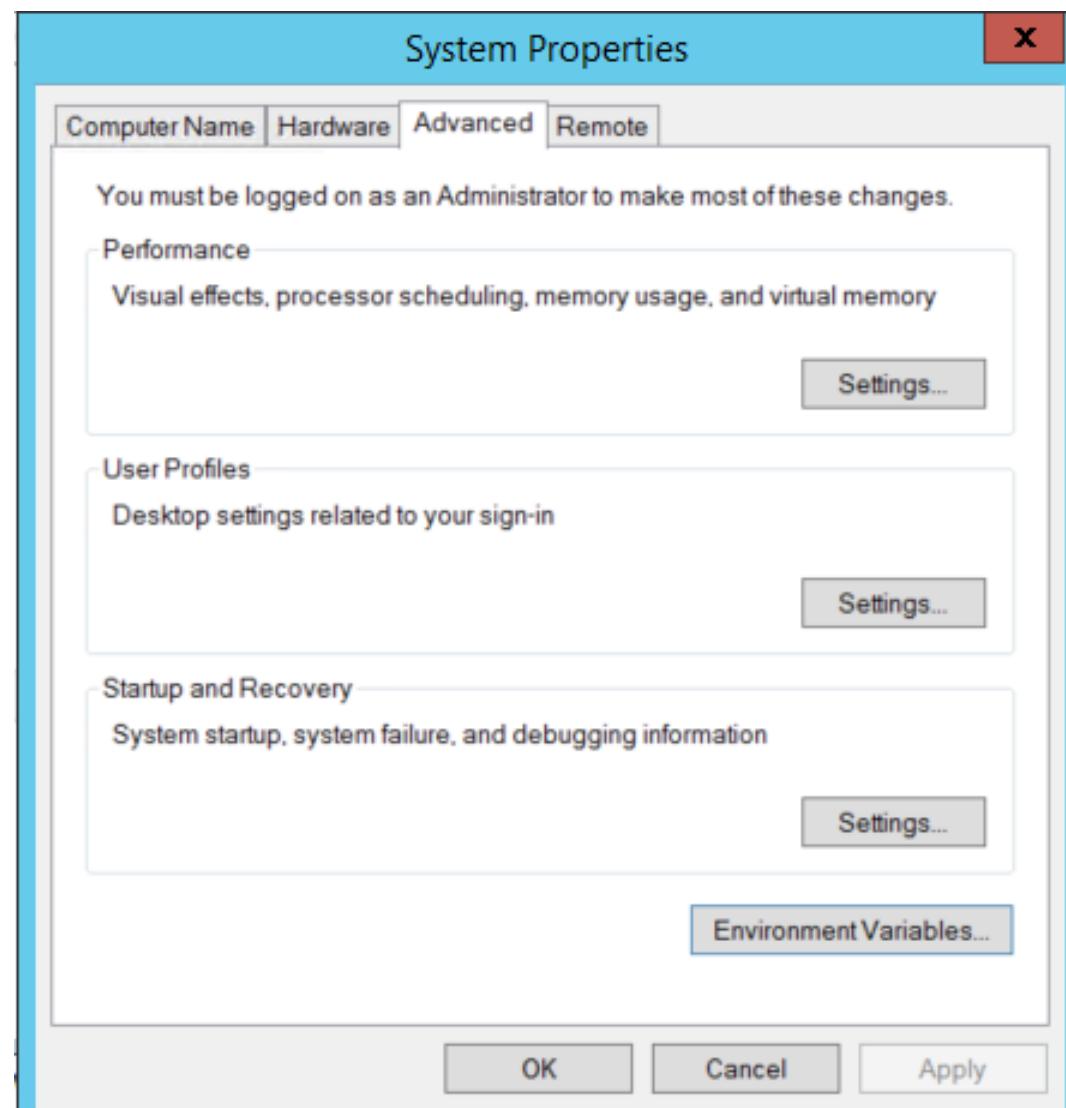
Java Key parameters

- ▶ Managing the java is always a topic of conversation! Here are a few options that may be encountered:
 - IT option : Java was pre-installed and is controlled by the local IT team
 - 3DS option : Use the internal provided Java from the 3DS installer
 - Your own : You control totally this java and understand the maintenance responsibility
- ▶ All have the pro and cons and mostly determined by
 - Personal preference
 - Area of responsibility
- ▶ For the training option of your own infrastructure:
 - Give you full control
 - No Operating System dependencies or corporate restriction (or minimal)

Exercise: Configure Java

In this exercise, you will:

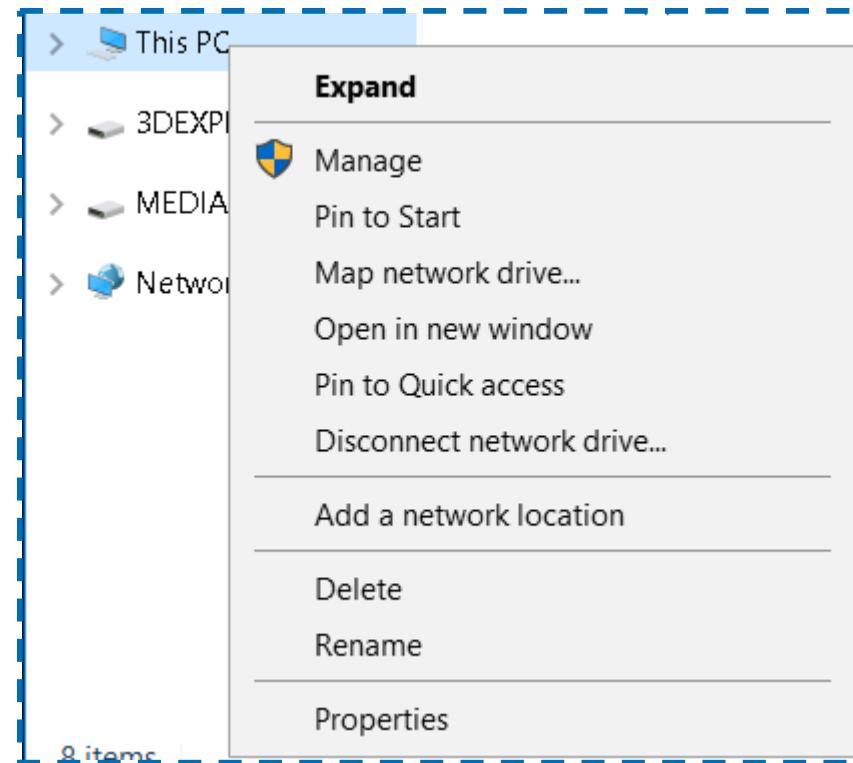
1. Specify the Java home path.
2. Validate the Java configuration.



10 minutes

Specify the Java Home Path

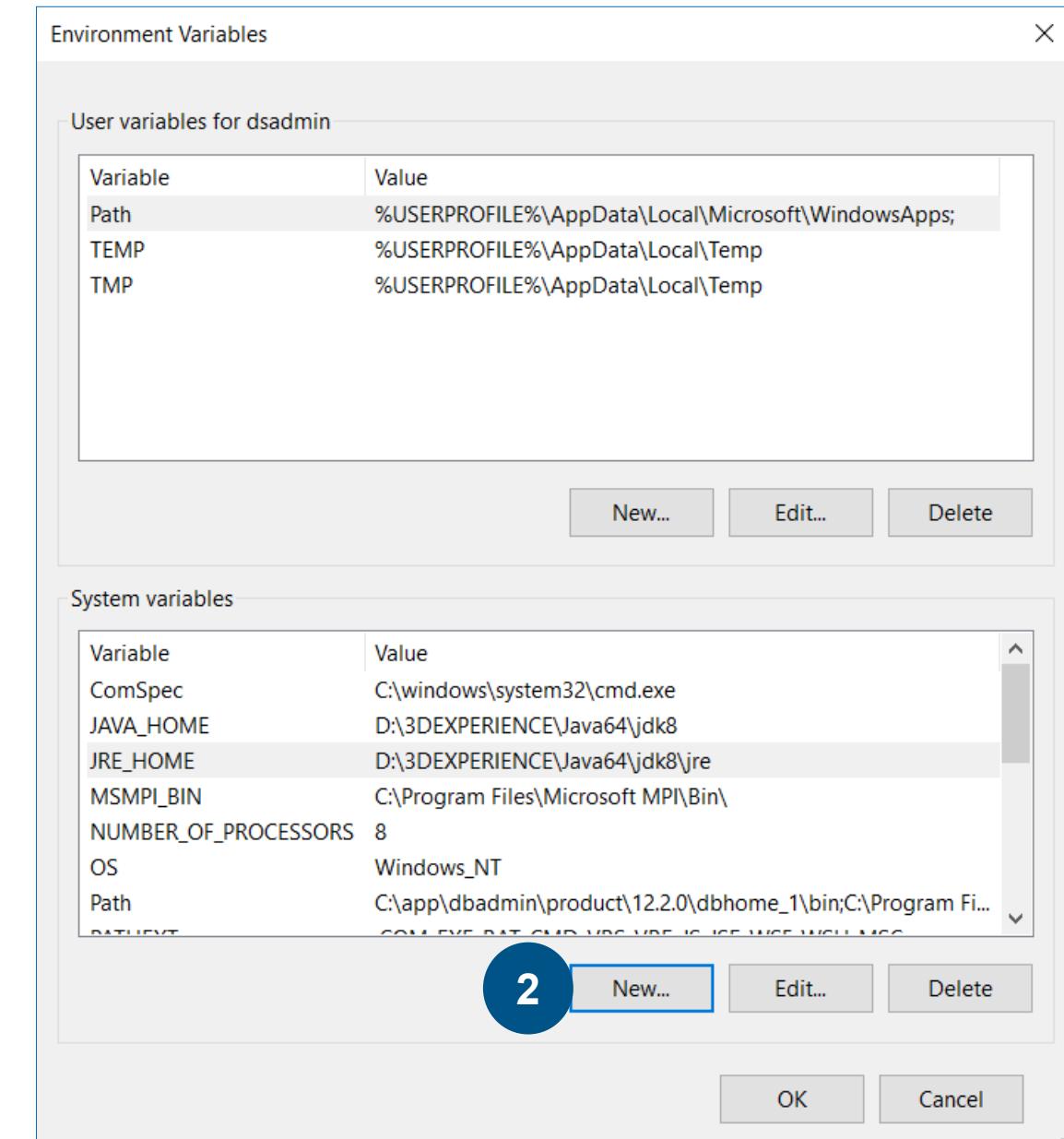
1. Right-click **This PC** and select **Properties > Advanced system settings > Environment Variables.**



2. Click **New** under system variable and create the following variables with the values:

Variable name	Variable value
JAVA_HOME	D:\3DEXPERIENCE\Java64\jdk8
JRE_HOME	D:\3DEXPERIENCE\Java64\jdk8\jre

3. Click **OK**.

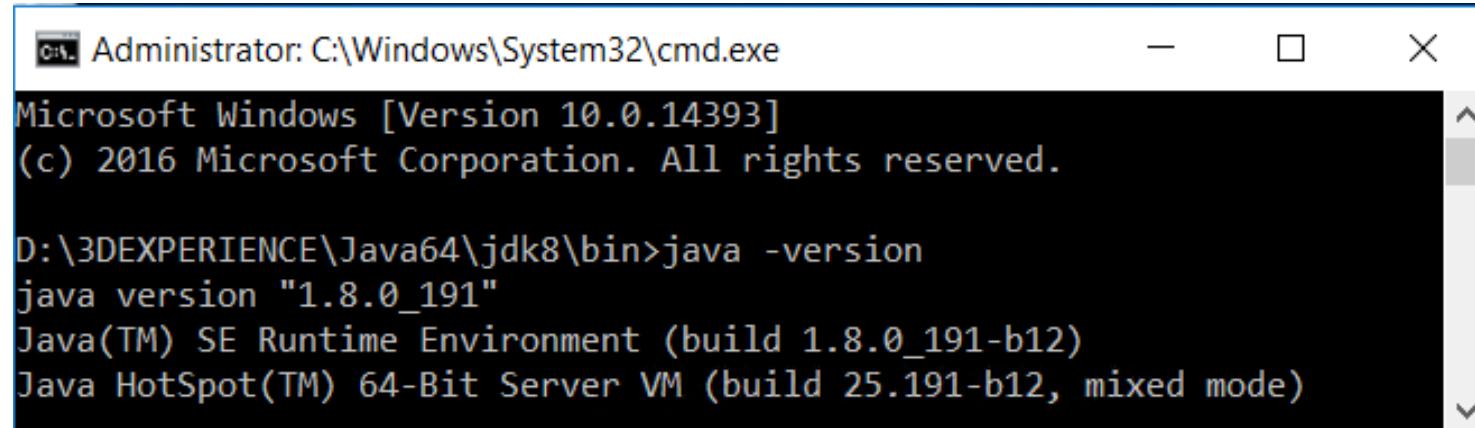


Validate Java

Before starting with **Java configuration**, verify the following:

Open a dsadmin command prompt window and go to each of the following folders:

D:\3DEXPERIENCE\Java64\jdk8\bin\java -version



A screenshot of a Windows Command Prompt window titled "Administrator: C:\Windows\System32\cmd.exe". The window shows the following text:
Microsoft Windows [Version 10.0.14393]
(c) 2016 Microsoft Corporation. All rights reserved.

D:\3DEXPERIENCE\Java64\jdk8\bin>java -version
java version "1.8.0_191"
Java(TM) SE Runtime Environment (build 1.8.0_191-b12)
Java HotSpot(TM) 64-Bit Server VM (build 25.191-b12, mixed mode)

The java in the D:\3DEXPERIENCE folder is for the **3DEXPERIENCE** installation control and the one in C: is required for normal operating system needs (Internet Explorer). Both levels need to be at minimum level described in the program directory.

Exercise Recap: Configure Java

In this exercise, you have:

- ✓ Specified the Java home path.
- ✓ Validated the Java configuration.

Apache Configuration

Topics to be covered:

- 1. *Introduction*
- 2. *Java Configuration*
- 3. **Apache Configuration**
- 4. TomEE+ Configuration
- 5. SSL Configuration

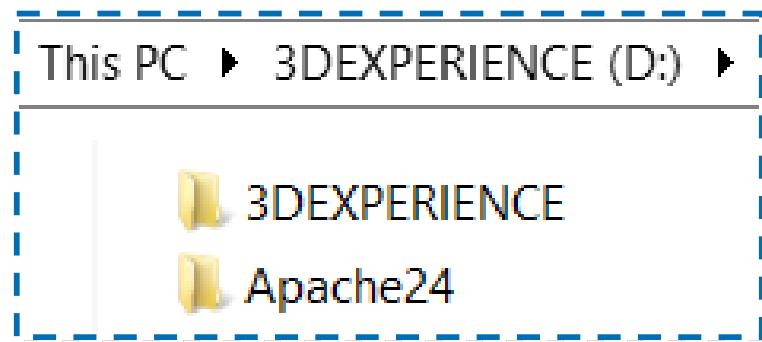
About Apache

Apache is the web server that hosts the **3DEXPERIENCE** platform.

Connection to all **3DEXPERIENCE** platform services is done via https protocol for security reasons. In order for the application to be contacted by its clients, a set comprising reverse proxy (for ending https calls) and load balancer (for high availability) should be cascaded between the client and the application server for the service. These two functions may be achieved by the same component.

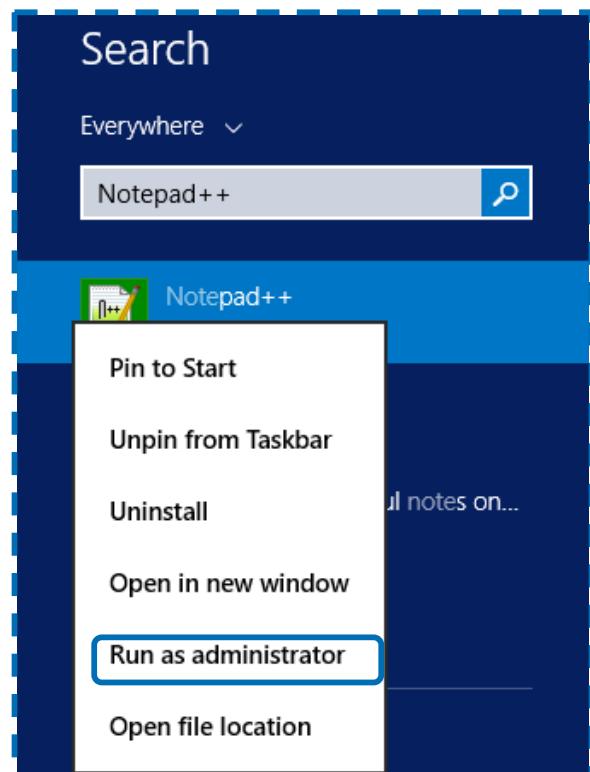
Exercise: Apache Configuration

Before starting with configuration, verify the installation of Apache at D:\Apache24.



Apache Configuration (1/6)

1. Open **Notepad++** in *Administrator* mode. Ensure that you have necessary permission to edit files.



2. Backup the **httpd.conf** to **httpd.conf.original** file in **D:\Apache24\conf**.

Apache Configuration (2/6)

3. Edit the D:\Apache24\conf\httpd.conf file as follows:

- a. Update the parameter **ServerRoot** so that it reflects in the installation path.

```
38 Define SRVROOT "D:\Apache24"  
39 ServerRoot "${SRVROOT}"
```

- b. Near the end of the file, you will find the **ssl_module** tag. Comment each line of the section.

```
520 #<IfModule ssl_module>  
521 #Include conf/extra/httpd-ssl.conf  
522 #Include conf/extra/httpd-ahss1.conf  
523 #SSLRandomSeed startup builtin  
524 #SSLRandomSeed connect builtin  
525 #</IfModule>
```

- c. At the end of the file, append the following two lines and save the file.

```
# 3DEXPERIENCE configuration file  
include D:\3DEXPERIENCE\conf\3dexperience.conf
```

4. Create file **3dexperience.conf** under the folder D:\3DEXPERIENCE\conf.



The SSL for each vhost will be dealt in the *3dexperience.conf* file.

Apache Configuration (3/6)

- d. These are already enable by default in httpd.conf:

LoadModule authz_core_module	modules/mod_authz_core.so
LoadModule log_config_module	modules/mod_log_config.so
LoadModule setenvif_module	modules/mod_setenvif.so
LoadModule socache_shmcb_module	modules/mod_socache_shmcb.so
LoadModule ssl_module	modules/mod_ssl.so

Edit the **3dexperience.conf** file by adding the following lines:

```
# 3DEXPERIENCE Master configuration file
# Recommended modules based on Program directory R2019x GA
Listen 443
LoadModule cache_module modules/mod_cache.so
LoadModule cache_disk_module modules/mod_cache_disk.so
LoadModule deflate_module modules/mod_deflate.so
LoadModule filter_module modules/mod_filter.so
LoadModule headers_module modules/mod_headers.so
LoadModule proxy_module modules/mod_proxy.so
LoadModule proxy_http_module modules/mod_proxy_http.so
LoadModule proxy_wstunnel_module modules/mod_proxy_wstunnel.so
LoadModule rewrite_module modules/mod_rewrite.so
LoadModule slotmem_shm_module modules/mod_slotmem_shm.so
```

Apache Configuration (4/6)

```
SSLSessionCache      "shmcb:${SRVROOT}/logs/ssl_scache(512000)"
SSLSessionCacheTimeout 300
SSLCryptoDevice     builtin
KeepAlive           On
KeepAliveTimeout    6
MaxKeepAliveRequests 400

#Cache
CacheRoot        "D:\Apache24\cacheroot"
CacheEnable      disk "/"
CacheDirLevels   5
CacheDirLength   2

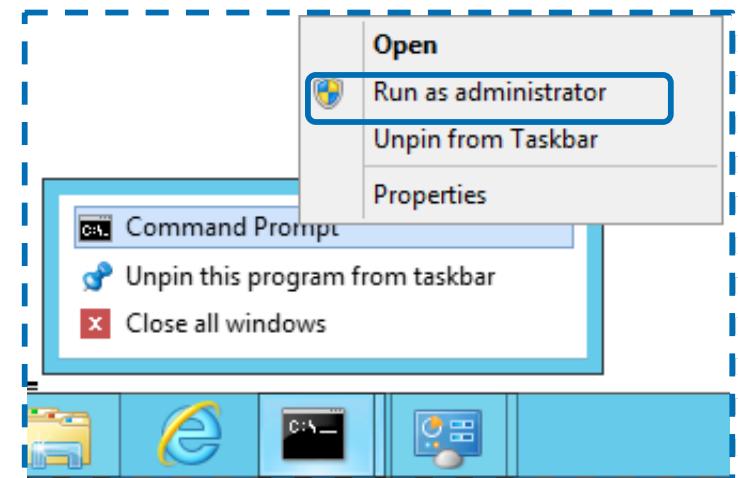
#Apache User Access Lock
EnableMMAP       off
EnableSendFile   on
AcceptFilter http none
AcceptFilter https none
```

Save the file.

- e. Create folder D:\Apache24\cacheroot.

Apache Configuration (5/6)

5. Open a command prompt using **Run as administrator**.



6. Execute the following command:

```
D:\Apache24\bin> httpd.exe -k install
```

```
D:\Apache24\bin>httpd.exe -k install
Installing the 'Apache2.4' service
The 'Apache2.4' service is successfully installed.
Testing httpd.conf....
Errors reported here must be corrected before the service can be started.

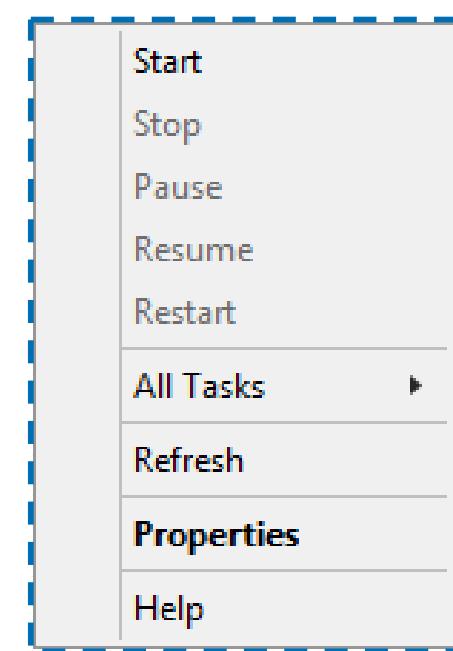
D:\Apache24\bin>
D:\Apache24\bin>httpd.exe -t
Syntax OK
```



If any error is detected you must fix it prior to continuing.

The screenshot shows the Windows Services snap-in. The 'Services' window title bar is at the top. In the center, there's a table with columns: Name, Description, Status, and Startup Type. The 'Apache2.4' service is listed with the status 'Running' and startup type 'Automatic'. On the left, there's a toolbar with icons for Help, Back, Forward, and other navigation. Below the table, there are buttons for 'Start the service' and 'Description:'. To the right of the table, a context menu is open for the 'Apache2.4' service, listing: Start, Stop, Pause, Resume, Restart, All Tasks, Refresh, Properties, and Help.

Name	Description	Status	Startup Type
ActiveX Installer (AxInstSV)	Provides User ...	Manual	
Apache2.4	Apache/2.4.2...	Automatic	
App Readiness	Gets apps rea...	Manual	
Application Experience	Processes app...	Running	Manual (Trig...

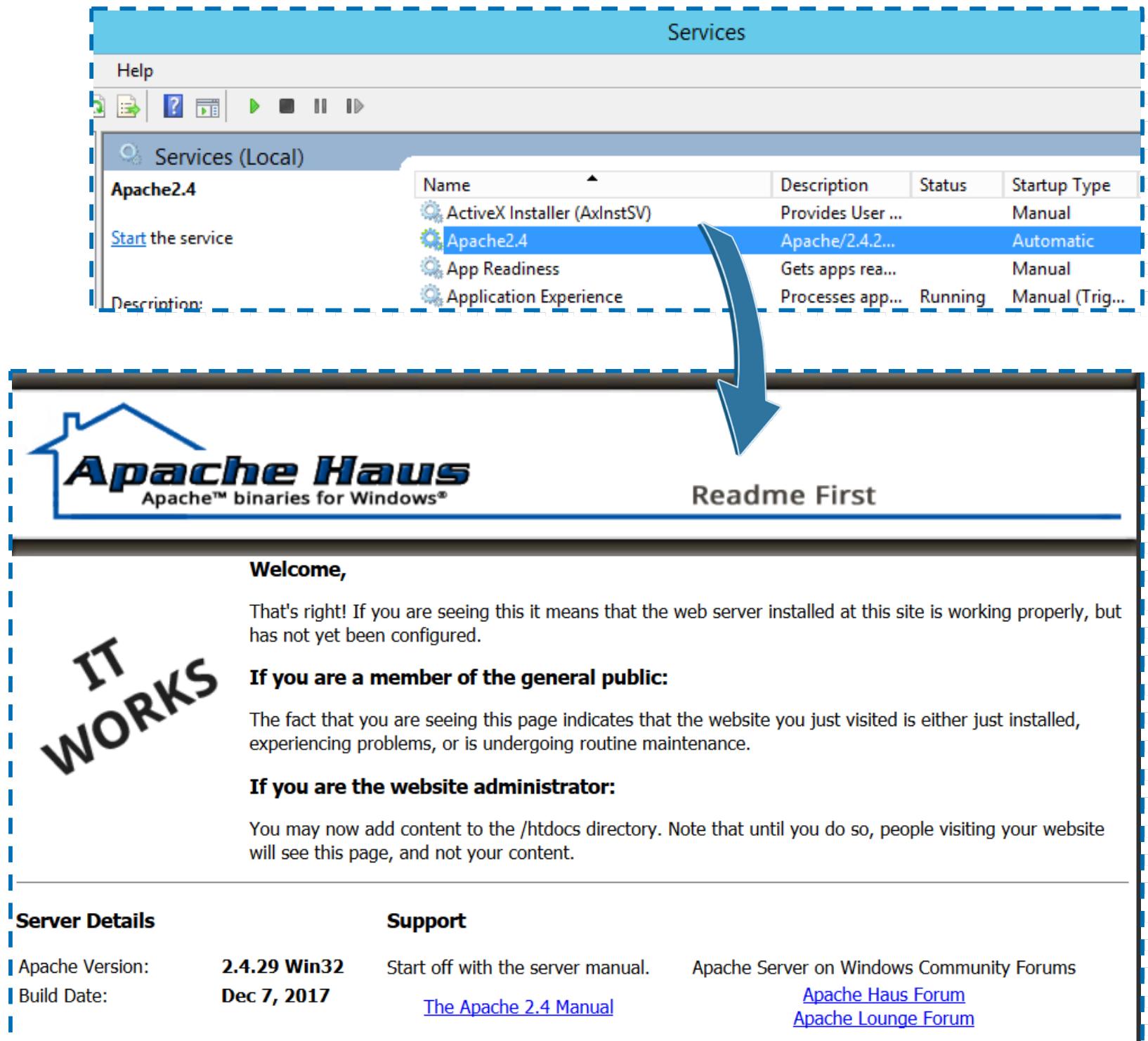


Apache Configuration (6/6)

7. Open a Web browser to the URL: <http://localhost:80/>

It is recommended to create a shortcut in your Mozilla Firefox.

Stop the service



Exercise Recap: Apache Configuration

In this exercise, you have:

- ✓ Configured Apache

TomEE+ Configuration

Topics to be covered:

- ✓ 1. *Introduction*
- ✓ 2. *Java Configuration*
- ✓ 3. *Apache Configuration*
- ✓ 4. **TomEE+ Configuration**
- 5. *SSL Configuration*

About TomEE+

TomEE+ is an application server.

TomEE+ provides a way to define resources that can be injected into managed components inside an application. Each service is associated with a separate TomEE+.

An extended version of TomEE known as TomEE+ adds further support for JAX-RS – Apache CXF, JAX-WS – Apache CXF, JMS – Apache ActiveMQ and Connector – Apache Geronimo Connector.

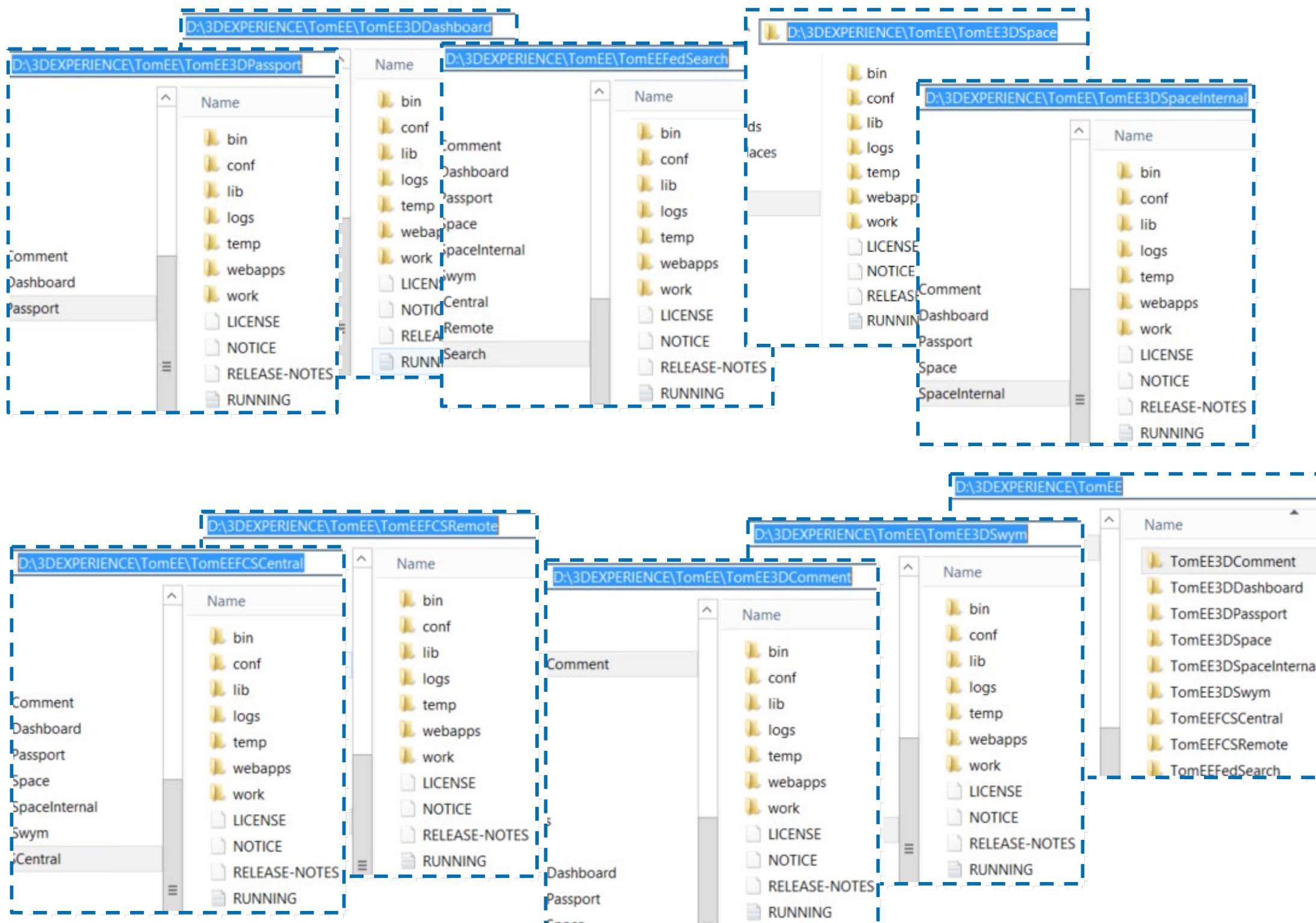
Exercise: TomEE+ Configuration

In this exercise, we will configure TomEE+ for each service that will be installed.



20 minutes

- ▶ Before starting with "TomEE+ configuration" please verify the following folder structure below with the already installed TomEE+ for different services: [D:\3DEXPERIENCE\TomEE](#).



TomEE+ Configuration

1. For each TomEE+ these steps will be followed :

- Creation of a setenv.bat file
- Cleaning of all default webapps
- Creation of a test-app for SSL validation

2. SETENV file:

- Open a command prompt with run as Administrator, and go to **D:** drive: (use the already opened one)

3. Execute the following commands:

```
echo REM Start Default 3DEXP TomEE+ Configuration> EmptyFile.txt
echo set JAVA_HOME=D:\3DEXPERIENCE\Java64\jdk8>> EmptyFile.txt
echo set JRE_HOME=%JAVA_HOME%\jre>> EmptyFile.txt
echo set TITLE=%cd%>> EmptyFile.txt
```

TomEE+ Configuration

3. Execute the following commands:

```
set TMPVAR=D:\3DEXPERIENCE\TomEE
more EmptyFile.txt > %TMPVAR%\TomEE3DComment\bin\setenv.bat
more EmptyFile.txt > %TMPVAR%\TomEE3DDashboard\bin\setenv.bat
more EmptyFile.txt > %TMPVAR%\TomEE3DPassport\bin\setenv.bat
more EmptyFile.txt > %TMPVAR%\TomEE3DSpace\bin\setenv.bat
more EmptyFile.txt > %TMPVAR%\TomEE3DSpaceInternal\bin\setenv.bat
more EmptyFile.txt > %TMPVAR%\TomEEFCSCentral\bin\setenv.bat
more EmptyFile.txt > %TMPVAR%\TomEEFCSRemote\bin\setenv.bat
more EmptyFile.txt > %TMPVAR%\TomEEFedSearch\bin\setenv.bat
more EmptyFile.txt > %TMPVAR%\TomEE3DSwym\bin\setenv.bat
del EmptyFile.txt

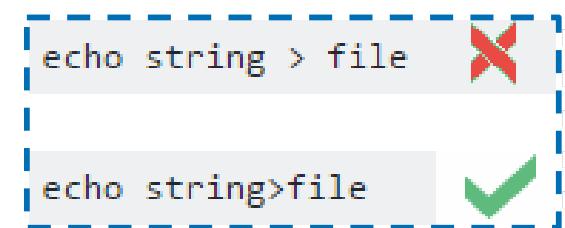
set TMP2VAR=set PATH=%PATH%;D:\3DEXPERIENCE\R2019x
echo %TMP2VAR%\3DComment\win_b64\code\bin>> %TMPVAR%\TomEE3DComment\bin\setenv.bat
echo %TMP2VAR%\3DDashboard\win_b64\code\bin>> %TMPVAR%\TomEE3DDashboard\bin\setenv.bat
echo %TMP2VAR%\3DPassport\win_b64\code\bin>> %TMPVAR%\TomEE3DPassport\bin\setenv.bat
echo %TMP2VAR%\3DSpace\win_b64\code\bin>> %TMPVAR%\TomEE3DSpace\bin\setenv.bat
echo %TMP2VAR%\3DSpace\win_b64\code\bin>> %TMPVAR%\TomEE3DSpaceInternal\bin\setenv.bat
echo %TMP2VAR%\FCSCentral\win_b64\code\bin>> %TMPVAR%\TomEEFCSCentral\bin\setenv.bat
echo %TMP2VAR%\FCSRemote\win_b64\code\bin>> %TMPVAR%\TomEEFCSRemote\bin\setenv.bat
echo %TMP2VAR%\FedSearch\win_b64\code\bin>> %TMPVAR%\TomEEFedSearch\bin\setenv.bat
echo %TMP2VAR%\3DSwym\win_b64\code\bin>> %TMPVAR%\TomEE3DSwym\bin\setenv.bat
```

TomEE+ Configuration

```
echo set CATALINA_HOME=%TMPVAR%\TomEE3DComment>> %TMPVAR%\TomEE3DComment\bin\setenv.bat  
echo set CATALINA_HOME=%TMPVAR%\TomEE3DDashboard>> %TMPVAR%\TomEE3DDashboard\bin\setenv.bat  
echo set CATALINA_HOME=%TMPVAR%\TomEE3DPassport>> %TMPVAR%\TomEE3DPassport\bin\setenv.bat  
echo set CATALINA_HOME=%TMPVAR%\TomEE3DSpace>> %TMPVAR%\TomEE3DSpace\bin\setenv.bat  
echo set CATALINA_HOME=%TMPVAR%\TomEE3DSpaceInternal>> %TMPVAR%\TomEE3DSpaceInternal\bin\setenv.bat  
echo set CATALINA_HOME=%TMPVAR%\TomEEFCSCentral>> %TMPVAR%\TomEEFCSCentral\bin\setenv.bat  
echo set CATALINA_HOME=%TMPVAR%\TomEEFCSRemote>> %TMPVAR%\TomEEFCSRemote\bin\setenv.bat  
echo set CATALINA_HOME=%TMPVAR%\TomEEFedSearch>> %TMPVAR%\TomEEFedSearch\bin\setenv.bat  
echo set CATALINA_HOME=%TMPVAR%\TomEE3DSwym>> %TMPVAR%\TomEE3DSwym\bin\setenv.bat
```



- The echo command will take into account all spaces. Ensure that the command ends with >> and not the <Space>.
- TomEE+ setenv.bat files are only read by the startup.bat and shutdown.bat scripts, when the service will be created it will not read this file.



TomEE+ Configuration

webapps:

5. In the same command prompt, execute the following commands:

```
move %TMPVAR%\TomEE3DComment\webapps %TMPVAR%\TomEE3DComment\webapps ori  
move %TMPVAR%\TomEE3DDashboard\webapps %TMPVAR%\TomEE3DDashboard\webapps ori  
move %TMPVAR%\TomEE3DPassport\webapps %TMPVAR%\TomEE3DPassport\webapps ori  
move %TMPVAR%\TomEE3DSpace\webapps %TMPVAR%\TomEE3DSpace\webapps ori  
move %TMPVAR%\TomEE3DSpaceInternal\webapps %TMPVAR%\TomEE3DSpaceInternal\webapps ori  
move %TMPVAR%\TomEEFCSCentral\webapps %TMPVAR%\TomEEFCSCentral\webapps ori  
move %TMPVAR%\TomEEFCSRremote\webapps %TMPVAR%\TomEEFCSRremote\webapps ori  
move %TMPVAR%\TomEEFedSearch\webapps %TMPVAR%\TomEEFedSearch\webapps ori  
move %TMPVAR%\TomEE3DSwym\webapps %TMPVAR%\TomEE3DSwym\webapps ori  
  
mkdir %TMPVAR%\TomEE3DComment\webapps\test-3dcomment  
mkdir %TMPVAR%\TomEE3DDashboard\webapps\test-3ddashboard  
mkdir %TMPVAR%\TomEE3DPassport\webapps\test-3dpassport  
mkdir %TMPVAR%\TomEE3DSpace\webapps\test-3dspace  
mkdir %TMPVAR%\TomEE3DSpaceInternal\webapps\test-internal  
mkdir %TMPVAR%\TomEEFCSCentral\webapps\test-fcs  
mkdir %TMPVAR%\TomEEFCSRremote\webapps\test-fcs  
mkdir %TMPVAR%\TomEEFedSearch\webapps\test-federated  
mkdir %TMPVAR%\TomEE3DSwym\webapps\test-3dszym
```

TomEE+ Configuration

Test index.html:

6. In the same command prompt, execute the following commands:

```
set TMPAPP=3DComment works!
echo %TMPAPP%> %TMPVAR%\TomEE3DComment\webapps\test-3dcomment\index.html
set TMPAPP=3DDashboard works!
echo %TMPAPP%> %TMPVAR%\TomEE3DDashboard\webapps\test-3ddashboard\index.html
set TMPAPP=3DPassport works!
echo %TMPAPP%> %TMPVAR%\TomEE3DPassport\webapps\test-3dpassport\index.html
set TMPAPP=3DSpace works!
echo %TMPAPP%> %TMPVAR%\TomEE3DSpace\webapps\test-3dspace\index.html
set TMPAPP=3DSpaceInternal works!
echo %TMPAPP%> %TMPVAR%\TomEE3DSpaceInternal\webapps\test-internal\index.html
set TMPAPP=FCS Central works!
echo %TMPAPP%> %TMPVAR%\TomEEFCSCentral\webapps\test-fcs\index.html
set TMPAPP=FCS Remote works!
echo %TMPAPP%> %TMPVAR%\TomEEFCSRemote\webapps\test-fcs\index.html
set TMPAPP=FedSearch works!
echo %TMPAPP%> %TMPVAR%\TomEEFedSearch\webapps\test-federated\index.html
set TMPAPP=3DSwym works!
echo %TMPAPP%> %TMPVAR%\TomEE3DSwym\webapps\test-3dswym\index.html
```

TomEE+ Configuration

Server.xml

7. For each of the `server.xml` file, update the **Shutdown**, **HTTP** and **AJP** ports at
`D:\3DEXPERIENCE\TomEE\TomEE<Service name>\conf.`



If Notepad++ is not installed, update the **Note** with another text editor.

```
<Server port="8005" shutdown="SHUTDOWN">-----  
  <!-- TomEE plugin for Tomcat -->  
  <Listener className="org.apache.tomee.catalina.ServerListener" />  
  <Listener className="org.apache.catalina.startup.VersionLoggerListener" />  
  <!-- Security listener. Documentation at /docs/config/listeners.html  
  <Listener className="org.apache.catalina.security.SecurityListener" />  
-->  
  
  <Connector port="8080" protocol="HTTP/1.1"  
             connectionTimeout="20000"  
             redirectPort="8443" xpoweredBy="false"  
             URIEncoding="UTF-8" server="Apache TomEE TomEE3DPassport" />  
  
  <!-- Define an AJP 1.3 Connector on port 8009 -->  
  <Connector port="8009" protocol="AJP/1.3" redirectPort="8443" />
```

TomEE+ Configuration

The table illustrates the ports for each service.

In the **HTTP** tag also make sure to add the **URIEncoding** and **server** description based on the service name.

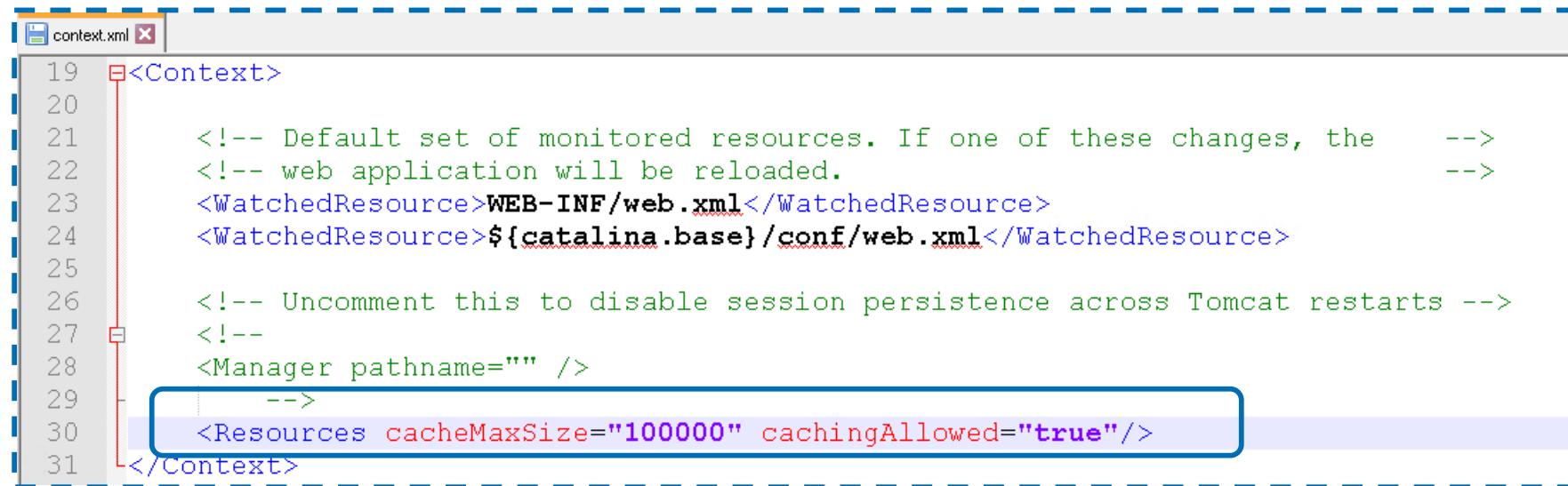
For example: 3Dpassport server.xml is considered below:

Service	Shut-down	HTTP	AJP
TomEE3DPassport	8005	8080	8009
TomEE3DDashboard	8105	8180	8109
TomEEFedSearch	8205	8280	8209
TomEE3DSpace	8305	8380	8309
TomEE3DSpaceInternal	8405	8480	8409
TomEE3DComment	8505	8580	8509
Reserved for Notification	N/A	8680	N/A
TomEE3DSwym	8705	8780	8709
TomEEFCSCentral	8805	8880	8809
TomEEFCSRemote	8905	8980	8909

```
<Connector port="8080" protocol="HTTP/1.1"
           connectionTimeout="20000"
           redirectPort="8443" xpoweredBy="false"
           URIEncoding="UTF-8" server="Apache TomEE TomEE3DPassport" />
```

TomEE+ Configuration

8. Enter the cache configuration for TomEE3DSpace at D:\3DEXPERIENCE\TomEE\TomEE3DSpace\conf and TomEE3DSpaceInternal at D:\3DEXPERIENCE\TomEE\TomEE3DSpaceInternal\conf.



```
context.xml
19 <Context>
20
21     <!-- Default set of monitored resources. If one of these changes, the -->
22     <!-- web application will be reloaded. -->
23     <WatchedResource>WEB-INF/web.xml</WatchedResource>
24     <WatchedResource>${catalina.base}/conf/web.xml</WatchedResource>
25
26     <!-- Uncomment this to disable session persistence across Tomcat restarts -->
27     <!--
28         <Manager pathname="" />
29             -->
30             <Resources cacheMaxSize="100000" cachingAllowed="true"/>
31     </Context>
```

TomEE+ Configuration

service.bat

9. In the same command prompt, execute the following commands:

```
set NOTE=C:\Progra~2\Notepad++\notepad++.exe  
%NOTE% %TMPVAR%\TomEE3DComment\bin\service.bat  
%NOTE% %TMPVAR%\TomEE3DDashboard\bin\service.bat  
%NOTE% %TMPVAR%\TomEE3DPassport\bin\service.bat  
%NOTE% %TMPVAR%\TomEE3DSpace\bin\service.bat  
%NOTE% %TMPVAR%\TomEE3DSpaceInternal\bin\service.bat  
%NOTE% %TMPVAR%\TomEEFCSCentral\bin\service.bat  
%NOTE% %TMPVAR%\TomEEFCSRemote\bin\service.bat  
%NOTE% %TMPVAR%\TomEEFedSearch\bin\service.bat  
%NOTE% %TMPVAR%\TomEE3DSwym\bin\service.bat
```

For each of the service.bat file, include second line, calling the specific service environment file.

```
1 @echo off  
2 CALL D:\3DEXPERIENCE\TomEE\TomEE3DPassport\bin\setenv.bat
```



At this point, this file is only prepared and not ready to be executed.

10. Save all the files opened by notepad++.

TomEE+ html (1/3)

11. In folder D:\3DEXPERIENCE\TomEE, create a file *MyURLs.html*, with the following content:

Then, create a shortcut in your IE favorite bar to the file: D:\3DEXPERIENCE\TomEE\MyURLs.html

This is a validation check to test the TomEE+ configurations for all service without certificates.

```
<html><body>

<B>HTTP Test URLs</B><BR>

<a href="http://3dpassport.mytraining.com:8080/test-3dpassport"      > 3DPassport      </a><BR>
<a href="http://3ddashboard.mytraining.com:8180/test-3ddashboard"    > 3DDashboard    </a><BR>
<a href="http://fedsearch.mytraining.com:8280/test-federated"        > FedSearch       </a><BR>
<a href="http://3dspace.mytraining.com:8380/test-3dspace"            > 3DSpace         </a><BR>
<a href="http://internal.mytraining.com:8480/test-internal"          > 3DSpace Internal</a><BR>
<a href="http://3dcomment.mytraining.com:8580/test-3dcomment"        > 3DComment       </a><BR>
<a href="http://fcscentral.mytraining.com:8880/test-fcs"              > FCS Central    </a><BR>
<a href="http://fcsremote.mytraining.com:8980/test-fcs"                > FCS Remote     </a><BR>
<a href="http://3dswym.mytraining.com:8780/test-3dswym"               > 3DSwym         </a><BR>
```

This is a validation check to test the TomEE+ configurations for all service with certificates.

```
<B>HTTPS Test URLs</B><BR>

<a href="https://3dpassport.mytraining.com/test-3dpassport"      > 3DPassport      </a><BR>
<a href="https://3ddashboard.mytraining.com/test-3ddashboard"    > 3DDashboard    </a><BR>
<a href="https://fedsearch.mytraining.com/test-federated"        > FedSearch       </a><BR>
<a href="https://3dspace.mytraining.com/test-3dspace"            > 3DSpace         </a><BR>
<a href="https://internal.mytraining.com/test-internal"          > 3DSpace Internal</a><BR>
<a href="https://3dcomment.mytraining.com/test-3dcomment"        > 3DComment       </a><BR>
<a href="https://fcscentral.mytraining.com/test-fcs"              > FCS Central    </a><BR>
<a href="https://fcsremote.mytraining.com/test-fcs"                > FCS Remote     </a><BR>
<a href="https://3dswym.mytraining.com/test-3dswym"               > 3DSwym         </a><BR>
```

TomEE+ html (2/3)

This is a validation check to test the if all services are up and running after installation.

```
<BR><BR><B>Health Check Service HTTPS</B><BR>
<a href="https://3dpassport.mytraining.com/3dpassport/healthchecksimple" > 3DPassport
</a><BR>
<a href="https://3ddashboard.mytraining.com/3ddashboard/test-alive" > 3DDashboard
</a><BR>
<a href="https://fedsearch.mytraining.com/federated/manager?query=monitoring" > FedSearch
</a><BR>
<a href="https://3dspace.mytraining.com/3dspace" > 3DSpace
</a><BR>
<a href="https://internal.mytraining.com/internal" > 3DSpace
Internal</a><BR>
<a href="https://3dcomment.mytraining.com/3dcomment/monitoring/healthcheck" > 3DComment
</a><BR>
<a href="https://fcscentral.mytraining.com/fcs/servlet/fcs/about" > FCS
Central</a><BR>
<a href="https://fcsremote.mytraining.com/fcs/servlet/fcs/about" > FCS Remote
</a><BR>
<a href="https://3dnotification.mytraining.com/3dnotification/healthcheck" >
3DNotification </a><BR>
<a href="http://3dspaceindex.mytraining.com:19001/index.html" > 3DSpaceIndex
</a><BR>
<a href="https://3dswym.mytraining.com/3dswym/monitoring/healthcheck" > 3DSwym
</a><BR>
```

TomEE+ html (3/3)

This is a validation from a usability point after their installation.

```
<BR><BR><B>Service HTTPS</B><BR>
<a href="https://3dpassport.mytraining.com/3dpassport" > 3DPassport </a><BR>
<a href="https://3ddashboard.mytraining.com/3ddashboard" > 3DDashboard </a><BR>
<a href="https://fedsearch.mytraining.com/federated" > FedSearch </a><BR>
<a href="https://3dspace.mytraining.com/3dspace" > 3DSpace </a><BR>
<a href="https://internal.mytraining.com/internal" > 3DSpace Internal</a><BR>
<a href="https://3dcomment.mytraining.com/3dcomment/monitoring/healthcheck"> 3DComment </a><BR>
<a href="https://fcscentral.mytraining.com/fcs/servlet/fcs/about" > FCS Central </a><BR>
<a href="https://fcsremote.mytraining.com/fcs/servlet/fcs/about" > FCS Remote </a><BR>
<a href="https://3dnotification.mytraining.com/3dnotification" > 3DNotification </a><BR>
<a href="http://3dspaceindex.mytraining.com:19001/index.html" > 3DSpaceIndex </a><BR>
<a href="https://3dswym.mytraining.com/3dswym" > 3DSwym
</a><BR>
</html></body>
```

SSL Configuration

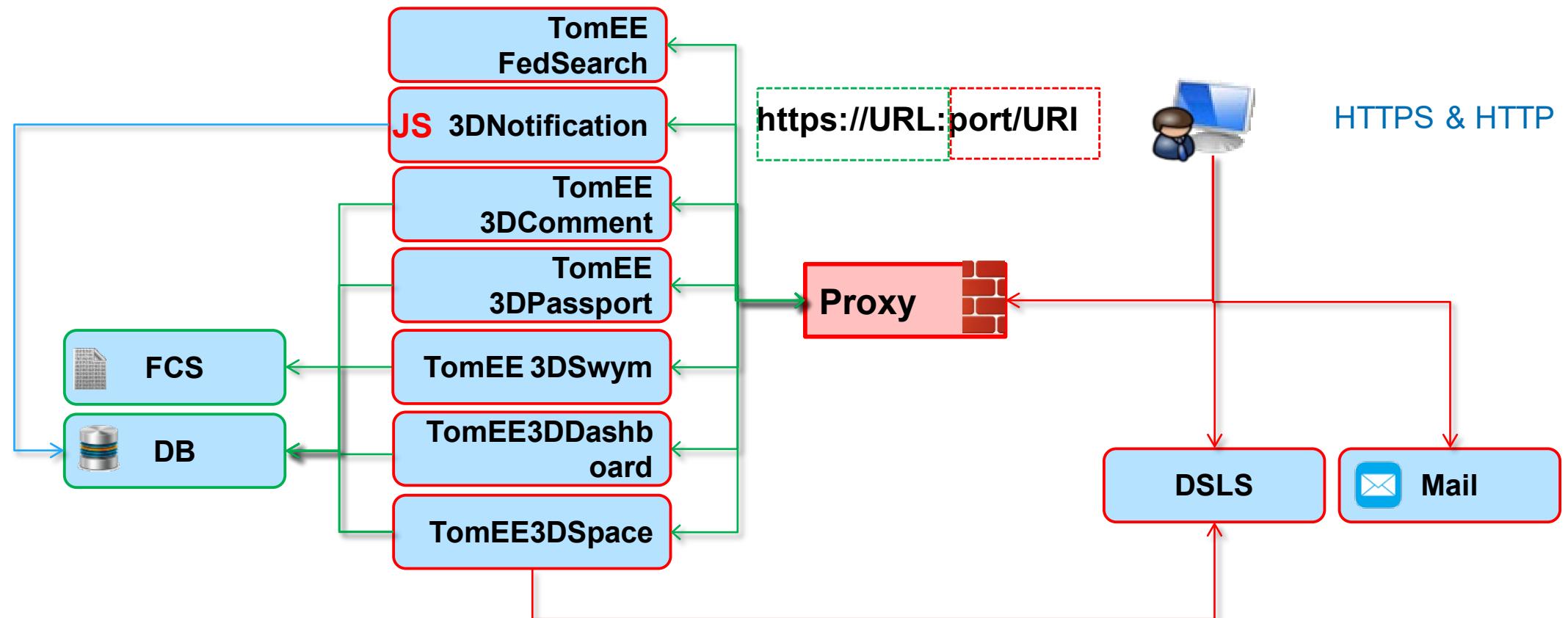
Topics to be covered:

- ✓ 1. *Introduction*
- ✓ 2. *Java Configuration*
- ✓ 3. *Apache Configuration*
- ✓ 4. *TomEE+ Configuration*
- ✓ 5. **SSL Configuration**

About SSL

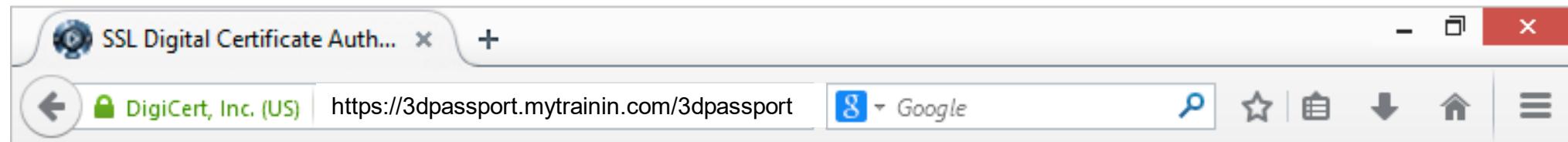
Create a certificate that will be used by Apache. The TomEE+ applications do not use this certificate. Below is a simplified view of the service security communications.

- ▶ Certificates should always be provided, although it's very common that you need them prior for validation. At the end of the day, the final Apache configuration will be executed by the customer:
 - CA certificate
 - Key file
 - Signing certificate
 - Server certificate
 - Keystore



About SSL

- ▶ Some general SSL information, general keywords: SSL (Secured Server Login), TLS, Certificate, HTTPS, key, keystore, Certificate Authority, VPN.
- ▶ Those are the technologies used to encrypt your internet traffic. Understanding the **Certification Chain** and the **physical location** of these certificates is important.
- ▶ Each certificate contains <Subject + Validity + Issuer> and is stored in the keystore.
- ▶ For the training avoid wildcard Server Name certificate, they are not bad but can be confusing during the Apache configuration. The FQDN definition must include at least one sub domain.
 - Valid: *.mytraining.localdomain Invalid: *.mytraining
 - Valid: server.mytraining.localdomain Invalid: server.mytraining
- ▶ At the end of the day this is what you need to achieve:



SSL Generation Process

The OpenSSL is a software library to be used in applications that need to secure communications over network.

1. Create CA certificate and CA private key.
2. Send Server certificate signing request and server private key to the respective authority.
3. Verify Server certificate signing request.
4. Create and sign Server certificate and server private key.
5. Verify Server certificate.
6. Copy server key and certificate.
7. Install CA certificate.

This process is followed on both the server and client to secure the communication.

Certificates signed by certificate authorities

You can obtain certificates from any certificate creation public authority. If the organization has its own authority, it can generate the certificates and get them signed by the same authority.

Self-signed certificates

You can use the Self-signed certificates, but we strongly recommend that you do not use them. Using them will generate many warnings and/or errors from components that do not recognize the certificate as valid or safe.

SSL Generation Types

This can be done in two ways, directly on the server or in your laptop, certificate creation have nothing to do with the actual physical server or VM.

- ▶ In this training the **3DEXPERIENCE** server is used to generate all certificates.
- ▶ Optionally it can be possible to create the certificates in your host laptop. Certificates are not linked to where they are created, a batch can automate this process for any number of FQDN's servers . List of prerequisites that would be needed:

In the laptop something like:

<C:\MyCertBuilder\Apache24>

<C:\MyCertBuilder\jdk8>

No need to have the service running, only binaries will be used.

Create a batch file <C:\MyCertBuilder\MyBatBuilder.bat>

And copy and paste all the steps in the next few slides into that batch file.

Change path and location and values, but all can be parameterized.



Again this option is not being used in this training.

Exercise: Generate and Configure Self-Signed Certificate

SSL certificate creation will require the use of:

- Apache to create the certificates with openssl command
- Java code to import the certificates in the keystore with keytool command



15 minutes

Generate and Configure Self-Signed Certificate

1. SSL Certificate Creation for different **3DEXPERIENCE** platform services

Open a command prompt as **Run as administrator**, execute the following commands (you can use the already open one):

```
cd /D D:\Apache24\conf  
mkdir D:\3DEXPERIENCE\conf\ssl  
set PATH=D:\Apache24\bin;D:\3DEXPERIENCE\Java64\jdk8\bin;%PATH%  
set OPENSSL_CONF=D:\Apache24\conf\openssl.cnf  
set CACERT=D:\3DEXPERIENCE\Java64\jdk8\jre\lib\security  
  
cd /D D:\3DEXPERIENCE\conf\ssl  
copy %CACERT%\cacerts %CACERT%\cacerts.original
```



The next few slides are very case sensitive. Also, pay attention during copy/paste, as Windows may change the "-" based on the fonts type.

As a precaution, always copy one line at a time and not the full set. Additionally, copying to Notepad or Notepad++ first can help detect correct spacing and characters.

« openssl » command is provided by the Apache installation.

Generate and Configure Self-Signed Certificate

- SSL Certificate Creation for different **3DEXPERIENCE** platform services.

Your command prompt should be in D:\3DEXPERIENCE\conf\ssl.

- Create CA key and Certificate:

```
openssl req -newkey rsa:2048 -x509 -keyout cakey.key -out cacert.crt -days 3650 -sha256
```

Generating a 2048 bit RSA private key

.....+++

writing new private key to 'cakey.key'

Enter PEM pass phrase: 12345

Enter PEM pass phrase: 12345

Verifying - Enter PEM pass phrase:

You are about to be asked to enter information that will be incorporated into your certificate request. What you are about to enter is what is called a Distinguished Name or a DN.

There are quite a few fields but you can leave some blank

For some fields there will be a default value,

If you enter '.', the field will be left blank.

Country Name (2 letter code) [AU]	:FR
State or Province Name (full name) [Some-State]	:IDF
Locality Name (eg, city) []	:FRANCE
Organization Name (eg, company) [Internet Widgits Pty Ltd]	:3DSTRAINING
Organizational Unit Name (eg, section) []	:IT
Common Name (e.g. server FQDN or YOUR name) []	:3dexperience.mytraining.com
Email Address [] <empty>	



At this time these values cannot be changed.

Generate and Configure Self-Signed Certificate

4. Create certificates for each service.

```
set SUBJ=/C=FR/ST=IDF/L=France/O=3DSTRAINING/OU=IT/  
.....  
openssl req -newkey rsa:2048 -nodes -sha256 -out 3dpassport.csr -keyout private.key -subj  
"%SUBJ%CN=3dpassport.mytraining.com"  
.....  
openssl req -new -nodes -sha256 -key private.key -subj "%SUBJ%CN=3dpassport.mytraining.com" >  
3dpassport.csr  
  
openssl x509 -req -in 3dpassport.csr -out 3dpassport.crt -sha256 -days 3650 -CA cacert.crt -  
CAkey cakey.key -CAserial caserial.srl -CAcreateserial  
Signature ok  
subject=/C=FR/ST=IDF/L=France/O=3DSTRAINING/OU=IT/CN=3dpassport.mytraining.com  
Getting CA Private Key  
Enter pass phrase for cakey.key: 12345  
.....  
openssl req -new -nodes -sha256 -key private.key -subj "%SUBJ%CN=3ddashboard.mytraining.com" >  
3ddashboard.csr  
  
openssl x509 -req -in 3ddashboard.csr -out 3ddashboard.crt -sha256 -days 3650 -CA cacert.crt -  
CAkey cakey.key -CAserial caserial.srl  
Signature ok  
subject=/C=FR/ST=IDF/L=France/O=3DSTRAINING/OU=IT/CN=3ddashboard.mytraining.com  
Getting CA Private Key  
Enter pass phrase for cakey.key: 12345
```

Generate and Configure Self-Signed Certificate

```
openssl req -new -nodes -sha256 -key private.key -subj "%SUBJ%CN=fedsearch.mytraining.com" > fedsearch.csr
openssl x509 -req -in fedsearch.csr -out fedsearch.crt -sha256 -days 3650 -CA cacert.crt -CAkey cakey.key -CAserial caserial.srl
Signature ok
subject=/C=FR/ST=IDF/L=France/O=3DSTRANDING/OU=IT/CN=fedsearch.mytraining.com
Getting CA Private Key
Enter pass phrase for cakey.key: 12345
.....
openssl req -new -nodes -sha256 -key private.key -subj "%SUBJ%CN=fcscentral.mytraining.com" > fcscentral.csr
openssl x509 -req -in fcscentral.csr -out fcscentral.crt -sha256 -days 3650 -CA cacert.crt -CAkey cakey.key -CAserial caserial.srl
Signature ok
subject=/C=FR/ST=IDF/L=France/O=3DSTRANDING/OU=IT/CN=fcscentral.mytraining.com
Getting CA Private Key
Enter pass phrase for cakey.key: 12345
.....
openssl req -new -nodes -sha256 -key private.key -subj "%SUBJ%CN=3dnotification.mytraining.com" > 3dnotification.csr
openssl x509 -req -in 3dnotification.csr -out 3dnotification.crt -sha256 -days 3650 -CA cacert.crt -CAkey cakey.key -CAserial caserial.srl
Signature ok
subject=/C=FR/ST=IDF/L=France/O=3DSTRANDING/OU=IT/CN=3dnotification.mytraining.com
Getting CA Private Key
Enter pass phrase for cakey.key: 12345
```

Generate and Configure Self-Signed Certificate

```
openssl req -new -nodes -sha256 -key private.key -subj "%SUBJ%CN=fcsremote.mytraining.com" > fcsremote.csr

openssl x509 -req -in fcsremote.csr -out fcsremote.crt -sha256 -days 3650 -CA cacert.crt -CAkey cakey.key -
CAserial caserial.srl
Signature ok
subject=/C=FR/ST=IDF/L=France/O=3DSTRANDING/OU=IT/CN=fcsremote.mytraining.com
Getting CA Private Key
Enter pass phrase for cakey.key: 12345
.....
openssl req -new -nodes -sha256 -key private.key -subj "%SUBJ%CN=3dspace.mytraining.com" > 3dspace.csr

openssl x509 -req -in 3dspace.csr -out 3dspace.crt -sha256 -days 3650 -CA cacert.crt -CAkey cakey.key -
CAserial caserial.srl
Signature ok
subject=/C=FR/ST=IDF/L=France/O=3DSTRANDING/OU=IT/CN=3dspace.mytraining.com
Getting CA Private Key
Enter pass phrase for cakey.key: 12345
.....
openssl req -new -nodes -sha256 -key private.key -subj "%SUBJ%CN=internal.mytraining.com" > internal.csr

openssl x509 -req -in internal.csr -out internal.crt -sha256 -days 3650 -CA cacert.crt -CAkey cakey.key -
CAserial caserial.srl
Signature ok
subject=/C=FR/ST=IDF/L=France/O=3DSTRANDING/OU=IT/CN=internal.mytraining.com
Getting CA Private Key
Enter pass phrase for cakey.key: 12345
```

Generate and Configure Self-Signed Certificate

```
.....  
openssl req -new -nodes -sha256 -key private.key -subj "%SUBJ%CN=3dcomment.mytraining.com" >  
3dcomment.csr
```

```
openssl x509 -req -in 3dcomment.csr -out 3dcomment.crt -sha256 -days 3650 -CA cacert.crt -  
CAkey cakey.key -CAserial caserial.srl
```

Signature ok

subject=/C=FR/ST=IDF/L=France/O=3DSTRAINING/OU=IT/CN=3dcomment.mytraining.com

Getting CA Private Key

Enter pass phrase for cakey.key: 12345
.....

```
openssl req -new -nodes -sha256 -key private.key -subj "%SUBJ%CN=3dszym.mytraining.com" >  
3dszym.csr
```

```
openssl x509 -req -in 3dszym.csr -out 3dszym.crt -sha256 -days 3650 -CA cacert.crt -CAkey  
cakey.key -CAserial caserial.srl
```

Signature ok

subject=/C=FR/ST=IDF/L=France/O=3DSTRAINING/OU=IT/CN=3dszym.mytraining.com

Getting CA Private Key

Enter pass phrase for cakey.key: 12345
.....

```
openssl req -new -nodes -sha256 -key private.key -subj "%SUBJ%CN=help.mytraining.com" >  
help.csr
```

```
openssl x509 -req -in help.csr -out help.crt -sha256 -days 3650 -CA cacert.crt -CAkey  
cakey.key -CAserial caserial.srl
```

Signature ok

subject=/C=FR/ST=IDF/L=France/O=3DSTRAINING/OU=IT/CN=3dszym.mytraining.com

Getting CA Private Key

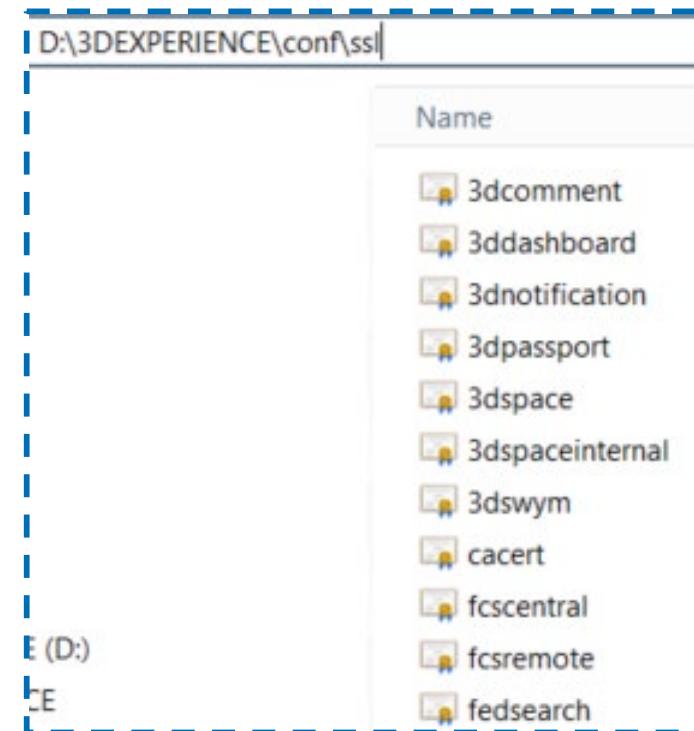
Enter pass phrase for cakey.key: 12345
.....

Generate and Configure Self-Signed Certificate

A total of 11 certificates should have been created in `D:\3DEXPERIENCE\conf\ssl` folder:



The .csr and .rnd files can be deleted.



5. As a final step, import the CA certificate (`cacert.crt`) into `cacert` file located under `D:\3DEXPERIENCE\Java64\jdk8\jre\lib\security`

```
keytool -import -keystore "%CACERT%\cacerts" -storepass changeit -noprompt -alias cacert -file cacert.crt
```

Certificate was added to keystore.

Generate and Configure Self-Signed Certificate

6. Install the CA certificate: D:\3DEXPERIENCE\conf\ssl\cacert.crt

Copy the cacert.crt file and save on the local machine.

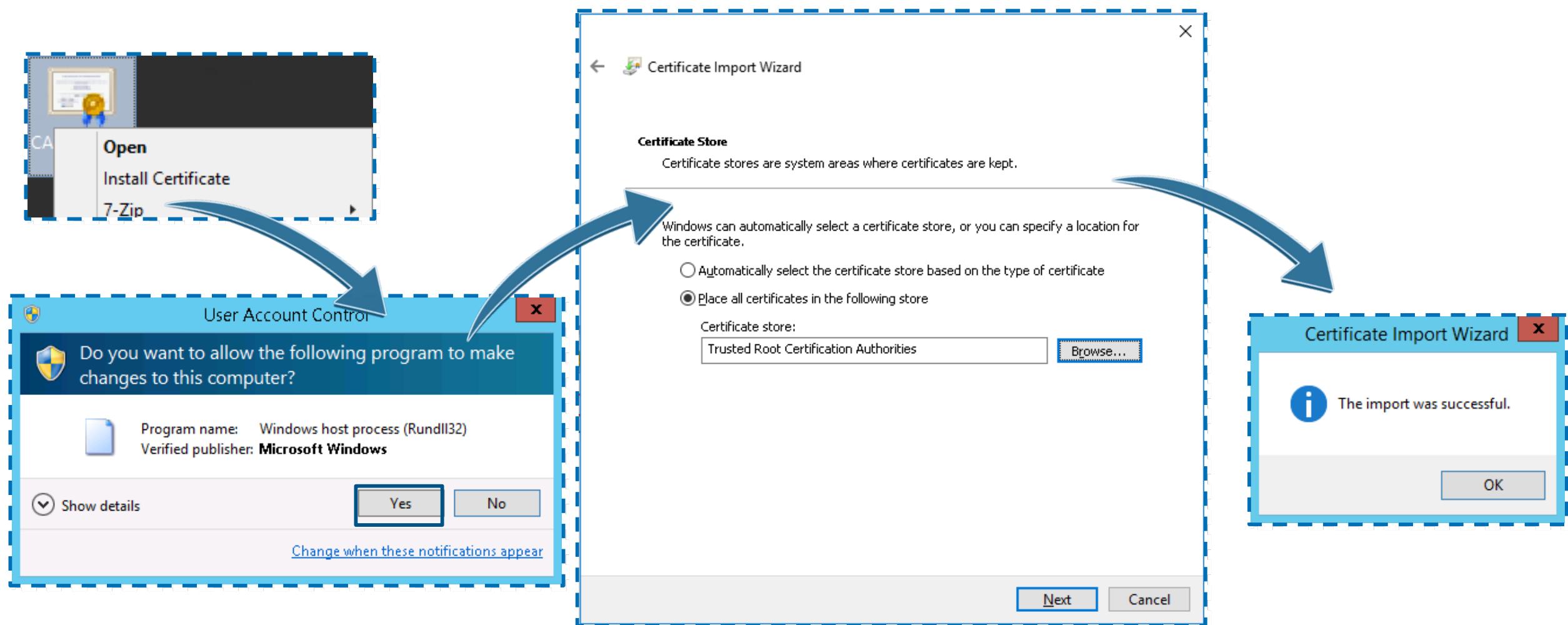
a. Open the file location, **RMB + Install Certificate**

b. Select following options:

Local Machine

Place all certificates in the following store

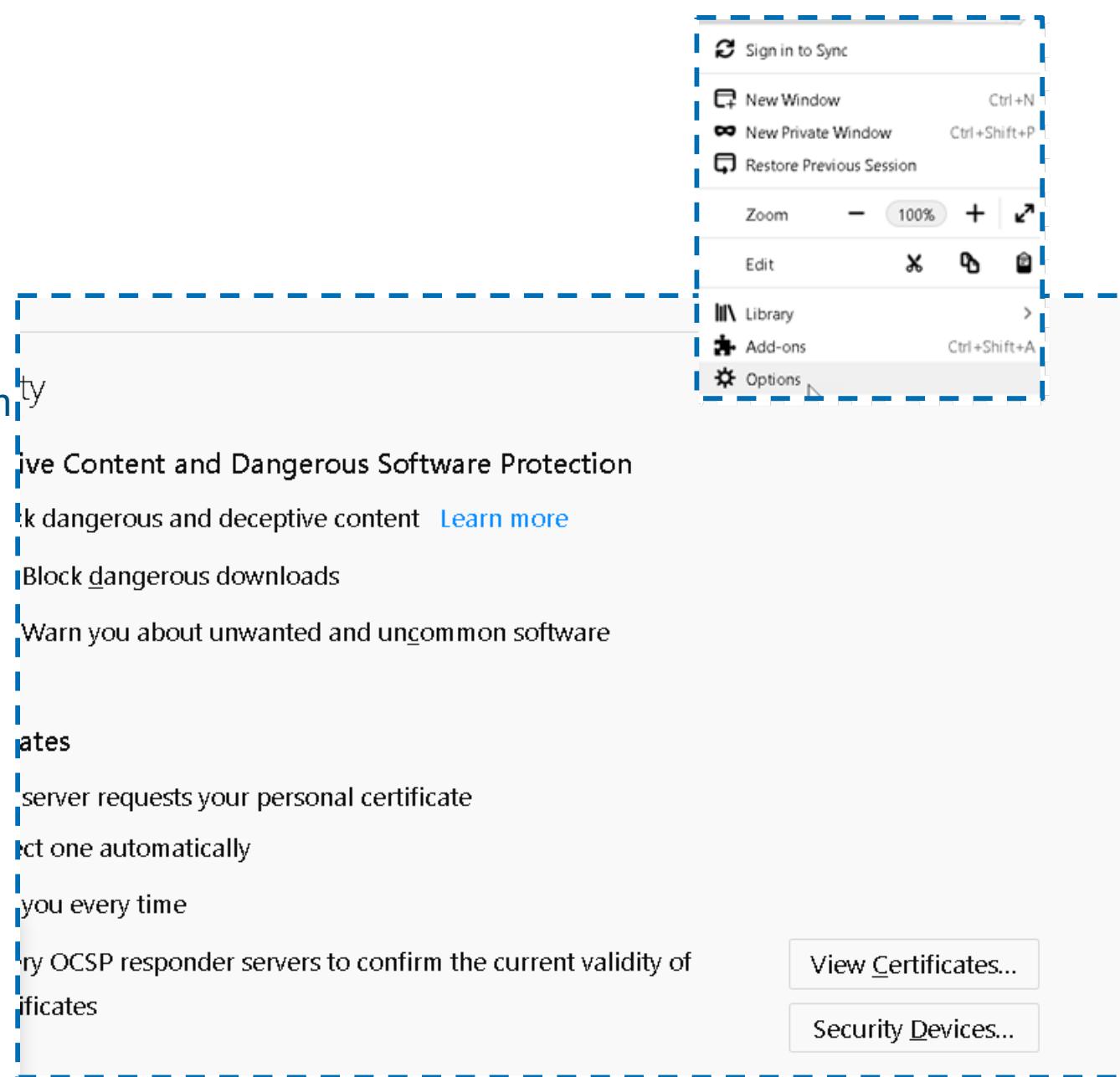
c. Choose **Trusted Root Certification Authorities** folder.



Generate and Configure Self-Signed Certificate

7. Perform the following steps to validate all **3DEXPERIENCE** platform services in the Mozilla Firefox.

- a. Open the browser.
- b. Select **Options > Privacy and Security** from the **Open** menu.
- c. In the **Certificates** section, click **View Certificates**.
- d. Select **Your Certificates tab** and select **Import**.
- e. Navigate to the certificate file location and select the **cacert.crt**.
- f. Click **OK**.
The certificate is imported and is available to open all the services.
- g. Close the browser.



Exercise Recap: Generate and Configure Self-Signed Certificate

In this exercise, you have configured Self-Signed Certificate for each service.

Exercise: Configure Apache Service Virtual Host

Prior to the **3DEXPERIENCE** platform installation, ensure that everything related to Apache, Java, TomEE+ and SSL are working properly.

To achieve this the Apache configuration with respect to test URI for each service to be done.



30 minutes

Apache Service Virtual Host – 3DPassport

1. Edit the file 3dexperience.conf file at D:\3DEXPERIENCE\conf.

```
# ######
# Virtual host configuration for 3DPassport service
<VirtualHost *:443>
    ServerName 3dpassport.mytraining.com
    ServerAlias 3dpassport
    ErrorLog logs/3dpassport.err
    TransferLog logs/3dpassport.log
    CustomLog logs/3dpassport.cus "%t %h %{SSL_PROTOCOL}x %{SSL_CIPHER}x \"%r\" %b"
    LogLevel warn
    SSLEngine on
    SSLProxyEngine on
    SSLCertificateFile D:\3DEXPERIENCE\conf\ssl\3dpassport.crt
    SSLCertificateKeyFile D:\3DEXPERIENCE\conf\ssl\private.key
    ProxyPass /test-3dpassport http://3dpassport.mytraining.com:8080/test-3dpassport
    ProxyPassReverse /test-3dpassport http://3dpassport.mytraining.com:8080/test-3dpassport

    #XXXX Future fragment file XXXX
</VirtualHost>
```

Apache Service Virtual Host – 3DDashboard

```
# ######
# Virtual host configuration for 3DDashboard service
<VirtualHost *:443>
    ServerName 3ddashboard.mytraining.com
    ServerAlias 3ddashboard
    ErrorLog logs/3ddashboard.err
    TransferLog logs/3ddashboard.log
    CustomLog logs/3ddashboard.cus "%t %h %{SSL_PROTOCOL}x %{SSL_CIPHER}x \"%r\" %b"
    LogLevel warn
    SSLEngine on
    SSLProxyEngine on
    SSLCertificateFile D:\3DEXPERIENCE\conf\ssl\3ddashboard.crt
    SSLCertificateKeyFile D:\3DEXPERIENCE\conf\ssl\private.key
    ProxyPass /test-3ddashboard http://3ddashboard.mytraining.com:8180/test-3ddashboard
    ProxyPassReverse /test-3ddashboard http://3ddashboard.mytraining.com:8180/test-3ddashboard

    #XXXX Future fragment file XXXX
</VirtualHost>
```

Apache Service Virtual Host – 3DSearch

```
# ######
# Virtual host configuration for FedSearch service
<VirtualHost *:443>
    ServerName fedsearch.mytraining.com
    ServerAlias FedSearch
    ErrorLog logs/FedSearch.err
    TransferLog logs/FedSearch.log
    CustomLog logs/FedSearch.cus "%t %h %{SSL_PROTOCOL}x %{SSL_CIPHER}x \"%r\" %b"
    LogLevel warn
    SSLEngine on
    SSLProxyEngine on
    SSLCertificateFile D:\3DEXPERIENCE\conf\ssl\fedsearch.crt
    SSLCertificateKeyFile D:\3DEXPERIENCE\conf\ssl\private.key
    ProxyPass /test-federated http://fedsearch.mytraining.com:8280/test-federated
    ProxyPassReverse /test-federated http://fedsearch.mytraining.com:8280/test-federated

    #XXXX Future fragment file XXXX
</VirtualHost>
```

Apache Service Virtual Host – 3DSpace

```
# ######
# Virtual host configuration for 3dspace service
<VirtualHost *:443>
    ServerName 3dspace.mytraining.com
    ServerAlias 3dspace
    ErrorLog logs/3dspace.err
    TransferLog logs/3dspace.log
    CustomLog logs/3dspace.cus "%t %h %{SSL_PROTOCOL}x %{SSL_CIPHER}x \"%r\" %b"
    LogLevel warn
    SSLEngine on
    SSLProxyEngine on
    SSLCertificateFile D:\3DEXPERIENCE\conf\ssl\3dspace.crt
    SSLCertificateKeyFile D:\3DEXPERIENCE\conf\ssl\private.key
    ProxyPass /test-3dspace http://3dspace.mytraining.com:8380/test-3dspace
    ProxyPassReverse /test-3dspace http://3dspace.mytraining.com:8380/test-3dspace

    #XXXX Future fragment file XXXX
</VirtualHost>
```

Apache Service Virtual Host - 3DSpace Internal

```
# ######
# Virtual host configuration for 3dspace Internal service
<VirtualHost *:443>
    ServerName internal.mytraining.com
    ServerAlias 3dspaceinternal
    ErrorLog logs/3dspaceinternal.err
    TransferLog logs/3dspaceinternal.log
    CustomLog logs/3dspaceinternal.cus "%t %h %{SSL_PROTOCOL}x %{SSL_CIPHER}x \"%r\" %b"
    LogLevel warn
    SSLEngine on
    SSLProxyEngine on
    SSLCertificateFile D:\3DEXPERIENCE\conf\ssl\internal.crt
    SSLCertificateKeyFile D:\3DEXPERIENCE\conf\ssl\private.key
    ProxyPass /test-internal http://internal.mytraining.com:8480/test-internal
    ProxyPassReverse /test-internal http://internal.mytraining.com:8480/test-internal

    #XXXX Future fragment file XXXX
</VirtualHost>
```

Apache Service Virtual Host - 3DComment

```
# ######
# Virtual host configuration for 3DComment service
<VirtualHost *:443>
    ServerName 3dcomment.mytraining.com
    ServerAlias 3dcomment
    ErrorLog logs/3dcomment.err
    TransferLog logs/3dcomment.log
    CustomLog logs/3dcomment.cus "%t %h %{SSL_PROTOCOL}x %{SSL_CIPHER}x \"%r\" %b"
    LogLevel warn
    SSLEngine on
    SSLProxyEngine on
    SSLCertificateFile D:\3DEXPERIENCE\conf\ssl\3dcomment.crt
    SSLCertificateKeyFile D:\3DEXPERIENCE\conf\ssl\private.key
    ProxyPass /test-3dcomment http://3dcomment.mytraining.com:8580/test-3dcomment
    ProxyPassReverse /test-3dcomment http://3dcomment.mytraining.com:8580/test-3dcomment

    #XXXX Future fragment file XXXX
</VirtualHost>
```

Apache Service Virtual Host - FCS Central

```
# ######
# Virtual host configuration for FCS Central service
<VirtualHost *:443>
    ServerName fcscentral.mytraining.com
    ServerAlias fcscentral
    ErrorLog logs/fcscentral.err
    TransferLog logs/fcscentral.log
    CustomLog logs/fcscentral.cus "%t %h %{SSL_PROTOCOL}x %{SSL_CIPHER}x \"%r\" %b"
    LogLevel warn
    SSLEngine on
    SSLProxyEngine on
    SSLCertificateFile D:\3DEXPERIENCE\conf\ssl\fcscentral.crt
    SSLCertificateKeyFile D:\3DEXPERIENCE\conf\ssl\private.key
    ProxyPass /test-fcs http://fcscentral.mytraining.com:8880/test-fcs
    ProxyPassReverse /test-fcs http://fcscentral.mytraining.com:8880/test-fcs

    #XXXX Future fragment file XXXX
</VirtualHost>
```

Apache Service Virtual Host - FCS Remote

```
# ######
# Virtual host configuration for FCS Remote service
<VirtualHost *:443>
    ServerName fcsremote.mytraining.com
    ServerAlias fcsremote
    ErrorLog logs/fcsremote.err
    TransferLog logs/fcsremote.log
    CustomLog logs/fcsremote.cus "%t %h %{SSL_PROTOCOL}x %{SSL_CIPHER}x \"%r\" %b"
    LogLevel warn
    SSLEngine on
    SSLProxyEngine on
    SSLCertificateFile D:\3DEXPERIENCE\conf\ssl\fcsremote.crt
    SSLCertificateKeyFile D:\3DEXPERIENCE\conf\ssl\private.key
    ProxyPass /test-fcs http://fcsremote.mytraining.com:8980/test-fcs
    ProxyPassReverse /test-fcs http://fcsremote.mytraining.com:8980/test-fcs

    #XXXX Future fragment file XXXX
</VirtualHost>
```

Apache Service Virtual Host - 3DSwym

```
# #####  
# Virtual host configuration for 3DSwym service  
<VirtualHost *:443>  
    ServerName 3dswym.mytraining.com  
    ServerAlias 3dswym  
    ErrorLog logs/3dswym.err  
    TransferLog logs/3dswym.log  
    CustomLog logs/3dswym.cus "%t %h %{SSL_PROTOCOL}x %{SSL_CIPHER}x \"%r\" %b"  
    LogLevel warn  
    SSLEngine on  
    SSLProxyEngine on  
    SSLCertificateFile D:\3DEXPERIENCE\conf\ssl\3dswym.crt  
    SSLCertificateKeyFile D:\3DEXPERIENCE\conf\ssl\private.key  
    ProxyPass /test-3dswym http://3dswym.mytraining.com:8780/test-3dswym  
    ProxyPassReverse /test-3dswym http://3dswym.mytraining.com:8780/test-3dswym  
  
    #XXXX Future fragment file XXXX  
</VirtualHost>
```

Apache Service Virtual Host - 3DNotification

3DNotification is a special situation it will be handled during the core installation module.

```
# ######
# Virtual host configuration for 3DNotification service
<VirtualHost *:443>
    ServerName 3dnotification.mytraining.com
    ServerAlias 3dnotification
    ErrorLog logs/3dnotification.err
    TransferLog logs/3dnotification.log
    CustomLog logs/3dnotification.cus "%t %h %{SSL_PROTOCOL}x %{SSL_CIPHER}x \"%r\" %b"
    LogLevel warn
    SSLEngine on
    SSLProxyEngine on
    SSLCertificateFile D:\3DEXPERIENCE\conf\ssl\3dnotification.crt
    SSLCertificateKeyFile D:\3DEXPERIENCE\conf\ssl\private.key

    #XXXX Future fragment file XXXX
</VirtualHost>
```

Apache Service Virtual Host – Help

```
# ######
# Virtual host configuration for help (OnlineDoc) service
<VirtualHost *:443>
ServerName help.mytraining.com
ServerAlias help
ErrorLog logs/help.err
TransferLog logs/help.log
CustomLog logs/help.cus "%t %h %{SSL_PROTOCOL}x %{SSL_CIPHER}x \"%r\" %b"
LogLevel warn
SSLEngine on
SSLProxyEngine on
SSLCertificateFile D:\3DEXPERIENCE\conf\ssl\help.crt
SSLCertificateKeyFile D:\3DEXPERIENCE\conf\ssl\private.key

# Replace [location of your installed doc]
DocumentRoot ["location of your installed doc"]
<Directory "/">
    Require all granted
</Directory>
</VirtualHost>
```

Apache Service Virtual Host

2. Save the file D:\3DEXPERIENCE\conf\3dexperience.conf
3. Delete all files contained in the D:\Apache24\logs\ folder.
4. Start the Apache service.
5. Check all .log and .err files in D:\Apache24\logs\ that are not 0 bytes.

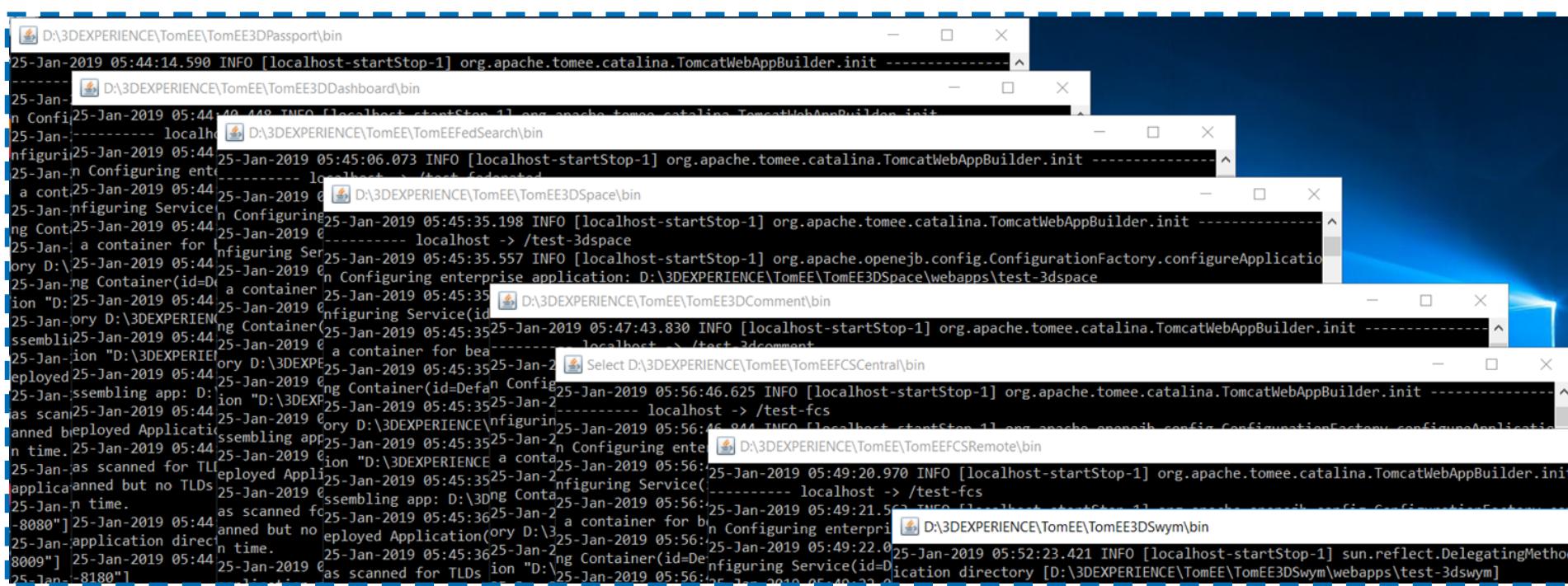
Total amount of line should be around 220.

Observe that the Apache *error.log* always has some traces, they should be very minimal.

```
[mpm_winnt:notice] [pid 3240:tid 556] AH00455: Apache/2.4.25 (Win64) OpenSSL/1.0.2j configured -- resuming normal operations
[mpm_winnt:notice] [pid 3240:tid 556] AH00456: Server built: Dec 16 2016 23:05:57
[core:notice] [pid 3240:tid 556] AH00094: Command line: 'C:\\Apache24\\bin\\httpd.exe -d C:/Apache24'
[mpm_winnt:notice] [pid 3240:tid 556] AH00418: Parent: Created child process 2736
[mpm_winnt:notice] [pid 2736:tid 492] AH00354: Child: Starting 64 worker threads.
```

Apache Service Virtual Host

6. Create shortcuts on your desktop for *startup.bat* and *shutdown.bat* of each service:
 - a. Navigate to each
D:\3DEXPERIENCE\TomEE\TomEE<Service>\bin folder.
 - b. Create a shortcut of the files, it's recommended renaming the shortcut based on Service+Command. Make them readable, short, order them in the desktop and even customize the icon.
 - c. Verify them by starting them All then stopping them.
 - d. Correct any error that you can spot on the command prompt.
 - e. Finally, start them all again.



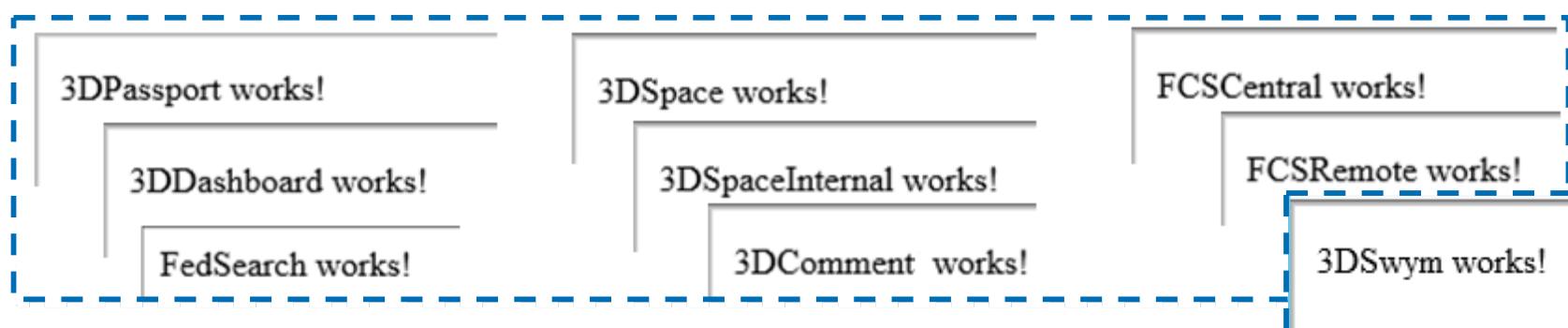
Apache Service Virtual Host

7. Open in the Internet Explorer or any other browser available:

D:\3DEXPERIENCE\TomEE\MyURLs.html click in the **HTTPS Test URLs**.

Add this file as favorites in the browser.

You will use the other URLs after you install all services.



HTTP Test URLs

[3DPassport](#)
[3DDashboard](#)
[FedSearch](#)
[3DSpace](#)
[3DSpace Internal](#)
[3DComment](#)
[FCS Central](#)
[FCS Remote](#)
[3DSwym](#)

HTTPS Test URLs

[3DPassport](#)
[3DDashboard](#)
[FedSearch](#)
[3DSpace](#)
[3DSpace Internal](#)
[3DComment](#)
[FCS Central](#)
[FCS Remote](#)
[3DSwym](#)

Health Check Service HTTPS

[3DPassport](#)
[3DDashboard](#)
[FedSearch](#)
[3DSpace](#)
[3DSpace Internal](#)
[3DComment](#)
[FCS Central](#)
[FCS Remote](#)
[3DNotification](#)
[3DSpaceIndex](#)
[3DSwym](#)

Service HTTPS

[3DPassport](#)
[3DDashboard](#)
[FedSearch](#)
[3DSpace](#)
[3DSpace Internal](#)
[3DComment](#)
[FCS Central](#)
[FCS Remote](#)
[3DNotification](#)
[3DSpaceIndex](#)
[3DSwym](#)

Exercise Recap: Configure Apache Service Virtual Host

In this exercise, you have configured the Apache Service Virtual Host for all the services of the **3DEXPERIENCE** platform.

Middleware Configuration

Ensure that the following configurations are completed before starting the installation of the **3DEXPERIENCE** platform:

- ▶ Java configuration
- ▶ Apache configuration
- ▶ TomEE + configuration
- ▶ SSL Certificate generation and deployment

Lesson 4: Database

- ▶ SQL Server Database Configuration
 - Instance creation
 - Object creation
- ▶ Oracle Database Configuration
 - Database creation
 - Net Services configuration



SQL Server Database Configuration

Topics to be covered:

- ▶ **SQL Server Database Configuration**
- ▶ Oracle Database Configuration

Exercise: Configure SQL Server

In this exercise, you will configure the SQL Server.



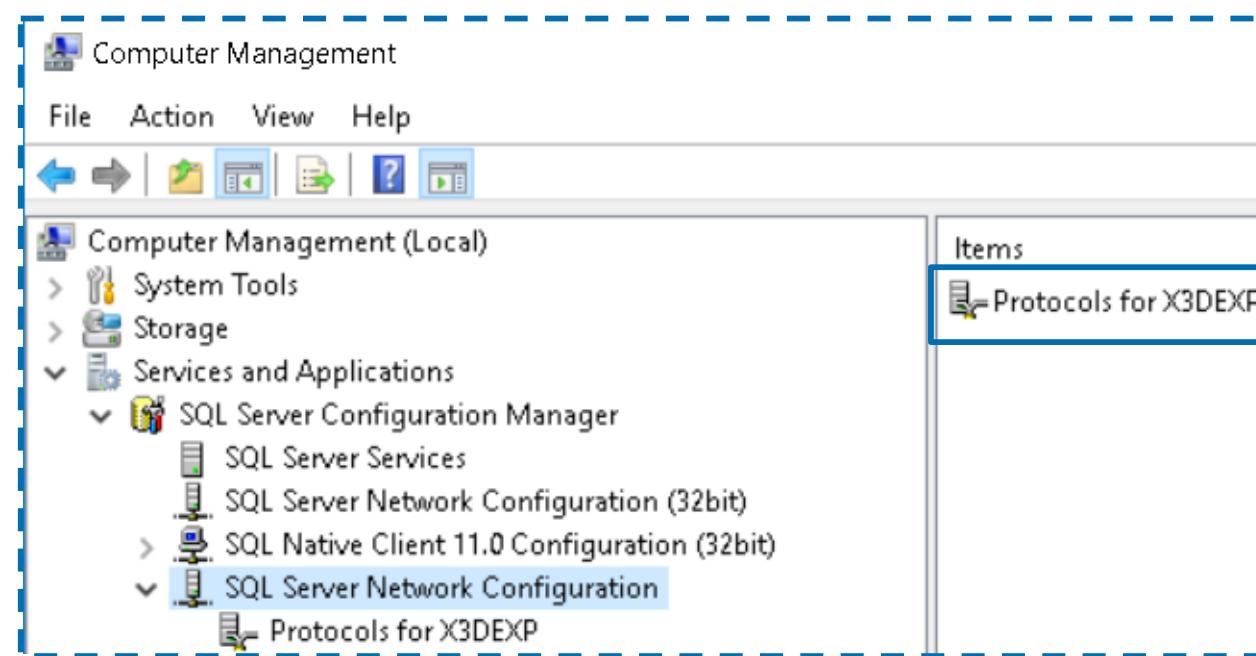
50 minutes

Pre-check to configure the SQL Server

1. Pre-check that following services exist.

	Provides sto...	Running
SQL Server (X3DEXP)		
SQL Server Agent (X3DEXP)	Executes jo...	Running
SQL Server Browser	Provides SQ...	Running
SQL Server CEIP service (X3DEXP)	CEIP service...	Running
SQL Server VSS Writer	Provides th...	Running

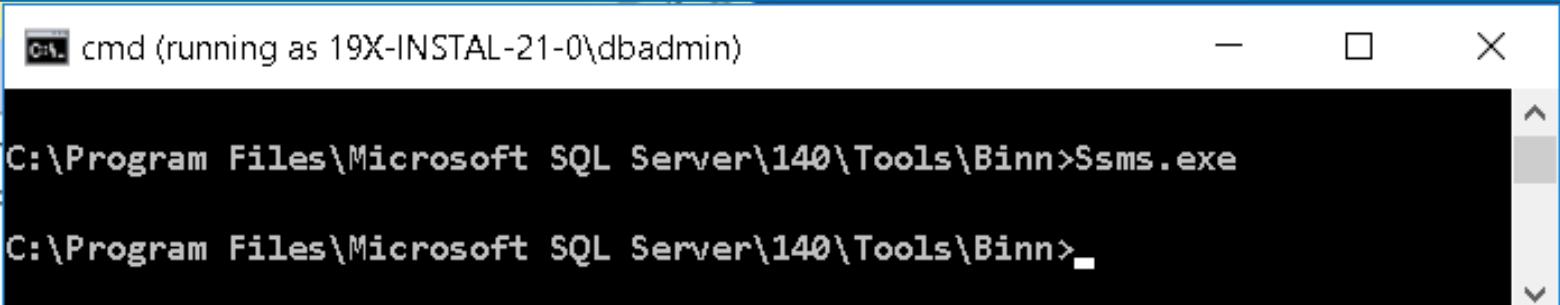
2. Select **Start > Administrative Tools > Computer Management > Services and Applications > SQL Server Configuration Manager > SQL Server Network Configuration** and observe the reference to the communication protocol for X3DEXP instance.



Connect to SQL Server (1/5)

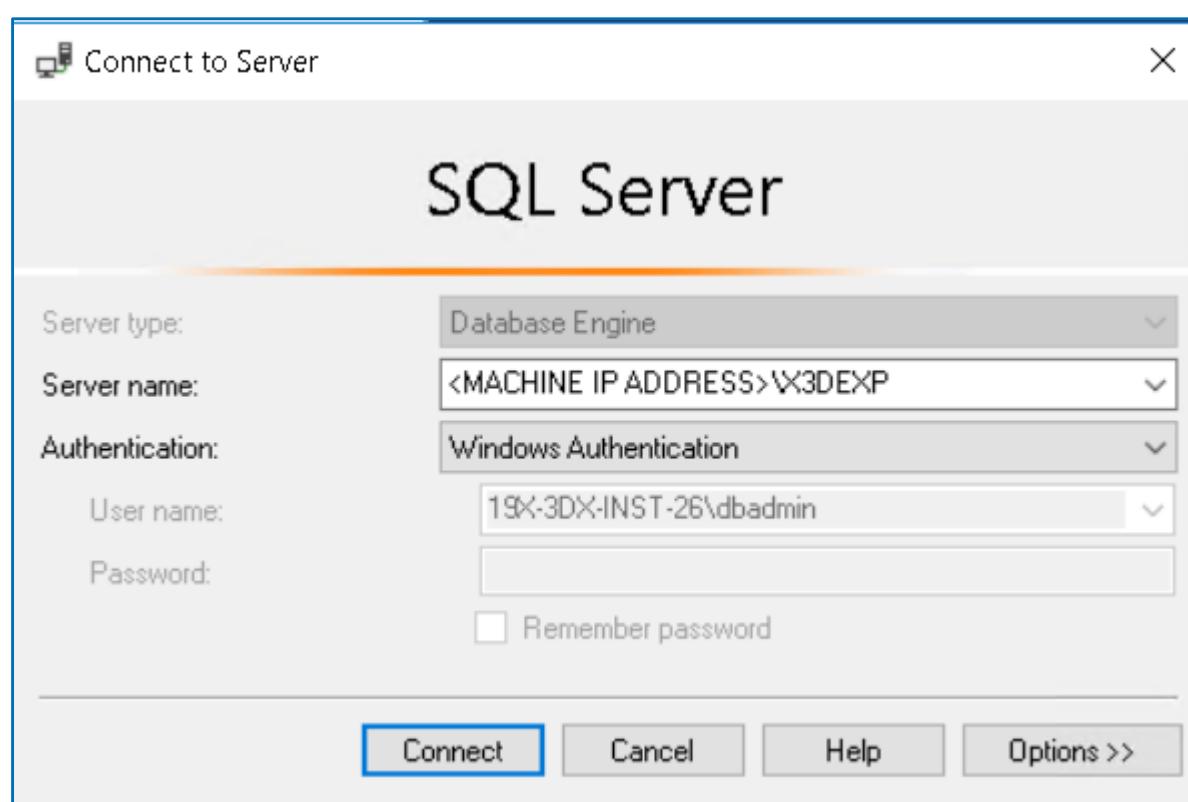
1. Open a **dbadmin** command prompt.
2. Execute the following command to open the **Microsoft SQL Server Management Studio**.

C:\Program Files (x86)\Microsoft SQL Server\140\Tools\Binn\ManagementStudio\Ssms.exe



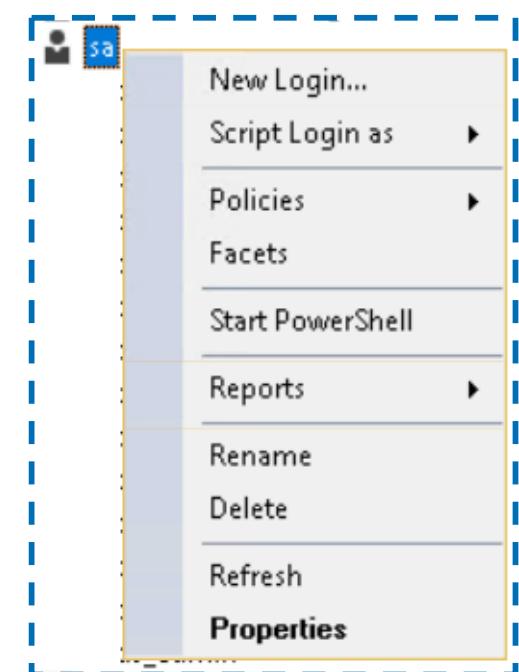
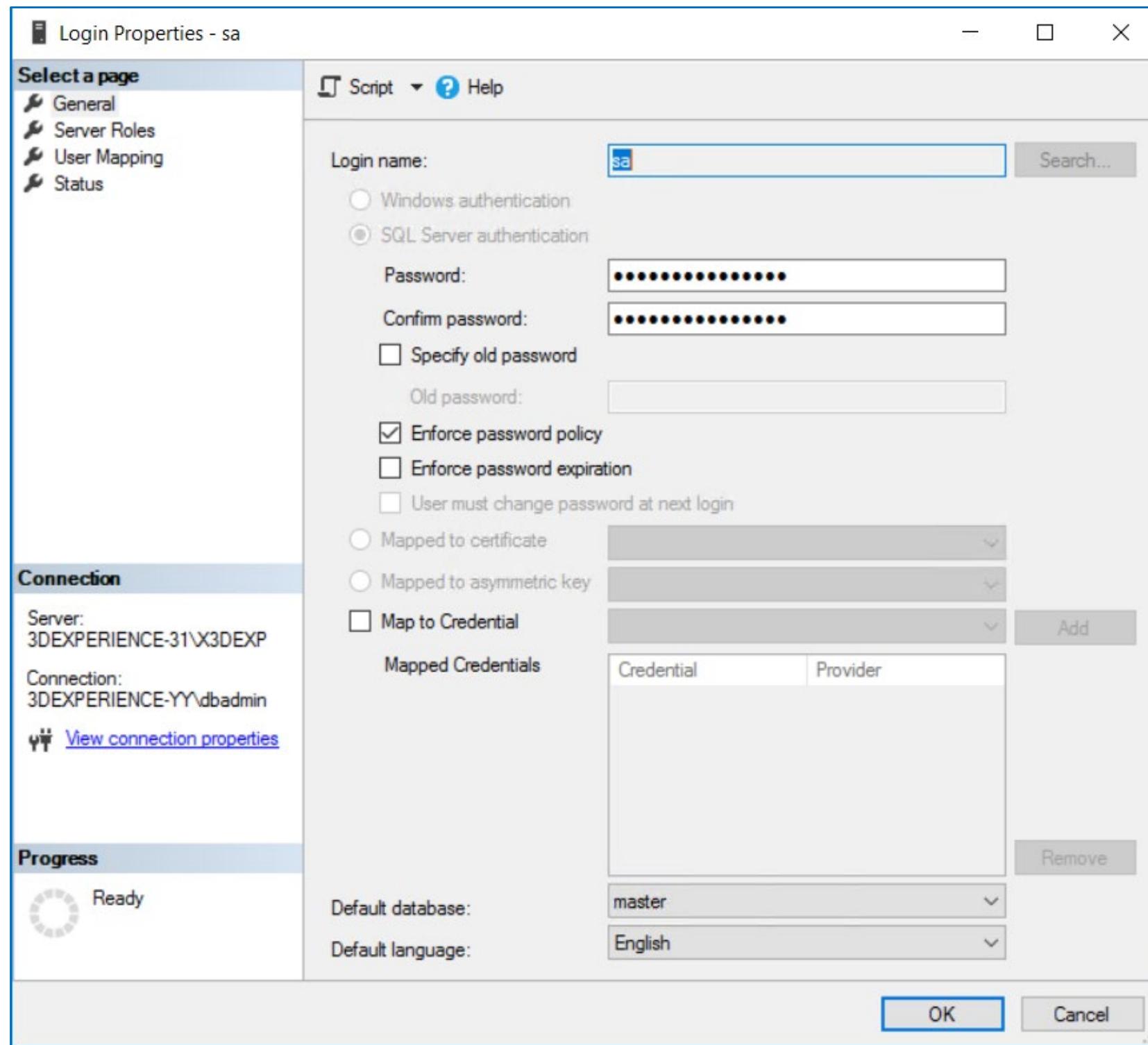
```
cmd (running as 19X-INSTAL-21-0\dbadmin)
C:\Program Files\Microsoft SQL Server\140\Tools\Binn>Ssms.exe
C:\Program Files\Microsoft SQL Server\140\Tools\Binn>
```

3. Using the **Windows Authentication** mode, connect to the server:



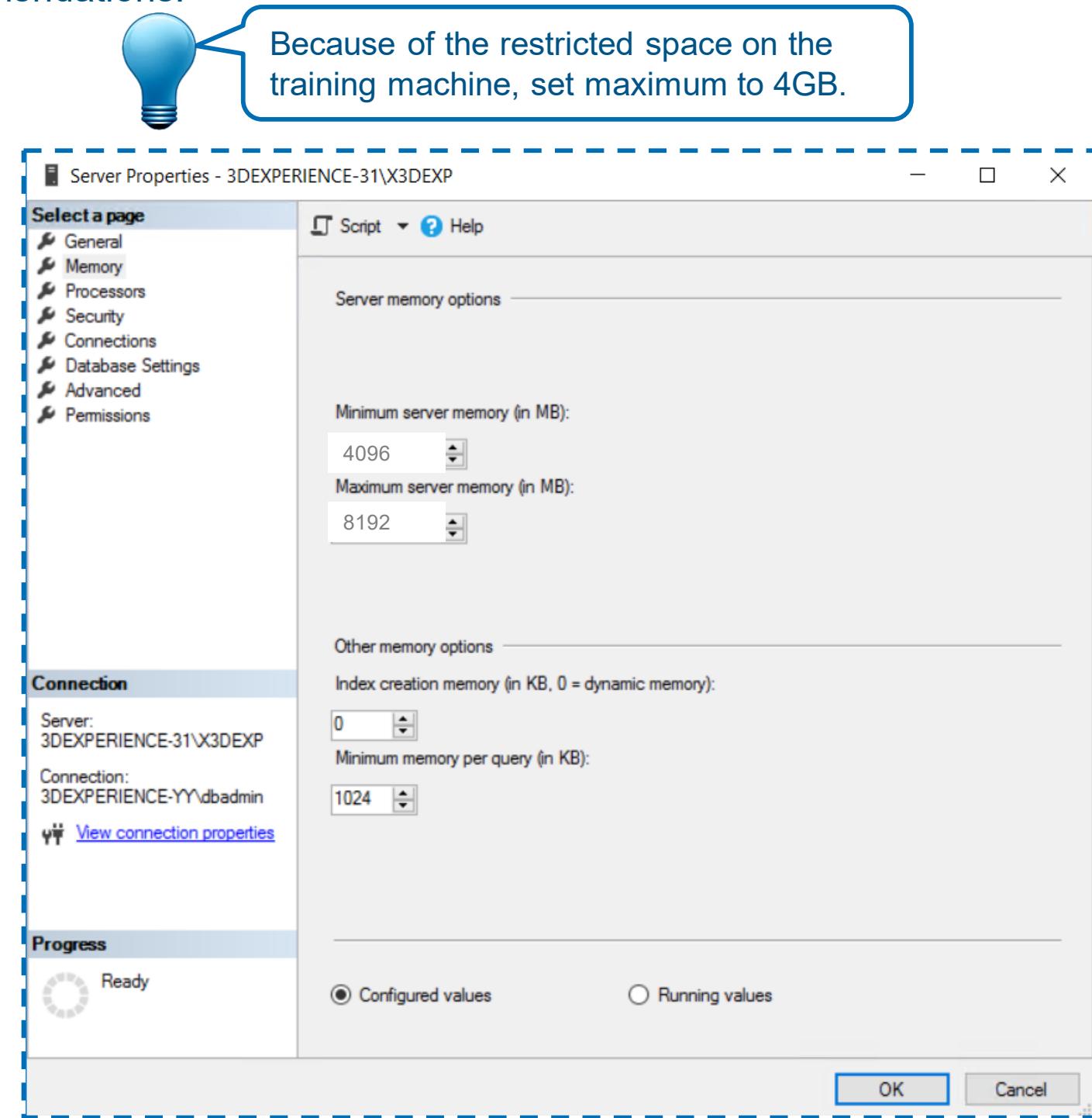
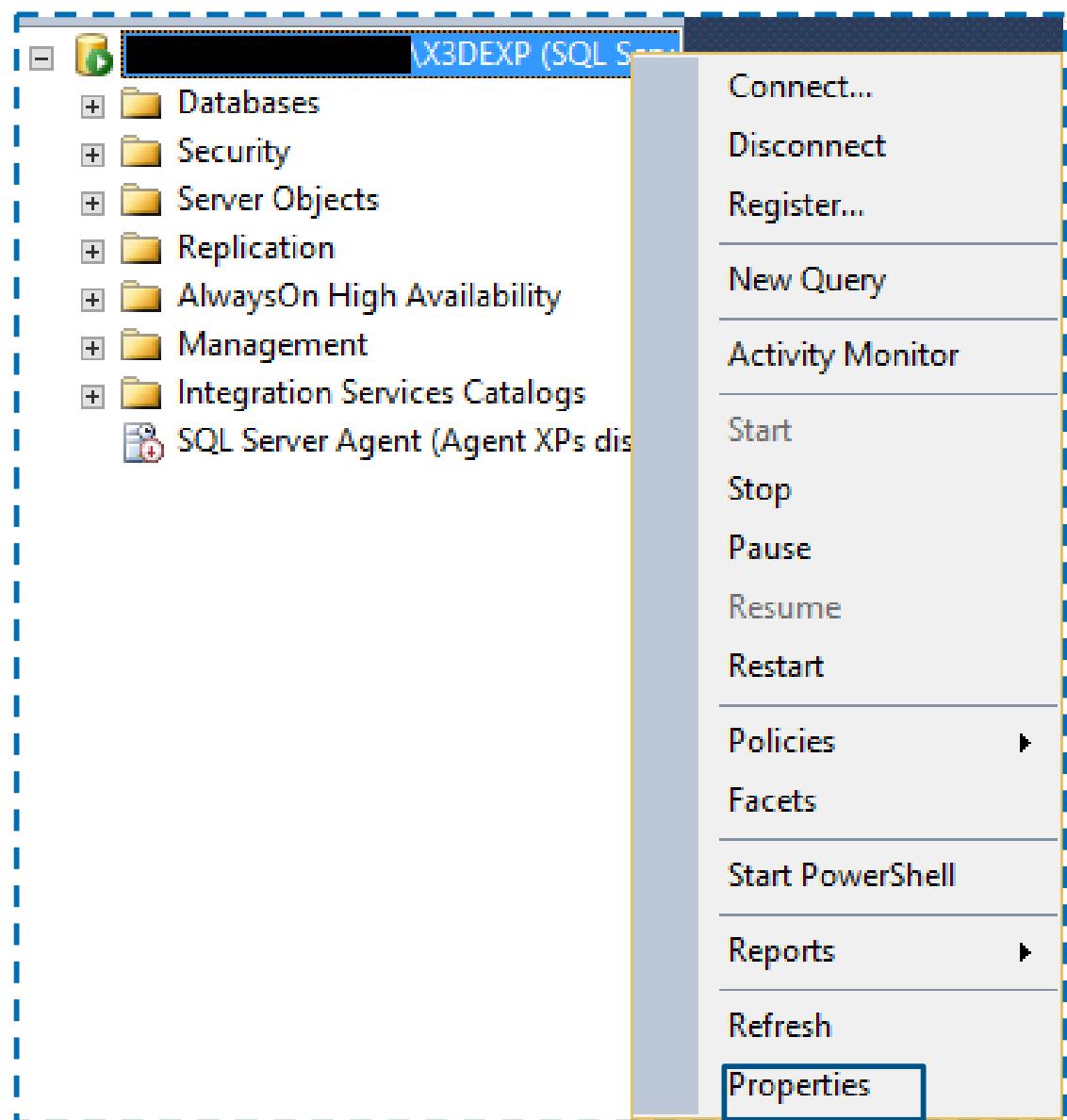
Connect to SQL Server (2/5)

1. Expand the **Security > Logins** folder, you should see the sa users.
2. Open the **Properties** of the sa user, then update the password.



Connect to SQL Server (3/5)

3. Open the properties of the instance, In the memory page, update to a training save value.
4. On a dedicated Database, for max usage, leaving 2-4GB (Maximum Server memory: 4000 MB) for operating system need, consult the local DBA for recommendations.
5. Close the Studio tool.



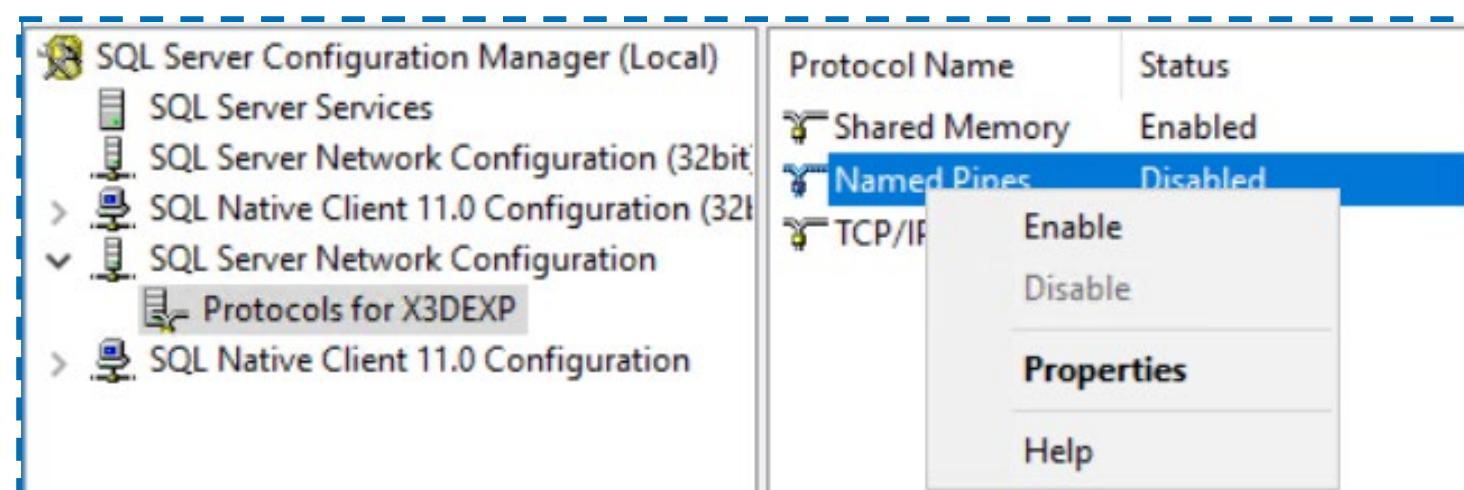
Connect to SQL Server (4/5)

- Finally, let us make sure that the database can be reached. Open the **SQL Server 2017 Configuration Manager**.

Being a dsadmin is ok for this operation.

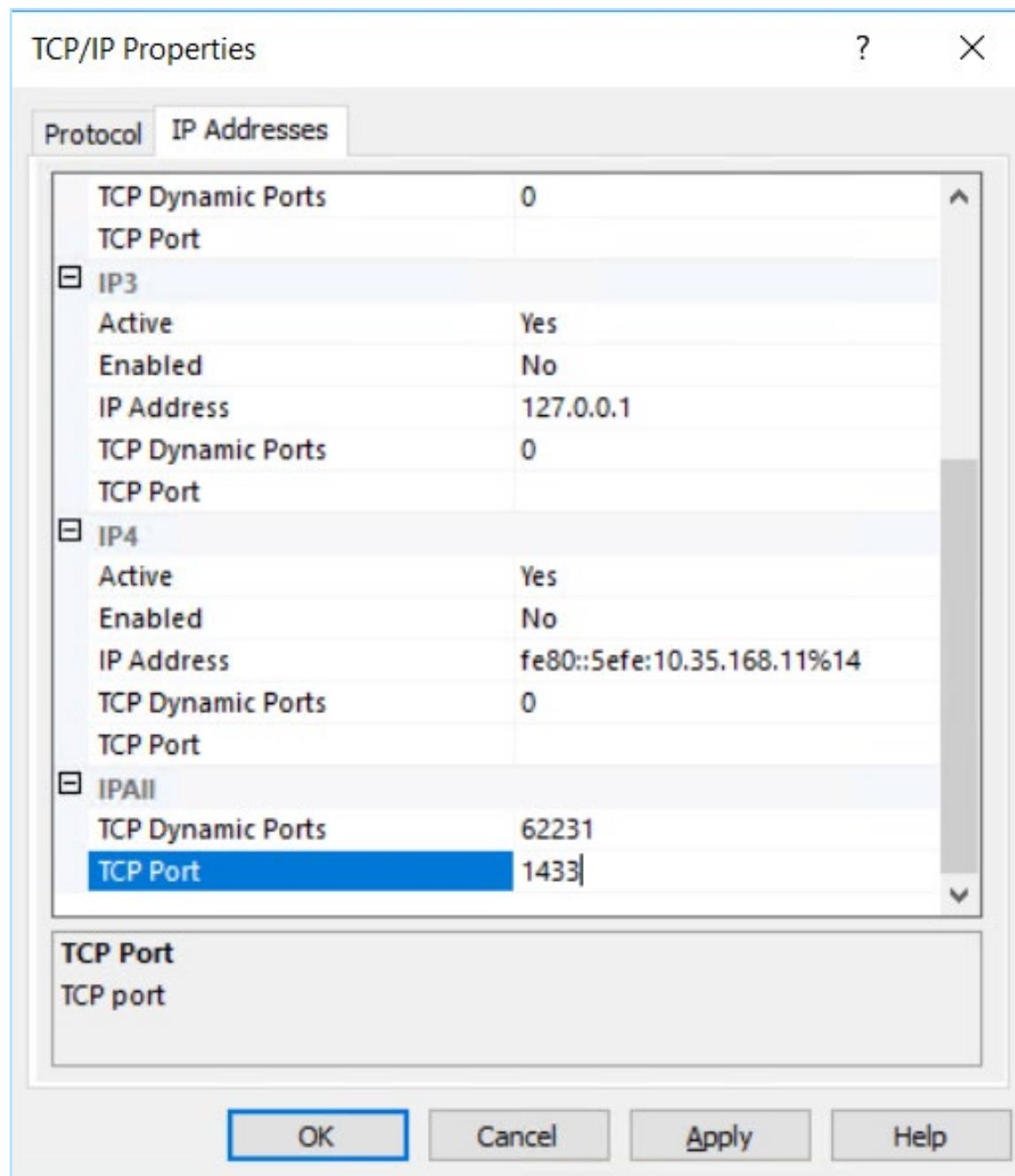


- Go to the **SQL Server Network Configuration > Protocols for X3DEXP**.
 - Check the **Properties** of the **TCP/IP** protocol.



Connect to SQL Server (5/5)

8. Go to the **IP Addresses** tab and add IP Address in **IP1** and then to the bottom of the list **IPAll**.
 - a. Check the properties of the **TCP Port** value is **1433**, update if necessary and close all windows.
 - b. Re-start respective SQL services.



 It's important to understand that the database configuration and connectivity's are not the responsibility of the platform admin or installer. These should always be handled by the local DBA. Your responsibilities are to understand the process and be able to communicate your need to the DBA.

Create Objects for Each Service (1/2)

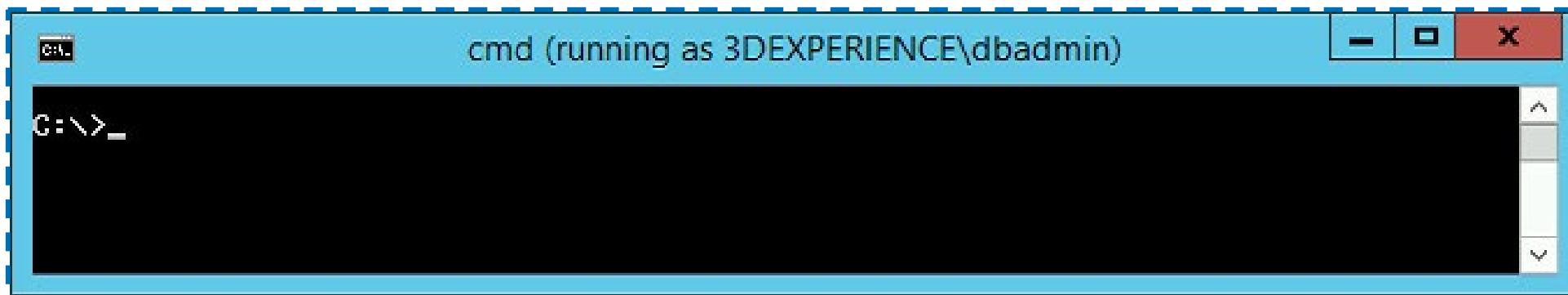
The next step is the execution of SQL commands.

Cheat-Sheet: OOTB

Key	3DPassport	3DDashboard	3DSpace	3DNotification	3DComment	3DSwym
DATABASE	passdb passtkdb	dashdb	spacedb	x3dnotification	x3dcomment	x3dszym
USER	x3dpass X3dpassadmin x3dpasstokens	x3ddash x3ddashadmin	x3dspace	x3dsn x3dsn_admin	x3dsc x3dsc_admin	x3dsm x3dsm_admin
SCHEMA	passdb passtkdb	dashdb	spacedb	x3dnotification	x3dcomment	x3dszym

Create Objects for Each Service (2/2)

1. Create the following directory: C:\DassaultSystems\R2019x\X3DEXPDB.
2. Use the dbadmin batch command prompt.

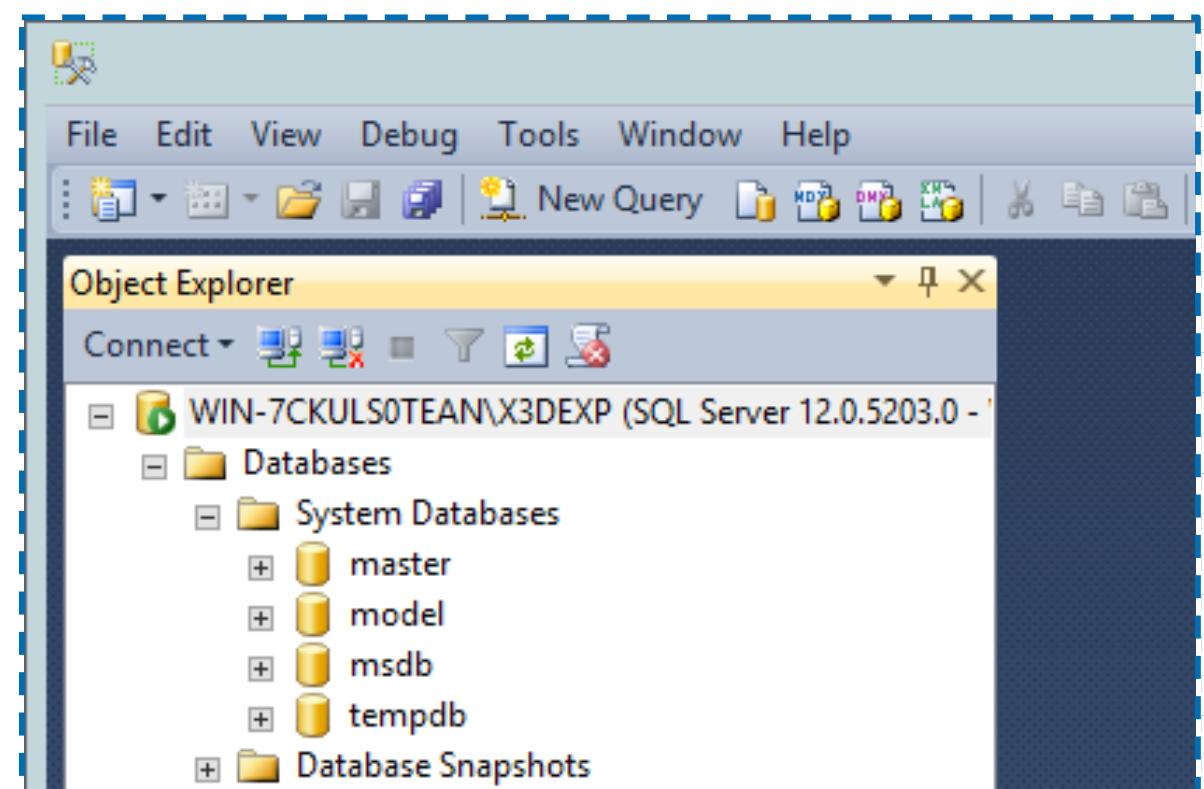


3. To graphically monitor the activities execute the command and connect with Windows Authentication:
C:\Program Files (x86)\Microsoft SQL Server\140\Tools\Binn\ManagementStudio\Ssms.exe

Run the following command:

```
sqlcmd -S localhost\X3DEXP
```

```
C:\Windows\system32>sqlcmd -S localhost\X3DEXP  
1>
```



Create 3DPassport Object

Execute the commands following:

```
USE master;
CREATE DATABASE passdb COLLATE SQL_Latin1_General_CI_AS;
GO
ALTER DATABASE passdb SET READ_COMMITTED_SNAPSHOT ON;
CREATE LOGIN x3dpass WITH PASSWORD = 'Passport#1';
CREATE LOGIN x3dpassadmin WITH PASSWORD = 'Passport#1';
GO
USE passdb;
GO
CREATE USER x3dpass FOR LOGIN x3dpass WITH DEFAULT_SCHEMA = passdb;
CREATE USER x3dpassadmin FOR LOGIN x3dpassadmin WITH DEFAULT_SCHEMA = passdb;
GO
CREATE SCHEMA passdb AUTHORIZATION x3dpassadmin;
GO
GRANT CREATE TABLE, ALTER, SELECT, INSERT, UPDATE, DELETE ON DATABASE::passdb TO x3dpassadmin;
GRANT SELECT, INSERT, UPDATE, DELETE, ALTER ON SCHEMA::passdb TO x3dpass;
CREATE DATABASE passtkdb COLLATE SQL_Latin1_General_CI_AS;
GO
ALTER DATABASE passtkdb SET READ_COMMITTED_SNAPSHOT ON;
CREATE LOGIN x3dpasstokens WITH PASSWORD = 'Passport#1';
USE passtkdb;
GO
CREATE USER x3dpasstokens FOR LOGIN x3dpasstokens WITH DEFAULT_SCHEMA = passtkdb;
GO
CREATE SCHEMA passtkdb AUTHORIZATION x3dpasstokens;
GO
GRANT CREATE TABLE, ALTER, SELECT, INSERT, UPDATE, DELETE ON DATABASE::passtkdb TO x3dpasstokens;
GO
```

Create 3DDashboard Object

```
USE master;
GO
CREATE DATABASE dashdb COLLATE SQL_Latin1_General_CI_AS;
GO
ALTER DATABASE dashdb SET READ_COMMITTED_SNAPSHOT ON;
GO
CREATE LOGIN x3ddash WITH PASSWORD = 'Passport#1';
CREATE LOGIN x3ddashadmin WITH PASSWORD = 'Passport#1';
USE dashdb;
GO
CREATE USER x3ddash FOR LOGIN x3ddash WITH DEFAULT_SCHEMA = dashdb;
CREATE USER x3ddashadmin FOR LOGIN x3ddashadmin WITH DEFAULT_SCHEMA = dashdb;
GO
CREATE SCHEMA dashdb AUTHORIZATION x3ddashadmin;
GO
GRANT CREATE TABLE, ALTER, SELECT, INSERT, UPDATE, DELETE ON DATABASE::dashdb TO x3ddashadmin;
GRANT SELECT, INSERT, UPDATE, DELETE, ALTER ON SCHEMA::dashdb TO x3ddash;
GO
```

Create 3DSpace Object (1/2)

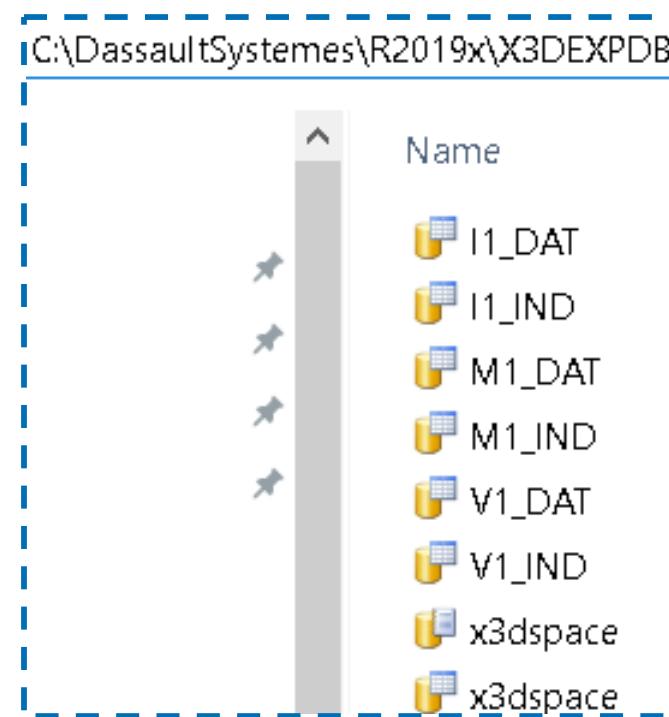
```
USE master;
GO
CREATE DATABASE [x3dspace] ON PRIMARY (NAME=[x3dspace] ,
FILENAME='C:\DassaultSystemes\R2019x\X3DEXPDB\x3dspace.mdf',SIZE=300MB, FILEGROWTH=10MB) ,
FILEGROUP [I1_DAT] (NAME=[I1_DAT] , FILENAME='C:\DassaultSystemes\R2019x\X3DEXPDB\I1_DAT.mdf',
SIZE=200MB,FILEGROWTH=10MB),
FILEGROUP [I1_IND] (NAME=[I1_IND] , FILENAME='C:\DassaultSystemes\R2019x\X3DEXPDB\I1_IND.mdf',
SIZE=300MB,FILEGROWTH=10MB),
FILEGROUP [M1_DAT] (NAME=[M1_DAT] , FILENAME='C:\DassaultSystemes\R2019x\X3DEXPDB\M1_DAT.mdf',
SIZE=200MB,FILEGROWTH=10MB),
FILEGROUP [M1_IND] (NAME=[M1_IND] , FILENAME='C:\DassaultSystemes\R2019x\X3DEXPDB\M1_IND.mdf',
SIZE=300MB,FILEGROWTH=10MB),
FILEGROUP [V1_DAT] (NAME=[V1_DAT] , FILENAME='C:\DassaultSystemes\R2019x\X3DEXPDB\V1_DAT.mdf',
SIZE=200MB,FILEGROWTH=10MB),
FILEGROUP [V1_IND] (NAME=[V1_IND] , FILENAME='C:\DassaultSystemes\R2019x\X3DEXPDB\V1_IND.mdf',
SIZE=300MB,FILEGROWTH=10MB)
LOG ON (NAME=[x3dspace_log] ,
FILENAME='C:\DassaultSystemes\R2019x\X3DEXPDB\x3dspace.ldf',SIZE=300MB)
COLLATE SQL_Latin1_General_CP1_CS_AS;
GO
ALTER DATABASE [x3dspace] SET AUTO_CLOSE OFF ;
ALTER DATABASE [x3dspace] SET READ_COMMITTED_SNAPSHOT ON ;
ALTER DATABASE [x3dspace] SET AUTO_CREATE_STATISTICS ON ;
ALTER DATABASE [x3dspace] SET AUTO_UPDATE_STATISTICS ON ;
ALTER DATABASE [x3dspace] SET AUTO_UPDATE_STATISTICS_ASYNC ON ;
CREATE LOGIN [x3dspace] WITH PASSWORD = 'Passport#1';
GO
```

Create 3DSpace Object (2/2)

(Continued)

```
USE [x3dspace];
CREATE USER [x3dspace] FOR LOGIN [x3dspace] WITH DEFAULT_SCHEMA = [x3dspace];
GO
CREATE SCHEMA [x3dspace] AUTHORIZATION [x3dspace];
GO
GRANT CREATE TABLE, ALTER, SELECT, INSERT, UPDATE, DELETE ON DATABASE:::x3dspace TO [x3dspace];
GO
```

Observe the data files created.



Create 3DSwym Object (1/2)

```
USE master;
GO
CREATE DATABASE x3dszym_social COLLATE SQL_Latin1_General_CI_AS;
CREATE DATABASE x3dszym_media COLLATE SQL_Latin1_General_CI_AS;
CREATE DATABASE x3dszym_widget COLLATE SQL_Latin1_General_CI_AS;
GO
ALTER DATABASE x3dszym_social SET READ_COMMITTED_SNAPSHOT ON;
ALTER DATABASE x3dszym_media SET READ_COMMITTED_SNAPSHOT ON;
ALTER DATABASE x3dszym_widget SET READ_COMMITTED_SNAPSHOT ON;
GO
ALTER DATABASE x3dszym_social SET COMPATIBILITY_LEVEL = 110;
GO
ALTER DATABASE SCOPED CONFIGURATION SET LEGACY_CARDINALITY_ESTIMATION = ON;
GO
CREATE LOGIN x3dsm WITH PASSWORD = 'Passport#1';
CREATE LOGIN x3dsm_admin WITH PASSWORD = 'Passport#1';
GO
```

Create 3DSwym Object (2/2)

```
USE x3dszym_social;
GO
CREATE USER x3dsm FOR LOGIN x3dsm WITH DEFAULT_SCHEMA = x3dszym_social;
CREATE USER x3dsm_admin FOR LOGIN x3dsm_admin WITH DEFAULT_SCHEMA = x3dszym_social;
GO
CREATE SCHEMA x3dszym_social AUTHORIZATION x3dsm_admin;
GO
GRANT CREATE TABLE, ALTER, SELECT, INSERT, UPDATE, DELETE ON DATABASE::x3dszym_social TO x3dsm_admin;
GRANT SELECT, INSERT, UPDATE, DELETE ON SCHEMA::x3dszym_social TO x3dsm;
GO

USE x3dszym_media;
GO
CREATE USER x3dsm FOR LOGIN x3dsm WITH DEFAULT_SCHEMA = x3dszym_media;
CREATE USER x3dsm_admin FOR LOGIN x3dsm_admin WITH DEFAULT_SCHEMA = x3dszym_media;
GO
CREATE SCHEMA x3dszym_media AUTHORIZATION x3dsm_admin;
GO
GRANT CREATE TABLE, ALTER, SELECT, INSERT, UPDATE, DELETE ON DATABASE::x3dszym_media TO x3dsm_admin;
GRANT CREATE TABLE ON DATABASE::x3dszym_media TO x3dsm;
GRANT SELECT, INSERT, UPDATE, DELETE, ALTER ON SCHEMA::x3dszym_media TO x3dsm;
USE x3dszym_widget;
GO
CREATE USER x3dsm FOR LOGIN x3dsm WITH DEFAULT_SCHEMA = x3dszym_widget;
CREATE USER x3dsm_admin FOR LOGIN x3dsm_admin WITH DEFAULT_SCHEMA = x3dszym_widget;
GO
CREATE SCHEMA x3dszym_widget AUTHORIZATION x3dsm_admin;
GO
GRANT CREATE TABLE, ALTER, SELECT, INSERT, UPDATE, DELETE ON DATABASE::x3dszym_widget TO x3dsm_admin;
GRANT SELECT, INSERT, UPDATE, DELETE, ALTER ON SCHEMA::x3dszym_widget TO x3dsm;
GO
```

Create 3DComment Object

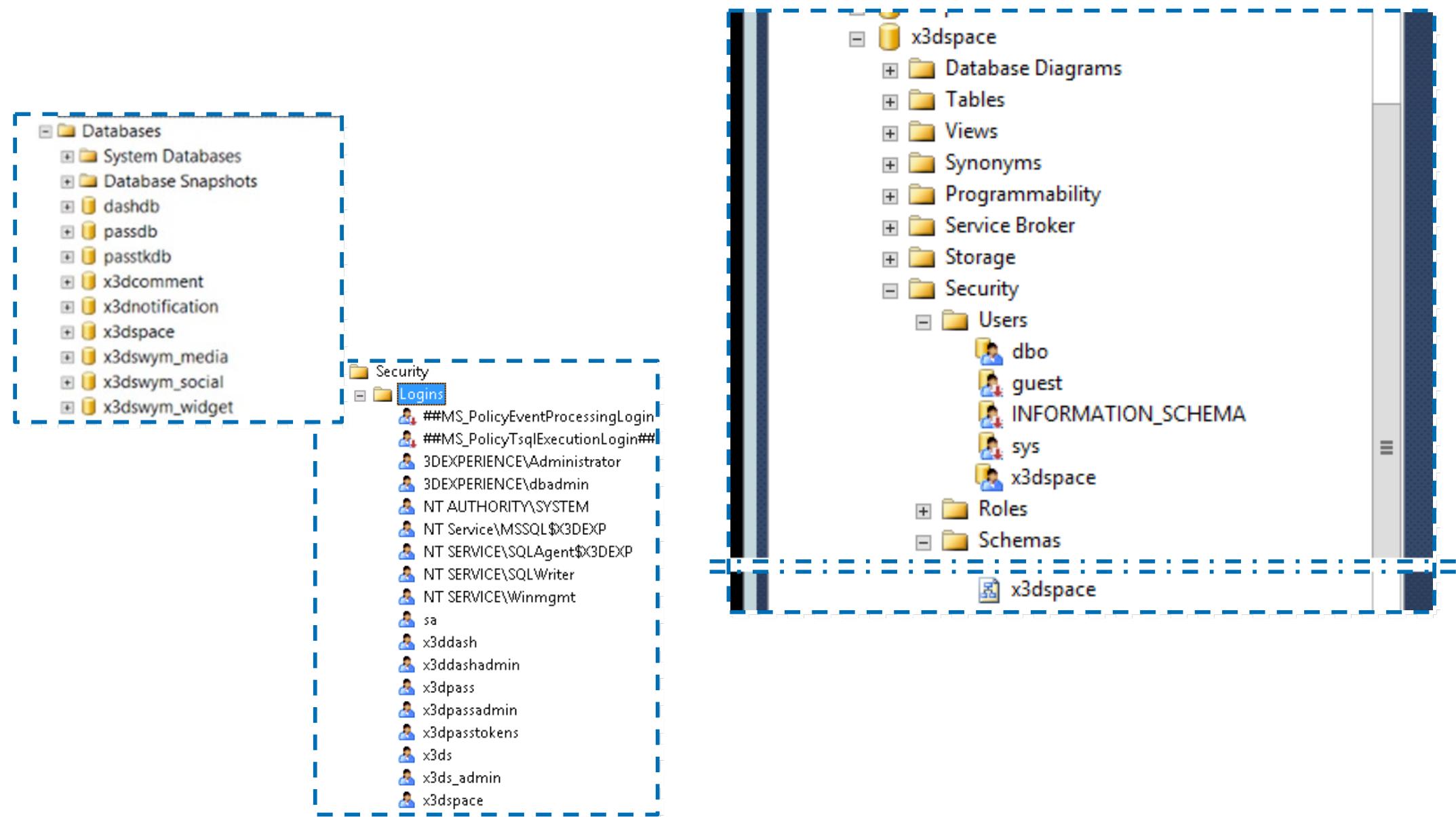
```
USE master;
GO
CREATE DATABASE x3dcomment COLLATE SQL_Latin1_General_CI_AS;
GO
ALTER DATABASE x3dcomment SET READ_COMMITTED_SNAPSHOT ON;
GO
ALTER DATABASE x3dcomment SET COMPATIBILITY_LEVEL = 110;
GO
ALTER DATABASE SCOPED CONFIGURATION SET LEGACY_CARDINALITY_ESTIMATION = ON;
GO
CREATE LOGIN x3dsc WITH PASSWORD = 'Passport#1';
CREATE LOGIN x3dsc_admin WITH PASSWORD = 'Passport#1';
GO
USE x3dcomment;
GO
CREATE USER x3dsc FOR LOGIN x3dsc WITH DEFAULT_SCHEMA = x3dcomment;
CREATE USER x3dsc_admin FOR LOGIN x3dsc_admin WITH DEFAULT_SCHEMA = x3dcomment;
GO
CREATE SCHEMA x3dcomment AUTHORIZATION x3dsc_admin;
GO
GRANT CREATE TABLE, ALTER, SELECT, INSERT, UPDATE, DELETE ON DATABASE::x3dcomment TO x3dsc_admin;
GRANT SELECT, INSERT, UPDATE, DELETE ON SCHEMA::x3dcomment TO x3dsc;
GO
```

Create 3DNotification Object

```
USE master;
GO
CREATE DATABASE x3dnotification COLLATE SQL_Latin1_General_CI_AS;
GO
ALTER DATABASE x3dnotification SET READ_COMMITTED_SNAPSHOT ON;
GO
CREATE LOGIN x3dsn      WITH PASSWORD = 'Passport#1';
CREATE LOGIN x3dsn_admin WITH PASSWORD = 'Passport#1';
GO
USE x3dnotification;
GO
CREATE USER x3dsn      FOR LOGIN x3dsn      WITH DEFAULT_SCHEMA = x3dnotification;
CREATE USER x3dsn_admin FOR LOGIN x3dsn_admin WITH DEFAULT_SCHEMA = x3dnotification;
GO
CREATE SCHEMA x3dnotification AUTHORIZATION x3dsn_admin;
GO
GRANT CREATE TABLE, ALTER, SELECT, INSERT, UPDATE, DELETE ON DATABASE::x3dnotification TO x3dsn_admin;
GRANT SELECT, INSERT, UPDATE, DELETE ON SCHEMA::x3dnotification TO x3dsn;
GO
```

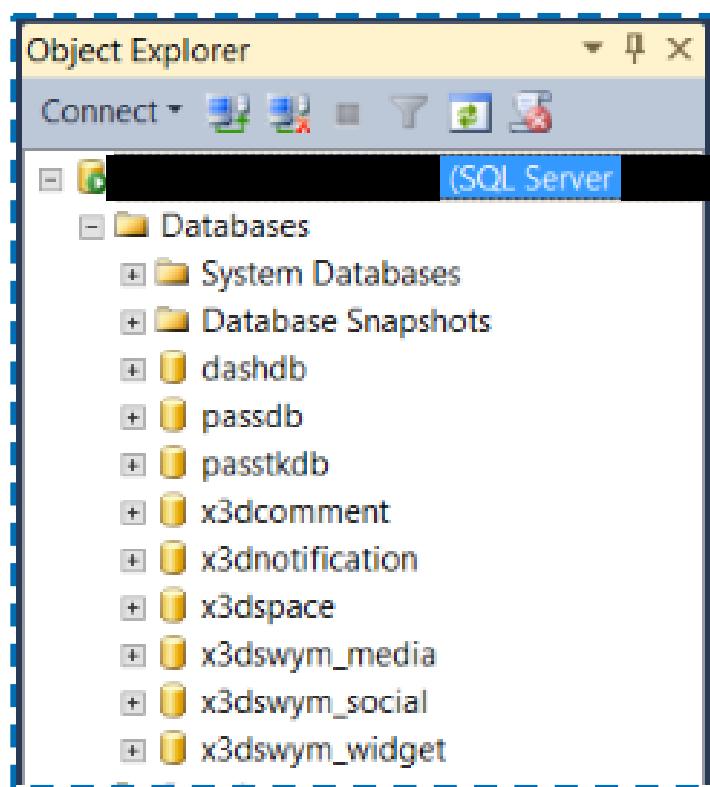
SQL Server - Technical Validation

- Finally in the Microsoft SQL Server Management Studio, you should see all objects created.
You can close it after validation.



SQL Server - Technical Validation

2. Open the **Microsoft SQL Server Management Studio**, refresh the instance view and expand the **Databases**.
3. Verify the created databases as below:



4. Close the **Microsoft SQL Server Management Studio** or execute `quit` in the **sqlcmd** command prompt.

Drop/Delete Service Object

- ▶ Execute the following command to drop a service object.

For example:

```
ALTER DATABASE [x3dnotification] SET SINGLE_USER WITH ROLLBACK IMMEDIATE;  
GO
```

Or

- ▶ Right-click a service object and click **Delete**.

Ensure that all existing connections are deleted.

Then, create the object for the service accordingly.

Uninstall the SQL Server Instance

Execute the following command to uninstall SQL Server:

```
sqlcmd -S localhost\X3DEXP -U sa -P <DB Password>
```

Exercise Recap: SQL Server

In this exercise, you have configured the SQL Server.

Oracle Database Configuration

Topics to be covered:

- ▶ SQL Server Database Configuration
- ▶ **Oracle Database Configuration**

Oracle Database Configuration

Topics to be covered:

1. Database creation
2. Net Services configuration

Oracle Database Configuration

In the pre-requisite document that was shared, it was requested to install the Oracle code only, now it's time to finish the database operation in order to be ready for the **3DEXPERIENCE** platform installation.

- ▶ Proceed with the following actions
 1. DB creation
 2. Schema creation (user)
 3. Table space creation
 4. Schema permission (roles and privileges)
 5. Default profile updates
- ▶ Check the 3DS program directory in order to check that the version is supported:
 - <http://www.3ds.com/support/documentation/program-directories/>
- ▶ Code being used and user:
 - Oracle 12c, version 12.2.0.2.0
 - Enterprise Edition
 - User is **dbadmin**



You don't need to log off, when running command under another user,
execute a command as the following: (if needed)
`cmd> runas /user:dbadmin cmd`

Exercise: Oracle Database Configuration

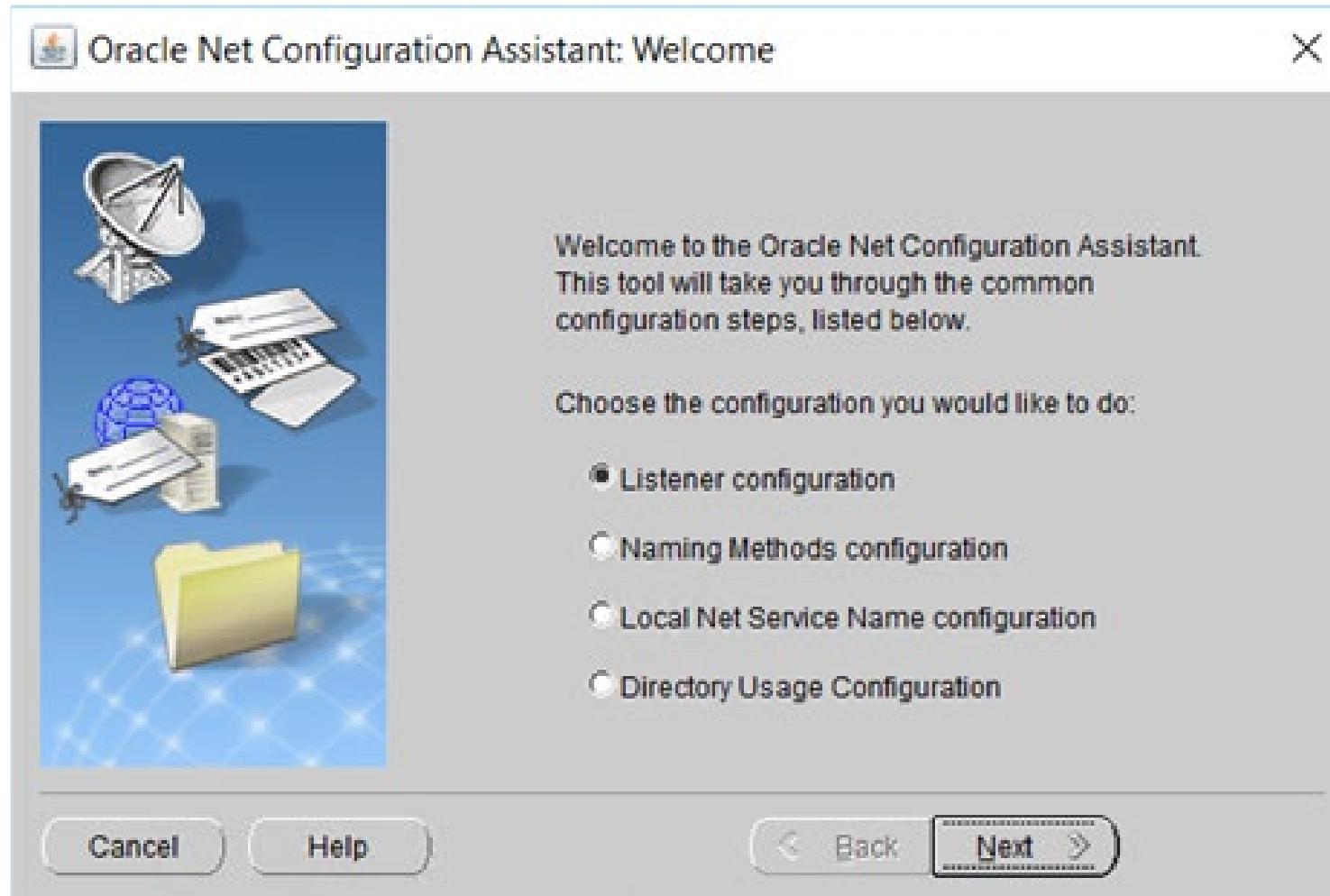
In this exercise, you will configure the Oracle database. Configuring the network, that is, a listener and create database.



30 minutes

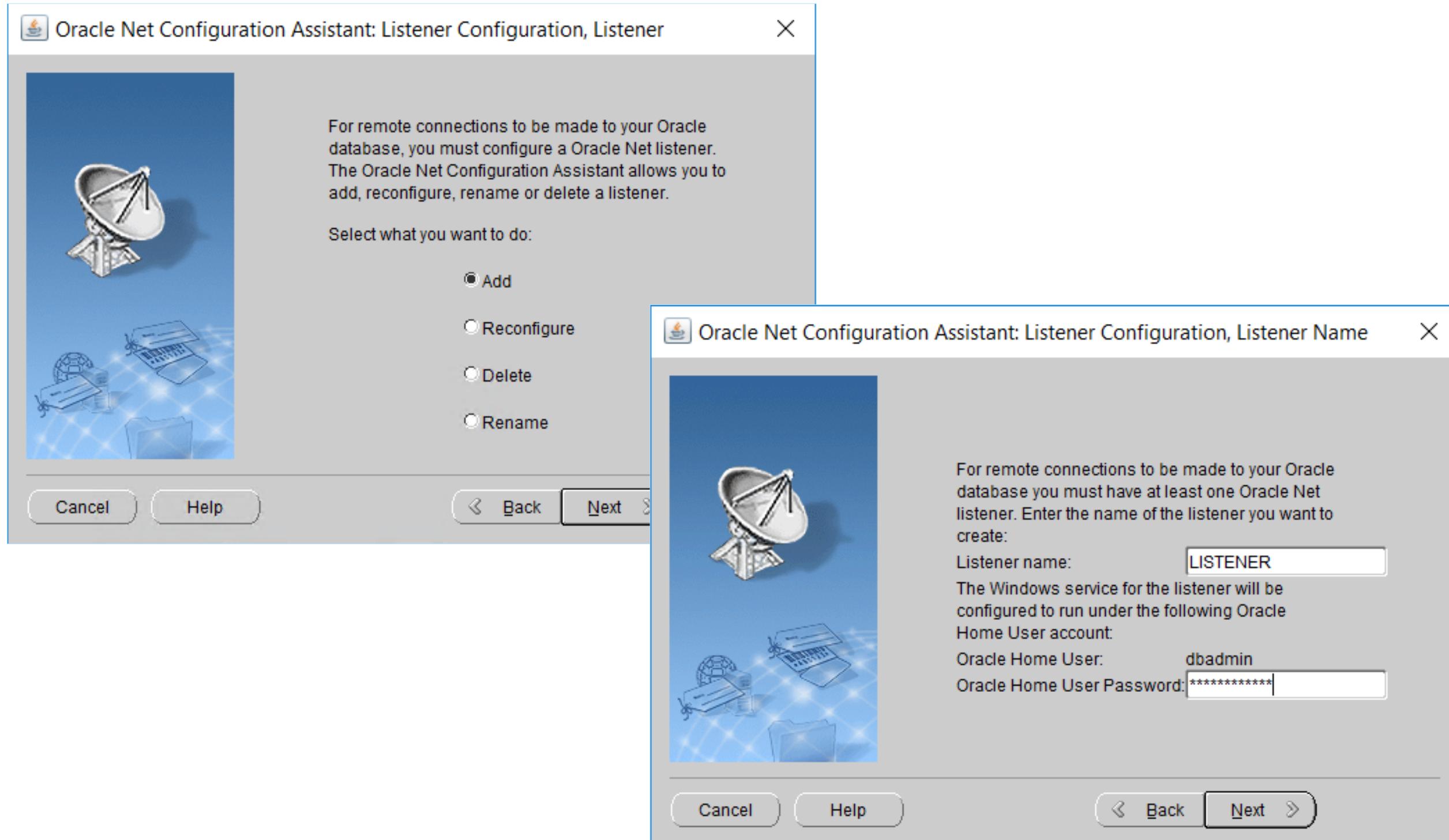
Configuring the Network (1/6)

1. Open a command prompt and **Run as administrator**.
2. Execute the command: `netca`
 - Select **Listener configuration > Next**.



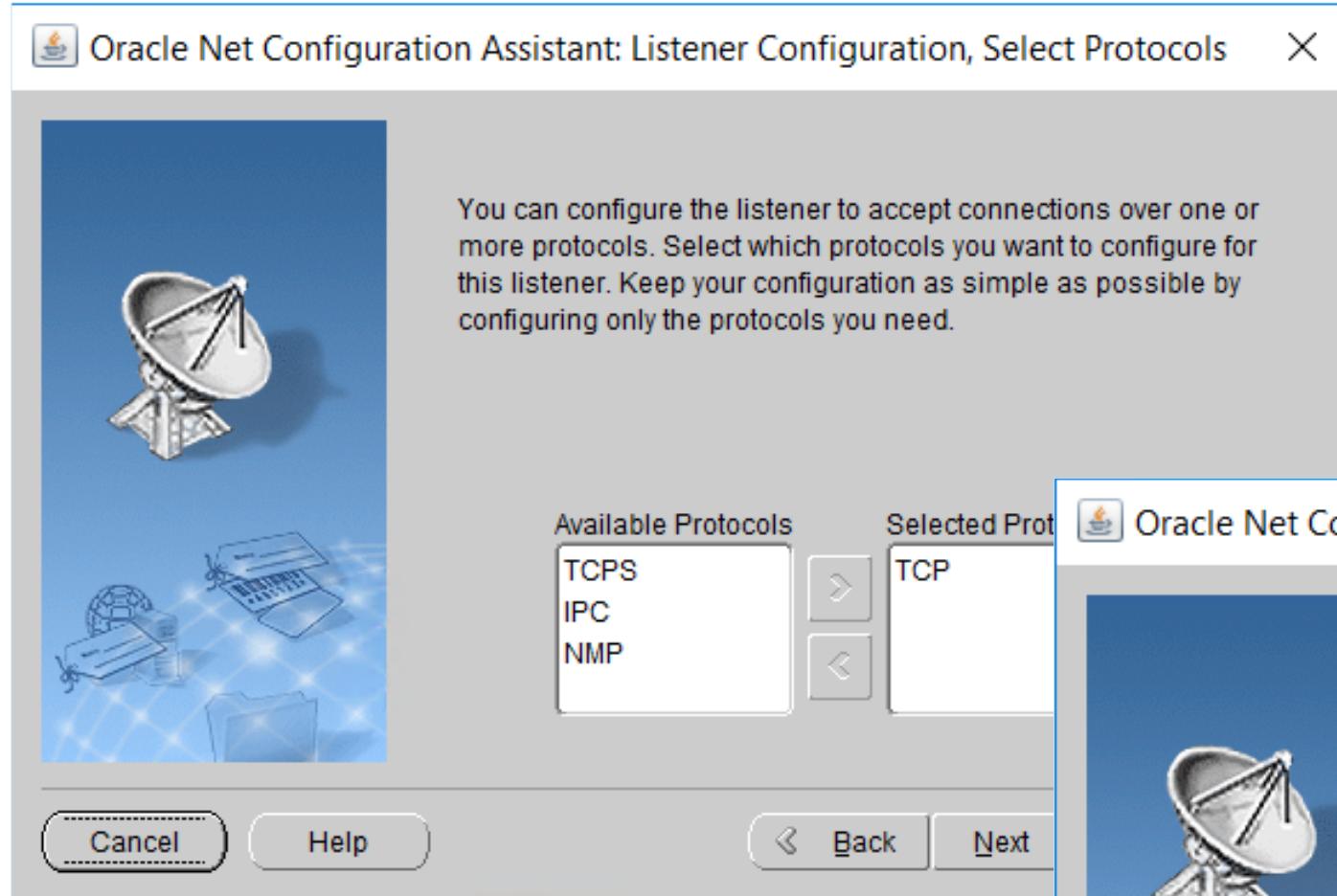
Configuring the Network (2/6)

2. Select Add > Next.
3. Type the dbadmin password [Zaq1@WsxCde3] and click Next.

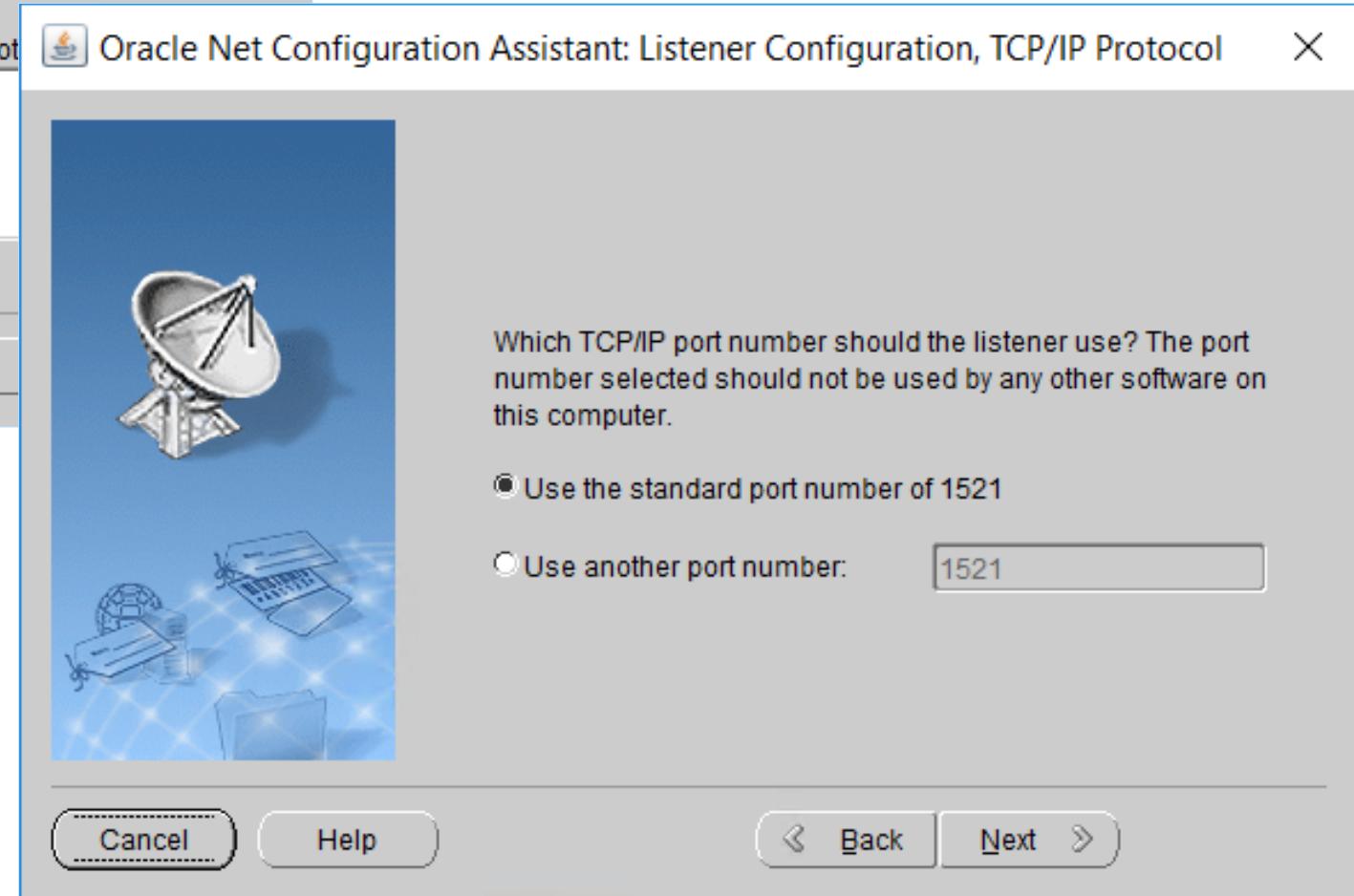


Configuring the Network (3/6)

4. Keep default protocol values proposed and click **Next**.
5. Keep default protocol Port proposed and click **Next**.



The screenshot shows the 'Select Protocols' step of the Oracle Net Configuration Assistant. It features a blue background with a satellite dish icon. A text box explains: 'You can configure the listener to accept connections over one or more protocols. Select which protocols you want to configure for this listener. Keep your configuration as simple as possible by configuring only the protocols you need.' On the left, there's a list of 'Available Protocols' (TCPS, IPC, NMP) and a 'Selected Protocols' list containing 'TCP'. Navigation buttons at the bottom include 'Cancel', 'Help', 'Back', and 'Next'.



The screenshot shows the 'TCP/IP Protocol' step. It has a similar blue background with a satellite dish icon. The question is: 'Which TCP/IP port number should the listener use? The port number selected should not be used by any other software on this computer.' Two options are presented: a radio button for 'Use the standard port number of 1521' (which is selected) and another radio button for 'Use another port number:' followed by a text input field containing '1521'. Navigation buttons at the bottom include 'Cancel', 'Help', 'Back', and 'Next'.

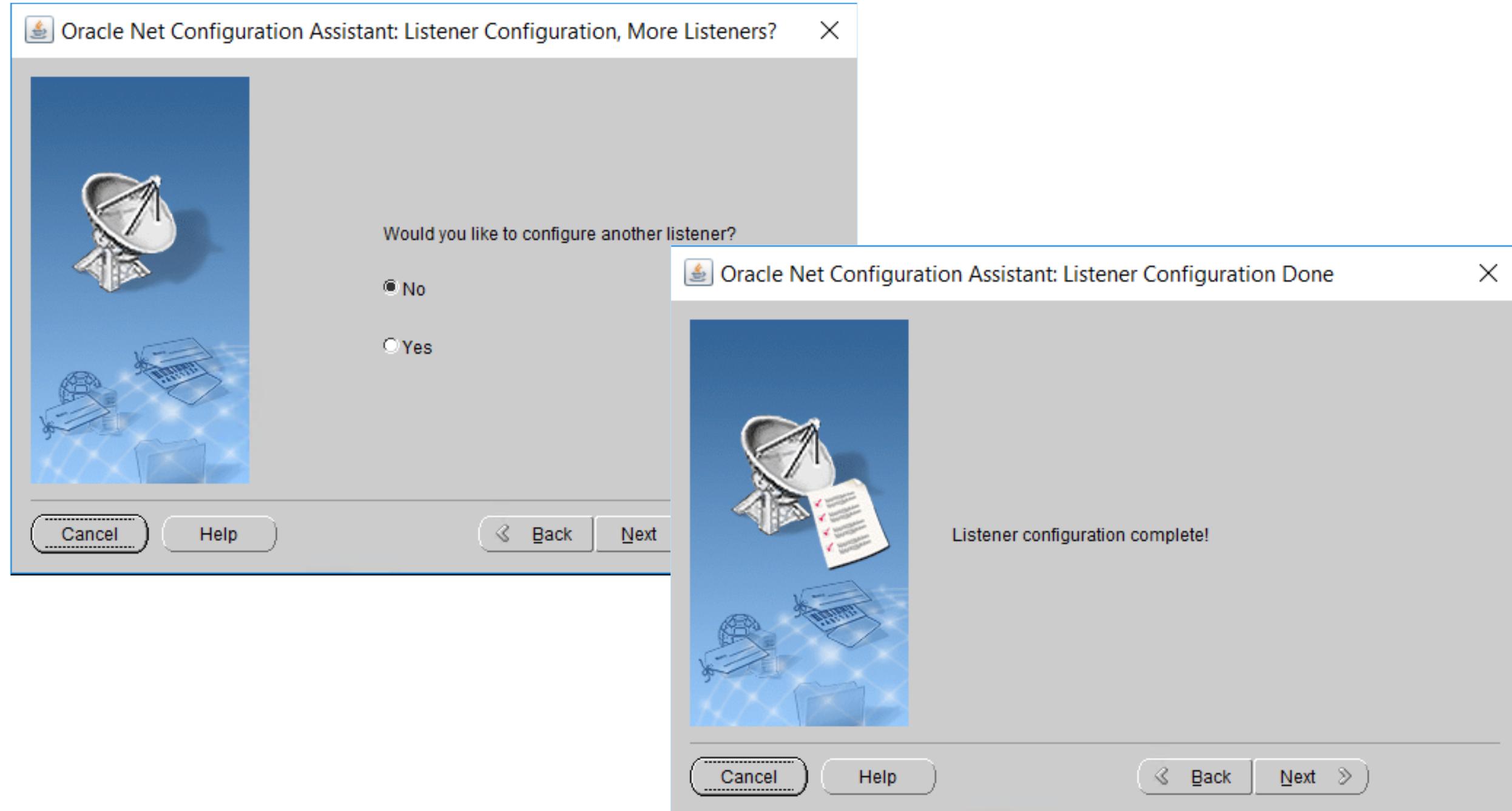
Configuring the Network (4/6)

5. Configuring the network.

Select **No** option and click **Next**.

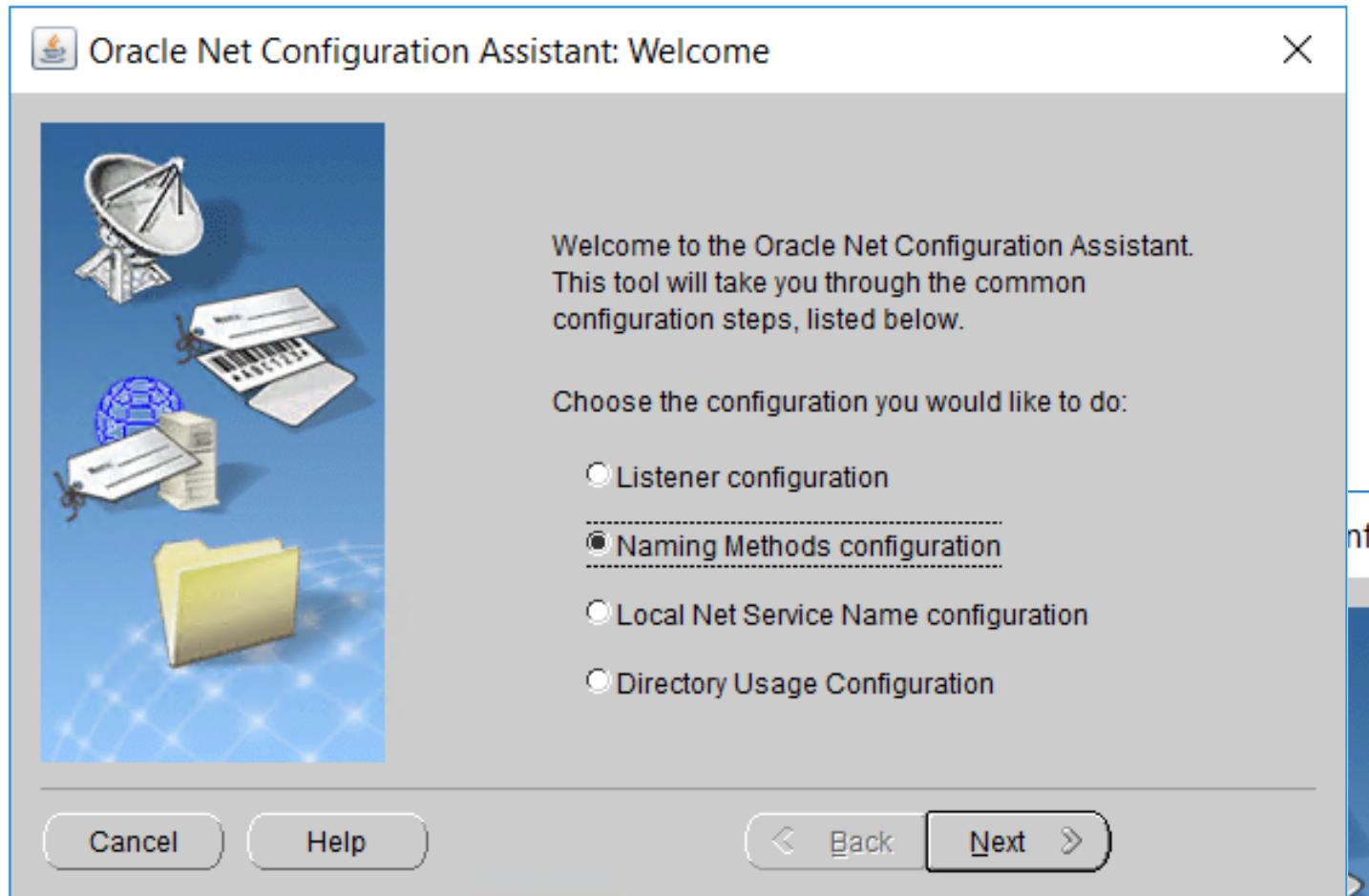
A confirmation message appears.

6. Click **Next**.

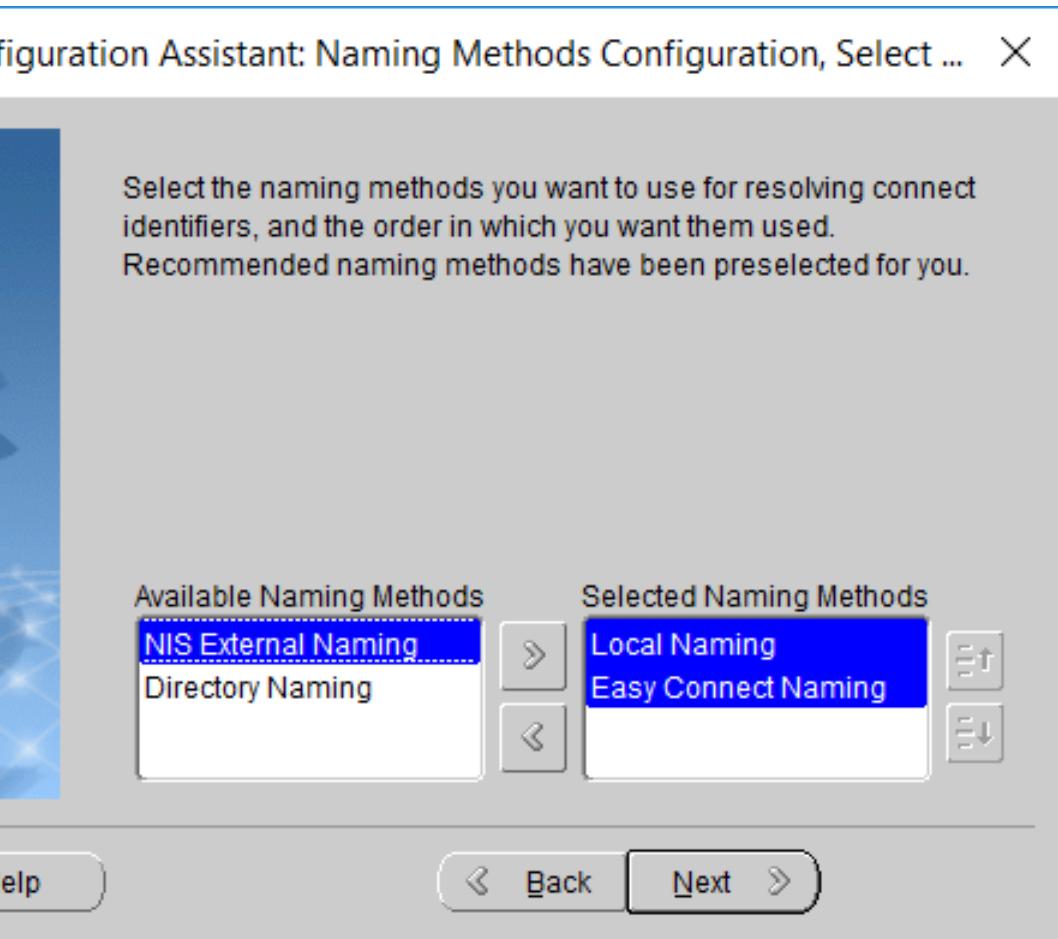


Configuring the Network (5/6)

7. Select **Naming Methods configuration** and click **Next**.
8. Select **Local Naming** and **Easy Connect Naming** and click **Next**.



The screenshot shows the Oracle Net Configuration Assistant: Welcome screen. It features a blue background with icons of a satellite dish, a keyboard, a globe, and a folder. The main text reads: "Welcome to the Oracle Net Configuration Assistant. This tool will take you through the common configuration steps, listed below." Below this, it says "Choose the configuration you would like to do:" followed by four radio button options: "Listener configuration", "Naming Methods configuration" (which is selected), "Local Net Service Name configuration", and "Directory Usage Configuration". At the bottom are "Cancel" and "Help" buttons, and a "Next >" button.

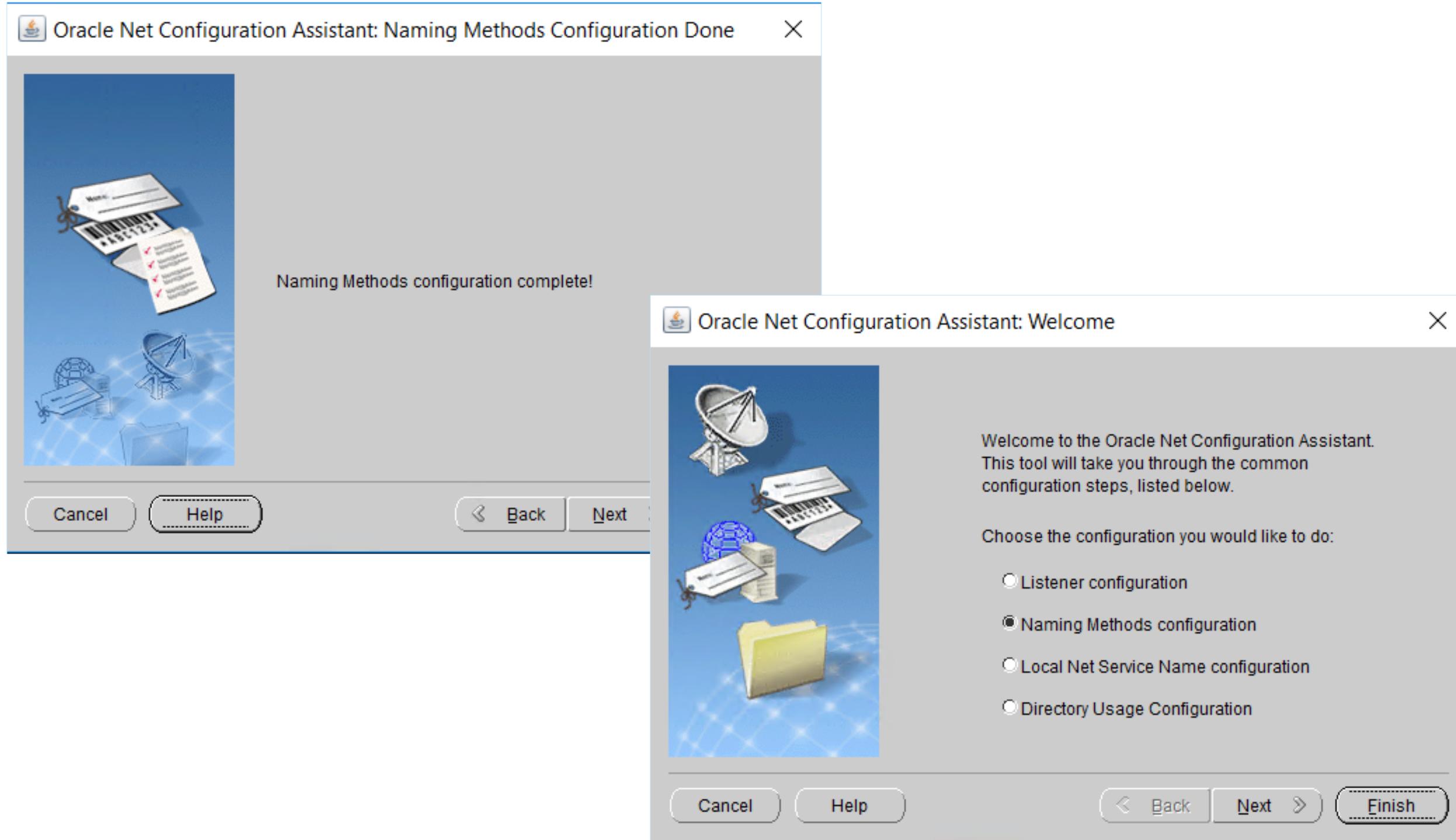


The screenshot shows the Oracle Net Configuration Assistant: Naming Methods Configuration screen. It displays two lists of naming methods. The "Available Naming Methods" list contains "NIS External Naming" and "Directory Naming". The "Selected Naming Methods" list contains "Local Naming" and "Easy Connect Naming". Between the lists are four buttons: a right arrow (">>"), a left arrow ("<"), a top arrow ("↑"), and a bottom arrow ("↓"). At the bottom are "Cancel" and "Help" buttons, and a "Next >" button.

Configuring the Network (6/6)

9. A confirmation message appears.

10. Click **Finish**.



Create Database (1/11)

In the same command prompt, run the command `dbca` and click **Next**.

The screenshot shows two windows of the Oracle Database Configuration Assistant (DBCA) running on Oracle Database 12c.

Left Window: Select Database Operation

- Left Panel:** A vertical list of options under "Database Operation":
 - Creation Mode** (selected)
 - Deployment Type
 - Database Identification
 - Storage Option
 - Fast Recovery Option
 - Database Options
 - Configuration Options
 - Management Options
 - User Credentials
 - Creation Option
 - Summary
 - Progress Page
 - Finish
- Right Panel:** "Select the operation that you want to perform."
 - Create a database** (selected)
 - Configure an existing database
 - Delete database
 - Manage templates
 - Manage Pluggable databases
 - Oracle RAC database Instance management

Bottom: Help button.

Right Window: Select Database Creation Mode

- Left Panel:** A vertical list of options under "Creation Mode":
 - Database Operation
 - Creation Mode** (selected)
 - Deployment Type
 - Database Identification
 - Storage Option
 - Fast Recovery Option
 - Database Options
 - Configuration Options
 - Management Options
 - User Credentials
 - Creation Option
 - Summary
 - Progress Page
 - Finish
- Right Panel:** Configuration settings for "Typical configuration".
 - Global database name: orcl.dsone.3ds.com
 - Storage type: File System
 - Database files location: {ORACLE_BASE}\oradata\{DB_UNIQUE_NAME}
 - Fast Recovery Area (FRA): {ORACLE_BASE}\fast_recovery_area\{DB_UNIQUE_NAME}
 - Database character set: AL32UTF8 - Unicode UTF-8 Universal character set
 - Administrative password: (empty)
 - Confirm password: (empty)
 - Oracle home user password: (empty)
 - Create as Container database
 - Pluggable database name: (empty)
- Bottom:** Help button and navigation buttons: < Back, Next >, Finish, Cancel.

Create Database (2/11)

Database Configuration Assistant - Create a database - Step 2 of 14

Select Database Creation Mode

Typical configuration

Global database name: orcl.dsone.3ds.com

Storage type: File System

Database files location: {ORACLE_BASE}\oradata\{DB_UNIQUE_NAME}

Fast Recovery Area (FRA): {ORACLE_BASE}\fast_recovery_area\{DB_UNIQUE_NAME}

Database character set: AL32UTF8 - Unicode UTF-8 Universal character set

Administrative password:

Confirm password:

Oracle home user password:

Create as Container database

Pluggable database name:

Advanced configuration

Help

ORACLE DATABASE 12c

Database Configuration Assistant - Create a database - Step 3 of 14

Select Database Deployment Type

Select the type of database you want to create.

Database type: Oracle Single Instance database

Configuration type: Admin Managed

Select a template for your database.

Templates that include datafiles contain pre-created databases. They allow you to create a new database quickly. Use templates without datafiles only when necessary, such as when you need to change attributes like block size that cannot be altered after database creation.

	Template name	Include datafiles	Details
<input type="radio"/>	Data Warehouse	Yes	View details
<input checked="" type="radio"/>	General Purpose or Transaction Processing	Yes	View details
<input type="radio"/>	Custom Database	No	View details

Template location: C:\app\ladmin\product12.2.0\dbhome_1\assistants\dbcaltemplates

Change...

Help

< Back Next > Finish Cancel

ORACLE DATABASE 12c

Create Database (3/11)

Enter a valid SID.

Database Configuration Assistant - Create a database - Step 4 of 14

Specify Database Identification Details

Global database name: X3DEXP

SID: X3DEXP

Service name:

Deployment Type

Database Identification

Storage Option

Fast Recovery Option

Database Options

Configuration Options

Management Options

User Credentials

Creation Option

Summary

Progress Page

Finish

Help

ORACLE DATABASE 12c

Database Configuration Assistant - Create 'X3DEXP' database - Step 5 of 14

Select Database Storage Option

Create as Container database

A Container database can be used for console virtualization. A Container database (CDB) can contain multiple Pluggable Databases (PDBs).

Use Local Undo tablespace for PDBs

Create an empty Container database

Create a Container database with one or more PDBs

Number of PDBs: 1

PDB name: orclpdb

Database Operation

Creation Mode

Deployment Type

Database Identification

Storage Option

Fast Recovery Option

Database Options

Configuration Options

Management Options

User Credentials

Creation Option

Summary

Progress Page

Finish

Help

File location variables

Variables are used to specify parameterized file locations for datafiles, control files, redo logs, and any other files used by database.

For example, a control file may be specified as {ORACLE_BASE}/oradata/{DB_NAME}/control01.ctl

Name	Value
DB_UNIQUE_NAME	X3DEXP
ORACLE_BASE	C:\app\dbadmin
PDB_NAME	
DB_NAME	X3DEXP
ORACLE_HOME	C:\app\dbadmin\product\12.2.0\dbhome_1
SID	X3DEXP

OK Cancel

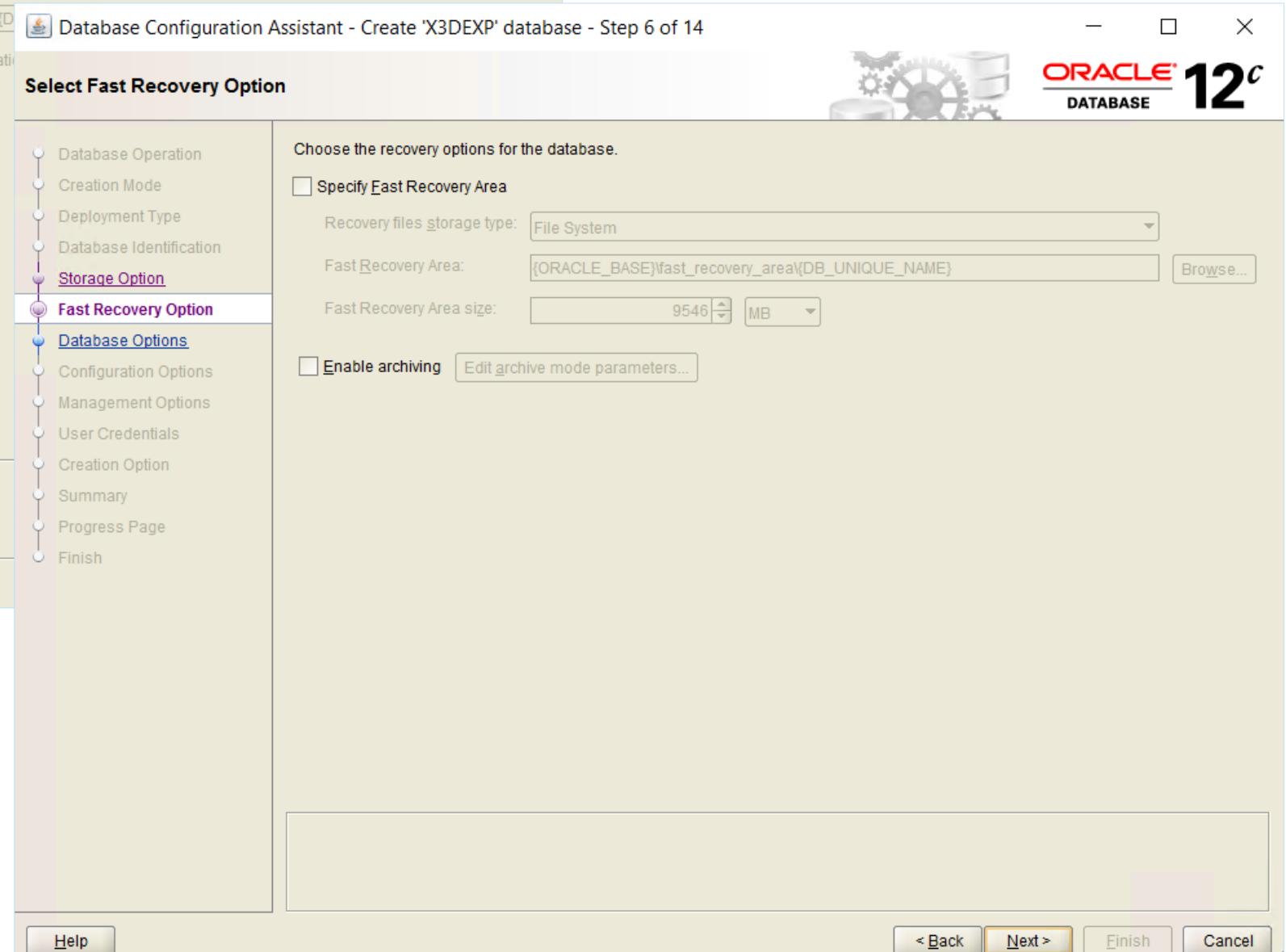
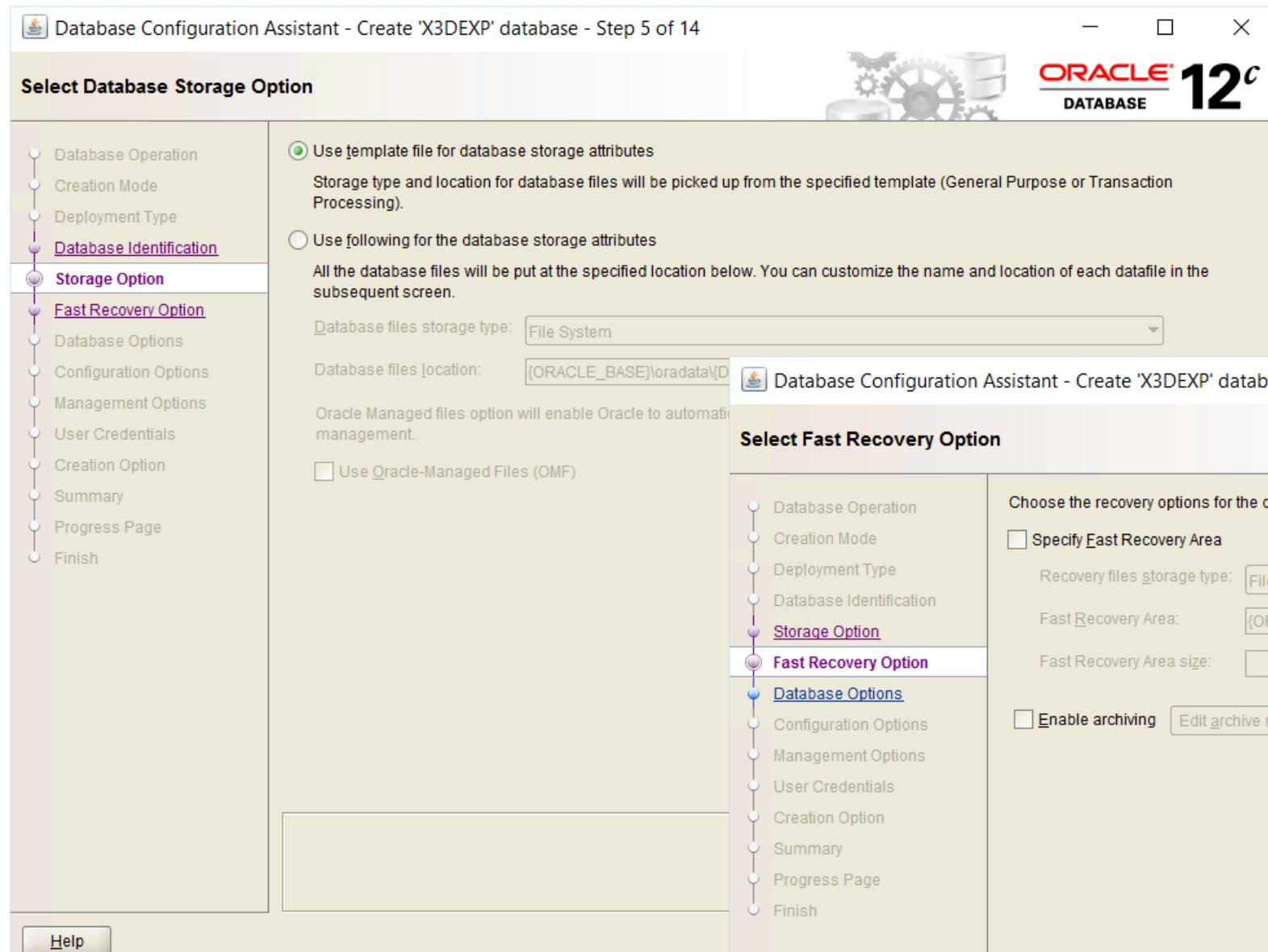
File location variables...

Help

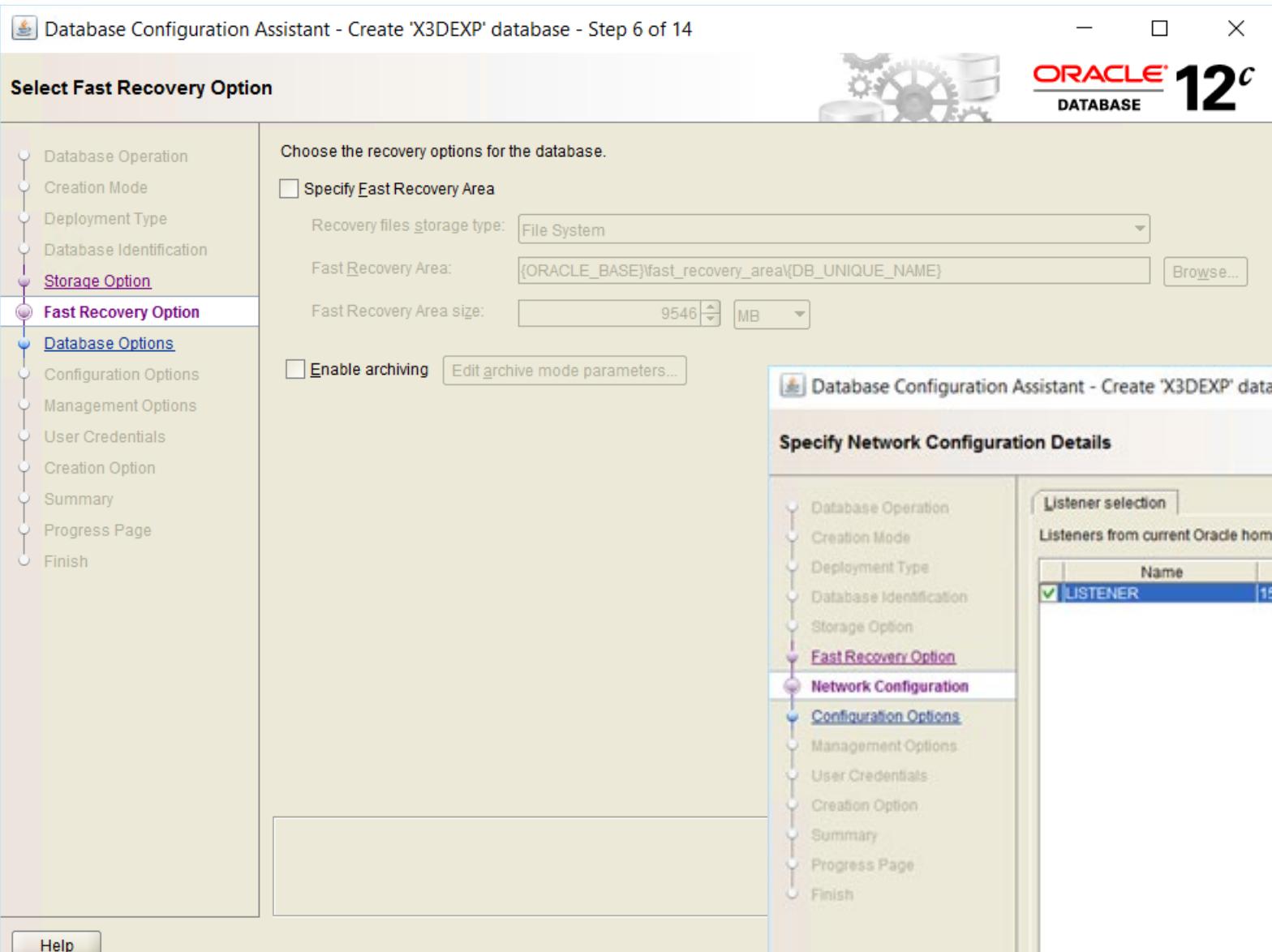
< Back Next > Finish Cancel

ORACLE DATABASE 12c

Create Database (4/11)



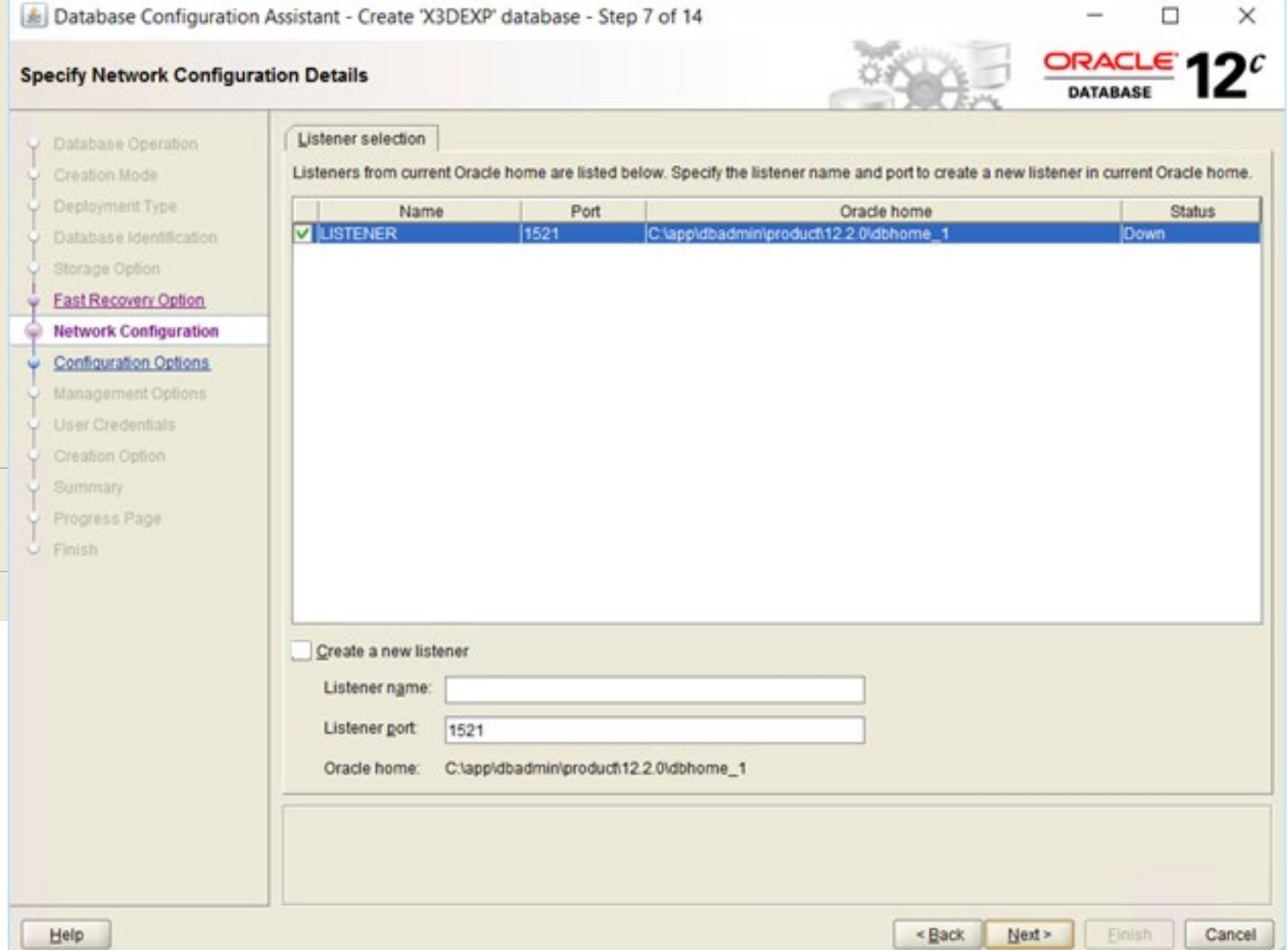
Create Database (5/11)



The screenshot shows the Oracle Database Configuration Assistant at Step 6 of 14. The title bar reads "Database Configuration Assistant - Create 'X3DEXP' database - Step 6 of 14". The main panel is titled "Select Fast Recovery Option" and contains the following fields:

- Choose the recovery options for the database.
- Specify Fast Recovery Area
- Recovery files storage type: File System
- Fast Recovery Area: (ORACLE_BASE)\fast_recovery_area\{DB_UNIQUE_NAME}
- Fast Recovery Area size: 9546 MB
- Enable archiving
- [Edit archive mode parameters...](#)

The left sidebar lists the steps: Database Operation, Creation Mode, Deployment Type, Database Identification, Storage Option, **Fast Recovery Option**, Database Options, Configuration Options, Management Options, User Credentials, Creation Option, Summary, Progress Page, and Finish. The "Fast Recovery Option" step is currently selected.



The screenshot shows the Oracle Database Configuration Assistant at Step 7 of 14. The title bar reads "Database Configuration Assistant - Create 'X3DEXP' database - Step 7 of 14". The main panel is titled "Specify Network Configuration Details" and contains the following sections:

- Listener selection:** A table showing existing listeners:

Name	Port	Oracle home	Status
LISTENER	1521	C:\app\lbadmin\product\12.2.0\dbhome_1	Down
- Create a new listener**
- Listener name:
- Listener port:
- Oracle home:

The left sidebar lists the steps: Database Operation, Creation Mode, Deployment Type, Database Identification, Storage Option, **Fast Recovery Option**, **Network Configuration**, Configuration Options, Management Options, User Credentials, Creation Option, Summary, Progress Page, and Finish. The "Network Configuration" step is currently selected.

A blue lightbulb icon with a speech bubble containing the text "Ensure that you use the listener already created." is positioned above the second window.

Create Database (6/11)

Database Configuration Assistant - Create 'X3DEXP' database - Step 7 of 14

Specify Network Configuration Details

Listener selection

Listeners from current Oracle home are listed below. Specify the listener name and port to create a new listener in current Oracle home.

Name	Port	Oracle home	Status
LISTENER	1521	C:\app\dbadmin\product\12.2.0\dbhome_1	Up

Create a new listener

Listener name: LISTENER1
Listener port: 1521
Oracle home: C:\app\dbadmin\product\12.2.0\dbhome_1

Help

ORACLE DATABASE 12c

Database Configuration Assistant - Create 'X3DEXP' database - Step 8 of 15

Select Oracle Data Vault Config Option

Configure Oracle Database Vault

Database Vault owner:
Password: Confirm password:

Create a separate account manager

Account manager:
Password: Confirm password:

Configure Oracle Label Security

Configure Oracle Label Security with OID

Help

< Back Next > Finish Cancel

ORACLE DATABASE 12c

Create Database (7/11)

Database Configuration Assistant - Create 'X3DEXP' database - Step 9 of 15

Specify Configuration Options

Database Operation
 Creation Mode
 Deployment Type
 Database Identification
 Storage Option
 Fast Recovery Option
 Network Configuration
 Data Vault Option

Configuration Options
 Management Options

User Credentials
 Creation Option
 Summary
 Progress Page
 Finish

Memory Sizing Character sets Connection mode Sample schemas

Dedicated server mode
 Shared server mode

The database will allocate a dedicated resource for each client connection in this mode. Use this mode when the number of total client connections is expected to be small or when clients will be making persistent, long-running requests to the database.

The database will use a shared pool of allocated resources for all client connections in this mode. Use this mode when a large number of users need to connect to the database simultaneously while efficiently utilizing system resources.

Specify the number of Shared Servers, which will be the number of processes that will be created when the instance is started.

Shared servers: 1

Database Configuration Assistant

[DBT-11211] The Automatic Memory Management option is not allowed when the total physical memory is greater than 4GB.

OK Details

Help

ORACLE DATABASE 12c

Database Configuration Assistant - Create 'X3DEXP' database - Step 9 of 15

Specify Configuration Options

Database Operation
 Creation Mode
 Deployment Type
 Database Identification
 Storage Option
 Fast Recovery Option
 Network Configuration
 Data Vault Option

Configuration Options
 Management Options

User Credentials
 Creation Option
 Summary
 Progress Page
 Finish

Memory Sizing Character sets Connection mode Sample schemas

Use Automatic Shared Memory Management
 Use Manual Shared Memory Management

SGA size: 3 GB 390 4096 40959

PGA Size: 1 GB 390 4096 40959

Shared pool size: 0 MB

Buffer cache size: 0 MB

Java pool size: 0 MB

Large pool size: 0 MB

PGA size: 0 MB

Total memory for database 0 MB

Use Automatic Memory Management

Memory target: 4000 MB 390 4000 40959 9%

< Back Next > Finish Cancel

Enter SGA and PGA size and use the unit accordingly.

Create Database (8/11)

Database Configuration Assistant - Create 'X3DEXP' database - Step 10 of 15

Specify Management Options

Specify the management options for the database.

Configure Enterprise Manager (EM) database express
EM database express port: 5500

Register with Enterprise Manager (EM) cloud connector
OMS host:
OMS port:
EM admin username:
EM admin password:

Management Options

User Credentials

Creation Option

Summary

Progress Page

Finish

Help

ORACLE DATABASE 12c

Database Configuration Assistant - Create 'X3DEXP' database - Step 11 of 15

Specify Database User Credentials

You must specify passwords for the following user accounts in the new database for security reasons.

Use different administrative passwords
Password: Confirm password:
SYS
SYSTEM

Use the same administrative password for all accounts
Password: Confirm password:

The database Oracle home is installed with a Oracle home user (dbadmin). Windows service for the database will be configured to run as Oracle home user account.

Oracle home user password:

Help

< Back

Next >

Finish

Cancel

ORACLE DATABASE 12c

Create Database (9/11)

Database Configuration Assistant - Create 'X3DEXP' database - Step 12 of 15

Select Database Creation Option

Database Operation
Creation Mode
Deployment Type
Database Identification
Storage Option
Fast Recovery Option
Network Configuration
Data Vault Option
Configuration Options
Management Options
User Credentials

Creation Option (selected)
Summary
Progress Page
Finish

Select the database creation options.

Create database
Specify the SQL scripts you want to run after the database is created. The scripts are run in the order listed below.
Post DB creation scripts:

Save as a database template
Template name: dbca_template_2019-04-02_03-20
Template location: C:\app\ldadmin\product\12.2.0\dbca\templates\basic\en\template.xml
Description:

Generate database creation scripts
Destination directory: (ORACLE_BASE)\admin\DB_U

Following advanced configuration options can be used to c
[All Initialization Parameters...](#)

Select Database Creation Option

All initialization parameters

⚠ Update the initialization parameters only when it is required. Refer to the Oracle documentation to learn more about each initialization parameter and its valid set of values.

(Storage related parameter(s) value is shown in MB)

Show advanced parameters

Name	Value	Include in spfile	Category
undo_tablespace	UNDOTBS1	<input checked="" type="checkbox"/>	Cluster Database
sga_target	3072	<input checked="" type="checkbox"/>	SGA Memory
db_block_size (bytes)	8192	<input checked="" type="checkbox"/>	Cache and I/O
nls_language	AMERICAN	<input checked="" type="checkbox"/>	NLS
control_files	("{ORACLE_BASE}\oradata\X3DEXP\control01.ctl", "{ORACLE_BASE}\oradata\X3DEXP\control02.ctl")	<input checked="" type="checkbox"/>	File Configuration
remote_login_passwordfile	EXCLUSIVE	<input checked="" type="checkbox"/>	Security and Auditing
processes	2000	<input checked="" type="checkbox"/>	Processes and Sessions
pga_aggregate_target	1024	<input checked="" type="checkbox"/>	Sort, Hash Joins, Bitmap Indexes
nls_territory	AMERICA	<input checked="" type="checkbox"/>	NLS
open_cursors	300	<input checked="" type="checkbox"/>	Cursors and Library Cache
compatible	12.2.0	<input checked="" type="checkbox"/>	Miscellaneous
db_name	X3DEXP	<input checked="" type="checkbox"/>	Database Identification
cluster_database	FALSE	<input checked="" type="checkbox"/>	Cluster Database
log_archive_dest_1		<input checked="" type="checkbox"/>	Archive
log_archive_dest_2		<input checked="" type="checkbox"/>	Archive
shared_servers	1	<input checked="" type="checkbox"/>	Shared Server

Description:
undo_tablespace: Undo tablespaces are used solely for storing undo information. UNDO_TABLESPACE is only allowed in System Managed Undo (SMU) mode. The specified undo tablespace, , will be used by the instance. If the tablespace does not exist, or is not an undo tablespace, or is being used by another instance, the instance STARTUP will fail. Default: Each database contains zero or more undo tablespaces. In the SMU mode, each ORACLE instance is

Help Back Next Finish Cancel

Create Database (10/11)

Database Configuration Assistant - Create 'X3DEXP' database - Step 13 of 15

ORACLE 12c

Summary

- Database Operation
- Creation Mode
- Deployment Type
- Database Identification
- Storage Option
- Fast Recovery Option
- Network Configuration
- Data Vault Option
- Configuration Options
- Management Options
- User Credentials
- Creation Option
- Summary**
- Progress Page
- Finish

Database Configuration Assistant

- Global Settings**
 - Global database name: X3DEXP
 - Configuration type: Oracle Single Instance database
 - SID: X3DEXP
 - Create as Container database: No
 - Memory Configuration Type: Automatic Shared Memory Management
 - Template name: General Purpose
- Initialization Parameters**
 - audit_file_dest: {ORACLE_BASE}\admin\{DB_UNIQUE_NAME}
 - audit_trail: db
 - compatible: 12.2.0
 - control_files: ("{ORACLE_BASE}\oradata\{DB_UNIQUE_NAME}\control01.ctl")
 - db_block_size: 8192 BYTES
 - db_name: X3DEXP
 - diagnostic_dest: {ORACLE_BASE}
 - dispatchers: (PROTOCOL=TCP) (SERVICE=X3DEXP)
 - local_listener: LISTENER_X3DEXP
 - nls_language: AMERICAN
 - nls_territory: AMERICA
 - open_cursors: 300
 - pga_aggregate_target: 1 GB
 - processes: 2000
 - remote_login_passwordfile: EXCLUSIVE
 - sga_target: 3 GB

Help

Database Configuration Assistant - Create 'X3DEXP' database - Step 14 of 15

ORACLE 12c

Progress Page

Progress

Clone database "X3DEXP" creation in progress...

2%

Steps	Status
Copying database files	In Progress
Creating and starting Oracle instance	
Completing Database Creation	
Executing Post Configuration Actions	

DBCA Log Location:C:\app\dbadmin\cfgtoollogs\dbca\X3DEXP\trace.log_2019-04-02_03-20-29-AM

Help < Back Next > Finish Cancel

Create Database (11/11)

Copy the Flash Player media to your host machine and validate the **EM Database Express URL**.



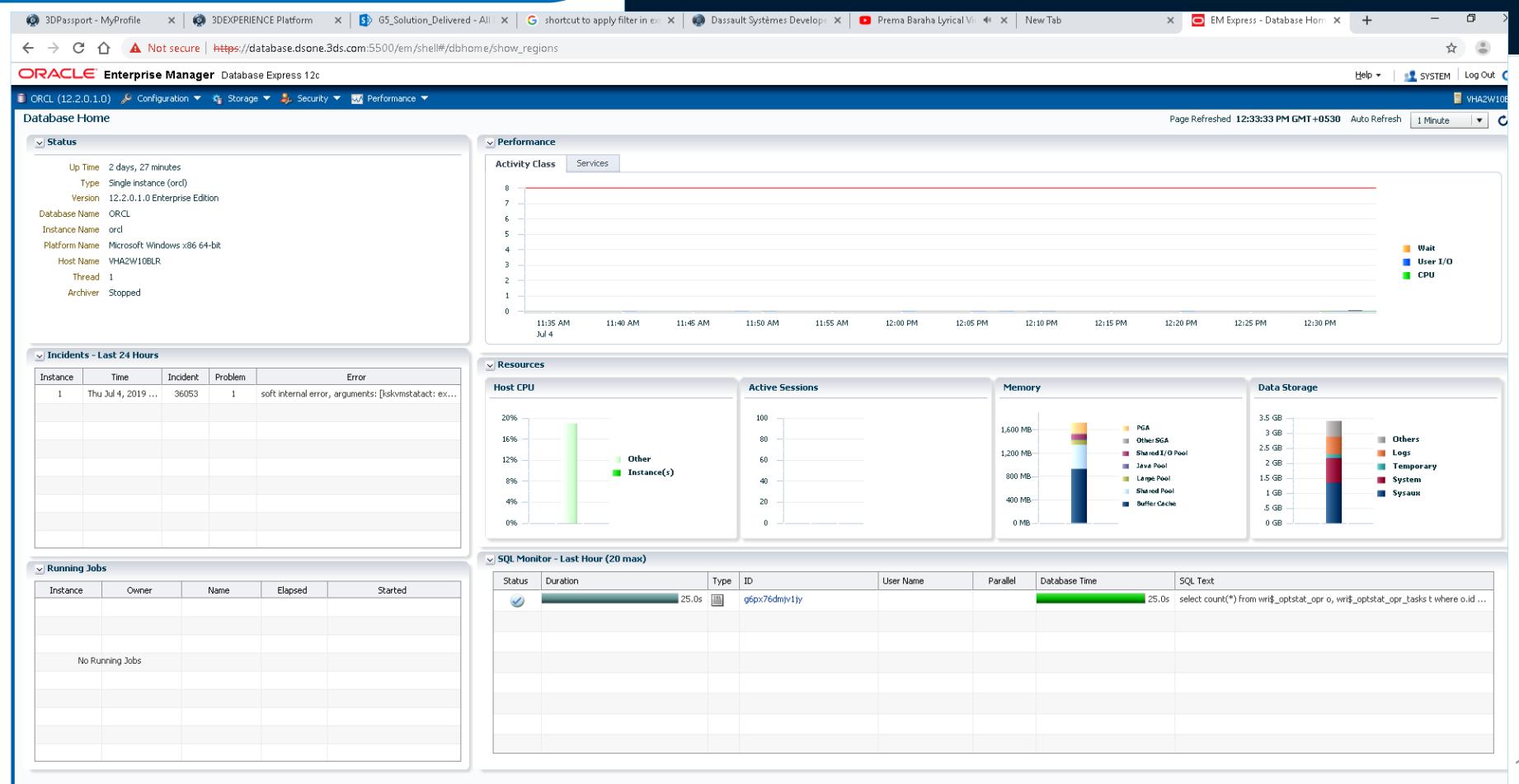
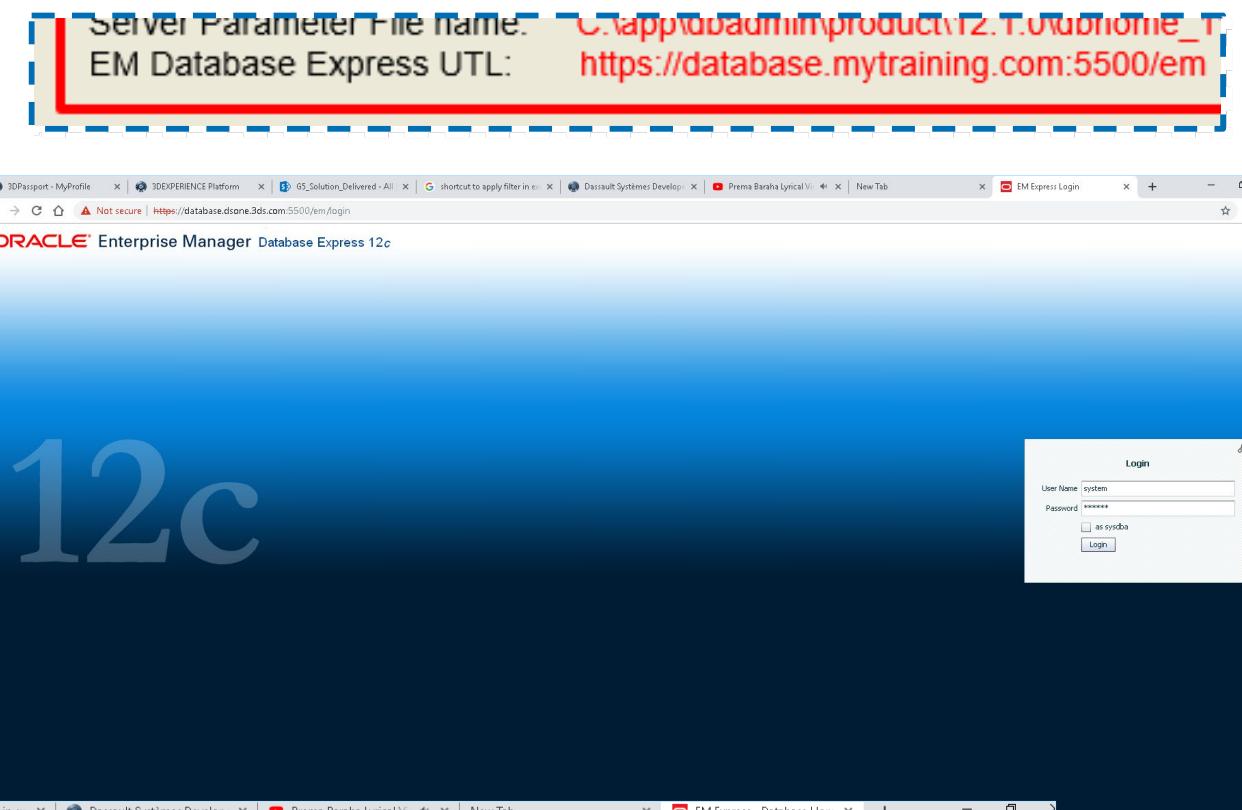
Oracle Database Validation

By the end of the installation, an URL link to the EM is created. You can use the Enterprise Manager tool instead of sqlplus.

Add it to your browser.



- ▶ After all configuration is done, disable it. For more detail consult the oracle documentation or your local DBA.
- ▶ Oracle **Enterprise Manager** is very sensitive to the hostname/IP, that is, DNS. This is why DB server should be a real FQDN machine. The training process is not using **EM**.



Network Configuration and File Validation

Oracle expects to be in a "real" server class machine. Always check the **ora** files : **listener.ora** and **tnsnames.ora**, located in:

C:\app\dbadmin\product\12.2.0\dbhome_1\network\admin

The entries should look like this, it's possible to see the actual machine name, this is the default oracle behavior, but for consistency update the values to reflect the "alias" defined.

```
"listener.ora":  
    LISTENER =  
        (DESCRIPTION_LIST =  
            (DESCRIPTION =  
                (ADDRESS = (PROTOCOL = TCP)(HOST = database.mytraining.com)(PORT = 1521))  
                (ADDRESS = (PROTOCOL = IPC)(KEY = EXTPROC1521))  
            )  
        )  
  
    "tnsnames.ora":  
        X3DEXP =  
            (DESCRIPTION =  
                (ADDRESS_LIST =  
                    (ADDRESS = (PROTOCOL = TCP)(HOST = database.mytraining.com)(PORT = 1521))  
                )  
                (CONNECT_DATA =  
                    (SERVICE_NAME = X3DEXP)  
                )  
            )
```

Oracle Database Validation

There are three set of commands that need to be executed and checked for installation without any issues.

1. Open a **dbadmin** command prompt using the shortcut in your desktop, execute the command:

```
tnsping X3DEXP
```

```
Microsoft Windows [Version 10.0.14393]
(c) 2016 Microsoft Corporation. All rights reserved.

C:\windows\system32>tnsping X3DEXP

TNS Ping Utility for 64-bit Windows: Version 12.2.0.1.0 - Production on 28-DEC-2018 03:26:39

Copyright (c) 1997, 2016, Oracle. All rights reserved.

Used parameter files:
D:\app\dbadmin\product\12.2.0\dbhome_1\network\admin\sqlnet.ora
```

```
sqlplus / as sysdba
```

```
C:\windows\system32>sqlplus / as sysdba

SQL*Plus: Release 12.2.0.1.0 Production on Fri Dec 28 03:27:37 2018

Copyright (c) 1982, 2016, Oracle. All rights reserved.

Connected to:
Oracle Database 12c Enterprise Edition Release 12.2.0.1.0 - 64bit Production
```

2. Type `exit`. The validation is successful as verified in the SQL command prompt.

Oracle Database Validation

3. Execute `lsnrctl status`, to verify the Oracle listener status.

```
Microsoft Windows [Version 10.0.14393]
(c) 2016 Microsoft Corporation. All rights reserved.

C:\windows\system32>lsnrctl start

LSNRCTL for 64-bit Windows: Version 12.2.0.1.0 - Production on 28-DEC-2018 05:24:58

Copyright (c) 1991, 2016, Oracle. All rights reserved.

Starting tnslsnr: please wait...

Enter dbadmin's password :
TNSLSNR for 64-bit Windows: Version 12.2.0.1.0 - Production
System parameter file is D:\app\dbadmin\product\12.2.0\dbhome_1\network\admin\listener.ora
Log messages written to D:\app\dbadmin\diag\tnslnsr\3DEXPERIENCE-XX\listener\alert\log.xml
Listening on: (DESCRIPTION=(ADDRESS=(PROTOCOL=tcp)(HOST=3DEXPERIENCE-XX.dsone.3ds.com)(PORT=1521)))

Connecting to (DESCRIPTION=(ADDRESS=(PROTOCOL=TCP)(HOST=3dexperience.mytraining.com)(PORT=1521)))
STATUS of the LISTENER
-----
Alias                      LISTENER
Version        TNSLSNR for 64-bit Windows: Version 12.2.0.1.0 - Production
Start Date     28-DEC-2018 05:25:09
Uptime         0 days 0 hr. 0 min. 2 sec
Trace Level    off
Security        ON: Local OS Authentication
SNMP           OFF
Listener Parameter File  D:\app\dbadmin\product\12.2.0\dbhome_1\network\admin\listener.ora
Listener Log File       D:\app\dbadmin\diag\tnslnsr\3DEXPERIENCE-XX\listener\alert\log.xml
Listening Endpoints Summary...
  (DESCRIPTION=(ADDRESS=(PROTOCOL=tcp)(HOST=3DEXPERIENCE-XX.dsone.3ds.com)(PORT=1521)))
```

Create Tablespace and User

Now we will start preparing the object that will host the **3DEXPERIENCE** platform data.

1. Create a **DATAFILE** folder at **C:\app\dbadmin\oradata\X3DEXP**.

2. In the same **dbadmin** command prompt used previously, execute the command:

```
sqlplus / as sysdba  
alter profile DEFAULT limit password_life_time UNLIMITED;
```

```
C:\Windows\system32>sqlplus / as sysdba  
SQL*Plus: Release 12.1.0.2.0 Production on Tue Feb 21 08:57:43 2017  
Copyright (c) 1982, 2014, Oracle. All rights reserved.  
  
Connected to:  
Oracle Database 12c Enterprise Edition Release 12.1.0.2.0 - 64bit Production  
With the Partitioning, OLAP, Advanced Analytics and Real Application Testing options  
SQL> alter profile DEFAULT limit password_life_time UNLIMITED;  
Profile altered.
```

3. In the next few pages the tablespaces will be created. A few notes:

- Indexes are about 2-3x bigger than data
- Index will be used mostly later on post DB optimization after all is tested
- The sizes are representative of the documentation, or where shrink to fit the training, they are not adapted to customer sizing, but for training purpose

Create Tablespace and User - 3DPassport (1/2)

4. Execute the following commands to create the users and tablespaces

```
CREATE USER "X3DPASSADMIN" IDENTIFIED BY "X3DPASSADMIN";
CREATE SMALLFILE TABLESPACE "X3DPASSADMIN" LOGGING DATAFILE
'C:\app\dbadmin\oradata\X3DEXP\DATAFILE\X3DPASSADMIN.dbf' SIZE 10M AUTOEXTEND ON NEXT
25M MAXSIZE UNLIMITED EXTENT MANAGEMENT LOCAL SEGMENT SPACE MANAGEMENT AUTO;
GRANT UNLIMITED TABLESPACE TO "X3DPASSADMIN";
ALTER USER "X3DPASSADMIN" DEFAULT TABLESPACE "X3DPASSADMIN";
ALTER USER "X3DPASSADMIN" QUOTA UNLIMITED ON "X3DPASSADMIN";
GRANT CREATE PUBLIC SYNONYM TO "X3DPASSADMIN";
GRANT CREATE SEQUENCE TO "X3DPASSADMIN";
GRANT CREATE SESSION TO "X3DPASSADMIN";
GRANT CREATE SYNONYM TO "X3DPASSADMIN";
GRANT DROP PUBLIC SYNONYM TO "X3DPASSADMIN";
GRANT CREATE TABLE TO "X3DPASSADMIN";
Commit;
```

Create Tablespace and User - 3DPassport (2/2)

```
CREATE USER "X3DPASSTOKENS" IDENTIFIED BY "X3DPASSTOKENS";
CREATE SMALLFILE TABLESPACE "X3DPASSTOKENS" LOGGING DATAFILE
'C:\app\dbadmin\oradata\X3DEXP\DATAFILE\X3DPASSTOKENS.dbf' SIZE 10M AUTOEXTEND ON
NEXT 25M MAXSIZE UNLIMITED EXTENT MANAGEMENT LOCAL SEGMENT SPACE MANAGEMENT AUTO;
GRANT UNLIMITED TABLESPACE TO "X3DPASSTOKENS";
GRANT CREATE PUBLIC SYNONYM TO "X3DPASSTOKENS";
ALTER USER "X3DPASSTOKENS" DEFAULT TABLESPACE "X3DPASSTOKENS";
ALTER USER "X3DPASSTOKENS" QUOTA UNLIMITED ON "X3DPASSTOKENS";
GRANT CREATE SEQUENCE TO "X3DPASSTOKENS";
GRANT CREATE SESSION TO "X3DPASSTOKENS";
GRANT CREATE SYNONYM TO "X3DPASSTOKENS";
GRANT DROP PUBLIC SYNONYM TO "X3DPASSTOKENS";
GRANT CREATE TABLE TO "X3DPASSTOKENS";
Commit;
```

Create Tablespace and User - 3DDashboard

```
CREATE USER "X3DDASHADMIN" IDENTIFIED BY "X3DDASHADMIN";
CREATE SMALLFILE TABLESPACE "X3DDASHADMIN" LOGGING DATAFILE
'C:\app\dbadmin\oradata\X3DEXP\DATAFILE\X3DDASHADMIN.dbf' SIZE 10M AUTOEXTEND ON NEXT
25M MAXSIZE UNLIMITED EXTENT MANAGEMENT LOCAL SEGMENT SPACE MANAGEMENT AUTO;
GRANT UNLIMITED TABLESPACE TO "X3DDASHADMIN";
GRANT RESOURCE TO "X3DDASHADMIN";
ALTER USER "X3DDASHADMIN" DEFAULT TABLESPACE "X3DDASHADMIN";
ALTER USER "X3DDASHADMIN" QUOTA UNLIMITED ON "X3DDASHADMIN";
GRANT CREATE PUBLIC SYNONYM TO "X3DDASHADMIN";
GRANT CREATE SEQUENCE TO "X3DDASHADMIN";
GRANT CREATE SESSION TO "X3DDASHADMIN";
GRANT CREATE SYNONYM TO "X3DDASHADMIN";
GRANT DROP PUBLIC SYNONYM TO "X3DDASHADMIN";
GRANT CREATE TABLE TO "X3DDASHADMIN";
Commit;
```

Create Tablespace and User - 3DSpace (1/2)

```
CREATE USER "X3DSPACEADMIN" IDENTIFIED BY "X3DSPACEADMIN";
```

```
CREATE SMALLFILE TABLESPACE "X3DSPACEADMIN" LOGGING DATAFILE  
'C:\app\dbadmin\oradata\X3DEXP\DATAFILE\X3DSPACEADMIN.dbf' SIZE 200M AUTOEXTEND ON NEXT  
25M MAXSIZE UNLIMITED EXTENT MANAGEMENT LOCAL SEGMENT SPACE MANAGEMENT AUTO;
```

```
CREATE SMALLFILE TABLESPACE "X3DSPACEADMIN_DAT" LOGGING DATAFILE  
'C:\app\dbadmin\oradata\X3DEXP\DATAFILE\X3DSPACEADMIN_DAT.dbf' SIZE 200M AUTOEXTEND ON  
NEXT 20M MAXSIZE UNLIMITED EXTENT MANAGEMENT LOCAL SEGMENT SPACE MANAGEMENT AUTO;
```

```
CREATE SMALLFILE TABLESPACE "X3DSPACEADMIN_IND" LOGGING DATAFILE  
'C:\app\dbadmin\oradata\X3DEXP\DATAFILE\X3DSPACEADMIN_IND.dbf' SIZE 300M AUTOEXTEND ON  
NEXT 30M MAXSIZE UNLIMITED EXTENT MANAGEMENT LOCAL SEGMENT SPACE MANAGEMENT AUTO;
```

```
CREATE SMALLFILE TABLESPACE "X3DSPACEPRD_DAT" LOGGING DATAFILE  
'C:\app\dbadmin\oradata\X3DEXP\DATAFILE\X3DSPACEPRD_DAT.dbf' SIZE 200M AUTOEXTEND ON  
NEXT 20M MAXSIZE UNLIMITED EXTENT MANAGEMENT LOCAL SEGMENT SPACE MANAGEMENT AUTO;
```

```
CREATE SMALLFILE TABLESPACE "X3DSPACEPRD_IND" LOGGING DATAFILE  
'C:\app\dbadmin\oradata\X3DEXP\DATAFILE\X3DSPACEPRD_IND.dbf' SIZE 300M AUTOEXTEND ON  
NEXT 30M MAXSIZE UNLIMITED EXTENT MANAGEMENT LOCAL SEGMENT SPACE MANAGEMENT AUTO;
```

Create Tablespace and User - 3DSpace (2/2)

```
CREATE SMALLFILE TABLESPACE "X3DSPACEVPLM_DAT" LOGGING DATAFILE  
'C:\app\dbadmin\oradata\X3DEXP\DATAFILE\X3DSPACEVPLM_DAT.dbf' SIZE 200M AUTOEXTEND ON  
NEXT 20M MAXSIZE UNLIMITED EXTENT MANAGEMENT LOCAL SEGMENT SPACE MANAGEMENT AUTO;
```

```
CREATE SMALLFILE TABLESPACE "X3DSPACEVPLM_IND" LOGGING DATAFILE  
'C:\app\dbadmin\oradata\X3DEXP\DATAFILE\X3DSPACEVPLM_IND.dbf' SIZE 300M AUTOEXTEND ON  
NEXT 30M MAXSIZE UNLIMITED EXTENT MANAGEMENT LOCAL SEGMENT SPACE MANAGEMENT AUTO;  
GRANT UNLIMITED TABLESPACE TO "X3DSPACEADMIN";
```

```
GRANT CONNECT, RESOURCE, CREATE VIEW TO "X3DSPACEADMIN";
```

```
ALTER USER "X3DSPACEADMIN" DEFAULT TABLESPACE "X3DSPACEADMIN";
```

```
ALTER USER "X3DSPACEADMIN" QUOTA UNLIMITED ON "X3DSPACEADMIN";
```

```
GRANT CREATE TABLE TO "X3DSPACEADMIN";
```

```
Commit;
```

Create Tablespace and User- 3DSwym (1/3)

```
CREATE USER "X3DSWYM" IDENTIFIED BY "X3DSWYM";
CREATE SMALLFILE TABLESPACE "X3DSWYM" LOGGING DATAFILE
'C:\app\dbadmin\oradata\X3DEXP\DATAFILE\x3dszym.dbf' SIZE 10M AUTOEXTEND ON NEXT 20M
MAXSIZE UNLIMITED EXTENT MANAGEMENT LOCAL SEGMENT SPACE MANAGEMENT AUTO;
GRANT UNLIMITED TABLESPACE TO "X3DSWYM";
GRANT CREATE SEQUENCE TO "X3DSWYM";
GRANT CREATE SESSION TO "X3DSWYM";
GRANT CREATE VIEW TO "X3DSWYM";
GRANT CREATE PROCEDURE TO "X3DSWYM";
GRANT CREATE TRIGGER TO "X3DSWYM";
ALTER USER "X3DSWYM" DEFAULT TABLESPACE "X3DSWYM";
ALTER USER "X3DSWYM" QUOTA UNLIMITED ON "X3DSWYM";
GRANT CREATE TABLE TO "X3DSWYM";
Commit;
```

Create Tablespace and User - 3DSwym (2/3)

```
CREATE USER "X3DSWYM_MEDIA" identified by "X3DSWYM_MEDIA";
CREATE SMALLFILE TABLESPACE "X3DSWYM_MEDIA" LOGGING DATAFILE
'C:\app\dbadmin\oradata\X3DEXP\DATAFILE\X3DSWYM_MEDIA.dbf' SIZE 10M AUTOEXTEND ON
NEXT 20M MAXSIZE UNLIMITED EXTENT MANAGEMENT LOCAL SEGMENT SPACE MANAGEMENT AUTO;
GRANT UNLIMITED TABLESPACE TO "X3DSWYM_MEDIA";
GRANT CREATE SEQUENCE TO "X3DSWYM_MEDIA";
GRANT CREATE SESSION TO "X3DSWYM_MEDIA";
GRANT CREATE VIEW TO "X3DSWYM_MEDIA";
GRANT CREATE PROCEDURE TO "X3DSWYM_MEDIA";
GRANT CREATE TRIGGER TO "X3DSWYM_MEDIA";
ALTER USER "X3DSWYM_MEDIA" DEFAULT TABLESPACE "X3DSWYM_MEDIA";
ALTER USER "X3DSWYM_MEDIA" QUOTA UNLIMITED ON "X3DSWYM_MEDIA";
GRANT CREATE TABLE TO "X3DSWYM_MEDIA";
Commit;
```

Create Tablespace and User - 3DSwym (3/3)

```
CREATE USER "X3DSWYM_WIDGET" IDENTIFIED BY "X3DSWYM_WIDGET";
CREATE SMALLFILE TABLESPACE "X3DSWYM_WIDGET" LOGGING DATAFILE
'C:\app\dbadmin\oradata\X3DEXP\DATAFILE\X3DSWYM_WIDGET.dbf' SIZE 10M AUTOEXTEND ON
NEXT 20M MAXSIZE UNLIMITED EXTENT MANAGEMENT LOCAL SEGMENT SPACE MANAGEMENT AUTO;
GRANT UNLIMITED TABLESPACE TO "X3DSWYM_WIDGET";
GRANT CREATE SEQUENCE TO "X3DSWYM_WIDGET";
GRANT CREATE SESSION TO "X3DSWYM_WIDGET";
GRANT CREATE VIEW TO "X3DSWYM_WIDGET";
GRANT CREATE PROCEDURE TO "X3DSWYM_WIDGET";
GRANT CREATE TRIGGER TO "X3DSWYM_WIDGET";
ALTER USER "X3DSWYM_WIDGET" DEFAULT TABLESPACE "X3DSWYM_WIDGET";
ALTER USER "X3DSWYM_WIDGET" QUOTA UNLIMITED ON "X3DSWYM_WIDGET";
GRANT CREATE TABLE TO "X3DSWYM_WIDGET";
Commit;
```

Create Tablespace and User - 3DComment

```
CREATE USER "X3DCOMMENT" IDENTIFIED BY "X3DCOMMENT";
CREATE SMALLFILE TABLESPACE "X3DCOMMENT" LOGGING DATAFILE
'C:\app\dbadmin\oradata\X3DEXP\DATAFILE\X3DCOMMENT.dbf' SIZE 10M AUTOEXTEND ON
NEXT 25M MAXSIZE UNLIMITED EXTENT MANAGEMENT LOCAL SEGMENT SPACE MANAGEMENT
AUTO;
GRANT UNLIMITED TABLESPACE TO "X3DCOMMENT";
ALTER USER "X3DCOMMENT" DEFAULT TABLESPACE "X3DCOMMENT";
ALTER USER "X3DCOMMENT" QUOTA UNLIMITED ON "X3DCOMMENT";
GRANT CREATE PUBLIC SYNONYM TO "X3DCOMMENT";
GRANT CREATE SEQUENCE TO "X3DCOMMENT";
GRANT CREATE SESSION TO "X3DCOMMENT";
GRANT CREATE TABLE TO "X3DCOMMENT";
GRANT CREATE SYNONYM TO "X3DCOMMENT";
GRANT DROP PUBLIC SYNONYM TO "X3DCOMMENT";
GRANT CREATE VIEW TO "X3DCOMMENT";
GRANT CREATE PROCEDURE TO "X3DCOMMENT";
GRANT CREATE TRIGGER TO "X3DCOMMENT";
Commit;
```

Create Tablespace and User - 3DNotification

```
CREATE USER "X3DNOTIF" IDENTIFIED BY "X3DNOTIF";
CREATE SMALLFILE TABLESPACE "X3DNOTIF" LOGGING DATAFILE
'C:\app\dbadmin\oradata\X3DEXP\DATAFILE\X3DNOTIF.dbf' SIZE 50M AUTOEXTEND ON NEXT 25M
MAXSIZE UNLIMITED EXTENT MANAGEMENT LOCAL SEGMENT SPACE MANAGEMENT AUTO;
GRANT UNLIMITED TABLESPACE TO "X3DNOTIF";
ALTER USER "X3DNOTIF" DEFAULT TABLESPACE "X3DNOTIF";
ALTER USER "X3DNOTIF" QUOTA UNLIMITED ON "X3DNOTIF";
GRANT CREATE PUBLIC SYNONYM TO "X3DNOTIF";
GRANT CREATE SEQUENCE to "X3DNOTIF";
GRANT CREATE SESSION to "X3DNOTIF";
GRANT CREATE TABLE to "X3DNOTIF";
GRANT CREATE VIEW to "X3DNOTIF";
GRANT DROP PUBLIC SYNONYM TO "X3DNOTIF";
GRANT CREATE TABLE TO "X3DNOTIF";
GRANT CREATE PROCEDURE to "X3DNOTIF";
GRANT CREATE TRIGGER to "X3DNOTIF";
Commit;
```

Oracle Database Validation

In the same command prompt used previously, continue running the following SQL commands:

```
select 'INST= '||instance_name from v$instance union
select 'USR= '||USERNAME||' -- '||DEFAULT_TABLESPACE from DBA_USERS
where USERNAME like 'X3D%' union
select 'TBS= '||TABLESPACE_NAME from DBA_TABLESPACES where TABLESPACE_NAME like 'X3D%' order by 1;
select * from nls_database_parameters where parameter ='NLS_CHARACTERSET';
```

```
'INST='||INSTANCE_NAME
-----
INST= x3dexp
TBS= X3DCOMMENT
TBS= X3DDASHADMIN
TBS= X3DNOTIF
TBS= X3DPASSADMIN
TBS= X3DPASSTOKENS
TBS= X3DSPACEADMIN
TBS= X3DSPACEADMIN_DAT
TBS= X3DSPACEADMIN_IND
TBS= X3DSPACEPRD_DAT
TBS= X3DSPACEPRD_IND

'INST='||INSTANCE_NAME
-----
TBS= X3DSPACEVPLM_DAT
TBS= X3DSPACEVPLM_IND
TBS= X3DSWYM
TBS= X3DSWYM_MEDIA
TBS= X3DSWYM_WIDGET
USR= X3DCOMMENT -- X3DCOMMENT
USR= X3DDASHADMIN -- X3DDASHADMIN
USR= X3DNOTIF -- X3DNOTIF
USR= X3DPASSADMIN -- X3DPASSADMIN
USR= X3DPASSTOKENS -- X3DPASSTOKENS
USR= X3DSPACEADMIN -- X3DSPACEADMIN

'INST='||INSTANCE_NAME
-----
USR= X3DSWYM -- X3DSWYM
USR= X3DSWYM_MEDIA -- X3DSWYM_MEDIA
USR= X3DSWYM_WIDGET -- X3DSWYM_WIDGET

25 rows selected.

SQL>
SQL> select * from nls_database_parameters
  2  where parameter ='NLS_CHARACTERSET';

PARAMETER
-----
VALUE
-----
NLS_CHARACTERSET
AL32UTF8
```

These are the final validation sqlplus queries to check.

Drop/Delete Tablespace and User

Execute the commands to drop the tablespace and user for a service.

For example:

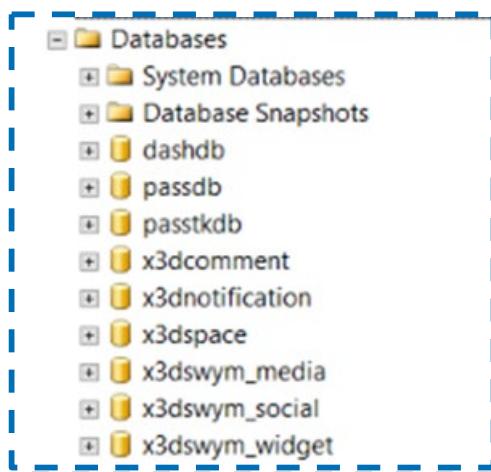
```
DROP TABLESPACE "X3DDASHADMIN" INCLUDING CONTENTS AND DATAFILES CASCADE CONSTRAINTS;  
DROP USER X3DDASHADMIN CASCADE;
```

Then, create the tablespace and user.

Summary

Database

In this lesson, you have configured the database of your choice.



```
'INST=' || INSTANCE_NAME  
-----  
INST= x3dexp  
TBS= X3DCOMMENT  
TBS= X3DDASHADMIN  
TBS= X3DNOTIF  
TBS= X3DPASSADMIN  
TBS= X3DPASSTOKENS  
TBS= X3DSPACEADMIN  
TBS= X3DSPACEADMIN_DAT  
TBS= X3DSPACEADMIN_IND  
TBS= X3DSPACEPRD_DAT  
TBS= X3DSPACEPRD_IND  
  
'INST=' || INSTANCE_NAME  
-----  
TBS= X3DSPACEVPLM_DAT  
TBS= X3DSPACEVPLM_IND  
TBS= X3DSWYM  
TBS= X3DSWYM_MEDIA  
TBS= X3DSWYM_WIDGET  
USR= X3DCOMMENT -- X3DCOMMENT  
USR= X3DDASHADMIN -- X3DDASHADMIN  
USR= X3DNOTIF -- X3DNOTIF  
USR= X3DPASSADMIN -- X3DPASSADMIN  
USR= X3DPASSTOKENS -- X3DPASSTOKENS  
USR= X3DSPACEADMIN -- X3DSPACEADMIN  
  
'INST=' || INSTANCE_NAME  
-----  
USR= X3DSWYM -- X3DSWYM  
USR= X3DSWYM_MEDIA -- X3DSWYM_MEDIA  
USR= X3DSWYM_WIDGET -- X3DSWYM_WIDGET  
  
25 rows selected.  
  
SQL>  
SQL> select * from nls_database_parameters  
  2 where parameter = 'NLS_CHARACTERSET';  
  
PARAMETER  
-----  
VALUE  
-----  
NLS_CHARACTERSET  
AL32UTF8
```

Lesson 5: Core Configuration

- ▶ Introduction
- ▶ DSLS
 - DSLS overview
 - GA Installation
 - Post configuration
 - Uninstallation
- ▶ Global 3DEXPERIENCE platform installer
- ▶ 3DPassport
- ▶ 3DDashboard
- ▶ 3DSearch
 - Federated Search
 - 3DSpace Index
- ▶ 3DSpace
- ▶ 3DNotification
- ▶ 3DComment
- ▶ 3DSwym
- ▶ FCS
 - FCS Central
 - FCS Remote



Introduction

Topics to be covered:

1. Introduction
2. DSLS
3. Global **3DEXPERIENCE** platform installer
4. 3DPassport
5. Reconfiguration
6. 3DDashboard
7. 3DSearch
8. 3DSpace
9. 3DNotification
10. 3DComment
11. 3DSwym
12. FCS

Introduction

By now you have installed all the pre-requisites plus the middleware configuration and you are almost ready to proceed with the installation of the **3DEXPERIENCE** platform.

This chapter will introduce the core components and will discuss configuration options and key parameters you need to manage for your future installation.

- Server Core components :

- 3DPassport
- 3DDashboard
- FedSearch
- 3DSpace
- 3DNotification
- 3DComment
- 3DSwym
- FCS

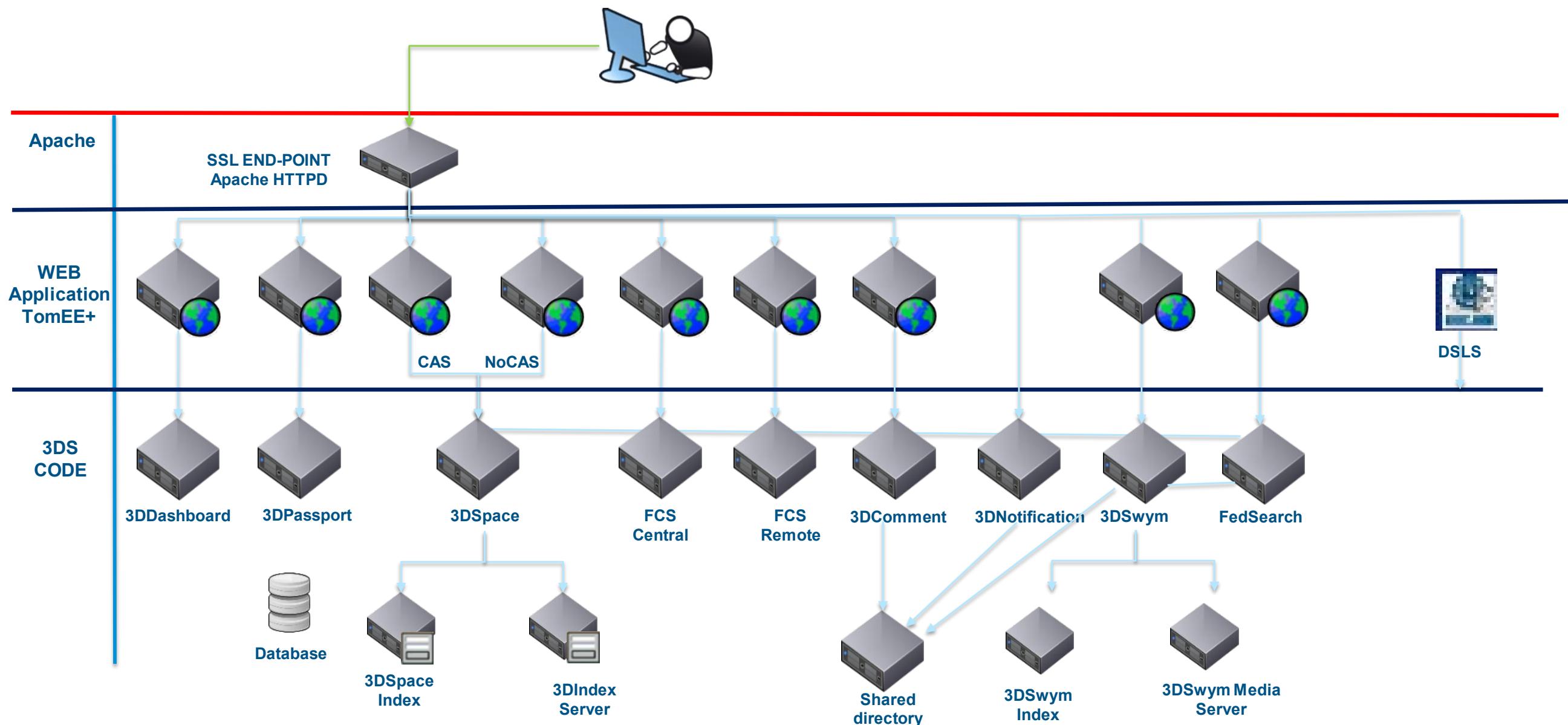
- Client Core components :

- Native Client
- Integration Clients

3DEXPERIENCE platform: Deployment Overview

This is a practical high level view of the platform, showing the services based on the deployment, that is, installation and configuration of code.

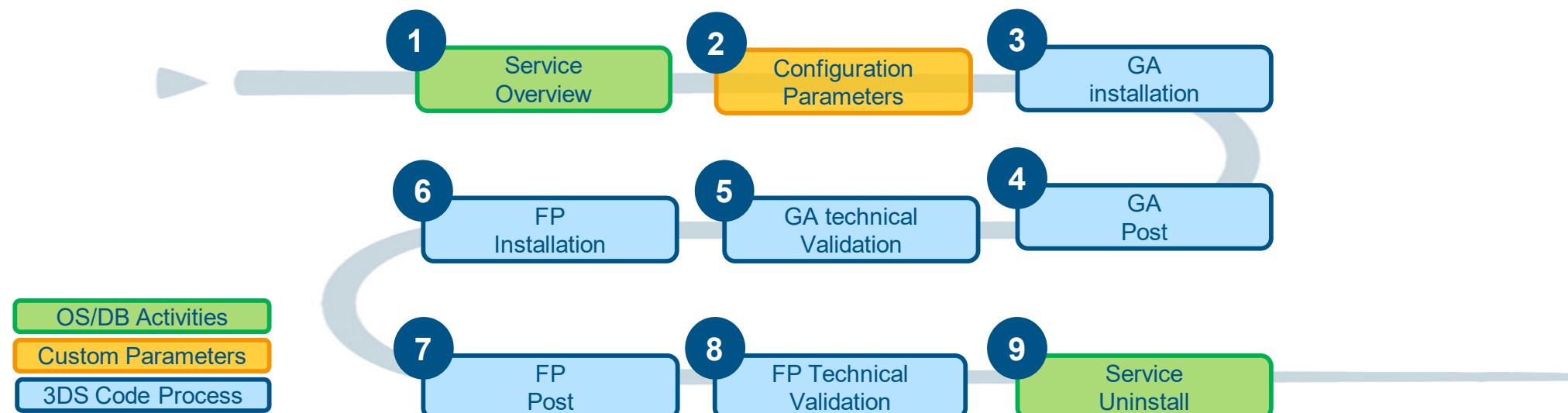
Each element in this schema is an installation and configuration activity.



3DEXPERIENCE platform: Core Installation

As a general rule you will find that all 3DS installations will follow these steps:

- | | |
|-----------------------------------|---|
| ■ Service Overview | : Service Description, Architecture & Requirement |
| ■ Service Key Parameters | : Service Options and Key Parameters |
| ■ Service GA Installation | : Service GA Installation |
| ■ Service GA Post | : Service GA Post Activities |
| ■ Service GA Technical Validation | : Service GA Technical Validation of the Installation |
| ■ Service FP Installation | : Service FP Installation |
| ■ Service FP Post | : Service FP Post Activities |
| ■ Service FP Technical Validation | : Service FP Technical Validation of the Installation |
| ■ Service Uninstallation | : Service Standard Uninstallation |



3DEXPERIENCE platform: Media Installer Introduction

About Fix Pack:

When downloading the FP you will always find a Readme.html. It is strongly recommended to download and read this file and store it in your <Media Installer PATH>.

The screenshot shows a web browser window with the following details:

- Address Bar:** https://media.3ds.com/support/progdir/all/?pdid=3DExp,r2019x,update01&context=onpremises
- Toolbar:** Includes back, forward, search, and other standard browser icons.
- Page Title:** Program Directories
- Header:** DS DASSAULT SYSTEMES logo, Search bar, Share URL button, Line: 3DEXPERIENCE, Level: R2019x, Sub: FD01 (FP.1907) dropdown menus.
- Content Area:**
 - Section:** 3DEXPERIENCE R2019x FD01 (FP.1907) - Program Directory - On Premises
 - Sub-section:** Servers Hardware & Software Requirements
 - Text:** This page describes the required hardware configurations, operating system and operating system patches, for the deployment of 3DEXPERIENCE Server Products for this Release. It also contains important information about the [Platform Support Policy](#). The Platform Support Policy terms are defined [here](#).
 - Section:** Important notice for Server products support
 - Text:** 3DEXPERIENCE R2016x is the last 3DEXPERIENCE Release to be supported with **Oracle MySQL**.
3DEXPERIENCE R2018x is the last 3DEXPERIENCE Release to be supported with **Microsoft Windows Server 2008 R2**.
3DEXPERIENCE R2018x is the last 3DEXPERIENCE Release to be supported with **Microsoft SQL Server 2012**.
3DEXPERIENCE R2018x is the last 3DEXPERIENCE Release to be supported with **Microsoft SQL Server 2014**.
3DEXPERIENCE R2018x is the last 3DEXPERIENCE Release to be supported with **RedHat Enterprise Server 6**.
3DEXPERIENCE R2018x is the last 3DEXPERIENCE Release to be supported with **SUSE Linux Enterprise Server 11**.

Topics to be covered:

- ✓ 1. *Introduction*
- 2. DSLS
- 3. Global **3DEXPERIENCE** platform installer
- 4. 3DPassport
- 5. Reconfiguration
- 6. 3DDashboard
- 7. 3DSearch
- 8. 3DSpace
- 9. 3DNotification
- 10. 3DComment
- 11. 3DSwym
- 12. FCS

Introduction

This DSLS is often overlooked at the beginning of a deployment. It is a critical component because you will not be able to functionally validate the rest of the platform if you cannot reach a valid DS license server.

This chapter will introduce the “DS License server” components as well as discuss configuration options and key parameters you will need to manage for your installation.

The DS License server is not dependent on the platform for installation and can be installed at any point in time. It can only be installed on a physical machine and it should be the first component you install after the documentation. This component is required to license users’ roles in the **3DEXPERIENCE** platform.

This installation is mandatory if you are building your own **3DEXPERIENCE** platform on your laptop. For those who will be using the provided 3DS laptop you can proceed with the installation if you wish but it will not be used during the training. The 3DS laptop will access an internal DS License server.

If you were planning on using your own laptop you should have requested and received your licenses prior to your arrival to the class. If you have not received your licenses, the **3DEXPERIENCE** platform will not work on your laptop. It will not be possible to connect your laptop to the DS network in order to access the DS License Server.

DS License server: Pre-Check

You should have already prepared the groundwork required to proceed with this service installation, you will need the following pre-requisite: DS License file

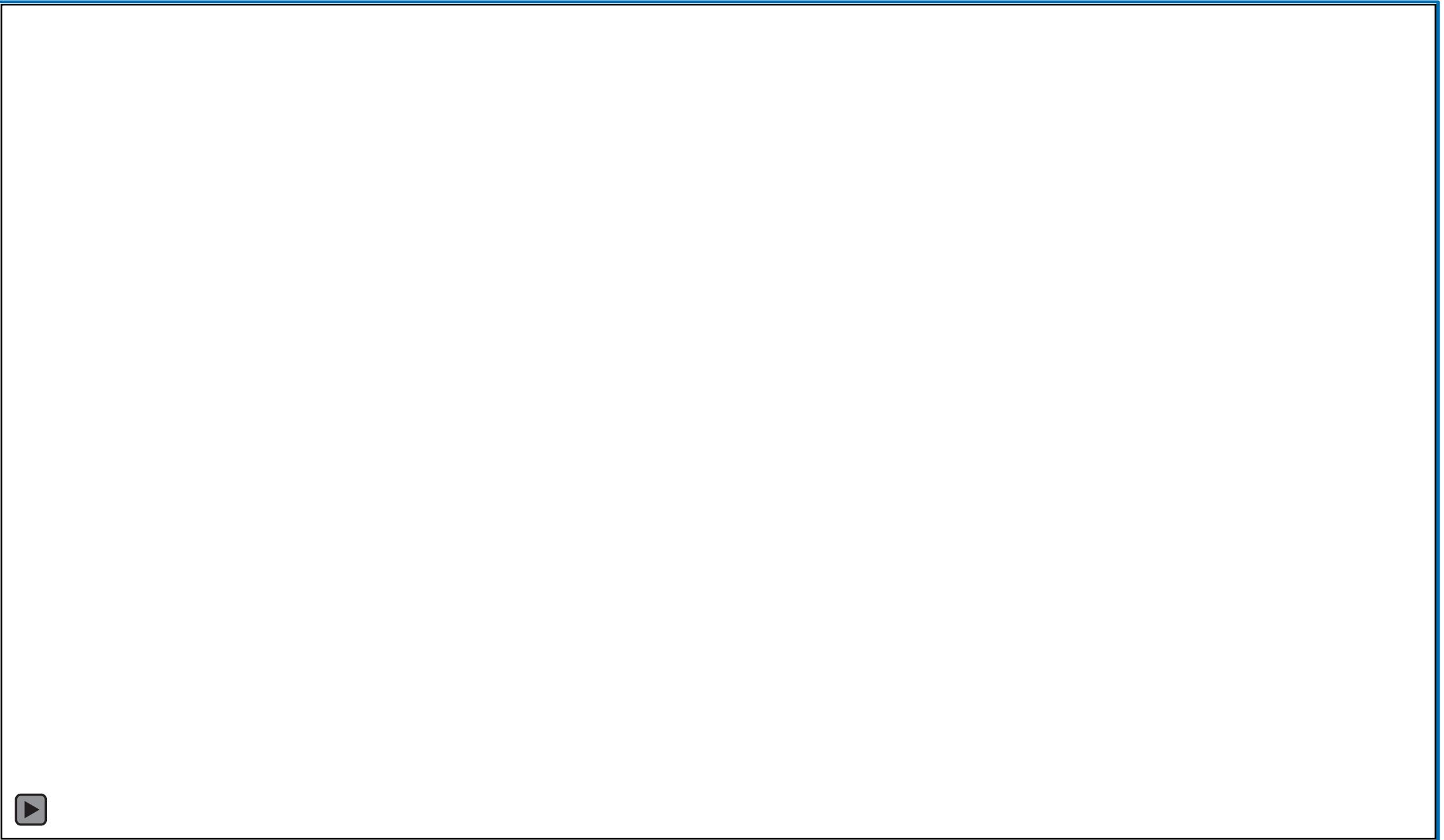
You cannot proceed if this is missing.

DSLS: Key Parameters

Installation Cook-book: Installation key parameters explained.

- ▶ Installing from scratch: A risky operation usually only done if your DSLS database is corrupted and you have requested a new set of licenses. This will leave the server in a standby mode. Note: when uninstalling during a FP upgrade the DSLS database is not actually deleted (it's a set of files). Those files remain on the system, this is why it is not recommended to use special uninstallers (like Regclean) that also clean/delete registry entries and files that the normal uninstaller would leave on the system.
- ▶ Ports: The standard DSLS ports should be available on a standard OS. You will need to ensure that all platform servers can communicate with the Licensing port. The Admin port only needs to be accessible by the platform administrator, the platform servers will not use the Admin port.
- ▶ Keywords: Licensing, DSLS, 4085/4084/4086, Cluster.

DSLS: Video



3DEXPERIENCE platform: DSLS installer



As we are using VMs, we will not install DSLS.

The DSLS installer is included in most of the GA media. If a FP is available you should use it, for this training we will use: V6R2019x.FP.CFA.1907Part_DS_LicenseServer.AlIOS.tar. You should have already procured this media prior to the training.

1. Go to <Your Installer PATH>, extract the file if not already done:
`<Your Installer PATH>\Part_DS_LicenseServer.AlIOS\`
2. Under the sub folders ..\4\V6LicenseServer\DSLS-V6R2019x.AlIOS\DSLS.AlIOS\1 you will find:
SetupDSLsmsi.exe
3. Using the Cheat-sheet on the next page execute the installer and proceed to the installation.



30 minutes

DS License server: Configuration & Key Parameters

During the Installation you will be queried about the following parameters:

Cheat-Sheet :

Service	Key	Value
DSLS.00	Installer	<Your Installer Path>\E:\Media\R2019x.GA\AM_3DEXP_Platform.AIOS\4\V6LicenseServer\DSLS-V6R2019x.AIOS\DSLS.AIOS\1\SetupDSLSmsi.exe
DSLS.01	Installation Directory	<Keep default value proposed> C:\Program Files\Dassault Systemes\DS License Server\
DSLS.02	Install Option Install from scratch	Install License server and Administration Tool. No
Optional Argument depending on certain Conditions		
DSLS.03	Enroll a license file Administration Port Licensing Port	Yes 4084 4085

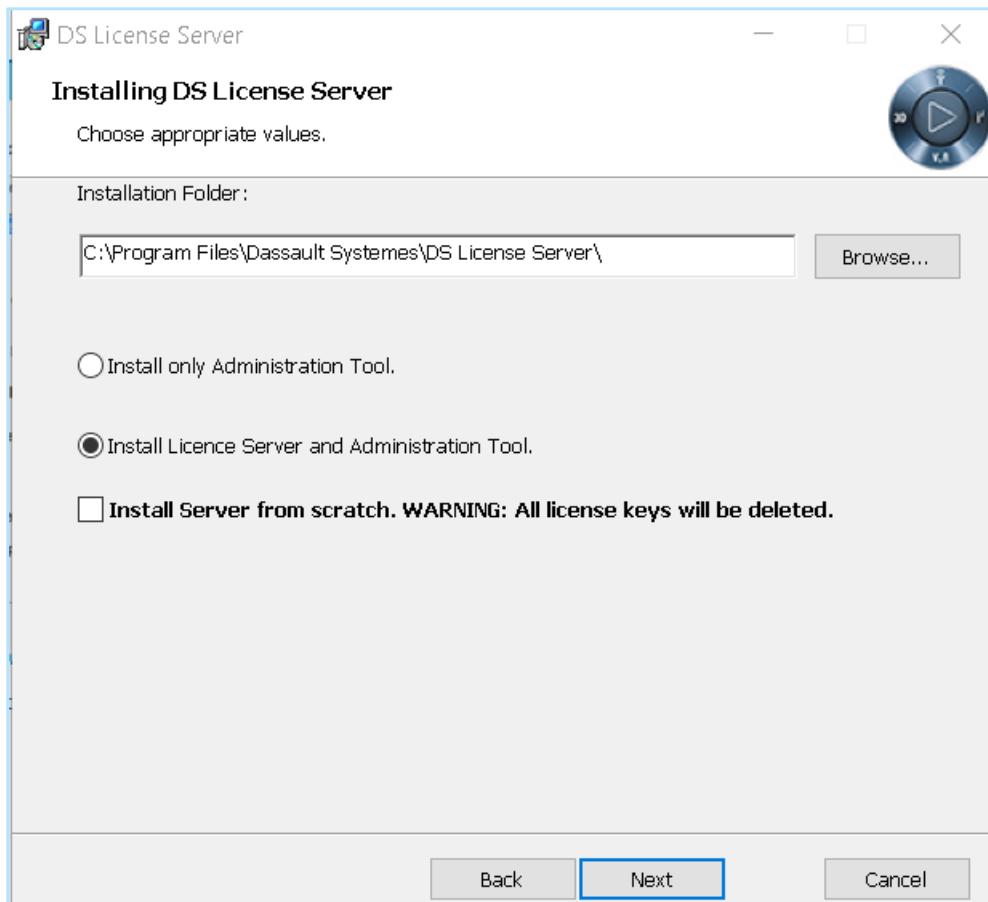


The “Install from scratch option” is only used if your license database is corrupted or you want to wipe the database license locks.

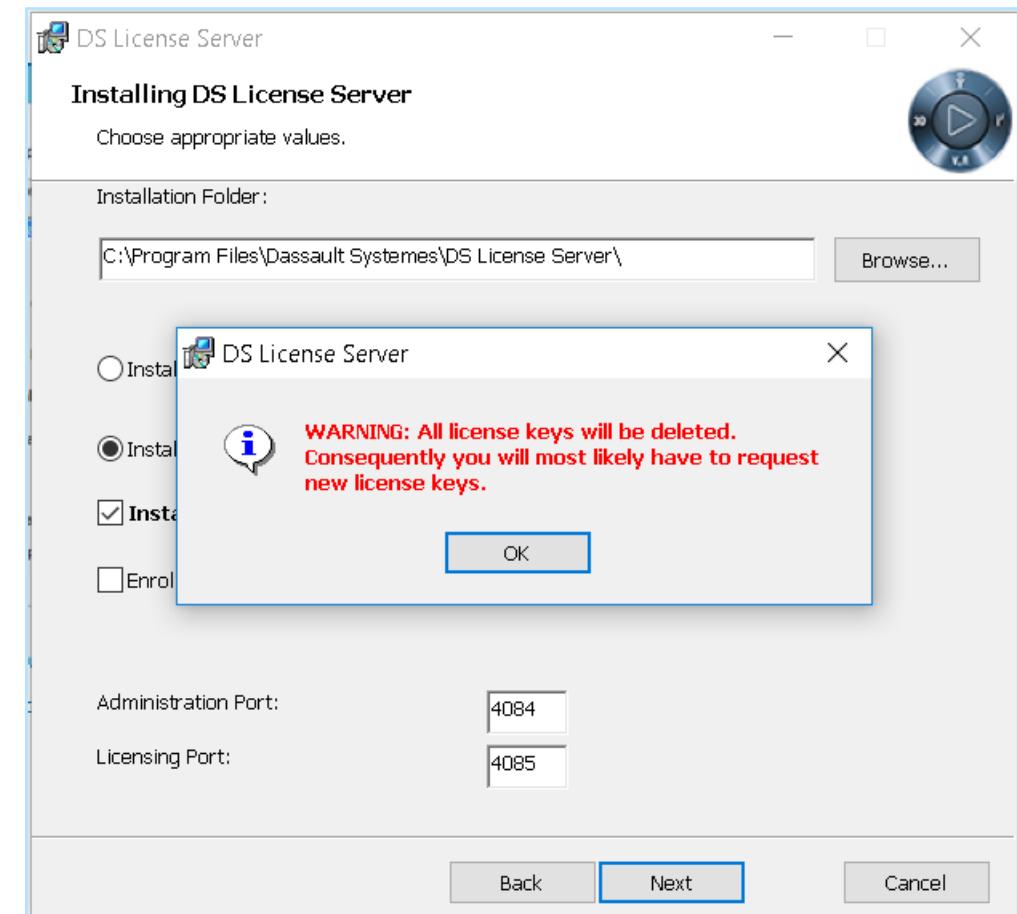
At the end of the installation, the license server details needs be registered in **DSLicSrv.txt**, which is the default license file name located in C:\ProgramData\DassaultSystemes\Licenses.

DS License server : Configuration & Key Parameters

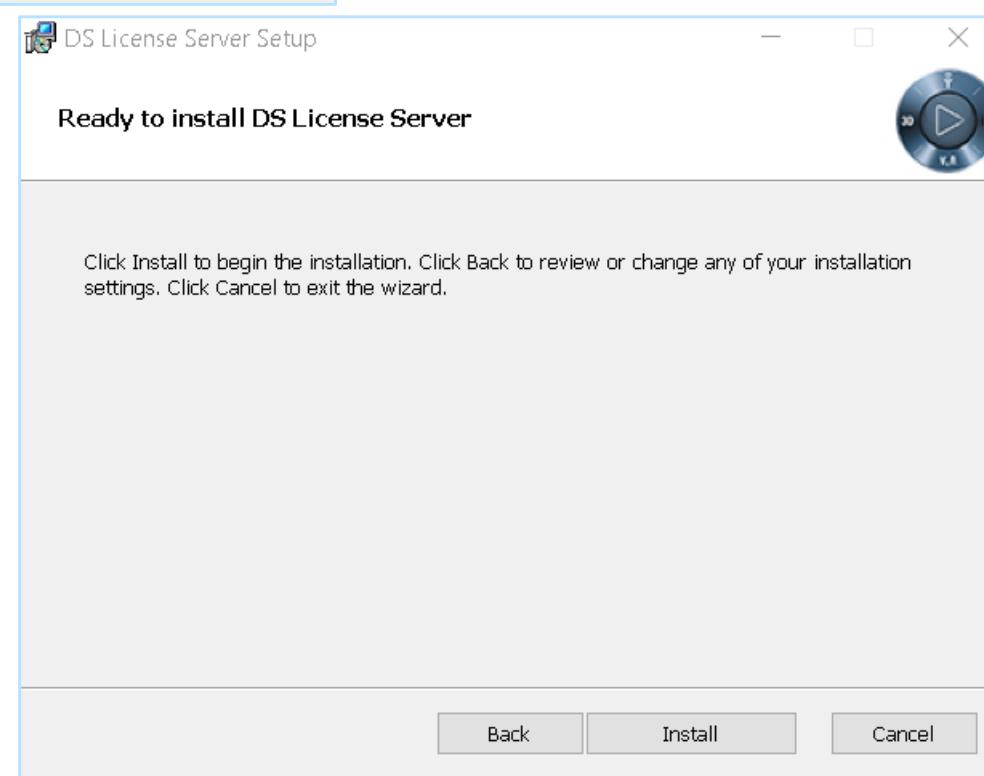
Installer options recommended:



Recommended

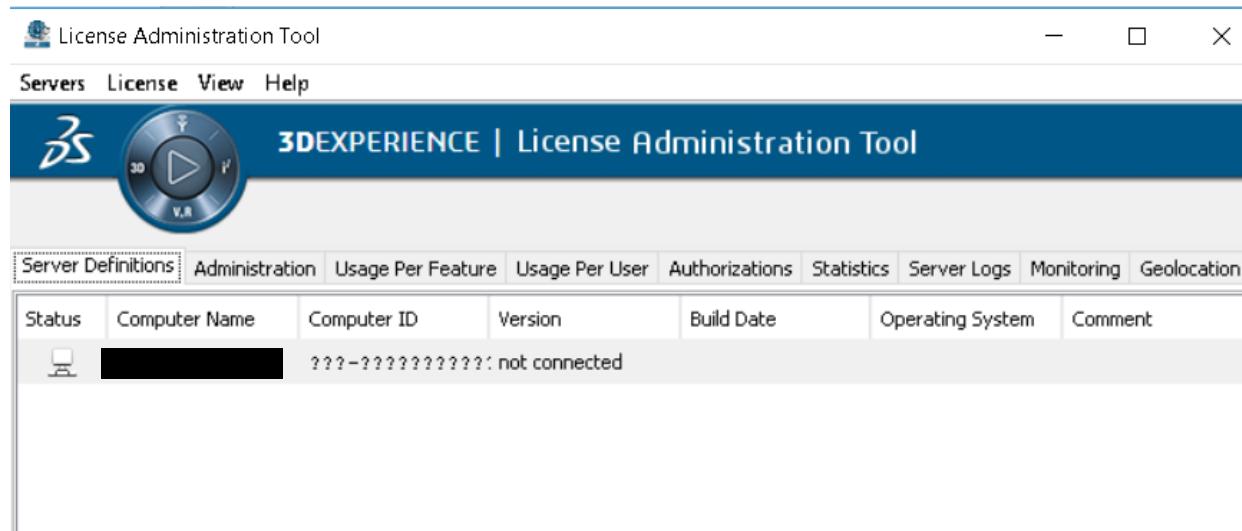


In special situations



DS License server: Administration Console

After the installation the **Administration Panel** will open. This is not the server itself, it is only the Administration tool that can be used to connect to multiple License servers. The actual license server is a service running on your system, you use the Admin Console to connect to the server.



The Server:

Name	Description	Status
Distributed Transa...	Coordinates transactions that span multiple resour...	Sta
DNS Client	The DNS Client service (dnscache) caches Domain ...	Sta
DS License Server	This service manages the DS License Server	Sta
Encrypting File Sy...	Provides the core file encryption technology used t...	Sta

DS License Server: FP Technical Validation

High level validation

Validate that the service is up and running, issues are mostly encountered during the installation.

Name	Description	Status
Distributed Transa...	Coordinates transactions that span multiple resourc...	Sta
DNS Client	The DNS Client service (dnscache) caches Domain ...	Sta
DS License Server	This service manages the DS License Server	Sta
Encrypting File Sy...	Provides the core file encryption technology used t...	Sta



- ▶ The DSLS is engineered to exist on a server class system, it is sensitive to actions that can be considered hacking:
 - Can't be installed in VM
 - Changing the system clock
 - The server being down for more than 30days
 - If anti-virus is running on the DSLS Server, de-activate scanning of the DSLS directories
- ▶ The release level for DSLS must be at the same release level, or higher, as the installed 3DEXPERIENCE platform.
- ▶ The DSLS FP installers are full installs, they do not require installing GA first.

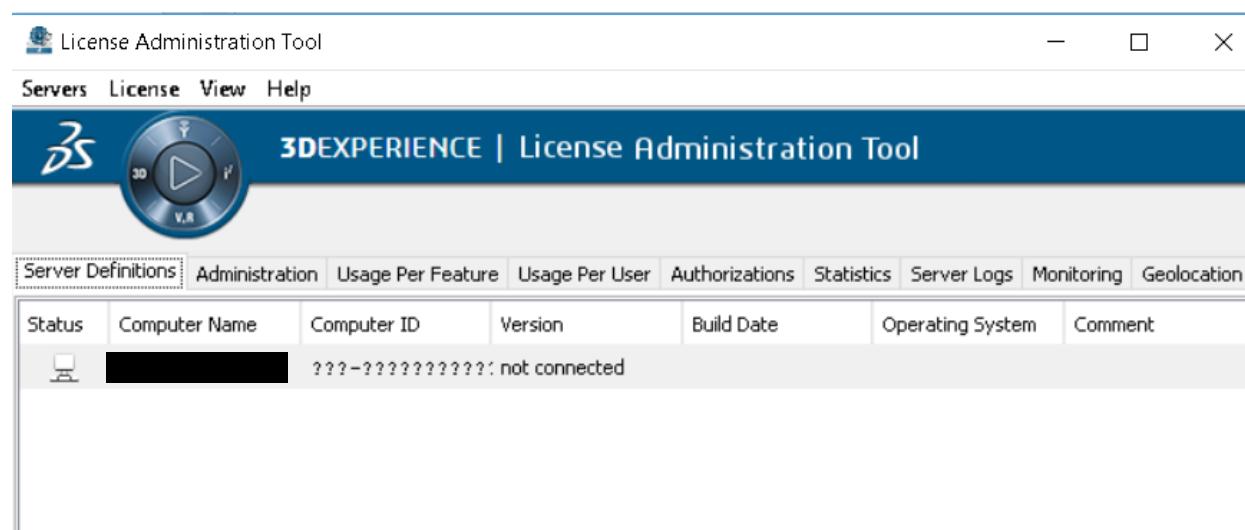


5 minutes

DS License server: Post Configuration

These are the general configuration steps:

1. Connect to your DSLS using the Admin tool.
2. Enable your DSLS
3. Configure the DSLS Options
4. Import your License file

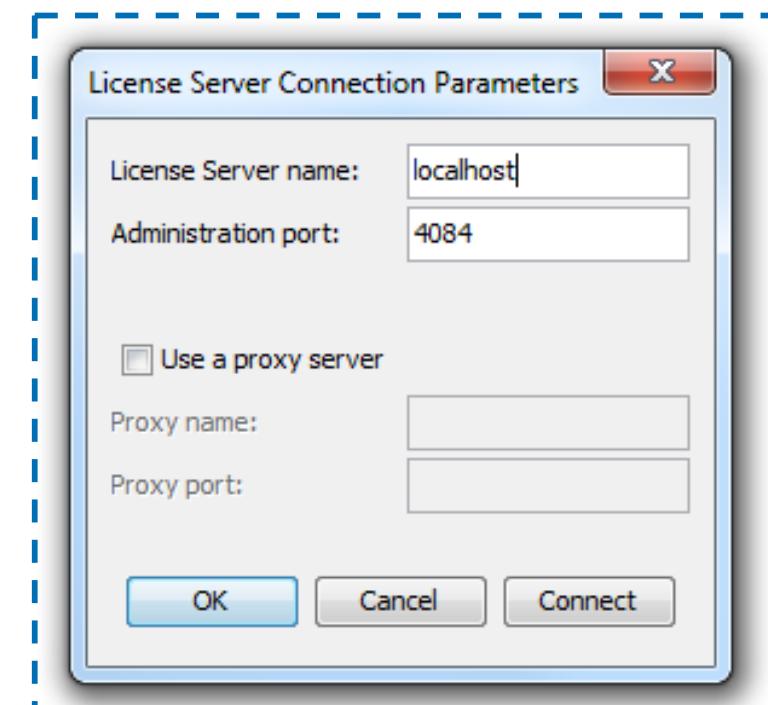
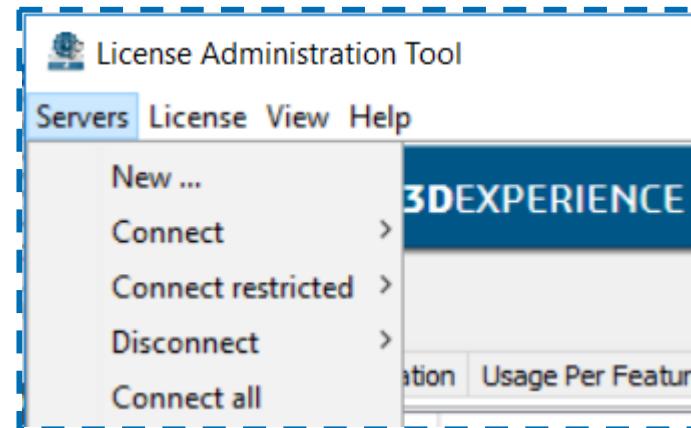


15 minutes

DS License Server: Post Configuration

1. If no server appears in the panel, add one as per the screenshots below:

If you are inputting a FQDN and the text shows up as red it means that the name cannot be resolved.



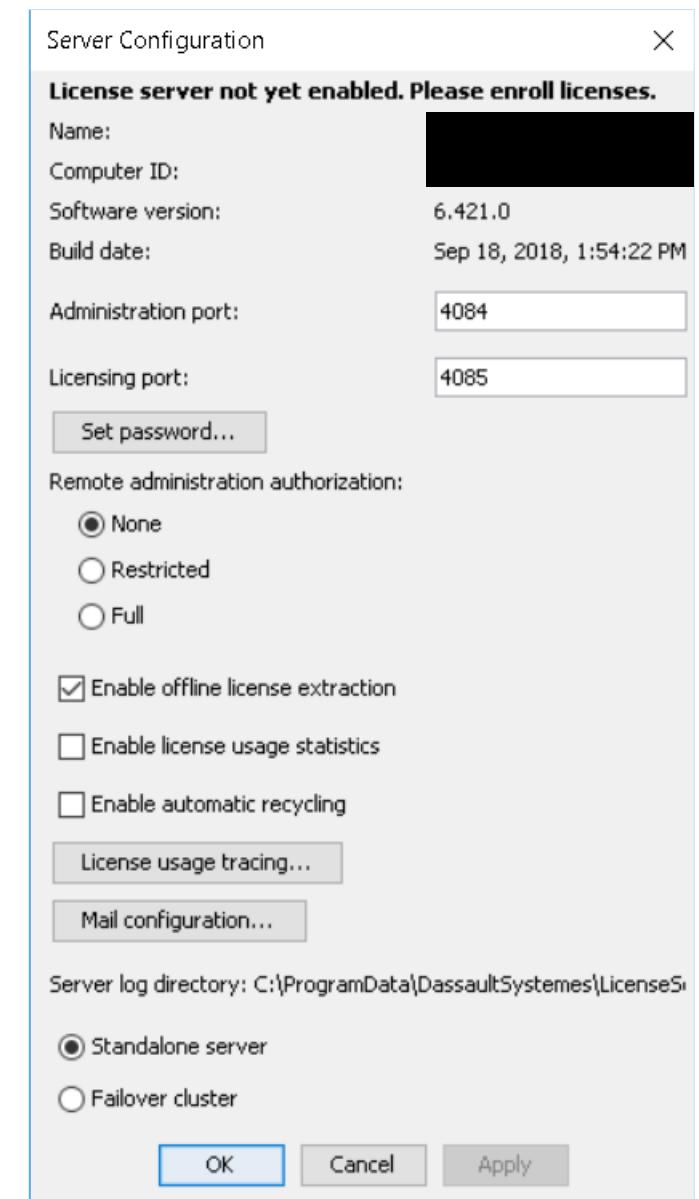
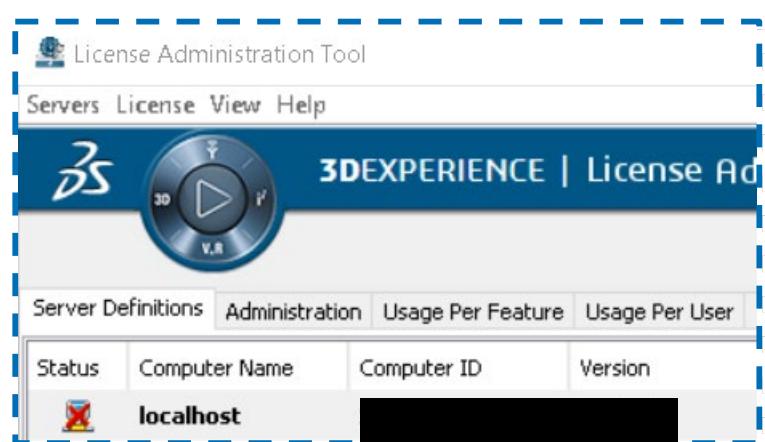
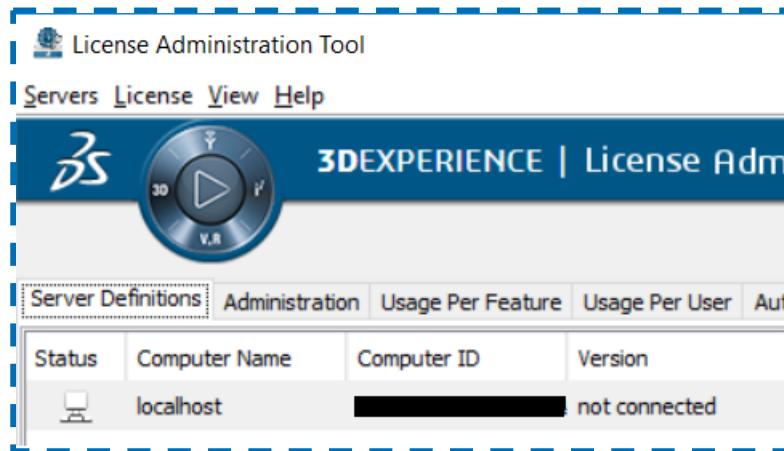
2. You should now see the following:

Double click on the server to activate it. You may be prompted for a password if a previous DSLS installation exists on the system.

Server Definitions				
Administration				
Usage Per Feature				
Usage Per User				
Authorizations				
Status	Computer Name	Computer ID	Version	
	localhost	???-???????????????	not connected	

DS License Server: Post Configuration

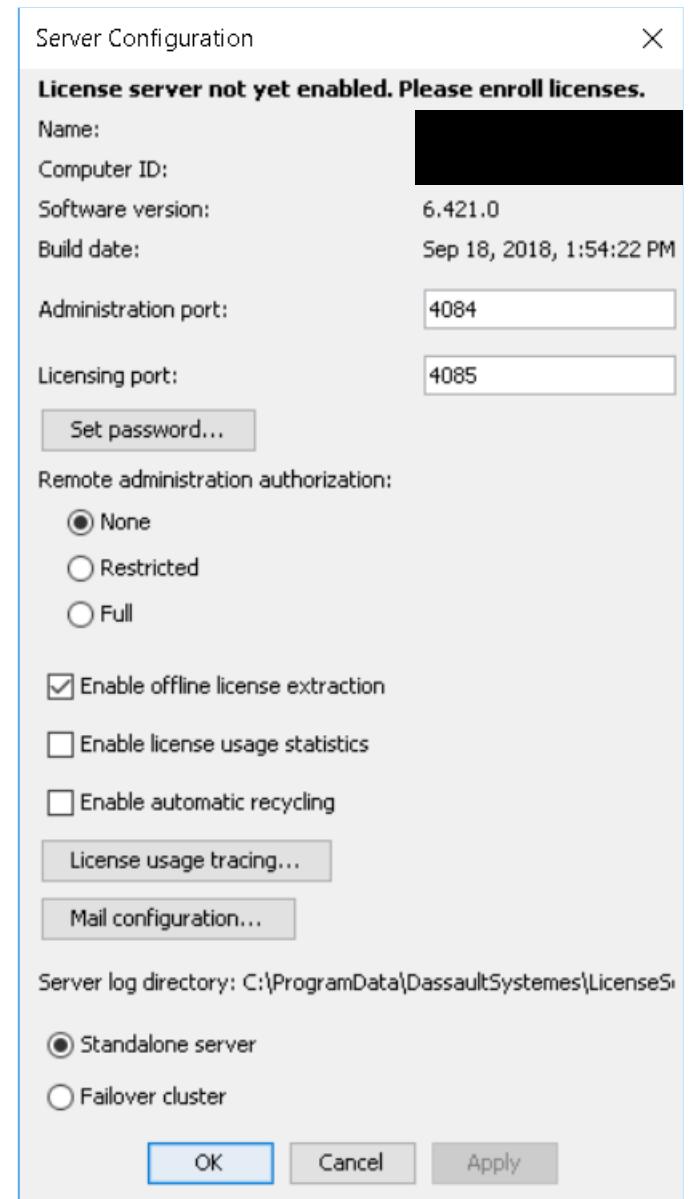
3. You should now see the DSLS Configuration options.
4. The Status should be Blue icon or the icon with a “X”.



The **X** symbol indicates not yet configured.

DS License Server: Post Configuration

5. In this panel it is suggested to use the values shown.



6. You must also set a <DSLS Password>.

7. Then, click **Apply** then **OK**.

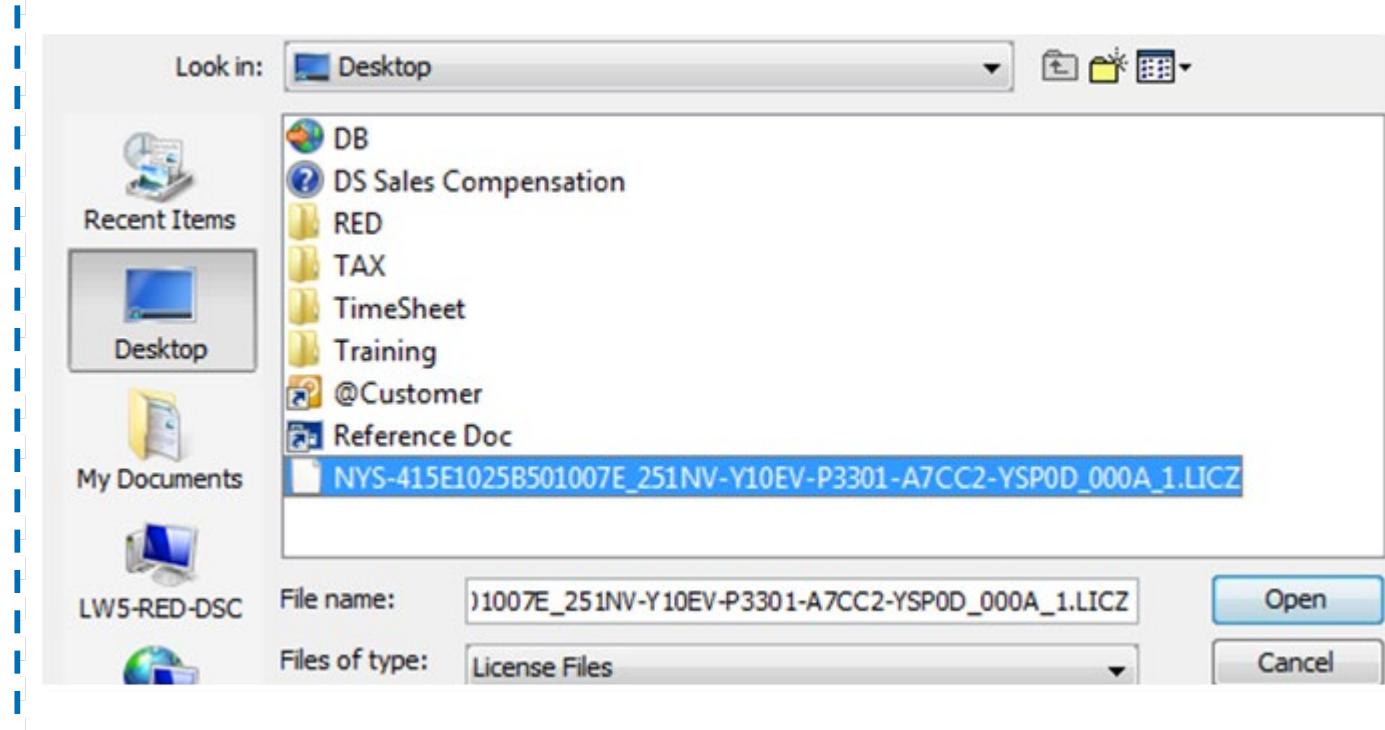
DS License Server: Post Configuration

The final step is to import your **LICZ** license file.

- a. Select your server
- b. Select **License > Enroll**.



- c. The format and name of the **LICZ** file should be similar to this:



DS License Server: Post Configuration

- a. You should receive a confirmation of the import.
- b. In the administration tab you should see the imported licenses:

If you have multiple servers declared, be sure that you select the one that your platform will be using to ensure it will find the proper licenses.

The screenshot shows the 'License Administration Tool' window. At the top, there's a menu bar with 'Servers', 'License', 'View', and 'Help'. Below the menu is a logo for '3DEXPERIENCE' and the title '3DEXPERIENCE | License Administration Tool'. The main interface has several tabs at the top: 'Usage Per User', 'Authorizations', 'Statistics', 'Server Logs', 'Monitoring', 'Geolocation', 'Server Definitions', 'Administration' (which is selected and highlighted in blue), and 'Usage Per Feature'. Below these tabs is a search bar with the text 'localhost' checked. Underneath the search bar are three buttons: 'Display superseded licenses', 'Hide expired licenses', and 'Select columns...'. The main area is a table displaying license information. The columns are: Status, Server, Editor, Model, Feature, Quantity, End Date, and Max R. There are six rows of data, all of which are Active and assigned to localhost. The data is as follows:

Status	Server	Editor	Model	Feature	Quantity	End Date	Max R.
Active	localhost	Dassault Systemes	NamedUser	CSV	50	2018-09-10 23:59:59 UTC	
Active	localhost	Dassault Systemes	NamedUser	IFW	50	2018-09-10 23:59:59 UTC	
Active	localhost	Dassault Systemes	NamedUser	MDH	50	2018-09-10 23:59:59 UTC	
Active	localhost	Dassault Systemes	NamedUser	MES	50	2018-09-10 23:59:59 UTC	
Active	localhost	Dassault Systemes	NamedUser	PPE	50	2018-09-10 23:59:59 UTC	
Active	localhost	Dassault Systemes	NamedUser	CSV	10	2019-04-22 23:59:59 UTC	

DS License Server: Uninstallation

Windows normal uninstall procedure:

- a. In **Programs and Features** uninstall:
 - i. DS License server.
 - ii. There is also a `Uninstall.bat` file with which you can uninstall a service.

Exercise Recap: DSLS

In this exercise, you have:

- ✓ DSLS
- ✓ Enrolled licenses

Global 3DEXPERIENCE platform Installer

Topics to be covered:

- ✓ 1. *Introduction*
- ✓ 2. *DSLS*
- 3. **Global 3DEXPERIENCE platform installer**
- 4. 3DPassport
- 5. Reconfiguration
- 6. 3DDashboard
- 7. 3DSearch
- 8. 3DSpace
- 9. 3DNotification
- 10. 3DComment
- 11. 3DSwym
- 12. FCS

3DEXPERIENCE platform: Global 3DEXPERIENCE platform Installer

The DS Installer is a set of installation tools used for installing server and client apps. The DS Installer is delivered on a separate media which you may or may not need to use, depending on the app you are installing.

The global 3DEXPERIENCE platform installer software is located in the following media:

- AM_3DEXP_platform.AllOS under sub folder \1\
- ▶ The folder structure of the media is as follows: 1, 2, 3, 4, 5, 6,7 and 8
- ▶ In general there will be two interactive installation executables:
 - Graphical User Interface (GUI)
 - Text User Interface (TUI)
- ▶ It will be up to you to select the services that you wish to install on the current server. In the training you will proceed with the GUI installer and you will install each component individually. Even though it is possible to do a big bang installation by selecting all the services at the same time, we will not be covering this type of installation during the training.

3DEXPERIENCE platform: Global 3DEXPERIENCE platform Installer

- ▶ The installer is not a silent installer, it is only a broker simplifying the sequence of the normal installers. It will not store responses nor allow you to batch install the modules.
- ▶ The global installer is only available for GA core modules. It is not used for fix packs, 3DSpace, integrations or client components.
- ▶ In this training you will be guided through the process using key values, there won't be step -by-step screen shots. This will drive you to capture the information and make the process your own.



The choice to use the embedded JRE and TomEE+ and a few other options are asked for each component because the installation of the **3DEXPERIENCE** platform is performed module by module. If you perform a big-bang installation by selecting all services, the installer will ask the questions for the first service and use those answers for the remaining services. This information was provided for education purposes, you will not be installing all services at the same time.

3DEXPERIENCE platform: Media Installer Introduction

The global 3DEXPERIENCE platform installer:

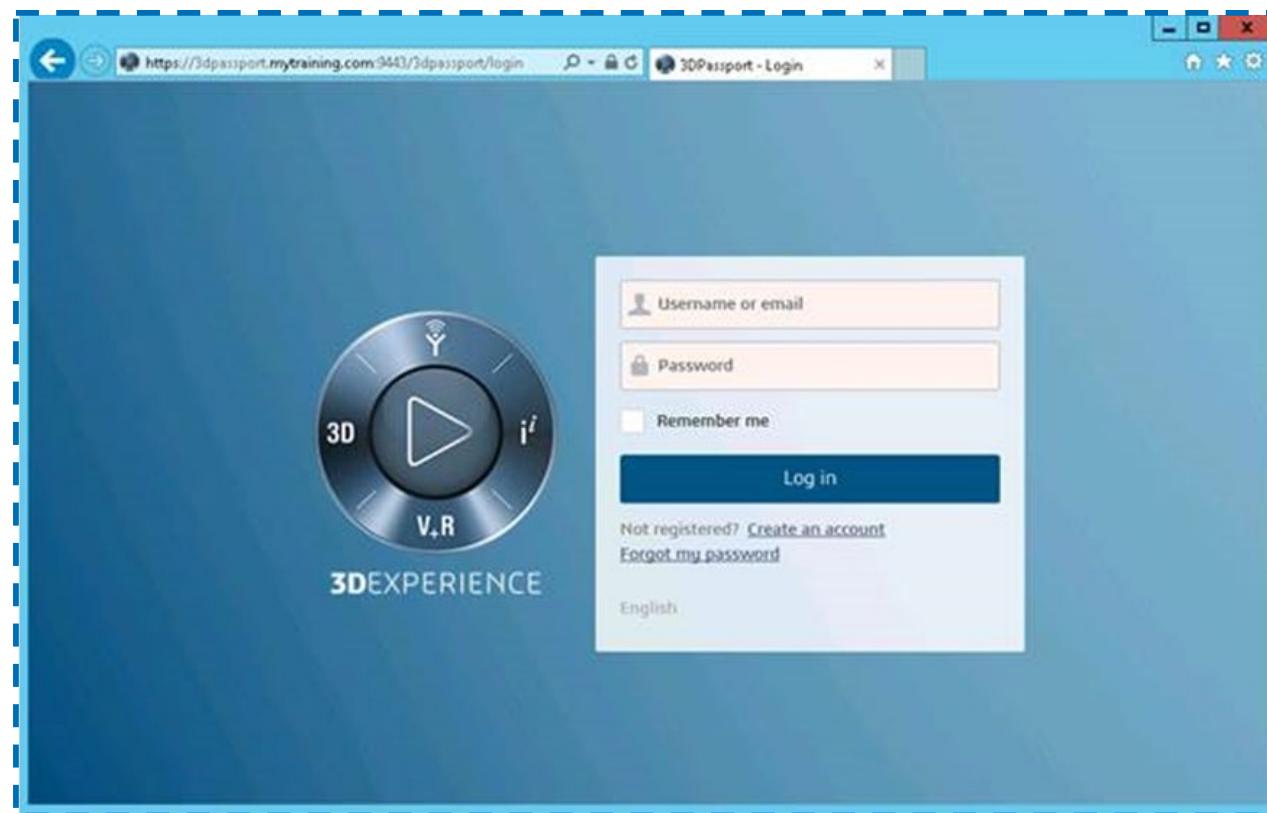
Installation Choice	Service	Documentation
Install the services one-by-one (using the individual service installation media)	3DPassport	Installation and Setup - Install - 3DEXPERIENCE platform - Installing 3DEXPERIENCE platform Services - Installing Services One-by-One - 3DPassport Installation You MUST install 3DPassport before installing the other services, since it must be up and running prior to installing some of the other services.
	3DDashboard	Installation and Setup - Install - 3DEXPERIENCE platform - Installing 3DEXPERIENCE platform Services - Installing Services One-by-One - 3DDashboard Installation
	3DSearch	<ul style="list-style-type: none">● Installation and Setup - Install - 3DEXPERIENCE platform - Installing 3DEXPERIENCE platform Services - Installing Services One-by-One - 3DSearch Installation - Federated Search Installation● Installation and Setup - Install - 3DEXPERIENCE platform - Installing 3DEXPERIENCE platform Services - Installing Services One-by-One - 3DSearch Installation - Full-Text Search Server Installation● Installation and Setup - Install - 3DEXPERIENCE platform - Installing 3DEXPERIENCE platform Services - Installing Services One-by-One - 3DSearch Installation - 3D Index Server Installation
	3DSpace	Installation and Setup - Install - 3DEXPERIENCE platform - Installing 3DEXPERIENCE platform Services - Installing Services One-by-One - Install - 3DSpace - 3DSpace Installation
	3DComment	Installation and Setup - Install - 3DEXPERIENCE platform - Installing 3DEXPERIENCE platform Services - Installing Services One-by-One - 3DComment Installation
	3DSwym	Installation and Setup - Install - 3DEXPERIENCE platform - Installing 3DEXPERIENCE platform Services - Installing Services One-by-One - 3DSwym Installation
	3DNotification	Installation and Setup - Install - 3DEXPERIENCE platform - Installing 3DEXPERIENCE platform Services - Installing Services One-by-One - 3DNotification Installation
Install the services using the global 3DEXPERIENCE platform installer	All services	Installation and Setup - Install - 3DEXPERIENCE platform - Installing 3DEXPERIENCE platform Services - Using the Global 3DEXPERIENCE platform Installer

Topics to be covered:

- ✓ 1. *Introduction*
- ✓ 2. *DSLS*
- ✓ 3. *Global 3DEXPERIENCE platform installer*
- 4. **3DPassport**
- 5. Reconfiguration
- 6. 3DDashboard
- 7. 3DSearch
- 8. 3DSpace
- 9. 3DNotification
- 10. 3DComment
- 11. 3DSwym
- 12. FCS

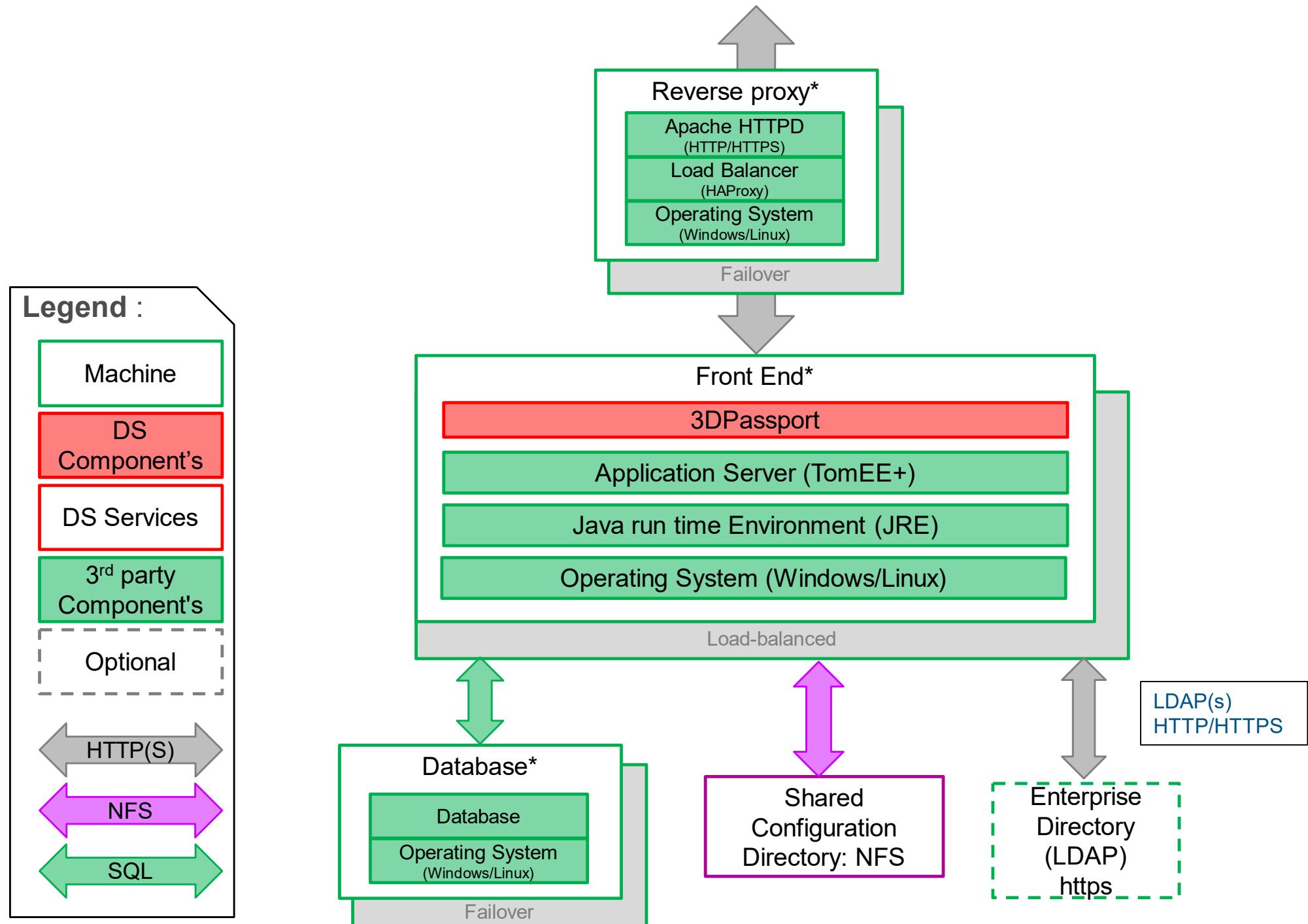
About 3DPassport

- ▶ The 3DPassport service provides authentication and Single Sign-On (SSO) services for the whole **3DEXPERIENCE** platform.
- ▶ If your company already has an SSO system, 3DPassport can be configured as a slave to your enterprise solution, thus enabling SSO between your enterprise solution and the **3DEXPERIENCE** platform.
- ▶ There is no case in which an enterprise SSO solution can replace 3DPassport.





3DPassport Architecture



* Always consult the “Program Directory” for version and latest news.

3DPassport: Pre-Check

You should have already prepared the groundwork required to proceed with this service installation, you will need the following pre-requisites:

- ▶ Database objects (up and running)
- ▶ TomEE + (stopped)
 - 1 TomEE+ is dedicated for the service
 - 1 SSL certificate
 - Java



You will not be able to proceed if any of these are missing.

- ▶ Main Configuration requirements:
 - Database objects : Yes
 - TomEE + needed : Yes
 - Java dependent : Yes

3DPassport: Key Parameters

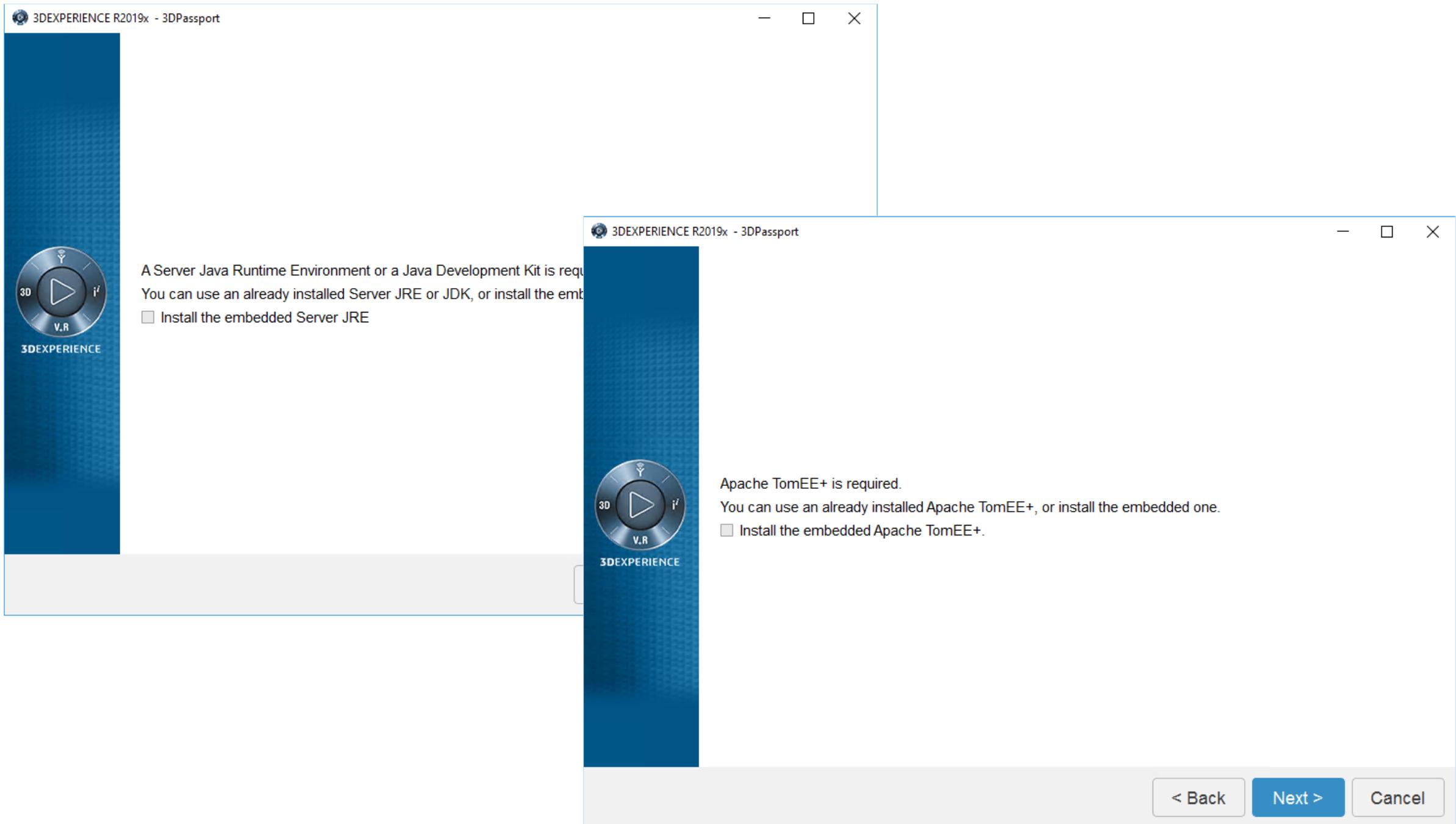
Installation Cook-book: Installation key parameters explained.

- ▶ Installation Directory: This is the location where the service code will be installed. Do not use blanks in the installation path if you can avoid it. It is also recommended not to install on the *C:* \ drive. The *C:* \drive is the system drive, if it gets corrupted or becomes full it could bring the service down. By selecting another drive you will have better control and stability for the platform.
- ▶ Installing Embedded Server JRE & Installing Embedded Apache TomEE+: 3DS service installer comes with java JRE and TomEE+. This can be practical for small businesses and if you don not want to manage “other” software installations. The disadvantages are that it is harder to upgrade and maintain Java security release and it cannot be easily implemented with load balancing.
- ▶ Database selection: This component is supported on both Oracle and SQL Server. The database recommendation is often based on 2 critical customer requirements, support and cost. It is important to note that the support costs can sometimes be higher than the actual license costs.
The data repository is divided in 2 schemas / databases: 3DPassport and Token. 3DPassport contains the admin objects and user information while Token contains the volatile session data. It's not recommended to touch any of these tables without R&D support.
- ▶ Mail options: This service is essential for password reset, there is no admin page allowing you to force a new password, this would be a very big no-no in security. It is critical to be able to send mail, receiving replies is not required.
- ▶ Application ports & Instance options: For the external TomEE+ instance be sure that you have the proper OS permissions as the application may need to add, alter or update binaries, libraries or configuration files.
- ▶ Forcing lowercase: This is up to the customer, it will make the platform user name mimic LDAP behavior which is usually case insensitive. By Default **3DEXPERIENCE** is case sensitive, it's important to understand the customer requirements.
- ▶ Keywords : Security, User, Password, LDAP and Single Point of Authentication.

3DPassport: Key Parameters

- ▶ Available 3DS Installation Options are:
 - Install the embedded Server JRE
 - Install the embedded Apache TomEE+

Training Path: More flexibility, control and post options.



3DPassport: GA Media Installer

GA core components have two different installation methodologies:

- ▶ The global **3DEXPERIENCE** platform Installer found in:
 - <Your Media PATH>AM_3DEXP_Platform.AILOS\1\
 - Navigate to this path and find:
 - GUI: setup.exe
 - TUI: StartTUI.exe
 - This installer is primarily used when you want to deploy all the services on one machine



You will not be able to proceed if any of these are missing.

- Graphical User Interface (GUI) : GUI is recommended for new releases, friendlier in general.
- Text User Interface (TUI)

- ▶ Classic Service Installer are available in :
 - <Your Media PATH>AM_3DEXP_Platform.AILOS\1\3DPassport\Windows64\1
 - Traditional method used to deploy the services on different machines
- ▶ Start the global **3DEXPERIENCE** platform Installer for the training:
 - Fields to complete are identical for the two installers
 - Some of the parameters chosen with the initial service installer are presented in the subsequent installers as read-only

Exercise: 3DPassport

In this exercise, you will:

1. Install the GA 3DPassport
2. Perform the GA post configuration
3. Validate the GA service
4. Install the FP 3DPassport
5. Perform the FP post configuration
6. Validate the FP service



40 minutes

3DPassport - GA Media Installer

1. Using the Cheat-sheet on the next page proceed to the installation, don't forget the installer options related to:

- Installing the embedded JRE → No
- Installing the embedded TomEE+ → No

The screenshot shows two windows of the 3DEXPERIENCE R2019x AM 3DEXPERIENCE Platform Roles media selection interface.

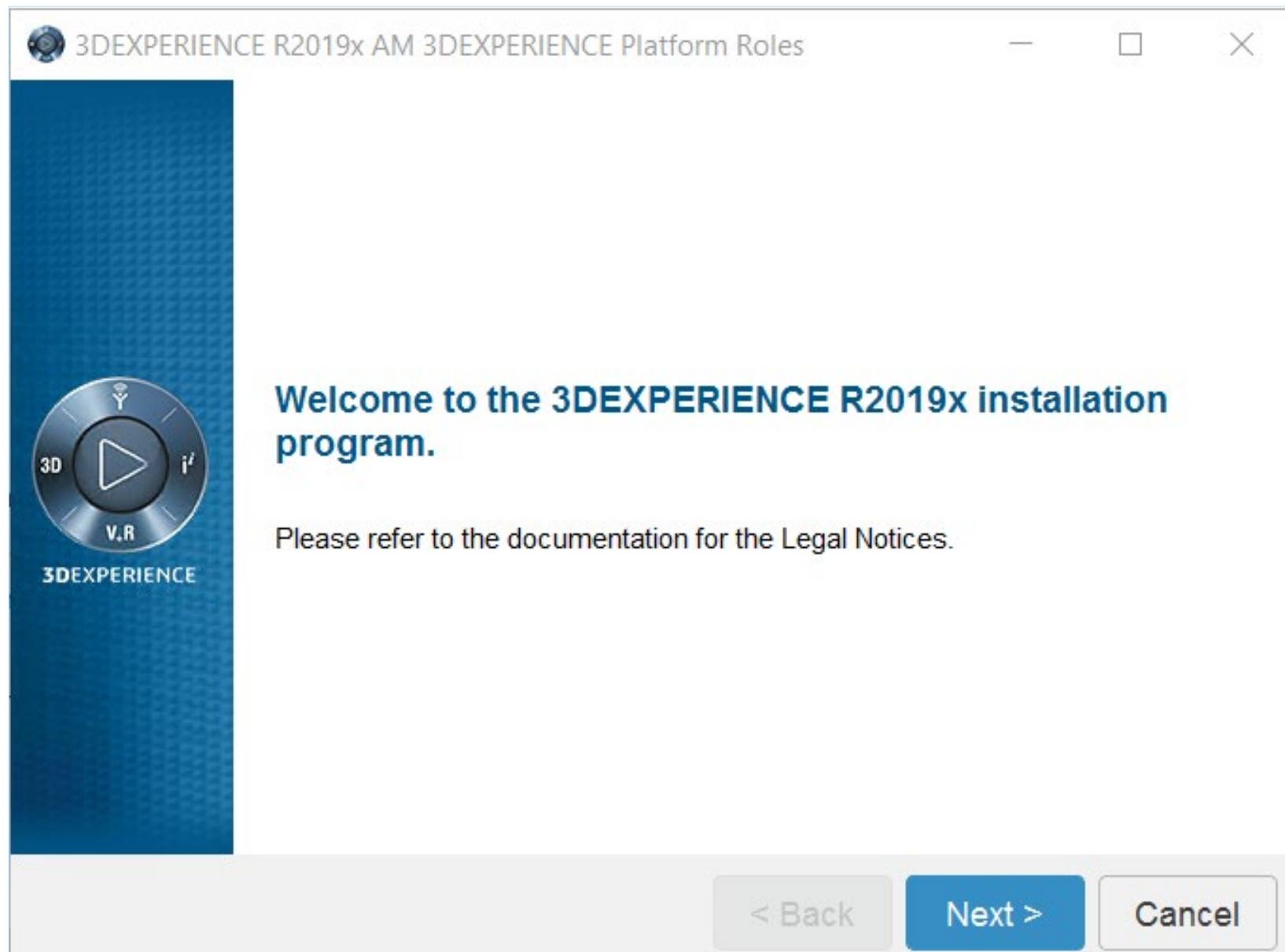
Left Window: A list of components to select from. The "3DPassport Service" option is highlighted with a blue bar at the top. Other listed components include: 3DDashboard Service, FederatedSearchFoundation, 3DSpace Index, 3DSpace Service, 3DNotification Service, 3DComment Service, EXALEAD CloudView, 3DSwym Service, and 3D Indexing Server.

Right Window: A summary window showing the selected components. It displays the message: "The installation program has enough information to start." Below this, it lists "Selected Components: 3DPassport Service".

Bottom Buttons: Both windows have a "< Back" button at the bottom left and an "Install" button at the bottom right. The right window also includes a "Cancel" button.

3DPassport - GA Media Installer

2. Click the **setup.exe** from the Media path.



3DPassport: Key Parameters

During the Installation you will be queried about the following parameters:



Make sure to enter **mytraining.com** instead of **mydomain**. This DNS is specific for this training and would vary in the real world.

Cheat-Sheet :

Steps	Key	Value
01	Installer	<Your Media Path>\AM_3DEXP_Platform.AI0S\1\setup.exe
02	Global platform Installer	3DPassport Service
03	Installation Directory	D:\3DEXPERIENCE\R2019x\3DPassport
04	Install the embedded Server JRE	No
05	JRE or JDK PATH	D:\3DEXPERIENCE\Java64\jdk8
06	Install the embedded Apache TomEE+	No
07	Apache TomEE+ installation path	D:\3DEXPERIENCE\TomEE\TomEE3DPassport
08	Force lowercase user's login	No
09	DB Selection	Oracle or SQL Server

3DPassport: Key Parameters

During the Installation you will be queried about the following parameters:

Cheat-Sheet :

Steps	Key	Value
10 Oracle	Directory tnsnames.ora	C:\app\dbadmin\product\12.2.0\dbhome_1\network\admin The tnsnames.ora can be skipped. Instead the following can be used: //database.mytraining.com:1521/X3DEXP.mytraining.com
	Net_Service_name for 3DPassport	X3DEXP
	Net_Service_name for 3DPassport token	X3DEXP
	Database username	X3DPASSADMIN
	Database user's password	X3DPASSADMIN
	Token username	X3DPASSTOKENS
	Token user's password	X3DPASSTOKENS
10 SQL Server	Check database connection	Yes
	Database Host	database.mytraining.com\X3DEXP:1433
	Database name	passdb
	Database Administrator username	x3dpassadmin
	Database Administrator user's password	Passport#1
	Database username	x3dpass
	Database user's password	Passport#1

3DPassport: Key Parameters

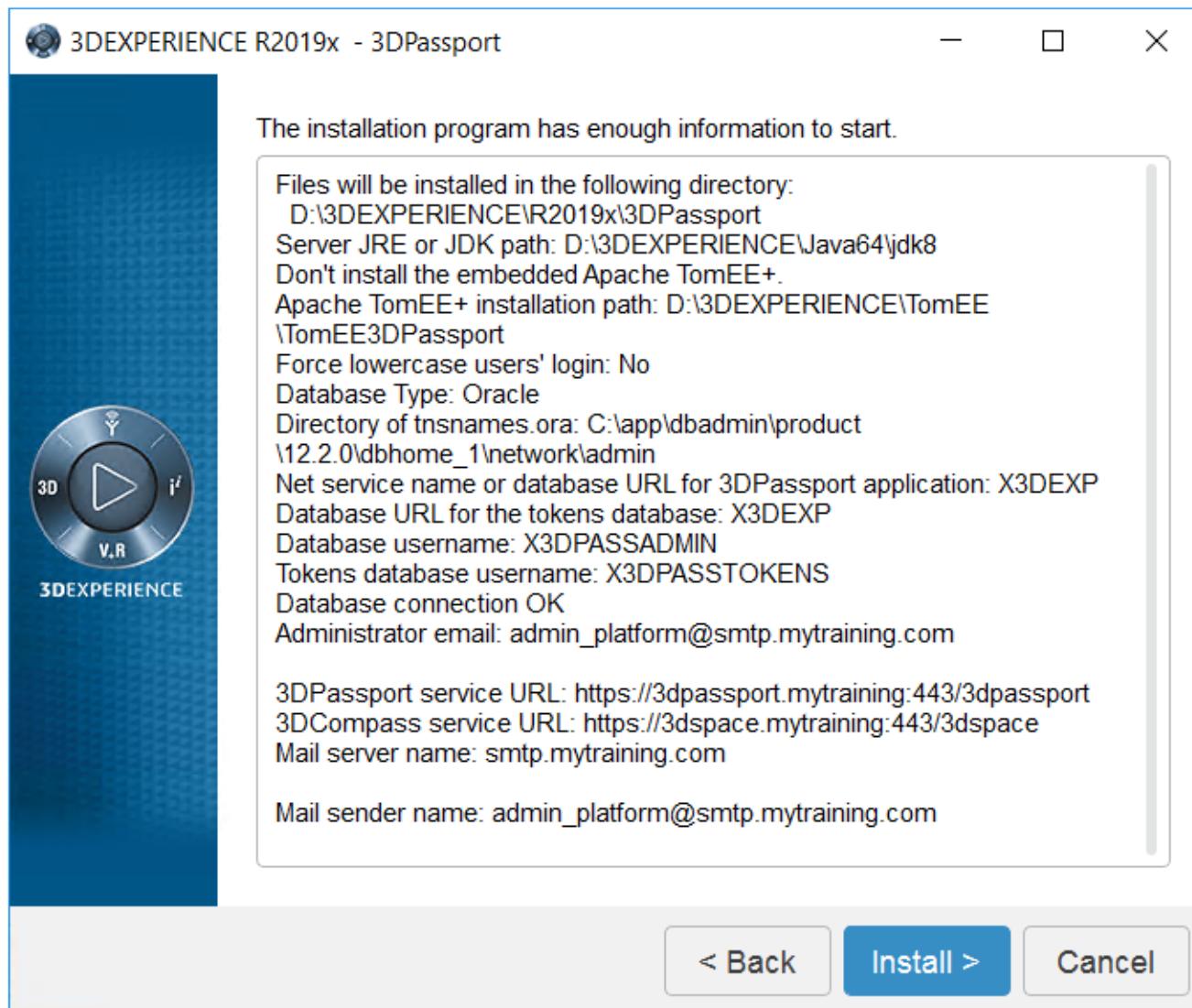
Additional parameters you will be queried about during the installation:

Cheat-Sheet :

Service	Key	Value
10 SQL Server	Token Database name	database.mytraining.com\X3DEXP:1433
	Token database name	passtkdb
	Token Database username	x3dpasstokens
	Token Database user's password	Passport#1
	Check database connection	Yes
11	Administrator mail Administrator password	admin_platform@smtp.mytraining.com <Your Password>
12	3DPassport service URL 3DCompass service URL	https://3dpassport.mytraining.com:443/3dpassport https://3dspace.mytraining.com:443/3dspace
13	Mail Server name Mail sender name	smtp.mytraining.com admin_platform@smtp.mytraining.com

3DPassport: GA Media Installer – Oracle Summary

It is strongly recommended that you copy the installation information into a text file prior to clicking the **Install** button.



This is selectable text, easily copied into a text file.

3DPassport: GA Media Installer – SQL Server Summary

It is strongly recommended that you copy the installation information into a text file prior to clicking the **Install** button.

The screenshot shows two windows from the 3DEXPERIENCE R2019x - 3DPassport installer.

Left Window (SQL Server Summary):

The title bar says "3DEXPERIENCE R2019x - 3DPassport". The main text area says "The installation program has enough information to start." Below this, it lists various configuration details:

- Files will be installed in the following directory:
D:\3DEXPERIENCE\R2019x\3DPassport
- Server JRE or JDK path: D:\3DEXPERIENCE\Java64\jdk8
- Don't install the embedded Apache TomEE+.
- Apache TomEE+ installation path: D:\3DEXPERIENCE\TomEE\TomEE3DPassport
- Force lowercase users' login: No
- Database Type: SQL Server
- Database host: database.mytraining.com\X3DEXP:1433
- Database name: passdb
- Database administrator username: x3dpassadmin
- Database username: x3dpass
- Tokens database host: database.mytraining.com\X3DEXP:1433
- Tokens database name: passtkdb
- Tokens database username: x3dpasstokens
- Database connection OK
- Administrator email: admin_platform@smtp.mytraining.com
- 3DPassport service URL: https://3dpassport.mytraining.com:443/3dpassport
- 3DCompass service URL: https://3dspace.mytraining.com:443/3dspace
- Mail server name: smtp.mytraining.com
- Mail sender name: admin_platform@smtp.mytraining.com

At the bottom are buttons: "< Back", "Install >" (highlighted in blue), and "Close".

Right Window (Completed Installation):

The title bar says "3DEXPERIENCE R2019x - 3DPassport". The main text area says "The installation program has finished installing 3DEXPERIENCE R2019x on your computer, in D:\3DEXPERIENCE\R2019x\3DPassport." Below this, it lists "Installed Components: Passport V2". At the bottom are buttons: "< Back", "Close" (highlighted in blue), and "Cancel".

Bottom Text:

This is selectable text, easily copied into a text file.
Ignore the **Information** that appears and click **OK**.

3DPassport: GA Post Installation

3Dpassport installer does not immediately create the database objects, these objects are created during application startup. You will notice messages in the TomEE+ logs about database tables already existing upon re-start of TomEE+.

The installer automatically puts the TomEE+ WAR file in the proper webapps folder.

a. TomEE+ code PATH: D:\3DEXPERIENCE\TomEE\TomEE3DPassport

b. Start and stop TomEE+ (or use your Desktop icon)

<TomEE3DPassport Path>\bin\startup.bat

Wait for it to finish deploying the application.

```
Jan 25, 2017 12:00:03 PM org.apache.coyote.AbstractProtocol start
INFO: Starting ProtocolHandler ["http-bio-8180"]
Jan 25, 2017 12:00:03 PM org.apache.coyote.AbstractProtocol start
INFO: Starting ProtocolHandler ["ajp-bio-8109"]
Jan 25, 2017 12:00:03 PM org.apache.catalina.startup.Catalina start
INFO: Server startup in 561 ms
```



You may need to repeat once this step in order to have a proper **Server startup** message.

<TomEE3DPassport Path>\bin\shutdown.bat

Wait for it to finish shutting down before closing the terminal.

c. Check the logs for any errors and delete the logs in the folder

<TomEE3DPassport Path>\logs*.log

3DPassport: GA Post Installation

- d. Go to your **3DEXPERIENCE** folder and edit the file: **D:\3DEXPERIENCE\conf\3dexperience.conf** In the **3DPassport** section replace the line:

#XXXX Future fragment file XXXX

With:

```
include D:\3DEXPERIENCE\R2019x\3DPassport\win_b64\templates\3DPassport_httpd_fragment.conf
```

- e. Edit the fragment file:

D:\3DEXPERIENCE\R2019x\3DPassport\win_b64\templates\3DPassport_httpd_fragment.conf

Validate the values for “**port**” and “**FQDN**” are correct in the fragment.

http://3dpassport.mytraining.com:8080

- f. Make a backup of the fragment file named:

D:\3DEXPERIENCE\conf\Fragment\3DPassport_httpd_fragment.conf.GA

- g. Copy "UserIntentions_CODE.xml" file found in:

D:\3DEXPERIENCE\R2019x\3DPassport\InstallData

To folder

D:\3DEXPERIENCE\conf\UserIntentions

and rename it to:

UserIntentions_3DPassport.xml

3DPassport: GA Technical Validation

"GA technical validation" refers to validation of the installation process, i.e. did it install without errors and did it complete what it was supposed to do. There are 2 validation steps: installer log and expected file deployment review.

Code Installation Path <Code Path> = D:\3DEXPERIENCE\R2019x\3DPassport

1. Installer error log should be 0 bytes and can be found at:

<Code Path>\InstallData\log\CODE\win_b64\.....media<Latest timestamp>\Errors.log & *Stderr.txt

Size should be 0 bytes

If you had to modify values in the installer dialogues you will see these "errors" in the Errors.log you will need to validate if any of these messages require corrective action.

3DPassport: GA Technical Validation

2. Expected file and/or folder creation:

- a. <TomEE 3DPassport Path>\webapps\3dpassport.war
- b. <TomEE 3DPassport Path>\bin\setenv.bat

Verify if the installer have updated the setenv.bat file

```
REM Start Default 3DEXP TomEE+ Configuration
set JAVA_HOME=D:\3DEXPERIENCE\Java64\jdk8
set JRE_HOME=%JAVA_HOME%\jre
set TITLE=%cd%
set PATH=%PATH%;D:\3DEXPERIENCE\R2019x\3DPassport\win_b64\code\bin
set CATALINA_HOME=D:\3DEXPERIENCE\TomEE\TomEE3DPassport
rem IAM-CONF
set JAVA_HOME=D:\3DEXPERIENCE\Java64\jdk8\jre
rem IAM-CONF
set CATALINA_OPTS=%CATALINA_OPTS% -Dfile.encoding=UTF-8 -server -Djava.awt.headless=true
rem IAM-CONF
set JAVA_OPTS=%JAVA_OPTS% -Xms960m -XX:MaxPermSize=512m
rem IAM-VERSION=1
```

3DPassport: FP Service Installer

There is no "Global 3DEXPERIENCE platform installer" for FP you must each service individually.

- a. Ensure that "**TomEE3DPassport**" is stopped

D:\3DEXPERIENCE\TomEE\TomEE3DPassport\bin\shutdown.bat

If you do not stop TomEE+, the installer will not be able to replace certain files automatically, this can result in errors in the log or unexpected behavior.

- b. Use the normal "Service Installer":

<Your Media PATH>\Part_3DEXP_Platform.Windows64\2\Software\

You will find:

- o 3DPassport-V6R2019x.HF1.Windows64.zip

- c. Unzip the proper OS version to <Your Installer PATH>

<Your Installer PATH>\3DPassport.Windows64\1

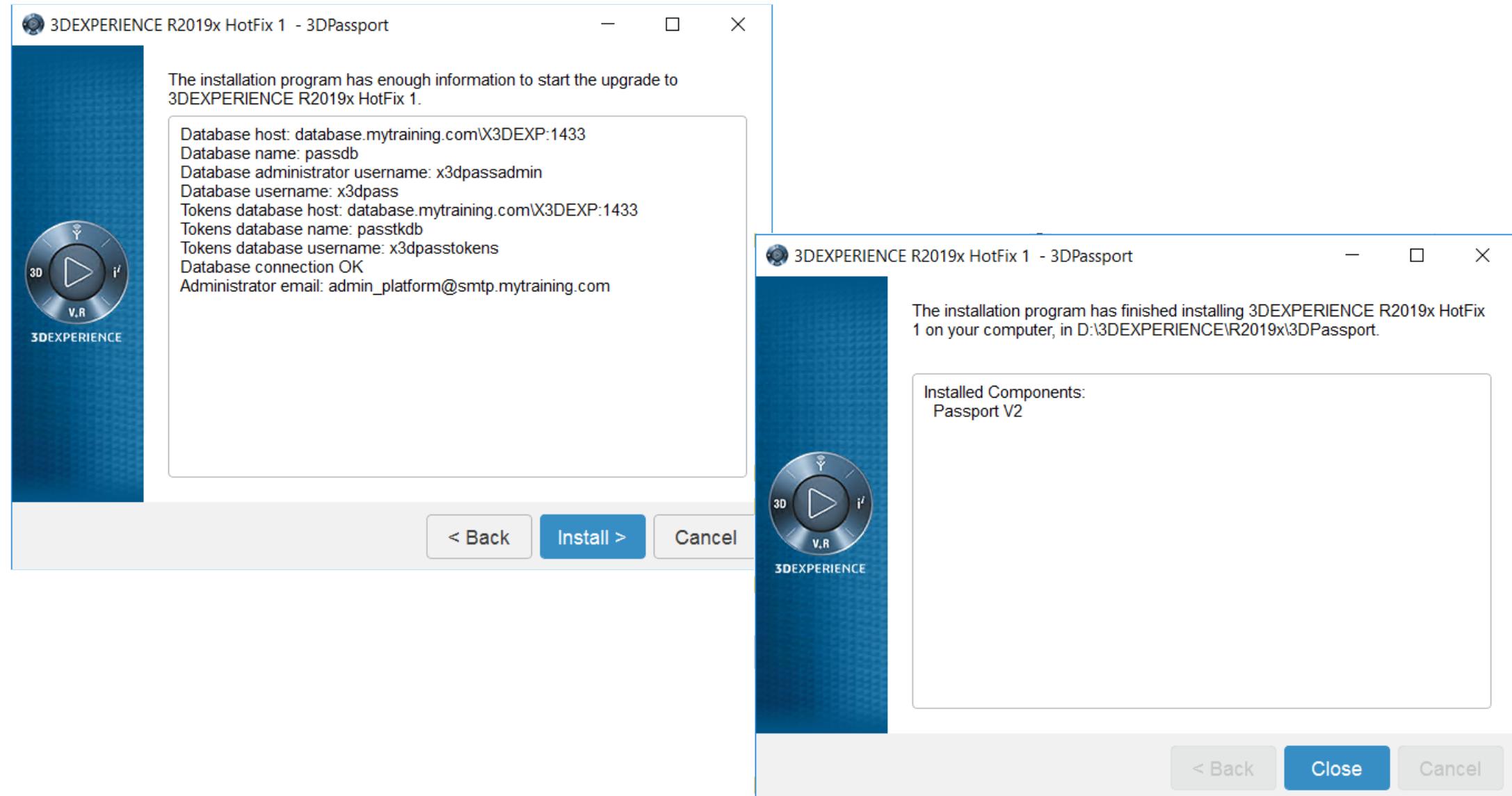
- d. Navigate to this path and find:

GUI: setup.exe

TUI: StartTUI.exe

3DPassport: FP Service Installer

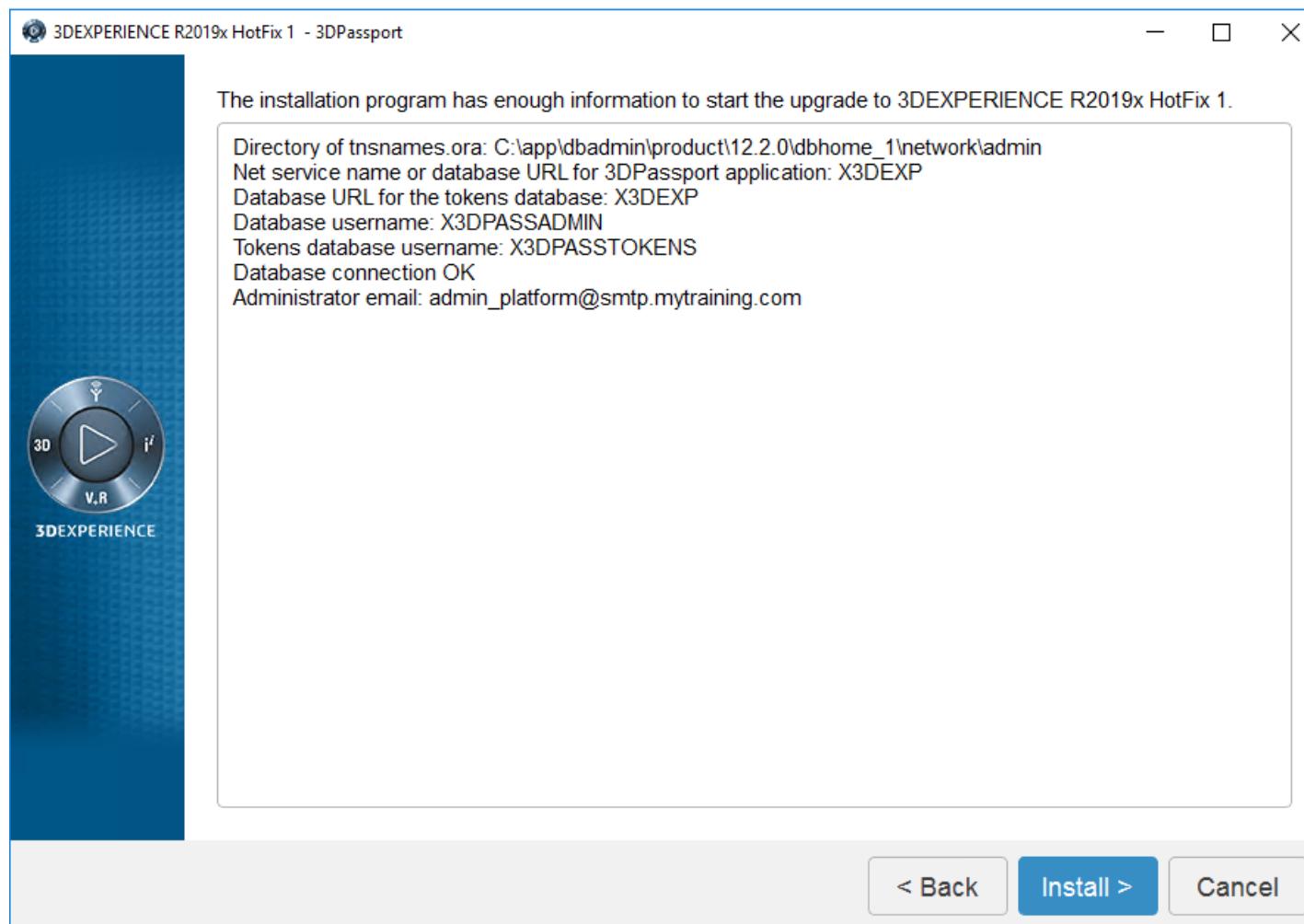
Using the dsadmin user account, proceed with the update using the same key values as GA.



Notice that some of the values are already entered for you.

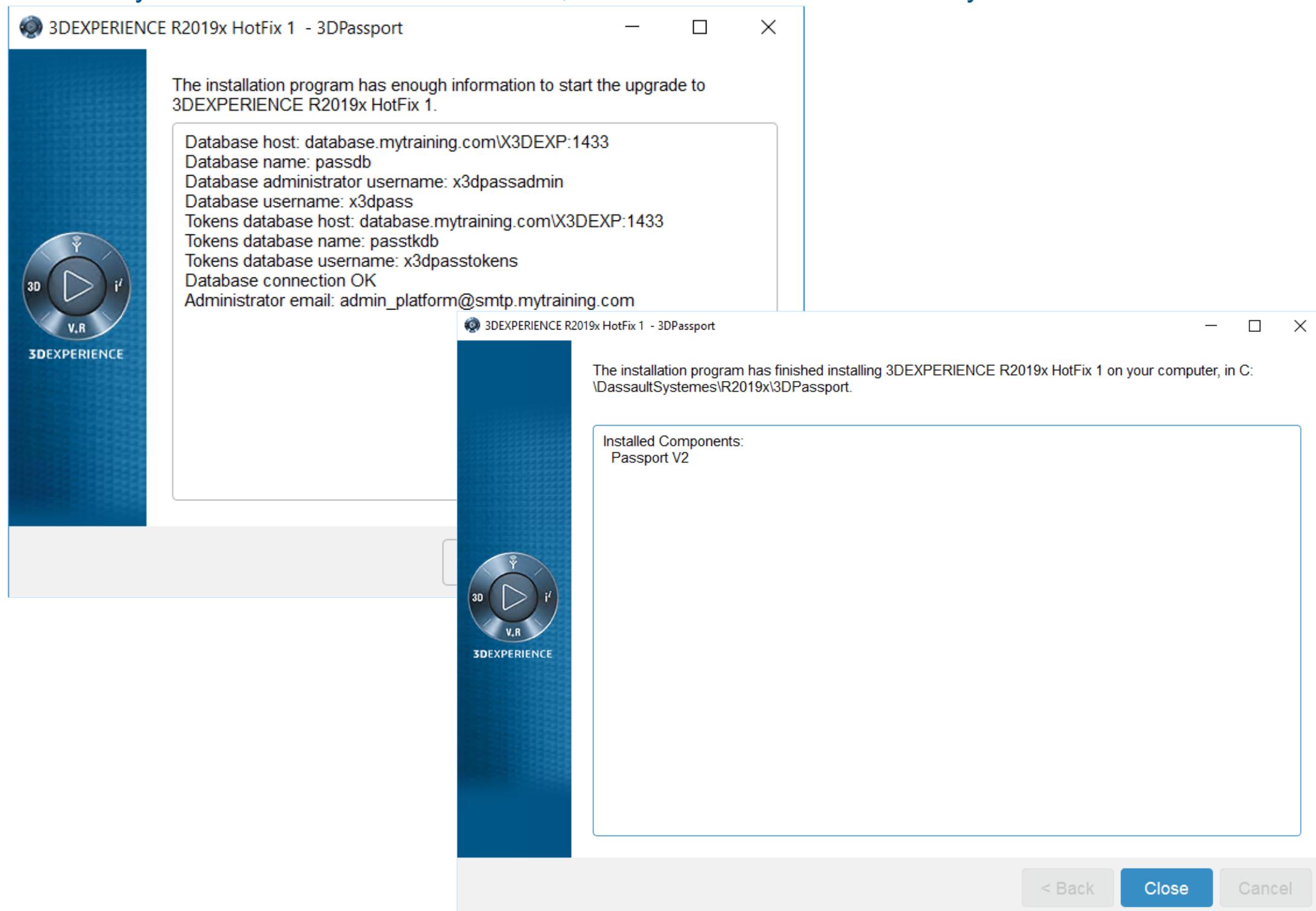
3DPassport: FP Service Installer – Oracle Summary

- ▶ As with GA, it is recommended that you log the Installation Overview window containing your input values.
 - If you choose to take a screen shot, the window can be resized so you can see all the values clearly.



3DPassport: FP Service Installer – SQL Server Summary

- ▶ As with GA, it is recommended that you log the Installation Overview window containing your input values.
 - If you choose to take a screen shot, the window can be resized so you can see all the values clearly.



3DPassport: FP Post Installation

- a. TomEE code path: D:\3DEXPERIENCE\TomEE\TomEE3DPassport
- b. Start and stop TomEE+ (or use your Desktop icon)
<TomEE 3DPassport Path>\bin\startup.bat
Wait for it to finish deploying the application.

Sample

```
Jan 25, 2017 12:00:03 PM org.apache.coyote.AbstractProtocol start
INFO: Starting ProtocolHandler ["http-bio-8180"]
Jan 25, 2017 12:00:03 PM org.apache.coyote.AbstractProtocol start
INFO: Starting ProtocolHandler ["ajp-bio-8109"]
Jan 25, 2017 12:00:03 PM org.apache.catalina.startup.Catalina start
INFO: Server startup in 561 ms
```

- c. Edit the fragment file :

D:\3DEXPERIENCE\R2019x\3DPassport\win_b64\templates\3DPassport_httpd_fragment.conf

Validate the values for “**port**” and “**FQDN**” in the fragment file.

<http://3dpassport.mytraining.com:8080>

- d. Backup the fragment file to:

D:\3DEXPERIENCE\conf\Fragment\3DPassport_httpd_fragment.conf.FP

3DPassport: FP Technical Validation

- ▶ "FP technical validation" refers to validation of the installation process, i.e. did it install without errors and did it complete what it was supposed to do. There are 2 validation steps: installer log and expected file deployment review.
- ▶ Defining the service code installation path: D:\3DEXPERIENCE\R2019x\3DPassport

Installer error log should be empty in:

<Code Path>\InstallData\log\CODE\win_b64\.....media<Latest timestamp>\Errors.log & *Stderr.txt

- ▶ Size should be 0 byte



You should see 2 "...media..." folders, one for the GA and a new one for the FP.
If you had to modify values in the installer dialogues you will see these "errors" in Errors.log
you will need to validate if any of these messages require corrective action.

- ▶ Expected file creation or updates:
 - <TomEE 3DPassport Path>\webapps\3dpassport.war
 - <TomEE 3DPassport Path>\bin\setenv.bat

3DPassport: Validation

In this section you will validate the service functionality and part of the infrastructure deployment

- a. Apache
 - b. Redirect to 3DPassport TomEE+
1. Start the Apache service if not started
 - a. Open service manager
 2. Start TomEE+
 - a. <TomEE 3DPassport Path>\bin\startup.bat

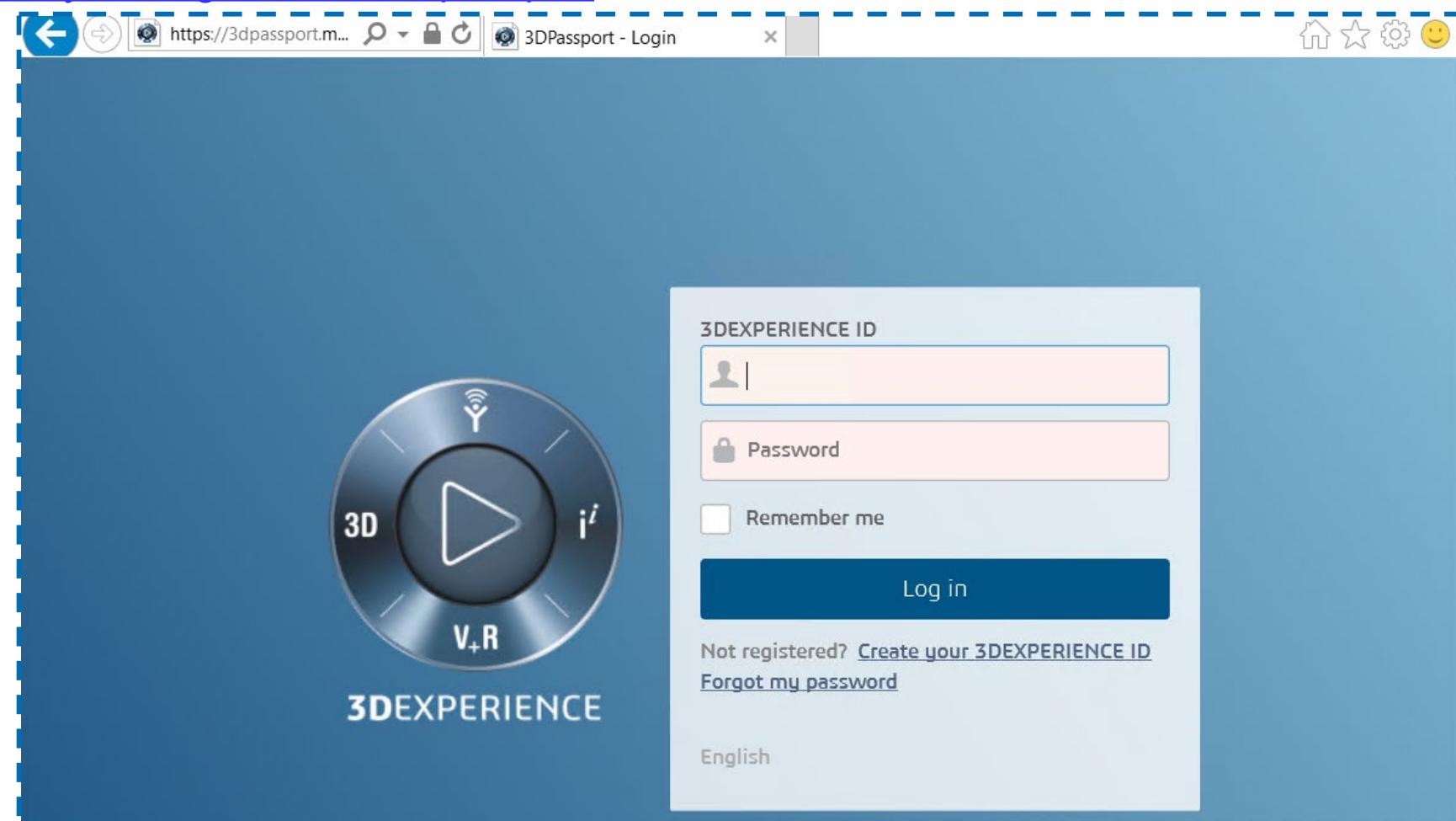
Wait for it to finish deploying the application.

Access the URL:

<https://3dpassport.mytraining.com:443/3dpassport>



Each time you check a new URL, it's recommended to add it to the IE "Favorites bar" (rename it for ease).



3DPassport: Validation

- ▶ Perform the following actions: **Connect to 3Dpassport**

- a. Connect with user admin_platform and password <Your Password>

The screenshot shows a user profile page with a dashed blue border around the main content area. At the top left is the title "My Profile". On the right side is a "Log out" button. Below the title are two input fields: "Email" containing "admin_platform@smtp.mytraining.com" and "Login" containing "admin_platform", each followed by a red asterisk. At the bottom is a grey button labeled "Update my password".

- b. You can click **Log out**.

Exercise Recap: 3DPassport

In this exercise, you have:

- ✓ Installed the GA 3DPassport
- ✓ Performed the GA post configuration
- ✓ Validated the GA service
- ✓ Installed the FP 3DPassport
- ✓ Performed the FP post configuration
- ✓ Validated the FP service

Reconfiguration

Topics to be covered:

- ✓ 1. *Introduction*
- ✓ 2. *DSLS*
- ✓ 3. *Global 3DEXPERIENCE platform installer*
- ✓ 4. *3DPassport*
- 5. Reconfiguration**
- 6. 3DDashboard
- 7. 3DSearch
- 8. 3DSpace
- 9. 3DNotification
- 10. 3DComment
- 11. 3DSwym
- 12. FCS

About Reconfiguration

- ▶ The reconfiguration tool allows you to tweak certain service installation and deployment parameters, avoiding the need to reinstall the platform.
 - ▶ Administrators often need to change certain values, for example passwords and URLs, after the installation is finished. Reconfigure mode allows you to make these changes without having to re-install platform services from scratch. This mode starts the installation procedure again, allowing you to reconfigure inputs for the supported parameters. If a parameter is not reconfigurable, it is either hidden or greyed out.
 - ▶ You can change values even after installing the latest hot fixes. In this case, you must use the hot fix media to reconfigure the service.
 - ▶ The following services can be reconfigured:
 - 3DPassport.
 - 3DDashboard
 - 3DSearch
 - 3DSpace
 - 3DComment
 - 3DNotification
 - 3DSwym
 - File Collaboration Server
- ▶ As you are using the external TomEE+ in this training, you must stop the application server before starting reconfiguration.
 - ▶ Reconfiguring does not allow you to switch between external Java and/or external TomEE+ to embedded mode or vice versa or to change the installation path.
 - ▶ To save time, you can also manually stop the TomEE+ server before starting the reconfiguration.

Exercise: Reconfiguration



As we have successfully installed the 3DPassport service, we are not reconfiguring it now.

Here, are the steps to perform reconfiguration, if required.

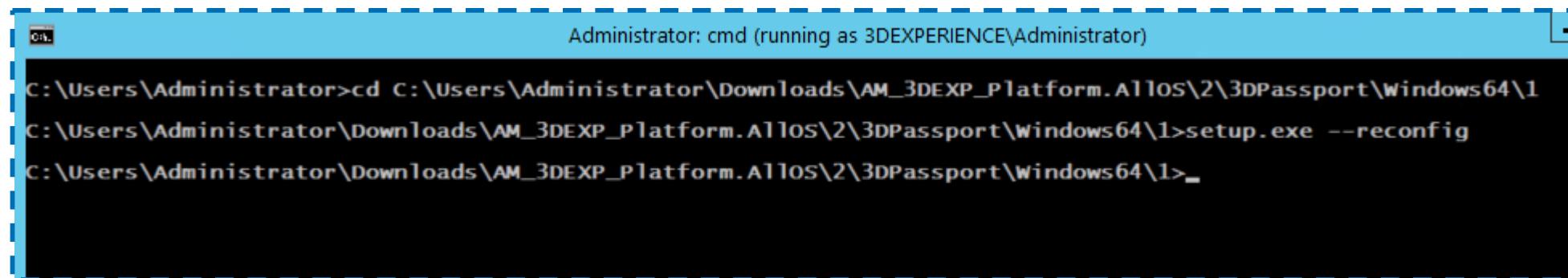
In this exercise, you can reconfigure the 3DPassport service.



20 minutes

Exercise: 3DPassport - Reconfiguration

1. Open a command prompt window with administrator privileges.
2. Change to the distribution directory to
<Your Installer PATH>\3DPassport.Windows64\1
3. Execute the command:
Setup.exe --reconfig for GUI mode
or
StartTUI.exe --reconfig for TUI mode.



```
Administrator: cmd (running as 3DEXPERIENCE\Administrator)
C:\Users\Administrator>cd C:\Users\Administrator\Downloads\AM_3DEXP_Platform.Allos\2\3DPassport\Windows64\1
C:\Users\Administrator\Downloads\AM_3DEXP_Platform.Allos\2\3DPassport\Windows64\1>setup.exe --reconfig
C:\Users\Administrator\Downloads\AM_3DEXP_Platform.Allos\2\3DPassport\Windows64\1>
```

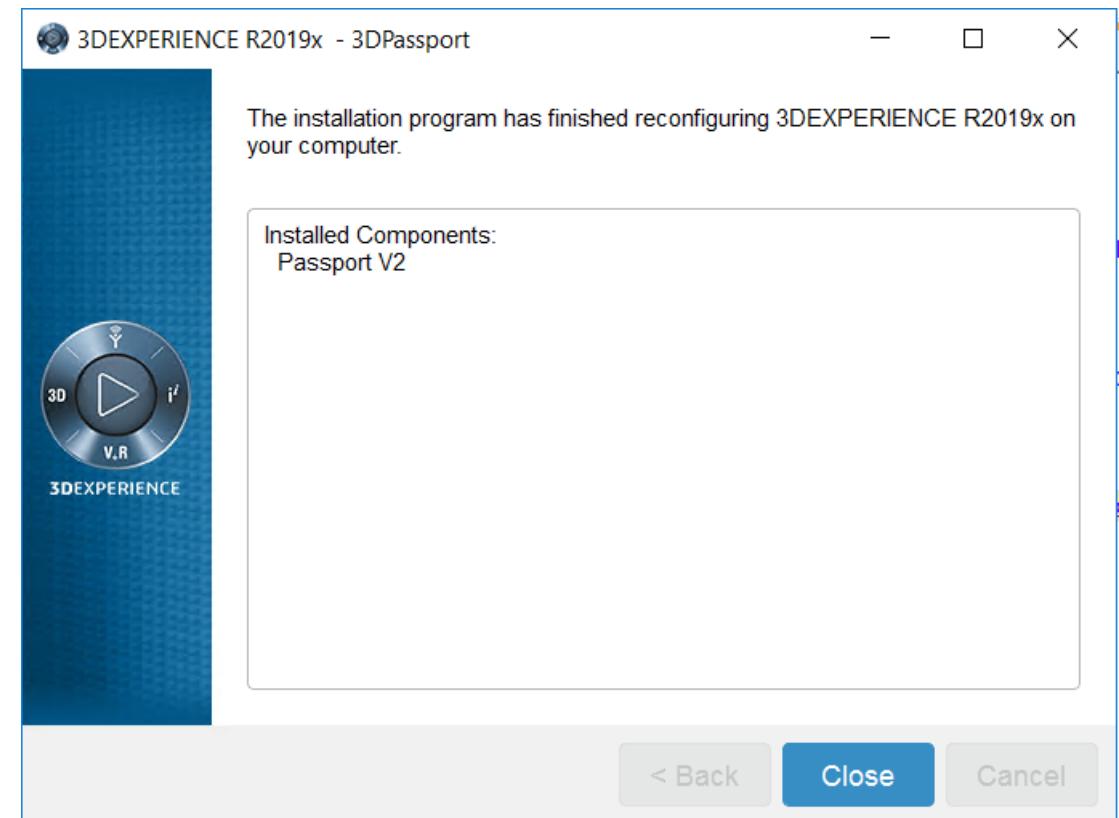
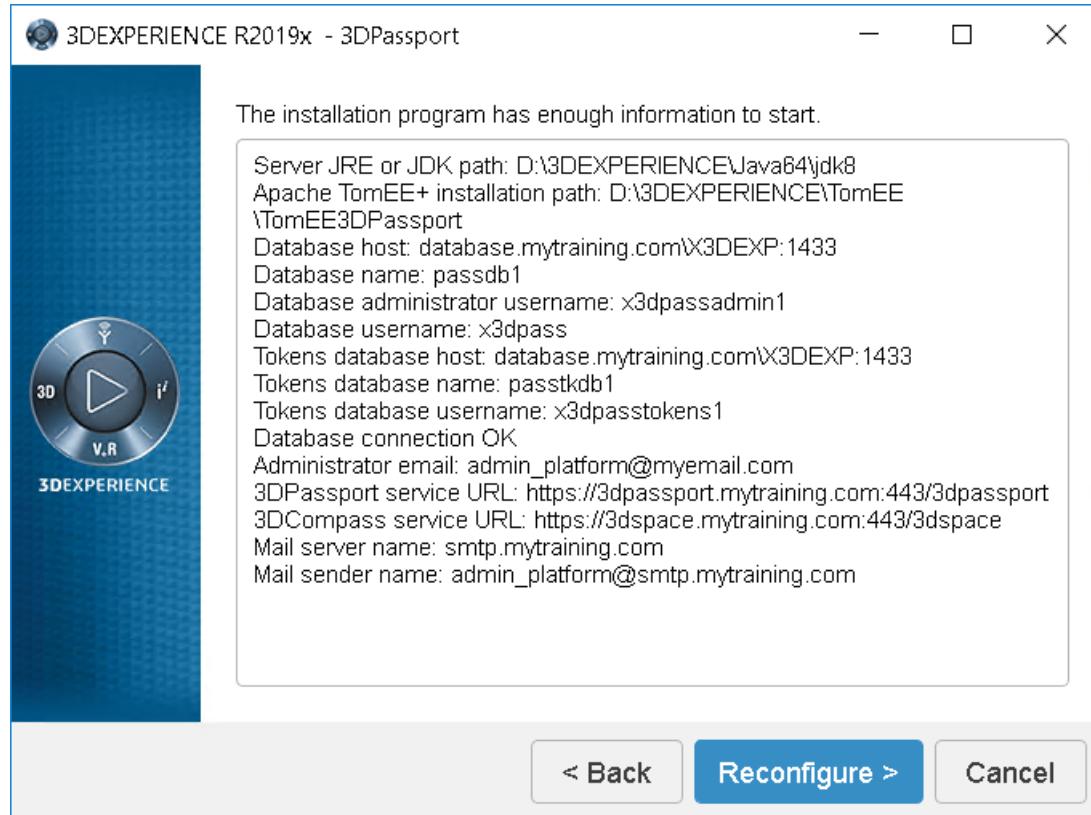
4. The installation procedure then starts.

3DPassport: Reconfiguration

During the Installation you will be queried about the following parameters:

Cheat-Sheet :

Step	Key	Value
00	Global platform Installer	<Your Media Path>\AM_3DEXP_platform.AllOS\1\setup.exe --reconfig



3DPassport: Reconfiguration parameters

During the Installation you will be queried about the corresponding reconfigurable parameters with respect to a service.

For example, below the reconfigurable parameters for 3DPassport are illustrated:

Cheat-Sheet :

Steps	Key	Value Displayed	Value to be reconfigured
01	JRE or JDK PATH	D:\3DEXPERIENCE\Java64\jdk8	*UNCHANGED*
02	Apache TomEE+ Installation path	D:\3DEXPERIENCE\TomEE\TomEE3DPassport	*UNCHANGED*
03	3DPassport service URL 3DCompass service URL	https://3dpassport.mytraining.com:443/3dpassport https://3dspace.mytraining.com:443/3dspace	*UNCHANGED*
04	Mail Server name Mail sender name	smtp.mytraining.com admin_platform@smtp.mytraining.com	*UNCHANGED* Your@email.com
05	JRE or JDK PATH	D:\3DEXPERIENCE\Java64\jdk8	*UNCHANGED*
06	Apache TomEE+ Installation path	D:\3DEXPERIENCE\TomEE\TomEE3DPassport	*UNCHANGED*

3DPassport: Reconfiguration Parameters

During the Installation you will be queried about the following reconfigurable parameters:

Cheat-Sheet :

Steps	Key	Value Displayed	Value to be reconfigured
07 Oracle	Directory tnsnames.ora Net_Service_name for 3DPassport Net_Service_name for 3DPassport token Database username Database user's password Token username Token user's password Check database connection	C:\app\dbadmin\product\12.2.0\dbhome_1\NETWORK\ADMIN X3DEXP X3DEXP X3DPASSADMIN *blank* X3DPASSTOKENS *blank* Yes	*UNCHANGED*
SQL Server	Database Host Database name Database Administrator username Database Administrator user's password Database username Database user's password Token Database name Token Database name Token Database username Token Database user's password Check Database connection	database.mytraining.com\X3DEXP:1433 passdb x3dpassadmin *blank* x3dpass *blank* database.mytraining.com\X3DEXP:1433 passtkdb x3dpasstokens *blank* Yes	*UNCHANGED*

3DPassport: Reconfiguration Validation

1. Modify the reconfigurable parameters you need to change.
2. Review your configuration parameters and click the Install > button.
3. Once the reconfiguration is complete, the following message is displayed:
The installation program has finished reconfiguring **3DEXPERIENCE R2019x** on your computer.
4. Click the Close button to exit.

The previous values for the parameters are already specified, except passwords.

Review your configuration parameters and click the Install > button.

You can verify the installation logs here:

- ▶ [install_dir\InstallData\log\CODE\win_b64\](#) on Windows

3DPassport: Validation

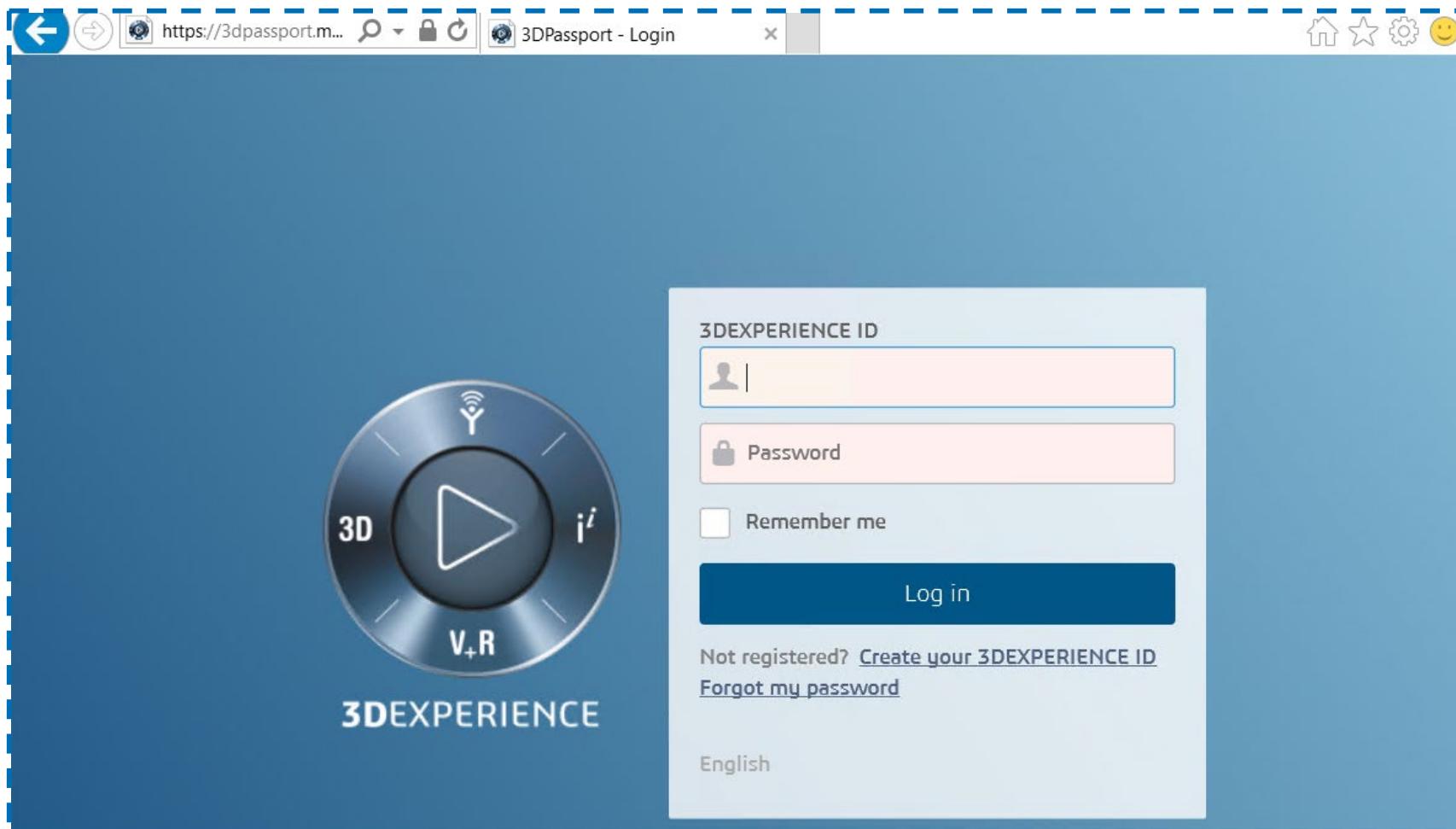
In this section you will validate the service functionality and part of the infrastructure deployment

- a. Apache
 - b. Redirect to 3DPassport TomEE+
1. Start the Apache service if not started
 - a. Open service manager
 2. Start TomEE+
 - a. <TomEE3DPassport Path>\bin\startup.bat

Wait for it to finish deploying the application.

Access the URL:

<https://3dpassport.mytraining.com:443/3dpassport>



Each time you check a new URL, it's recommended to add it to the IE "Favorites bar" (rename it for ease).

3DPassport: Validation

- ▶ Perform the following actions: **Connect to 3Dpassport**

- a. Connect with user admin_platform and password <Your Password>

My Profile

Email

admin_platform@smtp.mytraining.com *

Login

admin_platform *

Update my password

Log out

3DPassport: Uninstallation

Windows normal uninstall procedure:

- a. Stop TomEE+ if it is running <Service Name>
- b. In the Database instance drop the 2 schemas / databases.
- c. In "Programs and Features" uninstall:
 - ▶ "Dassault Systemes <Service Name> 3DEXPERIENCE R2019x"
- d. There is also a Uninstall.bat file in the D:\3DEXPERIENCE\R2019x\<Service Name> with which you can uninstall a service.
- e. Remove the folder
 - ▶ D:\3DEXPERIENCE\R2019x\<Service Name>
 - ▶ D:\3DEXPERIENCE\TomEE\TomEE<Service Name>

Exercise Recap: Reconfiguration

In this exercise, you have:

- ✓ Reconfigured the 3DPassport service

Topics to be covered:

- ✓ 1. *Introduction*
- ✓ 2. *DSLS*
- ✓ 3. *Global 3DEXPERIENCE platform installer*
- ✓ 4. *3DPassport*
- ✓ 5. *Reconfiguration*
- 6. 3DDashboard**
- 7. *3DSearch*
- 8. *3DSpace*
- 9. *3DNotification*
- 10. *3DComment*
- 11. *3DSwym*
- 12. *FCS*

About 3DDashboard

- ▶ The 3DDashboard service brings information from diverse sources into one configurable web page.
- ▶ It provides a simple, unified dashboard view of business processes and objectives for any discipline in the company (sales, marketing, R&D, HR, finance,... or yourself as an individual).
- ▶ It provides an extensive collection of ready-to-use 3DDashboard widgets across all brands so that it is even easier for users to create a personal dashboard of all the information that matters to them and get a simple unified view of business processes.

The screenshot shows the 3DEXPERIENCE | 3DDashboard Platform Management interface. The top navigation bar includes links for 'My Platform', 'Members', 'Communities', 'Content', 'Dashboards', 'Vocabularies', and 'Legal'. A search bar and a 'Admin PLATFORM' button are also present. The main content area displays a welcome message: 'Welcome to your platform onPremises'. It informs the user they have been selected as an administrator to manage users & roles, and suggests going to the 'Members' tab. Below this, there are two large numerical displays: 'Members' (7) and 'Roles' (6). The URL in the browser bar is https://3ddashboard.mytraining.com/3ddashboard/#dashboard:e88a79f9-b86c-449d-b438-dca5445d4a9b/tab:My Platform.

Welcome to your platform
onPremises

You have been selected as an administrator to manage users & roles,
To do that, go to the next Tab: "Members".

Members

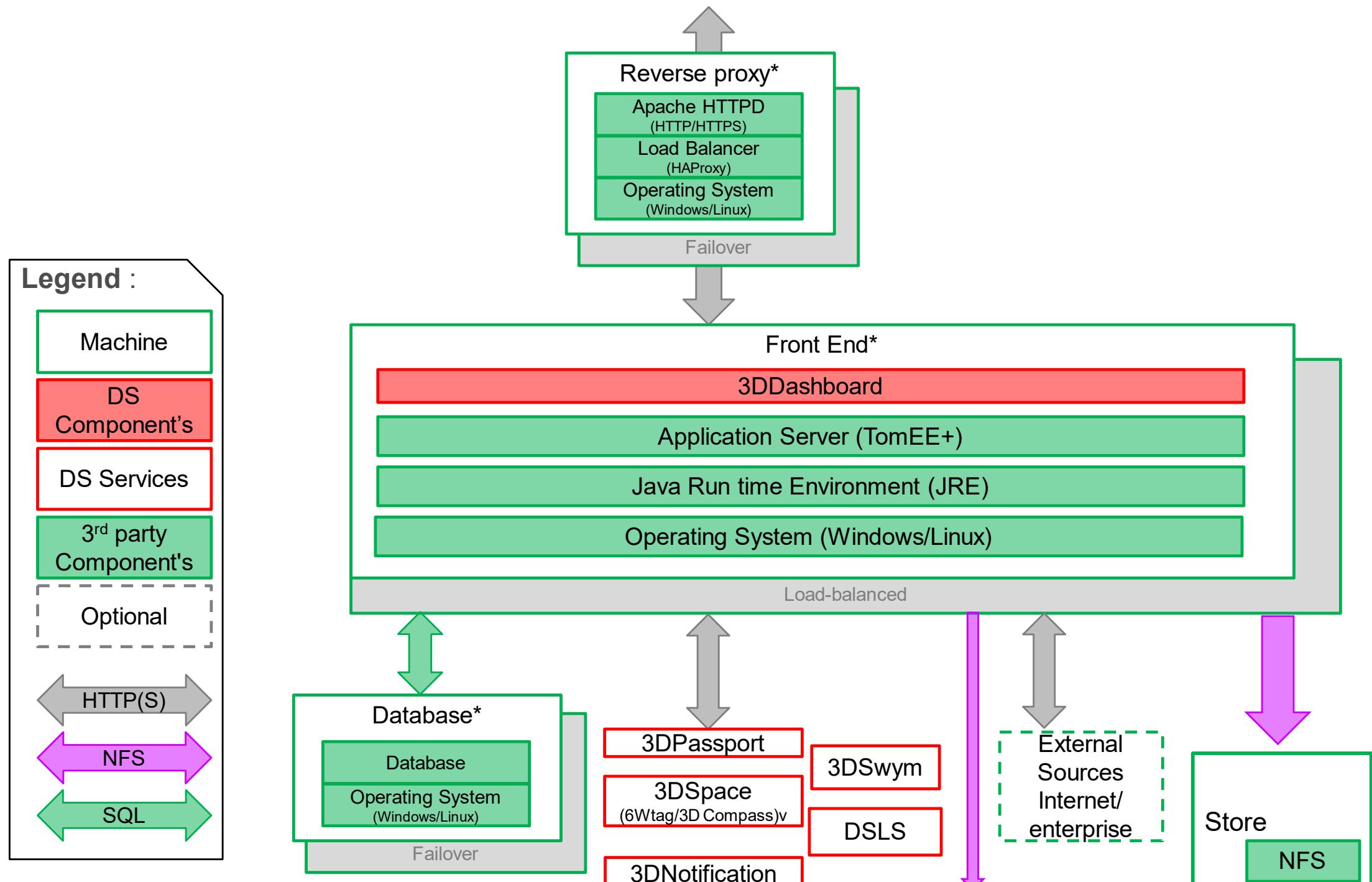
7

Roles

6

About 3DEXPERIENCE platform

3DDashboard Architecture



* Always consult the “Program Directory” for version and latest news.

Shared Configuration Directory : NFS

3DDashboard: Pre-Check

You should have already prepared the groundwork required to proceed with this service installation, you will need the following pre-requisites:

- Database objects (up and running)
- TomEE + (stopped)
 - 1 TomEE+ is dedicated for the service
 - 1 SSL certificate
- Java

Note: You will not be able to proceed if any of these are missing.

- Main Configuration requirement:
 - Database objects : Yes
 - TomEE + needed : Yes
 - Java dependent : Yes

3DDashboard: Key Parameters

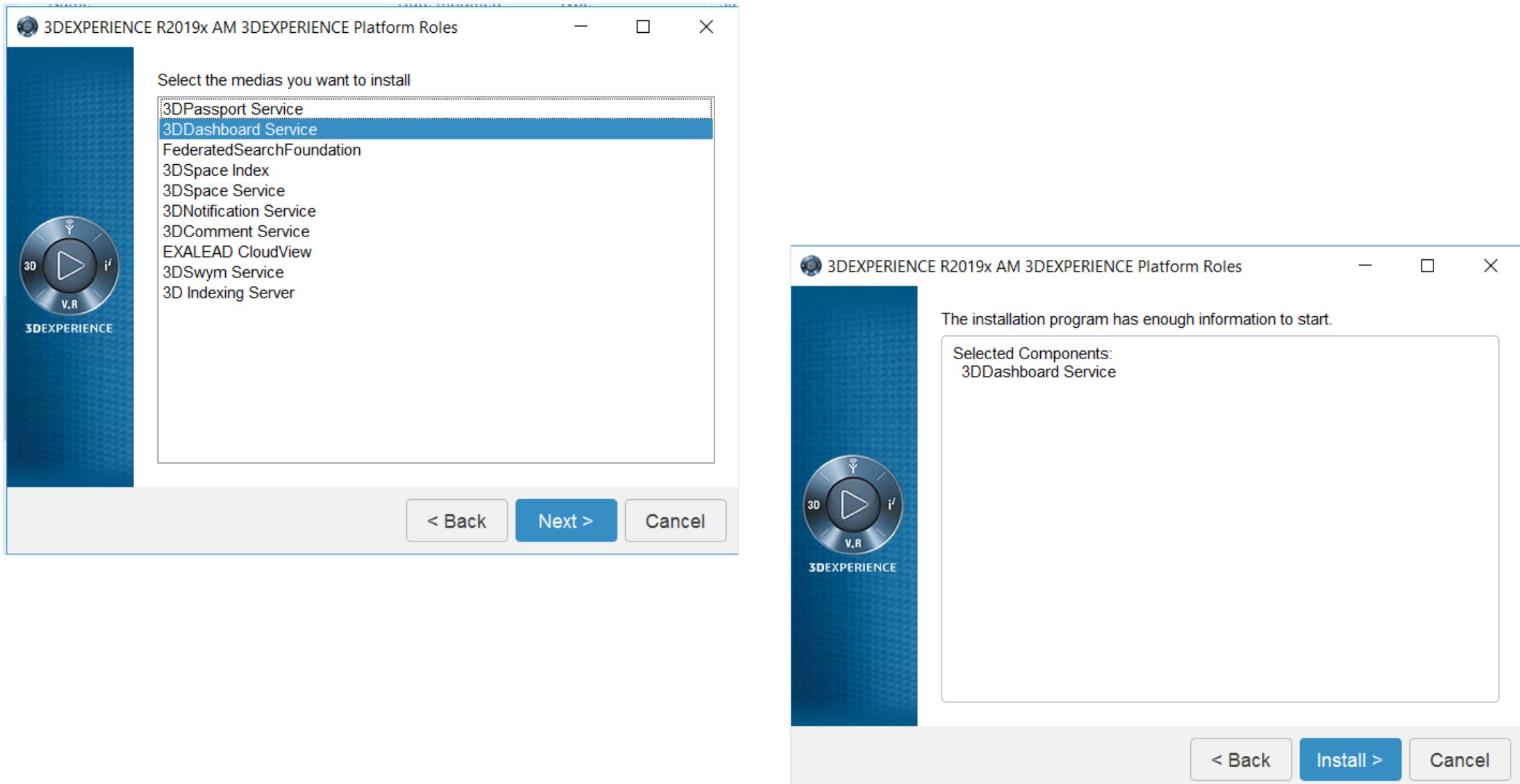
Installation Cook-book : Installation key parameters explained.

- ▶ Installation Directory: This is the location where the service code will be installed. Do not use blanks in the installation path if you can avoid it. It is also recommended not to install on the *C:* drive. The *C:* drive is the system drive, if it gets corrupted or becomes full it could bring the service down. By selecting another drive you will have better control and stability for the platform.
- ▶ Installing Embedded Server JRE & Installing Embedded Apache TomEE+: 3DS service installer comes with java “JRE” and TomEE+. This can be practical for small businesses and if you do not want to manage “other” software installations. The disadvantages are that it is harder to upgrade and maintain Java security release and it cannot be easily implemented with load balancing.
- ▶ Database selection: This component is supported on both Oracle and SQL Server. The database recommendation is often based on two critical customer requirements, support and cost. It is important to note that the support costs can sometimes be higher than the actual license costs.
- ▶ Mail options: Not as critical as the 3Dpassport one but very important, it's from the 3DDashboard you can invite user to the platform and it's from here the platform admin will receive mail of user requesting roles and access.
- ▶ Application ports & Instance options: For the external TomEE+ instance be sure that you have the proper OS permissions as the application may need to add, alter or update binaries, libraries or configuration files.
- ▶ Keywords: User administration for admin_platform.

3DDashboard: Key Parameters

- ▶ Available Installation Options:
 - Install the embedded Server JRE
 - Install the embedded TomEE+

Training Path: More flexibility, control and post options.



3DDashboard: GA Media Installer

- ▶ GA core components have two different installation methodologies:
 - The "global 3DEXPERIENCE platform Installer" found in:
 - <Your Media PATH>AM_3DEXP_Platform.AILOS\1\
 - Navigate to this path and find:
 - GUI: setup.exe
 - TUI: StartTUI.exe
 - This installer is primarily used when you want to deploy all the services on one machine
 - Classic "Service Installer" are available in :
 - <Your Media PATH>AM_3DEXP_Platform.AILOS\1\3DDashboard\Windows64\1
 - Traditional method used to deploy the services on different machines
 - Start the "global 3DEXPERIENCE platform Installer" installer for the training
 - Fields to complete are identical for the two installers
 - Some of the parameters chosen with the initial service installer are presented in the subsequent installers as read-only
 - This installer is useful when you deploy many services on one machine

Exercise: 3DDashboard

In this exercise, you will:

1. Install the GA 3DDashboard
2. Perform the GA post configuration
3. Validate the GA service
4. Install the FP 3DDashboard
5. Perform the FP post configuration
6. Validate the FP service



40 minutes

3DDashboard: GA Media Installer

Using the Cheat-sheet on the next page, proceed to the installation, don't forget to uncheck the installer options for:

- Install the embedded JRE → No
- Install the embedded TomEE+ → No

The screenshot shows two windows of the 3DEXPERIENCE R2019x - 3DDashboard media installer.

Left Window (Java Runtime Environment):

- A Server Java Runtime Environment or a Java Development Kit is required.
- You can use an already installed Server JRE or JDK, or install the embedded Server JRE.
- Install the embedded Server JRE

Right Window (Apache TomEE+):

- Apache TomEE+ is required.
- You can use an already installed Apache TomEE+, or install the embedded one.
- Install the embedded Apache TomEE+.

Both windows have a header bar with the title "3DEXPERIENCE R2019x - 3DDashboard" and standard window controls (minimize, maximize, close). The bottom of each window contains navigation buttons: "< Back" and "Next >" (the right window also has a "Cancel" button).

3DDashboard: Key Parameters

During the Installation you will be queried about the following parameters:

Cheat-Sheet :

Steps	Key	Value
01	Installer	<Your Media Path>\AM_3DEXP_Platform.AIOS\1\setup.exe
02	Global platform Installer	3DDashboard Service
03	Installation Directory	D:\3DEXPERIENCE\R2019x\3DDashboard
04	Install the embedded Server JRE	No
05	JRE or JDK PATH	D:\3DEXPERIENCE\Java64\jdk8
06	Install the embedded Apache TomEE+	No
07	Apache TomEE+ installation path	D:\3DEXPERIENCE\TomEE\TomEE3DDashboard
08	DB Selection	Oracle or SQL Server

3DDashboard: Key Parameters

(continued)



Make sure to enter **mytraining.com** instead of **mydomain** . This DNS is specific for this training and would vary in the real world.

Steps	Key	Value
09 Oracle	Directory of tnsnames.ora	C:\app\dbadmin\product\12.2.0\dbhome_1\NETWORK\ADMIN
	Net_Service_Net name for 3DDashboard	X3DEXP
	Database username	X3DDASHADMIN
	Database user's password	X3DDASHADMIN
SQL server	Database Host	database.mytraining.com\X3DEXP:1433
	Database name	dashdb
	Database Administrator username	x3ddashadmin
	Database Administrator user's password	Passport#1
	Database username	x3ddash
	Database user's password	Passport#1

3DDashboard: Key Parameters

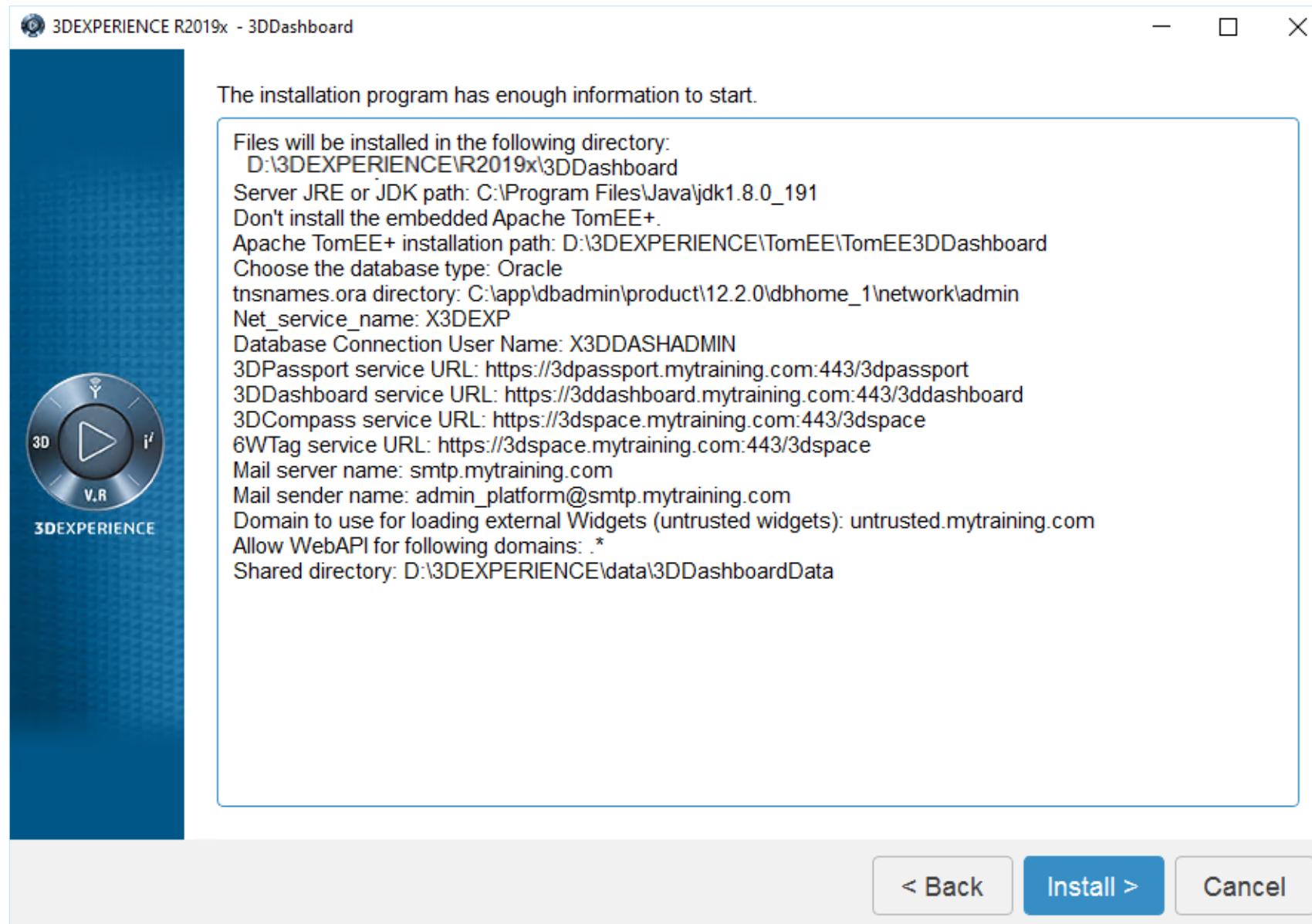
You will also be queried about these parameters:

Cheat-Sheet : (continued)

Steps	Key	Value
10	3DPassport service URL 3DDashboard service URL 3DCompass service URL 6WTag service URL	https://3dpassport.mytraining.com:443/3dpassport https://3ddashboard.mytraining.com:443/3ddashboard https://3dspace.mytraining.com:443/3dspace https://3dspace.mytraining.com:443/3dspace
11	Mail Server name Mail sender name	smtp.mytraining.com admin_platform@smtp.mytraining.com
12	Domain to use for external Widgets Allow WebAPI for following domains Shared directory	untrusted.mytraining.com .* D:\3DEXPERIENCE\data\3DDashboardData

3DDashboard: GA Media Installer – Oracle Summary

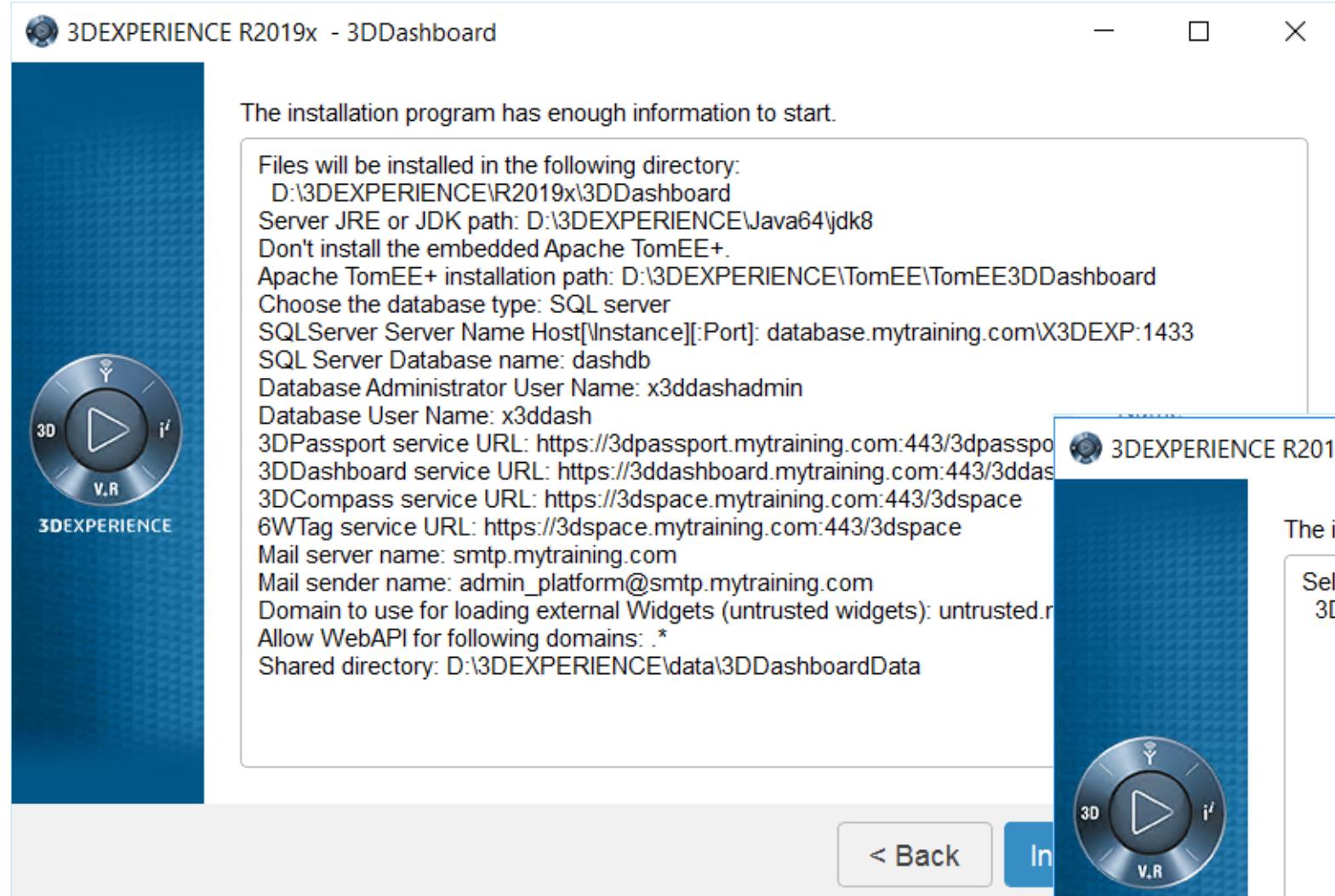
It is strongly recommended that you copy the installation information into a text file prior to clicking the “install” button.



This is selectable text, easily copied into a text file.

3DDashboard: GA Media Installer – SQL Server

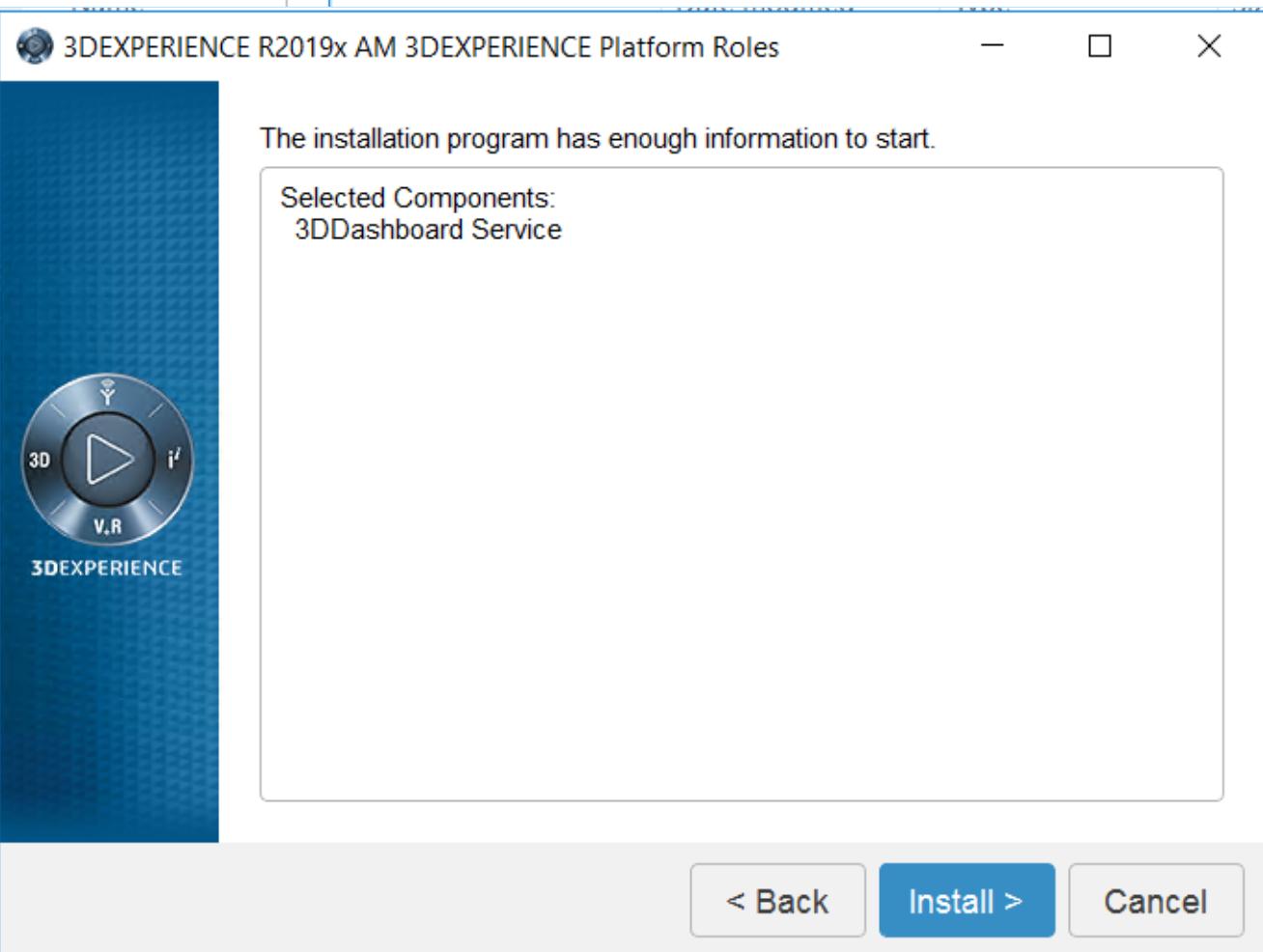
It is strongly recommended that you copy the installation information into a text file prior to clicking the **Install** button.



The installation program has enough information to start.

Files will be installed in the following directory:
D:\3DEXPERIENCE\R2019x\3DDashboard
Server JRE or JDK path: D:\3DEXPERIENCE\Java64\jdk8
Don't install the embedded Apache TomEE+.
Apache TomEE+ installation path: D:\3DEXPERIENCE\TomEE\TomEE3DDashboard
Choose the database type: SQL server
SQLServer Server Name Host[\\Instance][:Port]: database.mytraining.com\X3DEXP:1433
SQL Server Database name: dashdb
Database Administrator User Name: x3ddashadmin
Database User Name: x3ddash
3DPassport service URL: https://3dpassport.mytraining.com:443/3dpasspo
3DDashboard service URL: https://3ddashboard.mytraining.com:443/3ddas
3DCompass service URL: https://3dspace.mytraining.com:443/3dspace
6WTag service URL: https://3dspace.mytraining.com:443/3dspace
Mail server name: smtp.mytraining.com
Mail sender name: admin_platform@smtp.mytraining.com
Domain to use for loading external Widgets (untrusted widgets): untrusted.r
Allow WebAPI for following domains: *.
Shared directory: D:\3DEXPERIENCE\data\3DDashboardData

< Back Install Cancel



The installation program has enough information to start.

Selected Components:
3DDashboard Service

< Back Install > Cancel

This is selectable text, easily copied into a text file.

3DDashboard: GA Post Installation

3DDashboard installer creates the database objects during the installer, they can be immediately validated.

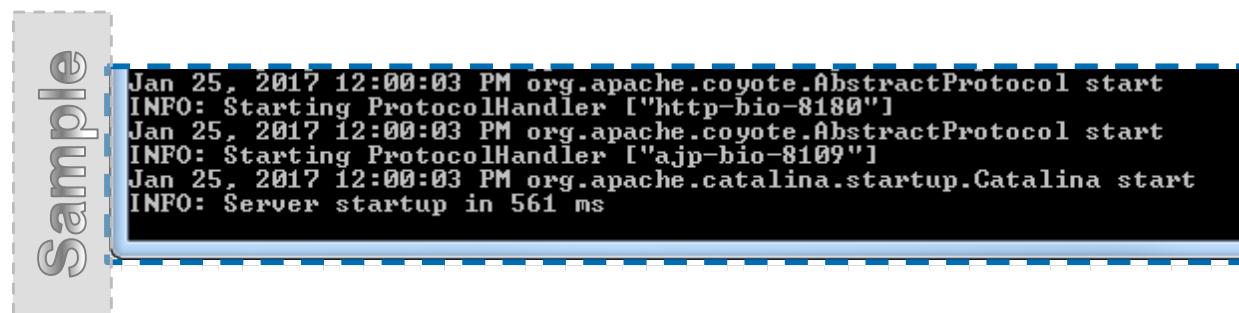
- a. TomEE+ code PATH: D:\3DEXPERIENCE\TomEE\TomEE3DDashboard

The installer will automatically put the .WAR file into the proper webapps folder.

- b. Start and stop TomEE+ (or use you Desktop icon)

<TomEE 3DDashboard Path>\bin\startup.bat

Wait for it to finish deploying the application.



A screenshot of a terminal window titled "Sample". The window contains the following log output:

```
Jan 25, 2017 12:00:03 PM org.apache.coyote.AbstractProtocol start
INFO: Starting ProtocolHandler ["http-bio-8180"]
Jan 25, 2017 12:00:03 PM org.apache.coyote.AbstractProtocol start
INFO: Starting ProtocolHandler ["ajp-bio-8109"]
Jan 25, 2017 12:00:03 PM org.apache.catalina.startup.Catalina start
INFO: Server startup in 561 ms
```



You may need to repeat this step in order to get a proper **Server startup** message.

<TomEE 3DDashboard Path>\bin\shutdown.bat

Wait for it to finish shutting down before closing the terminal.

- c. Check the logs for errors and Clean the log folder

<TomEE 3DDashboard Path>\logs*.log

3DDashboard: GA Post Installation

- d. Go to your **3DEXPERIENCE** folder and edit the file: `D:\3DEXPERIENCE\conf\Apache\3dexperience.conf`
In the "**3DDashboard**" section replace the line:
`#XXXX Future fragment file XXXX`
With:

```
include D:\3DEXPERIENCE\R2019x\3DDashboard\win_b64\templates\3DDashboard_httpd_fragment.conf
```

- e. Edit the fragment file :
`D:\3DEXPERIENCE\R2019x\3DDashboard\win_b64\templates\3DDashboard_httpd_fragment.conf`
Validate the values of the “**port**” and “**FQDN**” in the fragment file.
`http://3ddashboard.mytraining.com:8180`

- f. Backup the fragment file to:
`D:\3DEXPERIENCE\conf\Fragment\3DDashboard_httpd_fragment.conf.GA`

- g. Copy the "UserIntentions_CODE.xml" file in folder
`D:\3DEXPERIENCE\R2019x\3DDashboard\InstallData`
To:
`D:\3DEXPERIENCE\conf\UserIntentions\`
Rename it to:
`UserIntentions_3DDashboard.xml`

3DDashboard: GA Technical Validation

"GA technical validation" refers to validation of the installation process, i.e. did it install without errors and did it complete what it was supposed to do. There are 2 validation steps: installer log and expected file deployment review.

Defining the service code installation path: D:\3DEXPERIENCE\R2019x\3DDashboard

1. Installer error log should be 0 bytes and can be found at :

<Code Path>\InstallData\log\CODE\win_b64\.....media<Latest timestamp>\Errors.log & *Stderr.txt
Size should be 0 bytes

If you had to modify values in the installer dialogues you will see these "errors" in the Errors.log you will need to validate if any of these messages require corrective action.

3DDashboard: GA Technical Validation

2. Expected file and/or folder creation:

- a. <TomEE 3DDashboard Path>\webapps\3ddashboard.war
- b. <TomEE 3DDashboard Path>\bin\setenv.bat

```
REM · Start · Default · 3DEXP · TomEE+ · Configuration
set · JAVA_HOME=D:\3DEXPERIENCE\Java64\jdk8
set · JRE_HOME=D:\3DEXPERIENCE\Java64\jdk8\jre
set · TITLE=%cd%
set · PATH=%PATH%;D:\3DEXPERIENCE\R2019x\3DDashboard\win_b64\code\bin
set · CATALINA_HOME=D:\3DEXPERIENCE\TomEE\TomEE3DDashboard
@echo · off

@echo · off
rem · DS _DO _NOT _MODIFY · START
set · "CATALINA_OPTS=%CATALINA_OPTS% · -Dfile.encoding=UTF-8 · -Djava.awt.headless=true · -server · "
set · "JAVA_OPTS=%JAVA_OPTS% · -Duwp.externalConfig=D:\3DEXPERIENCE\R2019x\3DDashboard\win_b64\uwp-config.properties · -Duwp.logs.pa
480m · -XX:MaxNewSize=480m · -XX:SurvivorRatio=3 · -XX:+DisableExplicitGC · -XX:+UseCompressedOops · -Doracle.net.tns_admin=C:\app\dbadm
set · "PATH=%PATH%;D:\3DEXPERIENCE\R2019x\3DDashboard\win_b64\code\bin"
@echo · off
rem · DS _DO _NOT _MODIFY · END
```

3DDashboard: FP Service Installer

There is no "global 3DEXPERIENCE platform installer" for FP you must update each service individually.

- a. Ensure that "**TomEE3DDashboard**" is stopped

D:\3DEXPERIENCE\TomEE\TomEE3DDashboard\bin\shutdown.bat

If you do not stop TomEE+, the installer will not be able to replace certain files automatically, this can result in errors in the log or unexpected behavior.

- b. Use the normal "Service Installer":

<Your Media PATH>\Part_3DEXP_Platform.Windows64\2\Software\

You will find:

- o 3DDashboard-V6R2019x.HF1.Windows64.zip

- c. Unzip the proper OS version to <Your Installer PATH>

- o <Your Installer PATH>\3DDashboard.Windows64\1

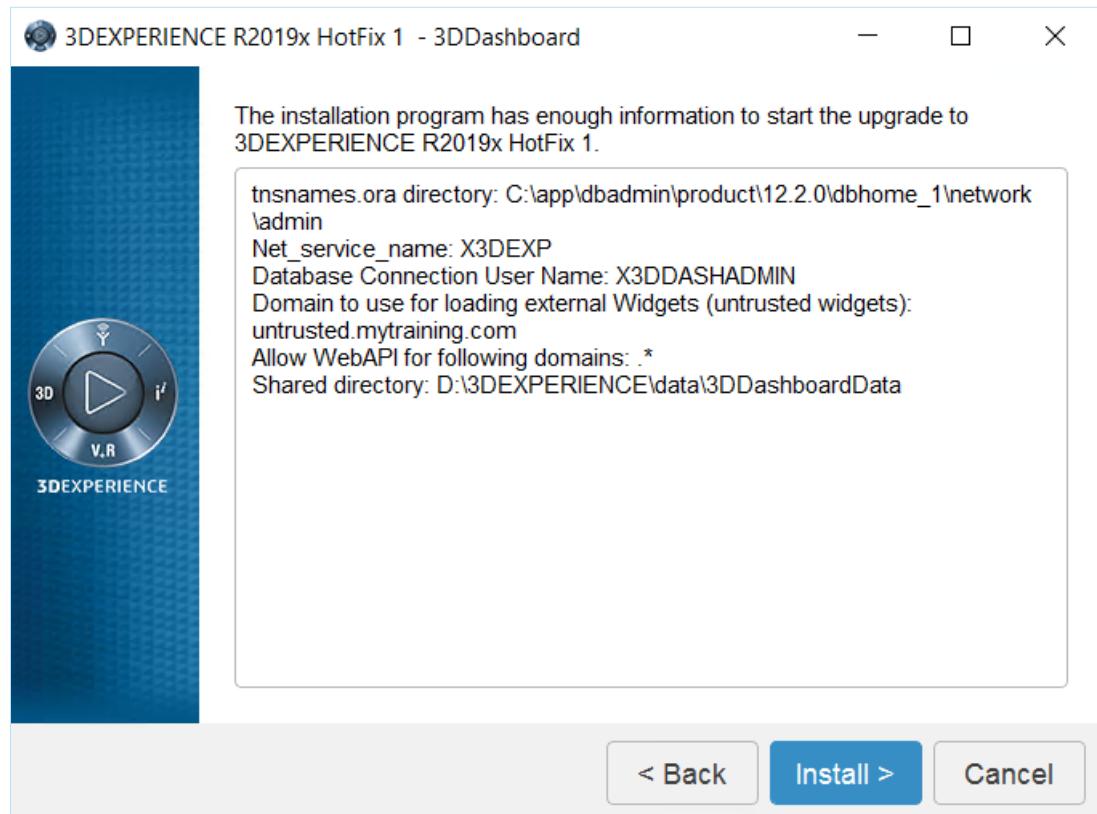
- d. Navigate to this path and find:

GUI: setup.exe

TUI: StartTUI.exe

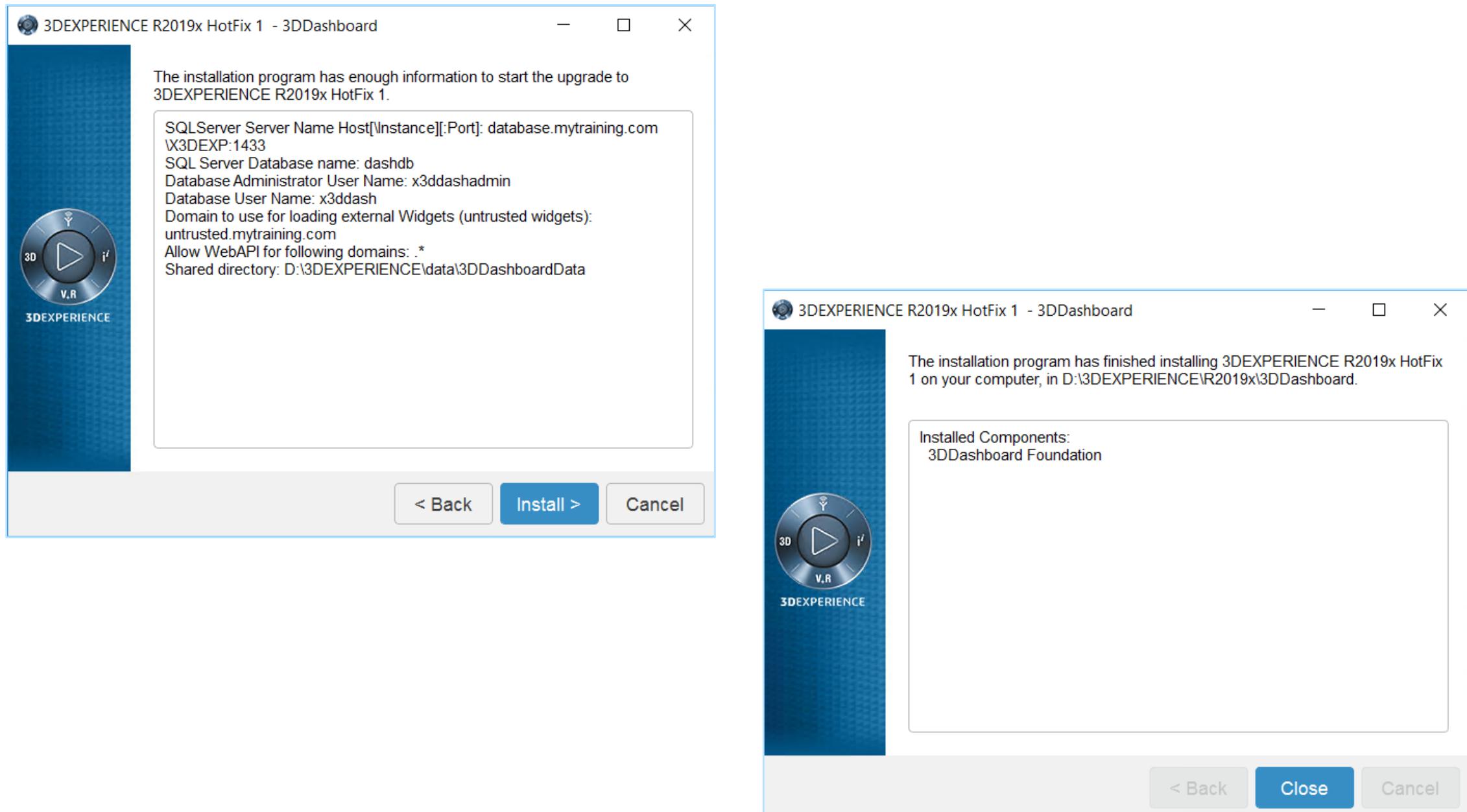
3DDashboard: FP Service Installer – Oracle Summary

- ▶ As with GA, it is recommended that you log the Installation Overview window containing your input values.
 - If you choose to take a screen shot, the window can be resized so you can see all the values clearly.
 - Proceed with the update using the same key values.



3DDashboard : FP Service Installer – SQL Server Summary

- ▶ As with GA, it is recommended that you log the Installation Overview window containing your input values.
 - If you choose to take a screen shot, the window can be resized so you can see all the values clearly.
 - Proceed with the update using the same key values.



3DDashboard: FP Post Installation

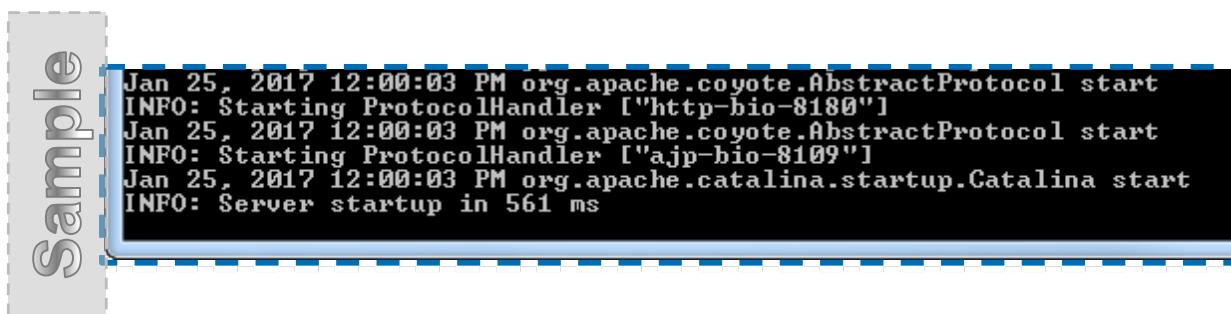
3DDashboard installer immediately creates the database objects during the installation procedure rather than at TomEE+ startup, you can immediately validate the tables have been created.

a. TomEE+ code PATH: <D:\3DEXPERIENCE\TomEE\TomEE3DDashboard>

b. Start and stop TomEE+ (or use your Desktop icon)

`<TomEE 3DDashboard Path>\bin\startup.bat`

Wait for it to finish deploying the application.



c. Edit the fragment file:

D:\3DEXPERIENCE\R2019x\3DDashboard\win_b64\templates\3DDashboard_httpd_fragment.conf

Validate the values for “**port**” and “**FQDN**” in the fragment file.

`http://3ddashboard.mytraining.com:8180`

d. Backup the fragment file to:

D:\3DEXPERIENCE\conf\Fragment\3DDashboard_httpd_fragment.conf.FP

3DDashboard : FP Technical Validation

"FP technical validation" refers to validation of the installation process, i.e. did it install without errors and did it complete what it was supposed to do. There are three validation steps: installer log, database and expected file deployment review.

Defining the service code installation path: D:\3DEXPERIENCE\R2019x\3DDashboard

1. Installer error log should be empty in:

<Code Path>\InstallData\log\CODE\win_b64\.....media<Latest timestamp>\Errors.log & *Stderr.txt

Size should be 0 bytes

Note : You should see 2 "...media..." folders, one was for the GA, the new one is the FP.

If you had to modify values in the installer dialogues you will see these "errors" in the Errors.log you will need to validate if any of these messages require corrective action.

2. Check configuration parameter setting for licensing 3DDashboard has "disabled=true" in:

- o <Code Path>\win_b64\TomEE\conf\conf.d\cxf-rs.properties

3DDashboard: FP Technical Validation

3. Expected file creation or updates:

- <TomEE 3DDashboard Path>\webapps\3DDashboard.war
- <TomEE 3DDashboard Path>\bin\setenv.bat

```
| REM Start Default 3DXEP TomEE+ Configuration
| set JAVA_HOME=D:\3DEXPERIENCE\Java64\jdk8
| set JRE_HOME=%JAVA_HOME%\jre
| set CATALINA_HOME=D:\3DEXPERIENCE\TomEE\TomEE3DDashboard

| @echo off
| rem DS_DO_NOT MODIFY START
| set "CATALINA_OPTS=%CATALINA_OPTS% -Dfile.encoding=UTF-8 -Djava.awt.headless=true -server "
| set "JAVA_OPTS=%JAVA_OPTS% -Duwp.externalConfig=D:\3DEXPERIENCE\R2019x\3DDashboard\win_b64\uwp-config.properties"
| set "JAVA_OPTS=%JAVA_OPTS% -Duwp.logs.path=D:\3DEXPERIENCE\R2019x\3DDashboard\logs"
| set "JAVA_OPTS=%JAVA_OPTS% -XX:NewSize=480m -XX:MaxNewSize=480m -XX:SurvivorRatio=3"
| set "JAVA_OPTS=%JAVA_OPTS% -XX:+DisableExplicitGC -XX:+UseCompressedOops "
| set "PATH=%PATH%;D:\3DEXPERIENCE\R2019x\3DDashboard\win_b64\code\bin"
| rem DS_DO_NOT MODIFY END
```

The sample file can be “cleaned” for better readability.

3DDashboard: Validation

- ▶ In this section you will validate the service functionality and part of the infrastructure deployment
 - Apache
 - Redirect to 3DDashboard TomEE+
- ▶ Start the Apache service if not started
 - Open service manager
- ▶ Start TomEE+
 - <TomEE 3DDashboard Path>\bin\startup.bat
 - Wait for it to finish deploying the application.
 - Access the URL:
 - <https://3ddashboard.mytraining.com:443/3ddashboard>
 - 3DDashboard depends on 3DSpace which is not yet active, the expected behavior is:
 - i. HTTPS URL access
 - Apache Found the URL
 - ii. Redirected by 3DDashboard to 3DPassport via Apache
 - 3DDashboard App found and proper redirection to 3DPassport
 - iii. Redirected back by 3DPassport to “3DDashboard ” via Apache resulting in page not found (404 error).
 - iv. Proper redirection from 3DPassport back to the Application



Each time you test a new URL it is recommended that you add it to the IE "Favorites bar" (rename it for ease).

3DDashboard: Uninstallation

Windows normal uninstall procedure:

- a. Stop TomEE+ that if it is running <Service Name>
- b. In the Database instance you must drop the user/database.
- c. In "Programs and Features" uninstall:
 - o "Dassault Systemes <Service Name>3DEXPERIENCE R2019x"
- d. There is also a Uninstall.bat file in the D:\3DEXPERIENCE\R2019x\<Service Name> with which you can uninstall a service.
- e. Remove the folder
 - o D:\3DEXPERIENCE\R2019x\<Service Name>
 - o D:\3DEXPERIENCE\TomEE\TomEE<Service Name>

Exercise Recap: 3DDashboard

In this exercise, you have:

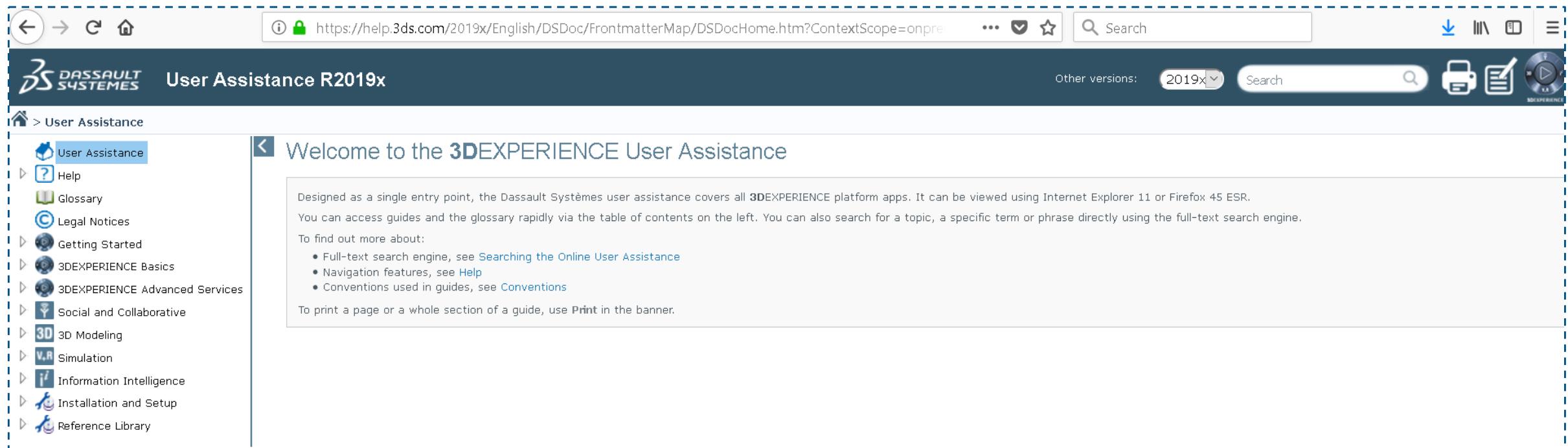
- ✓ Installed the GA 3DDashboard
- ✓ Performed the GA post configuration
- ✓ Validated the GA service
- ✓ Installed the FP 3DDashboard
- ✓ Performed the FP post configuration
- ✓ Validated the FP service

Topics to be covered:

- ✓ 1. *Introduction*
- ✓ 2. *DSLS*
- ✓ 3. *Global 3DEXPERIENCE platform installer*
- ✓ 4. *3DPassport*
- ✓ 5. *Reconfiguration*
- ✓ 6. *3DDashboard*
- 7. **3DSearch**
- 8. *3DSpace*
- 9. *3DNotification*
- 10. *3DComment*
- 11. *3DSwym*
- 12. *FCS*

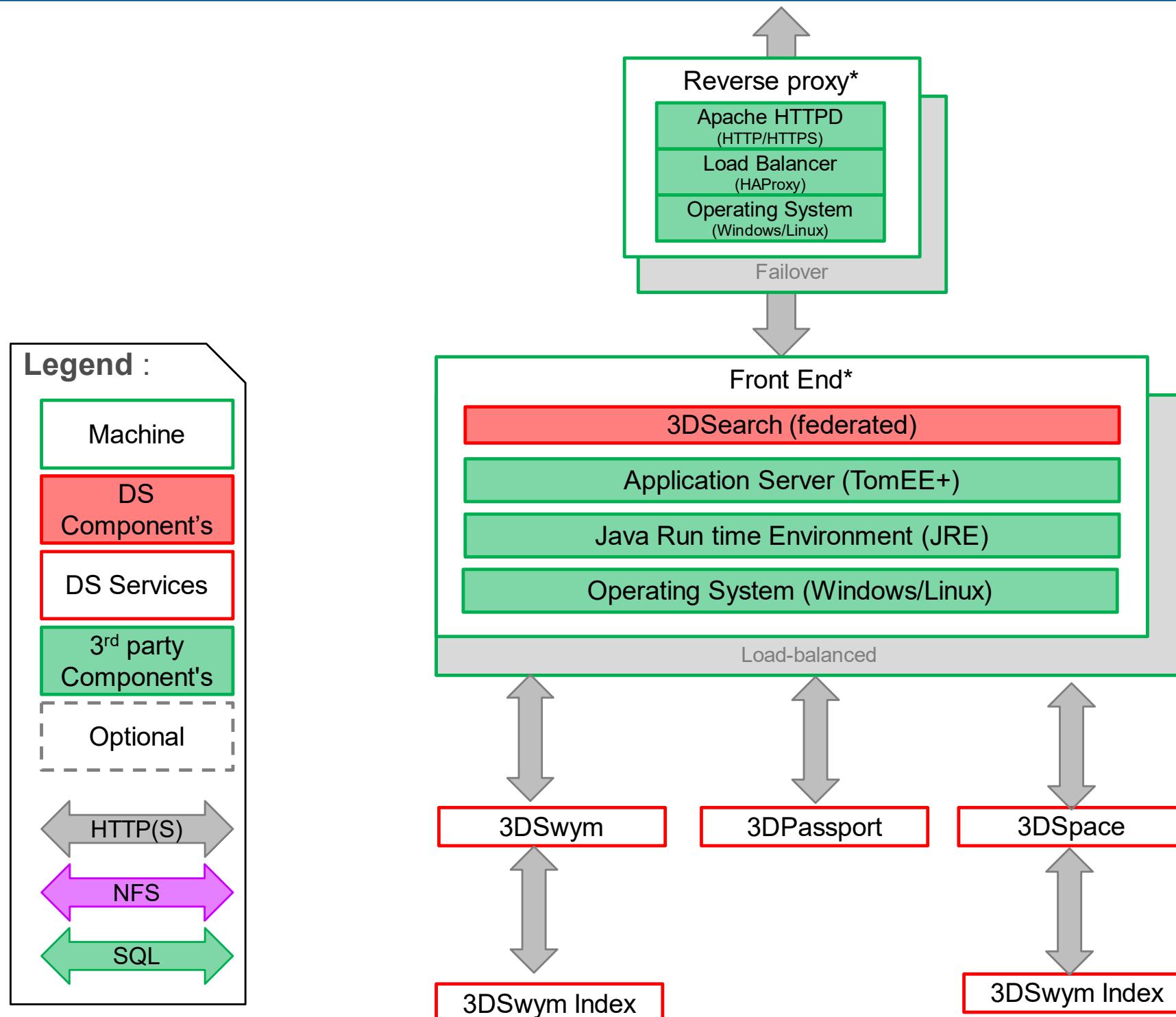
About Federated Search

- ▶ FedSearch is the search service used by the apps in the **3DEXPERIENCE** platform to federate search results from 3DSpace and 3DSwym.
- ▶ Dispatch the FedSearch requests to the Different Data Sources requested
- ▶ Merge the results in a single message while keeping the security of individual sources





Federated Search : Architecture



* Always consult the “Program Directory” for version and latest news.

Federated Search: Pre-Check

You should have already prepared the groundwork required to proceed with this service installation, you will need the following pre-requisites:

- TomEE+ (stopped)
 - 1 TomEE+ is dedicated for the service
 - 1 SSL certificate
- Java

Note: You will not be able to proceed if any of these are missing.

- Main Configuration requirement:
 - TomEE+ needed : Yes
 - Java dependent : Yes

Federated Search: Key Parameters

Installation Cook-book: Installation key parameters explained.

- ▶ Installation Directory: This is the location where the service code will be installed. Do not use blanks in the installation path if you can avoid it. It is also recommended not to install on the C: drive. The C: drive is the system drive, if it gets corrupted or becomes full it could bring the service down. By selecting another drive you will have better control and stability for the platform.
- ▶ Installing Embedded Server JRE & Installing Embedded Apache TomEE+: 3DS service installer comes with java JRE and TomEE+. This can be practical for small businesses and if you do not want to manage other software installations. The disadvantages are that it is harder to upgrade and maintain Java security release and it cannot be easily implemented with load balancing.
- ▶ Application server path option: For the external TomEE+ instance be sure that you have the proper OS permissions as the application may need to add, alter or update binaries, libraries or configuration files.
- ▶ Keywords: Federated Search for 3DSwym and 3DSpace.

Federated Search: Key Parameters

- ▶ Available Installation Options :
 - Install the embedded Server JRE
 - Install the embedded TomEE+

Federated Search: GA media installer

GA core components have two different installation methodologies:

- The global **3DEXPERIENCE** platform Installer found in:
<Your Media PATH>\AM_3DEXP_Platform.AILOS\1\
Navigate to this path and find:
 - GUI: setup.exe
 - TUI: StartTUI.exeThis installer is primarily used when you want to deploy all the services on one machine
- Classic "Service Installer" are available in :
<Your MediaPATH>\AM_3DEXP_Platform.AILOS\1\FederatedSearchFoundation\Windows64\1
Traditional method used to deploy the services on different machines
- Start the GUI installer

Exercise: Federated Search

In this exercise, you will:

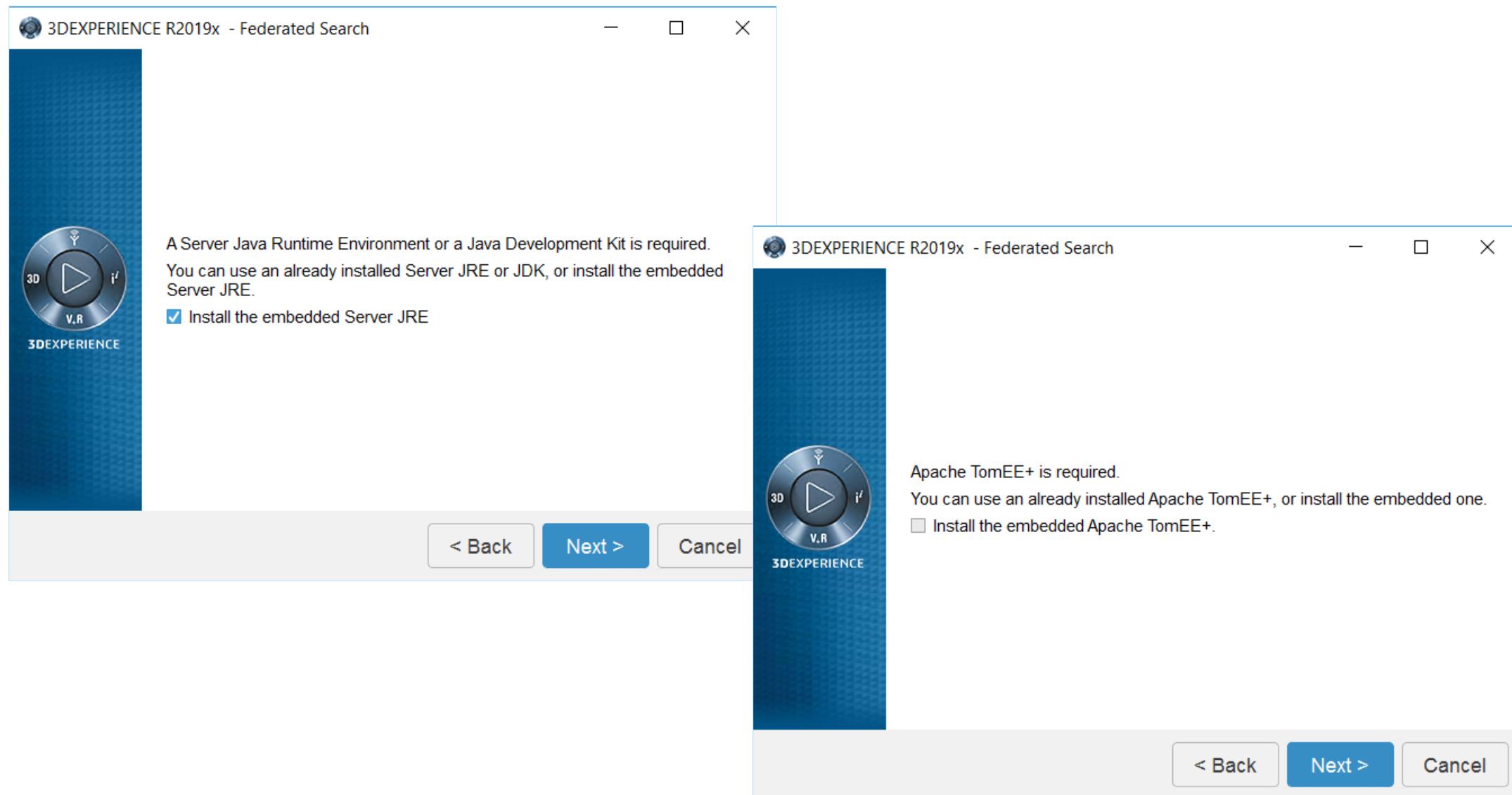
1. Install the GA 3DSearch
2. Perform the GA post configuration
3. Validate the GA service
4. Install the FP 3DSearch
5. Perform the FP post configuration
6. Validate the FP service



30 minutes

Federated Search: GA media installer

1. Using the Cheat-sheet on the next page, proceed to the installation, don't forget to uncheck the installer options for:
 - a. Install the embedded JRE > No
 - b. Install the embedded TomEE+ > No



Federated Search: Key Parameters

- ▶ During the Installation you will be queried about the following parameters:

Cheat-Sheet :

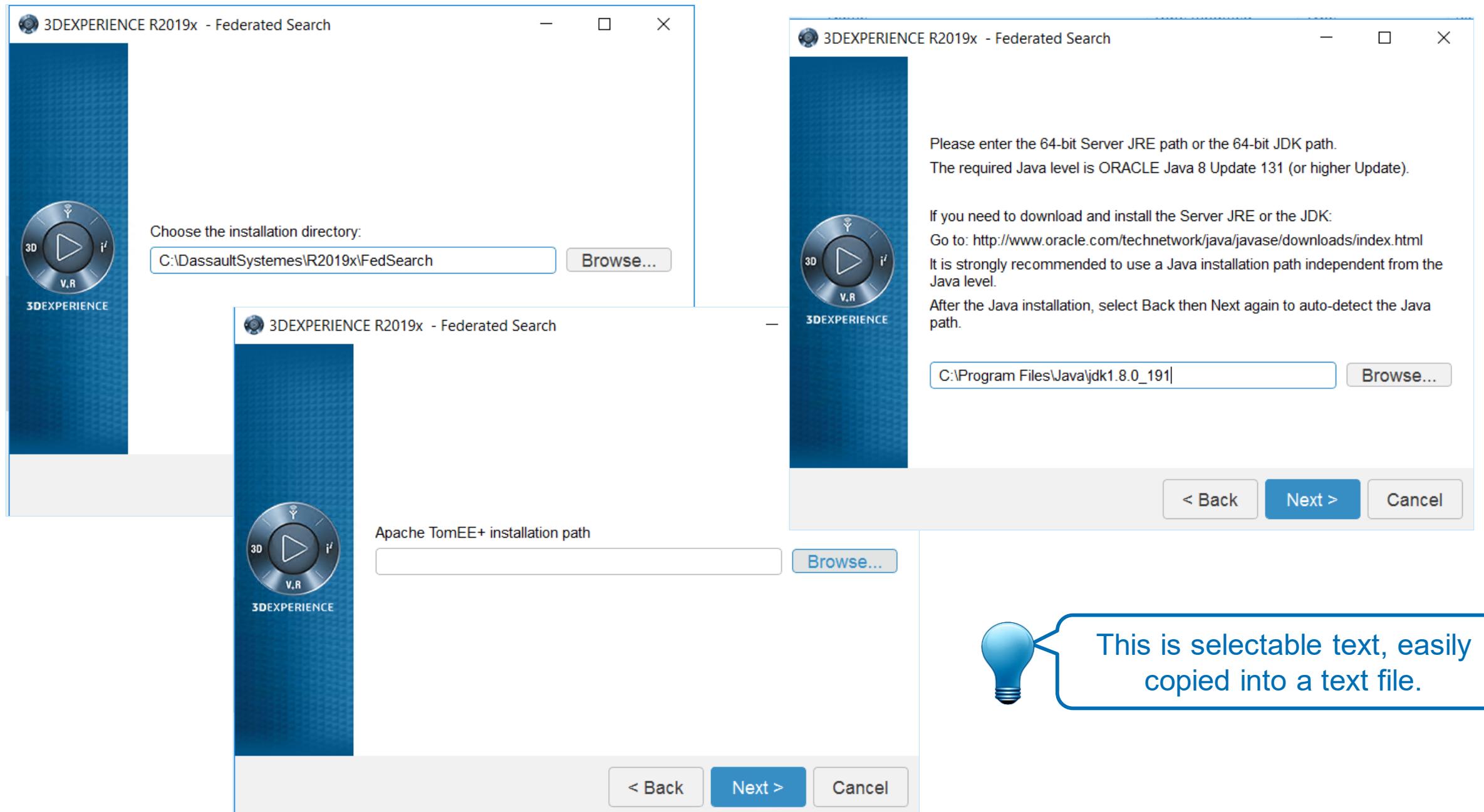


Make sure to enter **mytraining.com** instead of **mydomain**. This DNS is specific for this training and would vary in the real world.

Steps	Key	Value
01	Installer	<Your Media Path>\AM_3DEXP_Platform.AILOS\1\setup.exe
02	Global platform Installer	FederatedSearchFoundation
03	Installation Directory	D:\3DEXPERIENCE\R2019x\FedSearch
04	Install the embedded Server JRE	No
05	JRE or JDK PATH	D:\3DEXPERIENCE\Java64\jdk8
06	Install the embedded Apache TomEE+	No
07	Application server installation path	D:\3DEXPERIENCE\TomEE\TomEEFedSearch
08	3DPassport service URL Federated Searchservice URL 3DSpace service URL 3DSWYM service URL	https://3dpassport.mytraining.com:443/3dpassport https://fedsearch.mytraining.com:443/federated https://3dspace.mytraining.com:443/3dspace https://3dswym.mytraining.com:443/3dswym

Federated Search: GA Media Installer

It is strongly recommended that you copy the installation information into a text file prior to clicking the “install” button.



Federated Search: GA Post Installation

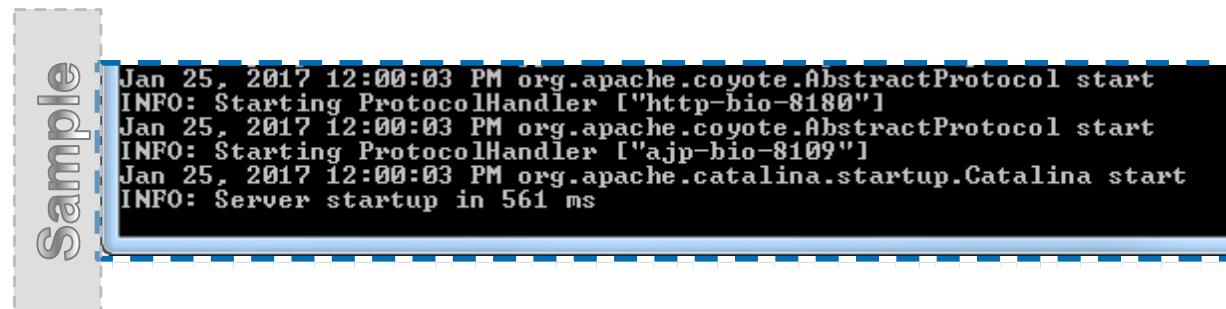
Federated Search does not connect to a database or create database objects. A clean startup of TomEE+ is required after installation.

a. TomEE+ code PATH: D:\3DEXPERIENCE\TomEE\TomEEFedSearch

b. Start and stop TomEE+ (or use you Desktop icon)

<TomEE FedSearch Path>\bin\startup.bat

Wait for it to finish deploying the application.



<TomEE FedSearch Path>\bin\shutdown.bat

Wait for it to finish closing properly the terminal ...

c. Check the logs for errors then delete the logs in the log folder

o <TomEE FedSearch Path>\logs*.log

Federated Search: GA Post Installation

d. Go to your **3DEXPERIENCE** folder and edit the file: `D:\3DEXPERIENCE\conf\Apache\3dexperience.conf`

In the section " Federated Search " replacing the following line:

```
#XXXX Future fragment file XXXX
```

With:

```
include D:\3DEXPERIENCE\R2019x\FedSearch\win_b64\templates\federated_httpd_fragment.conf
```

e. Edit the fragment file :

```
D:\3DEXPERIENCE\R2019x\FedSearch\win_b64\templates\federated_httpd_fragment.conf
```

Validate the values for "**port**" and "**FQDN**" in the fragment file

```
http://fedsearch.mytraining.com:8280
```

f. Backup the fragment file to :

```
D:\3DEXPERIENCE\conf\Fragment\federated_httpd_fragment.conf.GA
```

g. Copy the "UserIntentions_CODE.xml" file in folder

```
D:\3DEXPERIENCE\R2019x\FedSearch\InstallData
```

To folder:

```
D:\3DEXPERIENCE\conf\UserIntentions\
```

and rename to `UserIntentions_FedSearch.xml`

Federated Search: GA Technical Validation

"GA technical validation" refers to validation of the installation process, i.e. did it install without errors and did it complete what it was supposed to do. There are two steps: installer log and expected file deployment review.

Defining the service code installation path: [D:\3DEXPERIENCE\R2019x\FedSearch](#)

1. Installer error log should be 0 bytes and can be found at:

[`<Code Path>\InstallData\log\CODE\win_b64\....media<Latest timestamp>\Errors.log & *Stderr.txt`](#)
Size should be 0 bytes

If you had to modify values in the installer dialogues you will see these "errors" in the Errors.log you will need to validate if any of these messages require corrective action.

2. Expected file creation, and folder :

- a. [`<TomEE FedSearch Path>\webapps\federated\`](#)
- b. [`<TomEE FedSearch Path>\bin\setenv.bat`](#)

Federated Search: FP Service Installer

There is no "global 3DEXPERIENCE platform installer" for FP you must update each service individually.

- a. Ensure that "**TomEEFederated Search**" is stopped

<D:\3DEXPERIENCE\TomEE\TomEEFederatedSearch\bin\shutdown.bat>

If you do not stop TomEE+, the installer will not be able to replace certain files automatically, this can result in errors in the log or unexpected behavior.

- b. Use the normal "Service Installer":

<Your Media PATH>\Part_3DEXP_Platform.Windows64\2\Software

You will find:

- o <FederatedSearchFoundation-V6R2019x.HF2.Windows64.zip>

- c. Unzip the proper OS version to <Your Installer PATH>

- o <<Your Installer PATH>\FederatedSearchFoundation.Windows64\1>

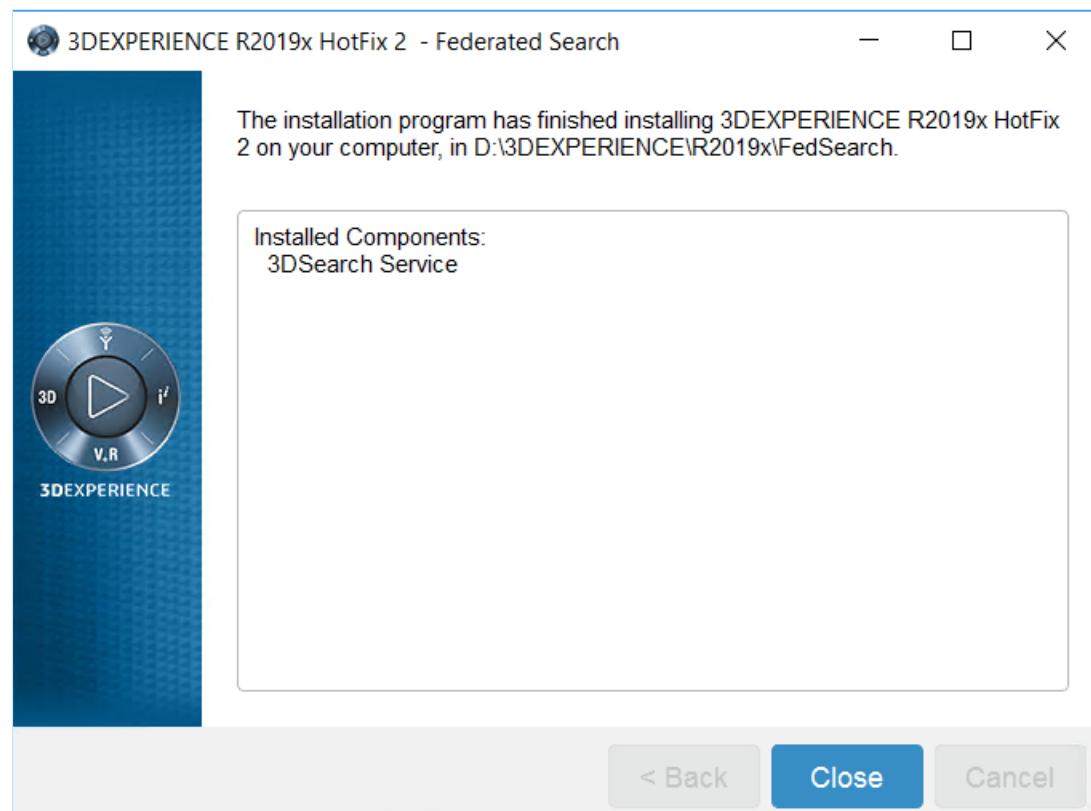
- d. Navigate to this path and find:

GUI: setup.exe

TUI: StartTUI.exe

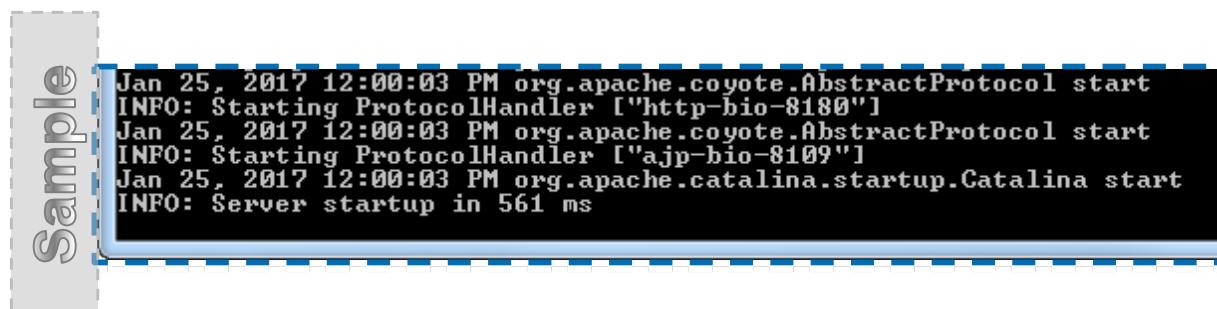
Federated Search: FP Service Installer

1. As with GA, it is recommended that you log the Installation Overview window containing your input values.
 - a. If you choose to take a screen shot, the window can be resized so you can see all the values clearly.
 - b. Proceed with the update using the same key values.



Federated Search: FP Post Installation

1. Federated Search does not connect to a database or create database objects. A clean startup of TomEE+ is required after installation.
 - a. TomEE+ code PATH: D:\3DEXPERIENCE\TomEE\TomEEFedSearch
 - b. Start and stop TomEE+ (or use your Desktop icon)
<TomEE FedSearch Path>\bin\startup.bat
Wait for it to finish deploying the application.



- c. Edit the fragment file :
D:\3DEXPERIENCE\R2019x\FedSearch\win_b64\templates\federated_httpd_fragment.conf
- d. Validate the values for “port” and “FQDN” in the fragment file.
<http://fedsearch.mytraining.com:8280>
- e. Backup the fragment file to:
D:\3DEXPERIENCE\conf\Fragment\federated_httpd_fragment.conf.FP

Federated Search: FP Technical Validation

"FP technical validation" refers to validation of the installation process, i.e. did it install without errors and did it complete what it was supposed to do. There are two validation steps: installer log and expected file deployment review.

Defining the service code installation path: D:\3DEXPERIENCE\R2019x\Federated Search

1. Installer error log should be empty in:

<Code Path>\InstallData\log\CODE\win_b64\.....media<Latest timestamp>\Errors.log & *Stderr.txt
Size should be **0 bytes**

You should see 2 "...media..." folders, one was for the GA, the new one is the FP.

2. if you had to modify values in the installer dialogues you will see these "errors" in the Errors.log you will need to validate if any of these messages require corrective action.
3. Expected folder creation or updates:
 - a. <TomEE FedSearch Path>\webapps\federated

Federated Search: Validation

In this section you will validate the service functionality and part of the infrastructure deployment

- a. Apache
 - b. Redirect to FederatedTomEE+
1. Start the Apache service if not started
 - a. Open service manager



Each time you test a new URL it is recommended that you add it to the IE "Favorites bar" (rename it for ease).

2. Start 3DPassport TomEE+ and FedSearch TomEE+
 - a. <TomEE FedSearch Path>\bin\startup.bat

Wait for it to finish deploying the application.

Access the URL:

<https://fedsearch.mytraining.com:443/federated>

Federated Search has no user interface, the expected behavior is:

- ▶ HTTPS URL access
- ▶ Apache Found the URL
- ▶ Redirected by Federated to 3DPassport via Apache
- ▶ Federated App found and proper redirection to 3DPassport
- ▶ Redirected back by 3DPassport to “federated” via Apache resulting in page not found (404 error).
- ▶ Proper redirection from 3DPassport back to the Application

Federated Search: Uninstallation

Windows normal uninstall procedure:

- a. Stop TomEE+ if it is running <Service Name>
- b. In "Programs and Features" uninstall:
 - i. "Dassault Systemes <Service Name> 3DEXPERIENCE R2019x"
- c. There is also a Uninstall.bat file in the D:\3DEXPERIENCE\R2019x\<Service Name> with which you can uninstall a service.
- d. Remove the folder
 - i. D:\3DEXPERIENCE\R2019x\<Service Name>
 - ii. D:\3DEXPERIENCE\TomEE\TomEE<Service Name>

Exercise Recap: Federated Search

In this exercise, you have:

- ✓ Installed the GA Federated Search
- ✓ Performed the GA post configuration
- ✓ Validated the GA service
- ✓ Installed the FP Federated Search
- ✓ Performed the FP post configuration
- ✓ Validated the FP service

About 3DSpace Index

- ▶ 3DSpace Index Server is used as the search engine for all products.
- ▶ 3DSpace Index (Previously known as Exalead Full text Search) is based on EXALEAD CloudView technology, it is an independent server with specific Program Directory requirements.
- ▶ The server needs a continuous range of 100 TCP ports to operate correctly. By default, 3DSpace Index Server executes on a port range of 19000-19100. If any other applications are using any of the ports between 19000 and 19100 it will result in the server being unable to start/restart.
- ▶ 3DSpace Index Search server handles its own stored and indexed data, and can only be used by **3DEXPERIENCE** platform apps or developed using **3DEXPERIENCE** platform public APIs. It should not be confused with other EXALEAD CloudView products.

The screenshot shows a web browser window with the URL 3dspaceindex.mytraining.com:19001/index.html. The page is titled "CloudView Administration Server".

BUILD APPLICATION

- Administration Console**: Connect to data source, process, extract information and store it into the index.
- Business Console**: Tune relevance, define content recommendation, edit semantic resources and alerting rules.

MONITOR & TROUBLESHOOT

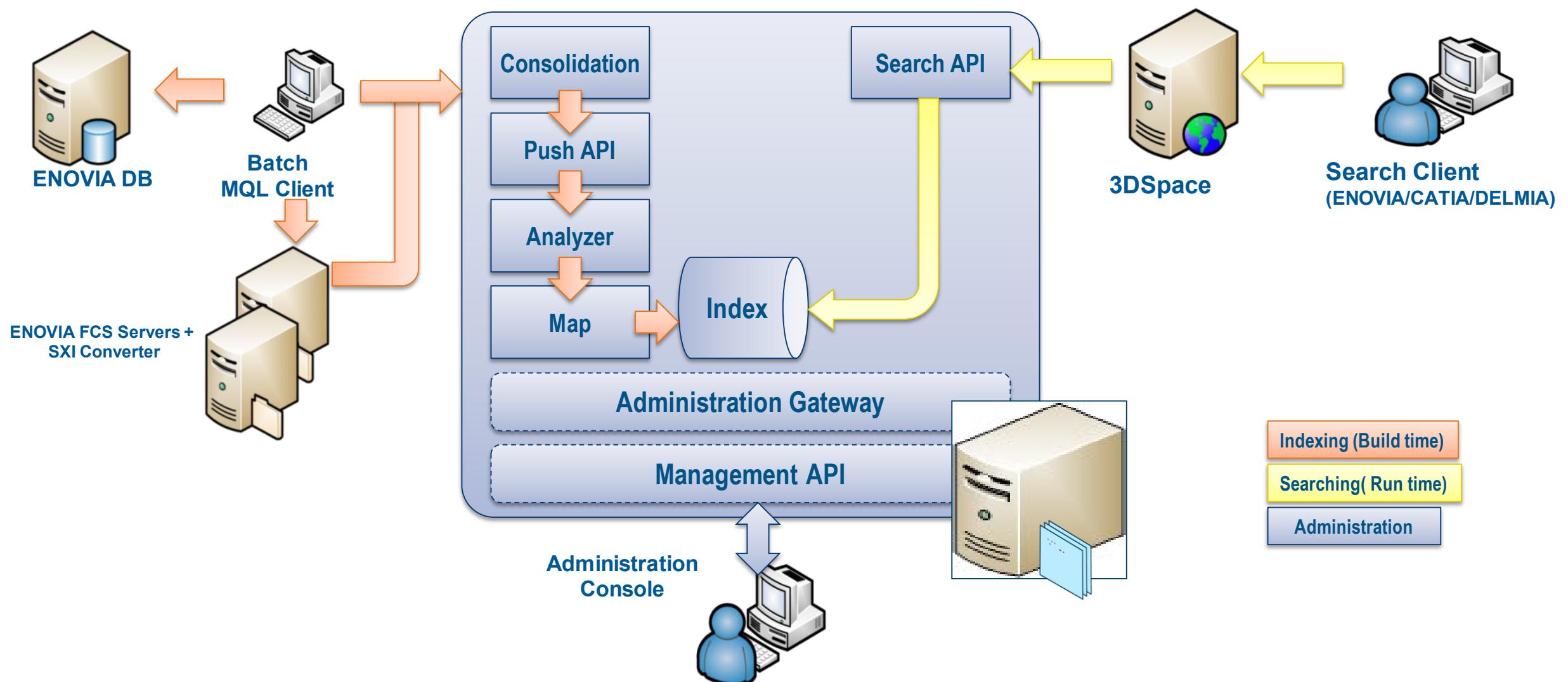
- Monitoring Console**: Monitor index and search activity, hardware consumption and system status.
- API Console**: Direct access to product configuration, manual document indexing...

GET HELP

- GUIDES**
 - Getting Started
 - Installation & Deployment
 - Administration
 - Connectors
 - Configuration
 - Mashup application development
- CUSTOMIZE**
 - Connectors & Push API
 - Customization SDK
 - Java APIs SDK
 - Mashup UI SDK
- REFERENCES**
 - XML Configuration
 - Search API parameters
 - Mashup widgets
 - Semantic resources
- RELEASE**
 - Release notes
 - Third-Parties

3DSpace Index: Architecture

- The end users never access the 3DSpace Index server directly. Only the Administrator will need access to the server backend. The administration URL should be protected via firewall rules.



3DSpace Index: Pre-Check

3DSpace Index is not a “typical” DS core component installation, this requires you to pay particular attention to the “Program Directory” and documentation.

■ "Program Directory"

The screenshot shows a sidebar titled "Sample" on the left, containing links for "3DOrchestrator", "Components", "Fixed components & Hot Fix numbers", "Parts description", "Installation", "3DEXPERIENCE Platform Installation", "3DEXPERIENCE Platform Administration", "3DEXPERIENCE Platform Configuration" (which is highlighted in blue), "3DEXPERIENCE Platform Customization", "User Assistance", "Native Apps Installation", "ACADEMIA Installation", "Quintiq Installation", "Migration", "Data Migration", "Licensing", "Native Apps", "3DEXPERIENCE Platform", and "Products". The main content area is titled "3DSpace Index" and includes sections for "Installation", "Installation in silent mode" (with a note about a required package not being installed), "By-pass" (if machine is patched), "Package installation" (warning about a required package not being installed), and "CloudView ports" (note about port requirements). A red box highlights the "3DEXPERIENCE Platform Configuration" link in the sidebar and the "Required package not installed" message in the main content.

■ "Documentation"

The screenshot shows a sidebar titled "Sample" on the left, containing links for "3DSpace Index", "What's New?", "Preparing the Installation", "3DSpace Index Deployments", "Installing 3DSpace Index" (which is highlighted in blue), "Uninstalling 3DSpace Index", "Sitemap", "3D Indexing Server", "3DSwym", "3DComment", "3DNotification", "Monitoring Agent", "Web Apps", "Native Apps", "Using the Global 3DEXPERIENCE Platform Installer", "Social and Collaborative", "Interactive Experience", and "Planets Studio". The main content area is titled "Installing 3DSpace Index" and includes sections for "This topic describes how to install 3DSpace Index.", "During installation, you are presented with options to install:" (with a bulleted list: Single Search Server, High Availability Master Server, High Availability Slave Server, File Converter Only), "The File Converter handles file indexing and should be installed at every File Collaboration Server (FCS). If the FCS lives on the same machine as the CloudView server, there is no need to install the File Converter.", "A plugin called `ConsolidationServerRules` will be installed during setup to manage CloudView consolidation server.", "Important: 3DSpace Index runs on 64-bit Windows, RHEL and SUSE. There is no support for 32-bit platforms.", "Note: The `ACI` entry is no longer valid and the `SERVER` entry should be used instead.", and "This task shows you how to:" (with a bulleted list: Install 3DSpace Index, Check Installation Log Files, Complete Post-installation Tasks). A red box highlights the "Installing 3DSpace Index" link in the sidebar and the "File Converter Only" bullet point in the main content.

3DSpace Index: Key Parameters

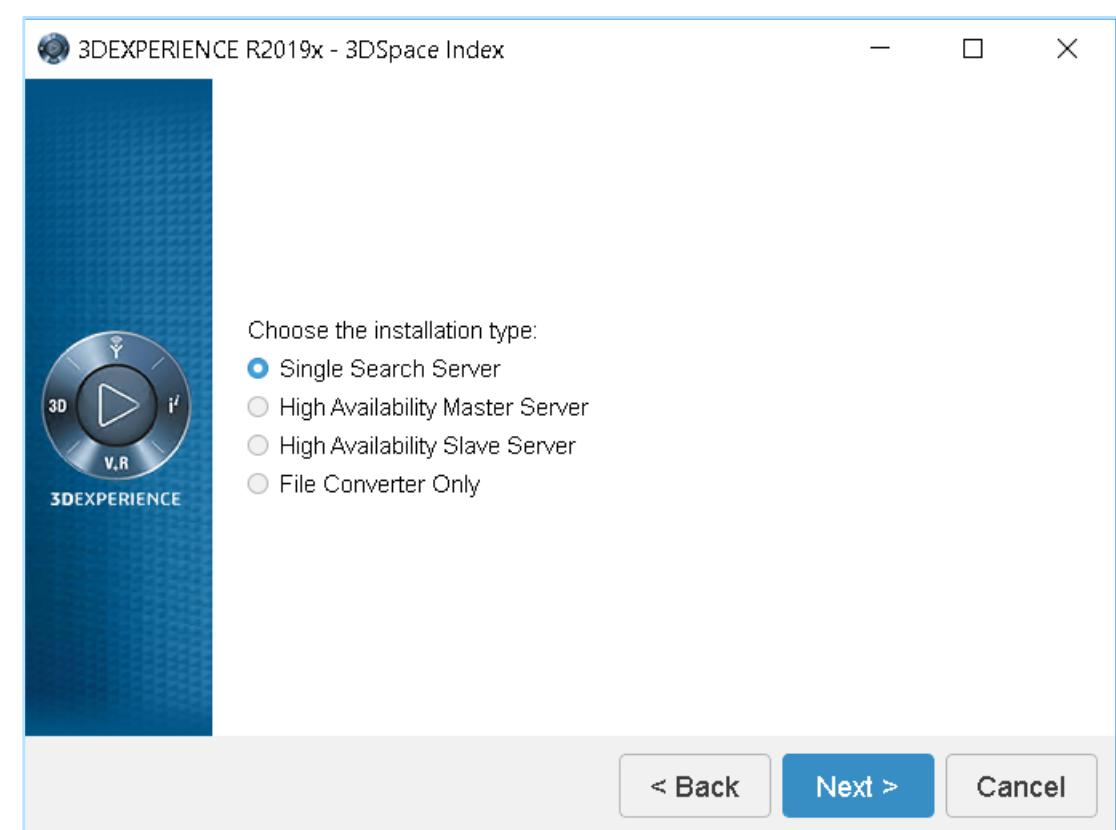
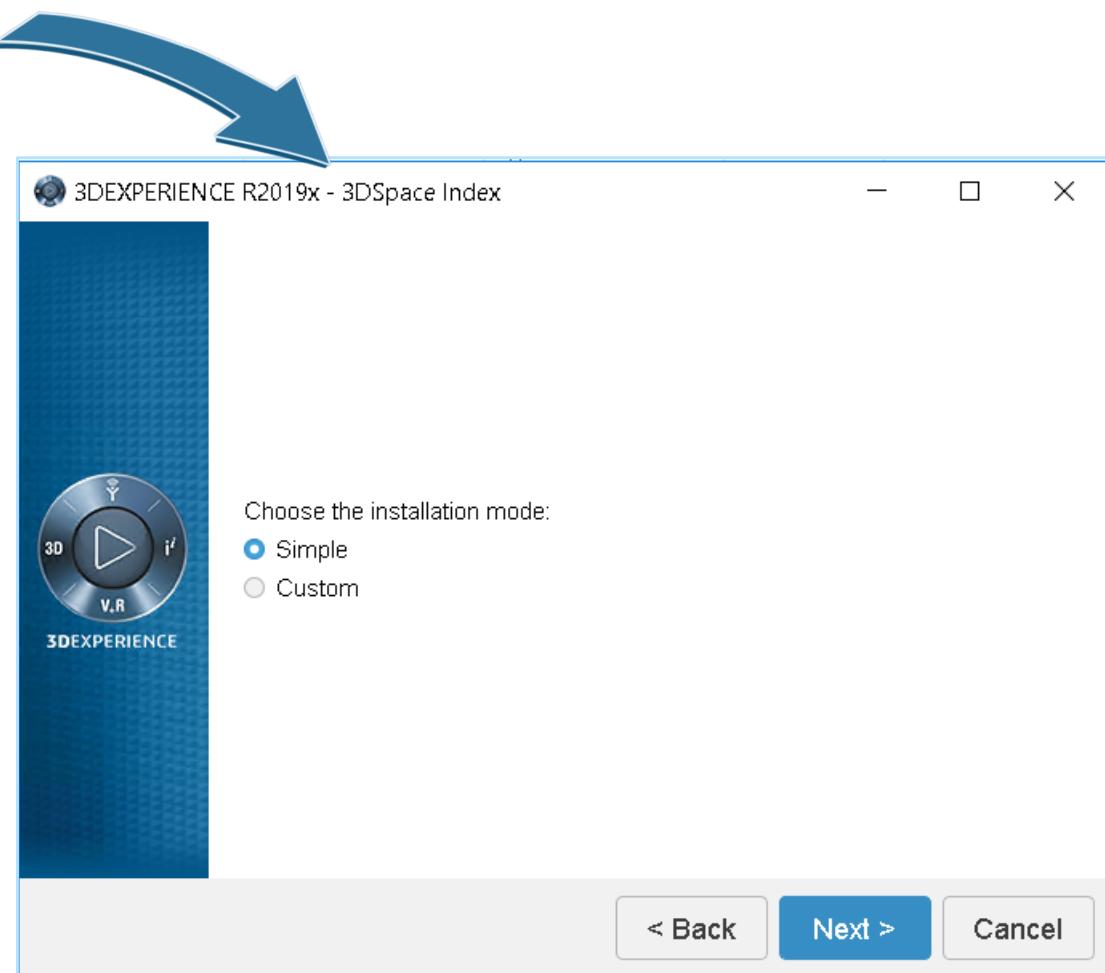
Installation Cook-book: Installation key parameter explained.

- Installation Directory: This is Where the service code will be installed. Do not use blanks in the installation path if you can avoid it. It is also recommended not to install on the C: drive. The C: drive is the system drive, if it gets corrupted or becomes full it could bring the service down. By selecting another drive you will have better control and stability for the platform.
 - Search service URL: It is very important to validate that the “search” ports are free, these ports need to be reached by the **3DEXPERIENCE** platform administrator and 3DSpace server.
 - Number of Slices & Number of Analyzers: These are performance parameters specific to the size of the data and hardware. If your implementation is “3DSpace Index” heavy, it’s recommended to consult the documentation and potentially an 3DSpace Index specialist. 3DSpace Index server performs a lot of functions, it is an index, an application server, a data builder, a file scanner and handles user requests for data.
 - Search Server Data Path: Is the location where the 3DSpace Index will store all its indexes, it is important that this location execute on fast, secure disk (SSD or RAID). If using external storage, be sure that it’s fast and extremely low latency. Fast Network cards (NICs) are also recommended as the 3DSpace Index will transfer a lot of data between the database and 3DSpace!
- Keywords: Metadata and text file indexation.

3DSpace Index : Key Parameters

- ▶ Main Configuration requirement:
 - Database objects : No
 - TomEE + needed : No
 - Java dependent : No
- ▶ 3DSpace Index installation "custom options" are based on the target server:
 - Single Search Server
 - HA Master Server
 - HA Slave Server
 - File Converter Only

Simple installations assume a “master” configuration only



3DSpace Index : Key Parameters

About:

- Single server Option:
 - Single Search Server, this is the most common option for small business, development and OOTB environments.
- High Availability option:
 - Advanced configuration and systems that require High Availability.
 - HA Master Server
 - HA Slave Server
- FCS Option:
 - File Converter Only
 - Essential component that needs to be installed with each FCS host.
 - In a production situation when installing additional remote FCSs, you would install the File Converter option on each remote machine.

Typically you would install the File Converter component on any machine running FCS. In the training we will have two FCSs installed, a **Central** and a **Remote** FCS. Since we are doing an all-in-one install you will not need to install the File Converter component because the Single Search Server option already has the File Converter code built into it. This is a special case because of the training format.

3DSpace Index: GA Media Installer

- ▶ GA core components have two different installation methodologies:
 - The "global 3DEXPERIENCE platform Installer" found in:
 - <Your Media PATH>AM_3DEXP_platform.AILOS\1\
 - Navigate to this path and find:
 - GUI: setup.exe
 - TUI: StartTUI.exe
 - Classic Service Installer are available in :
 - <Your Media PATH>AM_3DEXP_platform.AILOS\3\3DSpaceIndex\Windows64\1
 - Start the GUI installer according to your preference

Exercise: 3DSpace Index

In this exercise, you will:

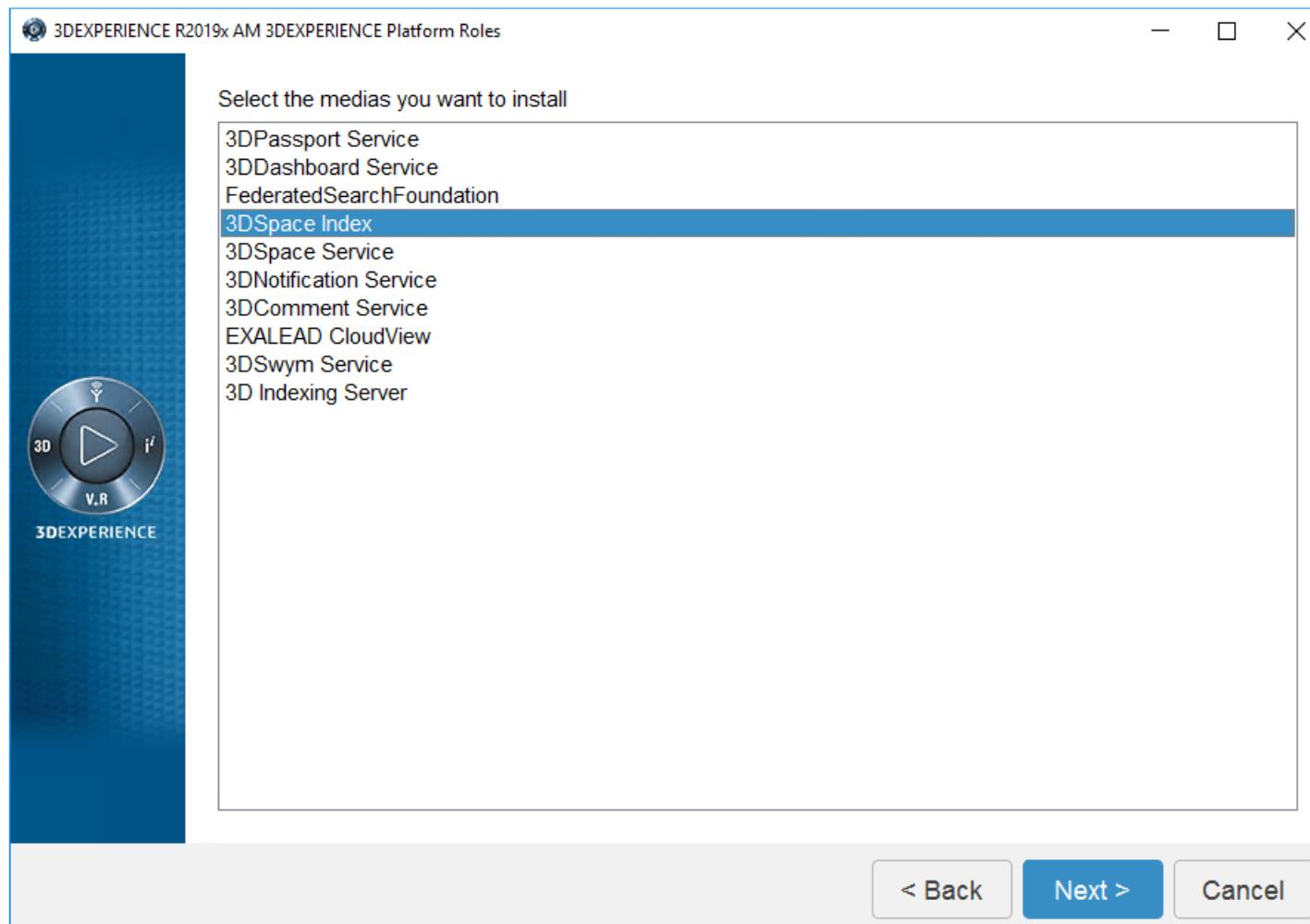
1. Install the GA 3DSpace Index
2. Perform the GA post configuration
3. Validate the GA service
4. Install the FP 3DSpace Index
5. Perform the FP post configuration
6. Validate the FP service



30 minutes

Exercise: 3DSpace Index - GA Media Installer

1. Using the Cheat-sheet on the next page, proceed to the installation, don't forget the installer option related to:
 - a. Installation mode → "Custom"



3DSpace Index : Key Parameters

During the Installation you will be queried about the following parameters:

The set of parameters may look simple but this service is very quick and powerful. Advanced configuration is done via the administration GUI.

Cheat-Sheet :

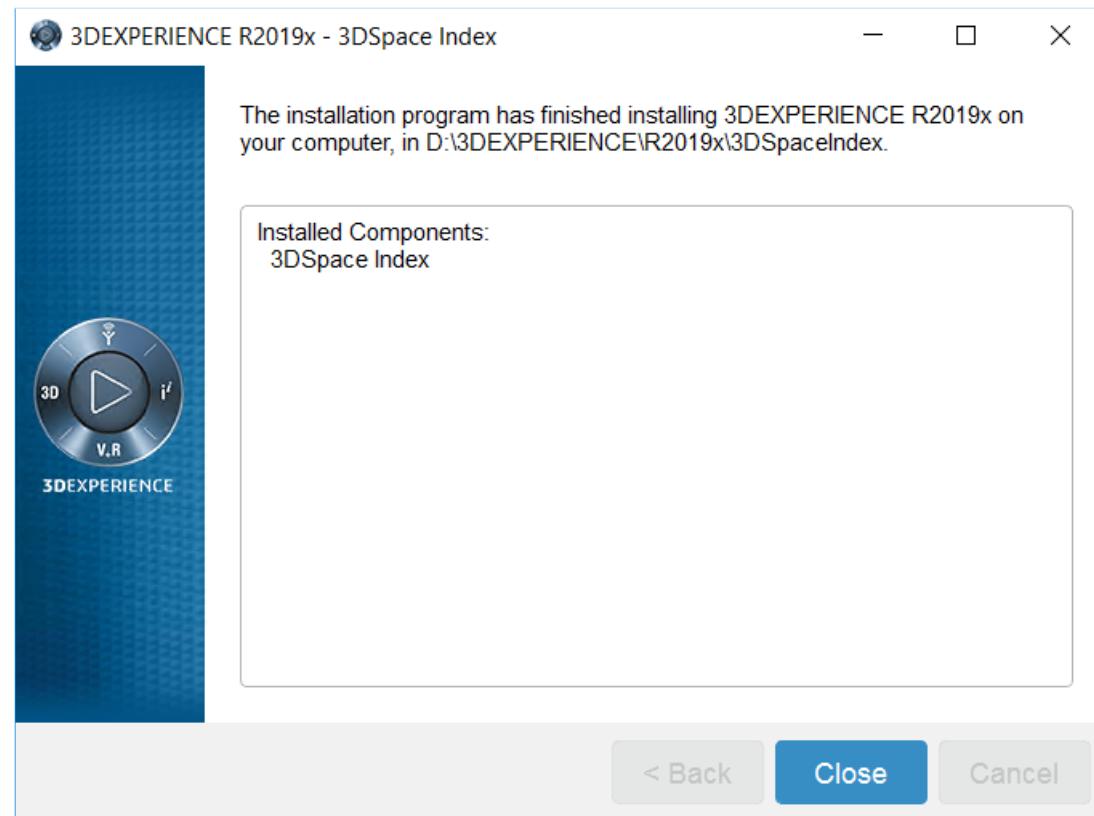


Make sure to enter **mytraining.com** instead of **mydomain**. This DNS is specific for this training and would vary in the real world.

Steps	Key	Value
01	Global platform Installer	<Your Media Path>\AM_3DEXP_Platform.AIROS\1\setup.exe
02	Global platform Installer	3DSpace Index
03	Installation Directory	D:\3DEXPERIENCE\R2019x\3DSpaceIndex
04	Installation mode	Custom
05	Installation type	Single Search Sever
06	Search service URL Number of Slices Number of Analyzers Admin Password	http://3dspaceindex.mytraining.com:19000 1 1 <Password for 3DSpace Index>
07	Search Server Data Path	D:\3DEXPERIENCE\data\3DSpaceIndex\cv\data

3DSpace Index: GA Media Installer

It is strongly recommended that you copy the installation information into a text file prior to clicking the “install” button.



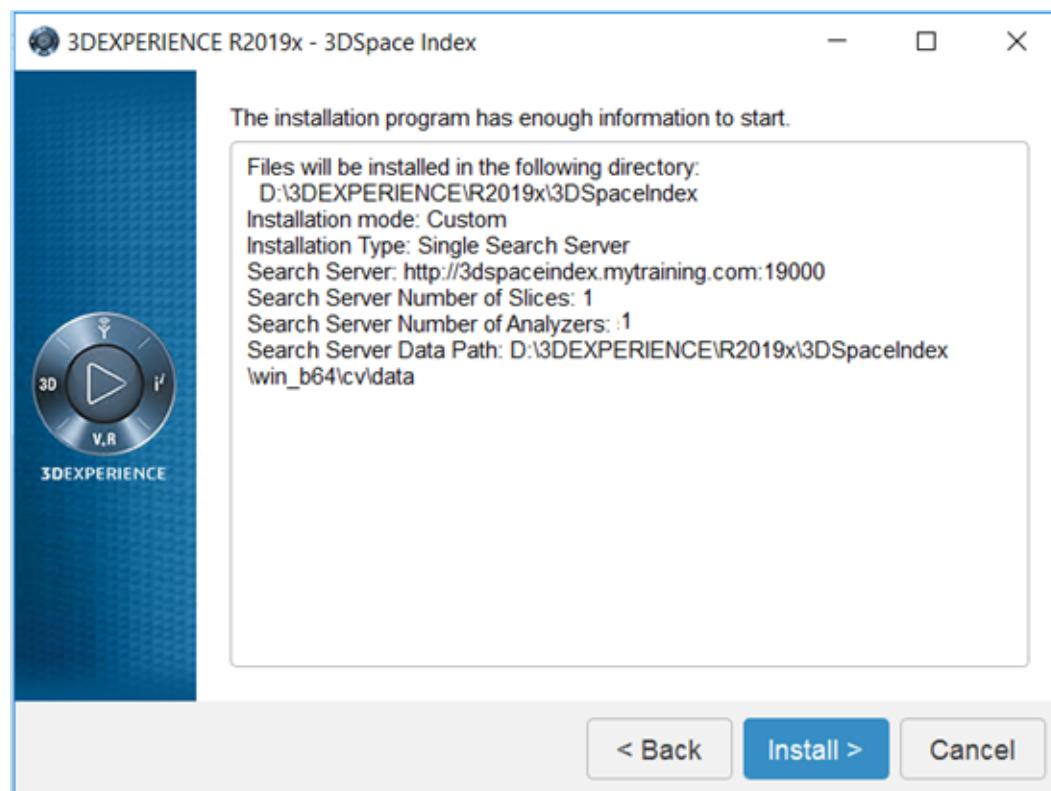
This is selectable text, easily copied into a text file.

You may see message of VC++ installation as popup during the installation. Choose **Yes** and proceed with the installation.

3DSpace Index: GA Media Installer

During the installation you maybe required to install a specific Visual C++ package if it does not already exist on your system.

This can pop-up a few times! Say Yes to all, and give it a bit of time.



3DSpace Index: GA Post Installation

You will notice the 3DSpace Index installer is quite different, as a result, 3DSpace Index does not require much for post installation procedures.

- a. Copy the "UserIntentions_CODE.xml" file in folder

D:\3DEXPERIENCE\R2019x\3DSpaceIndex\InstallData

To:

D:\3DEXPERIENCE\conf\UserIntentions\

and rename it to: UserIntentions_3DSpace Index.xml



3DSpace Index does have additional Post installation activities such as updating the “config.xml” file and checking or changing the scheduler jobs. You will not be performing these tasks at this time. It is more efficient to cover those activities after all core components, centrals and FPs are installed.

3DSpace Index: GA Technical Validation

"GA technical validation" refers to validation of the installation process, i.e. did it install without errors and did it complete what it was supposed to do. There are two steps: installer log and expected file deployment review.

Defining the service code installation path: D:\3DEXPERIENCE\R2019x\3DSpaceIndex

1. Installer error log should be 0 bytes and can be found at:

<Code Path>\InstallData\log\CODE\win_b64\.....media<Latest timestamp>\Errors.log & *Stderr.txt
Size should be 0 bytes

If you had to modify values in the installer dialogues you will see these "errors" in the Errors.log you will need to validate if any of these messages require corrective action.

2. An 3DSpace Index service should be running, if it is not running you will need to consult:

"Computer Manager" + "Event Viewer" + "Windows Logs"

3DSpace Index: FP Service Installer

There is no "global 3DEXPERIENCE platform installer" for FP you must update each service individually.

a. Ensure that "**3DSpace Index**" service is stopped

b. Use the normal "Service Installer":

[`<Your Media PATH>\Part_3DEXP_Platform.Windows64\2\Software\`](#)

You will find:

[`3DSpaceIndex-V6R2019x.HF2.Windows64.zip`](#)

c. Unzip the proper OS version to `<Your Installer PATH>`

[`<Your Installer PATH>\3DSpaceIndex.Windows64\1`](#)

d. Navigate to this path and find:

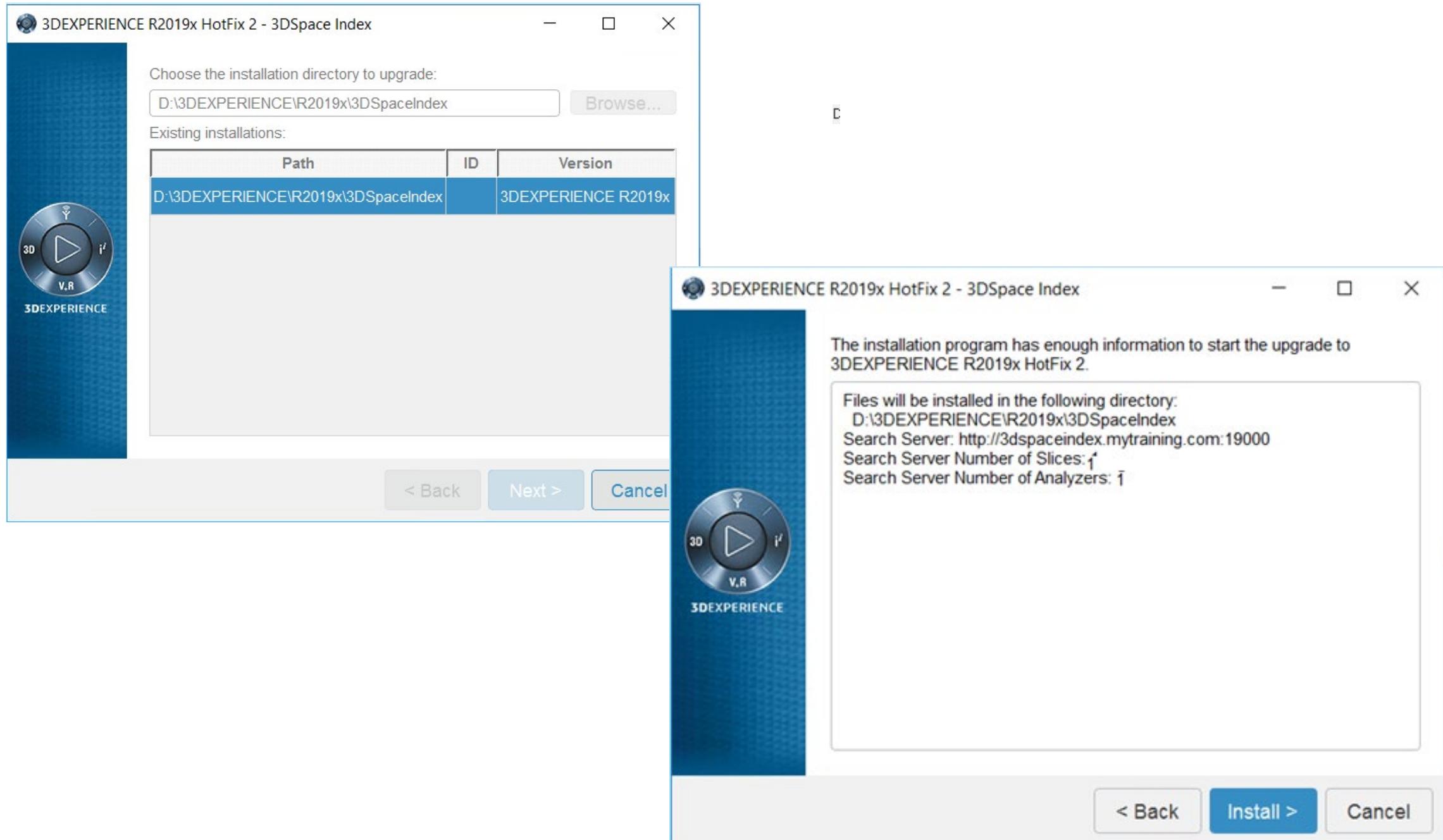
GUI: `setup.exe`

TUI: `StartTUI.exe`

3DSpace Index: FP Service Installer

As with GA, it is recommended that you log the Installation Overview window containing your input values.

- If you choose to take a screen shot, the window can be resized so you can see all the values clearly.
- Proceed with the update using the same key values.



3DSpace Index: FP Post Installation

3DSpace Index Fix Pack does not require any post installation manipulation at this time. This does not mean the application is functional however.

A Fix Pack will always require Post configuration of the **config.xml** file, it is possible that this file was updated with the FP and you will need to validate if this has happened. Any 3DSpace Index FP installation will require a new FULL Indexation.

Both of those actions can only be done when the entire **3DEXPERIENCE** platform has been fix packed and is up and running. FP Install for 3DSpace Index will therefore be executed in the “general POST **3DEXPERIENCE** platform installation” procedure.



If the 3DSpace Index server is not in the same machine as 3DSpace, which is often the recommended case, it's beneficial for the 3DSpace Index server to have the MQL client installed directly on the 3DSpace Index. It cuts down on a network hop when building the 3DSpace Index.

3DSpace Index: FP Technical Validation

"FP technical validation" refers to validation of the installation process, that is, did it install without errors and did it complete what it was supposed to do.

Defining the service code installation path: D:\3DEXPERIENCE\R2019x\3DSpaceIndex

1. Installer error log should be empty in:

<Code Path>\InstallData\log\CODE\win_b64\.....media<Latest timestamp>\Errors.log & *Stderr.txt

Size should be 0 bytes

Note : You should see 2 "...media..." folders, one was for the GA, the new one is the FP.

If you had to modify values in the installer dialogues you will see these "errors" in the Errors.log you will need to validate if any of these messages require corrective action.

3DSpace Index: Validation

In this section you will validate the service functionality and part of the infrastructure deployment

- ▶ Service
- ▶ Access to the Administration page

1. Start the 3DSpaceIndex service if not already running



2. Open the URL: <http://3dspaceindex.mytraining.com:19001/index.html>

The screenshot shows the EXALEAD CloudView index.html page. The page has a dark blue header with the EXALEAD logo and 'CloudView' text. Below the header, there are two main sections: 'BUILD APPLICATION' and 'GET HELP'.

BUILD APPLICATION

- Administration Console**: Connect to data source, process, extract information and store it into the index.
- Business Console**: Tune relevance, define content recommendation, edit semantic resources and alerting rules.

GET HELP

- GUIDES**
 - Getting Started
 - Installation & Deployment
 - Connectors
 - Application development
 - Technical Reference
- CUSTOMIZE**
 - Connectors & Push API
 - Customization SDK
 - Java APIs SDK
 - Mashup UI SDK
- REFERENCES**
 - Configuration
 - Search parameters
- RELEASE**
 - Release notes
 - Third-Parties

Each time you test a new URL it is recommended that you add it to the IE "Favorites bar" (rename it for ease).

3DSpace Index: Validation

3. In the web page select the **Administration** console.



4. Connect with user **admin**, password: <Your Password>



You should see:

3DSpace Index: Uninstallation

Windows normal uninstall procedure:

- a. Stop the Services and Scheduled Task job
- b. In "Programs and Features" uninstall:
"Dassault Systemes <Service Name> 3DEXPERIENCE R2019x"
- c. There is also a Uninstall.bat file in the D:\3DEXPERIENCE\R2019x\<Service Name> with which you can uninstall a service.
- d. Remove the folder
 - i. D:\3DEXPERIENCE\R2019x\<Service Name>

Exercise Recap: 3DSpace Index

In this exercise, you have:

- ✓ Installed the GA 3DPassport
- ✓ Performed the GA post configuration
- ✓ Validated the GA service
- ✓ Installed the FP 3DPassport
- ✓ Performed the FP post configuration
- ✓ Validated the FP service

Topics to be covered:

- ✓ 1. *Introduction*
- ✓ 2. *DSLS*
- ✓ 3. *Global 3DEXPERIENCE platform installer*
- ✓ 4. *3DPassport*
- ✓ 5. *Reconfiguration*
- ✓ 6. *3DDashboard*
- ✓ 7. *3DSearch*
- 8. **3DSpace**
- 9. *3DNotification*
- 10. *3DComment*
- 11. *3DSwym*
- 12. *FCS*

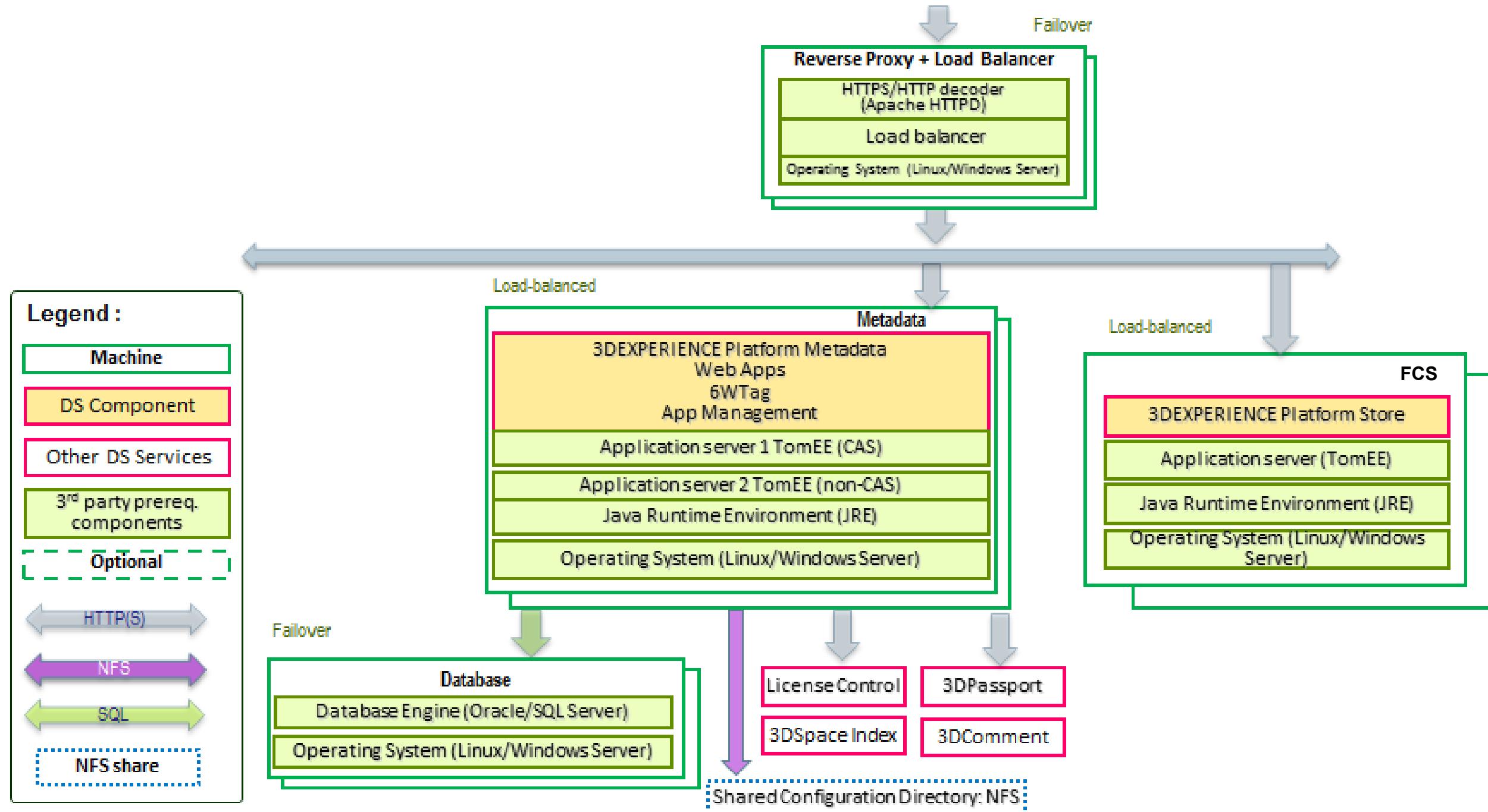
About 3DSpace

3DSpace is the core of the **3DEXPERIENCE** platform.

The 3DSpace installer allows you to install all 3DSpace component and deploy the server or upgrade an existing installation.

The screenshot shows the 3DEXPERIENCE Platform interface. The top navigation bar includes the title "3DEXPERIENCE Platform" and a URL "https://3dspace.mytraining.com/3dspace/common/emxNavigator.jsp?collabSpace=Default". The main header bar displays the "3DEXPERIENCE | ENOVIA Collaboration and Approvals" logo, a search bar, and user information for "VPLM Administration User Default". On the left, a vertical sidebar menu lists various modules: Change Management (My Changes), Collaboration and Approvals (Home Dashboard, Issues Summary, Issue Categories, Collections, Companies), Utilities (Routes, Tasks, Subscriptions, Decisions, Discussions, Metrics). The central area shows a "Home" dashboard for "New Docs", "Changed Docs", and "My Recent Docs". It features a toolbar with icons for creating new documents, filtering, and searching. Below the toolbar is a table with columns: Name, Title, Lock, Rev, Ver, RSS, and Type. To the right, there are sections for "Assigned Items" (0 Locked Documents) and "Updates of documents over time" (0 New this week, 0 Modified this week, 0 New this month, 0 Modified this month). The bottom of the page has a footer with the text "About 3DEXPERIENCE platform".

3DSpace : Architecture



* Always consult the “Program Directory” for version and latest news.

3DSpace: Pre-Check

- ▶ You should have already prepared the groundwork required to proceed with this service installation, you will need the following pre-requisites:
 - Database objects (up and running)
 - TomEE + (stopped)
 - 2 TomEE+ are dedicated for this service
 - 2 SSL certificates
 - Java
- ▶ Note: You will not be able to proceed if any of these are missing.
 - Main Configuration requirement:
 - Database objects : Yes
 - TomEE + needed : Yes
 - Java dependent : Yes

3DSpace: Key Parameters

Installation Cook-book: Installation key parameter explained.

- ▶ Installation Directory: This is the location where the service code will be installed. Do not use blanks in the installation path if you can avoid it. It is also recommended not to install on the **C:** drive. The **C:** drive is the system drive, if it gets corrupted or becomes full it could bring the service down. By selecting another drive you will have better control and stability for the platform.
- ▶ Installing Embedded Server JRE & Installing Embedded ApacheTomEE+: 3DS service installer comes with java JRE and TomEE+. This can be practical for small businesses and if you do not want to manage other software installations. The disadvantages are that it is harder to upgrade and maintain Java security release and it cannot be easily implemented with load balancing.
- ▶ Database selection: This component supports both Oracle and SQL Server. The database recommendation is often based on two critical customer requirements, support and cost. It is important to note that the support costs can sometimes be higher than the actual license costs.
 - The database data repository has 1 schema/database that will hold the metadata. Inside the database you will find two repositories; tables and Indexes. The tables are further split into three Enovia constructs called Vaults:
 - Admin Vault : Contains the admin objects related to the **3DEXPERIENCE** platform
 - Production Vault : Contains the structured data related to 3DSpace
 - VPLM Vault : Contains the structured data related to 3DSpace Native applications
- ▶ Configure and launch Full Text Search: This process registers the config.xml file and requests the execution of a Full index. It also creates a task in the task scheduler of the Operating system for partial indexation.

3DSpace: Key Parameters

- ▶ Business & Administrator password: The Business user refers to the creator user, by default the creator user password is blank at the end of the installation process it is recommended to set the creator password to a strong value. The admin_platform user password has to match the one set in 3DPassport, otherwise you will have issues.
- ▶ Mail options: Of much lower importance but recommended for **3DEXPERIENCE** platform administrator messages.
- ▶ Application ports & Instance options: For the external TomEE+ instance be sure that you have the proper OS permissions as the application may need to add, alter or update binaries, libraries or configuration files.
- ▶ Certificate Location options: All certificates related to the **3DEXPERIENCE** platform should readily available. 3DSpace requires these certificates in its local security repository. These certificates are required for 3DSpace to execute certain batch jobs and special administrative tasks. This is in addition to the certificates required in the Apache security store.
- ▶ Note: The 3DSpace service is the only one that has two WAR files which need to be deployed in two distinct application servers. The **3dspace.war** file, which is the normal CAS security dependent file and the **internal .war** file which is the NoCAS file.
 - A Central Authentication Service application depends on 3DPassport and through 3DPassport an optional LDAP service. It is important that normal user do not have access to the NoCAS application because it bypasses the secure CAS environment.
- ▶ Keywords: Local 3DSpace user password, Central repository of the metadata, platform management service.

3DSpace: Key Parameters

- ▶ Available Installation Options :
 - Install the embedded Server JRE
 - Install the embedded TomEE+
 - Building the application (.war file)

Training Path: More flexibility, control and post options.

3DSpace: GA Media Installer

GA core components have two different installation methodologies:

- The global **3DEXPERIENCE** platform Installer found in:
 - <Your Media PATH>AM_3DEXP_Platform.AILOS\1\
 - Navigate to this path and find:
 - GUI: setup.exe
 - TUI: StartTUI.exe
 - This installer is primarily used when you want to deploy multiple services on one machine
- Classic "Service Installer" are available in :
 - <Your Media PATH>AM_3DEXP_Platform.AILOS\1\3DSpace\Windows64\1
- Start the GUI installer corresponding to your preference.

Exercise: 3DSpace

In this exercise, you will:

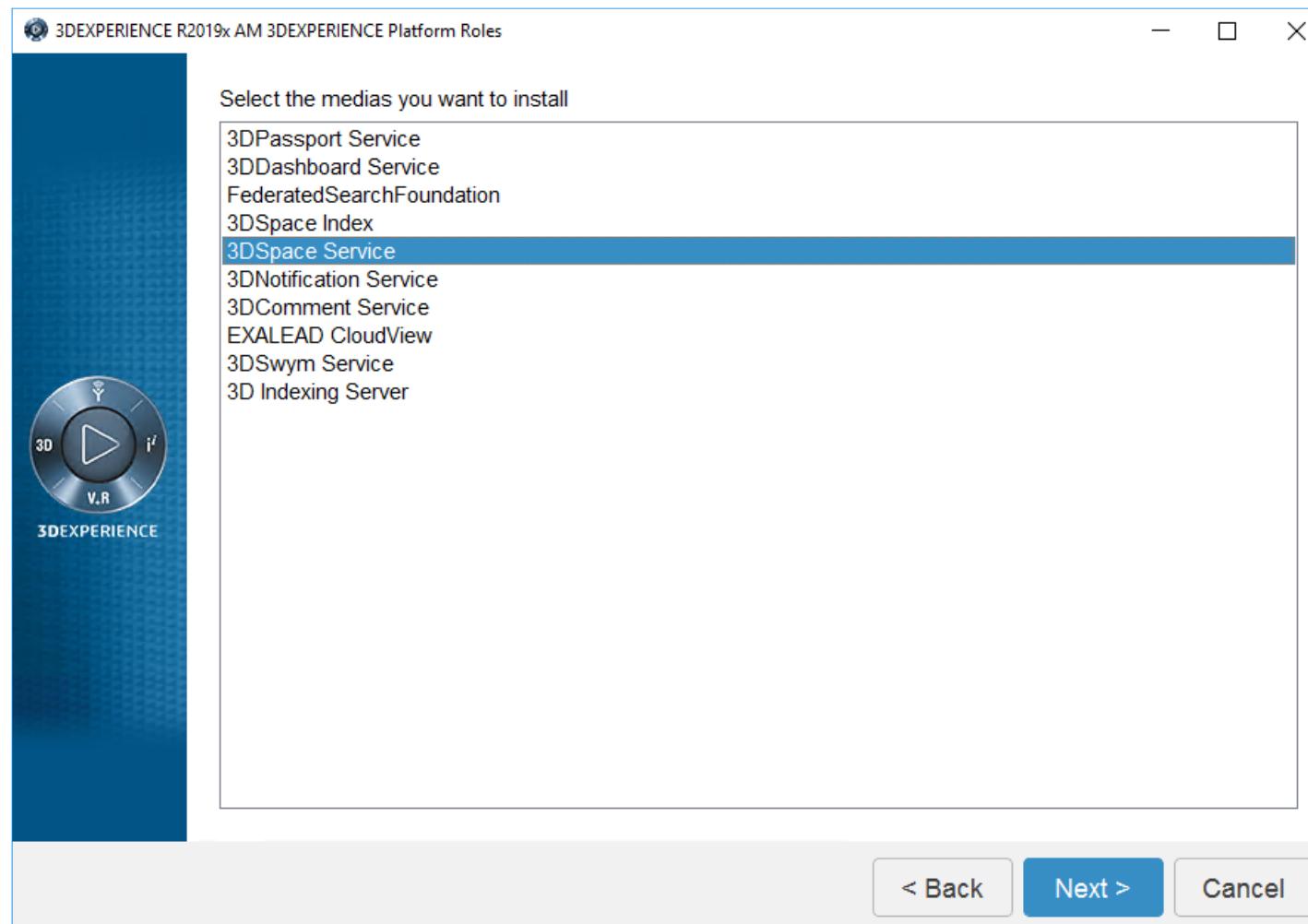
1. Install the GA 3DSpace
2. Perform the GA post configuration
3. Validate the GA service
4. Install the FP 3DSpace
5. Perform the FP post configuration
6. Validate the FP service



240 minutes

Exercise: 3DSpace Service - GA Media Installer

1. Using the Cheat-sheet on the next page, proceed to the installation, don't forget the installer options related to:
 - a. Install the embedded JRE > No
 - b. Install the embedded TomEE+ > No



3DSpace: Key Parameters

During the Installation you will be queried about the following parameters:



Make sure to enter **mytraining.com** instead of **mydomain**. This DNS is specific for this training and would vary in the real world.

Cheat-Sheet :

Steps	Key	Value
01	Installer	<Your Media Path>\AM_3DEXP_Platform.AILOS\1\setup.exe
02	Global platform Installer	3DSpace Service
03	Installation Directory	D:\3DEXPERIENCE\R2019x\3DSpace
04	Install Embedded Server JRE	No
05	JRE or JDK PATH	D:\3DEXPERIENCE\Java64\jdk8
06	DB Selection	Oracle or SQLServer are supported
07	DB Net Service name	C:\app\dbadmin\product\12.2.0\dbhome_1\NETWORK\ADMIN
	User Name	X3DSPACEADMIN
	User Password	X3DSPACEADMIN
	Net_service_name	X3DEXP
	Administration Tablespace	X3DSPACEADMIN_DAT
	Index Tablespace	X3DSPACEADMIN_IND

3DSpace: Key Parameters

During the Installation you will be queried about the following parameters:

Cheat-Sheet :

Steps	Key	Value
08	SQL Server Connection User Name	x3dspace
	SQL Server Connection User Password	Passport#1
	SQL Server Database Name	x3dspace
	SQL Server Server Name	database.mytraining.com\X3DEXP
	Create a new SQL Server database	No
	MSSQL files location: C:\DassaultSystemes\3DEXP_DB	<Keep default>
	Default and Administration data Filegroup: M1_DAT	M1_DAT
	Default and Administration index Filegroup: M1_IND	M1_IND
09	Password for Business and System Administration Privileges	<empty> <u>Note</u> : It refers to the creator user.
	Administrator password	<Your Password> <u>Note</u> : It refers to admin_platform
	File Storage	D:\3DEXPERIENCE\data\3DSpaceData
10	Update database	Yes
11 Oracle	Tablespace Production	X3DSPACEPRD_DAT
	Tablespace Production index	X3DSPACEPRD_IND
	Tablespace vplm	X3DSPACEVPLM_DAT
	Tablespace vplm index	X3DSPACEVPLM_IND

3DSpace: Key Parameters

During the Installation you will be queried about the following parameters:

Cheat-Sheet :

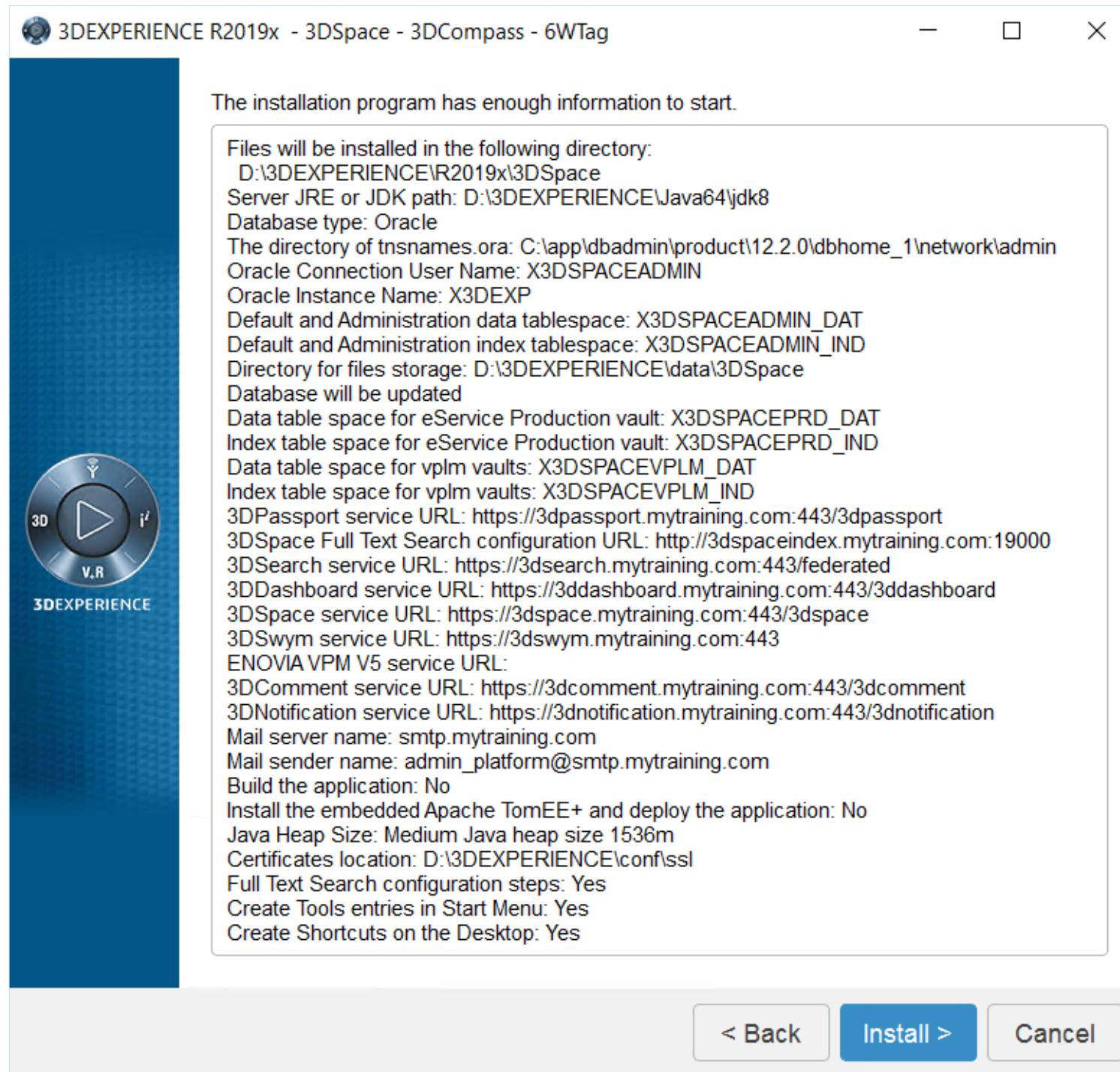
Steps	Key	Value
SQL Server	Tablespace Production	I1_DAT
	Tablespace Production index	I1_IND
	Tablespace vplm	V1_DAT
	Tablespace vplm index	V1_IND
12	3DPassport URL	https://3dpassport.mytraining.com:443/3dpassport
	3DSpace Index Configuration URL	http://3dspaceindex.mytraining.com:19000
	Federated SearchService URL	https://fedsearch.mytraining.com:443/federated
	3DDashboard URL	https://3ddashboard.mytraining.com:443/3ddashboard
	3DSpace Service URL	https://3dspace.mytraining.com:443/3dspace
	3DSWYM URL	https://3dswym.mytraining.com:443/3dswym
	ENOVIA VPM V5 URL	<empty>
	3DComment URL	https://3dcomment.mytraining.com:443/3dcomment
	3DNotification	https://3dnotification.mytraining.com:443/3dnotification
13	Mail server name	smtp.mytraining.com
	Mail sender name	admin_platform@smtp.mytraining.com

3DSpace: Key Parameters

Steps	Key	Value
14	Build the Application	No
	Install Application	No
	Java heap	Medium
15	Certificate Location	D:\3DEXPERIENCE\conf\SSL
16	Configure and launch Full Text Search	Yes
17	Create Tools entries in Start Menu	Yes
	Create Shortcuts on the Desktop	Yes

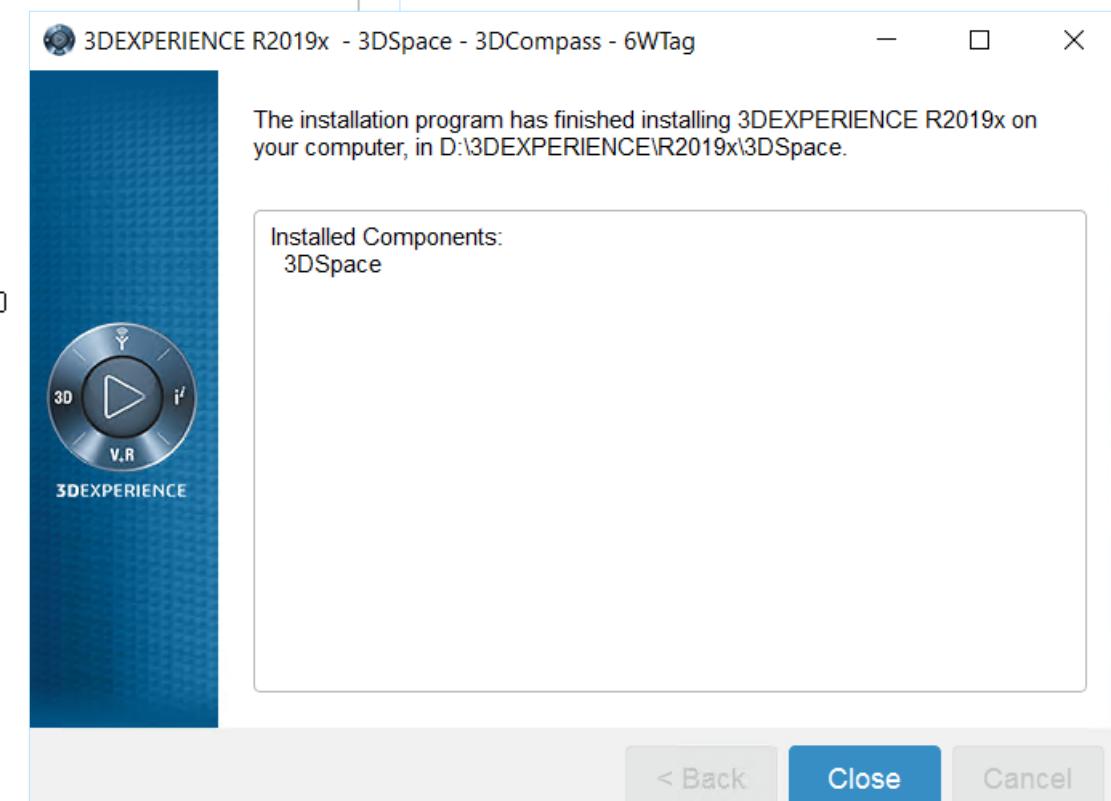
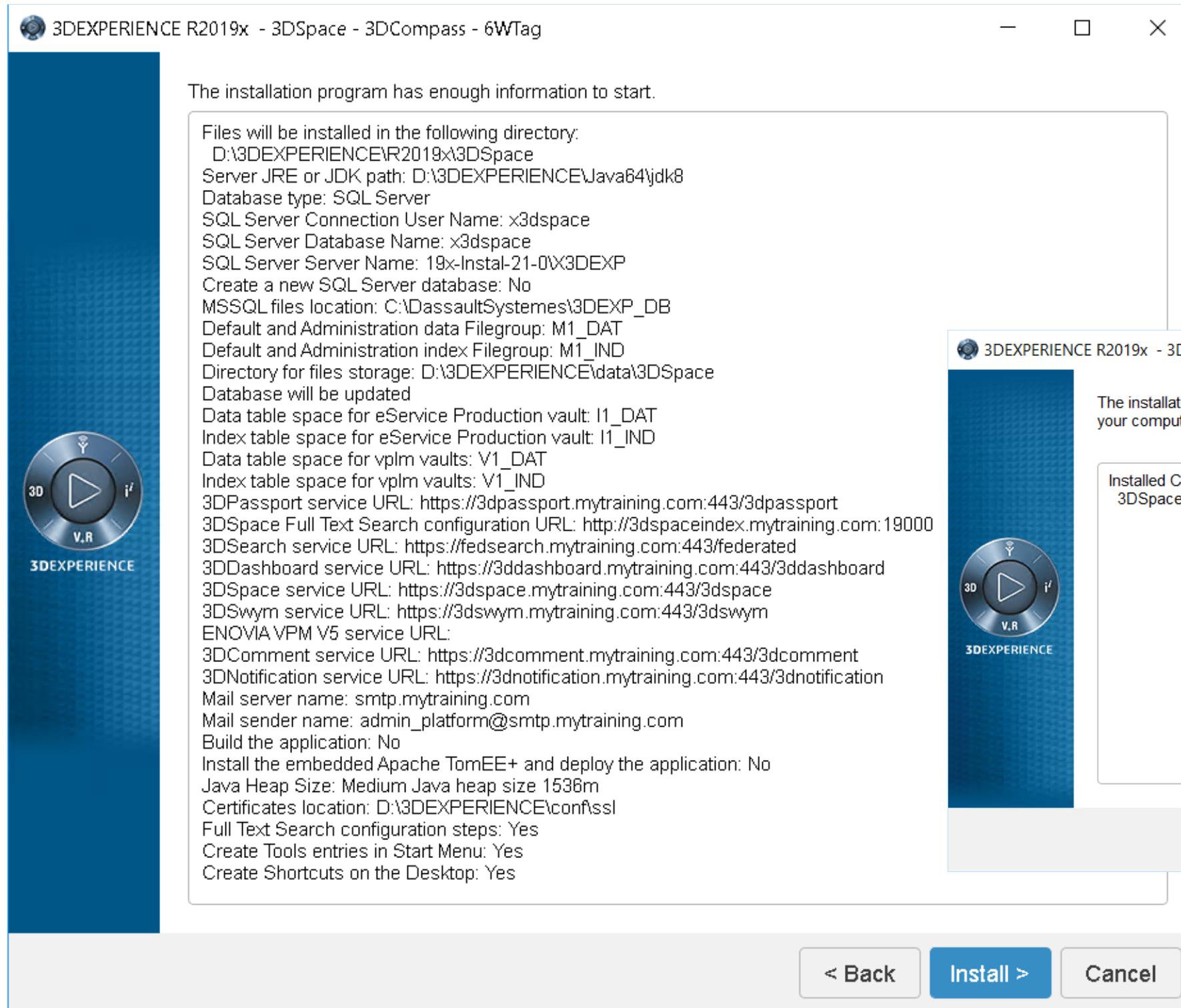
3DSpace: GA Media Installer – Oracle Summary

It is strongly recommended that you copy the summary information into a log prior to clicking “Install”.



3DSpace: GA Media Installer – SQL Server Summary

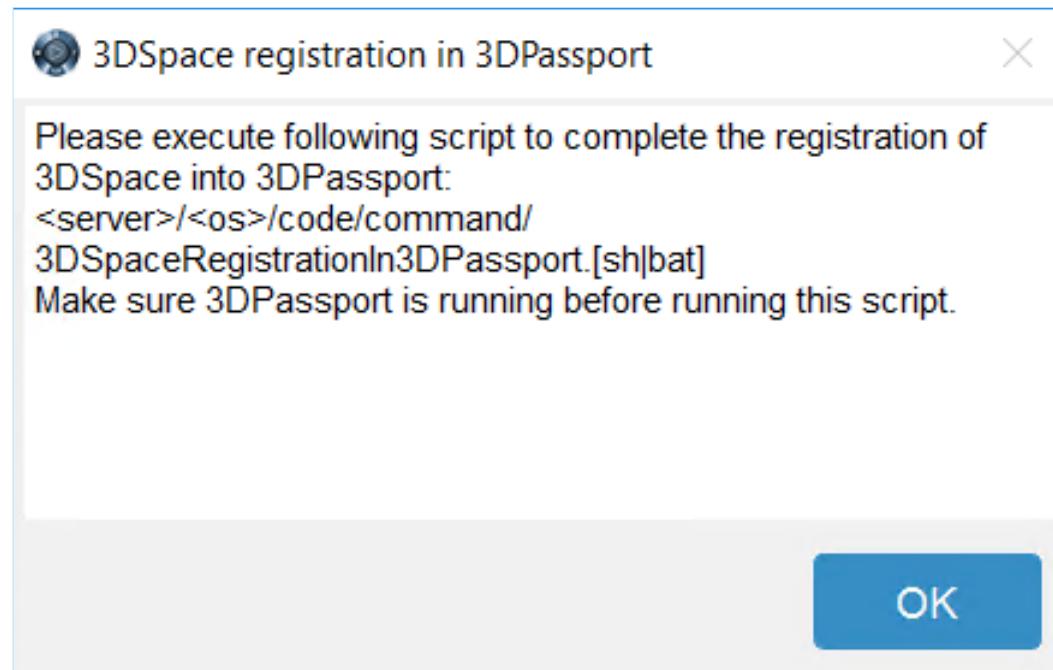
It's strongly recommended that you copy the summary information into a log prior to clicking **Install**.



3DSpace: GA Post Installation

3DSpace installer immediately creates the database objects, so DB setup is critical. You should not have selected to build the application (.war file) because you still need to install the centrals and connectors. If you do not plan to deploy anything else then TomEE+ should be ready to start.

1. Before running this post installation action ensure that your 3DPassport is running and accessible.



The script executes an MQL command, it is recommended
to review the file to ensure all the values are properly set.

3DSpace: GA Post Installation

2. Another important log that should be reviewed is the certificate import log, you may have a situation where some of the certificates are not applicable and will not be imported. Each circumstance needs a particular operation.

This log is under the “tmp” folder of the normal Error.log location:

<Code Path>\InstallData\log\CODE\win_b64\.....media<Latest timestamp>\tmp\Errors_import_certs.log

The file that this process is trying to update is :

D:\3DEXPERIENCE\Java64\jdk8\jre\lib\security\cacerts

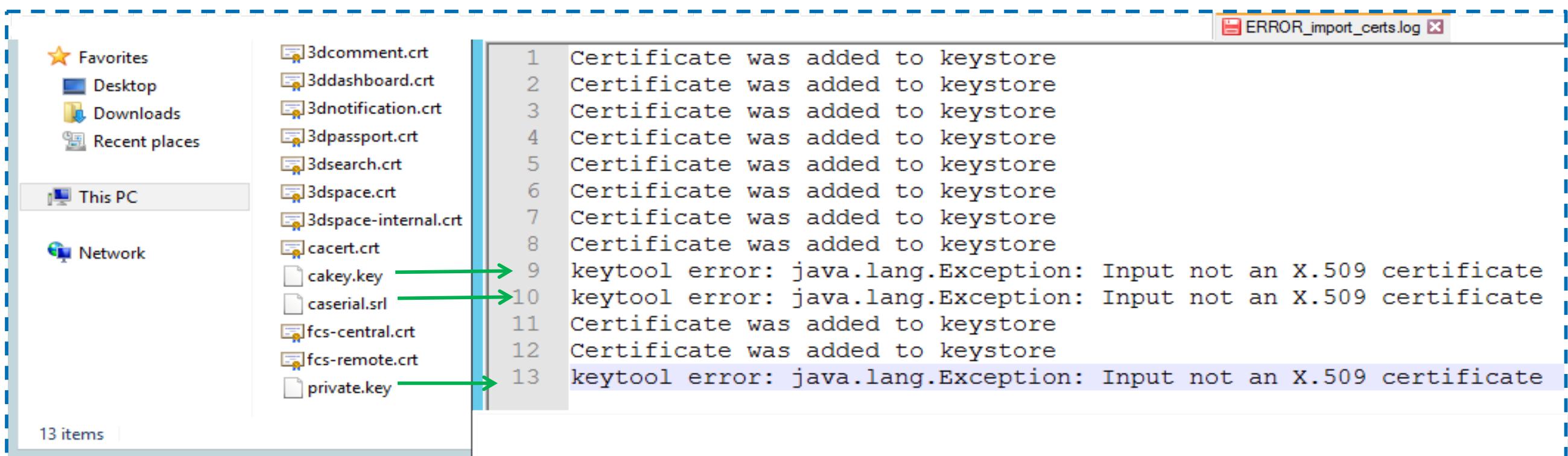
This error message is normal because the installer tries to add all files in the target folder and a few of the files are not certificates, check the next slide for more information.

3DSpace: GA Post Installation

Tip on interpreting errors in the **ERROR_import_certs.log** file:

3. The order of the messages corresponds to the alphabetical order of the files. One common cause of warnings comes from the import command trying to import “all” files in the folder:, even those that are not certificates.

D:\3DEXPERIENCE\conf\ssl



3DSpace: GA Post Installation

- a. Go to your **3DEXPERIENCE** folder and edit the file:

D:\3DEXPERIENCE\conf\Apache\3dexperience.conf

In the section "**3DSpace**" replace the line:

#XXXX Future fragment file XXXX

With:

include D:\3DEXPERIENCE\R2019x\3DSpace\win_b64\templates\3DSpace_httpd_fragment.conf

In the section "**3dspace Internal**" replace the line:

#XXXX Future fragment file XXXX

With:

include D:\3DEXPERIENCE\R2019x\3DSpace\win_b64\templates\3DSpace_httpd_fragment.conf

- b. Edit the fragment file :

D:\3DEXPERIENCE\R2019x\3DSpace\win_b64\templates\3DSpace_httpd_fragment.conf

Update the values for "**port**" and "**FQDN**" in the fragment file

http://3dspace.mytraining.com:8380

http://internal.mytraining.com:8480

- c. Backup the fragment file to:

D:\3DEXPERIENCE\conf\Fragment\3DSpace_httpd_fragment.conf.GA

- d. Copy the "UserIntentions_CODE.xml" file in

D:\3DEXPERIENCE\R2019x\3DSpace\InstallData

To:

D:\3DEXPERIENCE\conf\UserIntentions\

And rename it to: UserIntentions_3DSpace.xml

3DSpace: GA Technical Validation

"GA technical validation" refers to validation of the installation process, i.e. did it install without errors and did it complete what it was supposed to do. There are 5 steps related to the installer log, database and expected file deployment

Defining the service code installation path: D:\3DEXPERIENCE\R2019x\3DSpace

1. Installer error log should be 0 bytes and can be found at:

<Code Path>\InstallData\log\CODE\win_b64\.....media<Latest timestamp>\Errors.log & *Stderr.txt
Size should be 0 bytes

If you had to modify values in the installer dialogues you will see these "errors" in the Errors.log you will need to validate if any of these messages require corrective action.

2. Expected file and/or folder creation:

<TomEE+ 3DSpace Path>\bin\setenv.bat

```
REM Start Default 3DEXP TomEE+ Configuration
set JAVA_HOME=D:\3DEXPERIENCE\Java64\jdk8
set JRE_HOME=D:\3DEXPERIENCE\Java64\jdk8\jre
set TITLE=%cd%
set PATH=%PATH%;D:\3DEXPERIENCE\R2019x\3DSpace\win_b64\code\bin
set CATALINA_HOME=D:\3DEXPERIENCE\TomEE\TomEE3DSpace
```

3DSpace: GA Technical Validation

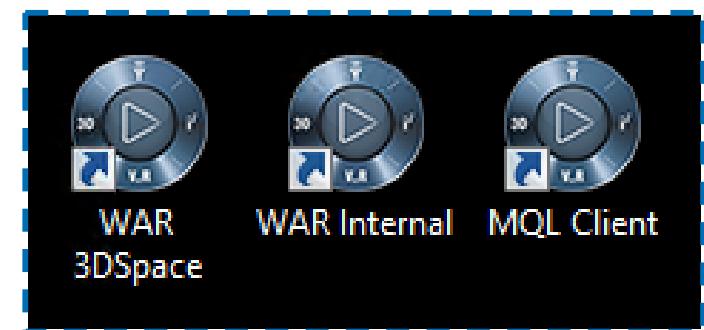
3. Expected file and/or folder creation: (Internal)

- <TomEE3DSpaceInternal Path>\bin\setenv.bat

```
REM Start Default 3DEXP TomEE+ Configuration
set JAVA_HOME=D:\3DEXPERIENCE\Java64\jdk8
set JRE_HOME=D:\3DEXPERIENCE\Java64\jdk8\jre
set TITLE=%cd%
set PATH=%PATH%;D:\3DEXPERIENCE\R2019x\3DSpace\win_b64\code\bin
set CATALINA_HOME=D:\3DEXPERIENCE\TomEE\TomEE3DSpaceInternal
```

4. Check that you have 3 new icons on your desktop (rename them for visibility):

- BuildDeploy3DSpace_CAS → WAR 3DSpace
- BuildDeploy3DSpace_NoCAS → WAR Internal
- MQL → MQL Client



You need to be familiar with these tools as they will be used after Central installation, FP installation or code deployment.

3DSpace – GA Application

For 3DSpace, if you are adding additional applications, the process is as follows:

1. GA 3DSpace installation
2. GA Application installation
3. FP 3DSpace installation
4. FP Application installation

Notice that you Install all GA for the applications before installing the 3DSpace FP.

At this time we will install two additional components that are required for 3DSpace – 3DExplore and 3DIssue Management.

In R2019x GA, there is no GA installer as this is a FP1907 feature. The process will be

1. GA 3DSpace installation
2. GA 3DExplore
3. *No GA for 3DIssue Management*
4. GA Application installation
5. FP 3DSpace installation
6. FP 3DExplore
7. FP 3DIssue Management – “special case”
8. FP Application installation

When GA is done, you will come back to this point of the document and continue with the next chapter 3DSpace FP Service Installer.

Exercise: Install 3DExplore - GA

In this exercise, you will install the 3DExplore.

Bookmark allows you to create and manage a hierarchical structure of folders to logically organize your folder, reference and representation objects.

The **Bookmark Editor** app is part of CSV-Industry Innovation.

Cheat Sheet

Steps	Key	Value
01	DS Installer Path	<Your Media PATH>\AM_3DEXP_Platform.AILOS\3\DS_Installer\1
02	Installation directory	D:\3DEXPERIENCE\R2019x\3DSpace\Apps
03	Server Installation directory	D:\3DEXPERIENCE\R2019x\3DSpace

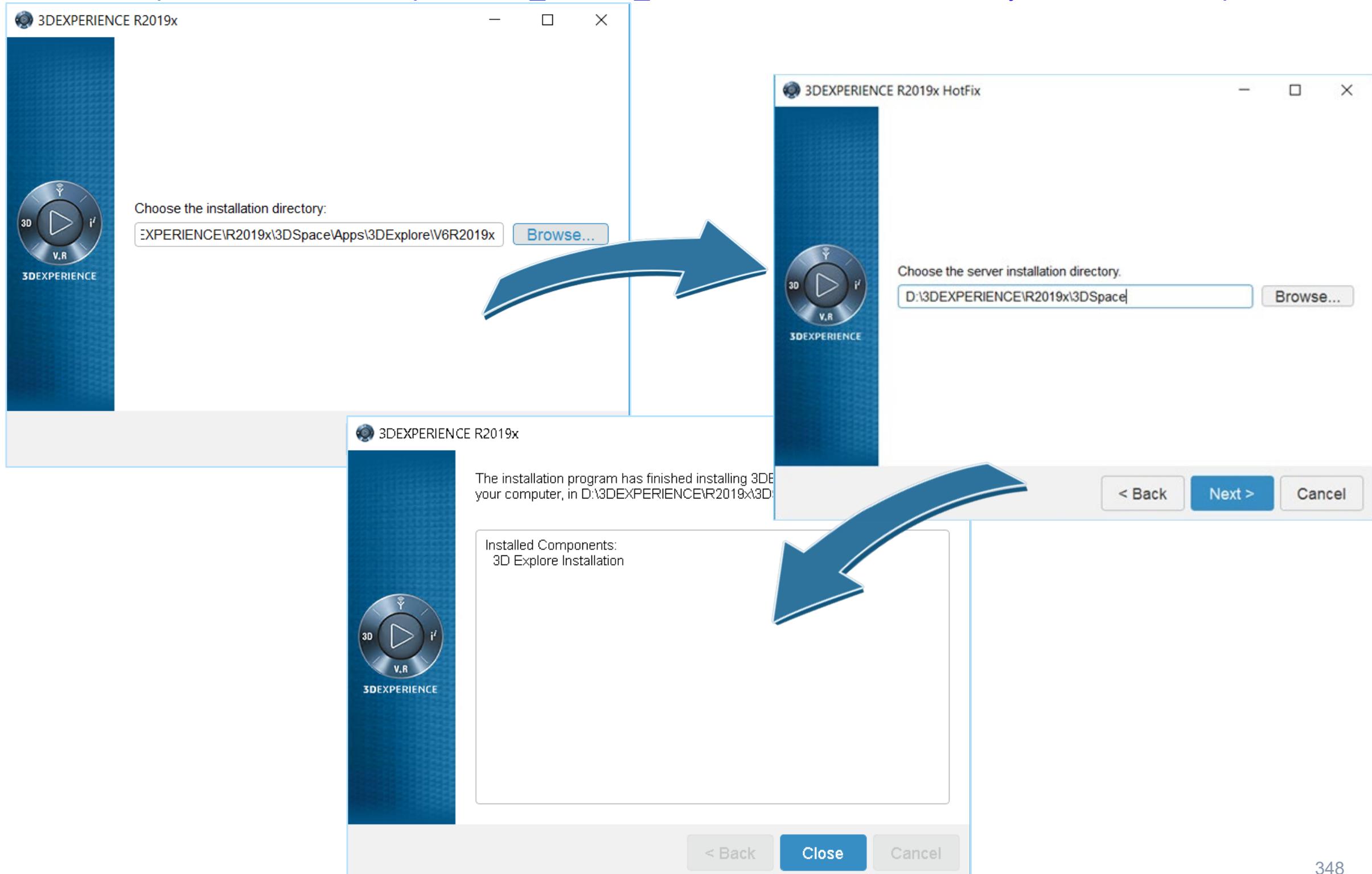


10 minutes

Install 3DExplore - GA

Before installing, create the *3DExplore* folder in the *3DSpace* installation folder.

The media path is: <Your media path>\AM_3DEXP_Platform.AIOS\2\CSV-IndustryInnovation\3DExplore



Exercise Recap: Install 3DExplore - GA

In this exercise, you have installed 3DExplore.

3DSpace – GA Application

With the other **3DEXPERIENCE** platform Services you apply a Fix Pack immediately after the GA installation. 3DSpace is a special case if you are adding additional applications, the process is as follows:

1. GA 3DSpace installation
2. GA Application installation
3. FP 3DSpace installation
4. FP Application installation

Notice that you Install all GA for the applications before installing the 3DSpace FP.

At this time you need to open the Mid-Market Solution document and proceed with the GA installation of the applications.

When GA is done, you will come back to this point of the document and continue with the next chapter 3DSpace FP Service Installer.

3DSpace – GA Application

1. At this point in time, you could technically deploy the 3DSpace Service with TomEE+. However, we want to enrich 3DSpace services with additional applications. Currently you have the option of deploying the following modules:
2. Install Mid-Market Solution
3. If you are not interested in this solution or have fallen too far behind this step can be skipped by jumping directly to the next chapter 3DSpace – FP Installer. The impact of skipping this step is you will not be able to execute the functional tests related to the Client connectors, such as MS Office and CATIA V5.

Mid-Market: Table of Contents

- ▶ Introduction
- ▶ 3DSpace Preparation
 - Mid-Market Applications
 1. ENOVIAIPClassificationFoundation
 2. ENOVIACollaborativeTasksFoundation
 3. ENOVIAX-CADDDesignFoundation
 4. ENOVIACollaborationforMicrosoftServer
 5. ConnectorforCATIATV5Server
 6. ENOVIAEnterpriseChangeManagement
 7. ENOVIAProjectManagementFoundation
 8. ENOVIAProgramChangeControlFoundation
 9. ENOVIAProjectExecutionFoundation
 10. ENOVIAEngineeringBOMManagementFoundation
 - 3DSpace FP
 - Fix Pack of Mid-Market



90 minutes

Introduction

1. You have just finished installing the 3DSpace GA components for the **3DEXPERIENCE** platform, at this point the **3DEXPERIENCE** platform will be functional but additional products are required for the mid-market functionality.
2. The following is the list of products that will be added to the base 3DSpace installation:
 1. ENOVIAIPClassificationFoundation
 2. ENOVIACollaborativeTasksFoundation
 3. ENOVIAX-CADDDesignFoundation
 4. ENOVIACollaborationforMicrosoftServer
 5. ConnectorforCATIAV5Server
 6. ENOVIAEnterpriseChangeManagement
 7. ENOVIAProjectManagementFoundation
 8. ENOVIAProgramChangeControlFoundation
 9. ENOVIAProjectExecutionFoundation
 10. ENOVIAEngineeringBOMManagementFoundation

3DEXPERIENCE platform: 3DSpace Enhancement

Before proceeding there are a few steps to take due to the fact that 3DSpace is currently online.

- Stop the 2 TomEE+ related to 3DSpace:
 - [D:\3DEXPERIENCE\TomEE\TomEE3DSpaceInternal](#)
 - [D:\3DEXPERIENCE\TomEE\TomEE3DSpace](#)
- Under the 3DSpace TomEE+, delete the files from the following directories:
 - logs
 - work
 - temp
- Delete the files under the following 3Dspace installation folders (if files are available):
 - [D:\3DEXPERIENCE\R2019x\3DSpace\distrib_CAS](#)
 - [D:\3DEXPERIENCE\R2019x\3DSpace\distrib_NoCAS](#)

Note— Delete the files and folders incase they are created

You are now ready to proceed.

If you do not want to install the applications in this document, or do not have time, please go back to the Server core document and continue applying the FP for 3DSpace. When instructed to refer back to this doc for installation of the mid-market FP you may ignore that as well.

About Mid-Market Apps

- ▶ It is the only offering on the market that provides 3D design capabilities for both styling and engineering in one integrated platform – the **3DEXPERIENCE** platform.
- ▶ Brands can implement effective design-for-cost product development and manufacturing strategies, using the most efficient product management tools, while managing their product and project information throughout the development process. As a result, their products are launched to market faster and in compliance with sustainability and safety norms.

- ▶ Transportation & Mobility
- ▶ Aerospace & Defense
- ▶ Marine & Offshore
- ▶ Industrial Equipment
- ▶ High Tech
- ▶ Consumer Goods - Retail
- ▶ Consumer Packaged Goods - Retail
- ▶ Life Sciences
- ▶ Energy, Process & Utilities
- ▶ Architecture, Engineering & Construction
- ▶ Financial & Business Services
- ▶ Natural Resources



+	Social and Collaborative
+	3DSwym
+	3DDrive
+	User Groups
+	Enterprise Modeling and Execution
+	Interactive Experience
+	Product Development - Model Based
+	Configuration and Change Management
+	Product Development - Classic
+	IP Reuse Optimization
+	3D Product Intelligence
+	Semiconductor and SoC Design Collaboration
+	Program and Project Management
+	Product Portfolio Planning
+	Quality and Certification
+	Strategic Sourcing
+	Service Innovation
+	3D Merchandising
+	Copy & Artwork
+	Collection Management
+	3DEXPERIENCE Open

Mid-Market: Pre-Check

You should have previously completed the 3DSpace preparation, the following prerequisite is required:

- Completed the 3DSpace Server GA Core deployment

You will not be able to proceed if this is missing.

Mid-Market: Configuration and Key Parameters

In the training context we have already provided the installation sequence so there is no need for a backup prior to installing the apps.

- ▶ Configuration impacts:
 - Database objects : Updated
 - TomEE + needed : Updated
- ▶ Installing applications involves updating the 3DSpace component. The information requested for installation is usually minimal:
 - Path of 3DSpace installation
 - Business and system user id, that is, creator
The password is also required.

Mid-Market: Configuration and Key Parameters

These add-ons are usually quick to install. As with the Server core components we will use a universal Cheat-Sheet for all installers

Cheat-Sheet:

Steps	Key	Value
01	DSY Installer Path This is only asked if path is not found by default.	<Your Media PATH>\AM_3DEXP_Platform.Allos\3\DS_Installer\1
02	Server Installation Folder	D:\3DEXPERIENCE\R2019x\3DSpace
03	Installation folder	<Keep Default proposed under 3DSpace>
04	Name of Business & Admin user	creator
	Password of Business & Admin user	<empty>
05	Update database	Yes
06	Path of the custom schema file Note: Not all installers will request this info.	<Keep Default proposed under 3DSpace>

Mid-Market: GA Installers

There is no global **3DEXPERIENCE** platform Installer for the 3DDSpace app add-ons but the installation process is quite simple. The most difficult challenge is figuring out where the installers are on the DVD's:

- Installers will be compressed, available in the following generic PATH:
`<Your Media PATH>\AM_3DEXP_<DVD Media>.AIIOS\<The Installer>`
- You will need to copy the file to `<Your Installer PATH>` folder and extract it.
- You will find the normal executable `<Your Installer PATH>\<Extracted Code>\1:`
 - GUI: `setup.exe`
 - TUI: `StartTUI.exe`
- For each installer the media location will be provided:
 - `<DVD Media>.Windows64` ↪ The DVD name
 - `<The Installer>` ↪ The Path and File name

Mid-Market: GA Installers

- All mid market applications will get installed under:
`D:\3DEXPERIENCE\R2019x\3DSpace\Apps\<Application>`
- You should keep an eye on this folder during the installations. In some cases an installer may create more than one folder under the Apps folder. This is important to know if you want to properly technically validate the installer's log files.
- Finally when installing from <Your Installer PATH>, keep track of what you have installed. A good suggestion is to number the installer folders in sequence.



In both Media and Installer folders:

- <Your Installer PATH>
- <Your Media PATH>

avoid spaces and long names.

Mid-Market: GA Installers

- ▶ Following table illustrates the mid-market installed:

Mid-Market Name	Description
ENOVIAIPClassificationFoundation – Library	It helps in creating different types of libraries and their related hierarchies. You can also create and manage documents and parts.
ENOVIACollaborativeTasksFoundation	It consolidates the features (configurable user interface and schema) that helps to interact with the user interface and objects for all apps. You can collaborate with other members while maintaining access controls to the content.
ENOVIAX-CADDDesignFoundation	It allows to integrate CAD tools with Enovia apps.
ENOVIACollaborationforMicrosoftServer	It allows to access and manage documents within the Microsoft applications. You can perform product search, standardize documents.
ConnectorforCATIAV5Server	It helps in data migration.
ENOVIAEnterpriseChangeManagement	It provides a specific process for an organization to request changes to objects, manage the changes, and track the changes to completion. Each person can be assigned a role that determines what they are allowed to do in the process. Some users may review and approve changes while others may only view submitted changes. Each step in the change process can be communicated, as required, throughout the organization.

Mid-Market: GA Installers

- ▶ Following table illustrates the mid-market installed (continued):

Mid-Market Name	Description
ENOVIAProjectManagementFoundation	It is a powerful project management tool that allows to create programs and projects and store them in a database.
ENOVIAProgramChangeControlFoundation	It helps to manage changes to products that are complicated and often decomposed into a series of sub changes to make the work more manageable and traceable.
ENOVIAProjectExecutionFoundation	It provides a collaborative environment for global project team members to access, manage and report on their task assignments.
ENOVIAEngineeringBOMManagementFoundation	It helps to consolidate the part design and technical content from various engineering applications. You can also manage part structure.

Mid-Market: GA - DS_Installer

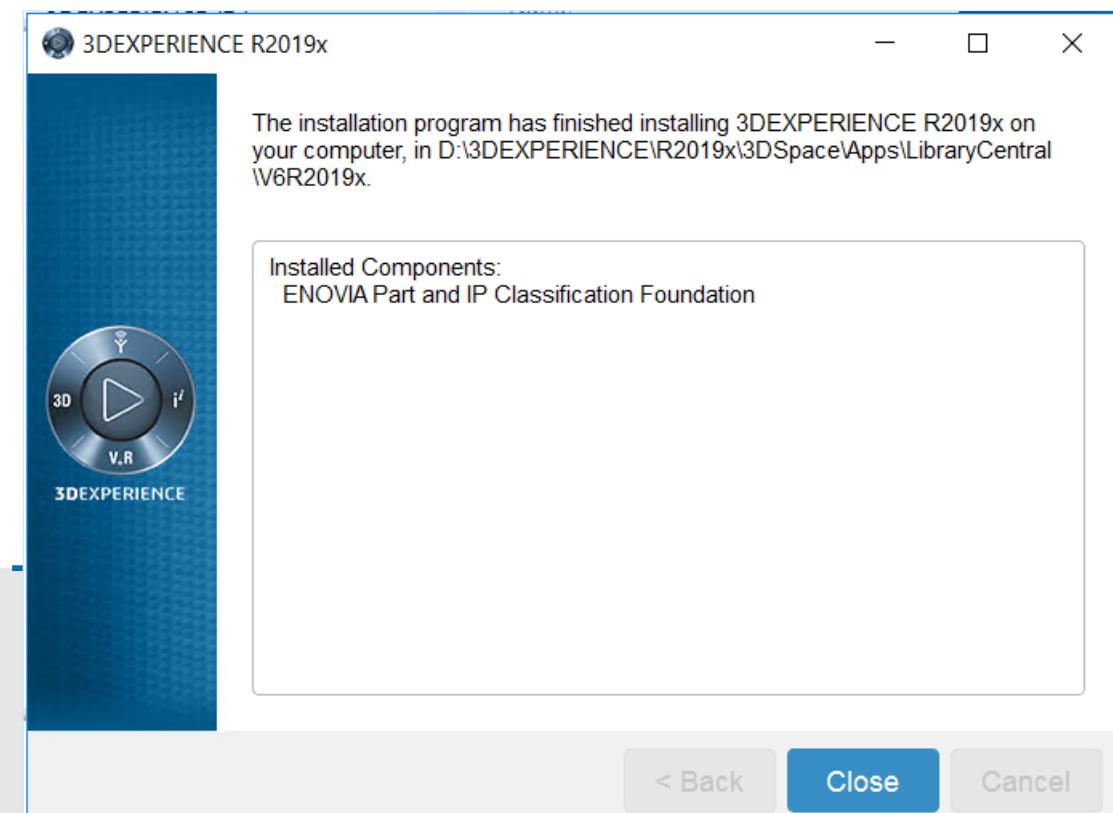
1. Based on your OS:
 - a. Navigate to
<Your Media PATH>\AM_3DEXP_platform.AILOS\3\DS_Installer\DS_Installer-V6R2019x.Windows64.zip
 - b. Extract the file, you can delete the compressed version in <Your Installer Path> after it has been extracted.
 - c. Go to the following folder:
 - i. <Your Installer PATH>\DS_Installer.Windows64\3
 - d. There is no need to install anything for the DS_Installer, this remaining installers use the files in this folder to execute. Put the DS_installer at the same directory level of the other installers like this.

Mid-Market: GA - ENOVIAIPClassificationFoundation

Based on your OS:

- a. Navigate to your <Your Media PATH>\AM_3DEXP_Platform.AI0S\1\CSV-IndustryInnovation
- b. Extract the file, you can delete the compressed version in <Your Installer Path> after it has been extracted.
- c. Go to the following folder: "ENOVIAClassifyandReuse"
ENOVIAIPClassificationFoundation-V6R2019x.Windows64.zip
- d. Extract the file in <Your Installer PATH>
ENOVIAIPClassificationFoundation.Windows64\1
- e. Execute the installer based on your preference:
GUI: setup.exe
TUI: StartTUI.exe

The server installation directory: D:\3DEXPERIENCE\R2019x\3DSpace
Files will be installed in the following directory:
D:\3DEXPERIENCE\R2019x\3DSpace\Apps\LibraryCentral\V6R2019x
Super User name: creator
Password : *blank*
Database will be updated
Custom Schema Path:
D:\3DEXPERIENCE\R2019x\3DSpace\Apps\LibraryCentral\V6R2019x\Apps\SchemaInstaller\CustomSchema



Mid-Market: GA - ENOVIA IP Classification Foundation

- f. The application being installed is/are:

LibraryCentral

- g. Once the installation is done, copy and rename the UserIntentions_CODE.xml. All App user intention files will be located under:

D:\3DEXPERIENCE\R2019x\3DSpace\Apps\<InstalledApp>\V6R2019x\InstallData\
UserIntentions_CODE.xml

Copy it to:

D:\3DEXPERIENCE\conf\UserIntentions\UserIntentions_<Installed App>.xml

Note: If the name of the installed App folder is not obvious, check the time stamp of the folder

- h. Make sure there are no installation errors. The Errors.log & *Stderr.txt files are found in:

D:\3DEXPERIENCE\R2019x\3DSpace\Apps\<Installed App>\V6R2019x\InstallData\log
\CODE\win_b64\....media-<Time Stamp>

- i. Application installation location:

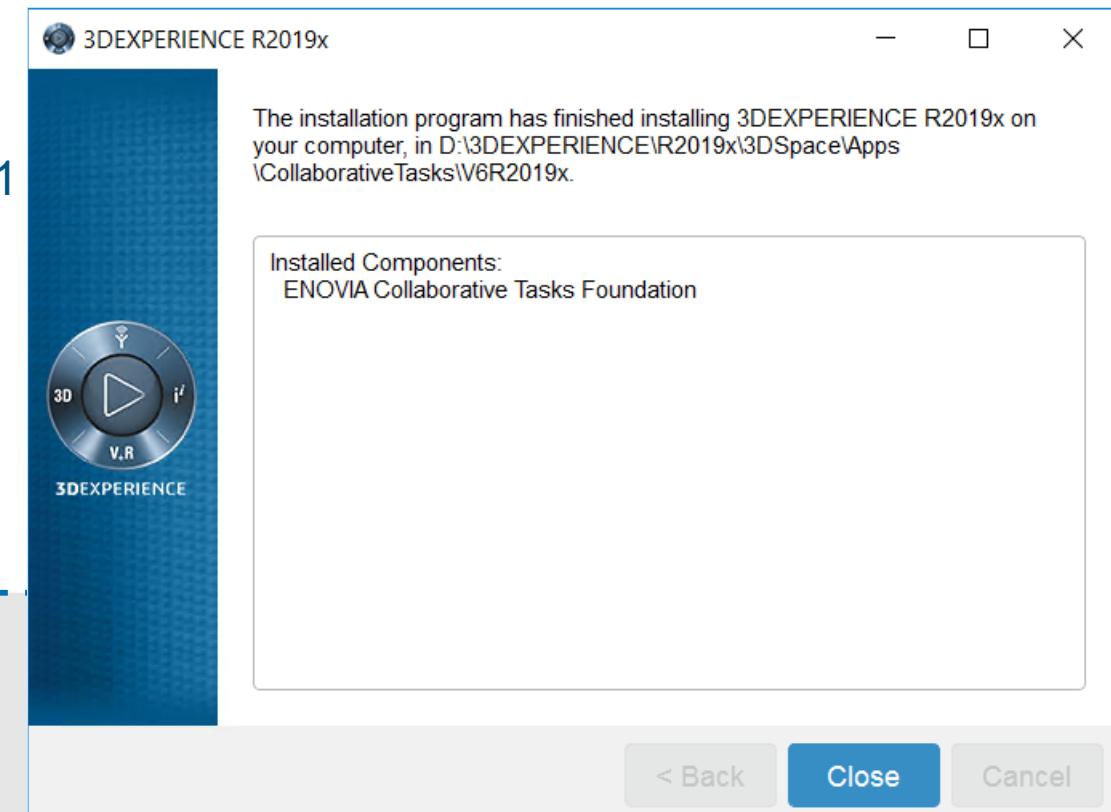
D:\3DEXPERIENCE\R2019x\3DSpace\Apps\LibraryCentral\

Mid-Market: GA - ENOVIA Collaborative Tasks Foundation

Based on your OS:

- a. Navigate to your <Your Media PATH>\AM_3DEXP_Platform.AIOS\1\CSV-IndustryInnovation
- b. Extract the file, you can delete the compressed version in <Your Installer Path> after it has been extracted.
- c. Go to the following folder: “ENOVIA Collaborative Tasks”
ENOVIA Collaborative Tasks Foundation-V6R2019x.Windows64.zip
- d. Extract the file in <Your Installer PATH>
ENOVIA Collaborative Tasks Foundation.Windows64\1
- e. Execute the proper installer based on your “<OS>”
GUI: setup.exe
TUI: StartTUI.exe

The server installation directory: D:\3DEXPERIENCE\R2019x\3DSpace
Files will be installed in the following directory:
D:\3DEXPERIENCE\R2019x\3DSpace\Apps\CollaborativeTasks\V6R2019x
Super User name: creator
Password : *blank*
Database will be updated
Custom Schema Path:
D:\3DEXPERIENCE\R2019x\3DSpace\Apps\CollaborativeTasks\V6R2019x\Apps\SchemaInstaller\CustomSchema



Mid-Market: GA - ENOVIA Collaborative Tasks Foundation

- f. The application being installed is/are:

Collaborative Tasks

- g. Once the installation is done, copy and rename the “UserIntentions_CODE.xml”. All “App” user intention files will be located under:

D:\3DEXPERIENCE\R2019x\3DSpace\Apps\<InstalledApp>\V6R2019x\InstallData
\UserIntentions_CODE.xml

Copy it to:

D:\3DEXPERIENCE\conf\UserIntentions\UserIntentions_<Installed App>.xml

Note: If the name of the installed App folder is not obvious, check the time stamp of the folder

- h. Make sure there are no installation errors. The Errors.log & *Stderr.txt files are found in:

D:\3DEXPERIENCE\R2019x\3DSpace\Apps\<Installed App>\V6R2019x\InstallData
\log\CODE\win_b64\....media-<Time Stamp>

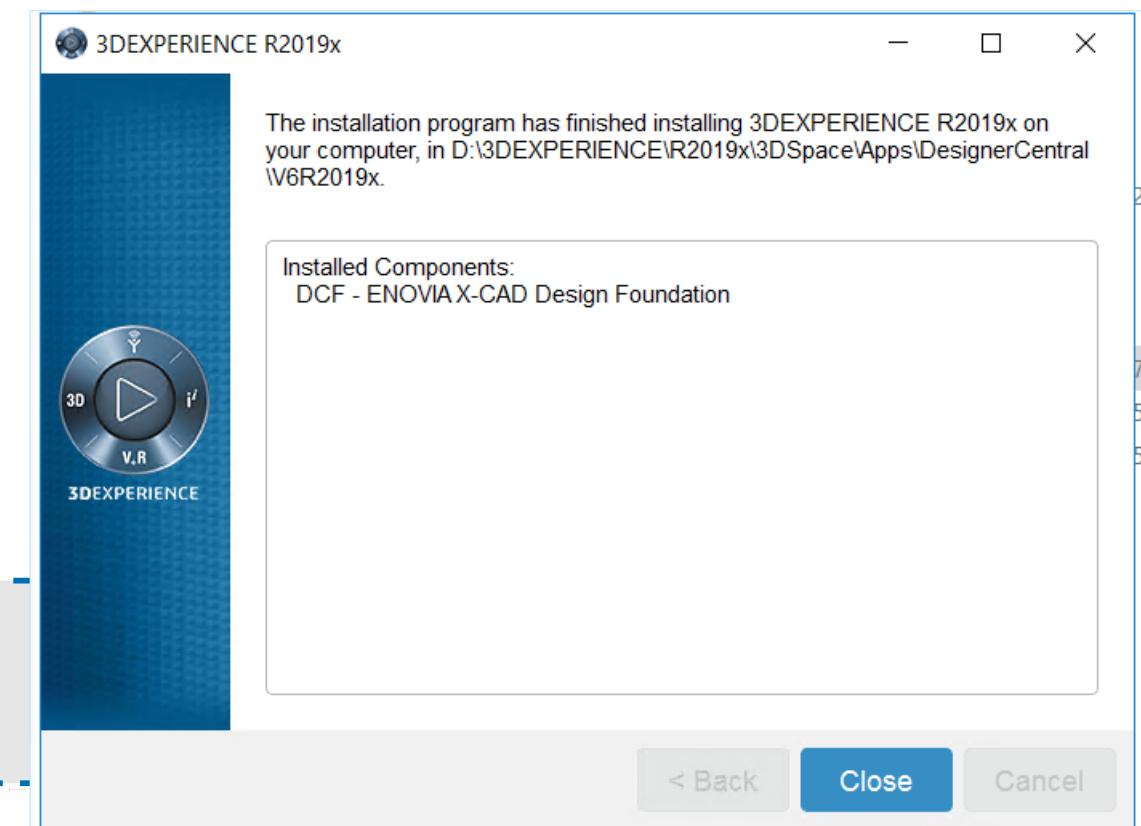
- i. Application installation location:

D:\3DEXPERIENCE\R2019x\3DSpace\Apps\CollaborativeTasks\

Mid-Market: GA - ENOVIA-X-CADDDesignFoundation

1. Based on your OS:
 - a. Navigate to your
`<Your Media PATH>\AM_3DEXP_Platform.AILOS\2\CDR-X-CADDDesigner`
 - b. Extract the file, you can delete the compressed version in `<Your Installer Path>` after it has been extracted.
 - c. Go to the following folder: “ENOVIA-X-CADDDesignManagement”
`ENOVIA-X-CADDDesignFoundation-V6R2019x.Windows64.zip`
 - d. Extract the file in `<Your Installer PATH>`
`ENOVIA-X-CADDDesignFoundation.Windows64\1`
 - e. Execute the proper installer based on your “`<OS>`”
GUI: `setup.exe`
TUI: `StartTUI.exe`

The server installation directory: `D:\3DEXPERIENCE\R2019x\3DSpace`
Files will be installed in the following directory:
`D:\3DEXPERIENCE\R2019x\3DSpace\Apps\DesignerCentral\V6R2019x`
Super User name: creator



Mid-Market: GA - ENOVIA X-CADDesignFoundation

- f. The application being installed is/are:

DesignerCentral

- g. Once the installation is done, copy and rename the “UserIntentions_CODE.xml”. All “App” user intention files will be located under:

D:\3DEXPERIENCE\R2019x\3DSpace\Apps\<InstalledApp>\V6R2019x\InstallData
\UserIntentions_CODE.xml

Copy it to:

D:\3DEXPERIENCE\conf\UserIntentions\UserIntentions_<Installed App>.xml

Note: If the name of the installed App folder is not obvious, check the time stamp of the folder

- h. Make sure there are no installation errors. The Errors.log & *Stderr.txt files are found in:

D:\3DEXPERIENCE\R2019x\3DSpace\Apps\<Installed App>\V6R2019x\InstallData
\log\CODE\win_b64\....media-<Time Stamp>

- i. Application installation location:

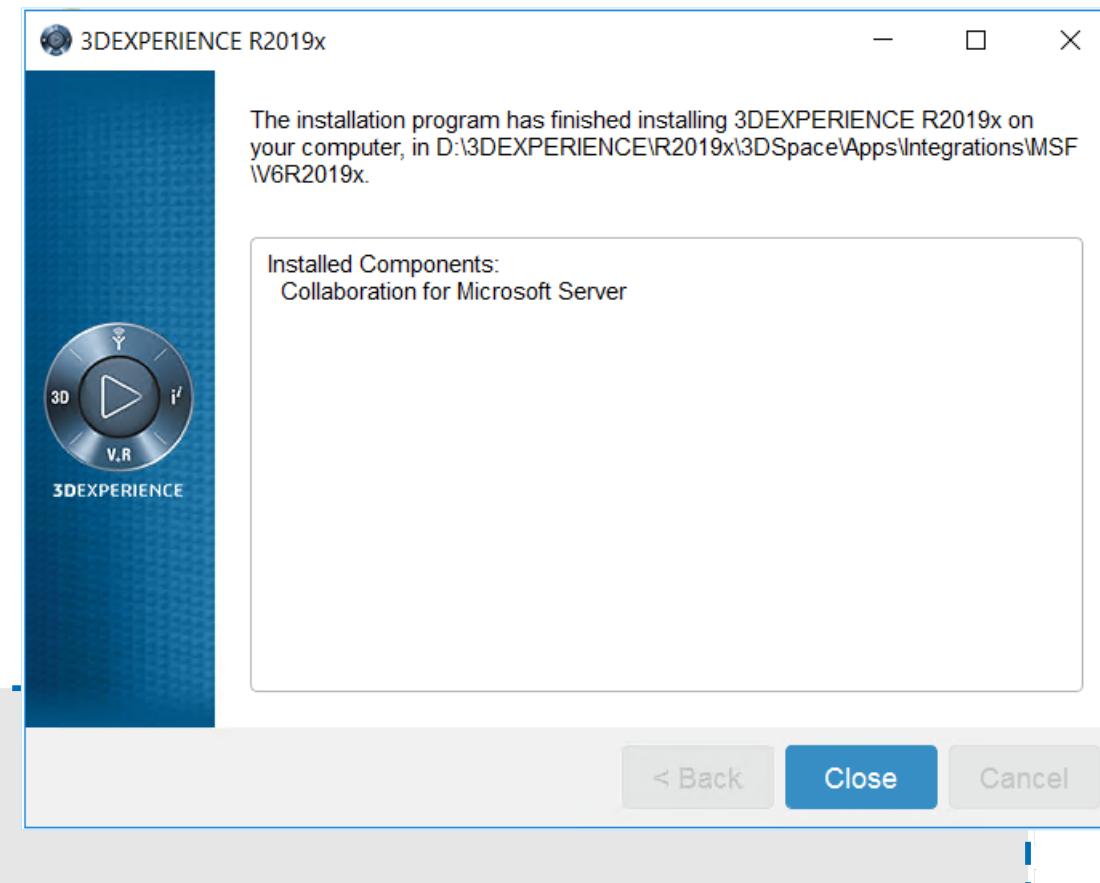
D:\3DEXPERIENCE\R2019x\3DSpace\Apps\DesignerCentral\

Mid-Market : GA - ENOVIA Collaboration for Microsoft Server

Based on your OS:

- a. Navigate to your <Your Media PATH>\AM_3DEXP_Platform.AIOS\1\CSV-IndustryInnovation
- b. Extract the file, you can delete the compressed version in <Your Installer Path> after it has been extracted.
- c. Go to the following folder: “CollaborationforMicrosoftServer”
ENOVIACollaborationforMicrosoftServer-V6R2019x.Windows64.zip
- d. Extract the file in <Your Installer PATH>
ENOVIACollaborationforMicrosoftServer.Windows64\1
- e. Execute the proper installer based on your <OS>
GUI: setup.exe
TUI: StartTUI.exe

The server installation directory: D:\3DEXPERIENCE\R2019x\3DSpace
Files will be installed in the following directory:
D:\3DEXPERIENCE\R2019x\3DSpace\Apps\Integrations\MSF\V6R2019x
Super User name: creator



Mid-Market: GA - ENOVIA Collaboration for Microsoft Server

- f. The application being installed is/are:

Integrations\MSF

- g. Once the installation is done, copy and rename the “UserIntentions_CODE.xml”. All “App” user intention files will be located under:

D:\3DEXPERIENCE\R2019x\3DSpace\Apps\<InstalledApp>\V6R2019x\InstallData
\UserIntentions_CODE.xml

Copy it to:

D:\3DEXPERIENCE\conf\UserIntentions\UserIntentions_<Installed App>.xml

Note: If the name of the installed App folder is not obvious, check the time stamp of the folder

- h. Make sure there are no installation errors. The Errors.log & *Stderr.txt files are found in:

D:\3DEXPERIENCE\R2019x\3DSpace\Apps\<InstalledApp>\V6R2019x\InstallData
\log\CODE\win_b64\....media-<Time Stamp>

- i. Application installation location:

D:\3DEXPERIENCE\R2019x\3DSpace\Apps\Integrations\MSF\

Mid-Market: GA - ConnectorforCATIAV5

Based on your OS:

- a. Navigate to your

<Your Media PATH>\AM_3DEXP_Platform.AILOS\1\CDR-X-CADDdesigner

- a. Extract the file, you can delete the compressed version in <Your Installer Path> after it has been extracted.

- b. Go to the following folder: “ENOVIAX-CADDDesignManagement”

ConnectorforCATIAV5Server-V6R2019x.Windows64.zip

- d. Extract the file in <Your Installer PATH>

ConnectorforCATIAV5Server.Windows64\1

- e. Execute the proper installer based on your <OS>

GUI: setup.exe

TUI: StartTUI.exe

The server installation directory: D:\3DEXPERIENCE\R2019x\3DSpace

Files will be installed in the following directory:

D:\3DEXPERIENCE\R2019x\3DSpace\Apps\ConnectorforCATIAV5\V6R2019x

Super User name: creator

Mid-Market: GA - ConnectorforCATIAV5

f. The application being installed is/are:

- ConnectorforCATIAV5

g. Once the installation is done, copy and rename the “UserIntentions_CODE.xml”. All “App” user intention files will be located under:

D:\3DEXPERIENCE\R2019x\3DSpace\Apps\<Installed App>\V6R2019x\InstallData
\UserIntentions_CODE.xml

Copy it to:

D:\3DEXPERIENCE\conf\UserIntentions\UserIntentions_<Installed App>.xml

Note: If the name of the installed App folder is not obvious, check the time stamp of the folder

h. Make sure there are no installation errors. The Errors.log & *Stderr.txt files are found in:

D:\3DEXPERIENCE\R2019x\3DSpace\Apps\<Installed App>\V6R2019x\InstallData
\log\CODE\win_b64\....media-<Time Stamp>

i. Application installation location:

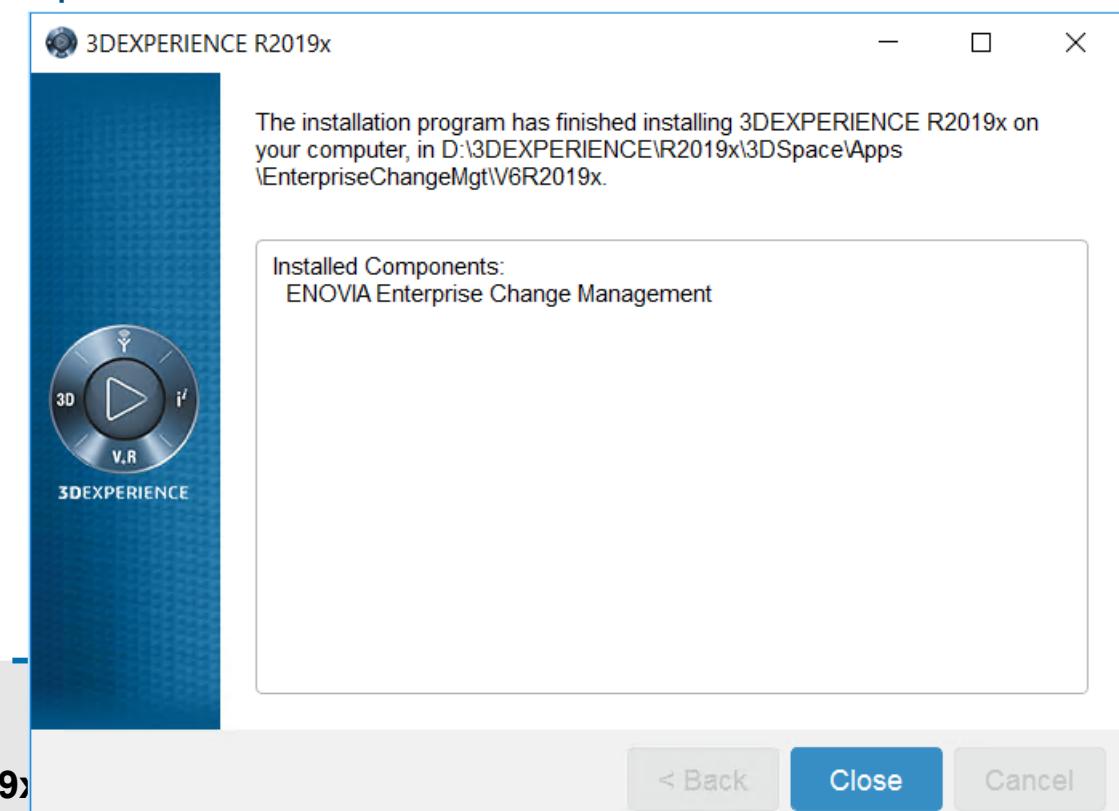
D:\3DEXPERIENCE\R2019x\3DSpace\Apps\ConnectorforCATIAV5\

Mid-Market: GA - ENOVIAEnterpriseChangeManagement

Based on your OS:

- a. Navigate to your <Your Media PATH>\AM_3DEXP_WebApps.AILOS\1\CHG-ChangeManagement
- b. Extract the file, you can delete the compressed version in <Your Installer Path> after it has been extracted.
- c. Go to the following folder: “ENOVIAMyChanges”
ENOVIAEnterpriseChangeManagement-V6R2019x.Windows64.zip
- d. Extract the file in <Your Installer PATH>
ENOVIAEnterpriseChangeManagement.Windows64\1
- e. Execute the proper installer based on your “<OS>”
 - a. GUI: setup.exe
 - b. TUI: StartTUI.exe

The server installation directory: D:\3DEXPERIENCE\R2019x\3DSpace
Files will be installed in the following directory:
D:\3DEXPERIENCE\R2019x\3DSpace\Apps\EnterpriseChangeMgt\V6R2019x
Super User name: creator
Database will be updated
Custom Schema Path:
D:\3DEXPERIENCE\R2019x\3DSpace\Apps\EnterpriseChangeMgt\V6R2019x\Apps\SchemaInstaller\CustomSchema



Mid-Market: GA - ENOVIAEnterpriseChangeManagement

- f. The application being installed is/are:

EnterpriseChangeMgt

- g. Once the installation is done, copy and rename the “UserIntentions_CODE.xml”. All “App” user intention files will be located under:

D:\3DEXPERIENCE\R2019x\3DSpace\Apps\<Installed App>\V6R2019x\InstallData
\UserIntentions_CODE.xml

Copy it to:

D:\3DEXPERIENCE\conf\UserIntentions\UserIntentions_<Installed App>.xml

Note: If the name of the installed App folder is not obvious, check the time stamp of the folder

- h. Make sure there are no installation errors. The Errors.log & *Stderr.txt files are found in:

D:\3DEXPERIENCE\R2019x\3DSpace\Apps\<Installed App>\V6R2019x\InstallData
\log\CODE\win_b64\....media-<Time Stamp>

- i. Application installation location:

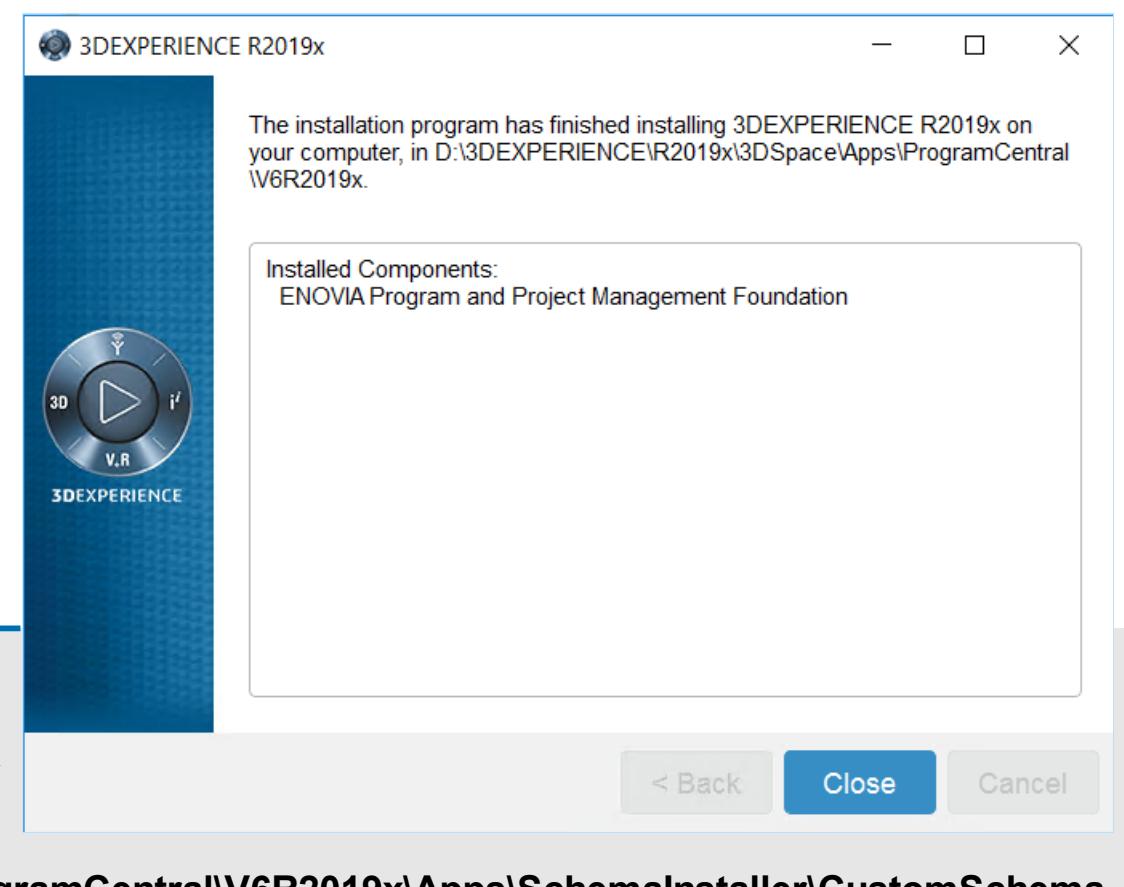
D:\3DEXPERIENCE\R2019x\3DSpace\Apps\EnterpriseChangeMgt\

Mid-Market: GA - ENOVIAProjectManagementFoundation

Based on your OS:

- a. Navigate to your <Your Media PATH>\AM_3DEXP_WebApps.ALLOS\1\DPM-ProjectManager\
- b. Extract the file, you can delete the compressed version in <Your Installer Path> after it has been extracted.
- c. Go to the following folder: “ENOVIAProjectManagement “
ENOVIAProjectManagementFoundation-V6R2019x.Windows64.zip
- d. Extract the file in <Your Installer PATH>\ENOVIAProjectManagementFoundation.Windows64\1

- e. Execute the proper installer based on your “<OS>”
GUI: setup.exe
TUI: StartTUI.exe



The server installation directory: D:\3DEXPERIENCE\R2019x\3DSpace
Files will be installed in the following directory:
D:\3DEXPERIENCE\R2019x\3DSpace\ProgramCentral\V6R2019x
Super User name: creator
Database will be updated
Custom Schema Path: D:\3DEXPERIENCE\R2019x\3DSpace\ProgramCentral\V6R2019x\CustomSchema

Mid-Market: GA - ENOVIAProjectManagementFoundation

f. The application being installed is/are:

ProgramCentral

g. Once the installation is done, copy and rename the UserIntentions_CODE.xml. All App user intention files will be located under:

D:\3DEXPERIENCE\R2019x\3DSpace\Apps\<InstalledApp>\V6R2019x\InstallData
\UserIntentions_CODE.xml

Copy it to:

D:\3DEXPERIENCE\conf\UserIntentions\UserIntentions_<Installed App>.xml

Note :If the name of the installed App folder is not obvious, check the time stamp of the folder

h. Make sure there are no installation errors. The Errors.log & *Stderr.txt files are found in:

D:\3DEXPERIENCE\R2019x\3DSpace\Apps\<Installed App>\V6R2019x\InstallData
\log\CODE\win_b64\....media-<Time Stamp>

i. Application installation location:

D:\3DEXPERIENCE\R2019x\3DSpace\Apps\ProgramCentral\

Mid-Market: GA - ENOVIAProgramChangeControlFoundation

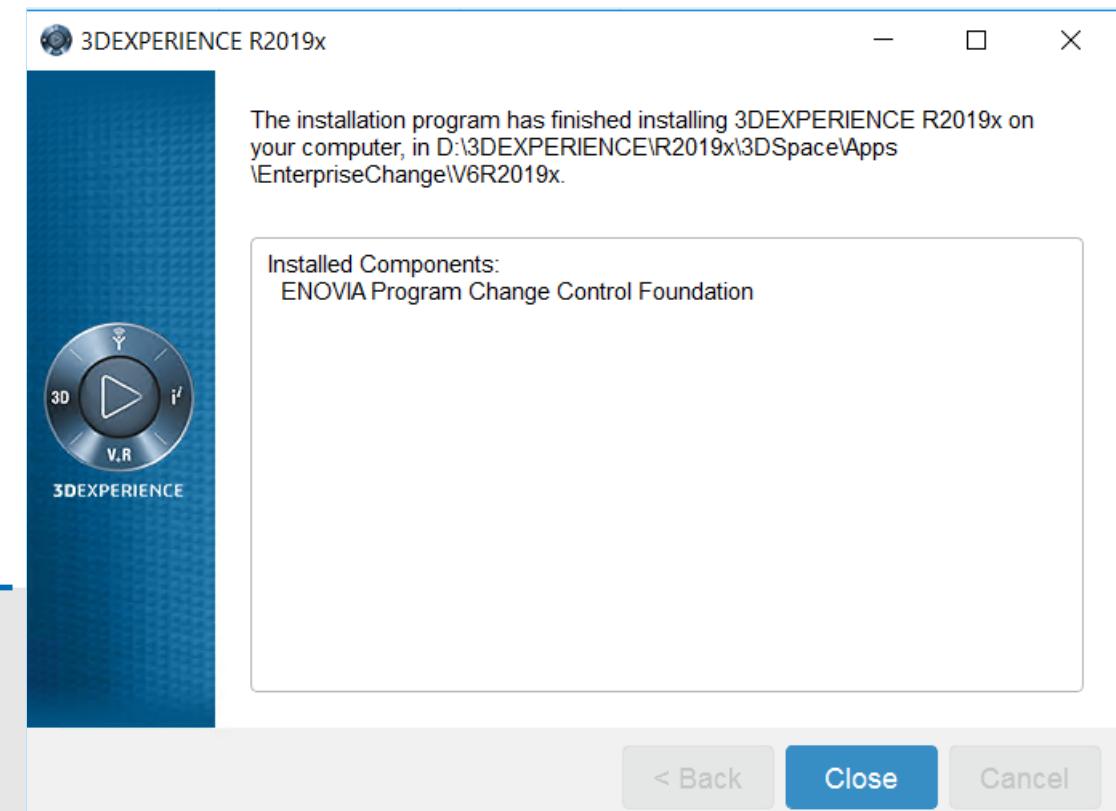
Based on your OS:

- a. Navigate to your <Your Media PATH>\AM_3DEXP_WebApps.AILOS\1\CTP-Contract-basedProgramManager
- b. Extract the file, you can delete the compressed version in <Your Installer Path> after it has been extracted.
- c. Go to the following folder: ENOVIAProgramandContractManagement
ENOVIAProgramChangeControlFoundation-V6R2019x.Windows64.zip
- d. Extract the file in <Your Installer PATH>
ENOVIAProgramChangeControlFoundation.Windows64\1

- e. Execute the proper installer based on your “<OS>”

GUI: setup.exe

TUI: StartTUI.exe



The server installation directory: D:\3DEXPERIENCE\R2019x\3DSpace
Files will be installed in the following directory:
D:\3DEXPERIENCE\R2019x\3DSpace\Apps\EnterpriseChange\V6R2019x
Super User name: creator
Database will be updated
Custom Schema Path:
D:\3DEXPERIENCE\R2019x\3DSpace\Apps\EnterpriseChange\V6R2019x\Apps\SchemaInstaller\CustomSchema

Mid-Market : GA - ENOVIAProgramChangeControlFoundation

f. The application being installed is/are:

EnterpriseChange

g. Once the installation is done, copy and rename the UserIntentions_CODE.xml. All App user intention files will be located under:

D:\3DEXPERIENCE\R2019x\3DSpace\Apps\<Installed App>\V6R2019x\InstallData
\UserIntentions_CODE.xml

Copy it to:

D:\3DEXPERIENCE\conf\UserIntentions\UserIntentions_<Installed App>.xml

If the name of the installed App folder is not obvious, check the time stamp of the folder

h. Make sure there are no installation errors. The Errors.log & *Stderr.txt files are found in:

D:\3DEXPERIENCE\R2019x\3DSpace\Apps\<Installed App>\V6R2019x\InstallData
\log\CODE\win_b64\....media-<Time Stamp>

i. Application installation location:

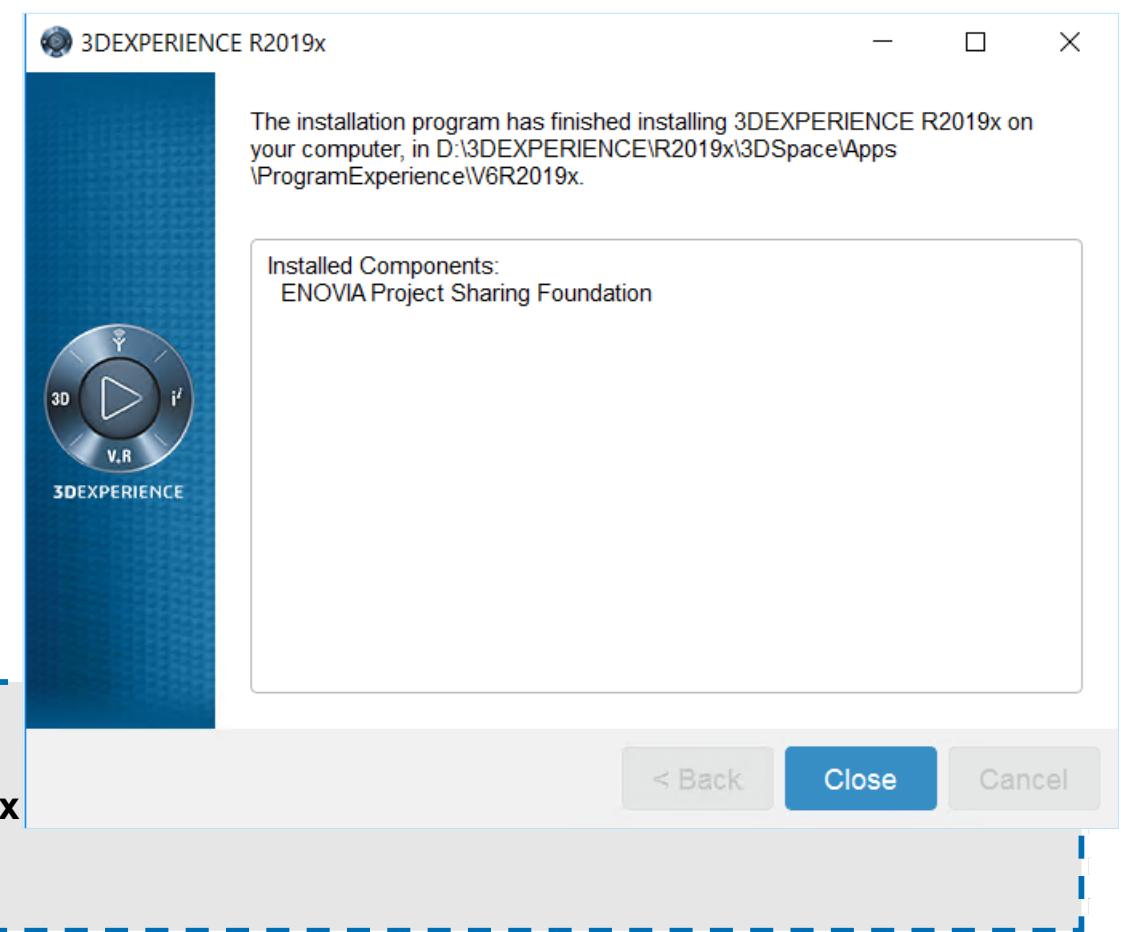
D:\3DEXPERIENCE\R2019x\3DSpace\Apps\EnterpriseChange\

Mid-Market: GA - ENOVIAProjectExecutionFoundation

1. Based on your OS:

- a. Navigate to your <Your Media PATH>\AM_3DEXP_WebApps.AlIOS\1\DPJ-ProjectTeamMember\
- b. Extract the file, you can delete the compressed version in <Your Installer Path> after it has been extracted.
- c. Go to the following folder: “ENOVIAProjectExecution”
ENOVIAProjectExecutionFoundation-V6R2019x.Windows64.zip

- d. Extract the file in <Your Installer PATH>
ENOVIAProjectExecutionFoundation.Windows64\1
- e. Execute the proper installer based on your “<OS>”
GUI: setup.exe
TUI: StartTUI.exe



Mid-Market: GA - ENOVIAProjectExecutionFoundation

- f. The application being installed is/are:

ProgramExperience

- g. Once the installation is done, copy and rename the “UserIntentions_CODE.xml”. All “App” user intention files will be located under:

D:\3DEXPERIENCE\R2019x\3DSpace\Apps\<InstalledApp>\V6R2019x\InstallData
\UserIntentions_CODE.xml

Copy it to:

D:\3DEXPERIENCE\conf\UserIntentions\UserIntentions_<Installed App>.xml

Note: If the name of the installed App folder is not obvious, check the time stamp of the folder

- h. Make sure there are no installation errors. The Errors.log & *Stderr.txt files are found in:

D:\3DEXPERIENCE\R2019x\3DSpace\Apps\<Installed App>\V6R2019x\InstallData
\log\CODE\win_b64\....media-<Time Stamp>

- i. Application installation location:

D:\3DEXPERIENCE\R2019x\3DSpace\Apps\ProgramExperience\

Mid-Market: GA - ENOVIAEngineeringBOMManagementFoundation

Based on your OS:

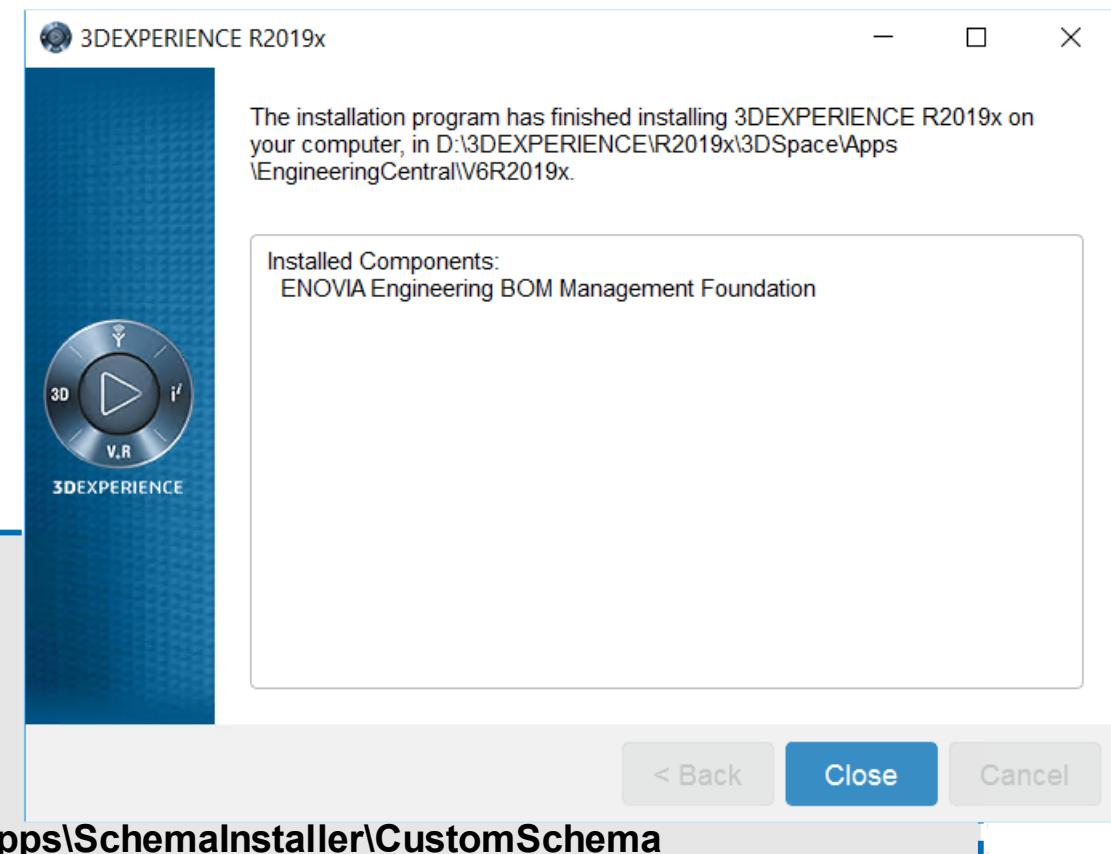
- a. Navigate to your <Your Media PATH>\AM_3DEXP_WebApps.AlIOS\1\CCM-ClassificationManager\
- b. Extract the file, you can delete the compressed version in <Your Installer Path> after it has been extracted.
- c. Go to the following folder: “ENOVIAEngineeringBOMManagement”
ENOVIAEngineeringBOMManagementFoundation-V6R2019x.Windows64.zip
- d. Extract the file in <Your Installer PATH>
ENOVIAEngineeringBOMManagementFoundation.Windows64\1

- e. Execute the proper installer based on your “<OS>”

GUI: setup.exe

TUI: StartTUI.exe

The server installation directory: D:\3DEXPERIENCE\R2019x\3DSpace
Files will be installed in the following directory:
D:\3DEXPERIENCE\R2019x\3DSpace\Apps\EngineeringCentral\V6R2019x
Super User name: creator
Database will be updated
Custom Schema Path:
D:\3DEXPERIENCE\R2019x\3DSpace\Apps\EngineeringCentral\V6R2019x\Apps\SchemaInstaller\CustomSchema



f. The application being installed is/are:

EngineeringCentral

g. Once the installation is done, copy and rename the UserIntentions_CODE.xml. All App user intention files will be located under:

D:\3DEXPERIENCE\R2019x\3DSpace\Apps\<Installed App>\V6R2019x\InstallData
\UserIntentions_CODE.xml

Copy it to:

D:\3DEXPERIENCE\conf\UserIntentions\UserIntentions_<Installed App>.xml

Note: If the name of the installed App folder is not obvious, check the time stamp of the folder

h. Make sure there are no installation errors. The Errors.log & *Stderr.txt files are found in:

D:\3DEXPERIENCE\R2019x\3DSpace\Apps\<Installed App>\V6R2019x\InstallData
\log\CODE\win_b64\....media-<Time Stamp>

i. Application installation location:

D:\3DEXPERIENCE\R2019x\3DSpace\Apps\EngineeringCentral\

Mid-Market: Interim

At this point you have finished the GA 3DSpace core components and Mid-Market GA Apps installation.

- ▶ You will now need go back to the 3DSpace service FP installation section of the Core Configuration document and complete the 3DSpace FP install.
- ▶ When you have completed the 3DSpace FP installation you can come back to this point and continue the FP installation for the Mid-Market applications.
- ▶ It is recommended that you install the Mid-Market Apps FPs in the same order you installed the GA Apps
- ▶ Not all Applications will have a Hotfix associated with the Fix Pack, some may remain at the GA level.

Mid-Market – GA Application

With the other **3DEXPERIENCE** platform Services you apply a Fix Pack immediately after the GA installation. 3DSpace is a special case if you are adding additional applications, the process is as follow:

- 1) GA 3DSpace installation
- 2) GA Application installation
- 3) FP 3DSpace installation
- 4) FP Application installation

Notice that you Install all GA for the applications before installing the 3DSpace FP.

When 3DSpace FP installation is done, you will continue with the next chapter “Mid-Market FP Application Installer”.

3DSpace: FP Service Installer

There is no global 3DEXPERIENCE platform installer for FP you must update each service individually.

- a. Ensure that TomEE+3DSpace is stopped

D:\3DEXPERIENCE\TomEE\TomEE3DSpace\bin\shutdown.bat

D:\3DEXPERIENCE\TomEE\TomEE3DSpaceInternal\bin\shutdown.bat



If you do not stop TomEE+, the installer will not be able to replace certain files automatically, this can result in errors in the log or unexpected behavior.

- b. Use the normal "Service Installer":

<Your Media PATH>\Part_3DEXP_platform.Windows64\1\Software\

You will find:

- o 3DSpace-V6R2019x.HF2.Windows64.zip

- c. Unzip the proper OS version to <Your Installer PATH>

- o <Your Installer PATH>\3DSpace.Windows64\1

- d. Navigate to this path and find:

GUI: setup.exe

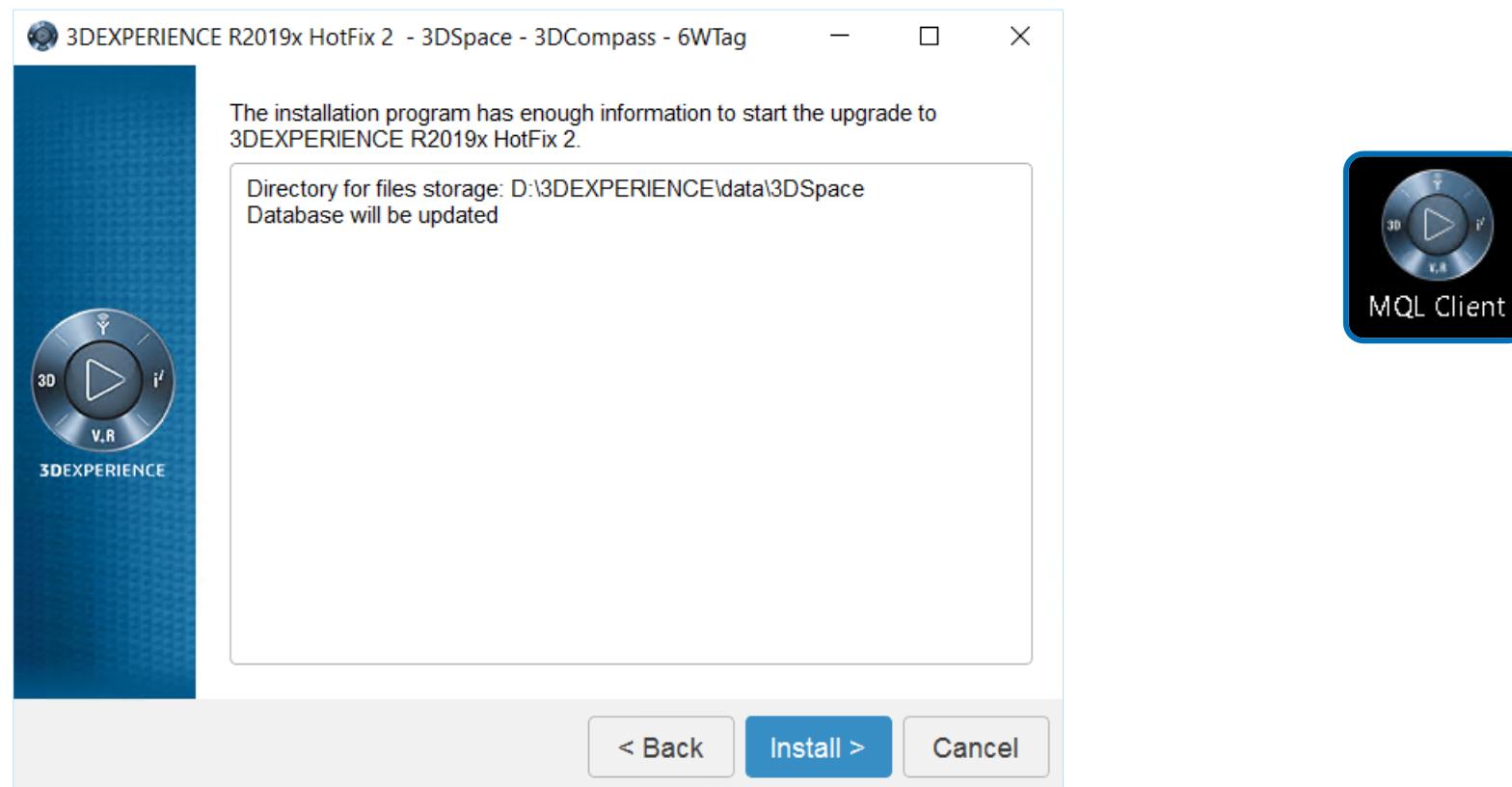
TUI: StartTUI.exe



60 minutes

3DSpace: FP Service Installer

1. As with GA, it is recommended that you log the Installation Overview window containing your input values.
 - a. If you choose to take a screen shot, the window can be resized so you can see all the values clearly.
 - b. Proceed with the update using the same key values.



Exercise: Install 3DExplore - FP

In this exercise, you will install 3DExplore FP.

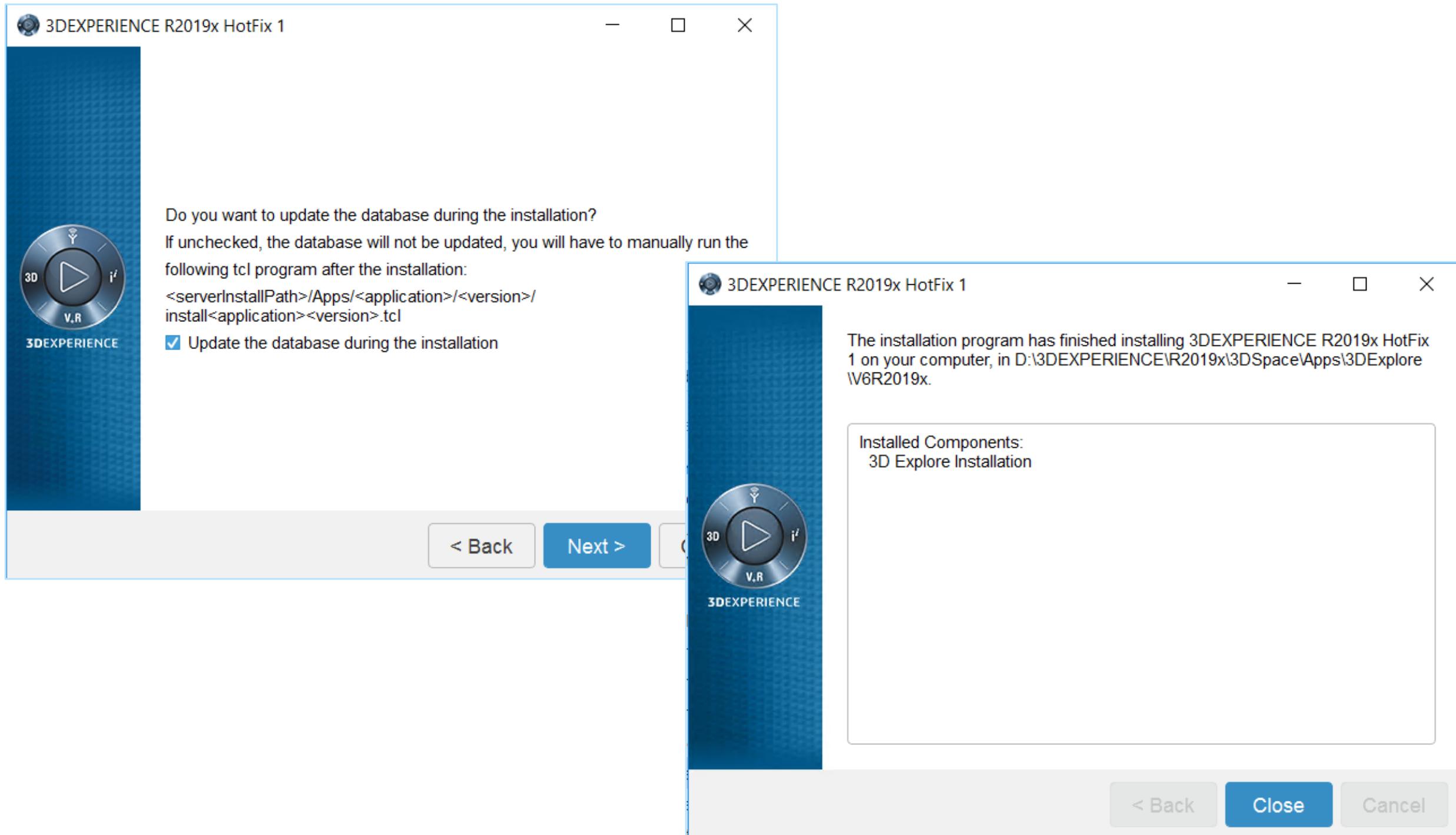


10 minutes

Install 3DExplore FP1907 (1/2)

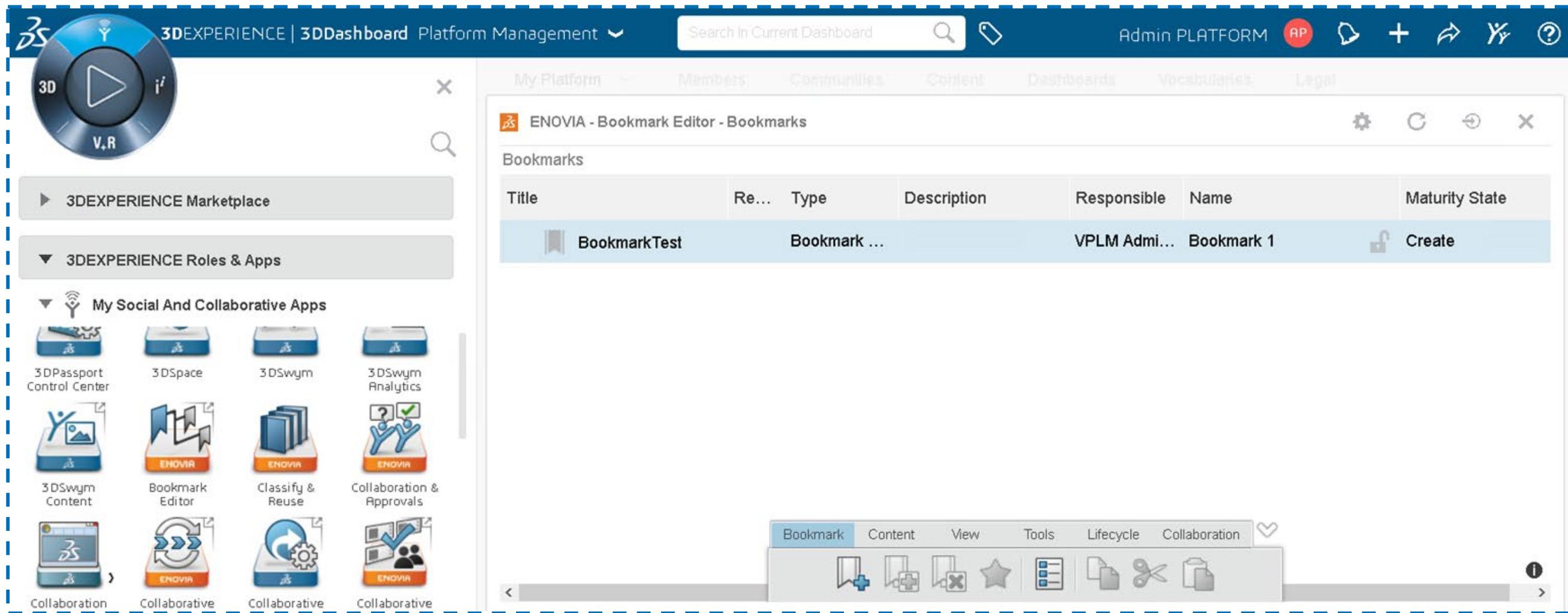
Install the media from

<Your media path>\Part_3DEXP_Platform\V6R2019x.FP.CFA.1907.Part_3DEXP_Platform.Windows64.1-2\Part_3DEXP_Platform.Windows64\1\Software



Install 3DExplore FP1907 (2/2)

Copy the UserIntention.xml file to the UserIntentions folder.



The screenshot shows the 3DEXPERIENCE Platform Management interface. On the left, there's a sidebar with a large circular icon containing a play button and 'V.R' text. Below it are sections for '3DEXPERIENCE Marketplace' and '3DEXPERIENCE Roles & Apps'. Under '3DEXPERIENCE Roles & Apps', there's a 'My Social And Collaborative Apps' section with icons for various tools like 3DPassport Control Center, 3DSpace, 3DSwym, 3DSwym Analytics, 3DSwym Content, Bookmark Editor, Classify & Reuse, Collaboration & Approvals, Collaboration, and Collaborative. The main area is titled 'ENOVIA - Bookmark Editor - Bookmarks' and shows a table of bookmarks:

Title	Re...	Type	Description	Responsible	Name	Maturity State
BookmarkTest		Bookmark ...		VPLM Admi...	Bookmark 1	

At the bottom, there's a toolbar with buttons for Bookmark, Content, View, Tools, Lifecycle, and Collaboration.

Exercise: Install 3DExplore FP

In this exercise, you have installed the 3DExplore FP.

3DSpace: FP Post Installation

3DSpace creates the database objects during the installation phase.

3DSpace TomEE+ code path: D:\3DEXPERIENCE\TomEE\TomEE3DSpace

3DSpace Internal TomEE+ code path: D:\3DEXPERIENCE\TomEE\TomEE3DSpaceInternal

- a. Start and Stop both TomEE+

<TomEE+3DSpace Path>\bin\startup.bat

Wait for it to finish deploying the application...



```
Jan 25, 2017 12:00:03 PM org.apache.coyote.AbstractProtocol start
INFO: Starting ProtocolHandler ["http-bio-8123"]
Jan 25, 2017 12:00:03 PM org.apache.coyote.AbstractProtocol start
INFO: Starting ProtocolHandler ["ajp-Mio-8124"]
Jan 25, 2017 12:00:03 PM org.apache.catalina.startup.Catalina start
INFO: Server startup in 561 ms
```

- b. Edit the fragment file :

D:\3DEXPERIENCE\R2019x\3DSpace\win_b64\templates\3DSpace_httpd_fragment.conf

Validate the values for “**port**” and “**FQDN**” in the fragment file.

http://3dspace.mytraining.com:8380

http://internal.mytraining.com:8480

- e. Backup the fragment file to:

D:\3DEXPERIENCE\conf\Fragment\3DSpace_httpd_fragment.conf.FP

3DSpace: FP Technical Validation

FP technical validation refers to validation of the installation process, i.e. did it install without errors and did it complete what it was supposed to do.

Defining the service code installation path: D:\3DEXPERIENCE\R2019x\3DSpace

1. Installer error log should be empty in:

<Code Path>\InstallData\log\CODE\win_b64\.....media<Latest timestamp>\Errors.log & *Stderr.txt

Size should be **0 bytes**

You should see 2 “...media...” folders, one for GA and a new one for the FP.

If you had to modify values in the installer dialogues you will see these “errors” in the Errors.log you will need to validate if any of these messages require corrective action.

2. Expected file creation or updated:

<TomEE3DSpace Path>\bin\setenv.bat

3DSpace – FP Applications

1. You have just finished the FP installation for 3DSpace. It is now time to perform FP installation of mid-market apps you installed during the GA install. The fix packs should be installed in the same order that you installed the GA applications.
2. Proceed now with the FP installation of the applications
3. Mid-Market Solution:
 1. ENOVIAIPClassificationFoundation
 2. ENOVIACollaborativeTasksFoundation
 3. ENOVIAX-CADDDesignFoundation
 4. ENOVIACollaborationforMicrosoftServer
 5. ConnectorforCATIAV5Server
 6. ENOVIAEnterpriseChangeManagement
 7. ENOVIAProjectManagementFoundation
 8. ENOVIAProgramChangeControlFoundation
 9. ENOVIAProjectExecutionFoundation
 10. ENOVIAEngineeringBOMManagementFoundation
4. If you skipped the “3DSpace add-ons” you must skip this section and go directly to the next section “3DSpace – WAR build”.

3DSpace – FP Applications

1. You have almost completed the 3DSpace installation, only the FP for the Add-ons are missing:
 - a. GA 3DSpace installation (done)
 - b. GA Application installation (done)
 - c. FP 3DSpace installation (done)
 - d. FP Application installation
2. At this time, go to the “Mid-Market Solution” document and continue with the FP installation of the applications.

Exercise: Install ENOVIA3DIssueManagementFoundation - FP

The current architecture moves from traditional process of web based to widget based.

3D Review uses the **3DEXPERIENCE** platform 3DSpace baseline access roles that your business administrator assigns to you. All users have access to issues in general. Your business administrator can change the default accesses to commands, content, and collaborative spaces. Companies can also implement customized roles and accesses.

Cheat Sheet

Steps	Key	Value
01	DS Installer Path	<Your Media PATH>\AM_3DEXP_Platform.AIROS\3\DS_Installer\1
02	Installation directory	D:\3DEXPERIENCE\R2019x\3DSpace\3DIssueManagementFoundation
03	Server Installation directory	D:\3DEXPERIENCE\R2019x\3DSpace
04	Update Database	Yes

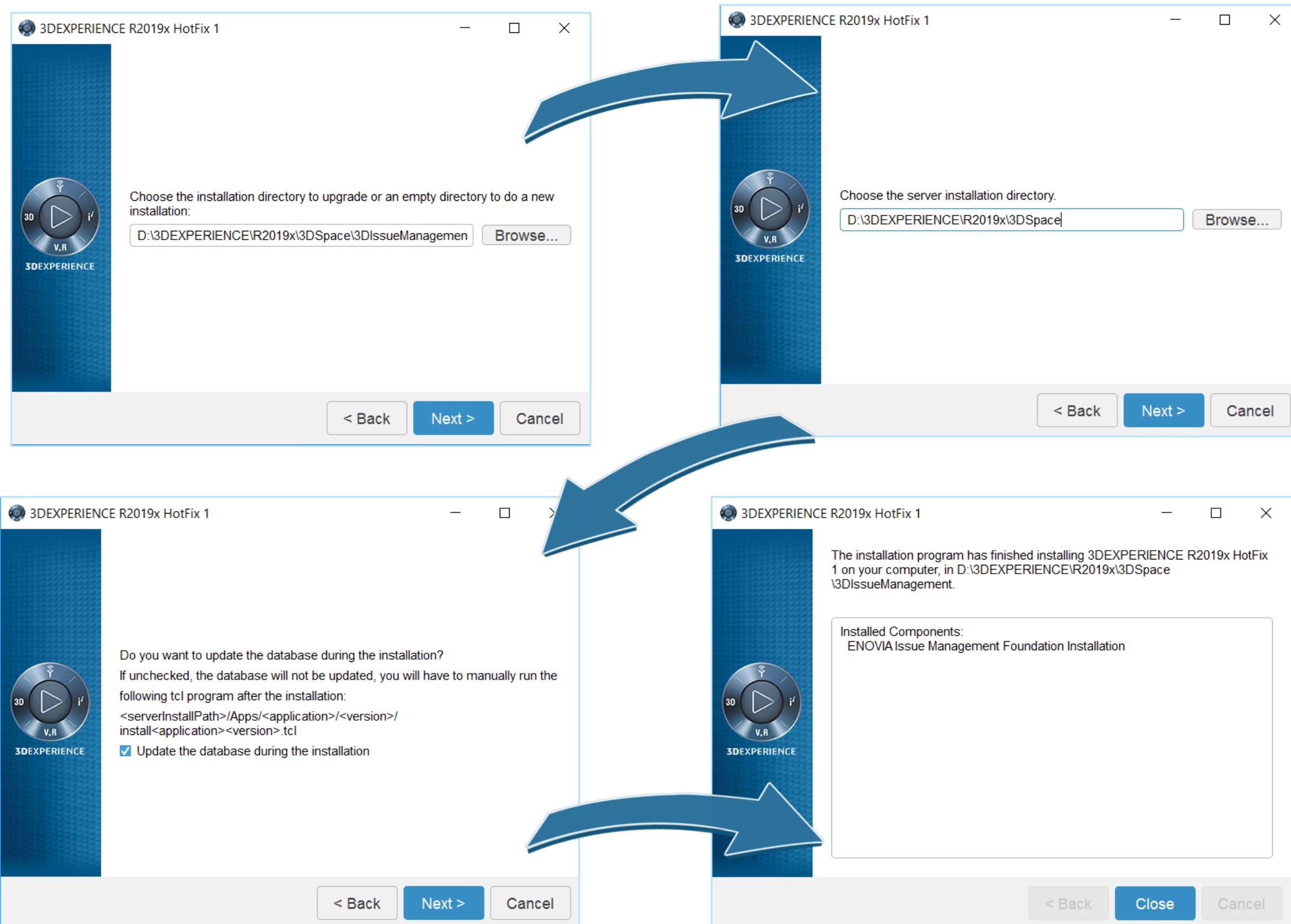


15 minutes

Install ENOVIA3DIssueManagementFoundation (2/2)

The installation process remains the same. You can directly proceed with the FP1907 installation.

<Your media path>\R2019x.FP1907\Part_3DEXP_Platform.Windows64\1\Software\ENOVIA3DIssueManagementFoundation-V6R2019x.HF1.Windows64.zip\ENOVIA3DIssueManagementFoundation.Windows64\1



Exercise: Install ENOVIA3DIssueManagementFoundation - FP

In this exercise, you have installed ENOVIA3DIssueManagement.

Mid-Market: FP Installers

- ▶ You should have finished installing the 3DSpace FP, you can now complete the FP of the MidMarket applications:
 - Installers will be compressed and are available in the following PATH:
 - <Your Media PATH>\Part_3DEXP_WebApps.Windows64\<The Installer>
 - <Your Media PATH>\Part_3DEXP_OpenApps.AIROS\<The Installer>
 - <Your Media PATH>\Part_3DEXP_platform.Windows64\<The Installer>
 - <The Installer> will all be in compressed format.
- You will need to copy the file to <Your Installer PATH> folder and extract it.
 - <Your Installer PATH>\FP1907\<The Installer>
 - You must un-compress the installers then delete the compressed file you copied (saves disk space)
- You will find the usual executables “<Your Installer PATH>\<Extracted Code>\1”:
 - GUI: setup.exe
 - TUI: StartTUI.exe
- For each installer, the media location will be provided:
 - “<DVD Media>.Windows64” ← The DVD name
 - <The Installer> ← The name

Mid-Market: FP Installers Preparation

1. The first step is to get the “DS_Installer” from :
 - a. <Your Media PATH>\Part_3DEXP_WebApps.Windows64\1\DS_Installer\
 - i. DS_Installer-V6R2019x.HF2.Windows64.zip
2. Copy it to your <Your Installer PATH>\FP1907\ and extract it, you can delete the copied compressed file after you've extracted it.
3. These are the paths from <Your Media PATH> for all the files that you need to copy to “<Your Installer PATH>\FP\”. Unzip each file then delete the compressed file afterward:
 1. Part_3DEXP_WebApps.Windows64\1\Software\ENOVIAIPClassificationFoundation...Windows64.zip
 2. Part_3DEXP_WebApps.Windows64\1\Software\ENOVIACollaborativeTasksFoundation...Windows64.zip
 3. Part_3DEXP_OpenApps.Windows64\1\Software\ENOVIAX-CADDDesignFoundation...Windows64.zip
 4. Part_3DEXP_OpenApps.Windows64\1\Software\ENOVIACollaborationforMicrosoftServer...Windows64.zip
 5. Part_3DEXP_OpenApps.Windows64\1\Software\ConnectorforCATIAV5Server...Windows64.zip
 6. Part_3DEXP_WebApps.Windows64\1\Software\ENOVIAEnterpriseChangeManagement...Windows64.zip
 7. Part_3DEXP_WebApps.Windows64\1\Software\ENOVIAProjectManagementFoundation...Windows64.zip
 8. Part_3DEXP_WebApps.Windows64\1\Software\ENOVIAProgramChangeControlFoundation...Windows64.zip
 9. Part_3DEXP_WebApps.Windows64\1\Software\ENOVIAProjectExecutionFoundation....Windows64.zip
 10. Part_3DEXP_WebApps.Windows64\1\Software\ENOVIAEngineeringBOMManagement...Windows64.zip

Mid-Market: Configuration and Key Parameters

Now that 3DSpace has been Fix Packed it is time to continue with the Apps. The Hotfixes will use configuration options that you should be familiar with by now:

- ▶ Configuration Updated:
 - Database objects : Updated
 - TomEE + needed : Updated
- ▶ Installing Applications FPs will use the same “Cheat-Sheet” as GA. With the exception that one installer will require an extra piece of information that was not requested in the GA installation.

Steps	Key	Value
01	DSY Installer path	<Your media path\R2019x.GA\AM_3DEXP_Platform.AILOS\3\DS_Installer\DS_Installer-V6R2019x.Windows64\DS_Installer.Windows64\1
02	Server Installation Folder	D:\3DEXPERIENCE\R2019x\3DSpace
03	Name of Business & Admin user Password of Business & Admin user	creator <empty>
04	Update database	Yes

Mid-Market: FP Service Installer

1. We will not provide steps for each App installer as they are identical and will become redundant. The sequence for each will be:
 - a. Install Application
 - b. Error log check corresponding to the Application → Repeat 10 times
 - c. Set the following variable for DS_Installer in the command prompt:,

```
set Installer=-installerPath E:\Media\R2019x.FP.CFA.FP1907\Part_3DEXP_Platform.Windows64\1\Software\DS_Installer.Windows64\1
```

- d. We will do one installation with full detail in the next slide, all the others will be identical and can use the next slide as a template.

Mid-Market: FP Service Installer

1. ENOVIA IP Classification Foundation

a. ENOVIAIPClassificationFoundation.Windows64\1\setup.exe %Installer%

b. The service being updated is indicated as shown below

The server installation directory: D:\3DEXPERIENCE\R2019x\3DSpace
Files will be installed in the following directory:
D:\3DEXPERIENCE\R2019x\3DSpace\Apps\LibraryCentral\V6R2019x
Super User name: creator
Database will be updated

c. Check the “Error.log” & “*Stderr.txt” in folder:

D:\3DEXPERIENCE\R2019x\3DSpace\Apps\<Installed
App>\V6R2019x\InstallData\log\CODE\win_b64\...<Time Stamp>\

Mid-Market: FP Service Installer

2. ENOVIA Collaborative Tasks Foundation

- a. [ENOVIACollaborativeTasksFoundation.Windows64\1\setup.exe %Installer%](#)
- b. The service being updated is indicated as shown below

The server installation directory: D:\3DEXPERIENCE\R2019x\3DSpace
Files will be installed in the following directory:
D:\3DEXPERIENCE\R2019x\3DSpace\Apps\CollaborativeTasks\V6R2019x
Super User name: creator

- c. Check the “Error.log” & “*Stderr.txt” in folder:
[D:\3DEXPERIENCE\R2019x\3DSpace\Apps\<Installed App>\V6R2019x\Install\log\CODE\win_b64\...<Time Stamp>](#)

3. ENOVIA X-CAD Design Foundation

- a. [ENOVIAX-CADDDesignFoundation.Windows64\1\setup.exe %Installer%](#)
- b. The service being updated is indicated as shown below

The server installation directory: D:\3DEXPERIENCE\R2019x\3DSpace
Files will be installed in the following directory:
D:\3DEXPERIENCE\R2019x\3DSpace\Apps\DesignerCentral\V6R2019x
Super User name: creator

- c. Check the “Error.log” & “*Stderr.txt” in folder:
[D:\3DEXPERIENCE\R2019x\3DSpace\Apps\<Installed App>\V6R2019x\Install\log\CODE\win_b64\...<Time Stamp>](#)

Mid-Market: FP Service Installer

4. ENOVIA Collaboration for Microsoft Server

- a. ENOVIACollaborationforMicrosoftServer.Windows64\1\setup.exe %Installer%
- b. The service being updated is indicated as shown below

```
|-----|  
| The server installation directory: D:\3DEXPERIENCE\R2019x\3DSpace  
| Files will be installed in the following directory:  
|   D:\3DEXPERIENCE\R2019x\3DSpace\Apps\Integrations\MSF\V6R2019x  
| Super User name: creator  
|-----|
```

- c. Check the “Error.log” & “*Stderr.txt” in folder:
`D:\3DEXPERIENCE\R2019x\3DSpace\Apps\<Installed
App>\V6R2019x\Install\log\CODE\win_b64\...<Time Stamp>\`

5. Connector for CATIAV5 Server

- a. ConnectorforCATIAV5Server.Windows64\1\setup.exe %Installer%
- b. The service being updated is indicated as shown below

```
|-----|  
| The server installation directory: D:\3DEXPERIENCE\R2019x\3DSpace  
| Files will be installed in the following directory:  
|   D:\3DEXPERIENCE\R2019x\3DSpace\Apps\ConnectorforCATIAV5\V6R2019x  
| Super User name: creator  
|-----|
```

- c. Check the “Error.log” & “*Stderr.txt” in folder:
`D:\3DEXPERIENCE\R2019x\3DSpace\Apps\<Installed
App>\V6R2019x\Install\log\CODE\win_b64\...<Time Stamp>\`

Mid-Market: FP Service Installer

6. ENOVIA Enterprise Change Management

- a. [ENOVIAEnterpriseChangeManagement.Windows64\1\setup.exe %Installer%](#)
- b. The service being updated is always indicated as shown below

```
The server installation directory: D:\3DEXPERIENCE\R2019x\3DSpace
Files will be installed in the following directory:
  D:\3DEXPERIENCE\R2019x\3DSpace\Apps\EnterpriseChangeMgt\V6R2019x
Super User name: creator
```

- c. Check the “Error.log” & “*Stderr.txt” in folder:
[D:\3DEXPERIENCE\R2019x\3DSpace\Apps\<Installed App>\V6R2019x\InstallData\log\CODE\win_b64\...<Time Stamp>\](#)

7. ENOVIA Project Management Foundation

- a. [ENOVIAProjectManagementFoundation.Windows64\1\setup.exe %Installer%](#)
- b. The service being updated is always indicated as shown below

```
The server installation directory: D:\3DEXPERIENCE\R2019x\3DSpace
Files will be installed in the following directory:
  D:\3DEXPERIENCE\R2019x\3DSpace\Apps\ProgramCentral\V6R2019x
Super User name: creator
```

- c. Check the “Error.log” & “*Stderr.txt” in folder:
[D:\3DEXPERIENCE\R2019x\3DSpace\Apps\<Installed App>\V6R2019x\InstallData\log\CODE\win_b64\...<Time Stamp>\](#)

Mid-Market: FP Service Installer

8. ENOVIA Program Change Control Foundation

- a. ENOVIAProgramChangeControlFoundation.Windows64\1\setup.exe %Installer%
- b. The service being updated is always indicated as shown below

```
The server installation directory: D:\3DEXPERIENCE\R2019x\3DSpace
Files will be installed in the following directory:
  D:\3DEXPERIENCE\R2019x\3DSpace\Apps\ProgramExperience\V6R2019x
Super User name: creator
```

- c. Check the “Error.log” & “*Stderr.txt” in folder:
D:\3DEXPERIENCE\R2019x\3DSpace\Apps\<Installed
App>\V6R2019x\Install\log\CODE\win_b64\...<Time Stamp>\

9. ENOVIA Project Execution Foundation

- a. ENOVIAProjectExecutionFoundation.Windows64\1\setup.exe %Installer%
- b. The service being updated is always indicated as shown below

```
The server installation directory: D:\3DEXPERIENCE\R2019x\3DSpace
Files will be installed in the following directory:
  D:\3DEXPERIENCE\R2019x\3DSpace\Apps\EnterpriseChange\V6R2019x
Super User name: creator
```

- c. Check the “Error.log” & “*Stderr.txt” in folder:
D:\3DEXPERIENCE\R2019x\3DSpace\Apps\<Installed
App>\V6R2019x\Install\log\CODE\win_b64\...<Time Stamp>\

Mid-Market: FP Service Installer

10. ENOVIA Engineering BOM Management Foundation

- a. ENOVIAEngineeringBOMManagementFoundation.Windows64\1\setup.exe %Installer%
- b. The service being updated is indicated as shown below

```
-----  
| The server installation directory: D:\3DEXPERIENCE\R2019x\3DSpace  
| Files will be installed in the following directory:  
|   D:\3DEXPERIENCE\R2019x\3DSpace\Apps\EngineeringCentral\V6R2019x  
| Super User name: creator  
-----
```

- c. Check the “Error.log” & “*Stderr.txt” in folder:
`D:\3DEXPERIENCE\R2019x\3DSpace\Apps\<Installed
App>\V6R2019x\InstallData\log\CODE\win_b64\...<Time Stamp>\`

Mid-Market: FP Service Installer

- ▶ There are some advantages to preparing some automated installation scripts such as:
 - Traceability
 - Repeatability
 - Quality

```
MidMarket\Server>set Installer==installerPath .\DS_Installer.Windows64\1
MidMarket\Server>.\01ENOUIAIPClassificationFoundation.Windows64\1\setup.exe %Installer%
MidMarket\Server>.\02ENOUIACollaborativeTasksFoundation.Windows64\1\setup.exe %Installer%
MidMarket\Server>.\03ENOUIAx-CADDDesignFoundation.Windows64\1\setup.exe %Installer%
MidMarket\Server>.\04ENOUIACollaborationforMicrosoftServer.Windows64\1\setup.exe %Installer%
MidMarket\Server>.\05ConnectorforCATIAV5Server.Windows64\1\setup.exe %Installer%
MidMarket\Server>.\06ENOUIAEnterpriseBOMManagement.Windows64\1\setup.exe %Installer%
MidMarket\Server>.\07ENOUIAEBOMAULManagement.Windows64\1\setup.exe %Installer%
MidMarket\Server>.\08ENOUIAEnterpriseChangeManagement.Windows64\1\setup.exe %Installer%
MidMarket\Server>.\09ENOUIAProjectManagementFoundation.Windows64\1\setup.exe %Installer%
MidMarket\Server>.\10ENOUIAProgramControlFoundation.Windows64\1\setup.exe %Installer%
MidMarket\Server>.\12ENOUIAEngineeringBOMManagementFoundation.Windows64\1\setup.exe %Installer%
MidMarket\Server>
```

3DSpace – FP Applications

1. You have completed the 3DSpace installation, only the FP for the Add-ons are missing:
 - a. GA 3DSpace installation (done)
 - b. GA Application installation (done)
 - c. FP 3DSpace installation (done)
 - d. FP Application installation (done)

2. When FP is done, you will come back to this point of the document and continue with the next section to build 3DSpaceWAR.

3DSpace – Post Actions

1. Edit the setenv.bat in the TomEE+ of 3DSpace(CAS).
2. Edit the last line: of D:\3DEXPERIENCE\TomEE\TomEE3DSpace\bin\setenv.bat with CALL D:\3DEXPERIENCE\R2019x\3DSpace\win_b64\templates\setenvCAS.bat

```
REM Start Default 3DEXP TomEE+ Configuration
set JAVA_HOME=D:\3DEXPERIENCE\Java64\jdk8
set JRE_HOME=D:\3DEXPERIENCE\Java64\jdk8\jre
set TITLE=%cd%
set PATH=%PATH%;D:\3DEXPERIENCE\R2019x\3DSpace\win_b64\code\bin
set CATALINA_HOME=D:\3DEXPERIENCE\TomEE\TomEE3DSpace
CALL D:\3DEXPERIENCE\TomEE\TomEE3DSpace\bin\setenvCAS.bat
```

3. Save the file.
4. Open MQL using the desktop shortcut and execute the following commands:

```
set context user creator;
compile prog * force;
quit;
```



There should be no compile errors. This command may take a while depending on the characteristics of the machine (~15 to 20minutes).

3DSpace - WAR Build

The “WAR” build process is the act of merging the 3DSpace GA+FP code and any creating a J2EE applications.

- The applications are normally installed under the folder:
D:\3DEXPERIENCE\R2019x\3DSpace\Apps
- They also have code integrated to the stack under the folder:
D:\3DEXPERIENCE\R2019x\3DSpace\STAGING
- The “WAR” will be created under:
D:\3DEXPERIENCE\R2019x\3DSpace\distrib

The WAR builder batch file are [BuildDeploy3DSpace_NoCAS.bat](#) and [BuildDeploy3DSpace_CAS.bat](#) under D:\3DEXPERIENCE\R2019x\3DSpace\win_b64\code\command

The STAGING folder is where the 3DSpace service will build the WAR file from. It will then copy the war file to the distrib folder which can then be deployed to the 3DSpace TomEE+ instance. This process is why you need to rebuild the “WAR” file after installing any new application into 3DSpace.

The WAR file build can be take a long time, it will depend on the stack of applications that were installed and the speed of the disk. It's possible to cut the time if you don't need the EAR file and/or the ZIP file. This can be done by editing the two batch files and adding the proper flags in the command (for the training we recommend to do this, for real production you must make sure you don't need them, they can be removed and any time):

For CAS: *BuildDeploy3DSpace_CAS.bat* file

```
105      rem build J2EE archives
106      call %server%\%os%\code\command\war_setup.bat -Z -E %server%\%os%\code\command\war_setup.input
107
```

For no-CAS: *BuildDeploy3DSpace_NoCAS.bat*

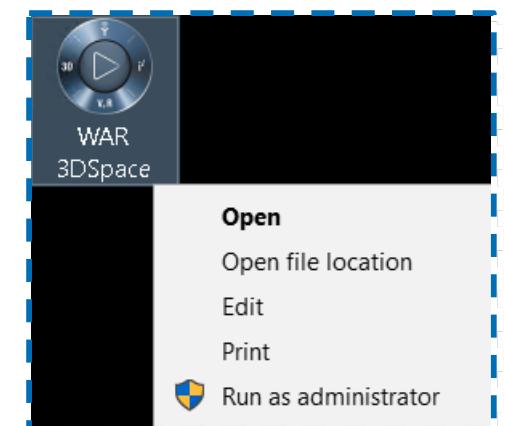
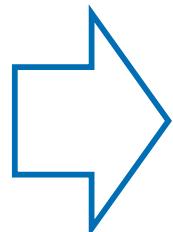
```
45      rem build J2EE archives
46      call %server%\%os%\code\command\war_setup.bat -Z -E %server%\%os%\code\command\war_setup.input
47
48 )
```

3DSpace - WAR Build

Time to rebuild the web application to be deployed in:

- 3DSpace TomEE+ code PATH :
D:\3DEXPERIENCE\TomEE\TomEE3DSpace\webapps
- 3DSpace Internal TomEE+ code PATH : D:\3DEXPERIENCE\TomEE\TomEE3DSpaceInternal\webapps

- Make sure that both TomEE+ are stopped
- Use the two shortcuts on your desktop, launch them one after the other:



3Dspace does not automatically copy the WAR file to the application server, find the two folders containing the WAR files for TomEE3DSpace and TomEE3DSpaceInternal

- a. Copy only the .war file from the distrib folder to the webapps folder to each TomEE+:
- b. TomEE3DSpace : D:\3DEXPERIENCE\R2019x\3DSpace\distrib_CAS
- c. TomEE3DSpaceInternal : D:\3DEXPERIENCE\R2019x\3DSpace\distrib_NoCAS

In the distrib folder the other files and folders are not needed and should not be copied, to save space you can delete them.

3DSpace – Post Installation Validation

1. Open the `envia.ini` file at `D:\3DEXPERIENCE\R2019x\3DSpace\win_b64\code\bin`. Increase the **MX_JAVA_OPTIONS** and **MX_MEMORY_SYSTEM_LIMIT** values.

```
29 MX_CONNECTION_POOL_SIZE=30
30 MX_CHARSET=UTF8
31 MX_JAVA_OPTIONS=-Xmx4096m
32 MX_MEMORY_SYSTEM_LIMIT=8192m
33 MX_SMTP_HOST=smtp.mytraining.com
```

2. Start and stop both TomEE+

`<TomEE 3DSpace Path>\bin\startup.bat`

`<TomEE 3DSpace Internal Path>\bin\startup.bat`

Wait for it to finish deploying the application.

Sample

```
Jan 25, 2017 12:00:03 PM org.apache.coyote.AbstractProtocol start
INFO: Starting ProtocolHandler ["http-bio-8180"]
Jan 25, 2017 12:00:03 PM org.apache.coyote.AbstractProtocol start
INFO: Starting ProtocolHandler ["ajp-bio-8109"]
Jan 25, 2017 12:00:03 PM org.apache.catalina.startup.Catalina start
INFO: Server startup in 561 ms
```

`<TomEE 3DSpace Path>\bin\shutdown.bat`

`<TomEE 3DSpace Internal Path>\bin\shutdown.bat`

Wait for it to finish properly closing the application before closing the terminal.

3. Check for errors and clean the log folder afterward

1. `<TomEE 3DSpace Path>\logs*.log`
2. `<TomEE3DSpace Internal Path>\logs*.log`

Diagnosing the 3DEXPERIENCE platform Installation

The diagnostic tool allows you to check that, after a complete installation and deployment of your **3DEXPERIENCE** platform, comprising all mandatory services, that the platform is up and running.

1. Launch the command prompt.

2. Change to the service installation directory.

The tool has to be run from the *command* folder of each service (in this case 3DSpace), in the following directory:

3. The directory is:

D:\3DEXPERIENCE\R2019x\3DSpace\win_b64\code\command on Windows

4. Execute the following command:

[run_test.bat](#) on Windows

Diagnosing the 3DEXPERIENCE platform Installation

1. The tool performs two tests:

- ▶ URL connection: the tool reads the UserIntentions_CODE.xml file to extract all URLs, then attempts to establish a connection. If the URL is correct, the service reverse proxy is up and running, and the certificates are valid from the Java standpoint, the service test will be performed.
- ▶ SMTP connection: the tool then attempts to connect to the SMTP server (if specified in the UserIntentions_CODE.xml file with the X3DCSMA_SMTP_HOST variable). It checks if the mail server is present at the correct URL and is responding.

The command syntax is as follows:

```
[-h]
[-p installation path]
[-n]
[-x {com.dassault_system.myclass_to_disable}]
[-ui {path_to_the_user_intention_file}]
[-wa /path/to/the/webapp]
[-v] [-u url_to_check]
[-z hardening_conf_file_path]
```

Diagnosing the 3DEXPERIENCE platform Installation

Output file looks like:

```
D:\3DEXPERIENCE\R2019x\3DSpace\win_b64\code\command>run_test.bat

D:\3DEXPERIENCE\R2019x\3DSpace\win_b64\code\command>"D:\3DEXPERIENCE\Java64\jdk8\jre\bin\java" -cp "D:\3DEXPERIENCE\R2019x\3DSpace\win_b64\docs\javaserver\*;D:\3DEXPERIENCE\R2019x\3DSpace\win_b64\docs\javacon\*" com.dassault_systemes.install_diagnosis.DiagnosisMain -p "D:\3DEXPERIENCE\R2019x\3DSpace" -n
path to file=jar:file:/D:/3DEXPERIENCE/R2019x/3DSpace/win_b64/docs/javaserver/i3DXInstallDiagnosisMain.jar!/META-INF/TestServiceUrlHealthCheck.properties
trying to load the hc file
hc file loaded : {3DPassportURL=healthcheck, FEDERATED_SEARCH=manager?query=monitoring, 3DCommentURL=monitoring/healthcheck, 3DSWYMURL=monitoring/healthcheck, 3DCompassURL=, 6WTAGURL=, 3DSpaceURL=, 3DSearchUR
3DDashboardURL=test-alive}
07:42:06.994 [main] INFO com.dassault_systemes.install_diagnosis.DiagnosisMain - ----- BEGINNING TEST Initializing -----
07:42:07.025 [main] INFO com.dassault_systemes.install_diagnosis.DiagnosisMain - ----- ENDING TEST Initializing -----
07:42:07.025 [main] INFO com.dassault_systemes.install_diagnosis.DiagnosisMain - ----- BEGINNING TEST DiagnosisRead_writeAccess -----
07:42:07.041 [main] INFO com.dassault_systemes.install_diagnosis.sources.DiagnosisSourceUserIntentionFile - looking into directory=D:\3DEXPERIENCE\R2019x\3DSpace\InstallData
07:42:07.056 [main] INFO com.dassault_systemes.install_diagnosis.sources.DiagnosisSourceUserIntentionFile - Found UserIntentions file(s) = [D:\3DEXPERIENCE\R2019x\3DSpace\InstallData\UserIntentions_CODE.xml]
07:42:07.228 [main] INFO com.dassault_systemes.install_diagnosis.tests.DiagnosisTestServiceContactUrl - Media found as:-CODE\win_b64\X3D_CSMA.media
This is 3dspace service : Below are the READ/WRITE Access:-
Its Installation folder path is:- D:\3DEXPERIENCE\R2019x\3DSpace
D:\3DEXPERIENCE\R2019x\3DSpace Can Read
D:\3DEXPERIENCE\R2019x\3DSpace Can Write
D:\3DEXPERIENCE\R2019x\3DSpace Can Execute
owner: BUILTIN\Administrators
Its data storage folder path is:- D:\3DEXPERIENCE\data\3DSpace
D:\3DEXPERIENCE\data\3DSpace Can Read
D:\3DEXPERIENCE\data\3DSpace Can Write
D:\3DEXPERIENCE\data\3DSpace Can Execute
owner: BUILTIN\Administrators
07:42:07.291 [main] INFO com.dassault_systemes.install_diagnosis.DiagnosisMain - ----- ENDING TEST DiagnosisRead_writeAccess -----
07:42:07.306 [main] INFO com.dassault_systemes.install_diagnosis.DiagnosisMain - ----- BEGINNING TEST DiagnosisServiceParameters -----
This is 3DSpace Service, and Following are the Service Parameters:-

3DSpace Service Installation Path :-D:\3DEXPERIENCE\R2019x\3DSpace
3DSpace Certificates Repository path :-D:\3DEXPERIENCE\conf\ssl
This Service do not used the Embedded Java, the location of external Java is :-D:\3DEXPERIENCE\Java64\jdk8\jre
3DSpace Database connected User details :-null
3DSpace Database Instance details :-null
3DSpace tomcat Port details :-null
07:42:07.369 [main] INFO com.dassault_systemes.install_diagnosis.DiagnosisMain - ----- ENDING TEST DiagnosisServiceParameters -----
07:42:07.369 [main] INFO com.dassault_systemes.install_diagnosis.DiagnosisMain - ----- BEGINNING TEST DiagnosisTest3DSpaceServer -----
This is 3DSpace Service, and Following are the Service Parameters:-
```

Diagnosing the 3DEXPERIENCE platform Installation

1. Start the Apache service if not started
 - a. Open service manager
2. Start both TomEE+
 - a. <TomEE 3DSpace Path>\bin\startup.bat
 - b. <TomEE3DSpace Internal Path>\bin\startup.bat
 - c. Wait for each to finish deploying the application.
3. Execute the following command:
 - a. `run_test.bat` on Windows

3DSpace: Validation

1. In this section you will validate the service functionality and part of the infrastructure deployment
 - a. Apache
 - b. Redirect to 3DSpace TomEE+
2. Start the Apache service if not started
 - a. Open service manager
3. Start TomEE+ if not started
 - a. <TomEE 3DPassport Path>\bin\startup.bat
 - b. <TomEE 3DSpace Path>\bin\startup.bat
 - c. <TomEE 3DSpace Internal Path>\bin\startup.bat

Wait for each to finish deploying the application.
4. Start 3DPassport
 - a. <TomEE 3DPassport Path>\bin\startup.bat
 - b. Access the URLs:
 - c. <https://3dspace.mytraining.com:443/3dspace>
 - d. <https://internal.mytraining.com:443/internal>



Each time you test a new URL it is recommended that you add it to the IE Favorites bar (rename it for ease).

3DSpace: Validation

3DSpace

The screenshot shows the 3DSpace web interface. The left sidebar contains navigation links for Change Management (My Changes), Collaboration and Approvals (Home Dashboard, Issues Summary, Issue Categories, Collections, Companies), Utilities, Routes, Tasks, Subscriptions, Meetings, Decisions, and Discussions. The main area displays a table titled 'Home' with columns: Name, Title, Actions, Rev, Ver, Type, Modified, State, and Description. The table lists several documents:

Name	Title	Actions	Rev	Ver	Type	Modified	State	Description
My Docum	My Document	[Actions]	0/1	1	Repo...	26-Jul...	Private	My Docu
circle_Trai	circle_Training.CATPart	[Actions]	0/1	---	CATP...	23-Jul...	In Work	
circle_Trai	circle_Training.CATPart	[Actions]	0/0	---	CATP...	23-Jul...	Exists	
ABPart1	ABPart1.CATPart	[Actions]	0/1	---	CATP...	23-Jul...	In Work	
ABPart1	ABPart1.CATPart	[Actions]	0/0	---	CATP...	23-Jul...	Exists	

3DSpaceInternal

The screenshot shows the 3DSpaceInternal web interface, which appears identical to the 3DSpace interface. It features a similar sidebar and a table titled 'Home' with the same columns and data as the 3DSpace version. The table lists the same five documents.

Name	Title	Actions	Rev	Ver	Type	Modified	State	Description
My Docum	My Document	[Actions]	0/1	1	Repo...	26-Jul...	Private	My Docu
circle_Trai	circle_Training.CATPart	[Actions]	0/1	---	CATP...	23-Jul...	In Work	
circle_Trai	circle_Training.CATPart	[Actions]	0/0	---	CATP...	23-Jul...	Exists	
ABPart1	ABPart1.CATPart	[Actions]	0/0	---	CATP...	23-Jul...	Exists	
ABPart1	ABPart1.CATPart	[Actions]	0/1	---	CATP...	23-Jul...	In Work	

3DSpace: Uninstallation

Windows normal uninstall procedure:

- a. Stop TomEE+ if it is running <Service Name>
- b. In "Programs and Features" uninstall:
"Dassault Systemes <Service Name> 3DEXPERIENCE R2019x"
- c. There is also a Uninstall.bat file in the D:\3DEXPERIENCE\R2019x\<Service Name> with which you can uninstall a service.
- d. In the Database instance, drop the user, tablespace / database.
- e. Remove the folders
D:\3DEXPERIENCE\R2019x\<Service Name>
D:\3DEXPERIENCE\TomEE\TomEE<Service Name>

Exercise Recap: 3DSpace

You have completed the installation of the Mid-Market components for 3DSpace.

- ✓ **3DEXPERIENCE** server Mid-Market
- ✓ Performed post configurations

The next step is core 3D Index server, this component is optional and only used by **3DEXPERIENCE** Native clients. If you do not plan to use these clients you can skip to the Client core components.

Topics to be covered:

- ✓ 1. *Introduction*
- ✓ 2. *DSLS*
- ✓ 3. *Global 3DEXPERIENCE platform installer*
- ✓ 4. *3DPassport*
- ✓ 5. *Reconfiguration*
- ✓ 6. *3DDashboard*
- ✓ 7. *3DSearch*
- ✓ 8. *3DSpace*
- ✓ 9. *3DNotification***
- 10. *3DComment*
- 11. *3DSwym*
- 12. *FCS*

About 3DNotification

3DNotification gives **3DEXPERIENCE** platform users timely updates about activities going on in the system. 3DNotification is the service used to send push notification messages to **3DEXPERIENCE** platform users.

- ▶ A source app or service sends a notification request to the 3DNotification service.
- ▶ The 3DNotification service processes the request.
- ▶ The 3DNotification service sends a notification message to the **3DEXPERIENCE** platform users via different channels (the notification center, alerts and emails).

The screenshot shows the 3DEXPERIENCE Platform Management interface. The top navigation bar includes '3DEXPERIENCE | 3DDashboard Platform Management', a search bar, and various administrative icons. The main menu tabs are 'My Platform' (selected), 'Members', 'Communities', 'Content', 'Dashboards', 'Vocabularies', and '3DNotification Center'. The 'My Platform' tab displays a welcome message: 'Welcome to your platform onPremises'. It also states: 'You have been selected as an administrator to manage users & roles. To do that, go to the next Tab: "Members".' A large blue arrow points from the text 'No Notifications' towards the '3DNotification Center' section. The '3DNotification Center' section is enclosed in a dashed box and contains a list of services: '3DDashboard' (Center, Alerts), '3DSwym' (Center, Alerts), 'Collaborative Tasks' (Center, Alerts), 'Members Control Center' (Center, Alerts), and 'Roles' (Center, Alerts). A bell icon is visible on the right side of the interface.

3DEXPERIENCE | 3DDashboard Platform Management

Search

Admin PLATFORM AP

My Platform Members Communities Content Dashboards Vocabularies 3DNotification Center

My Platform Control Center - onPremises

Welcome to your platform
onPremises

You have been selected as an administrator to manage users & roles.
To do that, go to the next Tab: "Members".

3DNotification Center

Notifications Settings

3DDashboard Center, Alerts

3DSwym Center, Alerts

Collaborative Tasks Center, Alerts

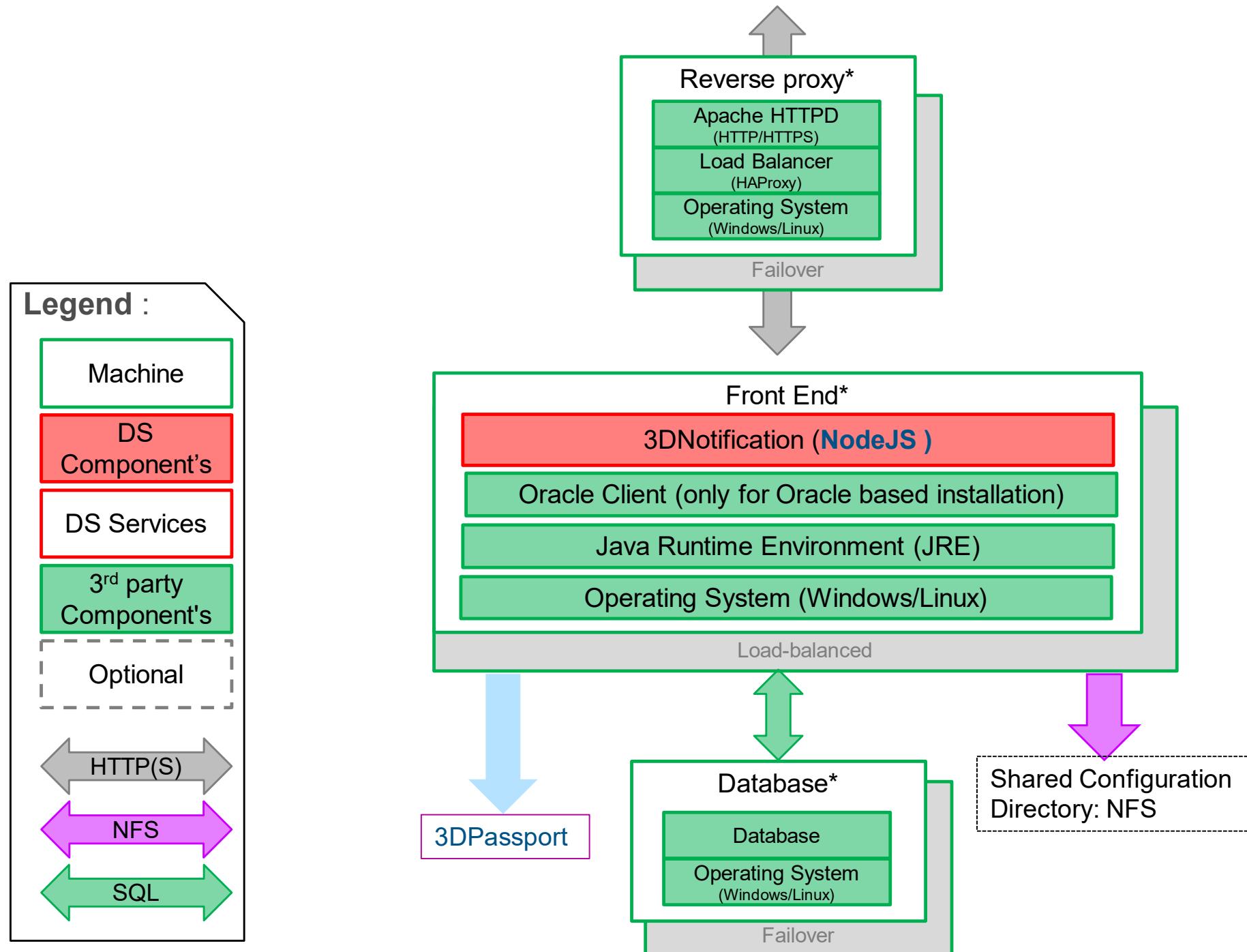
Members Control Center Center, Alerts

Roles Center, Alerts

No Notifications



3DNotification: Architecture



* Always consult the “Program Directory” for version and latest news.

3DNotification: Pre-Check

- ▶ You should have previously prepared the groundwork to proceed with this service installation, you will require the following prerequisites:
 - Database objects (up and running)
 - 1 SSL certificate
 - Java
- ▶ Note: You will not be able to proceed if any of these are missing.
 - Main Configuration requirement:
 - Database objects : Yes
 - Java dependent : Yes

3DNotification: Key Parameters

Installation Cook-book : Installation key parameter explained.

- ▶ Installation Directory: This is the location where the service code will be installed. Do not use blanks in the installation path if you can avoid it. It is also recommended not to install on the **C:** drive. The **C:** drive is the system drive, if it gets corrupted or becomes full it could bring the service down. By selecting another drive you will have better control and stability for the platform.
- ▶ Install the embedded Server JRE: The JRE is required for certificate importation using the java keytool utility, the application will not use the JRE at execution time. You may choose to use the embedded release provided by the **3DEXPERIENCE** platform or an external one. This second option will be used during the training.
- ▶ Database selection: This component supports both Oracle and SQL Server. The database recommendation is often based on two critical customer requirements, support and cost. It is important to note that the support costs can sometimes be higher than the actual license costs.
 - The database has 1 schema/database.
- ▶ 3DNotification Repository: 3DNotification requires a special foot print on the disk for its logs, temporary transactions and data. This should be treated similarly to an FCS, the data is not re-buildable like the 3DSpace Index server.
- ▶ Mail options: Low importance but recommended for **3DEXPERIENCE** platform administrator messages.

Keywords: application for 3DSwym.

3DNotification: Key Parameters

- ▶ Available Installation Options :
 - No Options

It is important to note that 3DNotification is its “own” Application server, therefore it does not need a TomEE+ application server, it will still be accessed via Apache https security.

3DNotification: GA Media Installer

GA core components have two different installation methodologies:

- The "global 3DEXPERIENCE platform Installer" found in:
 - <Your Media PATH>AM_3DEXP_platform.AILOS\1\
 - Navigate to this path and find:
 - GUI: setup.exe
 - TUI: StartTUI.exe
 - This installer is primarily used when you want to deploy multiple services on one machine
- Classic "Service Installer" is available in:
 - <Your Media PATH>AM_3DEXP_Platform.AILOS\2\3DNotification\Windows64\1
- Start the GUI installer corresponding to your preference.

3DNotification: GA Media installer

1. Start the GUI installer corresponding to your preference.
2. Using the Cheat-sheet on the next page, proceed to the installation, don't forget the installer options related to:
 - a. Installing the embedded JRE → No



3DNotification: Key Parameters

- ▶ During the Installation you will be queried about the following parameters:

Cheat-Sheet :



Make sure to enter **mytraining.com** instead of **mydomain**. This DNS is specific for this training and would vary in the real world.

Steps	Key	Value
01	Global platform Installer	<Your Media Path>\AM_3DEXP_Platform.AIOS\1\setup.exe
02	Global platform Installer	3DNotification Service
03	Installation Directory	D:\3DEXPERIENCE\R2019x\3DNotification
04	Install the embedded Server JRE	No
05	JRE or JDK PATH	D:\3DEXPERIENCE\Java64\jdk8
06	Directory for Shared Storage Directory for log Directory runtime temporary	D:\3DEXPERIENCE\data\3DNotificationData D:\3DEXPERIENCE\data\3DNotificationLogs D:\3DEXPERIENCE\data\3DNotificationTmp
07	3DPassport URL 3DDashboard URL 3DCompass URL 3DSwym URL 3DNotification URL	https://3dpassport.mytraining.com:443/3dpassport https://3ddashboard.mytraining.com:443/3ddashboard https://3dspace.mytraining.com:443/3dspace https://3dswym.mytraining.com:443/3dswym https://3dnotification.mytraining.com:443/3dnotification
08	NodeJS server Port	8680
09	Mail Server name Mail sender name	smtp.mytraining.com admin_platform@smtp.mytraining.com

3DNotification: Key Parameters

- ▶ During the Installation you will be queried about the following parameters:

Cheat-Sheet :

Steps	Key	Value
10	DB Selection	Oracle or SQL Server
11 Oracle	Directory containing "ora" files Net Service name Database username Database user's password	C:\app\dbadmin\product\12.2.0\dbhome_1\network\admin X3DEXP X3DNOTIF X3DNOTIF
SQL Server	Database Host Database name Database Administrator username Database Administrator user's password Database username Database user's password	database.mytraining.com\X3DEXP x3dnotification x3dsn_admin Passport#1 x3dsn Passport#1

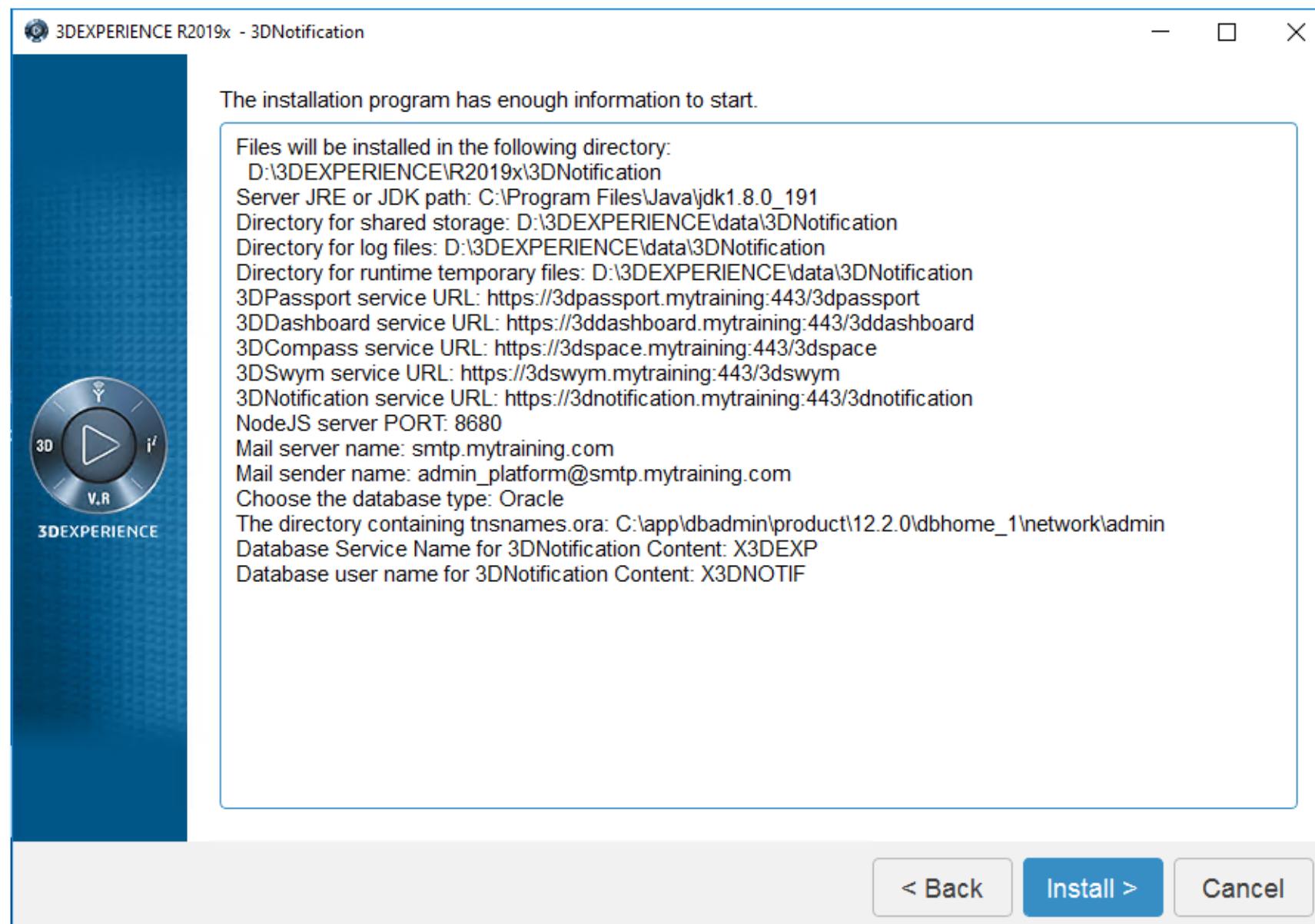


For SQL Server, we are using standard port 1433. If you are using non-standard port, then additional post –configuration must be done.

The port must be specified using ",", not ":" in the configuration file.

3DNotification: GA Media Installer – Oracle Summary

It is strongly recommended that you copy the installation information into a text file prior to clicking the “install” button.



This is selectable text, easily copied into a text file.

3DNotification: GA Media Installer – SQL Server Summary

It is strongly recommended that you copy the installation information into a text file prior to clicking the **Install**.

The screenshot shows two windows from the 3DEXPERIENCE R2019x - 3DNotification installer.

Left Window (SQL Server Summary):

- Header: 3DEXPERIENCE R2019x - 3DNotification
- Message: The installation program has enough information to start.
- Text area:
 - Files will be installed in the following directory: D:\3DEXPERIENCE\R2019x\3DNotification
 - Server JRE or JDK path: D:\3DEXPERIENCE\Java64\jdk8
 - Directory for shared storage: D:\3DEXPERIENCE\data\3DNotificationData
 - Directory for log files: D:\3DEXPERIENCE\data\3DNotificationLogs
 - Directory for runtime temporary files: D:\3DEXPERIENCE\data\3DNotificationTemp
 - 3DPassport service URL: https://3dpassport.mytraining.com:443/3dpassport
 - 3DDashboard service URL: https://3ddashboard.mytraining.com:443/3ddashboard
 - 3DCompass service URL: https://3dspace.mytraining.com:443/3dcompass
 - 3DSwym service URL: https://3dswym.mytraining.com:443/3dswym
 - 3DNotification service URL: https://3dnotification.mytraining.com:443/3dnotification
 - NodeJS server PORT: 8680
 - Mail server name: smtp.mytraining.com
 - Mail sender name: admin_platform@smtp.mytraining.com
 - Choose the database type: SQL server
 - SQL Server Server Name: database.mytraining.com\X3DEXPERIENCE
 - SQL Server Database Name for 3DNotification Content: x3dnc
 - Database administrator user name: x3dsn_admin
 - Database user name for 3DNotification: x3dsn
- Buttons: < Back, Install, > Next

Right Window (Installation Confirmation):

- Header: 3DEXPERIENCE R2019x - 3DNotification
- Message: The installation program has finished installing 3DEXPERIENCE R2019x on your computer, in D:\3DEXPERIENCE\R2019x\3DNotification.
- Text area: Installed Components: 3DNotification Foundation
- Buttons: < Back, Close, Cancel

Bottom Text: This is selectable text, easily copied into a text file.

3DNotification: GA Post Installation

3DNotification installer is pretty simple, it installs a windows service.

- a. The default service name is “3DEXPERIENCE R2019x 3DNotification Node”
- b. To start and stop the node on Windows: start and stop the service.
- c. 3DEXPERIENCE R2019x 3DNotification Node

Name	Description	Status
3DEXPERIENCE R2019x 3DNotification Node	3DEXPERIENCE R2019x 3DNotificati...	Running
3DEXPERIENCE R2019x 3DSpace Index	3DEXPERIENCE R2019x 3DSpace To...	Running
3DEXPERIENCE R2019x 3DSpace TomEE	3DEXPERIENCE R2019x 3DSpaceNo...	Running
3DEXPERIENCE R2019x 3DSpaceNoCAS TomEE	3DEXPERIENCE R2019x 3DSwym Ext...	Running
3DEXPERIENCE R2019x 3DSwym ExternalConverterSvc	3DEXPERIENCE R2019x 3DSwym Ext...	Running

3DNotification service is deployed automatically after installation.

3DNotification: GA Post Installation

- a. Go to your **3DEXPERIENCE** folder and edit the file: [D:\3DEXPERIENCE\conf\Apache\3dexperience.conf](#)

In the section "**3DNotification**" replace the line:

#XXXX Future fragment file XXXX

With:

```
include D:\3DEXPERIENCE\R2019x\3DNotification\win_b64\templates\  
3DNotification_httpd_fragment.conf
```

- b. Edit the fragment file :

[D:\3DEXPERIENCE\R2019x\3DNotification\win_b64\templates\3DNotification_httpd_fragment.conf](#)

Validate the values for "**port**" and "**FQDN**" in the fragment file.

<http://3dnotification.mytraining.com:8680>

- c. Backup the fragment file to:

[D:\3DEXPERIENCE\conf\Fragment\3DNotification_httpd_fragment.conf.GA](#)

- d. Copy the "UserIntentions_CODE.xml" file in folder

[D:\3DEXPERIENCE\R2019x\3DNotification\InstallData](#)

To folder:

[D:\3DEXPERIENCE\conf\UserIntentions\](#)

and rename it to:

[UserIntentions_3DNotification.xml](#)

3DNotification: GA Technical Validation

"GA technical validation" refers to validation of the installation process, i.e. did it install without errors and did it complete what it was supposed to do. There are 2 steps related to the installer log, database and expected file deployment

Defining the service code installation path: D:\3DEXPERIENCE\R2019x\3DNotification

1. Installer error log should be 0 bytes and can be found at:

<Code Path>\InstallData\log\CODE\win_b64\.....media<Latest timestamp>\Errors.log & *Stderr.txt
Size should be 0 bytes

If you had to modify values in the installer dialogues you will see these "errors" in the Errors.log you will need to validate if any of these messages require corrective action.

3DNotification: FP Service Installer

There is no "global 3DEXPERIENCE platform installer" for FP you must update each service individually.

- a. Ensure that **3DNotification** service is stopped

If you do not stop the 3DNotification service, the installer will automatically stop the node service first and then proceed with installation. However, if you execute into security or permission issue the service may not be stopped.

- b. Use the normal "Service Installer":

<Your Media PATH>\Part_3DEXP_platform.Windows64\2\Software\

You will find:

- o 3DNotification-V6R2019x.HF1.Windows64.zip

- c. Unzip the proper OS version to <Your Installer PATH>

- o <Your Installer PATH>\3DNotification.Windows64\1

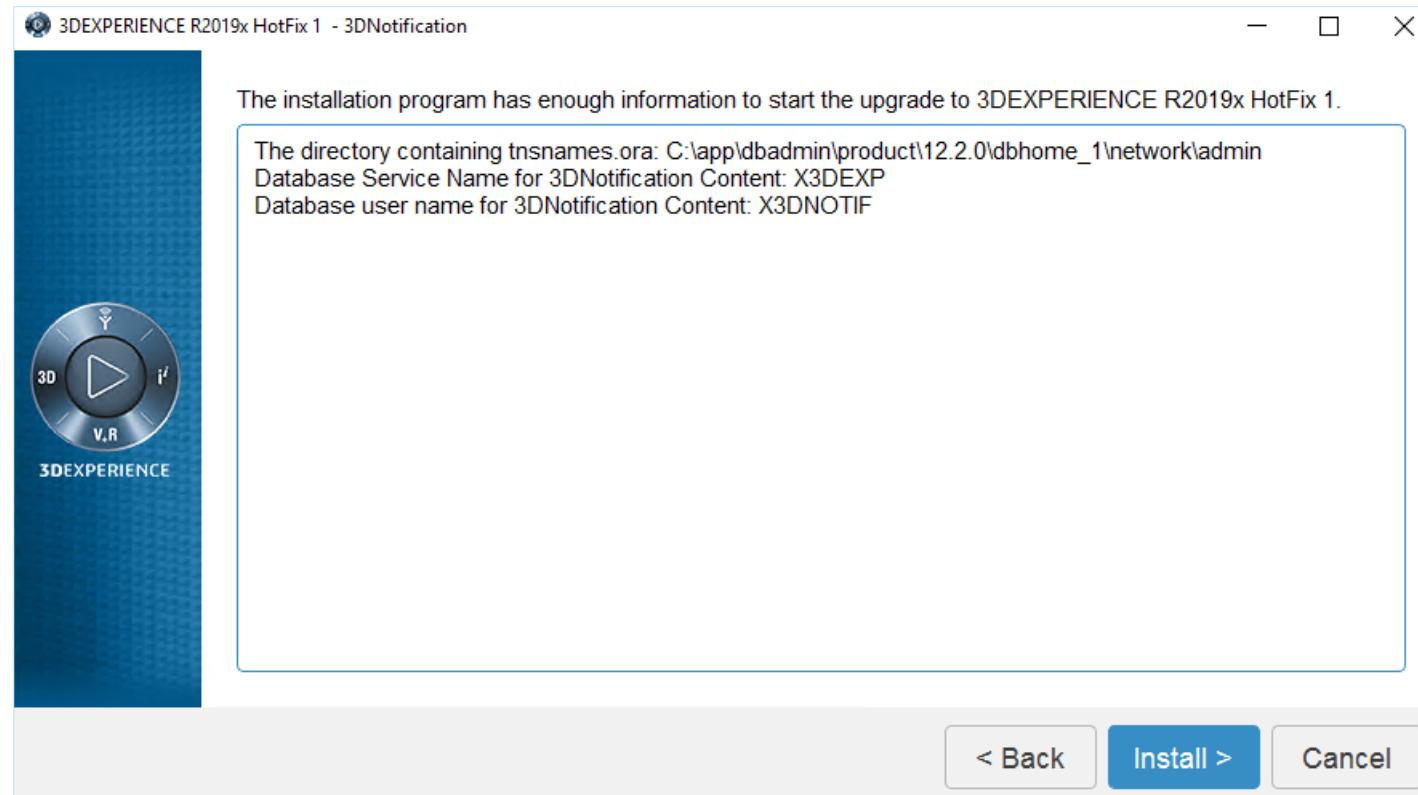
- d. Navigate to this path and find:

GUI: setup.exe

TUI: StartTUI.exe

3DNotification: FP Media Installer – Oracle Summary

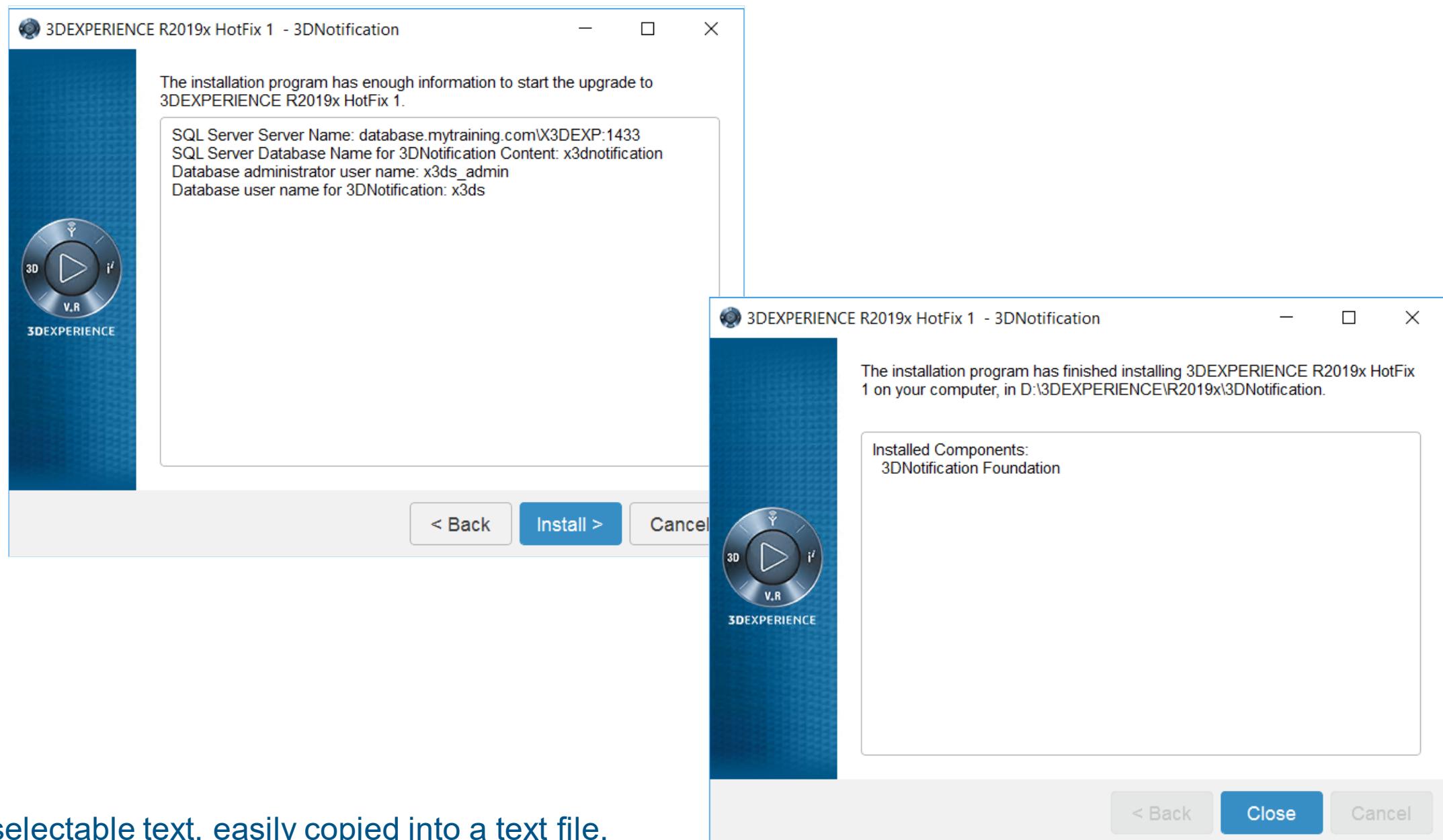
It is strongly recommended that you copy the installation information into a text file prior to clicking the “install” button.



This is selectable text, easily copied into a text file.

3DNotification: FP Media Installer – SQL Server Summary

It is strongly recommended that you copy the installation information into a text file prior to clicking the “install” button.



This is selectable text, easily copied into a text file.

3DNotification: FP Post Installation

a. TomEE+ code PATH: D:\3DEXPERIENCE\TomEE\TomEE3DNotification

b. Start and stop the 3DNotification service from service panel

c. Edit the fragment file :

D:\3DEXPERIENCE\R2019x\3DNotification\win_b64\templates\
3DNotification_httpd_fragment.conf

Validate the values for “port” and “FQDN” in the fragment file.

http://3dnotification.mytraining.com:8680

d. Backup the fragment file to:

D:\3DEXPERIENCE\conf\Fragment\3DNotification_httpd_fragment.conf.FP

3DNotification: FP Technical Validation

"FP technical validation" refers to validation of the installation process, i.e. did it install without errors and did it complete what it was supposed to do. There are 2 steps related to the installer log, database and expected file deployment

Defining the service code installation path: D:\3DEXPERIENCE\R2019x\3DNotification

Installer error log should be empty in:

<Code Path>\InstallData\log\CODE\win_b64\.....media<Latest timestamp>\Errors.log & *Stderr.txt

Size should be 0 **bytes**

You should see 2 "...media..." folders, one was for GA, the new one is the FP.

If you had to modify values in the installer dialogues you will see these "errors" in the Errors.log you will need to validate if any of these messages require corrective action.

3DNotification: Validation

In this section you will validate the service functionality and part of the infrastructure deployment

- a. Apache
 - b. Redirect to 3DNotification NodeJS
1. Restart the Apache service
 - a. Open service manager

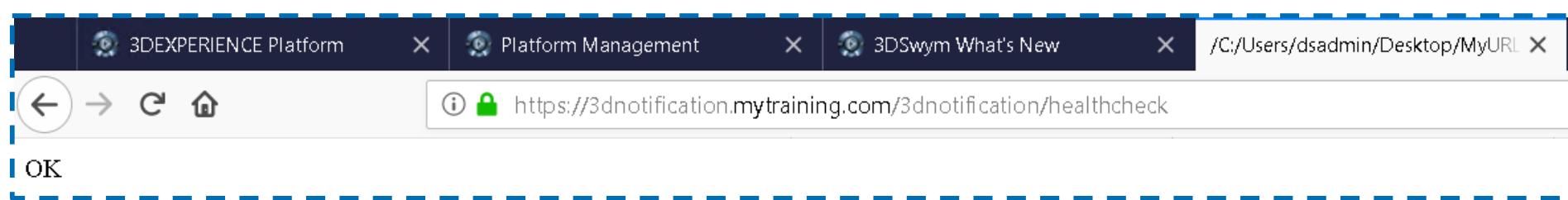
2. Start 3DNotification Node
 - Start the 3DNotification service
 - Access the URL:

<https://3dnotification.mytraining.com:443/3dnotification/>

3Dnotification will be redirected by Apache to a “**3DNotification Service**” page.



Each time you test a new URL it is recommended that you add it to the IE "Favorites bar" (rename it for ease).



3DNotification: Uninstallation

Windows normal uninstall procedure:

- a. Stop “3DEXPERIENCE R2019x 3DNotification Node” service
- b. In the Database instance you must drop the user/database.
- c. In "Programs and Features" uninstall:
 - i. "Dassault Systemes <Service Name> 3DEXPERIENCE R2019x"
- d. There is also a Uninstall.bat file in the D:\3DEXPERIENCE\R2019x\<Service Name> with which you can uninstall a service.

- e. Remove the folder:
 - i. D:\3DEXPERIENCE\R2019x\ <Service Name>

Topics to be covered:

- ✓ 1. *Introduction*
- ✓ 2. *DSLS*
- ✓ 3. *Global 3DXPERIENCE platform installer*
- ✓ 4. *3DPassport*
- ✓ 5. *Reconfiguration*
- ✓ 6. *3DDashboard*
- ✓ 7. *3DSearch*
- ✓ 8. *3DSpace*
- ✓ 9. *3DNotification*
- 10. 3DComment**
- 11. *3DSwym*
- 12. *FCS*

About 3DComment

3DComment is new service for the **3DEXPERIENCE** platform R2019x, it provides the ability to interact with other **3DEXPERIENCE** platform members by liking content, adding comments to any item and adding media such as video content.

The screenshot shows the 3DComment interface within the 3DEXPERIENCE platform. The top navigation bar includes the 3DSwym logo, the title "3DEXPERIENCE | 3DSwym What's New", a search bar, and various administrative and user icons. On the left, there's a sidebar with links for "What's New", "My Communities", "Add favorite communities here", and "Recently Viewed". The main content area features a large "Add a Post" button and a post titled "Idea1" by "Admin Platform" in the "Getting Started" category, posted 6 days ago. The post content is "Hello". Below the post are two comments from "Admin Platform": one changing the status to "New Idea" and another replying with "Hi". At the bottom, there's a comment input field with the placeholder "Write a comment...". To the right of the main content, there are two callout boxes: one for bookmarks and one for followed users' activities.

Idea1

By Admin Platform in Getting Started - 6 days ago

Hello

Comment 2

Like 0 Share

Admin Platform - 6 days ago Status change to: New Idea

Admin Platform - 6 days ago Hi

Reply

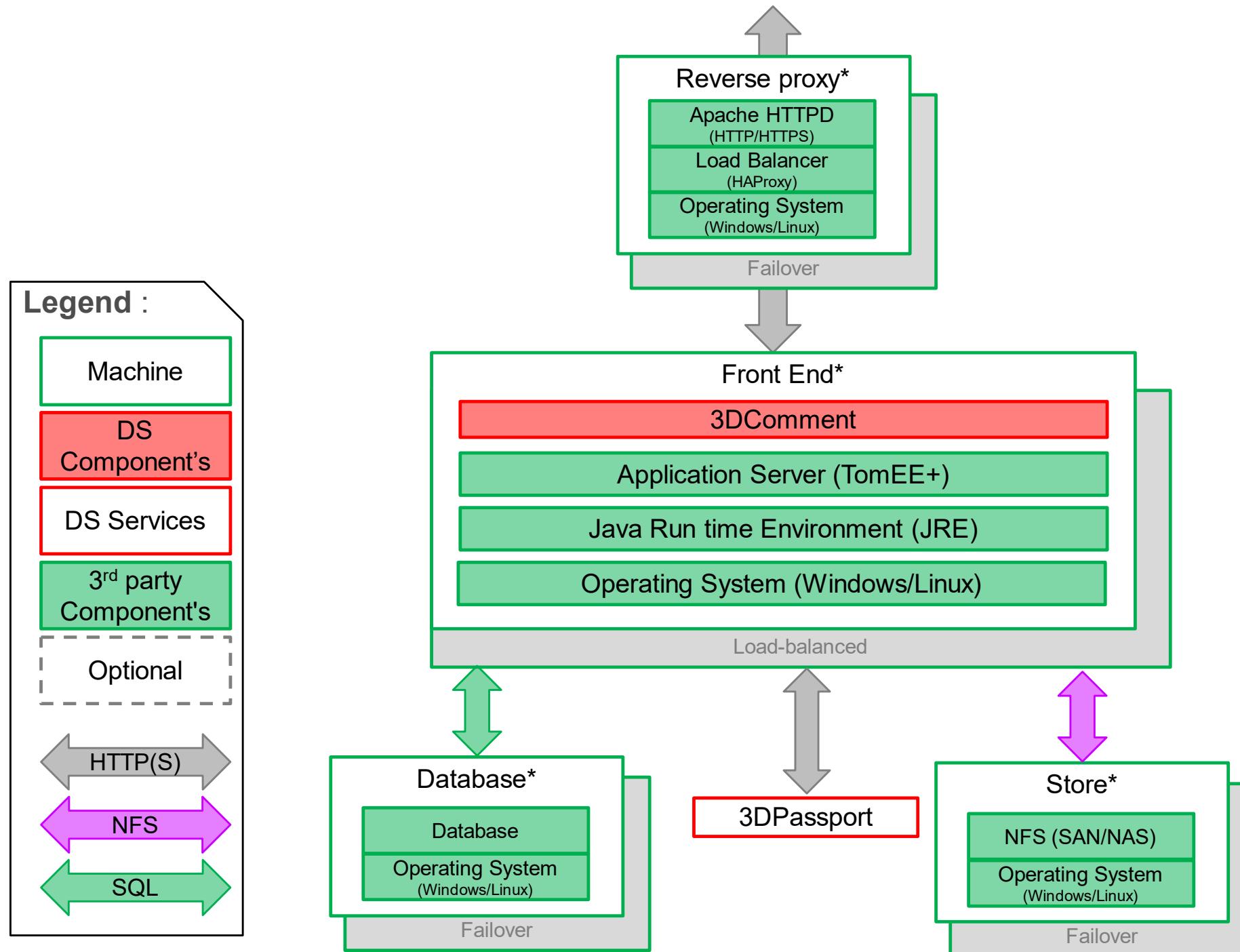
Write a comment...

You will find here your bookmarked contents (post, idea, question, media, survey & wiki page).

You will find here the latest activities (likes, comments, contributions...) of people you follow.



3DComment: Architecture



* Always consult the “Program Directory” for version and latest news.

3DComment: Pre-Check

You should have previously prepared the groundwork to proceed with this service installation, you will require the following prerequisites:

- Database objects (up and running)
- TomEE + (stopped)
 - 1 TomEE+ is dedicated for the service
 - 1 SSL certificate
- Java

You will not be able to proceed if any of these are missing.

- Main Configuration requirement:
 - Database objects : Yes
 - TomEE + needed : Yes
 - Java dependent : Yes

3DComment: Key Parameters

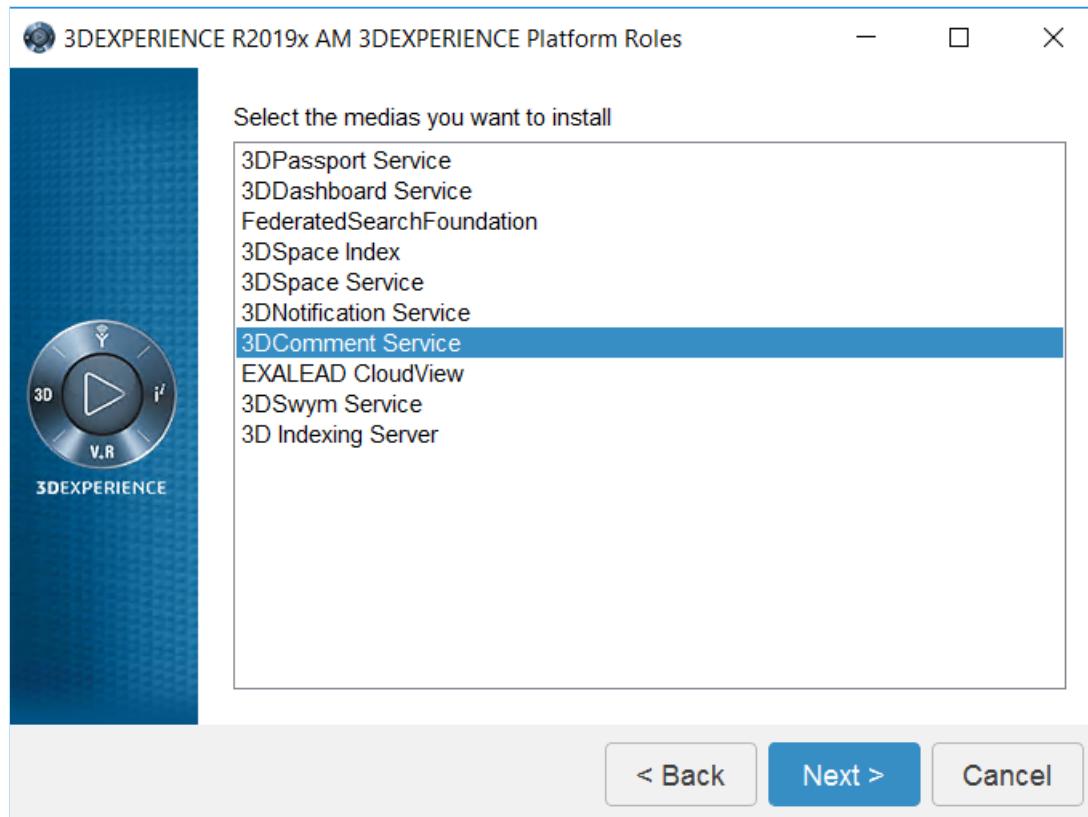
Installation “Cook-book” : Installation key parameter explained.

- ▶ Installation Directory: This is the location where the service code will be installed. Do not use blanks in the installation path if you can avoid it. It is also recommended not to install on the “C: \” drive. The “C: \” drive is the system drive, if it gets corrupted or becomes full it could bring the service down. By selecting another drive you will have better control and stability for the platform.
- ▶ “Installing Embedded Server JRE” & “Installing Embedded Apache TomEE+”: 3DS service installer comes with java “JRE” and TomEE+. This can be practical for small businesses and if you do not want to manage “other” software installations. The disadvantages are that it is harder to upgrade and maintain Java security release and it cannot be easily implemented with load balancing.
- ▶ “Database selection”: This component supports both Oracle and SQL Server. The database recommendation is often based on 2 critical customer requirements, support and cost. It is important to note that the support costs can sometimes be higher than the actual license costs.
 - The database data repository has 1 schema/database.
- ▶ “3DComment Repository”: 3DComment requires a special foot print on the disk for its logs, temporary transactions and data. This should be treated similarly to an FCS, the data is not “re-buildable” like the 3DSpace Index server.
- ▶ Keywords: Notification broker for 3DSwym.

3DComment: Key Parameters

- ▶ Available Installation Options :
 - Install the embedded Server JRE
 - Install the embedded TomEE+

Training Path: More flexibility, control and post options.



3DComment: GA Media Installer

GA core components have two different installation methodologies:

- The "global 3DEXPERIENCE platform Installer" found in:
 - <Your Media PATH>\AM_3DEXP_Platform.AILOS\1\
 - Navigate to this path and find:
 - GUI: setup.exe
 - TUI: StartTUI.exe
 - This installer is primarily used when you want to deploy multiple services on one machine
- Classic "Service Installer" is available in:
 - <Your Media PATH>\R2019x.GA\AM_3DEXP_Platform.AILOS\2
- Start the GUI installer corresponding to your preference.

3DComment: GA Media Installer

1. Using the Cheat-sheet on the next page, proceed to the installation, don't forget the installer options related to:
 - a. Installing the embedded JRE → No
 - b. Installing the embedded TomEE+ → No



3DComment: Key Parameters

During the Installation you will be queried about the following parameters:



Make sure to enter **mytraining.com** instead of **mydomain** . This DNS is specific for this training and would vary in the real world.

Cheat-Sheet :

Steps	Key	Value
01	Global platform Installer	<Your Media Path>\AM_3DEXP_platform.AIOS\1\setup.exe
02	Global platform Installer	3DComment Service
03	Installation Directory	D:\3DEXPERIENCE\R2019x\3DComment
04	Install the embedded Server JRE	No
05	JRE or JDK PATH	D:\3DEXPERIENCE\Java64\jdk8
06	Directory for Shared Storage Directory for log Directory run time temporary	D:\3DEXPERIENCE\data\3DCommentData D:\3DEXPERIENCE\data\3DCommentLogs D:\3DEXPERIENCE\data\3DCommentTmp
07	3DPassport URL 3DDashboard URL 3D Compass URL 3DComment URL 3DNotification URL	https://3dpassport.mytraining.com:443/3dpassport https://3ddashboard.mytraining.com:443/3ddashboard https://3dspace.mytraining.com:443/3dspace https://3dcomment.mytraining.com:443/3dcomment https://3dnotification.mytraining.com:443/3dnotification
08	Install the embedded Apache TomEE+	No
09	Apache TomEE+ Installation path	D:\3DEXPERIENCE\TomEE\TomEE3DComment\

3DComment: Key Parameters

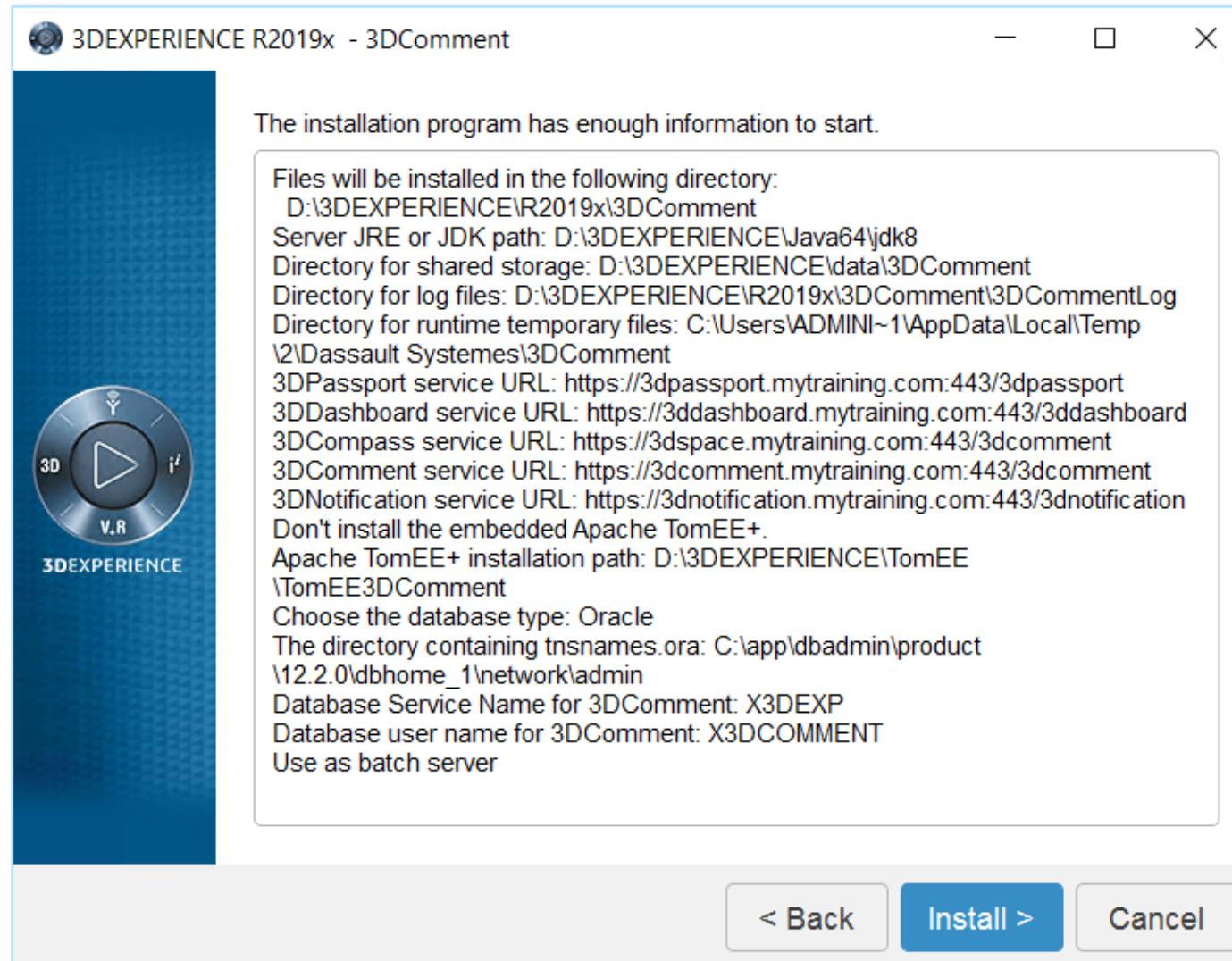
- ▶ During the Installation you will be queried about the following parameters:

Cheat-Sheet :

Steps	Key	Value
10	DB Selection	Oracle or SQL Server
11 Oracle	Directory containing ora files Net Service name Database username Database user's password	C:\app\dbadmin\product\12.2.0\dbhome_1\NETWORK\ADMIN X3DEXP X3DCOMMENT X3DCOMMENT
SQL Server	Database Host Database name Database Administrator username Database Administrator user's password Database username Database user's password	database.mytraining.com\X3DEXP:1433 x3dcomment x3dsc_admin Passport#1 X3dsc Passport#1
12	Use as batch server	Yes

3DComment: GA Media Installer – Oracle Summary

It is strongly recommended that you copy the installation information into a text file prior to clicking **Install**.



This is selectable text, easily copied into a text file.

3DComment: GA Media Installer – SQL Server Summary

It is strongly recommended that you copy the installation information into a text file prior to clicking **Install**.

The screenshot shows two windows of the 3DEXPERIENCE R2019x - 3DComment GA Media Installer.

Left Window (SQL Server Summary):

- The title bar says "3DEXPERIENCE R2019x - 3DComment".
- The main message is "The installation program has enough information to start."
- Details of the installation configuration:
 - Files will be installed in the following directory: D:\3DEXPERIENCE\R2019x\3DComment
 - Server JRE or JDK path: D:\3DEXPERIENCE\Java64\jdk8
 - Directory for shared storage: D:\3DEXPERIENCE\data\3DComment\data
 - Directory for log files: D:\3DEXPERIENCE\data\3DComment\logs
 - Directory for runtime temporary files: D:\3DEXPERIENCE\data\3DComment\tmp
 - 3DPassport service URL: https://3dpassport.mytraining.com:443/3dpassport
 - 3DDashboard service URL: https://3ddashboard.mytraining.com:443/3ddashboard
 - 3DCompass service URL: https://3dspace.mytraining.com:443/3dcompass
 - 3DComment service URL: https://3dcomment.mytraining.com:443/3dcomment
 - 3DNotification service URL: https://3dnotification.mytraining.com:443/3dnotification
 - Don't install the embedded Apache TomEE+.
 - Apache TomEE+ installation path: D:\3DEXPERIENCE\TomEE\
 - Choose the database type: SQL server
 - SQL Server Server Name: database.mytraining.com\X3DEXP:1433
 - SQL Server Database Name for 3DComment: x3dcomment
 - Database administrator user name: x3ds_admin
 - Database user name for 3DComment: x3ds
 - Use as batch server
- Buttons at the bottom: "< Back" (disabled), "Install" (highlighted in blue), and "Close".

Right Window (Installation Completed):

- The title bar says "3DEXPERIENCE R2019x - 3DComment".
- The message is "The installation program has finished installing 3DEXPERIENCE R2019x on your computer, in D:\3DEXPERIENCE\R2019x\3DComment".
- A summary box lists "Installed Components: 3DComment Foundation".
- Buttons at the bottom: "< Back", "Close" (highlighted in blue), and "Cancel".

Bottom Text:

This is selectable text, easily copied into a text file.

3DComment: GA Post Installation

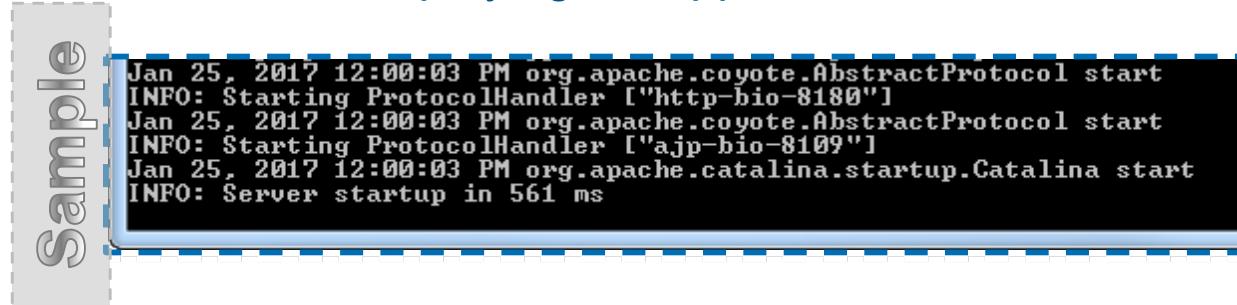
3DComment installer does not require much post installation work, just some preparation.

a. TomEE+ code PATH: D:\3DEXPERIENCE\TomEE\TomEE3DComment

b. Start and stop TomEE+ (or use you Desktop icon)

<TomEE 3DComment Path>\bin\startup.bat

Wait for it to finish deploying the application.



A terminal window titled 'Sample' showing TomEE startup logs. The logs indicate the server is starting up, with messages about protocol handlers and Catalina startup. The text is as follows:

```
Jan 25, 2017 12:00:03 PM org.apache.coyote.AbstractProtocol start
INFO: Starting ProtocolHandler ["http-bio-8180"]
Jan 25, 2017 12:00:03 PM org.apache.coyote.AbstractProtocol start
INFO: Starting ProtocolHandler ["ajp-bio-8109"]
Jan 25, 2017 12:00:03 PM org.apache.catalina.startup.Catalina start
INFO: Server startup in 561 ms
```

<TomEE 3DComment Path>\bin\shutdown.bat

Wait for it to finish closing the application properly before shutting down the terminal ...

c. Check the logs for any error and Clean log folder

<TomEE 3DComment Path>\logs*.log

3DComment: GA Post Installation

d. Go to your **3DEXPERIENCE** folder and edit the file: **D:\3DEXPERIENCE\conf\Apache\3dexperience.conf**

In the section "3DComment" replace the line:

#XXXX Future fragment file XXXX

With:

```
include D:\3DEXPERIENCE\R2019x\3DComment\win_b64\templates  
    \3DComment_httpd_fragment.conf
```

e. Edit the fragment file :

D:\3DEXPERIENCE\R2019x\3DComment\win_b64\templates\3DComment_httpd_fragment.conf

Validate the values for "**port**" and "**FQDN**" in the fragment file.

<http://3dcomment.mytraining.com:8580>

f. Backup the fragment file to:

D:\3DEXPERIENCE\conf\Fragment\3DComment_httpd_fragment.conf.GA

g. Copy the "UserIntentions_CODE.xml" file in folder

D:\3DEXPERIENCE\R2019x\3DComment\InstallData

To folder:

D:\3DEXPERIENCE\conf\UserIntentions

and rename it to:

UserIntentions_3DComment.xml

3DComment: GA Technical Validation

"GA technical validation" refers to validation of the installation process, i.e. did it install without errors and did it complete what it was supposed to do. There are 3 validation steps: installer log, database and expected file deployment review.

Defining the service code installation path: D:\3DEXPERIENCE\R2019x\3DComment

1. Installer error log should be 0 bytes and can be found at:

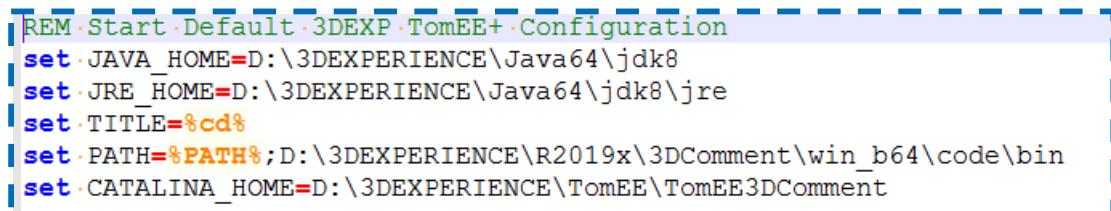
<Code Path>\InstallData\log\CODE\win_b64\.....media<Latest timestamp>\Errors.log & *Stderr.txt
Size should be 0 **bytes**

If you had to modify values in the installer dialogues you will see these "errors" in the Errors.log you will need to validate if any of these messages require corrective action.

3DComment: GA Technical Validation

2. Expected file and/or folder creation:

- a. <TomEE 3DComment Path>\webapps\3dcomment.war
- b. <TomEE 3DComment Path>\bin\setenv.bat



```
REM Start Default 3DEXP TomEE+ Configuration
set JAVA_HOME=D:\3DEXPERIENCE\Java64\jdk8
set JRE_HOME=D:\3DEXPERIENCE\Java64\jdk8\jre
set TITLE=%cd%
set PATH=%PATH%;D:\3DEXPERIENCE\R2019x\3DComment\win_b64\code\bin
set CATALINA_HOME=D:\3DEXPERIENCE\TomEE\TomEE3DComment
```

3DComment: FP Service Installer

There is no "Global 3DEXPERIENCE platform installer" for FP you must each service individually.

- a. Ensure that "**TomEE3DComment**" is stopped

`D:\3DEXPERIENCE\TomEE\TomEE3DComment\bin\shutdown.bat`

If you do not stop TomEE+, the installer will not be able to replace certain files automatically, this can result in errors in the log or unexpected behavior.

- b. Use the normal "Service Installer":

`<Your Media PATH>\Part_3DEXP_Platform.Windows64\1\Software\`

You will find:

- o `3DComment-V6R2019x.HF1.Windows64.zip`

- c. Unzip the proper OS version to `<Your Installer PATH>`

`<Your Installer PATH>\R2019x.FP1907\Part_3DEXP_Platform.Windows64\2\Software`

- d. Navigate to this path and find:

GUI: `setup.exe`

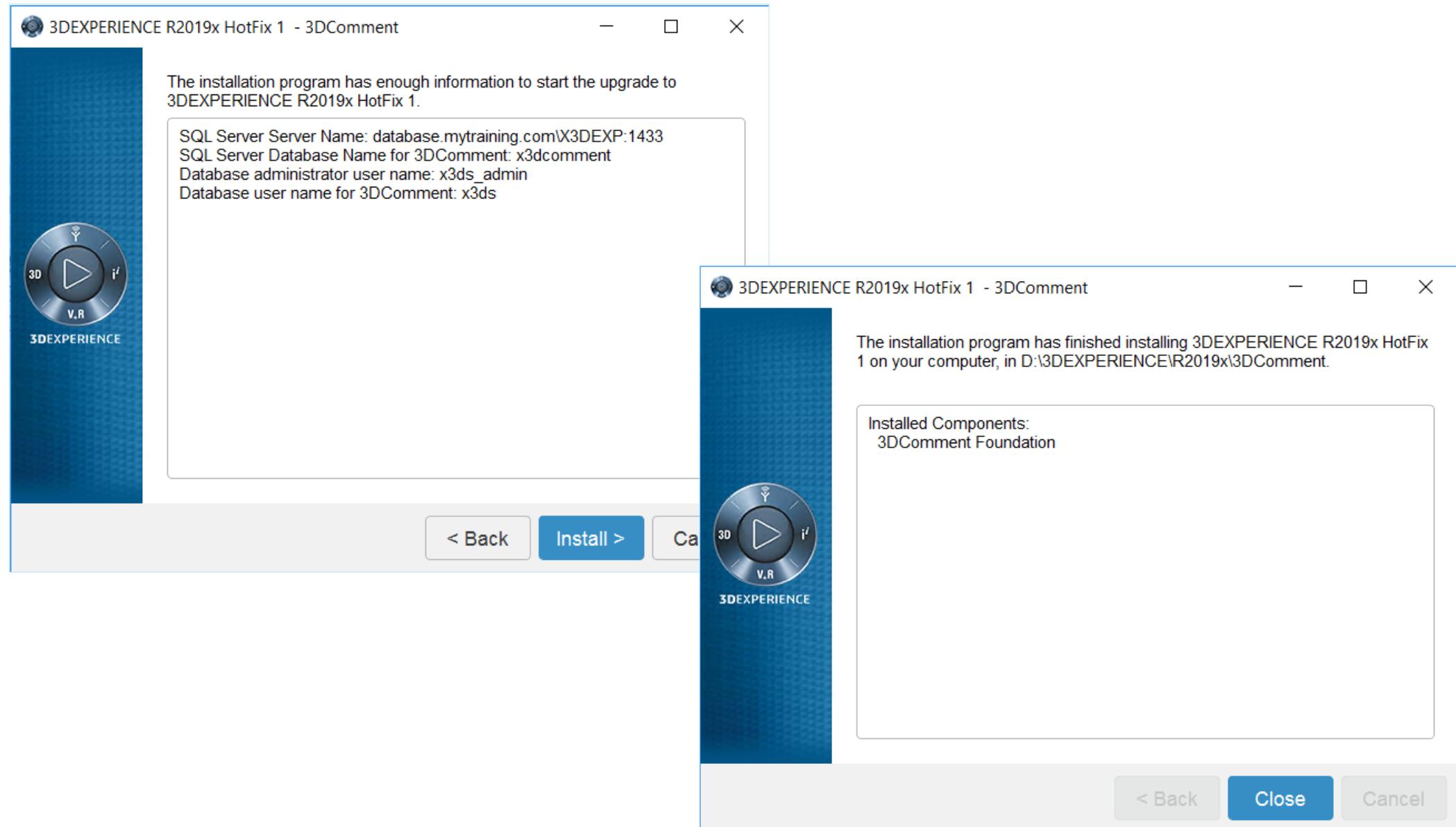
TUI: `StartTUI.exe`

3DComment: FP Service Installer – Oracle Summary

1. As with GA, it is recommended that you log the Installation Overview window containing your input values.
 - a. If you choose to take a screen shot, the window can be resized so you can see all the values clearly.
 - b. Proceed with the update using the same key values.

3DComment: FP Service Installer – SQL Server Summary

1. As with GA, it is recommended that you log the Installation Overview window containing your input values.
 - a. If you choose to take a screen shot, the window can be resized so you can see all the values clearly.
 - b. Proceed with the update using the same key values.



3DComment: FP Post Installation

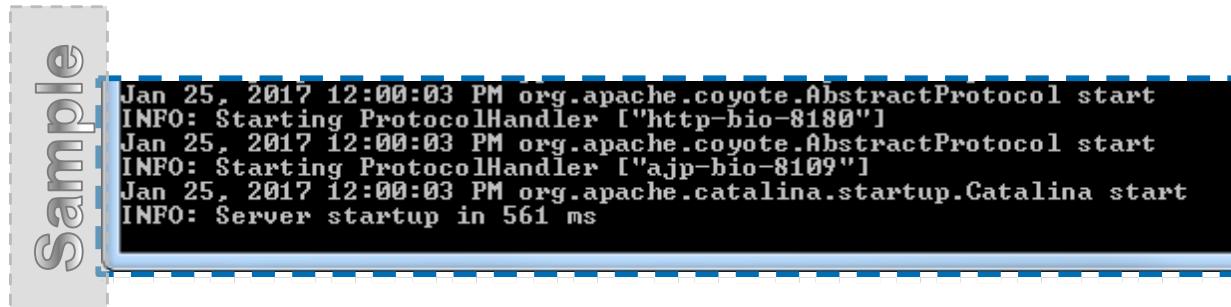
1. 3DComment creates the database objects immediately during the installation phase.

a. TomEE+ code PATH: D:\3DEXPERIENCE\TomEE\TomEE3DComment

b. Start and stop TomEE+ (or use you Desktop icon)

<TomEE 3DComment Path>\bin\startup.bat

Wait for it to finish deploying the application.



c. Edit the fragment file :

D:\3DEXPERIENCE\R2019x\3DComment\win_b64\templates\3DComment_httpd_fragment.conf

Validate the values for “port” and “FQDN” in the fragment file.

<http://3dcomment.mytraining.com:8580>

d. Backup the fragment file to:

D:\3DEXPERIENCE\conf\Fragment\3DComment_httpd_fragment.conf.FP

3DComment: FP Technical Validation

"FP technical validation" refers to validation of the installation process, i.e. did it install without errors and did it complete what it was supposed to do.

Defining the service code installation path: D:\3DEXPERIENCE\R2019x\3DComment

1. Installer error log should be 0 bytes and can be found at:

<Code Path>\InstallData\log\CODE\win_b64\.....media<Latest timestamp>\Errors.log & *Stderr.txt

Size should be **0 bytes**

You should see 2 "...media..." folders, one for GA and a new one for the FP.

If you had to modify values in the installer dialogues you will see these "errors" in Errors.log you will need to validate if any of these messages require corrective action.

2. Expected file creation or updates:

<TomEE 3DComment Path>\webapps\3dcomment.war

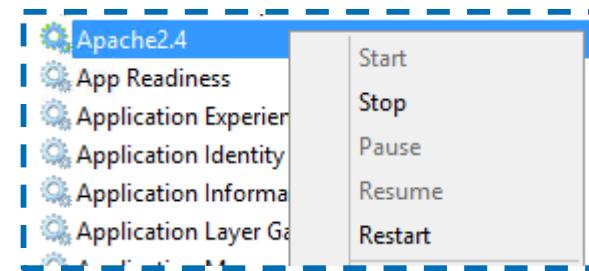
<TomEE 3DComment Path>\bin\setenv.bat

3DComment: Validation

In this section you will validate the service functionality and part of the infrastructure deployment

- a. Apache
- b. Redirect to 3DComment TomEE's
3. Start the Apache service if not started

- a. Open service manager



Each time you test a new URL it is recommended that you add it to the IE "Favorites bar" (rename it for ease)

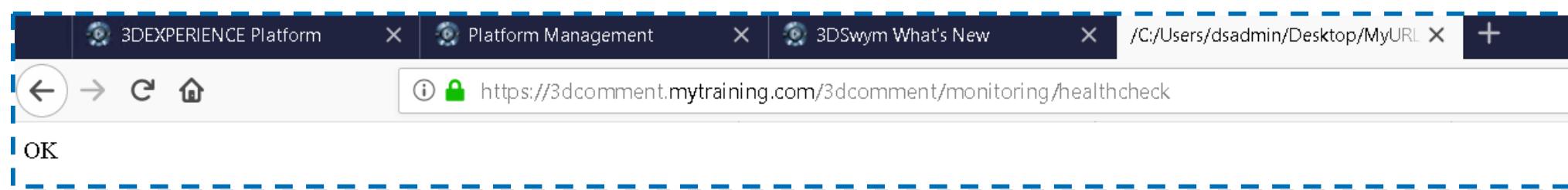
4. Start TomEE
- a. <TomEE 3DComment Path>\bin\startup.bat

Wait for it to finish deploying the application.

Access the URL:

<https://3dcomment.mytraining.com:443/3dcomment/monitoring/healthcheck>

3DComment will respond with the following page.



3DComment: Uninstallation

Windows normal uninstall procedure:

- a. Stop TomEE+ if it is running <Service Name>
- b. In the Database instance, drop the 1 user/database.
- c. In "Programs and Features" uninstall:
 - i. "Dassault Systemes <Service Name> 3DEXPERIENCE R2019x"
- d. There is also a Uninstall.bat file in the D:\3DEXPERIENCE\R2019x\<Service Name> with which you can uninstall a service.
- e. Remove the folder
 - i. D:\3DEXPERIENCE\R2019x\<Service Name>
 - ii. D:\3DEXPERIENCE\TomEE\TomEE<Service Name>

Topics to be covered:

- ✓ 1. *Introduction*
- ✓ 2. *DSLS*
- ✓ 3. *Global 3DEXPERIENCE platform installer*
- ✓ 4. *3DPassport*
- ✓ 5. *Reconfiguration*
- ✓ 6. *3DDashboard*
- ✓ 7. *3DSearch*
- ✓ 8. *3DSpace*
- ✓ 9. *3DNotification*
- ✓ 10. *3DComment*
- 11. 3DSwym**
- 12. FCS

About 3DSwym

- ▶ The 3DSwym service provides social networking and community facilities, enabling cross-discipline collaboration of users anywhere in the enterprise, and comprises three components:
 - 3DSwym Foundation
 - 3DSwym Video Converter
 - 3DSwym Index

The screenshot shows the 3DEXPERIENCE | 3DSwym interface. At the top, there's a navigation bar with a logo, a search bar, and various icons. On the left, there's a sidebar with links like 'What's New', 'My Communities', and 'Recently Viewed'. The main content area displays a post by 'Admin Platform' titled 'How can I create a Post or any other content type such as Question, Idea?'. The post content explains how to create a post, mentioning drafting and saving it as a draft. Below the post are interaction buttons for 'Answer', 'Like', 'Share', and a comment section. To the right, there are two callout boxes: one for 'Bookmarked contents' and another for 'Followed activities'.

AP By Admin Platform in Getting Started - 2 wks ago

How can I create a Post or any other content type such as Question, Idea?

You can start typing the post title and your blog post for a community. You can use text formatting, links and attach medias to your content. For more formatting options, switch to the advanced mode by expanding the content creation field

Choose the right audience by selecting (or searching) the community (of course, you might need at least an Author role in a community).

If you want to publish later your post, **Save it as Draft** and you can retrieve it on the **My contributions** of each community

2 wks ago - By Admin Platform **AP**

Answer 1 Like 0 Share

Write an answer...

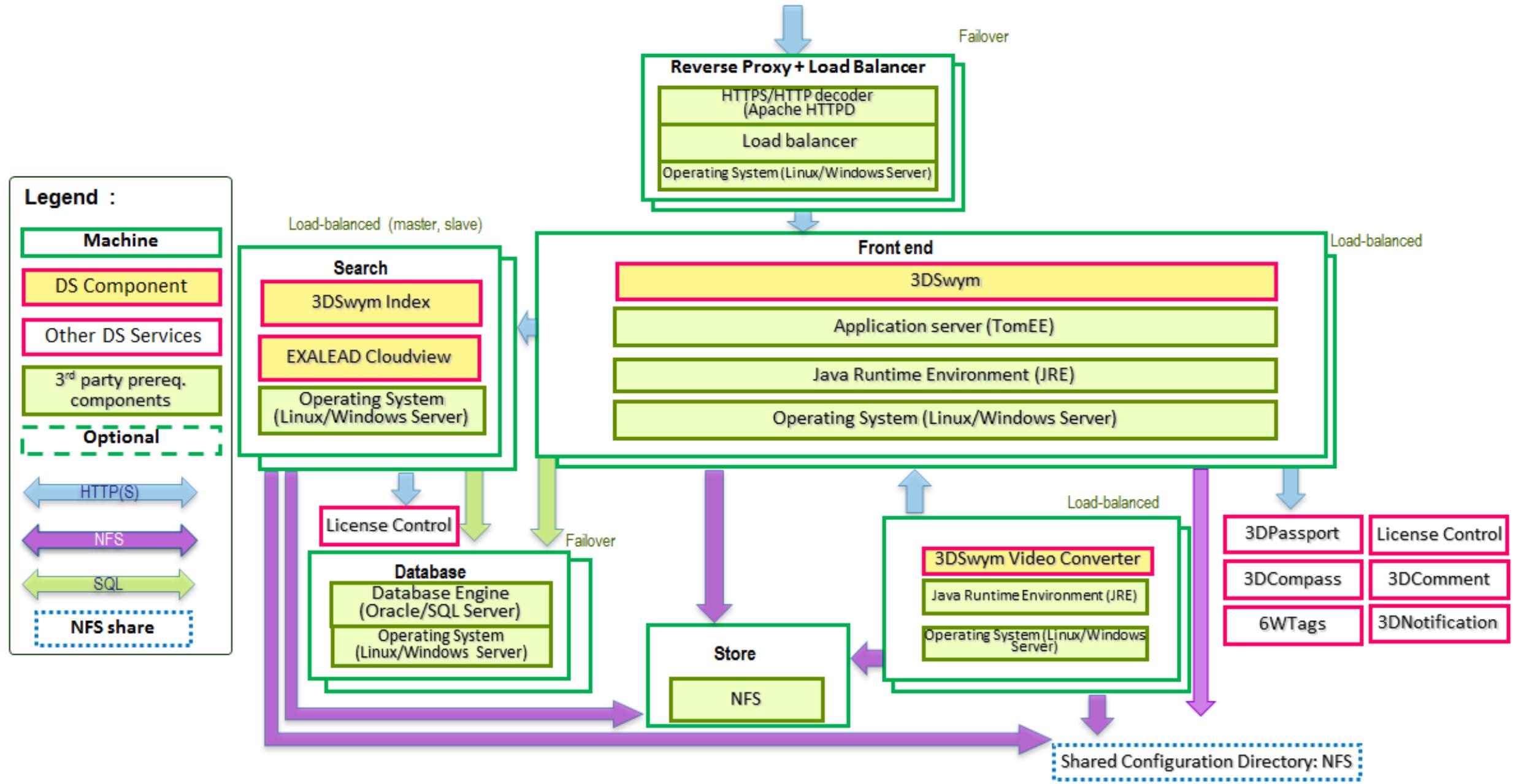
AP

You will find here your bookmarked contents (post, idea, question, media, survey & wiki page).

You will find here the latest activities (likes, comments, contributions...) of people you follow.

First you need to build your network. [Start now](#)

3DSwym : Architecture



* Always consult the “Program Directory” for version and latest news.

3DSwym: Pre-Check

You should have already prepared the groundwork required to proceed with this service installation, you will need the following pre-requisites:

- Database objects (up and running)
- TomEE + (stopped)
 - 1 TomEE+ is dedicated for the service
 - 1 SSL certificate
- Java

You will not be able to proceed if any of these are missing.

- Main Configuration requirements:
 - Database objects : Yes
 - TomEE + needed : Yes
 - Java dependent : Yes

3DSwym: Key Parameters

Installation Cook-book: Installation key parameters explained.

- ▶ Installation Directory: This is the location where the service code will be installed. Do not use blanks in the installation, try if you can avoid it. It is also recommended not to install on the “*C:*” drive. The “*C:*” drive is the system drive, if it gets corrupted or becomes full it could bring the service down. By selecting another drive you will have better control and stability for the platform.
- ▶ Installing Embedded Server JRE & Installing Embedded Apache TomEE+: 3DS service installer comes with java JRE and TomEE+. This can be practical for small businesses and if you don not want to manage other software installations. The disadvantages are that it is harder to upgrade and maintain Java security release and it cannot be easily implemented with load balancing.
- ▶ Database selection: This component is supported on both Oracle and SQL Server. The database recommendation is often based on two critical customer requirements, support and cost. It is important to note that the support costs can sometimes be higher than the actual license costs.
- ▶ Mail options: This service is essential for password reset, there is no admin page allowing you to force a new password, this would be a very big no-no in security. It is critical to be able to “send” mail, receiving replies is not required.
- ▶ Application ports & Instance options: For the external TomEE+ instance be sure that you have the proper OS permissions as the application may need to add, alter or update binaries, libraries or configuration files.

3DSwym: Installation

Installation of 3DSwym comprises of below four elements.

- Installing EXALEAD CloudView
- 3DSWYM
 - Installing 3DSwym Foundation
 - Installing 3DSwym Video Converter
 - Installing 3DSwym Index

3DSwym: Installing EXALEAD CloudView - GA Media Installer

GA core components have two different installation methodologies:

- The "global 3DEXPERIENCE platform Installer" found in:
 - <Your Media PATH>AM_3DEXP_Platform.AILOS\1\
 - Navigate to this path and find:
 - GUI: setup.exe
 - TUI: StartTUI.exe
 - This installer is primarily used when you want to deploy all the services on one machine
- Classic Service Installer are available in :
 - <Your Media PATH>AM_3DEXP_Platform.AILOS\2\EXALEAD_CloudView\Windows64\1
 - Traditional method used to deploy the services on different machines
- Start the global 3DEXPERIENCE platform Installer installer for the training
 - Fields to complete are identical for the two installers.
 - Some of the parameters chosen with the initial service installer are presented in the subsequent installers as read-only.



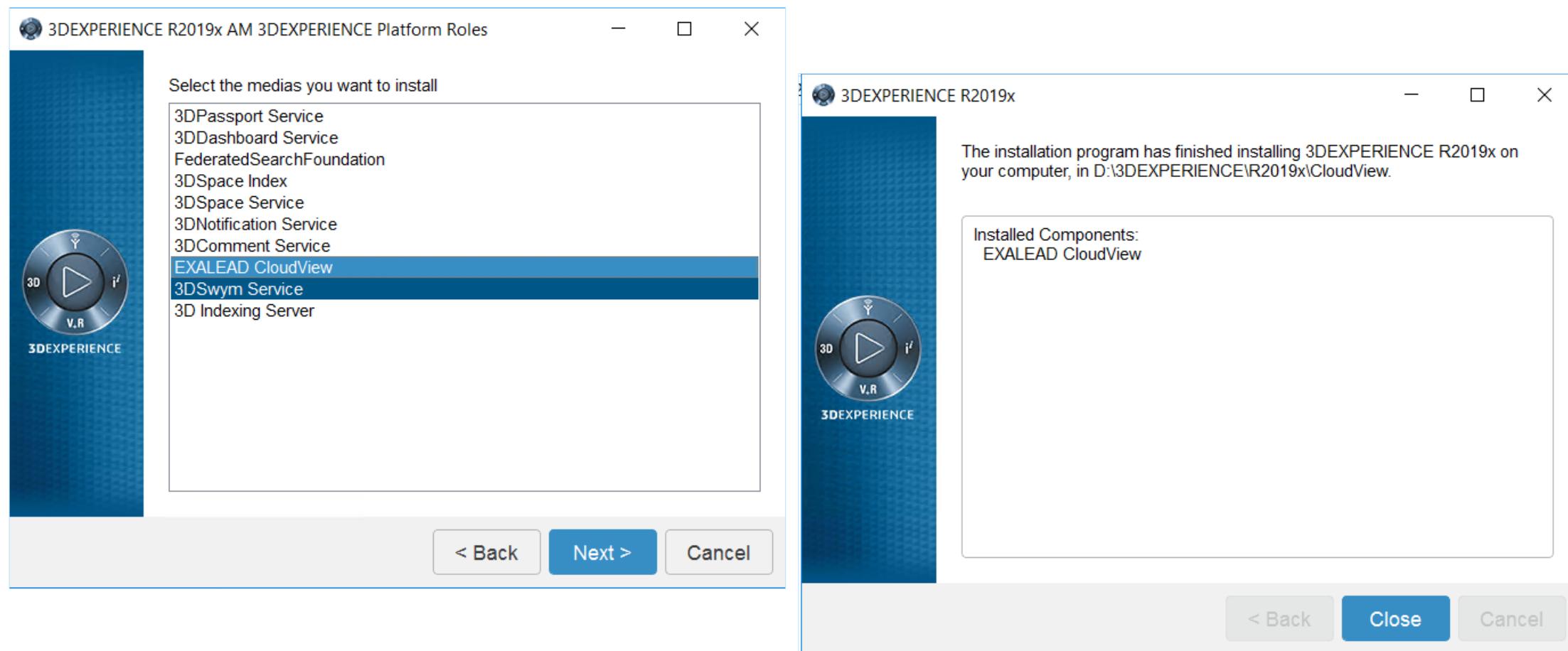
GUI "Graphical User Interface"
TUI "Text User Interface"
GUI is recommended for new releases, friendlier in general.

EXALEAD CloudView GA : Key Parameters

During the Installation you will be queried about the following parameters:

Cheat-Sheet :

Steps	Key	Value
01	Global platform Installer	<Your Media Path>\AM_3DEXP_Platform.AILOS\1\setup.exe
02	Global platform Installer	EXALEAD CloudView
03	Installation Directory	D:\3DEXPERIENCE\R2019x\CloudView
04	Install Embedded Java Kit	No



EXALEAD CloudView : FP Service Installer

- b. Use the normal "Service Installer":

<Your Media PATH>\R2019x.FP1907\Part_3DEXP_Platform.Windows64\2\Software

You will find:

EXALEAD_CloudView-V6R2019x.HF1.Windows64.zip

- c. Unzip the proper OS version to <Your Installer PATH>

<Your Installer PATH>\ Part_3DEXP_Platform.Windows64\2\Software

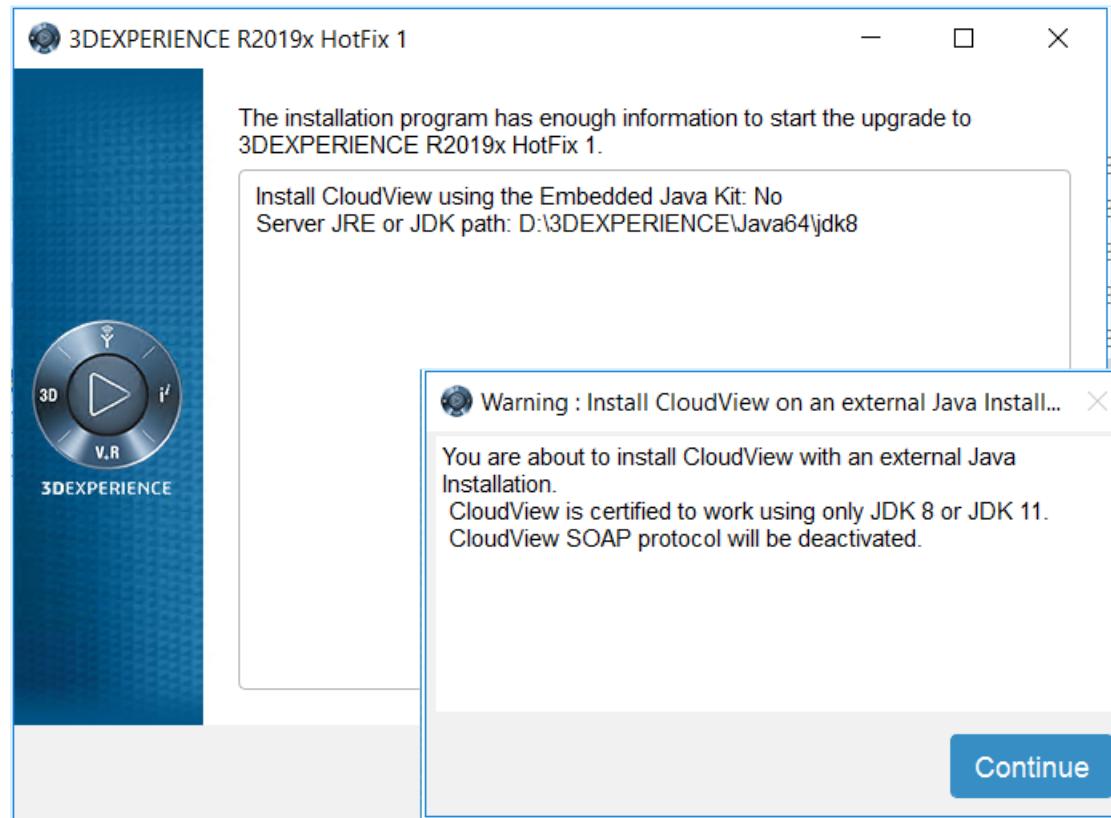
- d. Navigate to this path and find:

GUI: setup.exe

TUI: StartTUI.exe

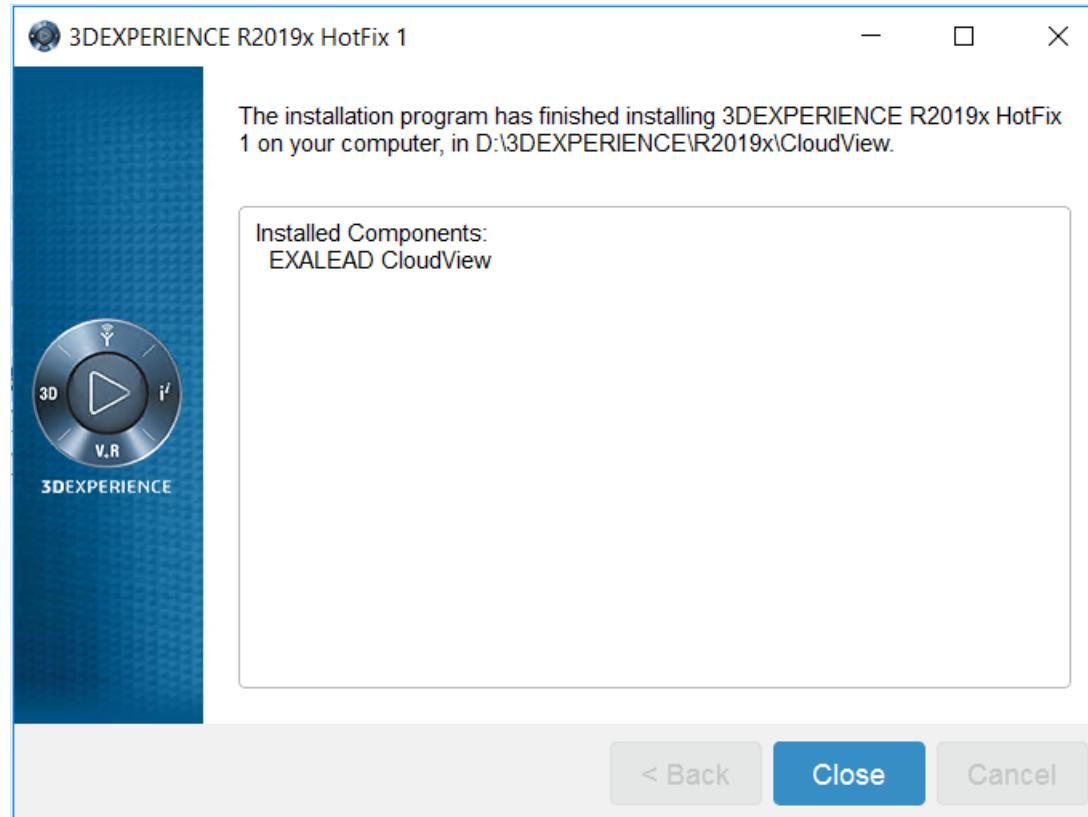
EXALEAD CloudView : FP Service Installer

1. As with GA, it is recommended that you log the Installation Overview window containing your input values.
 - a. If you choose to take a screen shot, the window can be resized so you can see all the values clearly.
 - b. Proceed with the update using the same key values.



EXALEAD CloudView: FP Service Installer

1. As with GA, it is recommended that you log the Installation Overview window containing your input values.
 - a. If you choose to take a screen shot, the window can be resized so you can see all the values clearly.
 - b. Proceed with the update using the same key values.



3DSwym: Installation

Installation of 3DSwym comprises of below 4 Elements.

- a. Installing EXALEAD CloudView

- b. **3DSWYM**
 - i. Installing 3DSwym Foundation
 - ii. Installing 3DSwym Video Converter
 - iii. Installing 3DSwym Index

3DSwym Foundation - GA Media Installer

GA core components have 2 different installation methodologies:

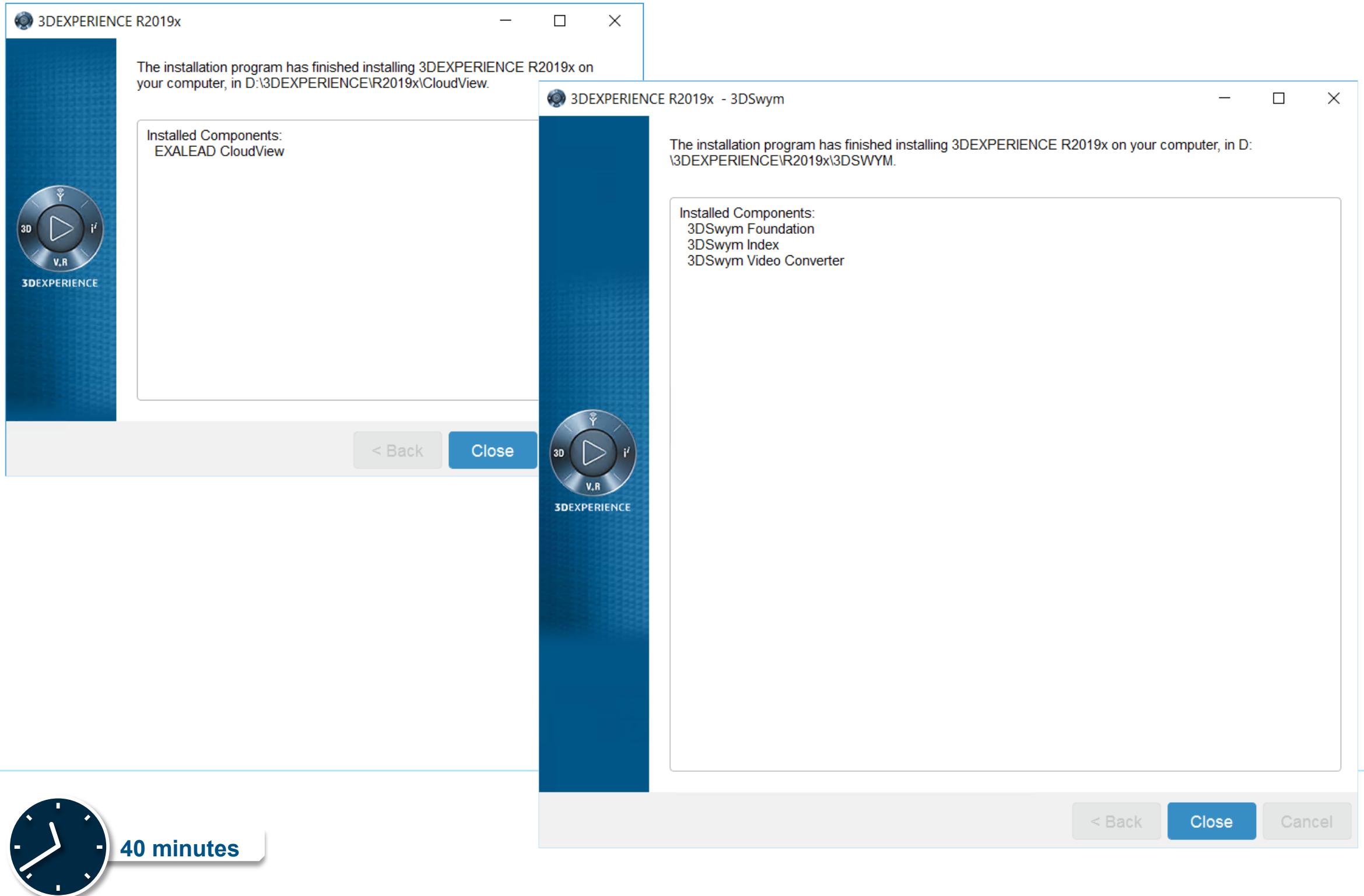
- The "global 3DEXPERIENCE platform Installer" found in:
 - <Your Media PATH>AM_3DEXP_platform.AILOS\1\
 - Navigate to this path and find:
 - GUI: setup.exe
 - TUI: StartTUI.exe
 - This installer is primarily used when you want to deploy all the services on one machine
- Classic "Service Installer" are available in :
 - <Your Media PATH>AM_3DEXP_platform.AILOS\2\3DSwym\Windows64\1
 - Traditional method used to deploy the services on different machines
- Start the "global 3DEXPERIENCE platform Installer" installer for the training
 - Fields to complete are identical for the two installers
 - Some of the parameters chosen with the initial service installer are presented in the subsequent installers as read-only



GUI "Graphical User Interface"
TUI "Text User Interface"
GUI is recommended for new releases,
friendlier in general.

3DSwym Foundation - GA Media Installer

Using the Cheat-sheet on the next page proceed to the installation, don't forget the installer options related to:



3DSwym Foundation : Key Parameters

During the Installation you will be queried about the following parameters:



Make sure to enter **mytraining.com** instead of **mydomain**. This DNS is specific for this training and would vary in the real world.

Cheat-Sheet :

Steps	Key	Value
01	Global platform Installer	<Your Media Path>\AM_3DEXP_Platform.AILOS\1\setup.exe
02	Global platform Installer	"3DSwym Service"
03	Installation Directory	D:\3DEXPERIENCE\R2019x\3DSwym
04	Select Components	3DSwym Foundation 3DSwym Video Converter 3DSwym Index
05	Install the embedded Server JRE	No
06	JRE or JDK PATH	D:\3DEXPERIENCE\Java64\jdk8
07	Directory for Shared folder	D:\3DEXPERIENCE\data\3DSwymData D:\3DEXPERIENCE\data\3DSwymLogs D:\3DEXPERIENCE\data\3DSwymTmp

3DSwym Foundation : Key Parameters

Cheat-Sheet : (continued)

Steps	Key	Value
08	3DPassport URL	https://3dpassport.mytraining.com:443/3dpassport
	3dszym Fulltext Search	http://3dszymindex.mytraining.com:29000
	3DDashboard URL	https://3ddashboard.mytraining.com:443/3ddashboard
	3DCompass URL	https://3dspace.mytraining.com:443/3dspace
	6WTag service URL	https://3dspace.mytraining.com:443/3dspace
	3DSwym URL	https://3dszym.mytraining.com:443/3dszym
	3DComment URL	https://3dcomment.mytraining.com:443/3dcomment
	3DNotification URL	https://3dnotification.mytraining.com:443/3dnotification

3DSwym Foundation : Key Parameters

Cheat-Sheet : (continued)

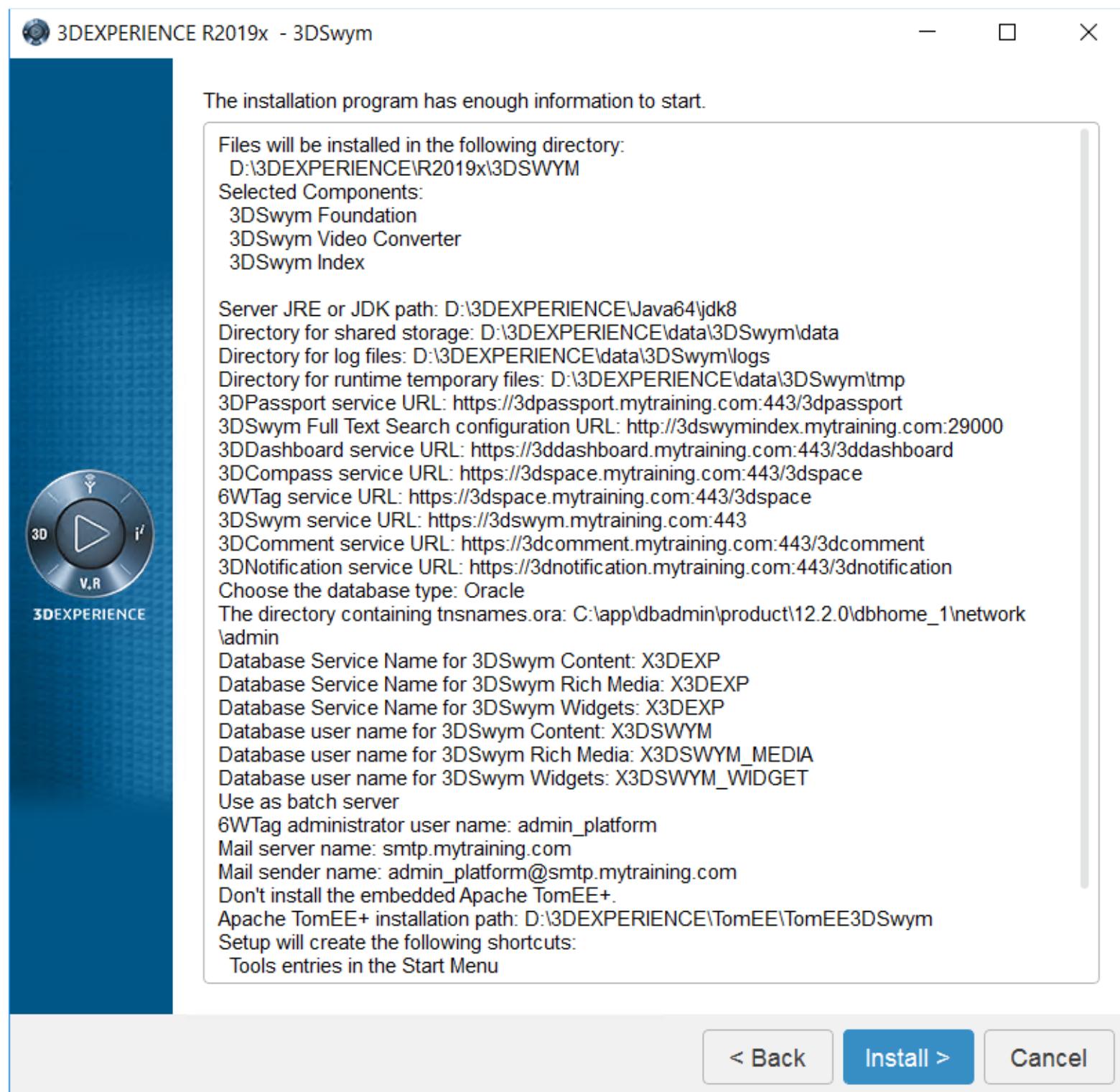
Steps	Key	Value
09	Install the embedded Apache TomEE+	No
10	DB Selection	Oracle or SQL Server
11 Oracle	Directory of tnsnames.ora Net_Service_Net name for 3DSwym Content Net_Service_Net name for 3DSwym Rich Media Net_Service_Net name for 3DSwym Widget Database username for 3DSwym Content Database user's password for 3DSwym Content Database username for 3DSwym Rich Media Database user's password for 3DSwym Rich Media Database username for 3DSwym Widget Database user's password for 3DSwym Widget	C:\app\dbadmin\product\12.2.0\dbhome_1\NET WORK\ADMIN X3DEXP X3DEXP X3DEXP X3DEXP X3DSWYM X3DSWYM X3DSWYM_MEDIA X3DSWYM_MEDIA X3DSWYM_WIDGET X3DSWYM_WIDGET
SQL Server	Database Host Database name Database Administrator username Database Administrator user's password Database username Database user's password	database.mytraining.com\X3DEXP:1433 x3dszym_social x3dszym_media x3dszym_widget x3dsm_admin Passport#1 x3dsm Passport#1

3DSwym Foundation : Key Parameters

Cheat-Sheet : (continued)

Steps	Key	Value
12	Use as batch	Yes
13	6WTag administrator user	admin_platform
	6WTag administrator password	<Your Password>
14	Mail Server name	smtp.mytraining.com
	Mail sender name	<u>admin_platform@smtp.mytraining.com</u>
15	Install the embedded Apache TomEE+	No
16	Apache TomEE+ Installation path	D:\3DEXPERIENCE\TomEE\TomEE3DSwym
17	Tools entries in start menu	Yes
18	Choose the Certificate location	D:\3DEXPERIENCE\conf\ssl
	CloudView Admin Password	<your password>
19	Server Data Path	D:\3DEXPERIENCE\R2019x\3DSwym\win_b64\datadir

3DSwym Foundation : Oracle Summary



3DSwym Foundation : SQL Server Summary

3DEXPERIENCE R2019x - 3DSwym

The installation program has enough information to start.

Files will be installed in the following directory:
D:\3DEXPERIENCE\R2019x\3DSWYM

Selected Components:

- 3DSwym Foundation
- 3DSwym Video Converter
- 3DSwym Index

Server JRE or JDK path: D:\3DEXPERIENCE\Java64\jdk8
Directory for shared storage: D:\3DEXPERIENCE\data\3DSwym\data
Directory for log files: D:\3DEXPERIENCE\data\3DSwym\logs
Directory for runtime temporary files: D:\3DEXPERIENCE\data\3DSwym\tmp
3DPassport service URL: https://3dpassport.mytraining.com:443/3dpassport
3DSwym Full Text Search configuration URL: http://3dszymindex.mytraining.com:29000
3DDashboard service URL: https://3ddashboard.mytraining.com:443/3ddashboard
3DCompass service URL: https://3dspace.mytraining.com:443/3dspace
6WTag service URL: https://3dspace.mytraining.com:443/3dspace
3DSwym service URL: https://3dszym.mytraining.com:443
3DComment service URL: https://3dcomment.mytraining.com:443/3dcomment
3DNotification service URL: https://3dnotification.mytraining.com:443/3dnotification
Choose the database type: SQL server
SQL Server Server Name: database.mytraining.com\X3DEXP:1433
SQL Server Database Name for 3DSwym Content: x3dszym_social
SQL Server Database Name for 3DSwym Rich Media: x3dszym_media
SQL Server Database Name for 3DSwym Widgets: x3dszym_widget
Database administrator user name: x3ds_admin
Database user name for 3DSwym: x3ds
Use as batch server
6WTag administrator user name: admin_platform
Mail server name: smtp.mytraining.com
Mail sender name: admin_platform@smtp.mytraining.com
Don't install the embedded Apache TomEE+.
Apache TomEE+ installation path: D:\3DEXPERIENCE\TomEE\TomEE3DSwym
Setup will create the following shortcuts:
Tools entries in the Start Menu

Certificates location: D:\3DEXPERIENCE\conf\ssl
Data directory that will be used for CloudView: D:\3DEXPERIENCE\R2019x\3DSWYM\win_b64\datadir

Required package not installed

The required package Microsoft Visual C++ 2012 Update 4 Redistributable
Package is not yet installed on this system.\r\nDo you want to install it now ?\r\n(This operation will require administrator credentials.)

Yes No

< Back Install > Cancel

3DSwym : GA Post Installation

3DSwym installer does not immediately create the database objects, these objects are created during application startup. You will notice messages in the TomEE+ logs about database tables already existing upon re-start of TomEE+.

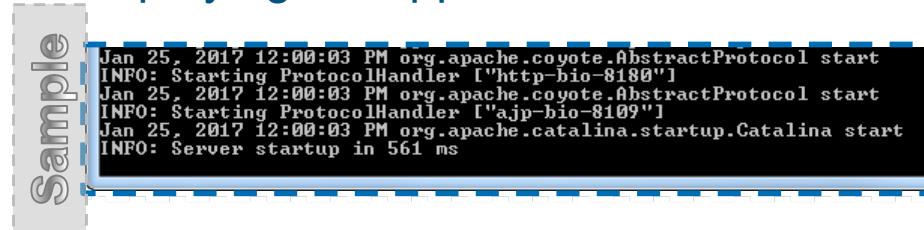
The installer automatically puts the TomEE+ WAR file in the proper webapps folder.

a. TomEE+ code PATH: [D:\3DEXPERIENCE\TomEE\TomEE3DSwym](#)

b. Start and stop TomEE+ (or use your Desktop icon)

[`<TomEE 3dsym Path>\bin\startup.bat`](#)

Wait for it to finish deploying the application.



A terminal window titled "Sample" showing TomEE startup logs. The logs include:

```
Jan 25, 2017 12:00:03 PM org.apache.coyote.AbstractProtocol start
INFO: Starting ProtocolHandler ["http-bio-8180"]
Jan 25, 2017 12:00:03 PM org.apache.coyote.AbstractProtocol start
INFO: Starting ProtocolHandler ["ajp-bio-8109"]
Jan 25, 2017 12:00:03 PM org.apache.catalina.startup.Catalina start
INFO: Server startup in 561 ms
```



You may need to repeat once this step in order to have a proper “Server startup” message.

[`<TomEE 3dsym Path>\bin\shutdown.bat`](#)

Wait for it to finish shutting down before closing the terminal.

c. Check the logs for any errors and delete the logs in the folder

[`<TomEE 3dsym Path>\logs*.log`](#)

3DSwym : GA Post Installation

- d. Go to your **3DEXPERIENCE** folder and edit the file: **D:\3DEXPERIENCE\conf\3dexperience.conf** In the **3dszym** section replace the line:

#XXXX Future fragment file XXXX

With:

include D:\3DEXPERIENCE\R2019x\3dszym\win_b64\templates\3dszym_httpd_fragment.conf

- f. Edit the fragment file:

D:\3DEXPERIENCE\R2019x\3dszym\win_b64\templates\3dszym_httpd_fragment.conf

Validate the values for “**port**” and “**FQDN**” are correct in the fragment.

<http://3dszym.mytraining.com:8780>

- e. Make a backup of the fragment file named:

D:\3DEXPERIENCE\conf\Fragment\3dszym_httpd_fragment.conf.GA

- g. Copy "UserIntentions_CODE.xml" file found in:

D:\3DEXPERIENCE\R2019x\3dszym\Install\InstallData

To folder

D:\3DEXPERIENCE\conf\UserIntentions

and rename it to:

UserIntentions_3dszym.xml

3DSwym : GA Technical Validation

"GA technical validation" refers to validation of the installation process, i.e. did it install without errors and did it complete what it was supposed to do. There are 2 validation steps: installer log and expected file deployment review.

Code Installation Path <Code Path> = D:\3DEXPERIENCE\R2019x\3dswym

1. Installer error log should be 0 bytes and can be found at:

<Code Path>\InstallData\log\CODE\win_b64\.....media<Latest timestamp>\Errors.log & *Stderr.txt
Size should be 0 bytes

If you had to modify values in the installer dialogues you will see these "errors" in the Errors.log you will need to validate if any of these messages require corrective action.

3DSwym : GA Technical Validation

2. Expected file and/or folder creation:

- a. <TomEE3dszym Path>\webapps\3dsearch.war
- b. <TomEE3dszym Path>\webapps\3dszym.war
- c. <TomEE3dszym Path>\webapps\uwp.war

```
REM·DS·DO·NOT·MODIFY·X3DSWYM·START
set "CATALINA_OPTS=%CATALINA_OPTS% -Xms1G -Xss2048k -XX:NewSize=512M -XX:MaxNewSize=512M -XX:SurvivorRatio=2 -XX:+DisableExplicitGC -Dfile.encoding=UTF-8 -server".
REM·DS·DO·NOT·MODIFY·X3DSWYM·END

REM·Start·Default·3DEXP·TomEE+·Configuration
set JAVA_HOME=D:\3DEXPERIENCE\Java64\jdk8
set JRE_HOME=D:\3DEXPERIENCE\Java64\jdk8\jre
set TITLE=%cd%
set PATH=%PATH%;D:\3DEXPERIENCE\R2019x\3DSwym\win_b64\code\bin
set CATALINA_HOME=D:\3DEXPERIENCE\TomEE\TomEE3DSwym
```

3DSwym : FP Service Installer

There is no "Global 3DEXPERIENCE platform installer" for FP you must each service individually.

- a. Ensure that "TomEE+3DSwym" is stopped

D:\3DEXPERIENCE\TomEE\TomEE3DSwym\bin\shutdown.bat

If you do not stop TomEE+, the installer will not be able to replace certain files automatically, this can result in errors in the log or unexpected behavior.

- b. Use the normal "Service Installer":

<Your Media PATH>\Part_3DEXP_platform.Windows64\2\Software\

You will find:

- o 3DSwym-V6R2019x.HF1.Windows64.zip

- c. Unzip the proper OS version to <Your Installer PATH>

- o <Your Installer PATH>\3DSwym.Windows64\1

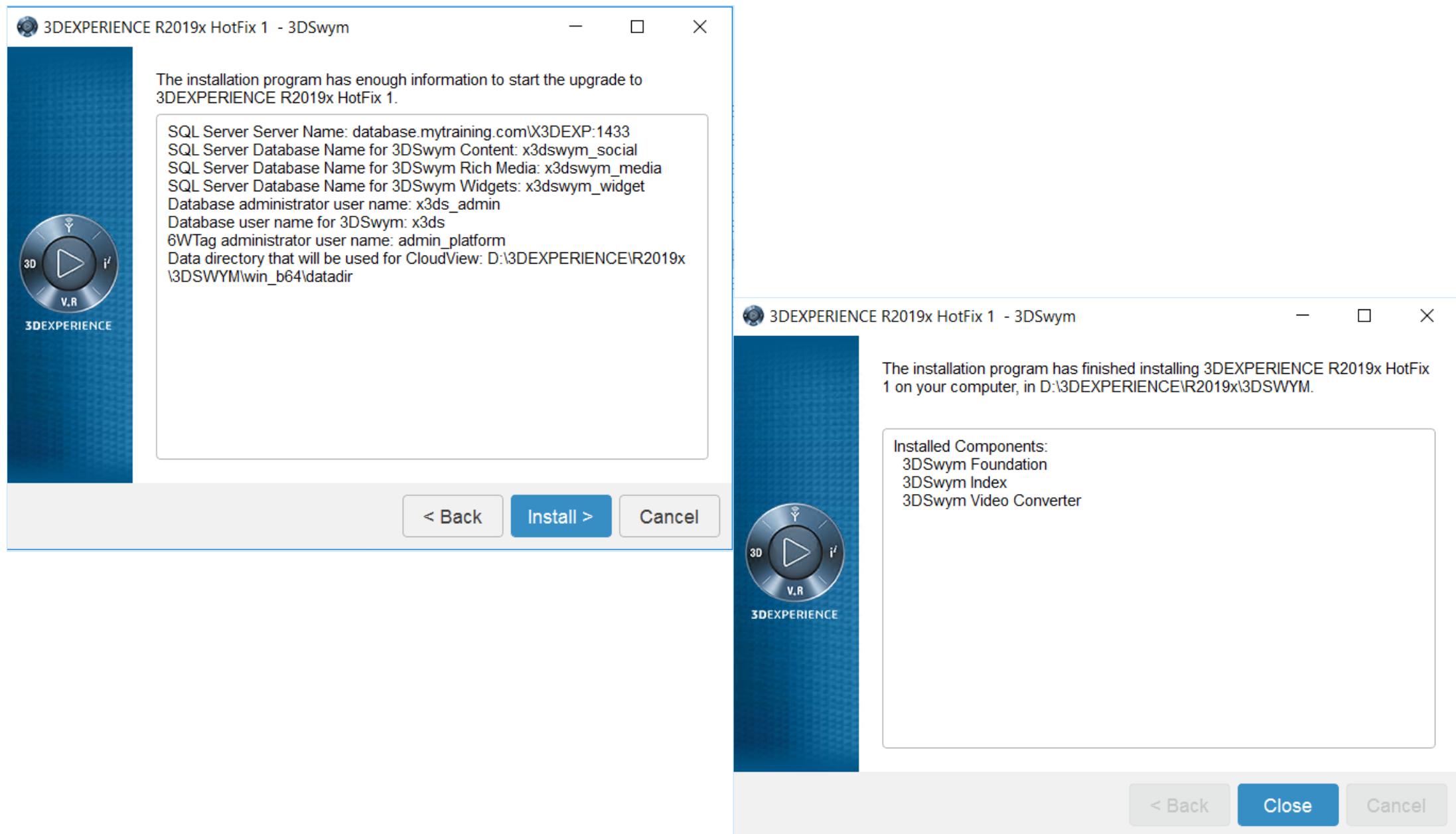
- d. Navigate to this path and find:

GUI: setup.exe

TUI: StartTUI.exe

3DSwym: FP Service Installer – SQL Server Summary

1. As with GA, it is recommended that you log the Installation Overview window containing your input values.
 - a. If you choose to take a screen shot, the window can be resized so you can see all the values clearly.
 - b. Proceed with the update using the same key values.



3DSwym : FP Post Installation

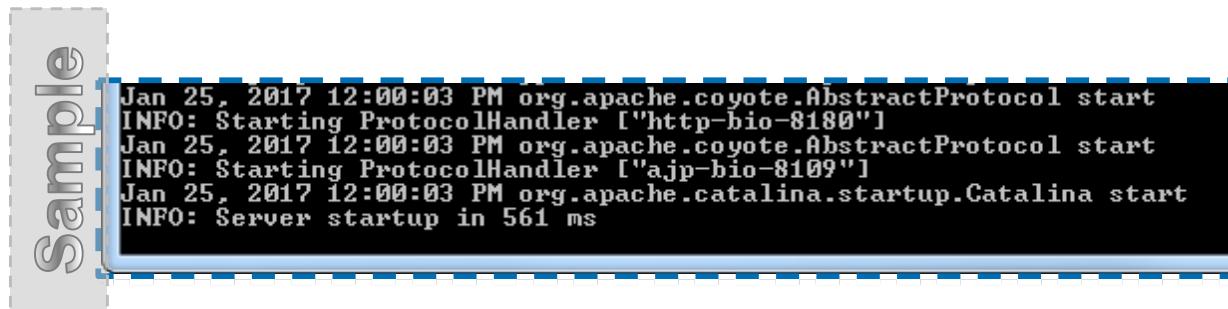
1. 3DSwym creates the database objects immediately during the installation phase.

a. TomEE+ code PATH: D:\3DEXPERIENCE\TomEE\TomEE3DSwym

b. Start and stop TomEE+ (or use you Desktop icon)

<TomEE 3DSwym Path>\bin\startup.bat

Wait for it to finish deploying the application.



c. Edit the fragment file :

D:\3DEXPERIENCE\R2019x\3DSwym\win_b64\templates\3DSwym_httpd_fragment.conf

Validate the values for “port” and “FQDN” in the fragment file.

<http://3dsym.mytraining.com:8780>

d. Backup the fragment file to:

D:\3DEXPERIENCE\conf\Fragment\3DSwym_httpd_fragment.conf.FP

3DSwym : FP Technical Validation

"FP technical validation" refers to validation of the installation process, i.e. did it install without errors and did it complete what it was supposed to do.

Defining the service code installation path: D:\3DEXPERIENCE\R2019x\3DSwym

1. Installer error log should be 0 bytes and can be found at:

<Code Path>\InstallData\log\CODE\win_b64\.....media<Latest timestamp>\Errors.log & *Stderr.txt

Size should be 0 bytes

You should see 2 "...media..." folders, one for GA and a new one for the FP.

If you had to modify values in the installer dialogues you will see these "errors" in Errors.log you will need to validate if any of these messages require corrective action.

2. Expected file creation or updates:

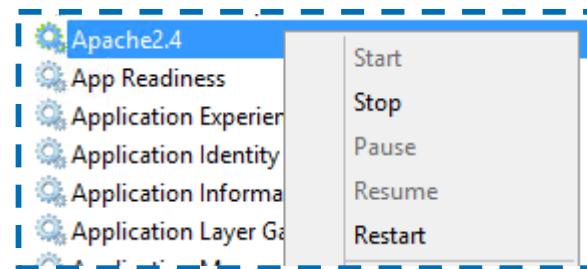
- a. <TomEE3dsym Path>\webapps\3dsearch.war
- b. <TomEE3dsym Path>\webapps\3dsym.war
- c. <TomEE3dsym Path>\webapps\uwp.war

EXALEAD CloudView : Validation

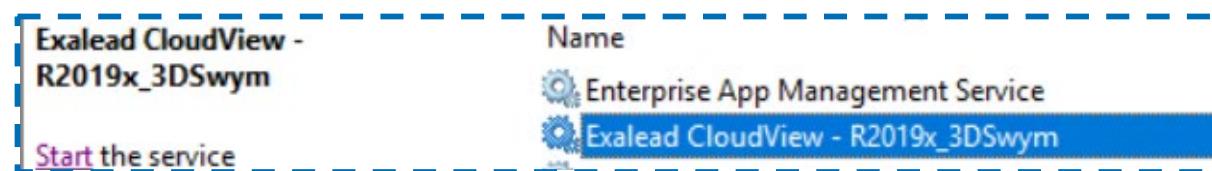
In this section you will validate the service functionality and part of the infrastructure deployment

- a. Apache
- b. Check the Service Status

1. Start the Apache service if not started
 - a. Open service manager



2. Restart the Service if not automatically started.



Each time you test a new URL it is recommended that you add it to the IE "Favorites bar" (rename it for ease)

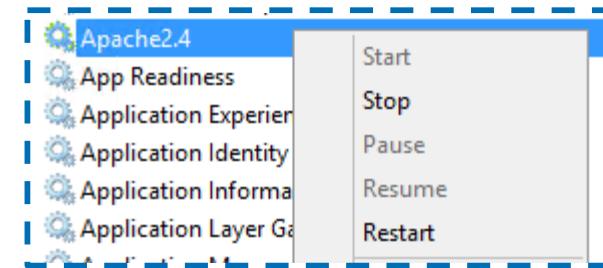
Name	Description	Status
3DEXPERIENCE R2019x 3DSwym ExternalConverterSvc	3DEXPERIENCE R2019x 3DNotification Node	Running
Stop the service	3DEXPERIENCE R2019x 3DSpace Index	Running
Restart the service	3DEXPERIENCE R2019x 3DSpace TomEE	Running
	3DEXPERIENCE R2019x 3DSpaceNoCAS TomEE	Running
	3DEXPERIENCE R2019x 3DSwym ExternalConverterSvc	Running

3DSwym: Validation

In this section you will validate the service functionality and part of the infrastructure deployment

- a. Apache
- b. Redirect to 3dswym TomEE+

1. Start the Apache service if not started
 - a. Open service manager



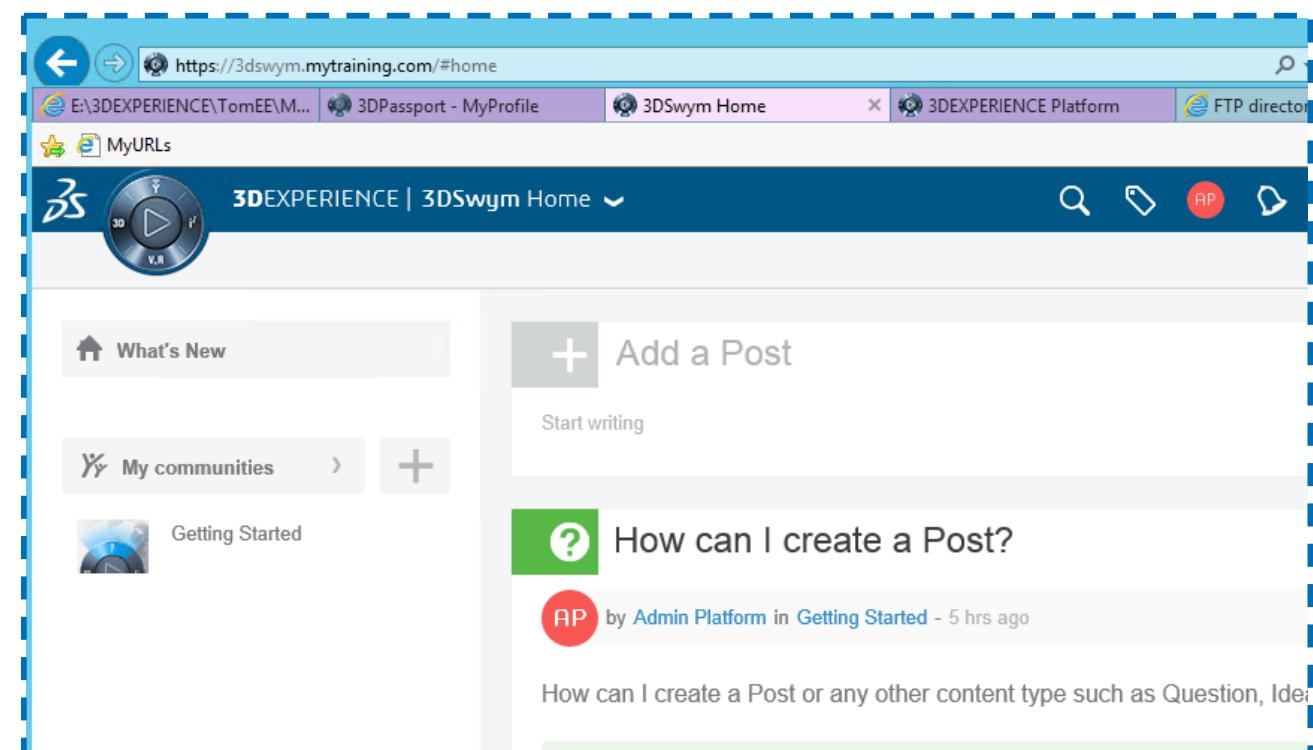
Each time you check a new URL, it's recommended to add it to the IE "Favorites bar" (rename it for ease)

2. Start TomEE+ (3DSwym + 3Dpassport)
 - a. <TomEE3dswym Path>\bin\startup.bat

Wait for it to finish deploying the application.

Access the URL:

<https://3dswym.mytraining.com/>



3DSwym: Uninstallation

Windows normal uninstall procedure:

- a. Stop TomEE+ if it is running <Service Name>
- b. In the Database instance drop the 2 schemas / databases.
- c. In "Programs and Features" uninstall:
 - ▶ "Dassault Systemes <Service Name> 3DEXPERIENCE R2019x"
- d. There is also a Uninstall.bat file in the D:\3DEXPERIENCE\R2019x\<Service Name> with which you can uninstall a service.
- e. Remove the folder
 - ▶ D:\3DEXPERIENCE\R2019x\<Service Name>
 - ▶ D:\3DEXPERIENCE\TomEE\TomEE<Service Name>

Topics to be covered:

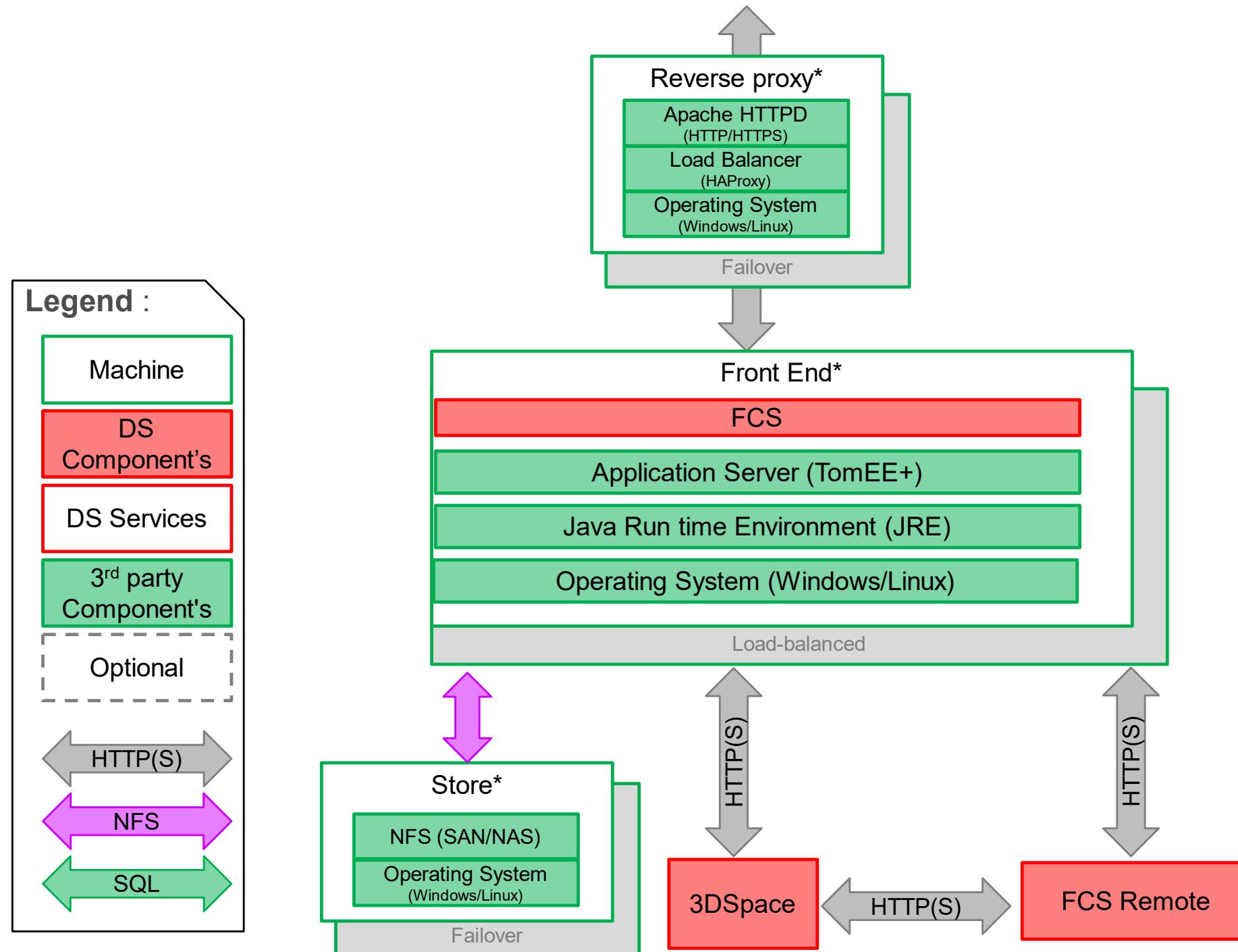
- ✓ 1. *Introduction*
- ✓ 2. *DSLS*
- ✓ 3. *Global 3DXPERIENCE platform installer*
- ✓ 4. *3DPassport*
- ✓ 5. *Reconfiguration*
- ✓ 6. *3DDashboard*
- ✓ 7. *3DSearch*
- ✓ 8. *3DSpace*
- ✓ 9. *3DNotification*
- ✓ 10. *3DComment*
- ✓ 11. *3DSwym*
- 12. FCS**

About FCS Central

- ▶ The File Collaboration Server (FCS) enables administrators to distribute file data across the enterprise for optimal upload and download performance. It provides location, checkout, and copy operations for the data managed by the 3DSpace Service.
- ▶ The "central" FCS replaces the embedded FCS in the 3DSpace installation. It is recommended to offload the FCS functionality to a dedicated server allow 3DSpace to concentrate on serving the application pages rather than delivering files. This standalone "FCS" is referred as the "Central FCS".

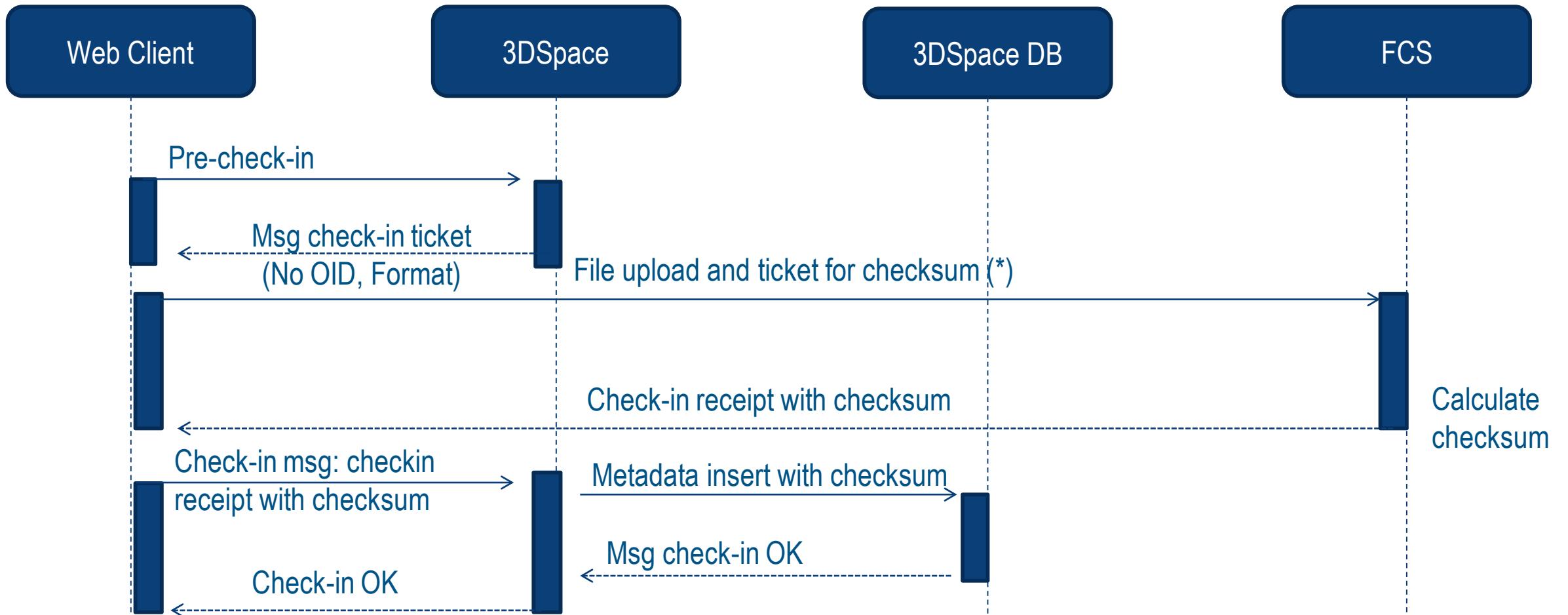


FCS Central: Architecture



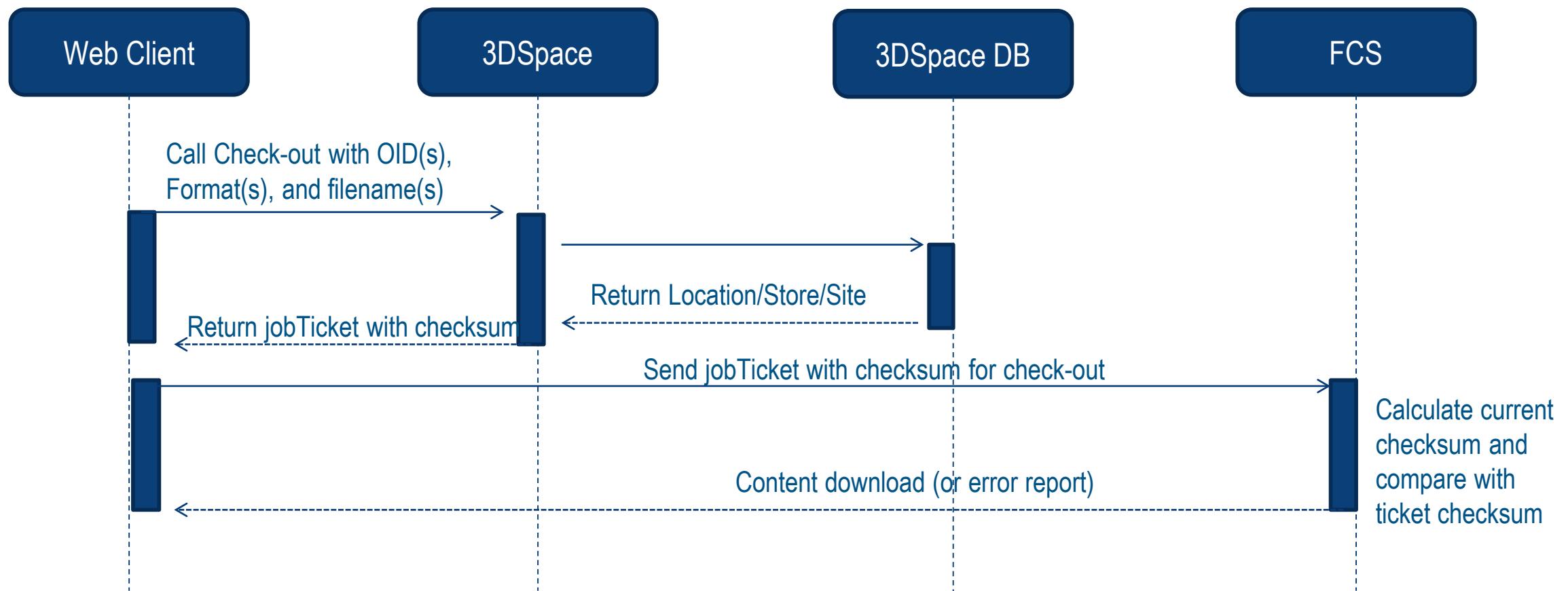
* Always consult the “Program Directory” for version and latest news.

Check-in Process



(*) Optional Checksum can be activated using MQL commands to perform integrity check (default off)

Check-out Process



jobTicket characteristics :

- Expiration default is 600s
- 1000 tickets kept in memory by default

FCS Central: Pre-Check

You should have already prepared the groundwork required to proceed with this service installation, you will need the following pre-requisites:

- TomEE + (stopped)
 - 1 TomEE+ is dedicated for the service
 - 1 SSL certificate
- Java

You will not be able to proceed if any of these are missing.

- Main Configuration requirement:
 - Database objects : No
 - TomEE + needed : Yes
 - Java dependent : Yes

FCS: Key Parameters

Installation “Cook-book” : Installation key parameter explained.

- ▶ “Installation Directory”: This is the location where the service code will be installed. Do not use blanks in the installation path if you can avoid it. It is also recommended not to install on the “C:\” drive. The “C:\” drive is the system drive, if it gets corrupted or becomes full it could bring the service down. By selecting another drive you will have better control and stability for the platform.
- ▶ “Append service binary to PATH”: This allows the OS and users “easier” access to the FCS binaries but it is not recommended because it may interfere with other applications. The preferred solution is to set the PATH variable in the TomEE+ environment variables and to set it in any batch that you would like to execute.
- ▶ “Web Application name”: Name of the war file that will be created, it is recommended to keep the default value, “fcs”. Typically SSL terminates at the F5 or apache which sends the requests to the backend FCS JVM host name and ports like so:
 - Endpoint URL
 - <https://fcs.mytraining.com/fcs>
 - Backend JVMs
 - <http://realhostname.domain.com:8081/fcs>
 - <http://realhostname.domain.com:8082/fcs>
- ▶ Keywords: FCS file repository, crawler, user: locations & site.

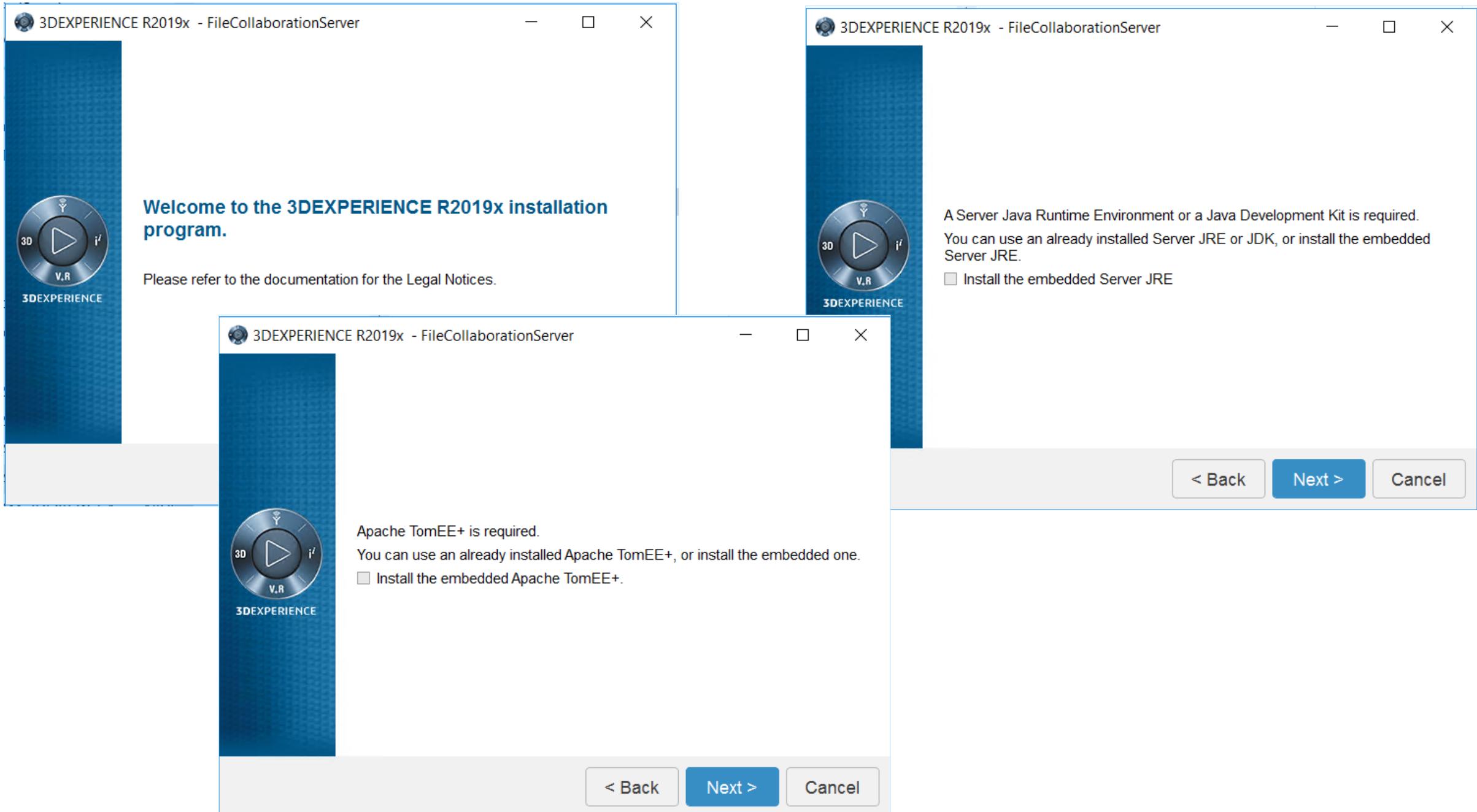
FCS Central: Key Parameters

FCS installation is quite simple. If multiple FCSs are needed they can be installed in parallel or even prior to any other server core component. FCS installation is easy to replicate, using the user intention file.

► Available Installation Options :

- Appending the code to the Path → "No"

It is preferred that the **3DEXPERIENCE** installations do not affect the general OS environment.



FCS Central : GA Media Installer

- ▶ The “Global 3DEXPERIENCE platform Installer” is not available for the FCS.
 - "Service Installer" will be used for this service :
 - <Your Media PATH>\AM_3DEXP_Platform.AILOS\1\FileCollaborationServer\
 - **FileCollaborationServer-V6R2019x.Windows64.zip**
 - Select the media and extract it into a temporary location:
 - <Your Installer PATH>\FileCollaborationServer.Windows64\1
 - As with the global 3DEXPERIENCE platform installer, you have the GUI and TUI options
 - GUI: setup.exe
 - TUI: StartTUI.exe
 - Based on your preference, start the installer

Exercise: FCS Central

In this exercise, you will:

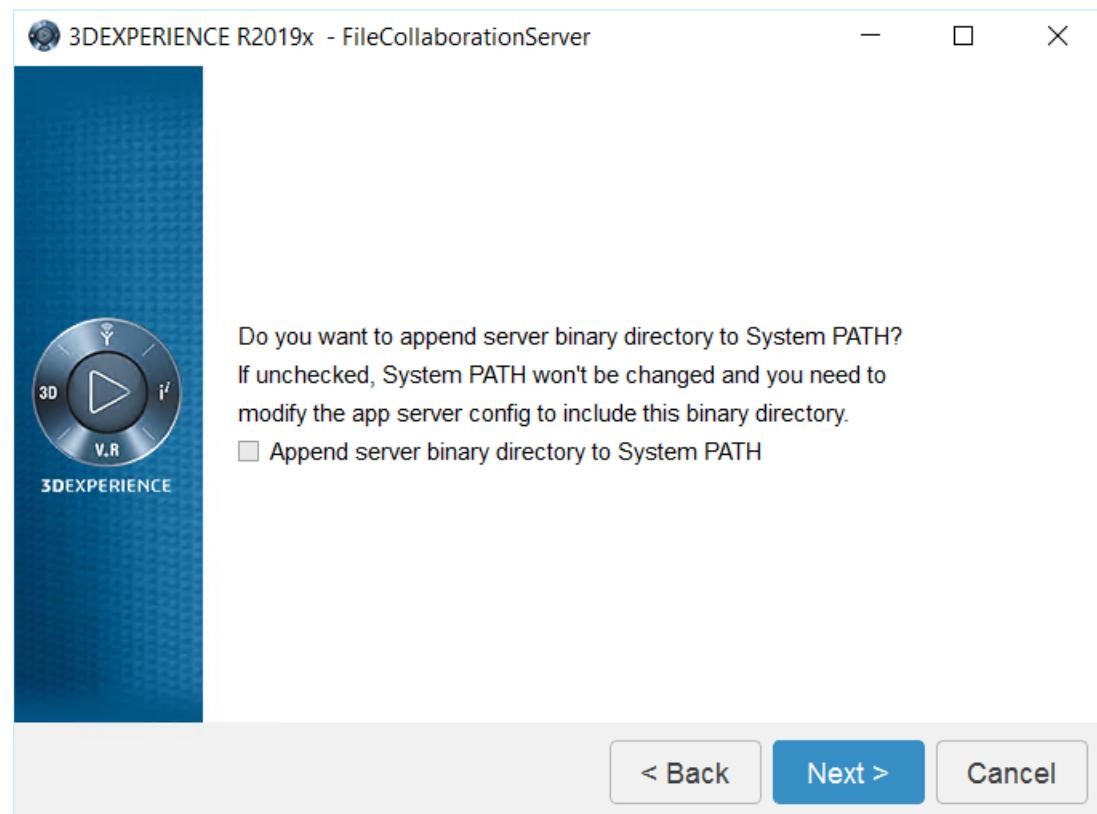
1. Install the GA FCS Central
2. Perform the GA post configuration
3. Validate the GA service
4. Install the FP FCS Central
5. Perform the FP post configuration
6. Validate the FP service



30 minutes

FCS Central : GA Media Installer

1. Using the Cheat-sheet on the next page proceed to the installation, don't forget the installer options related to:
 - a. Append server binary directory to System PATH → No



FCS Central: Key Parameters

- ▶ During the Installation you will be queried about the following parameters:

Cheat-Sheet:



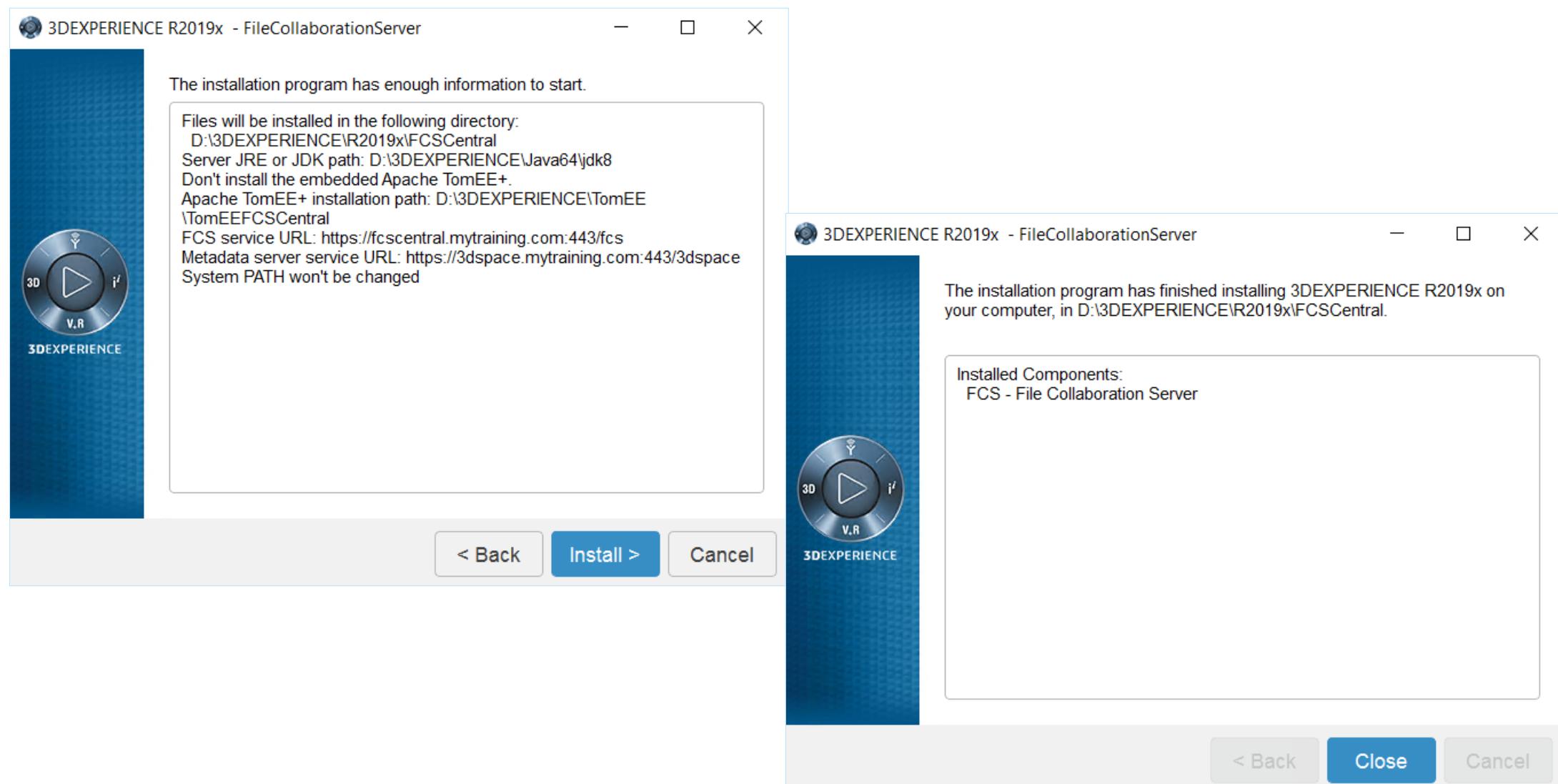
Make sure to enter **mytraining.com** instead of **mydomain**. This DNS is specific for this training and would vary in the real world.

Steps	Key	Value
01	Installer location	<Your Media Path>\AM_3DEXP_Platform.AIOS\1\FileCollaborationServer
02	Service Installer	Setup.exe
03	Installation Directory	D:\3DEXPERIENCE\R2019x\FCSCentral
04	JRE or JDK PATH	D:\3DEXPERIENCE\Java64\jdk8
05	Install the embedded Server JRE	No
06	Install the embedded Apache TomEE+	No
07	Apache TomEE+ Installation path	D:\3DEXPERIENCE\TomEE\TomEEFCSCentral
08	FCS Service URL	https://fcscentral.mytraining.com:443/fcs
	Metadata server service URL	https://3dspace.mytraining.com:443/3dspace
09	Append server binary directory to System PATH	No

There is no need to change the default "fcs" "Application Name" since each FCS will be in its own.

FCS Central: GA Media Installer

It is strongly recommended that you copy the installation information into a text file prior to clicking the “install” button.

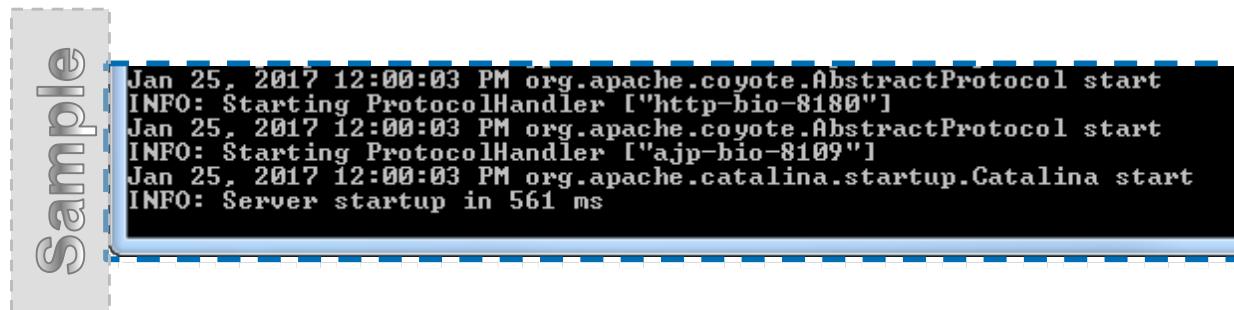


This is selectable text, easily copied into a text file.

FCS Central: GA Post Installation

FCS installer requires some preparation.

- a. Start and stop TomEE+ (or use the Desktop icon)
 - i. <TomEEFCSCentral Path>\bin\startup.bat, wait for it to finish deploying the application...



- b. <TomEEFCSCentral Path>\bin\shutdown.bat
Wait for it to finish shutting down the application properly before closing the terminal ...
- c. Check the logs for any error and Clean log folder
 - i. <TomEEFCSCentral Path>\logs*.log

FCS Central : GA Post Installation

- d. Go to your **3DEXPERIENCE** folder and edit the file: **D:\3DEXPERIENCE\conf\3dexperience.conf** In the In the section "**FCSCentral**" replace the line:

#XXXX Future fragment file XXXX

With:

`include D:\3DEXPERIENCE\R2019x\FCSCentral\win_b64\templates\fcs_httpd_fragment.conf`

Edit the fragment file :

`D:\3DEXPERIENCE\R2019x\FCSCentral\win_b64\templates\fcs_httpd_fragment.conf`

Validate the values of the "**port**" and "**FQDN**" in the fragment file.

`http://fcscentral.mytraining.com:8880`



Make sure to use the fragment as it contains the correct Cross Origin Resource Sharing (CORS) configuration.

- e. Copy the "UserIntentions_CODE.xml" file in folder

`D:\3DEXPERIENCE\R2019x\FCSCentral\InstallData`

To folder:

`D:\3DEXPERIENCE\conf\UserIntentions\`

and rename it to:

`UserIntentions_FCSCentral.xml`

FCS Central : GA Technical Validation

"GA technical validation" refers to validation of the installation process, i.e. did it install without errors and did it complete what it was supposed to do. There are 3 validation steps: installer log, database and expected file deployment review.

Defining the service code installation path: D:\3DEXPERIENCE\R2019x\FCSCentral

1. Installer error log should be 0 bytes and can be found at:

<Code Path>\InstallData\log\CODE\win_b64\.....media<Latest timestamp>\Errors.log & *Stderr.txt
Size should be 0 bytes

If you had to modify values in the installer dialogues you will see these "errors" in the Errors.log you will need to validate if any of these messages require corrective action.

2. Expected file and/or folder creation:

- o <TomEEFCSCentral Path>\webapps\fcs.war
- o <TomEEFCSCentral Path>\bin\setenv.bat

```
| REM Start Default 3DXEP TomEE+ Configuration
| set JAVA_HOME=D:\3DEXPERIENCE\Java64\jdk8
| set JRE_HOME=%JAVA_HOME%\jre
| set CATALINA_HOME=D:\3DEXPERIENCE\TomEE\TomEEFCSCentral
```

FCS Central: FP Service Installer

There is no "Global 3DEXPERIENCE platform installer" for FP you must each service individually.

- a. Ensure that "**TomEEFCSCentral**" is stopped

D:\3DEXPERIENCE\TomEE\TomEEFCSCentral\bin\shutdown.bat

If you do not stop TomEE+, the installer will not be able to replace certain files automatically, this can result in errors in the log or unexpected behavior.

- b. Use the normal "Service Installer":

<Your Media PATH>\Part_3DEXP_Platform.Windows64\2\Software\

You will find:

- o FileCollaborationServer-V6R2019x.HF2.Windows64.zip

- c. Unzip the proper OS version to <Your Installer PATH>

- o <Your Installer PATH>\FileCollaborationServer.Windows64\1

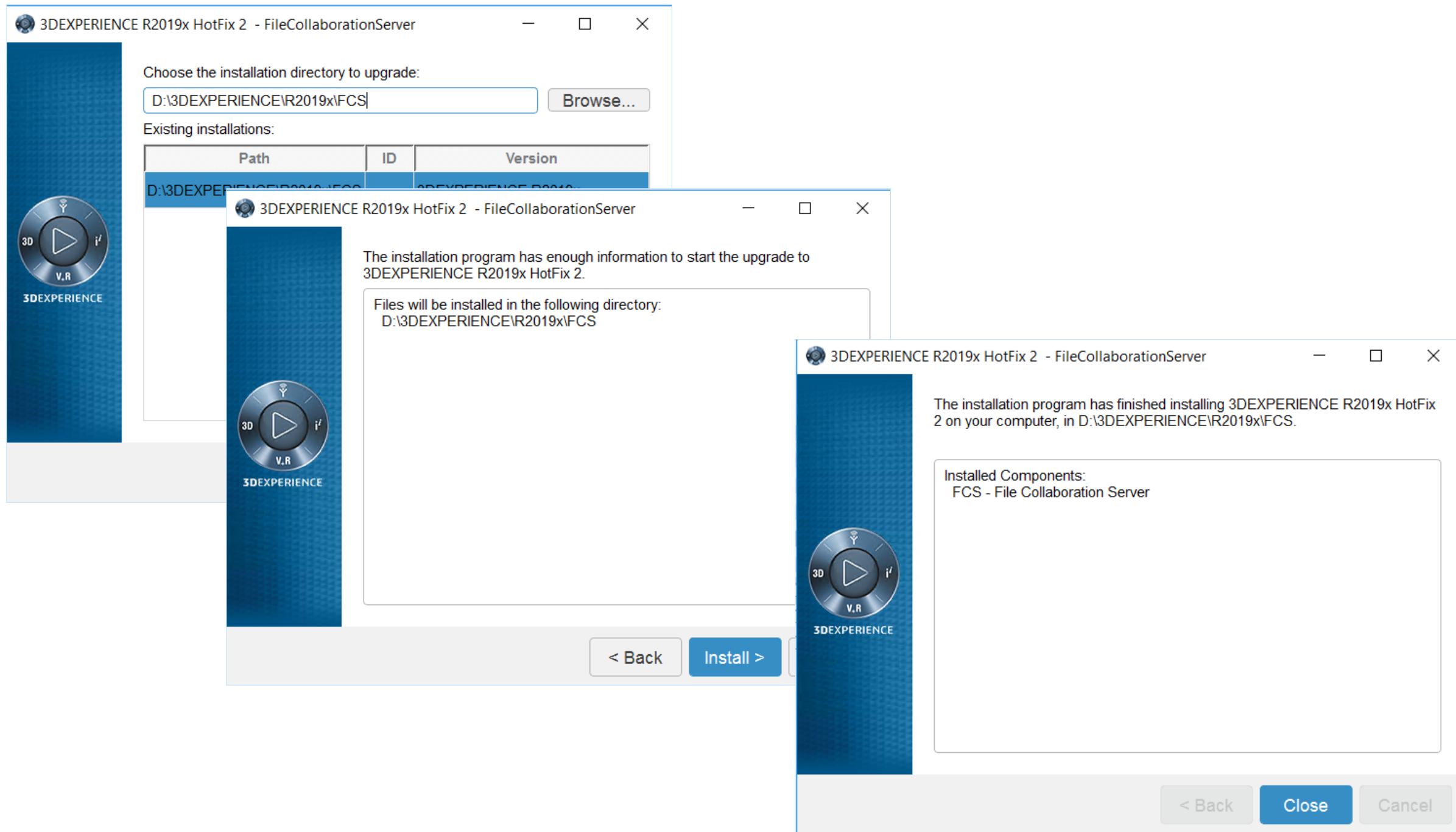
- d. Navigate to this path and find:

GUI: setup.exe

TUI: StartTUI.exe

FCS Central: FP Service Installer

1. As with GA, it is recommended that you log the Installation Overview window containing your input values.
 - a. If you choose to take a screen shot, the window can be resized so you can see all the values clearly.
 - b. Proceed with the update using the same key values.



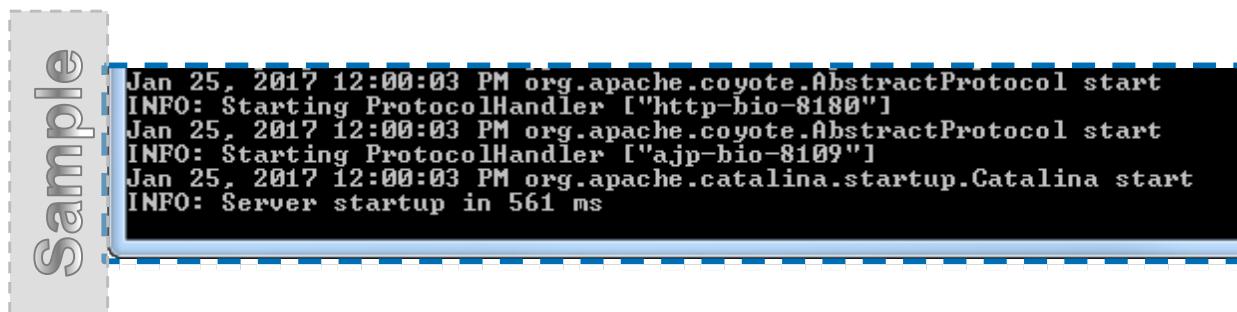
FCS Central: FP Post Installation

FCS installer does not require much, simply some preparation.

- a. Start and stop TomEE+ (or use the Desktop icon)

`<TomEEFCSCentralPath>\bin\startup.bat`

Wait for it to finish deploying the application.



A screenshot of a terminal window titled "Sample". The window contains the following log output:

```
Jan 25, 2017 12:00:03 PM org.apache.coyote.AbstractProtocol start
INFO: Starting ProtocolHandler ["http-bio-8180"]
Jan 25, 2017 12:00:03 PM org.apache.coyote.AbstractProtocol start
INFO: Starting ProtocolHandler ["ajp-bio-8109"]
Jan 25, 2017 12:00:03 PM org.apache.catalina.startup.Catalina start
INFO: Server startup in 561 ms
```

`< TomEEFCSCentralPath>\bin\shutdown.bat`

Wait for it to finish closing properly the terminal.

FCS Central : Technical Validation

"FP technical validation" refers to validation of the installation process, i.e. did it install without errors and did it complete what it was supposed to do.

Defining the service code installation path: D:\3DEXPERIENCE\R2019x\FCSCentral

1. Installer error log should be 0 bytes and can be found at:

<Code Path>\InstallData\log\CODE\win_b64\.....media<Latest timestamp>\Errors.log & *Stderr.txt

Size should be **0 bytes**

You should see 2 "...media..." folders, one for GA and a new one for the FP.

If you had to modify values in the installer dialogues you will see these "errors" in Errors.log you will need to validate if any of these messages require corrective action.

2. Expected file creation or updates:

<TomEEFCSCentral Path>\webapps\fcs.war

<TomEEFCSCentral Path>\bin\setenv.bat

```
| REM Start Default 3DXEP TomEE+ Configuration
| set JAVA_HOME=D:\3DEXPERIENCE\Java64\jdk8
| set JRE_HOME=%JAVA_HOME%\jre
| set CATALINA_HOME=D:\3DEXPERIENCE\TomEE\TomEEFCSCentral
```

FCS Central : Technical Validation

3. Edit the fragment file :

D:\3DEXPERIENCE\R2019x\FCSCentral\win_b64\templates\fcs_httpd_fragment.conf

Validate the values of the “port” and “FQDN” in the fragment file.

http://fcscentral.mytraining.com:8880

Make sure that the CORS (Cross-Origin Resource Sharing) is activated for the FCS.

```
<Location /fcs>
RequestHeader set x-forwarded-hostname "fcscentral.mytraining.com"
RequestHeader set x-forwarded-proto "https"
RequestHeader set x-forwarded-port "443"

ProxyPass . http://fcscentral.mytraining.com:8880/fcs . disableReuseOn
ProxyPassReverse . http://fcscentral.mytraining.com:8880/fcs

# Cross-origin resource sharing (CORS)
SetEnvIf Origin "https://(.+\.?)(mytraining.com) (:\\d{1,5})?$" origin_is=$0
Header setifempty Access-Control-Allow-Origin %{origin_is}e env=origin_is
Header set Access-Control-Allow-Credentials "true"
Header set Access-Control-Allow-Methods "GET, POST, OPTIONS, HEAD, PUT, DELETE, PATCH"
Header set Access-Control-Allow-Headers "accept,x-requested-method,origin,x-requested-with,x-request,cache-control,content-type"
Header set Access-Control-Max-Age "600"
Header set Vary "Origin"
</Location>
```

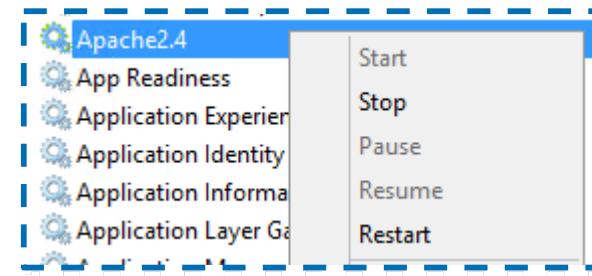
Observe that the contents of the CORS header declaration are also in the fragment file.

FCS Central : Validation

In this section you will validate the service functionality and part of the infrastructure deployment

- a. Apache
- b. Redirect to FCS Central TomEE+

1. Start the Apache service if not started
 - a. Open service manager



Each time you test a new URL it is recommended that you add it to the IE "Favorites bar" (rename it for ease).

2. Start TomEE+
 - a. <TomEEFCSCentral Path>\bin\startup.bat

Wait for it to finish deploying the application...

Access the URL:

<https://fcscentral.mytraining.com:443/fcs/servlet/fcs/about>



FCS Central has no user interface, only a status is available.

fcscentral.mytraining.com/fcs/servle X +

Getting Started file:///D:/3DEXPERIEN...

MatrixOne EFCS About Page

Total Tickets Processed	0
eMatrixServletRMI Version	V6R2019x.HF2
Agents	
System Current Time	1553237112659
System Properties	

org.apache.myfaces.EXPRESSION_FACTORY org.apache.el.ExpressionFactoryImpl
org.apache.myfaces.EL_RESOLVER_COMPARATOR org.apache.myfaces.el.unified.OpenWebBeansELResolverComparator
org.apache.myfaces.LOG_WEB_CONTEXT_PARAMS false
ematrix server host

FCS Central: Uninstallation

Windows normal uninstall procedure:

- a. Stop TomEE+ if it is running <Service Name>
- b. There is also a Uninstall.bat file in the D:\3DEXPERIENCE\R2019x\<Service Name> with which you can uninstall a service.
- c. Remove the folder
 - i. D:\3DEXPERIENCE\R2019x\<Service Name>
 - ii. D:\3DEXPERIENCE\TomEE\TomEE<Service Name>

Exercise Recap: FCS Central

In this exercise, you have:

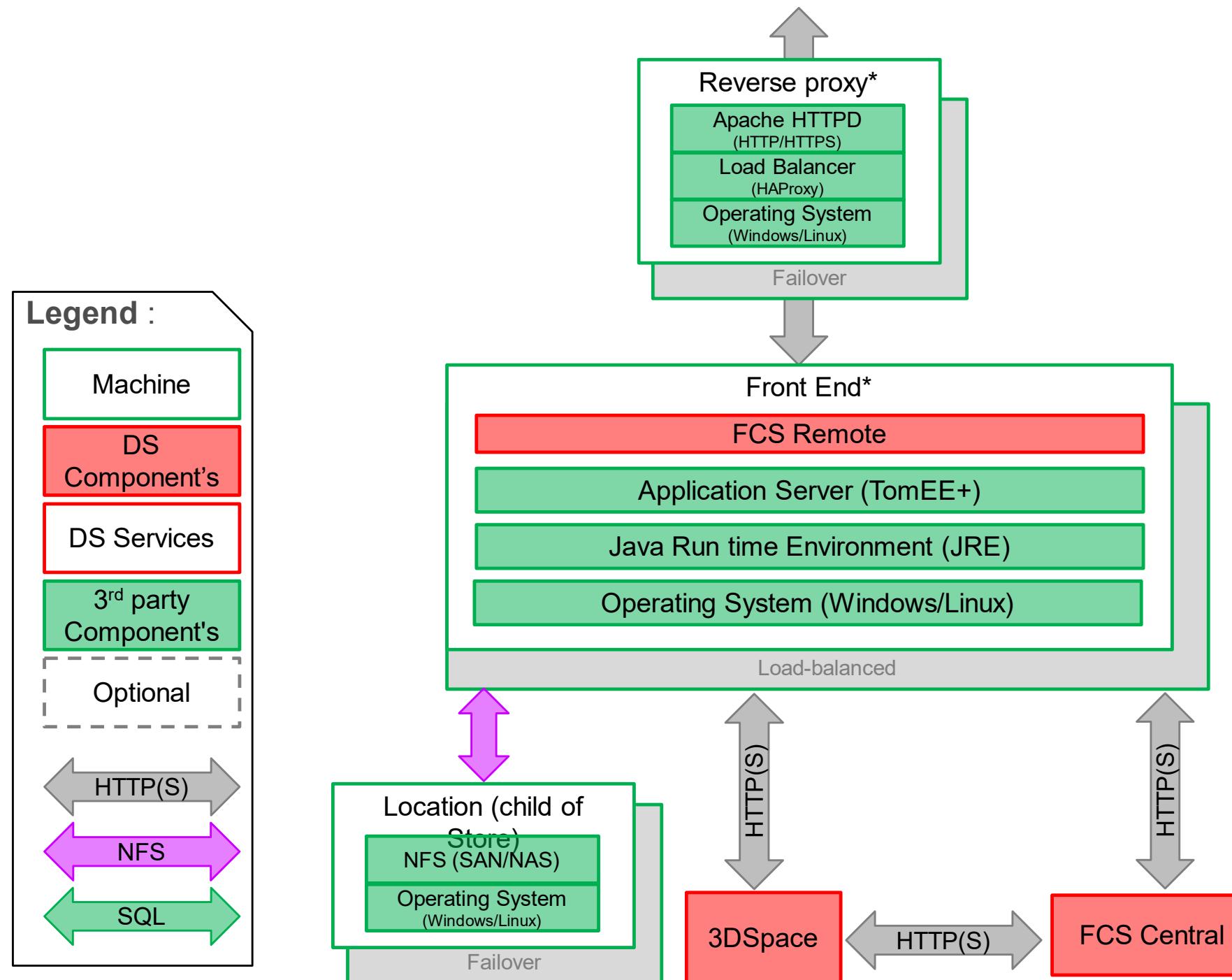
- ✓ Installed the GA FCS Central
- ✓ Performed the GA post configuration
- ✓ Validated the GA service
- ✓ Installed the FP FCS Central
- ✓ Performed the FP post configuration
- ✓ Validated the FP service

About FCS Remote

- ▶ The File Collaboration Server (FCS) enables administrators to distribute file data across the enterprise for optimal upload and download performance. It provides location, checkout, and copy operations on the data managed by the 3DSpace Service.
- ▶ The Remote FCS is designed for remote users. A remote user is a user that access the application from a location separated by a significant difference from the data center hosting the **3DEXPERIENCE** platform. Having an FCS near the end user allows for faster access to files when compared to pulling them across large distances over slow network links. It is usually recommended to have an FCS at a remote location if file access or the network is slow.
- ▶ The FCS Remote installation will be performed Silently.

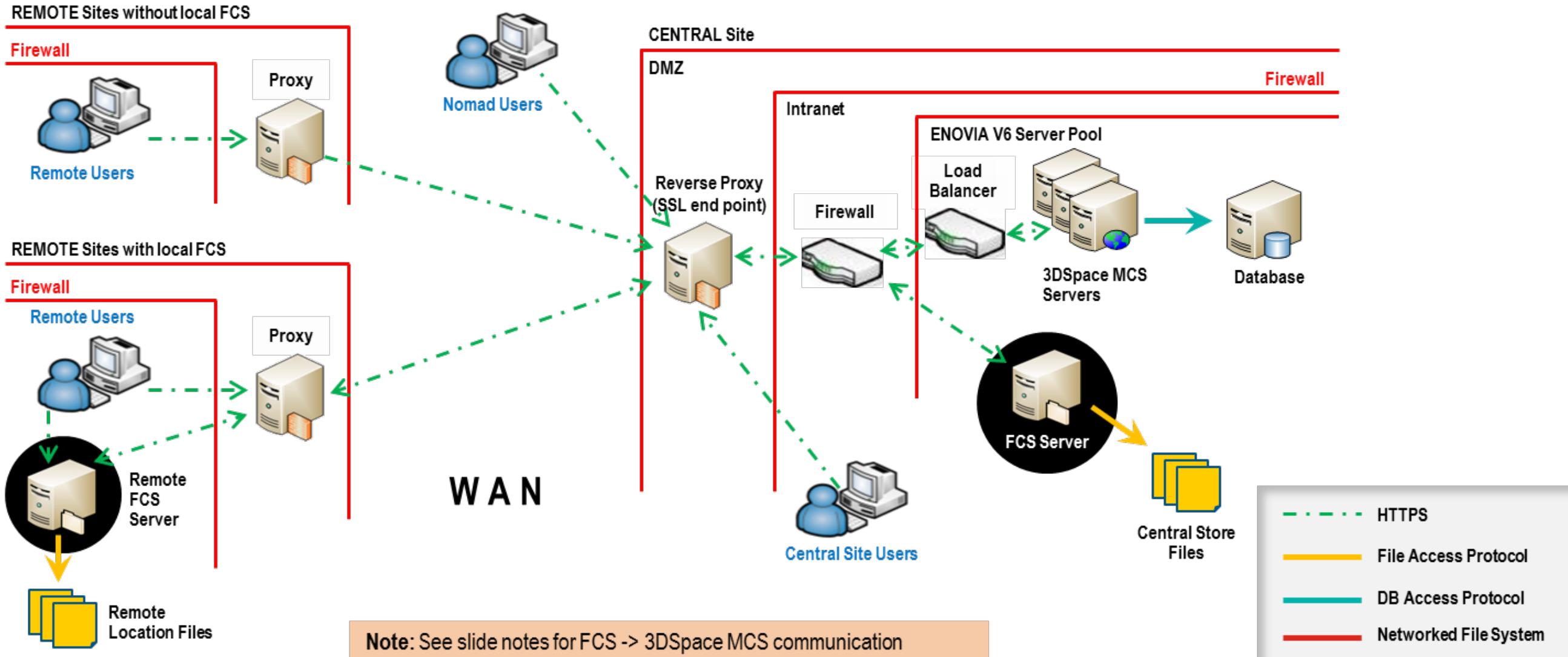


FCS Remote: Architecture



* Always consult the “Program Directory” for version and latest news.

FCS Architecture



FCS Remote: Pre-Check

You should have already prepared the groundwork required to proceed with this service installation, you will need the following pre-requisites:

- TomEE + (stopped)
 - 1 TomEE+ is dedicated for the service
 - 1 SSL certificate
 - Have installed the FCS Central GA code
- Java



You will not be able to proceed if any of these are missing.

Exercise: FCS Remote

In this exercise, you will:

1. Install the GA FCS Remote
2. Perform the GA post configuration
3. Validate the GA service
4. Install the FP FCS Remote
5. Perform the FP post configuration
6. Validate the FP service



30 minutes

FCS Remote: Key Parameters

Since this will be a "Silent" installation, there are key parameters that need to be updated in the "UserIntentions_FCSRemote.xml" file.

1. Copy the file D:\3DEXPERIENCE\R2019x\FCSCentral\InstallData\UserIntentions_CODE.xml to D:\3DEXPERIENCE\conf\UserIntentions\UserIntentions_FCSRemote.xml.
2. Edit the UserIntentions_FCSRemote.xml with the FCS Remote values.

Cheat-Sheet :

Steps	Key	Value
01	Installer location	<Your Media Path>\AM_3DEXP_platform.AILOS\1\FileCollaborationServer
02	Service Installer	StartTUI.exe
03	TARGET_PATH	D:\3DEXPERIENCE\R2019x\FCSRemote
05	TomEE+Path	D:\3DEXPERIENCE\TomEE\TomEEFCSRemote
06	fcsSrvURL	https://fcsremote.mytraining.com:443/fcs
07	Add the new entry after TomEE+Path	<SetVariable name="DSYRegIdent" value="FCSRemote"/>

 Make sure to enter **mytraining.com** instead of **mydomain**. This DNS is specific for this training and would vary in the real world.

```
<?xml version="1.0" encoding="UTF-8"?>
<UserIntentions mediaName="CODE\win_b64\ENOVIA_FCS.media" mediaVersion="421">
  <SetVariable name="Java@jdk" value="D:\3DEXPERIENCE\Java64\jdk8"/>
  <SetVariable name="installEmbeddedServerJRE" value="false"/>
  <SetVariable name="install_EMBEDDED_TomEE" value="false"/>
  <SetVariable name="TomEEPath" value="D:\3DEXPERIENCE\TomEE\TomEEFCSRemote"/>
  <SetVariable name="DSYRegIdent" value="FCSRemote"/>
  <SetVariable name="fcsSrvURL" value="https://fcsremote.mytraining.com:443/fcs"/>
  <SetVariable name="X3DCSMA_3DSpaceURL" value="https://3dspace.mytraining.com:443/3dspace"/>
  <SetVariable name="BOOL_UpdateFcsEnvPath" value="false"/>
  <SetVariable name="DSYWELCOMEPanel"/>
  <SetVariable name="TARGET_PATH" value="D:\3DEXPERIENCE\R2019x\FCSRemote"/>
  <SetVariable name="FinishPanel"/>
</UserIntentions>
```

FCS Remote: GA Media Installer

GA core components have 2 different installation methodologies:

- "Service Installer" will be using the already extracted FCS Central installer :
- <Your Installer PATH>\FileCollaborationServer.Windows64\1\
- The installer will use the same location that you used for the FCS Central, but this time you must use
 - TUI: StartTUI.exe
- Open a cmd/terminal using with Run as administrator and execute the following command:

```
cd <Your Installer PATH>\FileCollaborationServer-V6R2019x.  
Windows64\FileCollaborationServer.Windows64\1
```

```
StartTUI.exe --silent
```

```
D:\3DEXPERIENCE\conf\UserIntentions\UserIntentions_FCSRemote.xml
```

```
E:\Media\FileCollaborationServer.Windows64\1>StartTUI.exe --silent D:\3DEXPERIENCE\conf\UserIntentions\UserIntentions_FCSRemote.xml  
INFO: 64-bit OS  
INFO: Installer found in current media: "E:\Media\FileCollaborationServer.Windows64\1\inst\win_b64\code\bin\DSYInsAppli  
TUI.exe".  
Using TARGET_PATH value: D:\3DEXPERIENCE\R2019x\FCSRemote  
Installation in progress...  
Logs are located in "D:\3DEXPERIENCE\R2019x\FCSRemote\InstallData\log\20190630T160652-0400_CODE_win_b64_ENOVIA_FCS.media  
Copying files...  
Installation in progress...  
Installing files...
```



Any typos or errors in the User Intention file will result in an immediate error.

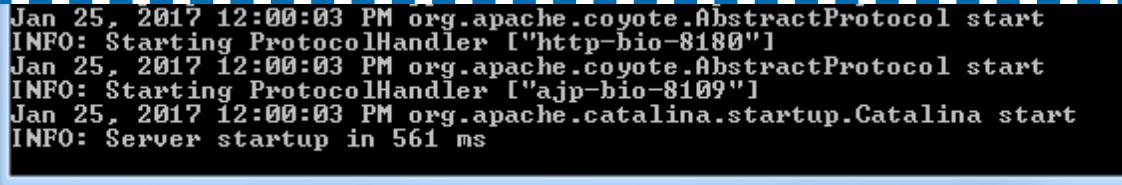
FCS Remote: GA Post Installation

Silent installation will not change these steps. If you wish you could add them to a batch or shell file that adds these steps to a silent installer batch file.

FCS installation requires some additional preparation

- a. TomEE+ code PATH: [D:\3DEXPERIENCE\TomEE\TomEEFCSRemote](#)
- b. Start and stop TomEE+ (or use your Desktop icon)
 - i. <TomEEFCSRemote Path>\bin\startup.bat, wait for it to finish deploying the application.

Sample



```
Jan 25, 2017 12:00:03 PM org.apache.coyote.AbstractProtocol start
INFO: Starting ProtocolHandler ["http-bio-8180"]
Jan 25, 2017 12:00:03 PM org.apache.coyote.AbstractProtocol start
INFO: Starting ProtocolHandler ["ajp-bio-8109"]
Jan 25, 2017 12:00:03 PM org.apache.catalina.startup.Catalina start
INFO: Server startup in 561 ms
```

- ii. <TomEEFCSRemote Path>\bin\shutdown.bat
Wait for it to finish shutting down before closing the terminal.
- c. Check the logs for any errors and delete the logs in the folder
 - i. <TomEEFCSRemote Path>\logs*.log

FCS Remote: GA Post Installation

d. Go to your **3DEXPERIENCE** folder and edit the file: D:\3DEXPERIENCE\conf\3dexperience.conf

In the **FCSRemote** section replace the line:

```
#XXXX Future fragment file XXXX
```

With:

```
include D:\3DEXPERIENCE\R2019x\FCSRemote\win_b64\templates\fcs_httpd_fragment.conf
```

Edit the fragment file :

```
D:\3DEXPERIENCE\R2019x\FCSRemote\win_b64\templates\fcs_httpd_fragment.conf
```

Validate the values of the “**port**” and “**FQDN**” in the fragment file.

```
http://fcsremote.mytraining.com:8980
```

FCS Remote: GA Technical Validation

Silent installation will not change these steps. If you wish you could add them to a batch or shell file that adds these steps to a silent installer batch file.

- a. Define the code installation PATH: D:\3DEXPERIENCE\R2019x\FCSRemote
- b. Installer error log should be 0 bytes and can be found at:
 - a. <Code Path>\InstallData\log\CODE\win_b64\.....media<Latest timestamp>\Errors.log & *Stderr.txt
Size should be 0 bytes

If you had to modify values in the installer dialogues you will see these “errors” in the Errors.log you will need to validate if any of these messages require corrective action.

- c. Expected file and/or folder creation:
 - a. <TomEEFCSRemote Path>\webapps\fcs.war
 - b. <TomEEFCSRemote Path>\bin\setenv.bat

```
REM Start Default 3DXEP TomEE+ Configuration
set JAVA_HOME=D:\3DEXPERIENCE\Java64\jdk8
set JRE_HOME=%JAVA_HOME%\jre
set CATALINA_HOME=D:\3DEXPERIENCE\TomEE\TomEEFCSRemote
```

FCS Remote: FP Service Installer

Silent installation will also allow you to apply the FP using the same procedure, a couple of notes on this procedure:

a. Your media location must point to the FP location

b. Ensure that "TomEEFCSRemote" is stopped

D:\3DEXPERIENCE\TomEE\TomEEFCSRemote\bin\shutdown.bat

If you do not stop TomEE+, the installer will not be able to replace certain files automatically, this can result in errors in the log or unexpected behavior.

c. Use the normal "Service Installer":

<Your Media PATH>\Part_3DEXP_platform.Windows64\1\Software\

You will find:

o FileCollaborationServer-V6R2019x.HF2.Windows64.zip

d. Unzip the proper OS version to <Your Installer PATH>

o <Your Installer PATH>\FileCollaborationServer.Windows64\1

e. Navigate to this path and find:

GUI: setup.exe

TUI: StartTUI.exe

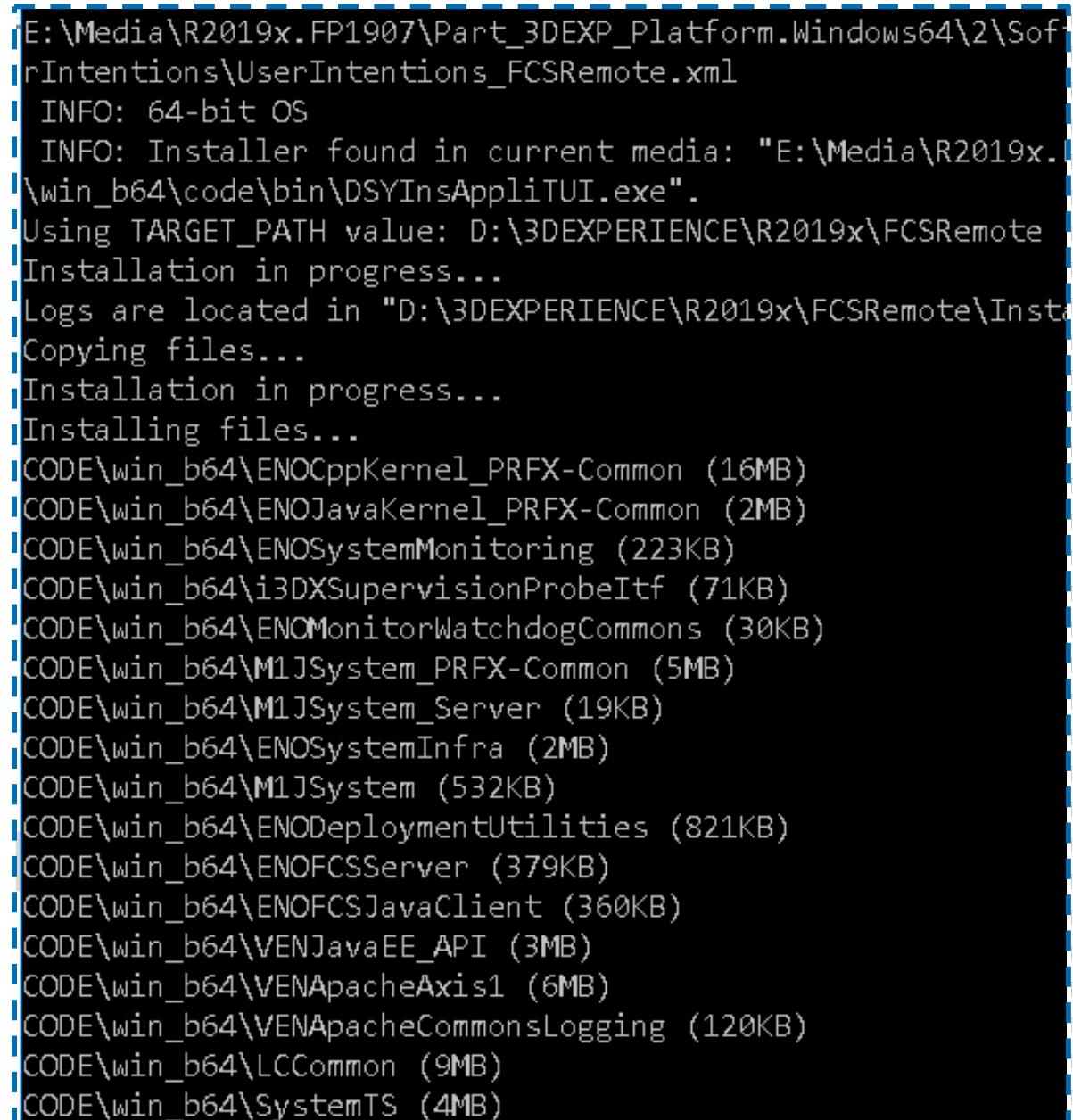
f. For silent installation, use

TUI: StartTUI.exe

FCS Remote: FP Service Installer

- g. Open a cmd/terminal using “dsadmin” account with “Run as Administrator” and execute the following command:

```
cd <Your Installer PATH>\FileCollaborationServer-
V6R2019x.HF2.Windows64\FileCollaborationServer.Windows64\1
StartTUI.exe --silent
D:\3DEXPERIENCE\conf\UserIntentions\UserIntentions_FCSRemote.xml
```



```
E:\Media\R2019x.FP1907\Part_3DEXP_Platform.Windows64\2\So
rIntentions\UserIntentions_FCSRemote.xml
INFO: 64-bit OS
INFO: Installer found in current media: "E:\Media\R2019x.
\win_b64\code\bin\DSYInsApplTUI.exe".
Using TARGET_PATH value: D:\3DEXPERIENCE\R2019x\FCSRemote
Installation in progress...
Logs are located in "D:\3DEXPERIENCE\R2019x\FCSRemote\Insta
Copying files...
Installation in progress...
Installing files...
CODE\win_b64\ENOCppKernel_PRFX-Common (16MB)
CODE\win_b64\ENOJavaKernel_PRFX-Common (2MB)
CODE\win_b64\ENOSystemMonitoring (223KB)
CODE\win_b64\i3DXSupervisionProbeItf (71KB)
CODE\win_b64\ENOMonitorWatchdogCommons (30KB)
CODE\win_b64\M1JSystem_PRFX-Common (5MB)
CODE\win_b64\M1JSystem_Server (19KB)
CODE\win_b64\ENOSystemInfra (2MB)
CODE\win_b64\M1JSystem (532KB)
CODE\win_b64\ENODeploymentUtilities (821KB)
CODE\win_b64\ENOFCSERVER (379KB)
CODE\win_b64\ENOFCSServer (360KB)
CODE\win_b64\VENJavaEE_API (3MB)
CODE\win_b64\VENApacheAxis1 (6MB)
CODE\win_b64\VENApacheCommonsLogging (120KB)
CODE\win_b64\LCCommon (9MB)
CODE\win_b64\SystemTS (4MB)
```

FCS Remote: FP Post Installation

Silent installation will not change these steps. If you wish you could add them to a batch or shell file that adds these steps to a silent installer batch file.

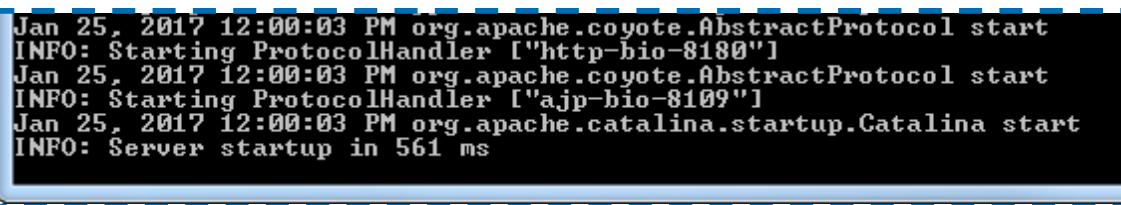
a. TomEE+ code PATH: D:\3DEXPERIENCE\TomEE\TomEEFCSRemote

b. Start and stop TomEE+ (or use your Desktop icon)

<TomEEFCSRemote Path>\bin\startup.bat

Wait for it to finish deploying the application.

Sample



```
Jan 25, 2017 12:00:03 PM org.apache.coyote.AbstractProtocol start
INFO: Starting ProtocolHandler ["http-bio-8180"]
Jan 25, 2017 12:00:03 PM org.apache.coyote.AbstractProtocol start
INFO: Starting ProtocolHandler ["ajp-bio-8109"]
Jan 25, 2017 12:00:03 PM org.apache.catalina.startup.Catalina start
INFO: Server startup in 561 ms
```

<TomEEFCSRemote Path>\bin\shutdown.bat

Wait for it to finish shutting down before closing the terminal.

FCS Remote: FP Technical Validation

1. "FP technical validation" refers to validation of the installation process, i.e. did it install without errors and did it complete what it was supposed to do. There are 3 validation steps: installer log, database and expected file deployment review.
2. Define the code installation PATH: D:\3DEXPERIENCE\R2019x\FCSRremote
3. Installer error log should be 0 bytes and can be found at:
<Code Path>\InstallData\log\CODE\win_b64\.....media<Latest timestamp>\Errors.log & *Stderr.txt
Size should be 0 bytes
You should see 2 "...media..." folders, one for the GA and a new one for the FP.
1. Note: If you had to modify values in the installer dialogues you will see these "errors" in Errors.log you will need to validate if any of these messages require corrective action.
4. Expected file creation or updates:
 - a. <TomEEFCSRPath>\webapps\fcs.war
 - b. <TomEEFCSRPath>\bin\setenv.bat

```
| REM Start Default 3DXEP TomEE+ Configuration
| set JAVA_HOME=D:\3DEXPERIENCE\Java64\jdk8
| set JRE_HOME=%JAVA_HOME%\jre
| set CATALINA_HOME=D:\3DEXPERIENCE\TomEE\TomEEFCSRremote
```

FCS Remote: Technical Validation

Make sure that the CORS (Cross-Origin Resource Sharing) is activated for the FCS.

```
<Location /fcs>
  RequestHeader set x-forwarded-hostname "fcsremote.mytraining.com"
  RequestHeader set x-forwarded-proto "https"
  RequestHeader set x-forwarded-port "443"

  ProxyPass http://FCSRemote.mytraining.com:8980/fcs disableReuseOn
  ProxyPassReverse http://FCSRemote.mytraining.com:8980/fcs

  # Cross-origin resource sharing (CORS)
  SetEnvIf Origin "https://(.+\.)(mytraining\.com)(:\d{1,5})?$" origin_is=$0
  Header setifempty Access-Control-Allow-Origin %{origin_is}e env=origin_is
  Header set Access-Control-Allow-Credentials "true"
  Header set Access-Control-Allow-Methods "GET, POST, OPTIONS, HEAD, PUT, DELETE, PATCH"
  Header set Access-Control-Allow-Headers "accept,x-requested-method,origin,x-requested-with,x-request,cache-control,content-type"
  Header set Access-Control-Max-Age "600"
  Header set Vary "Origin"
</Location>
```

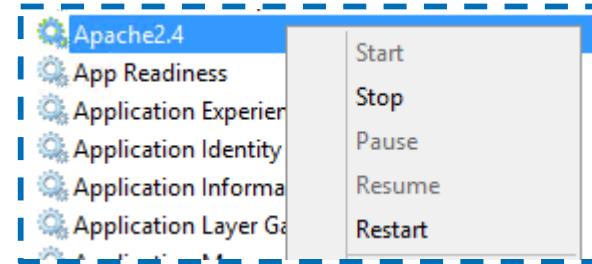
Observe that the contents of the CORS header declaration are also in the fragment file.

FCS Remote: Validation

In this section you will validate the service functionality and part of the infrastructure deployment

- a. Apache
- b. Redirect to FCS Remote TomEE+

1. Start the Apache service if not started
 - a. Open service manager



Each time you test a new URL it is recommended that you add it to the IE "Favorites bar" (rename it for ease).

2. Start TomEE+
 - a. <TomEEFCSRemote Path>\bin\startup.bat

Wait for it to finish deploying the application.

Access the URL: <https://fcsremote.mytraining.com:443/fcs/servlet/fcs/about>

FCS Remote as no user interface, only a status is available:



fcsremote.mytraining.com/fcs/servl... X +

Getting Started file:///D:/3DEXPERIEN...

MatrixOne EFCS About Page

Total Tickets Processed 0

eMatrixServletRMI Version V6R2019x.HF2

Agents

System Current Time 1553237278362

System Properties

org.apache.myfaces.EXPRESSION_FACTORY	org.apache.el.ExpressionFactoryImpl
org.apache.myfaces.EL_RESOLVER_COMPARATOR	org.apache.myfaces.el.unified.OpenWebBeansELResolverComparator
org.apache.myfaces.LOG_WEB_CONTEXT_PARAMS	false
ematrix.server.host	

FCS Remote: Uninstallation

Windows normal uninstall procedure:

- a. Stop TomEE+ if it is running <Service Name>
- b. In "Programs and Features" uninstall:
 - i. "Dassault Systemes <Service Name> 3DEXPERIENCE R2019x"
- c. In "Programs and Features" uninstall:
"Dassault Systemes <Service Name> 3DEXPERIENCE R2019x"
- a. There is also a Uninstall.bat file in the D:\3DEXPERIENCE\R2019x\<Service Name> with which you can uninstall a service.
- b. Remove the folder
 - i. D:\3DEXPERIENCE\R2019x\<Service Name>
 - ii. D:\3DEXPERIENCE\TomEE\TomEE<Service Name>

Exercise Recap: FCS Remote

In this exercise, you have:

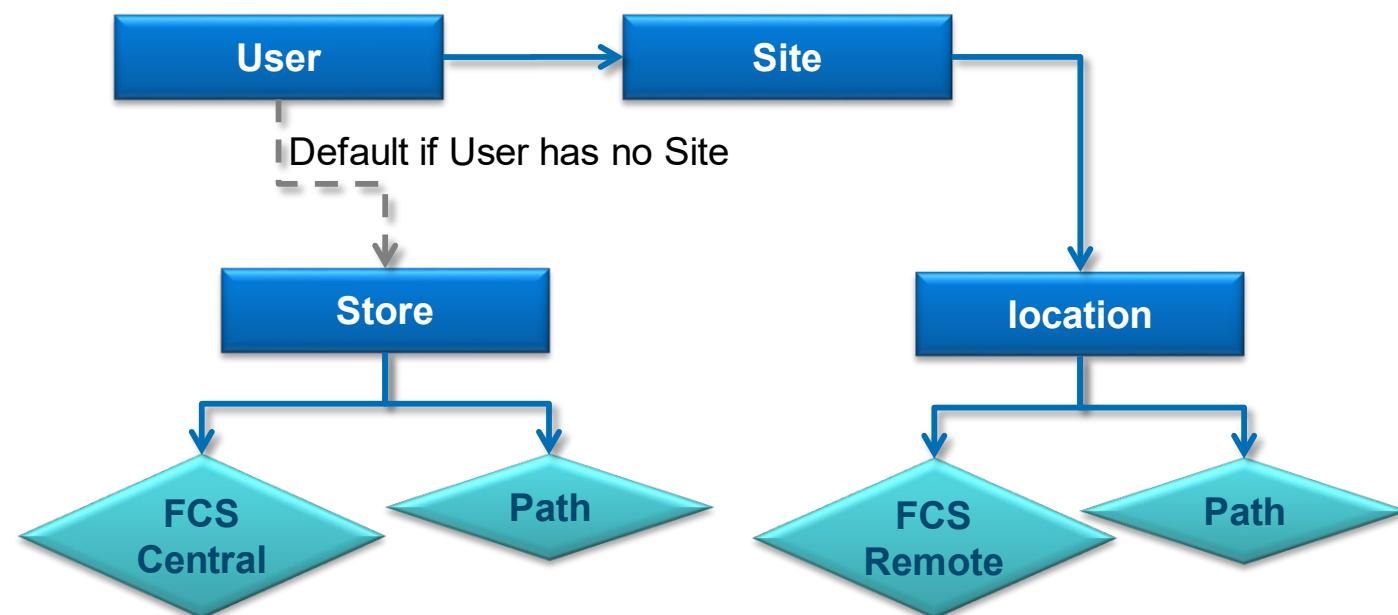
- ✓ Installed the GA FCS Remote
- ✓ Performed the GA post configuration
- ✓ Validated the GA service
- ✓ Installed the FP FCS Remote
- ✓ Performed the FP post configuration
- ✓ Validated the FP service

FCS Central and Remote: Post Installation Configuration

1. Once validated you will need to update the default FCS URL and path from using the 3DSpace server to use the new values of the FCS Central and FCS Remote.
2. The FCS Central is the primary repository for files. It is possible to use the embedded FCS that is built into 3DSpace as the central FCS, but this will put extra load on 3DSpace that can be better spent handling user requests and delivering the application and is not recommended.
 - a. Create the following folders:
 - Used by the FCS Central users
 - i. D:\3DEXPERIENCE\data\FCS\Central\Imagestore
 - ii. D:\3DEXPERIENCE\data\FCS\Central\plmx
 - iii. D:\3DEXPERIENCE\data\FCS\Central\store
 - Used by the FCS Remote users
 - i. D:\3DEXPERIENCE\data\FCS\Remote\Imagestore
 - ii. D:\3DEXPERIENCE\data\FCS\Remote\plmx
 - iii. D:\3DEXPERIENCE\data\FCS\Remote\store

FCS Central and Remote: Post Installation Configuration

Users are linked to a “Site”, Sites are linked to “Locations” and the Locations are directly linked to the FCS. During the training you defined two FCSs this will allow you to test associating users with an FCS. If a user does not have a “Site” defined the files will be checked into the default “STORE” definition (controlled by the policy object). It is possible to configure the STORE with a different URL or Path from the FCS Central location.



- ▶ Later in the training you will create Users and assign them Sites. For now the objective is to use the proper FCS URL and prepare the path structure for the FCS location definition.
- ▶ You can perform this in the 3DDashboard using the Enterprise control center tool.

FCS Central and Remote: Post Installation Configuration for Stores

It is a good practice to configure the STORE with a different URL and Path from the FCS Central installation.

“Central” FCS - Open an MQL command window:

```
set context user creator;  
modify store STORE path D:\3DEXPERIENCE\data\FCS\Central\STORE fcs  
'https://fcscentral.mytraining.com/fcs' ;  
modify store 'Image Store' path D:\3DEXPERIENCE\data\FCS\Central\ImageStore fcs  
'https://fcscentral.mytraining.com/fcs' ;  
modify store plmx path D:\3DEXPERIENCE\data\FCS\Central\plmx fcs  
'https://fcscentral.mytraining.com/fcs' ;
```

FCS Central and Remote: Post Installation Configuration for Sites and Locations

“Remote” FCS - Open an MQL command window:

```
add site REMOTE_SITE description "My Remote Location for Native Client";  
  
add location STORE_REMOTE_LOC path D:\3DEXPERIENCE\data\FCS\Remote\STORE fcs  
https://fcsremote.mytraining.com/fcs;  
add location IMAGESTORE_REMOTE_LOC path D:\3DEXPERIENCE\data\FCS\Remote\ImageStore fcs  
https://fcsremote.mytraining.com/fcs;  
add location PLMX_REMOTE_LOC path D:\3DEXPERIENCE\data\FCS\Remote\plmx fcs  
https://fcsremote.mytraining.com/fcs;  
  
modify site REMOTE_SITE add location STORE_REMOTE_LOC;  
modify site REMOTE_SITE add location IMAGESTORE_REMOTE_LOC;  
modify site REMOTE_SITE add location PLMX_REMOTE_LOC;  
  
modify store STORE          add location STORE_REMOTE_LOC;  
modify store 'Image Store' add location IMAGESTORE_REMOTE_LOC;  
modify store plmx           add location PLMX_REMOTE_LOC;
```

Core Configuration

In this lesson, you have installed the core components:

- ▶ 3DPassport
- ▶ 3DDashboard
- ▶ 3DSearch
- ▶ 3DSpace
- ▶ 3DNotification
- ▶ 3DComment
- ▶ 3DSwym
- ▶ FCS – Central and Remote

Lesson 6: 3DIndex and Post Operations

In this lesson, you will install 3DIndex and perform post operations.



3 hours

Topics to be covered:

1. **3DIndexing**
2. Post Operations
3. Native Client
4. Client Integration

Introduction

At this point you should now have installed all the server core elements and validated them.

This chapter will introduce the “3DIndexing Server” component and discuss configuration options and key parameters you need to manage for your installation.

With the **3DEXPERIENCE** platform R2019x 3DIndexing is still separate from 3DSearch and still uses its own installer.

About 3DIndexing Server

- ▶ The purpose of the 3DIndexing Server is to generate 3D thumbnails to allow 3D searching from a native Client such as CATIA, DELMIA or SIMULIA.
- ▶ For production environments you would typically install 3DSpace and 3DIndexing Server on different machines.
- ▶ For best performance, the generated index files should be located on the same machine as the 3DIndexing Server.

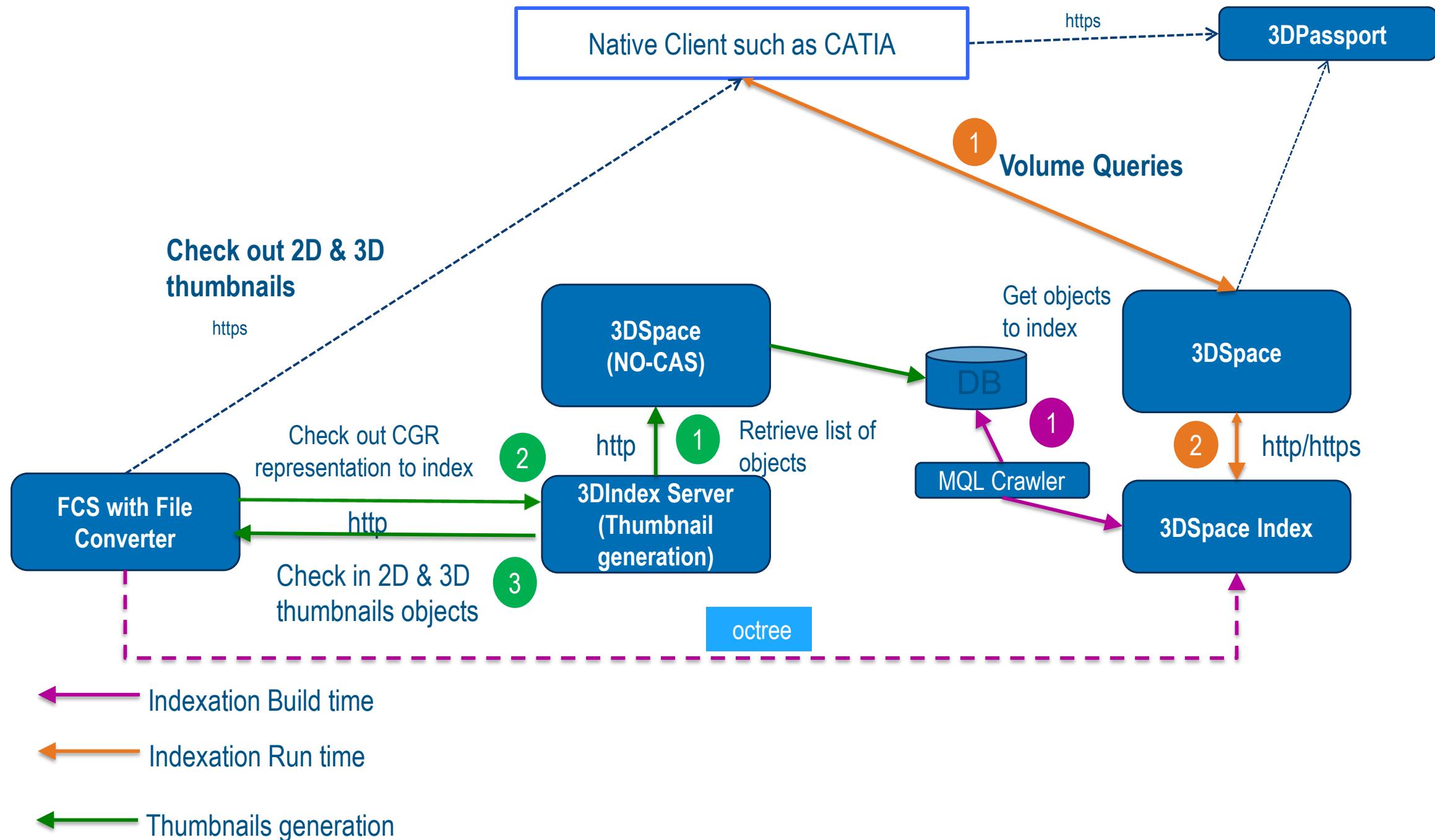


Installing the 3DIndexing Server will include the 3DIndex Engine (3DSpace side).

About Indexing Content

- ▶ When you are navigating and exploring the structure of your objects, the 2D thumbnails will help you quickly locate the content you are searching for. 3D thumbnails are visible in the **Preview** window when you consult the properties of the content.
- ▶ For intermediate nodes, you have two options: either you use the Dynamic 3D Thumbnail feature from the Native App or you can generate static 2D and 3D Thumbnails using the Thumbnail builder.

3DIndex Server

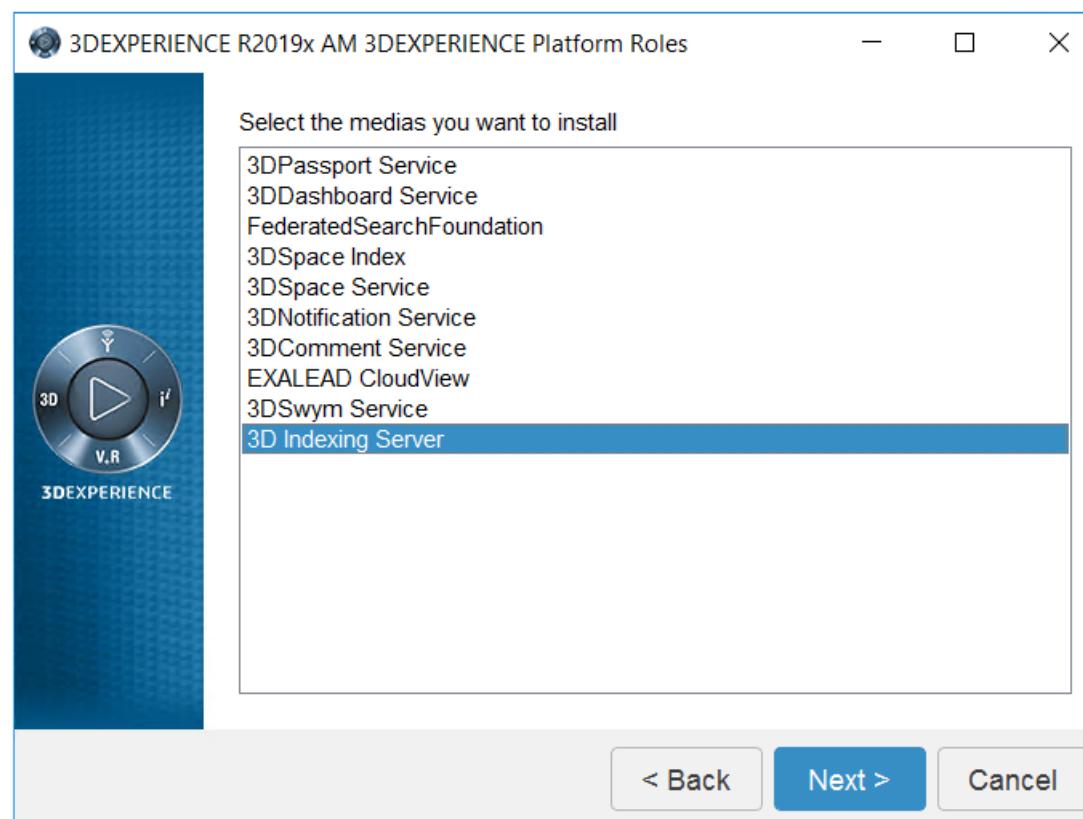


3DIndexing Server: Pre-Check

3DEXPERIENCE platform:-3DSpace- CAS,3DSpace Internal- NoCAS should be installed and running.



You will not be able to proceed if this is missing.



3DEXPERIENCE platform: Global 3DXPERIENCE platform Installer

You will use the "Global 3DEXPERIENCE platform Installer" located on the following media:

AM_3DEXP_platform.AI0S

- ▶ The folder structure of the media is as follows: 1, 2, 3, 4, 5, 6,7 and 8
 - The "global 3DEXPERIENCE platform installer" is present under folder "1"
- ▶ Two interactive installations are available:
 - Graphical User Interface (GUI)
 - Text User Interface (TUI)
- ▶ It will be up to you to select the services that you will install in the current server. In the training you are proceeding one by one.

3DIndexing Server : Key Parameters

Installation Cook-book: Installation key parameter explained.

- ▶ Installation Directory: This is the location where the service code will be installed. Do not use blanks in the installation path if you can avoid it. It is also recommended not to install on the `C:\` drive. The `C:\` drive is the system drive, if it gets corrupted or becomes full it could bring the service down. By selecting another drive you will have better control and stability for the platform.
- ▶ 3DSpace server path: The 3DIndex installer assumes you are installing the component on the same server as 3DSpace. If that is the case then no additional changes are required.
- ▶ Temporary Settings Path for Remote 3DSpace Server: If you are installing 3DIndex on a different server from 3DSpace you will need to create an empty folder structure that mimics 3DSpace. You do not need all the folders in 3DSpace, the installer will throw an error if something is missing. After the installer completes you will have to copy the created files in the temporary 3dspace folders to the real 3DSpace server. You will have to make sure you update all the files in 3DSpace including the webapp and STAGING directories otherwise your updates may “disappear” when you rebuild the WAR files.
- ▶ 3DSpace connection parameters: Since 3D Indexer is a batch tool it is recommended to use the 3DSpace internal webapp (NoCAS). Normally you can use HTTP instead of HTTPS for the NoCAS Server.
- ▶ 3DIndexAdminUser: A 3D Indexer admin user is required, be aware that this user will consume a platform License. This built in user has special privileges, do not use the `admin_platform` user for 3DIndex administration as they have different purposes and roles. It is recommended to use a strong password for the 3DIndexAdminUser since it is not typically controlled by 3DPassport or LDAP.

Keywords : 2D/3D thumbnails

3DIndexing Server: Configuration and Key Parameters

► Main Configuration requirements:

- Database objects :No
- TomEE + needed :No
- Java dependent :No

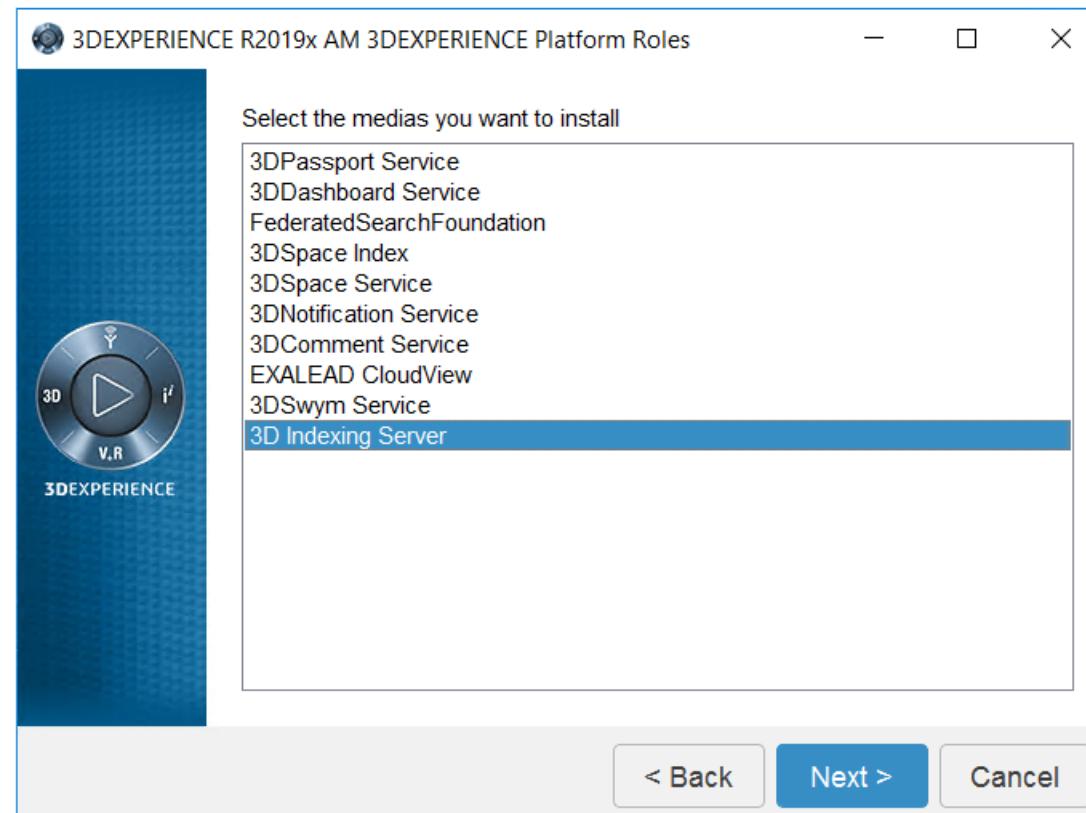
3DIndexing Server : GA media installer

GA core components have two different installation methodologies:

- Navigate to the "global 3DEXPERIENCE platform Installer" found in:
 - <Your Media PATH>\AM_3DEXP_platform.AI0S\1\
 - GUI: setup.exe
 - TUI: StartTUI.exe
- Classic "Service Installer" are available in:
 - <Your Media PATH>\AM_3DEXP_Platform.AI0S\2\3DIndexingServer\Windows64\1
- Based on your preference:
 - Start the installer

Exercise: 3DIndexing Server

1. Using the Cheat-sheet on the next page proceed to the installation.



3DIndexing Server: Configuration & Key Parameters

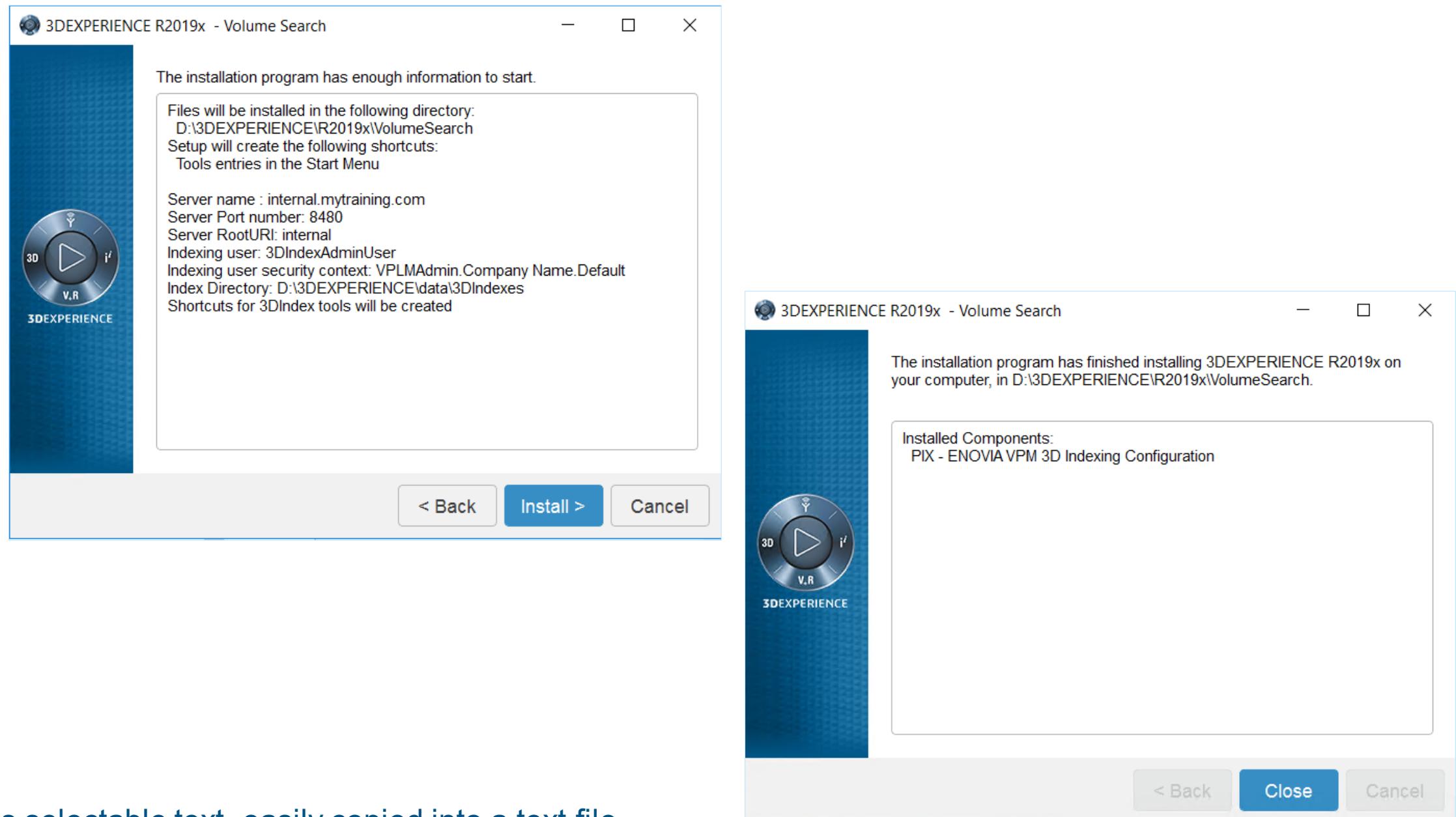
During the Installation you will be queried about the following parameters:

Cheat-Sheet :

Steps	Key	Value
01	Global platform Installer	<Your Media Path>\AM_3DEXP_platform.AIOS\1\setup.exe
02	Global platform Installer	3D Indexing Server
03	Installation Directory	D:\3DEXPERIENCE\R2019x\VolumeSearch
04	Tools Entries in Start Menu	Yes
05	Server name Server Port number Server RootURI Indexing User Indexing user Password Indexing user security context Index Directory	internal.mytraining.com 8480 internal 3DIndexAdminUser <your Password> VPLMAdmin.Company Name.Default D:\3DEXPERIENCE\data\3DIndexes
06	Creates shortcuts for 3DIndex tools	Yes

3DIndexing Server : GA media installer

It is strongly recommend that you copy the installation information into a text file prior to clicking the **Install** button.



This is selectable text, easily copied into a text file.

3DIndexing Server: GA Technical Validation

"GA technical validation" refers to validation of the installation process, i.e. did it install without errors and did it complete what it was supposed to do.

Target installation PATH: D:\3DEXPERIENCE\R2019x\VolumeSearch

1. Installer error log should be 0 bytes and can be found at:

<Code Path>\InstallData\log\CODE\win_b64\.....<Latest timestamp>\Errors.log & *Stderr.txt

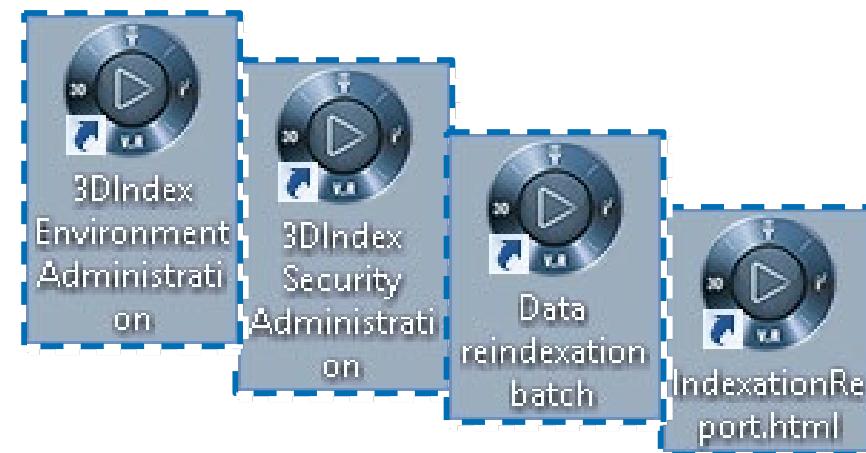
Size should be 0 bytes



If you had to modify values in the installer dialogues you will see these "errors" in the Errors.log you will need to validate if any of these messages require corrective action.

2. Four icons will be created on your desktop:

- 3DIndex Environment Administration
- 3D Index Security Administration
- Data re-indexation batch
- IndexationReport.html



3DIndexing Server: GA Technical Validation

1. The following entries will be added to the **Start > All Programs** menu:
 - a. Dassault Systemes **3DEXPERIENCE R2019x 3D Index Server > Tools**
 - i. 3D Index Environment Administration
 - ii. 3D Index Security Administration
 - iii. Data Re-indexation batch
 - iv. Environment Editor
 - v. Settings Management

2. Logging in with another user not only affects the visibility of shortcuts and menu items but it may also prevent you from running **3DEXPERIENCE** programs because of the following.
 - a. Security :The ownership of the files and folder (editing, visibility).
 - b. Scheduler Task : running job like (start/stop/modify); Indexer backup, clean, optimization, etc...

 - c. For the purposes of training, all of these components need to be under one Authority.

3DIndexing Server: FP Service Installer

There is no "Global 3DEXPERIENCE platform Installer" for FP's.

1. Use the normal "Service Installer" based on your OS selection:

<Your Media PATH>\FP1907\Part_3DEXP_Platform.Windows64\2\Software\

You will find:

- 3DIndexingServer-V6R2019x.HF2.Windows64.zip

2. Unzip the file to <Your Installer PATH>

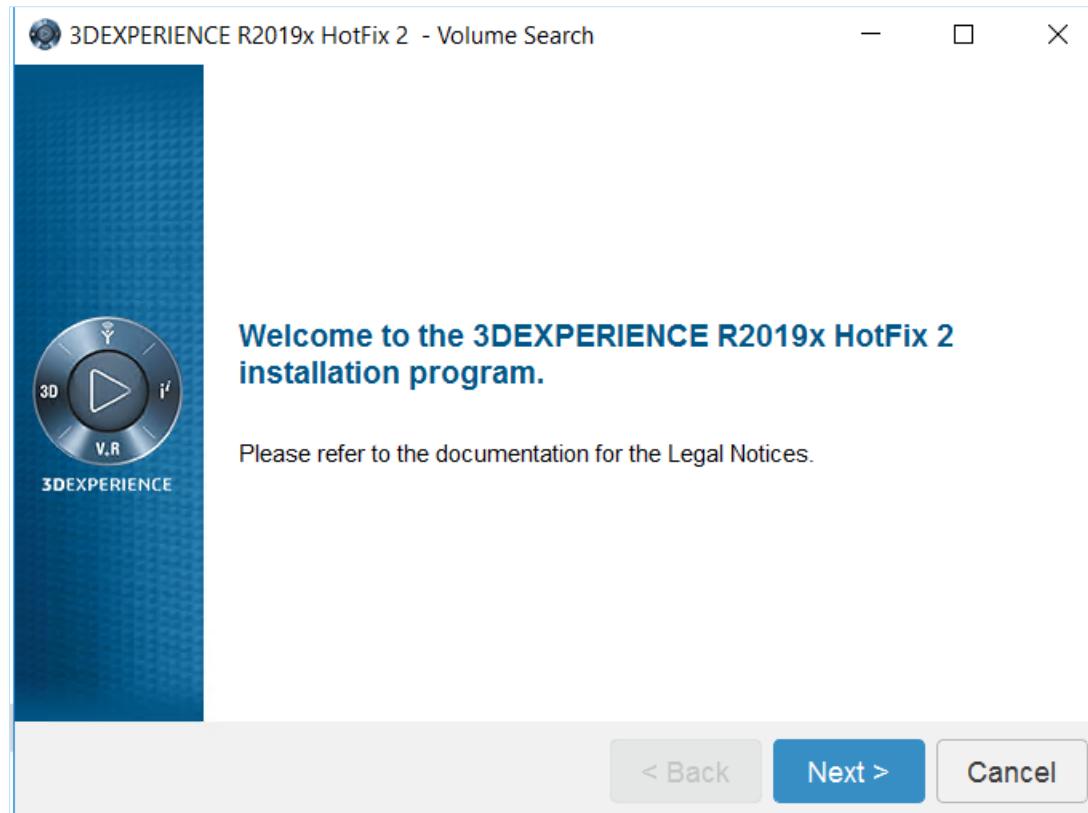
- Under <Your Installer PATH>\3DIndexingServer.Windows64\1

GUI: setup.exe

TUI: StartTUI.exe

3DIndexing Server: FP Service Installer

It is strongly recommend that you copy the installation information into a text file prior to clicking the install button.



This is selectable text, easily copied into a text file.

3DIndexing Server: FP Technical Validation

"FP technical validation" refers to validation of the installation process, that is, did it install without errors and did it complete what it was supposed to do.

Target installation PATH: D:\3DEXPERIENCE\R2019x\VolumeSearch

1. Installer error log should be 0 bytes and can be found at:
 - a. <Code Path>\InstallData\log\CODE\win_b64\.....media-<Latest timestamp>\Errors.log
Size should be 0 bytes
2. In Windows Services manager, verify that the new service running.



If you had to modify values in the installer dialogues you will see these “errors” in Errors.log you will need to validate if any of these messages require corrective action.

3DIndexing Server: FP Service Installer

1. If you change the default password (recommended) be sure that the user 3DIndexAdminUser has a secure password:

- a. Open the MQL command using the shortcut on your desktop.
- b. Execute the following commands:

```
set context user creator;  
mod person 3DIndexAdminUser pass  
<Your Password>;  
quit;
```

or

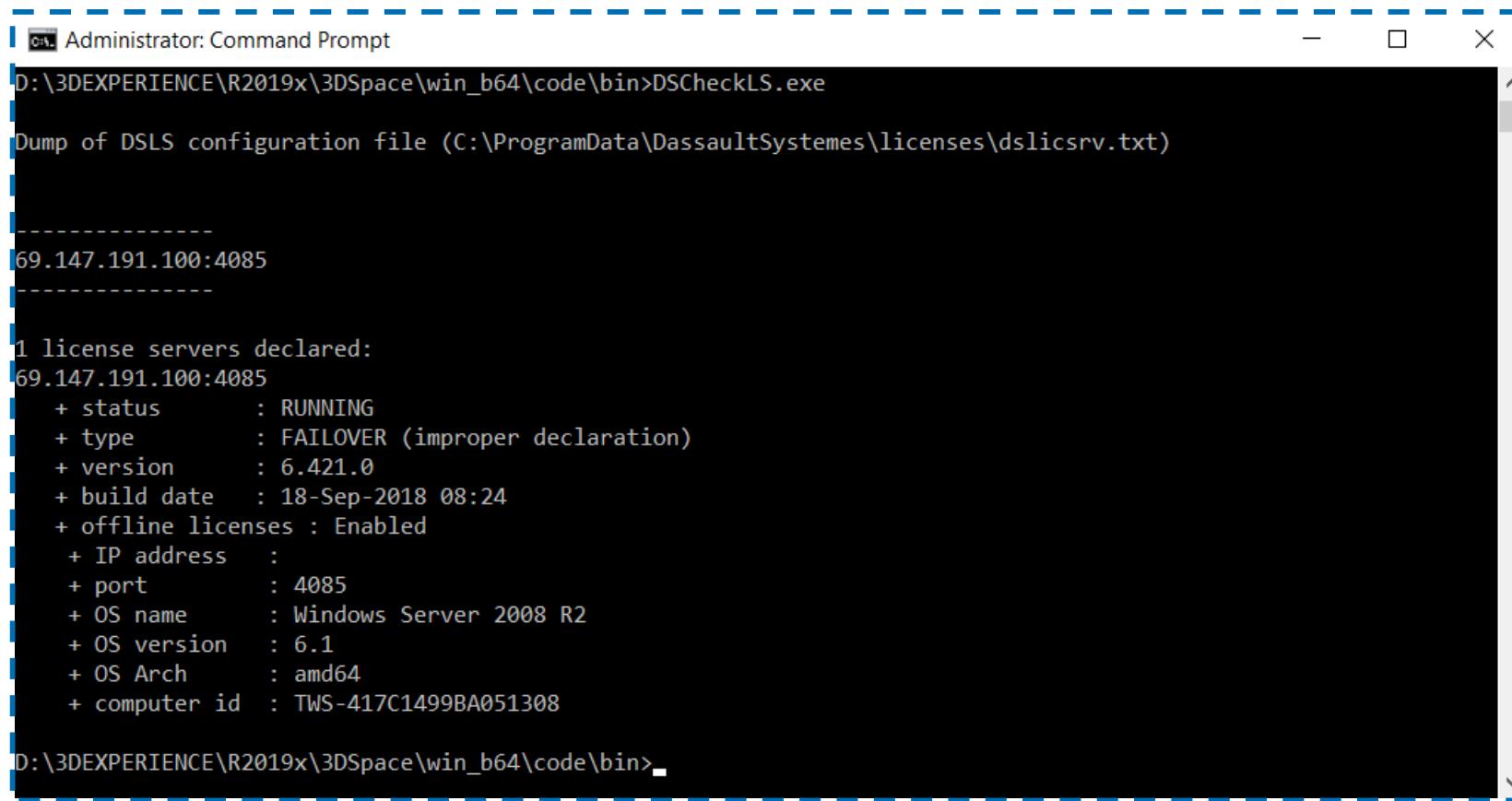
Use <https://internal.mytraining.com/internal> and change the password.



This is an optional step.

3DIndexing Server: Post Installation

1. Ensure that the 3DIndexing server has an access to the DSLS
2. Go to 3DSpace bin folder:D:\3DEXPERIENCE\R2019x\3DSpace\win_b64\code\bin
 - a. Open a command prompt to that folder and execute the following command:
 - b. DSCheckLS.exe
 - c. You should see the following:



```
D:\3DEXPERIENCE\R2019x\3DSpace\win_b64\code\bin>DSCheckLS.exe

Dump of DSLS configuration file (C:\ProgramData\DassaultSystemes\licenses\dslicsrv.txt)

-----
69.147.191.100:4085

-----
1 license servers declared:
69.147.191.100:4085
+ status      : RUNNING
+ type       : FAILOVER (improper declaration)
+ version    : 6.421.0
+ build date : 18-Sep-2018 08:24
+ offline licenses : Enabled
+ IP address   :
+ port        : 4085
+ OS name     : Windows Server 2008 R2
+ OS version   : 6.1
+ OS Arch     : amd64
+ computer id : TWS-417C1499BA051308

D:\3DEXPERIENCE\R2019x\3DSpace\win_b64\code\bin>
```

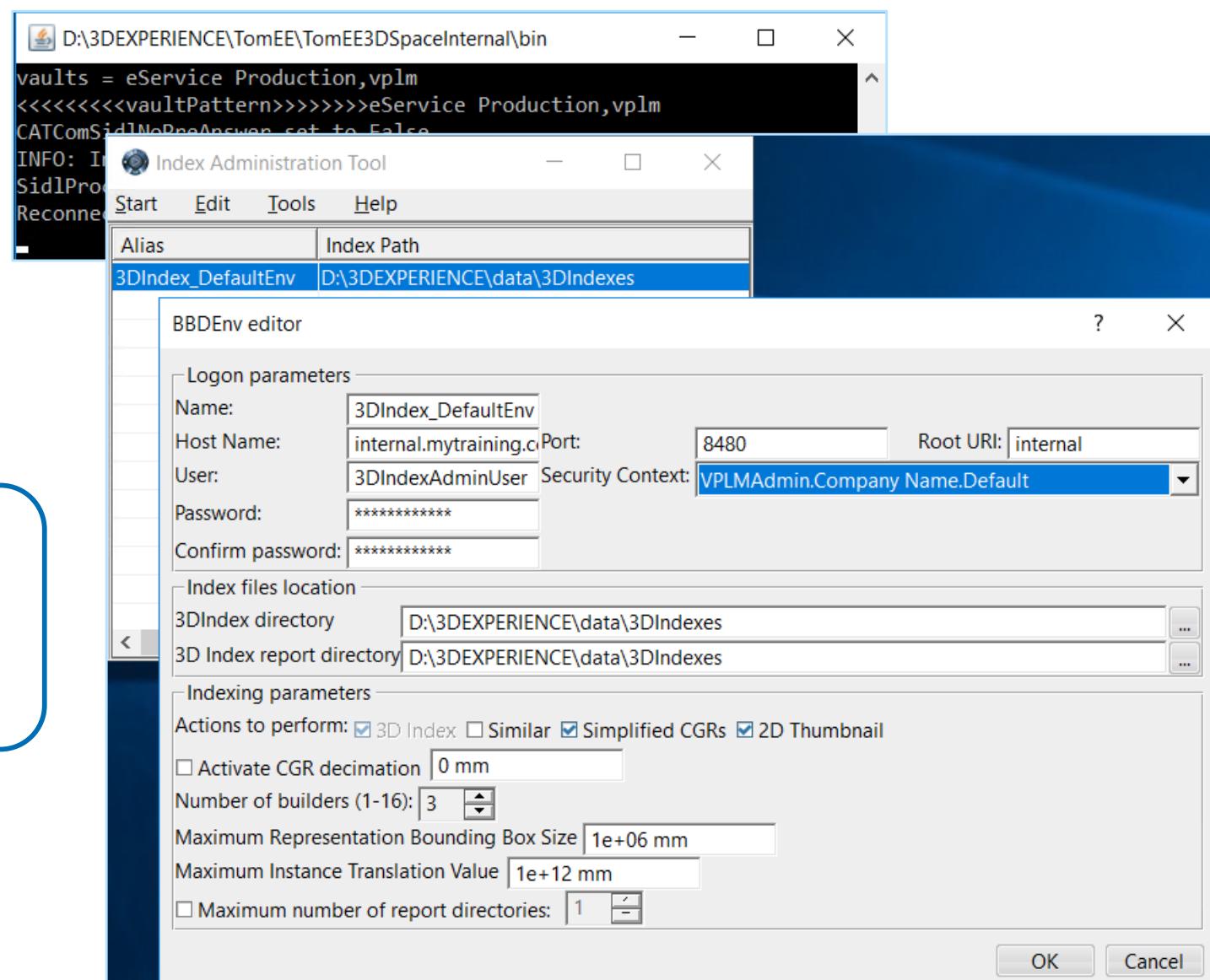
3DIndexing Server: Post Installation

To be usable the 3DIndexing Server requires a few post installation steps:

1. First step is to check the Environment and 3DSpace access, using the desktop shortcut 3Dindex Environment Administration edit the default Alias. Ensure that all the information displayed is correct.
 - a. Validate the 3DIndex connection with 3DSpace Internal by clicking the drop down to display the list of security contexts available for this user.



- ▶ TomEE3DSpaceInternal should be running.
- ▶ Do not change the User: **3DIndexAdminuser**.



- b. Click **OK**. If there are any connection issues they will be reported.

3DIndexing Server: Post Installation

Time to execute the first baseline indexation using the desktop shortcut “Data re-indexation batch”.

Finally check the result of the indexation, via the desktop shortcut “IndexationReport.html”, check all the tabs.



If you had to modify values in the installer dialogues you will see these “errors” in the Errors.log you will need to validate if any of these messages require corrective action.
The window will close immediately, but the indexation job is still running in the background.



3DIndexing Server: Post Installation



The report is opening a local html page that will auto update at regular intervals. It is recommended that you check each tab to see what information is available to you.

VMware Snapshot Provider	VMware Snapshot Provider	Manual	Local Syste...
VMware Tools	Provides support for synchronizing ...	Running	Local Syste...
Volume Shadow Copy	Manages and implements Volume S...	Manual	Local Syste...
WalletService	Hosts objects used by clients of the ...	Manual	Local Syste...
Windows Audio	Manages audio for Windows-based ...	Manual	Local Service

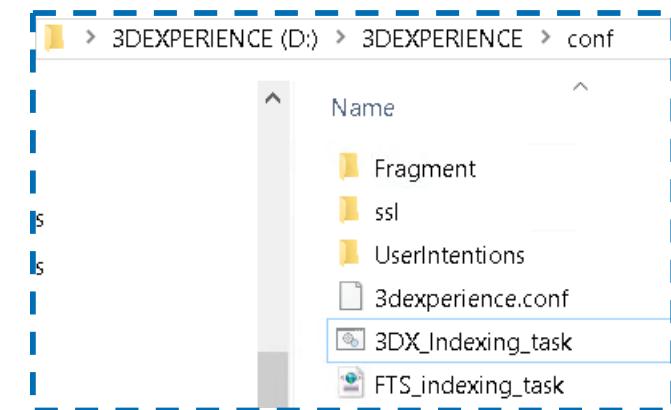
Resetting the indexation in case of error:

- a) If there are problems related to indexing, try forcing re-indexation of all data as follows:
 - a) Rename the 3DIndex data folder located here:
 - b) D:\3DEXPERIENCE\data\3DIndexes (rename it to e.g. **3DIndexes_old**)
 - c) execute the indexing task again (from the shortcut on the desktop)
 - d) The folder “3DIndexes” should be recreated and new index data generated
 - b) 3DIndex – Scheduled task
 - a) To automatically index new data, add a “Scheduled Task” in Windows Task Scheduler
 - b) The task should execute the same command as the shortcut “Data re-indexation batch”

3DIndexing Server: Post Installation

3D Indexer server does not automatically configure a scheduled task to execute at regular intervals. You will have to set this up manually:

1. Open Computer Management, navigate to the Task Scheduler Library and export the “FTS_indexing_task” into folder D:\3DEXPERIENCE\conf\
2. Rename the file : **3DX_Indexing_task.xml**
3. Create an empty batch file
D:\3DEXPERIENCE\conf\3DX_Indexing_task.bat



4. Add the lines to 3DX_Indexing_task.bat:

```
CATSTART -run "BBDAdminPlayer -EnvName 3DIndex_DefaultEnv -ThumbnailOnly [-retry]" -  
env Env -direnv "C:\DassaultSystemes\R2019x\VolumeSearch\CATEnv"
```

5. Edit the file **3DX_Indexing_task.xml** Update the entries of <Command> with
D:\3DEXPERIENCE\conf\3DX_Indexing_task.bat

A screenshot of a code editor window showing the XML file '3DX_Indexing_task.xml'. The code is as follows:

```
44  </Settings>  
45  <Actions Context="Author">  
46  <Exec>  
47  <Command>D:\3DEXPERIENCE\conf\3DX_Indexing_task.bat</Command>  
48  </Exec>  
49  </Actions>  
50  </Task>
```

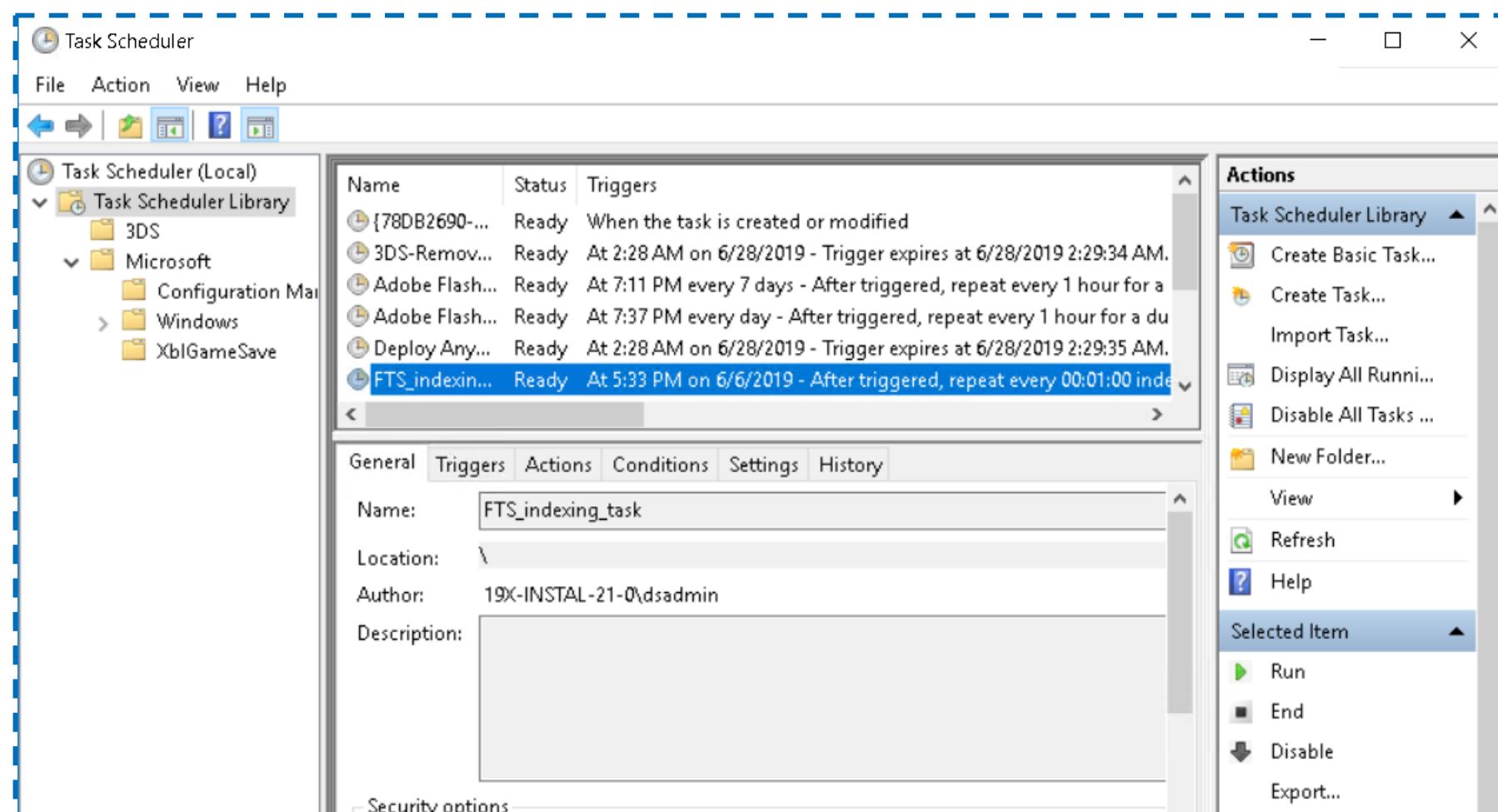
The line containing the command is highlighted with a light purple background.

3DIndexing Server: Post Installation

6. Go back to the Computer Management, and import the file:

D:\3DEXPERIENCE\conf\3DX_Indexing_task.xml

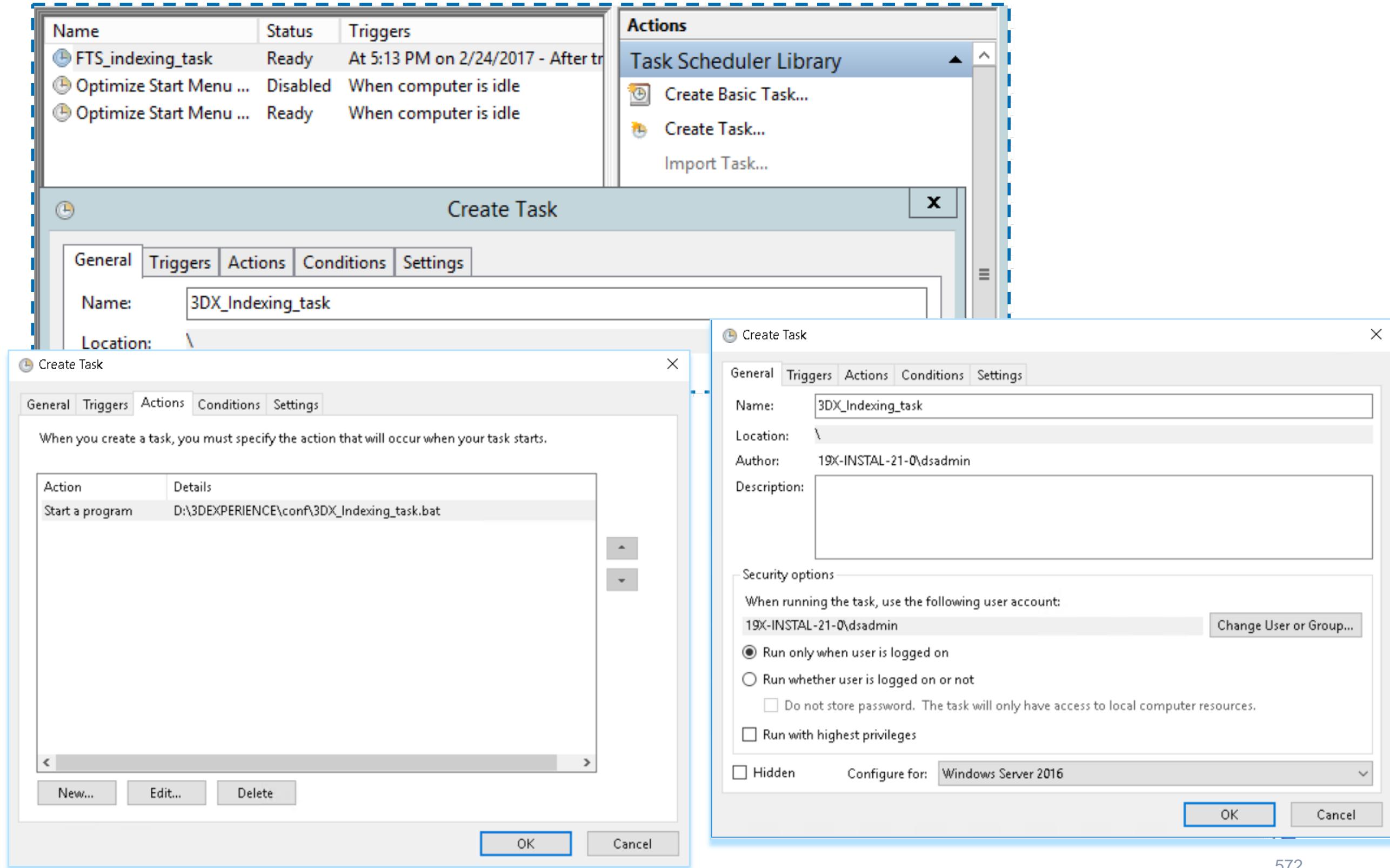
Check the values on each tab if you want to change something.



If the two tasks are running on the same machine, change the time so that the “3DX_Indexing_task” starts at the end of the “3DSpace Index_Indexing_task”.

3DIndexing Server: Post Installation

7. Create task in the Actions tab.



3DIndexing Server: Uninstallation

Windows normal uninstall procedure:

- a. Stop the service :
- b. 3DEXPERIENCE R2019x Volume Shadow Copy
- c. In "Programs and Features" uninstall:
 - i. " Dassault Systemes 3D index Server 3DEXPERIENCE R2019x"
- d. There is also a Uninstall.bat file in the D:\3DEXPERIENCE\R2019x\<Service Name> with which you can uninstall a service.

Post Operations

Topics to be covered:

- ✓ 1. *3DIndexing*
- 2. **Post Operations**
- 3. Native Client
- 4. Client Integration

End of Installation Post Operations

1. Rename the “Doc” folder back to “Doc”, remove the suffix “.Original”
2. Since this is your “admin” desktop it is recommended that you order your Internet Explorer shortcuts by creating useful names icons.



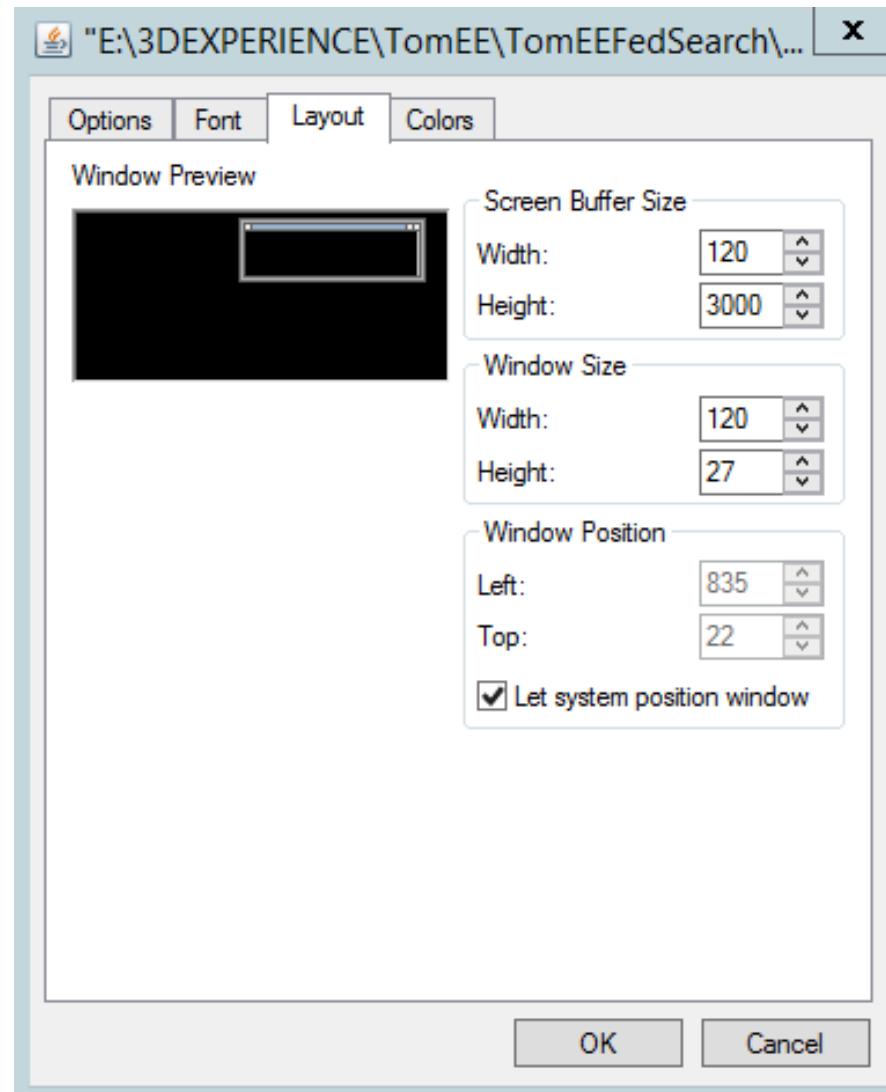
When you create shortcuts in your "Favorites bar" it can become messy.
Here is an example of how you may wish to organize your shortcuts.



10 minutes

End of Installation Post Operations

When you running the TomEE+ Startup scripts the trace windows are often small and will lack buffer to show enough history. Once the windows pops-up, it is recommended to change its layout properties as follow:



You can even set a fixed position that will be used each time the window pops-up, great for multi-monitor setup.

End of Installation Post Operation

1. A useful tip for accessing logs and cleaning them from time to time is to create a Desktop Folder containing shortcuts for the log folders from the application and TomEE+
2. Some key log files are:
 - a. <Apache ServerRoot Path>\logs
 - i. Access.log, error.log, httpd.pid, and for each service : *.cus, *.err & *.log
 - b. <TomEE+ Service Path>\logs
 - i. Catalina*.log, localhost*.log
 - c. <Application Service Path>\log
 - i. For 3DSpace you will find: ematrixwar.log, mxAudit.log, mxtrace.log and 3DXServer*.log



Not all applications will have a logs folder.

Native Apps Installation and Configuration

- ▶ **Introduction**
- ▶ **Host – Prerequisites**
- ▶ **3DEXPERIENCE Native Overview**
- ▶ **Desktop Components: Constraints and Limits**
- ▶ **Importing the CA into the Client machine**
- ▶ **3DEXPERIENCE Native - Key Parameters**
- ▶ **3DEXPERIENCE Native - GA Installation**
- ▶ **3DEXPERIENCE Native – Technical Validation**
- ▶ **3DEXPERIENCE Native - FP Installation**
- ▶ **3DEXPERIENCE Native - Post Configuration**
- ▶ **3DEXPERIENCE Native – Uninstallation**



120 minutes

Topics to be covered:

- ✓ 1. *3DIndexing*
- ✓ 2. *Post operations*
- 3. **Native Client**
- 4. Client Integration

Introduction

- ▶ In order to execute the integration connectors you will need some “client prerequisites” for the software connecting to the platform. This training is not a “client” install training, you will not be diving into the details of client installation. If you need help the trainer will assist you with these steps.
 - **3DEXPERIENCE Native Client**
- ▶ This first step, as always, is to refer to the 3DS website, www.3ds.com, and check if your machine meets the requirement for the Native clients.
 - Go to the Program directory URL:
<https://www.3ds.com/support/documentation/program-directories/>
 - In the right pane you will find “Browser and Native OS Clients”, see supporting images in the next slide.

Host - Prerequisites

- ▶ Connect with your account, select your version and find “Browser and Native OS Clients”

The diagram illustrates a workflow for connecting to a host system. It starts with a 'Log in' screen, which then leads to a 'Deployment' section, and finally to a 'Native OS Clients' section.

Log in:

- Email or Login: [Input field]
- Password: [Input field]
- Remember me for a week (use only on trusted computers)
- Log in
- Forgot your password or login ID? Need help?

Deployment Section:

- Deployment** (highlighted in grey)
- Strategic Platforms**
 - Notice on V6 support changes related to platforms
- Browser Clients**
 - S/W Requirements
- Native OS Clients**
 - H/W & S/W Requirements
 - H/W & S/W Requirements for 3DEXPERIENCE Open
 - Certifications

Native OS Clients Section:

- SIMULIA, SOLIDWORKS (including 3DEXPERIENCE Open) related to platform support policy is available [here](#).
- Generalities on Operating Systems**
 - 3DEXPERIENCE Open Apps have a specific
 - The supported client platforms for BLD - Da
- The following table lists the platform on which 3DE
- Operating System

Host - Prerequisites

- ▶ Here are some typical requirements extracted from the 3DS Program Directory.

- Resources:

- 15 GB of free disk space on your fasted drive
 - 8-12GB of RAM
 - 8 CPU

- Operating System

- Windows 10 Desktop.

Microsoft Internet Explorer 11 is a Validated platform

Firefox 60 ESR is a Validated platform

Firefox x ESR, with x>60 is a Compatible platform

Microsoft .NET 4.6.2 is a Validated platform on Windows 10

V6 is not supported with JRE which has expired or is below security baseline.

Java 8 Update 152 is a Qualified platform.

Java 8 Update x, with x>152 is a Compatible platform

3DEXPERIENCE Native Apps Overview

- ▶ CATIA delivers the unique ability not only to model any product, but to do so in the context of its real-life behavior: design in the age of experience. Systems architects, engineers, designers and all contributors can define, imagine and shape the connected world.
- ▶ CATIA , powered by Dassault Systemes' 3DEXPERIENCE platform, delivers:
 - A Social design environment built on a single source of truth and accessed through powerful 3D dashboards that drive business intelligence, real-time concurrent design and collaboration across all stakeholders including mobile workers.
 - An Instinctive 3DEXPERIENCE, for both experienced and occasional users with world-class 3D modeling and simulation capabilities that optimize the effectiveness of every user.
 - An Inclusive product development platform that is easily integrated with existing processes & tools. This enables multiple disciplines to leverage powerful and integrated specialist applications across all phases of the product development process.
- ▶ CATIA's Design, Engineering and Systems Engineering applications are the heart of Industry Solution Experiences from Dassault Systèmes to address specific industry needs. This revolutionizes the way organizations conceive, develop and realize new products, delivering competitive edge through innovative customer experiences.

Desktop Components: Constraints and Limits

- ▶ **3DEXPERIENCE Launcher (alias DSLauncher)**
- ▶ **3DEXPERIENCE Launcher** is a mandatory component for the Single Sign On mechanism
 - executes as a Windows Service and manages the SSO integration between Web browser and **3DEXPERIENCE** native client by using 3DPassport cookie(s).
- ▶ Previously only supported HTTP 200 OK code. In R2019x additional HTTP error codes are supported to allow X509 Client certificate based authentication.
- ▶ To execute correctly, it needs to be able to send and receive requests to **3DEXPERIENCE** platform services from the same desktop host: an incorrect network proxy configuration can interfere with this communication.
- ▶ The deployment requirements for the desktop are the same as R2019x:
 - Customer network administrator must update the Windows OS host file to resolve the “dslauncher.3ds.com” address locally (loopback addresses (127.0.0.1 / ::1))
 - If you have a forward proxy, authorize local communication by adding an exception for the address “dslauncher.3ds.com” (bypass proxy server for local address).
 - If you are using Internet Explorer 11 on Windows 8, make sure that the “Enable Enhanced Protected Mode” option is deactivated.
 - Make sure the local firewall or antivirus doesn't block the local port numbers.
 - The **3DEXPERIENCE** Launcher default ports are: 20300, 33200, 40600. If these ports are already in use during installation 3 new ports are randomly chosen.

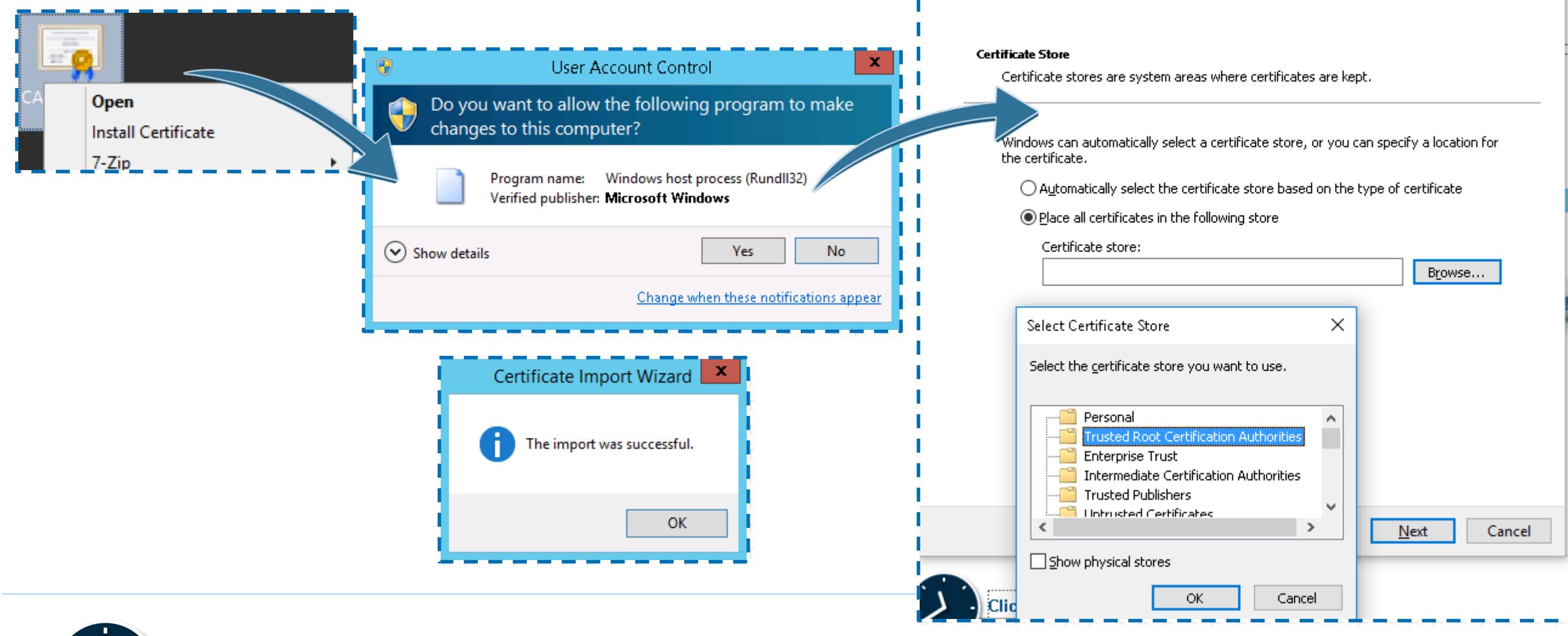
Exercise: Native Client Connection

Importing the CA into the Client Machine

From the server copy the file D:\3DEXPERIENCE\conf\ssl\cacert.crt into your client machine desktop.

1. “Right Mouse Button” the cacert.crt and select “Install Certificate”, with these options:

1. Place all certificates in the following store
2. Select "Trusted Root Certification Authorities"



2 hours

3DEXPERIENCE Native : Key Parameters

During the Installation you will be queried about the following parameters:

Cheat-Sheet:

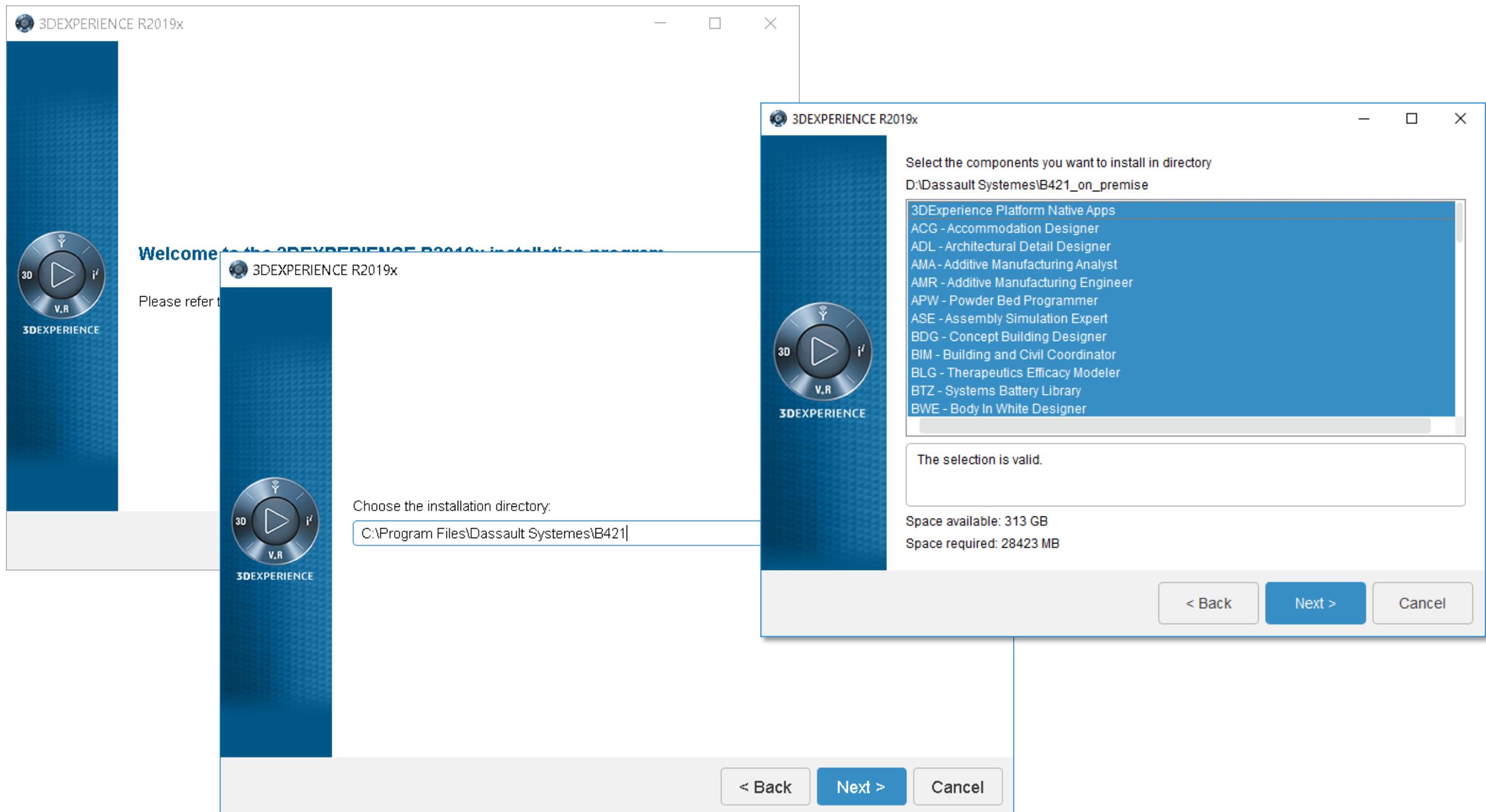
These are all default values, no need to change them.

Steps	Key	Value
01	Installer	<Your Media Location>\AM_3DEXP_NativeApps.AILOS\5\3DEXPERIENCE_NativeApps\1\setup.exe
02	Choose the installation directory	<Keep default>
03	Select the components you want to install in directory	All products need to be selected
04	Install all additional content	Yes
05	I want to install the DS MJPEG codec and Windows Media Video 9 VCM	No
06	Tools entries in the Start Menu 3DEXPERIENCE entries in the Start Menu 3DEXPERIENCE icon on Desktop	Yes Yes Yes
07	Install Microsoft Visual Studio	No
08	Legacy source	No Legacy Connector

3DEXPERIENCE Native - GA Installation

Native client installation on your host media:

1. Navigate to your:
2. <Your Media PATH>\AM_3DEXP_NativeApps.AiOS\3DEXPERIENCE_NativeApps\1
3. Execute the setup.exe or TUI
4. Using the Cheat-sheet on the previous page, proceed to the installation.



3DEXPERIENCE Native - GA Installation

If you did not check your graphical pre-requisites prior to the installation.

You may need to re-start the installation after updating the graphical adapter software. consult the URL and update your graphical adapter software.



No need to open/start the Native application at this point in time.

Native Client includes all prerequisites and, depending on what you have already installed, you may be prompted to install “other” software.

If you already have another Native Client installed, the sequence of question may change. The installer may ask you to create an identifier for this particular installation, “19xTRN”. It is important to note that in this situation when you apply the FixPack the FP installer may ask you which of your Native Client you want to update, you must select the “19xTRN” (or the value that you selected).

3DEXPERIENCE Native – Technical Validation

- Upon completion of the installation please check and verify the following items to determine if your installation was successful.

- The Errors.log file located under below location should be “Zero KB” in size

C:\Program Files\Dassault Systemes\B421\InstallData\log\CODE\win_b64\.....media<Latest Time Stamp>

- Make sure you have a “DSLicSrv.txt” file under :

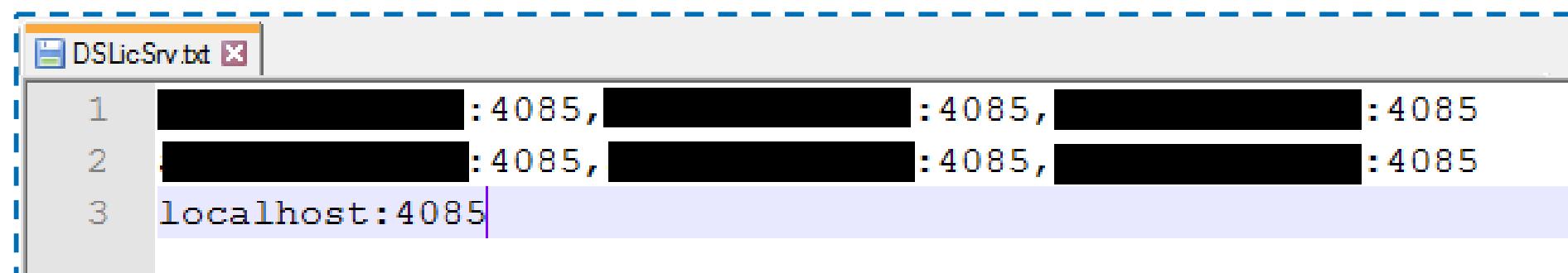
C:\ProgramData\DassaultSystemes\Licenses

“DSLicSrv.txt” should be similar to this

(localhost only if in the current machine has a DS License server):

<Your FQDN License server>:4085

localhost:4085



3DEXPERIENCE Native - FP Installation

1. The Native client GA version should be installed on your host machine, we will now update it to the FP matching the platform level:
 - a. The Media should be: <Your Media PATH>\Part_3DEXP_NativeApps.Windows64
 - b. Find the FP under: .\1\Software\HF_NativeApps_3DEXP.HF2.Windows64\1
 - c. execute the “setup.exe” or TUI
 - d. Using the GA Cheat-sheet, proceed with the installation.

3DEXPERIENCE Native – Technical Validation

Technical validation is identical to the GA version

The “**errors.log**” file located under below location should be “Zero KB” size

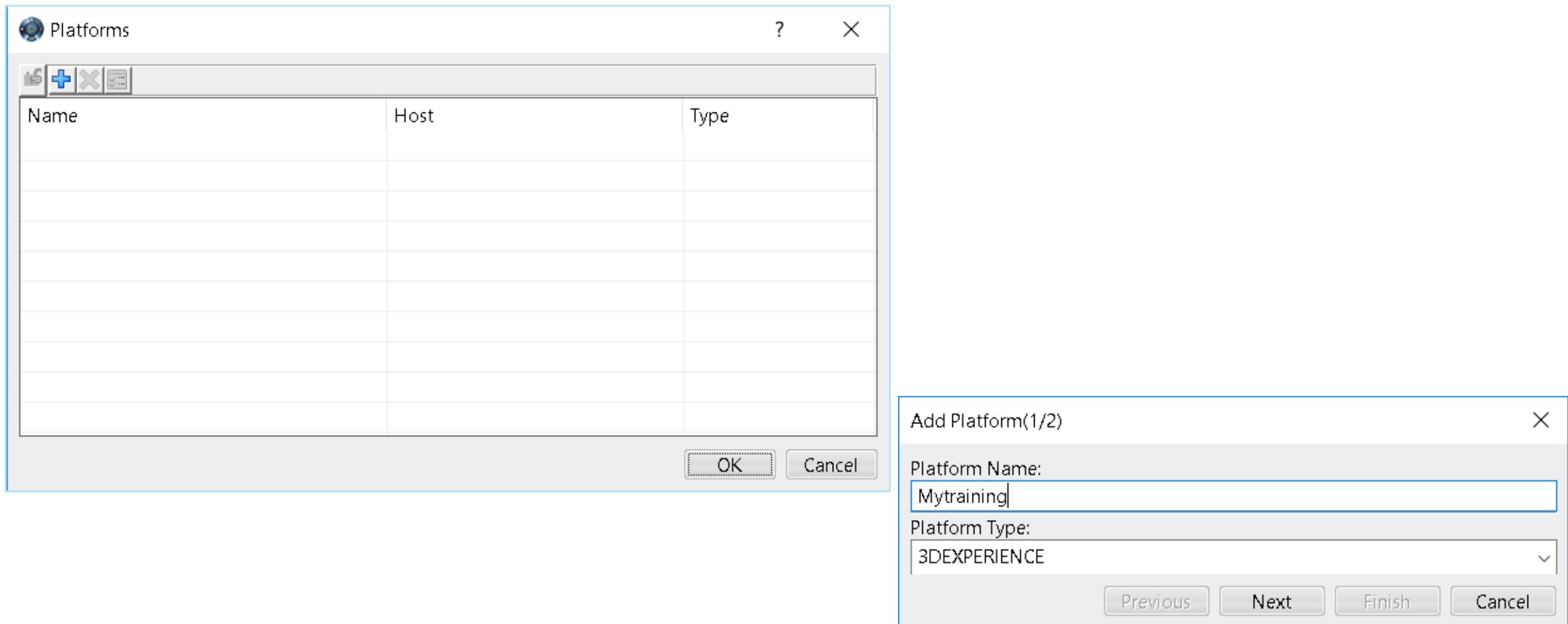
C:\Program Files\Dassault Systemes\B421\InstallData\log\CODE\win_b64\.....media<Latest Time Stamp>

Native Client includes all prerequisites and, depending on what you have already installed, you may be prompted to install “other” software.

If you already have another Native Client installed, the sequence of question may change. The installer may ask you to create an identifier for this particular installation, “19xTRN”. It is important to note that in this situation when you apply the FixPack the FP installer may ask you which of your Native Client you want to update, you must select the “19xTRN” (or the value that you selected).

3DEXPERIENCE Native - Post Configuration

1. The Post configuration task consists of creating the connector information to allow you to connect to the platform later.
2. The **3DEXPERIENCE Native Client**, you need to define the connection parameters:
 - a. In your desktop open “3DEXPERIENCE R2019x”, the platform panel will automatically open allowing you to add “+” a connection to the platform. Use the name “Mytraining”



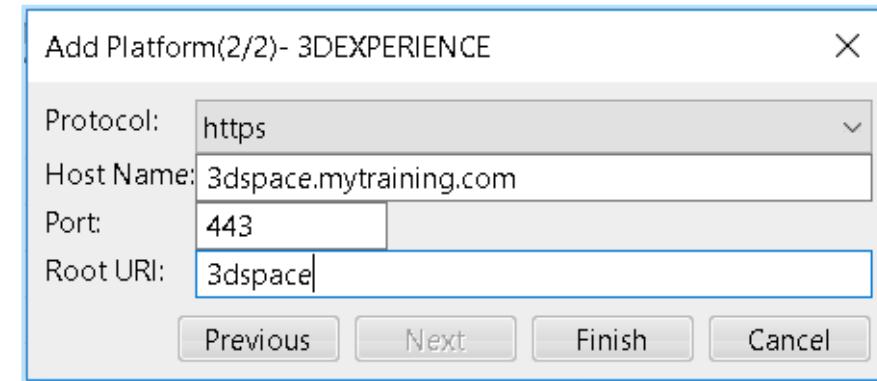
Client Connectors: Post Configuration

1. 3DEXPERIENCE Native Client:
2. Fill out the connection information:

- https
- 3dspace.mytraining.com
- 443
- 3dspace

You should now see:

Click **Cancel**, as you are not ready to connect yet.



Platforms

Name	Host	Type
MyTraining	3dspace.mytraining.com	3DEXPERIENCE

OK Cancel

Organization

Company

Collaborative Space

Collab Space

Role

Leader

OK

3DEXPERIENCE Native – Uninstallation

1. Uninstall via the Control Panel: This task explains how to uninstall the software using the Control Panel.
 - a. On the Windows desktop, select the “Start” > “Control Panel” > “Programs and Features” then double-click the Uninstall a Program control
 - b. The program removes:
 - i. the installation folder
 - ii. all desktop items: environment icon, all entries in the **Start > All Programs** menu.
 - iii. all registry entries.
 - c. You may be prompted to kill any running processes which are using the version you are uninstalling.

Client Integration

Topics to be covered:

- ✓ 1. *3DIndexing*
- ✓ 2. *Post operations*
- ✓ 3. *Native Client*
- ✓ 4. **Client Integration**

Client Connectors - Overview

A client is any “device” that will connect to the **3DEXPERIENCE** platform server. It could be your local host machine, another VM or even an iPad, basically any external device that is allowed to connect to the **3DEXPERIENCE** platform network.

There are two types of clients:

- “Native Clients” - Application code installed on your device that connects to the platform
- “Web Clients” - A web browser like Internet Explorer or Firefox.

In this section you are only going to deal with native client scenarios, the web client connectivity exists natively within the **3DEXPERIENCE** platform server.

You will configure these three cases:

- MS Office integration
- CATIA V5 -6R2017
- 3DEXPERIENCE** CATIA R2019x

As requested in the document: **3DEXPERIENCE** platform Installation - R2019x - Pre-Requisite Client you should have already installed the base code.

This training is not a Client application training.

Client Connectors: Pre-Check

- ▶ You should have already prepared the groundwork required to proceed with this service installation, you will need the following pre-requisites:

- Client Software
 - CATIA V5 -6R2019
 - 3DEXPERIENCE CATIA R2019x
 - MS Office

You will not be able to proceed if any of these are missing. If you were unable to install the Native components on your machine the 3DS laptop can be used for the exercise, but it will not connect to your local platform installation.

- ▶ The following folders should exist: (if you used the default values)
 - C:\Program Files\Dassault Systemes\B27
 - C:\Program Files\Dassault Systemes\R2019x
- ▶ And your MS Office 2016 or 2019 should be used.

Client Connectors: Key Parameters

During the Installation you will be queried about the following parameters:

Connectors are "add-ons" for specific software, most of them are automated. They will find the software and auto install. You only will be challenged with an optional question if you have more than one installation of that particular connector. For example, if you have two CATIAV5 installations the connector will display the two locations and ask you in which one should be used to install the connector.

The most important key parameter to know is the 3DSpace URL, that is the only information that a connector requires to reach the **3DEXPERIENCE** platform.

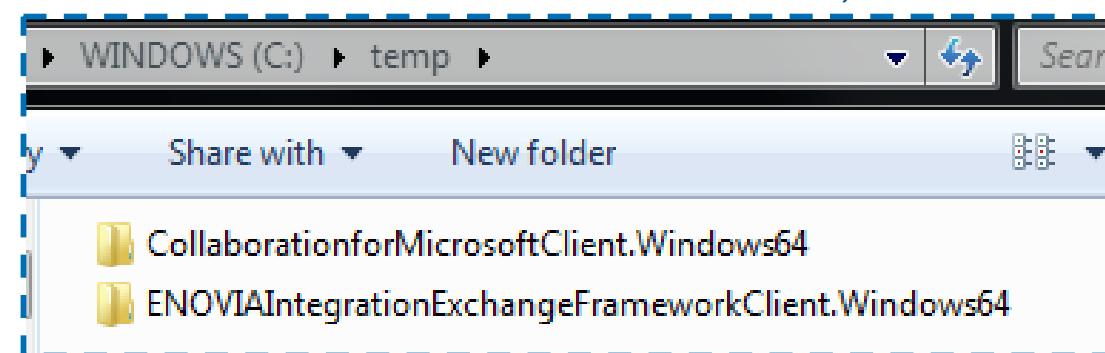
Cheat-Sheet :

Steps	Key	Value
01	OS architecture	Windows64
02	3DSpace URL	https://3dspace.mytraining.com:443/3dspace
03	Connector Path	C:\Program Files\Dassault Systemes\B421xcadconnectors C:\Program Files\Dassault Systemes\Collaboration for Microsoft Client

Exercise: Client Integration

GA and FP installation

1. Some Connectors are used by multiple clients, such as the IEF XCAD client:
2. The Connector for CATIA V5 client is embedded with all CATIA V5 installations. You will still need the IEF XCAD client found here:
 - a. <Your Media PATH>\AM_3DEXP_platform.AIOS\4\CDR-3DComponentDesigner\XCADConnectors
 - i. ENOVIAIntegrationExchangeFrameworkClient-V6R2019x.Windows64.zip
 - ii. XCADDDesignConnectors-V6R2019x.Windows64.zip
3. 3DEXPERIENCE Native Clients have the required connection code embedded, no client update is required.
4. For MS Office the Installer is in :
`<Your Media PATH>\AM_3DEXP_Platform.AIOS\3\XCD-3DComponentDesignerforPLMServices\XCADConnectors`
Copy/extract to <Your Installer PATH> folder in the client Machine,



60 minutes

Client Connectors: GA +FP Media Installer

1. Installing "ENOVIAIntegrationExchangeFrameworkClient.Windows64"

a. GA

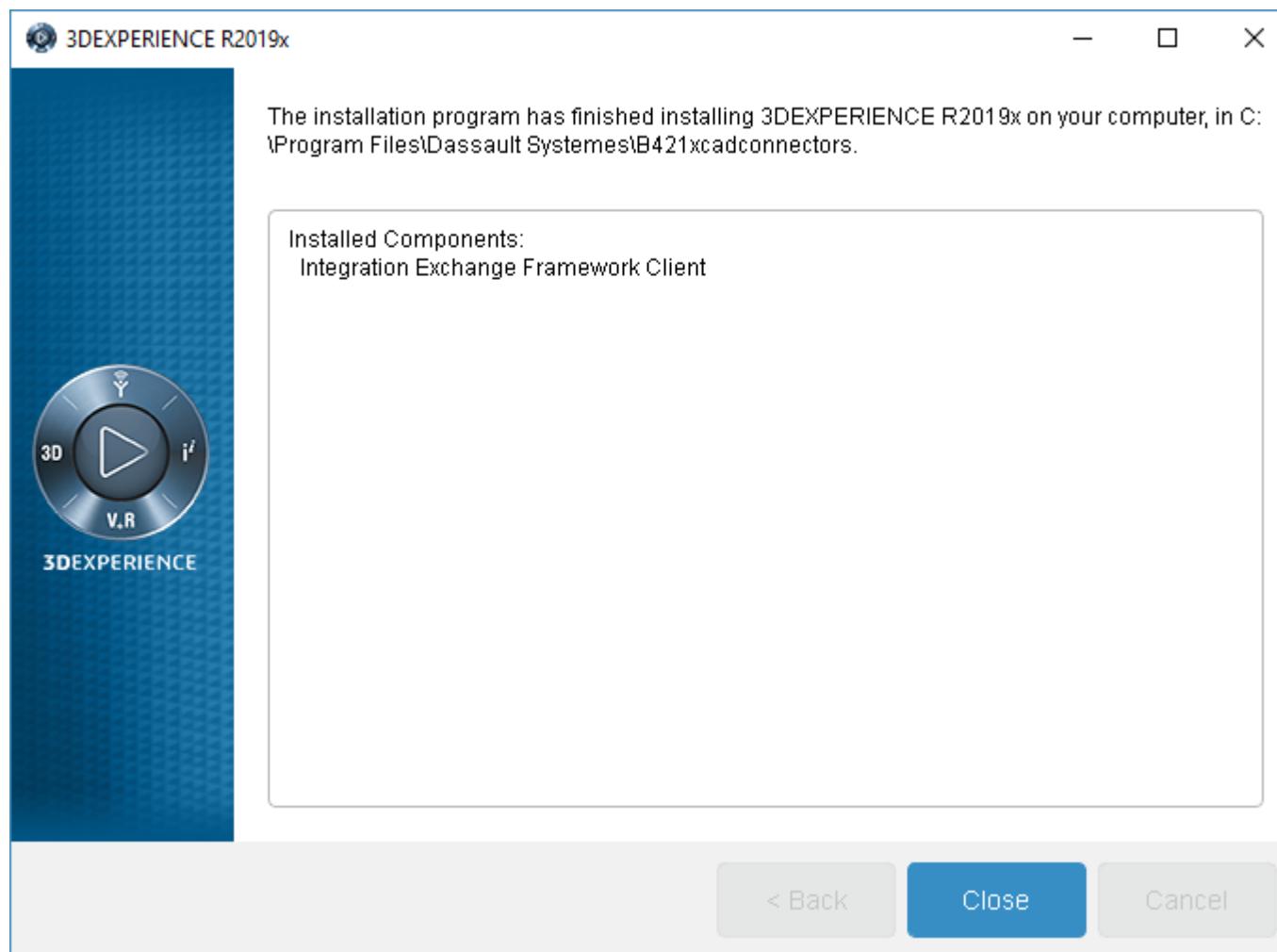
i. Navigate to folder:

[<Your Installer PATH>\ENOVIAIntegrationExchangeFrameworkClient.Windows64\1"](<Your Installer PATH>\ENOVIAIntegrationExchangeFrameworkClient.Windows64\1)

ii. Execute the "setup.exe" installer. Keep all default values that are proposed.

b. FP

i. No fix needed



Client Connectors: GA +FP Media Installer

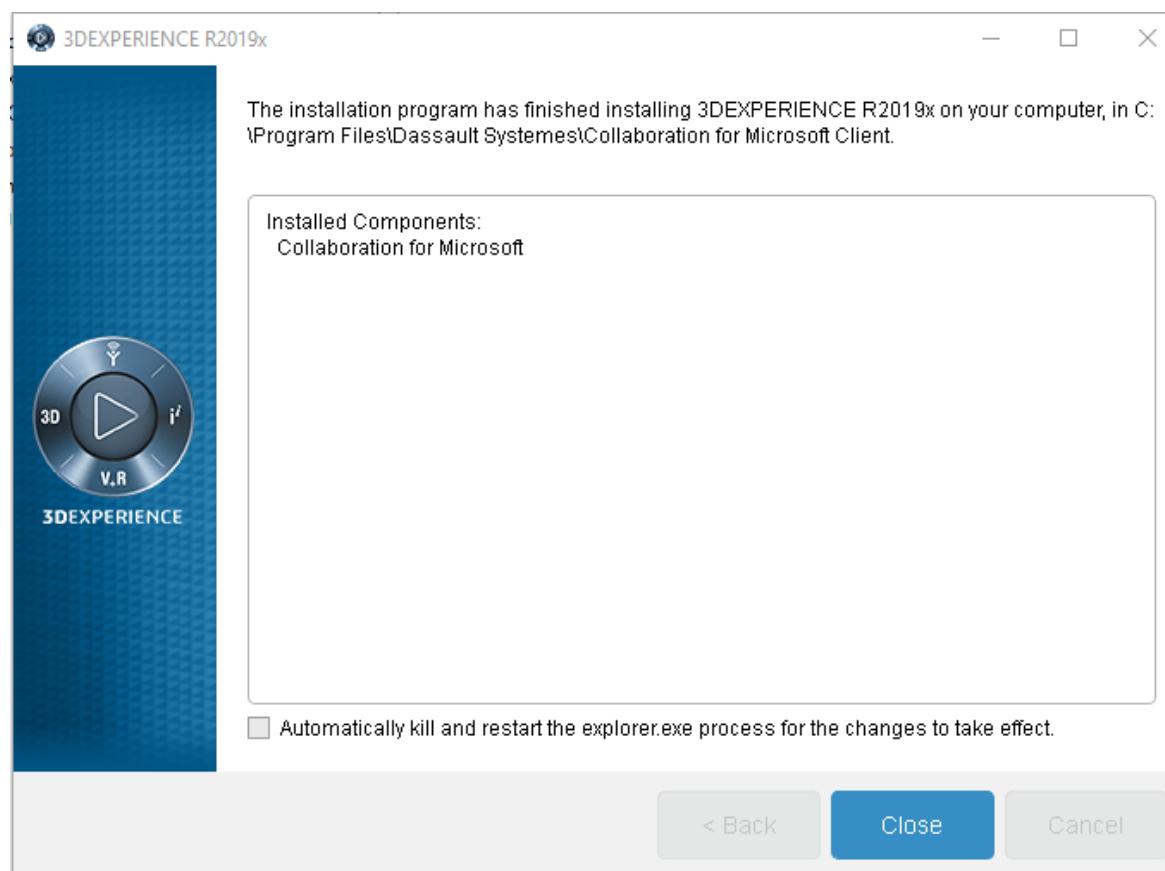
1. Installing "CollaborationforMicrosoftClient.Windows64"

a. GA Navigate under the folder:

- i. <Your Installer PATH>\CollaborationforMicrosoftClient.Windows64\1
- ii. Execute the "setup.exe" installer
Keep all default values that are proposed.

b. FP

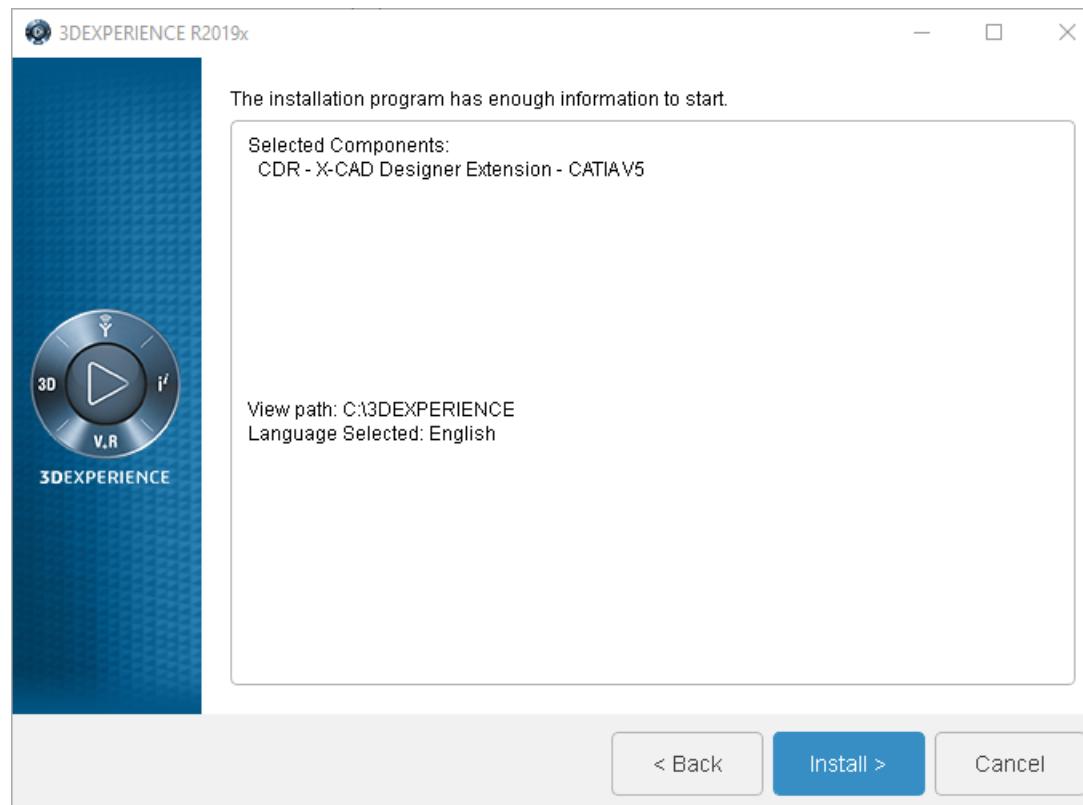
- i. <Your Media PATH>\R2019x.GA\AM_3DEXP_Platform.AILOS\4\CSV-IndustryInnovation\CollaborationforMicrosoft
- ii. Copy/extract the “CollaborationforMicrosoftClient.Windows64.zip” to <Your Installer PATH>
- iii. Navigate to: <Your Installer PATH>\CollaborationforMicrosoftClient.Windows64\1
- iv. Execute the **setup.exe** installer. Keep all default values that are proposed.



Client Connectors: GA + FP Media Installer

1. Installing "HF_XCADDDesignConnectors-V6R2019x.HF2.Windows64.zip", XCAD does require the GA prior to FP.
 - a. GA Navigate under the folder:
 - b. <Your Media Path>\R2019x.GA\AM_3DEXP_Platform.AIOS\4\CDR-X-CADDDesigner\XCADConnectors
 - c. Copy the "XCADDDesignConnectors-V6R2019x.Windows64.zip" to <Your Installer PATH>
 - d. Navigate to:
 - i. <Your Installer PATH>\XCADDDesignConnectors.Windows64\1
 - e. Execute the "setup.exe" installer.

Keep all default values that are proposed.

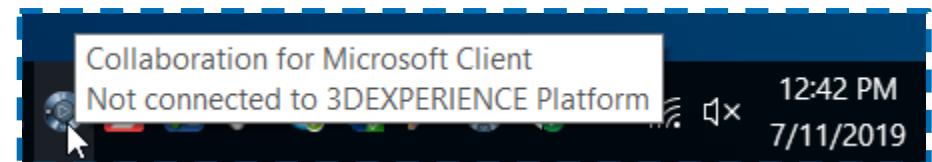


Client Connectors: GA + FP Media Installer

- a. FP Navigate under the folder:
 - i. <Your Installer PATH>\HF_XCADDDesignConnectors-V6R2019x.HF2.Windows64\1
- b. Execute the "setup.exe" installer
 - i. Keep all default values that are proposed.
 - ii. Note: The FP installer will not ask any question

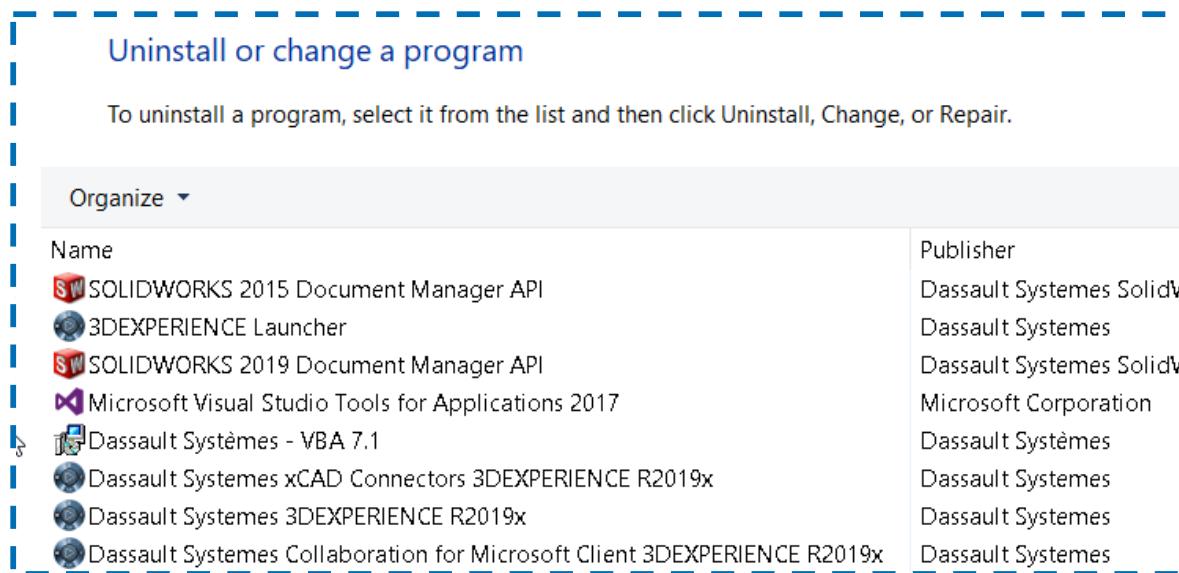
Client Connectors: Technical Validation

1. Let us check the Installer logs, navigate to default folder:
 - a. <C:\Program Files\Dassault Systems>
2. You will feed the two default installation folders:
 - a. B421xcadconnectors
 - b. Collaboration for Microsoft Client
3. Same as with previous installations, you will find GA & FP:
 - a. Log folder:
 - b. <App>\InstallData\log\CODE\win_b64\....media<TimeStamp>
 - c. You will find all logs here. Errors.log should be 0 bytes.
 - d. If Errors.log is not "0 bytes", check the file, it could be a simple warning.



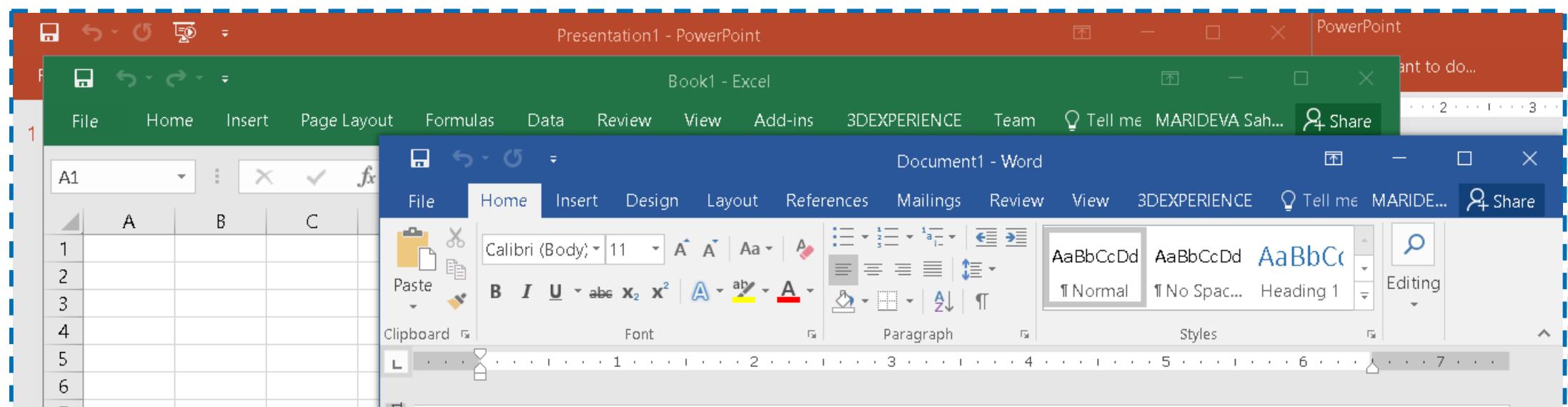
Client Connectors: Technical validation

You should now see programs in "Programs and Features".



Client Connectors: Post Configuration

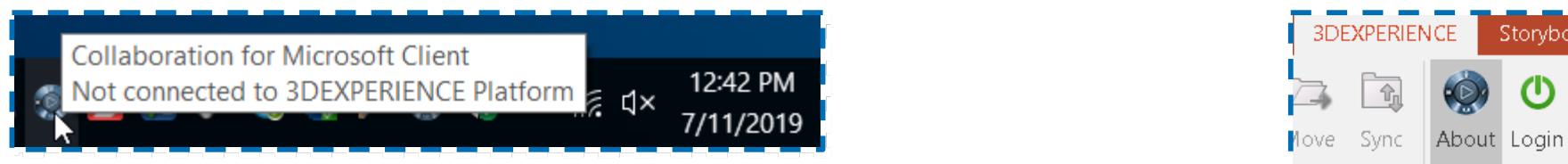
1. MS Office: You will need to do a few operations in
 - a. Word, PowerPoint and Excel
2. The process is the same for all the Office apps:
 - a. Open the application
 - b. Check that you have the new menu “3DEXPERIENCE”



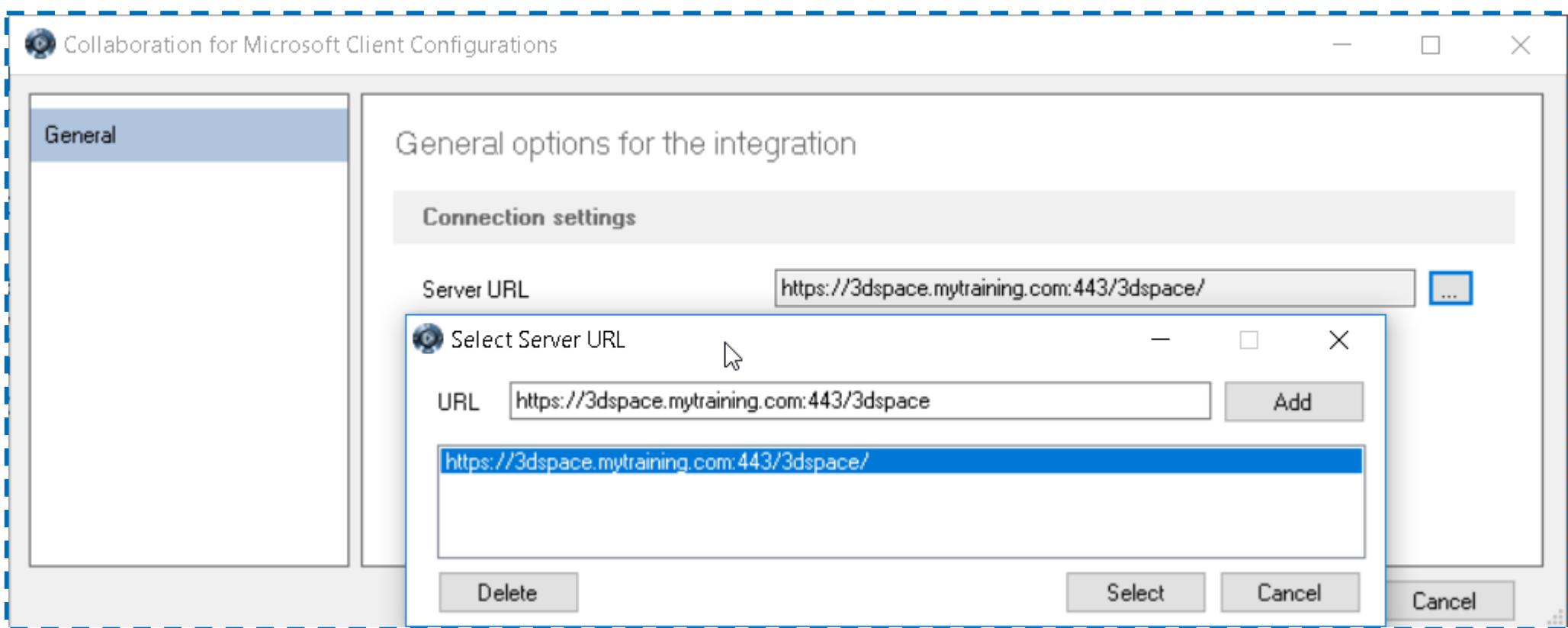
Client Connectors: Post Configuration

MS Office:

- In the System tray you should have the “3DEXPERIENCE” button, RMB and select settings:



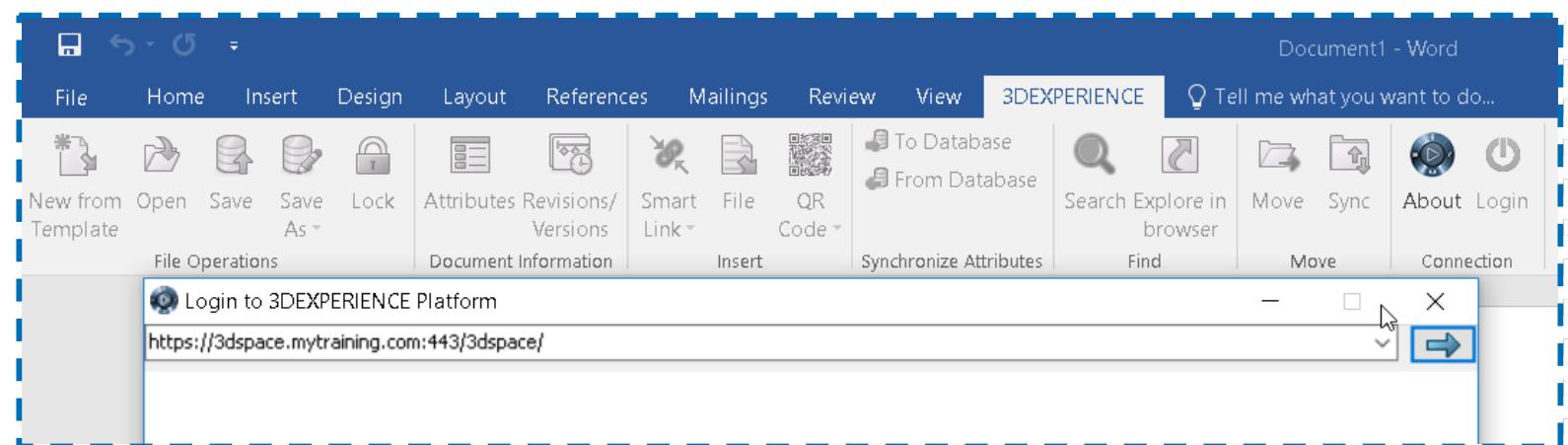
- Add the “3DSpace” server URL, and keep the other values:



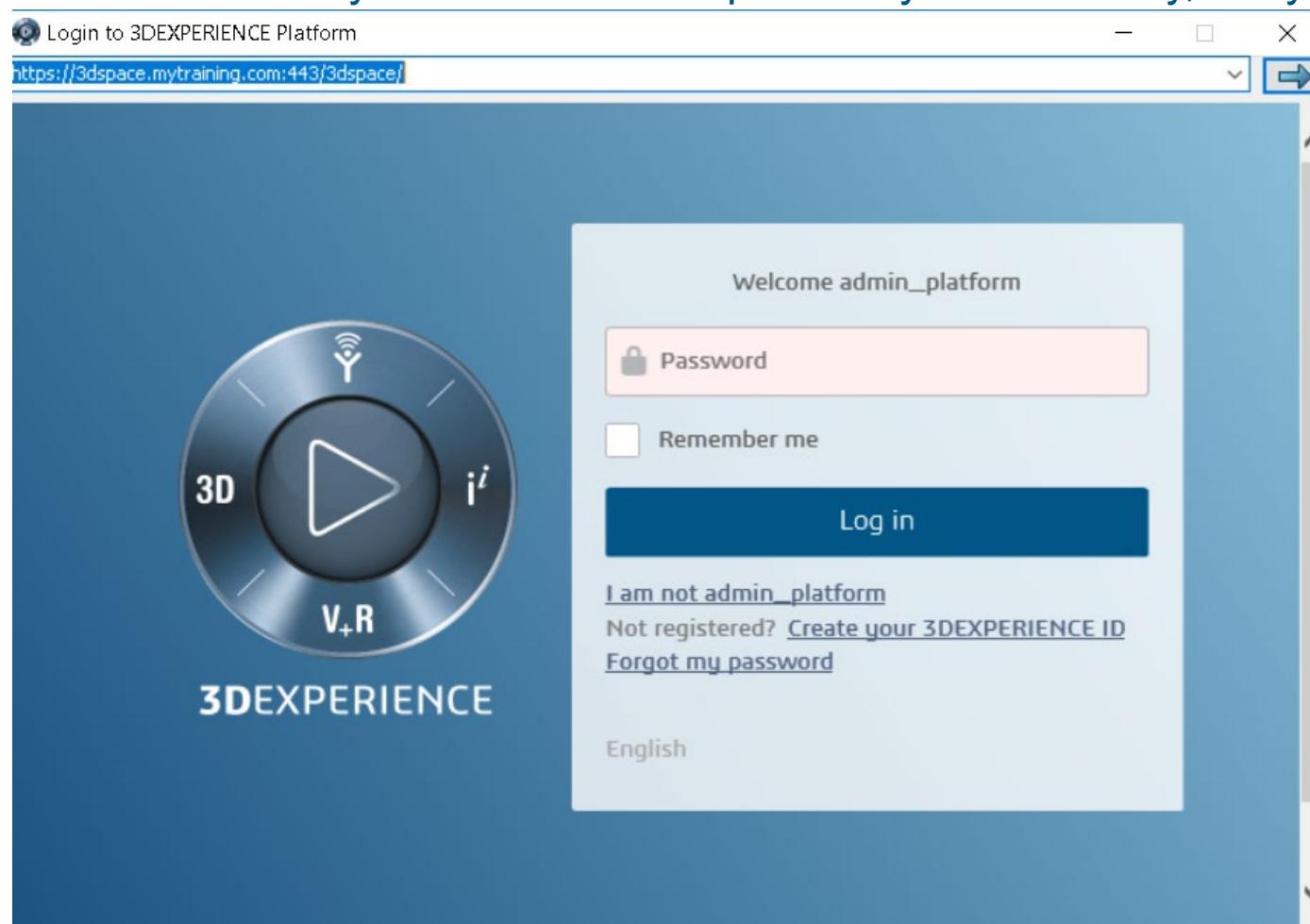
Client Connectors: Post Configuration

MS Office:

- a. Click on the “3DEXPERIENCE” Menu:
- b. Then click on “Login”



- c. At this time it may fail because 3DSpace may not be ready, but you should see this:



Client Connectors: Post Configuration

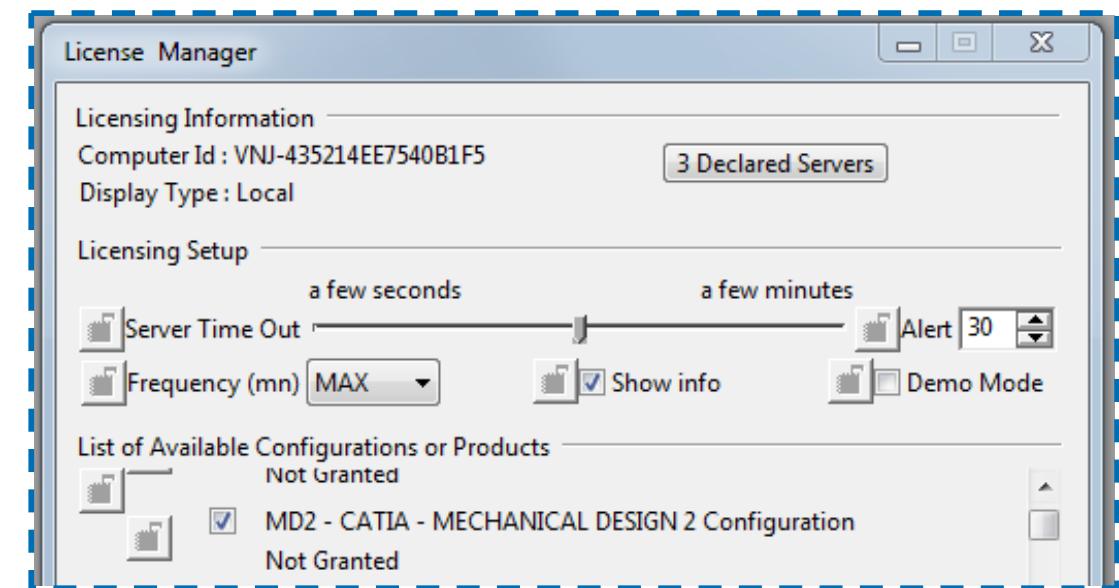
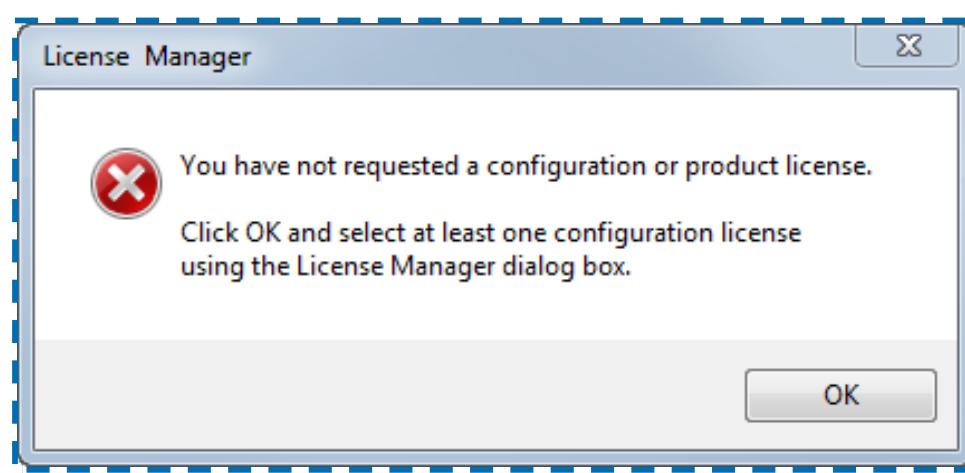
For CATIA V5-6R2017 you will have to apply Hot Fix on top of your GA installation. GA installation should have been done prior to attending the class.

- a. The media will be provided by the trainer, if you have HF09 you can go ahead.
- b. Go to <Your Installer Path>\WIN64.
- c. Execute “StartHFX.exe” and the HF.

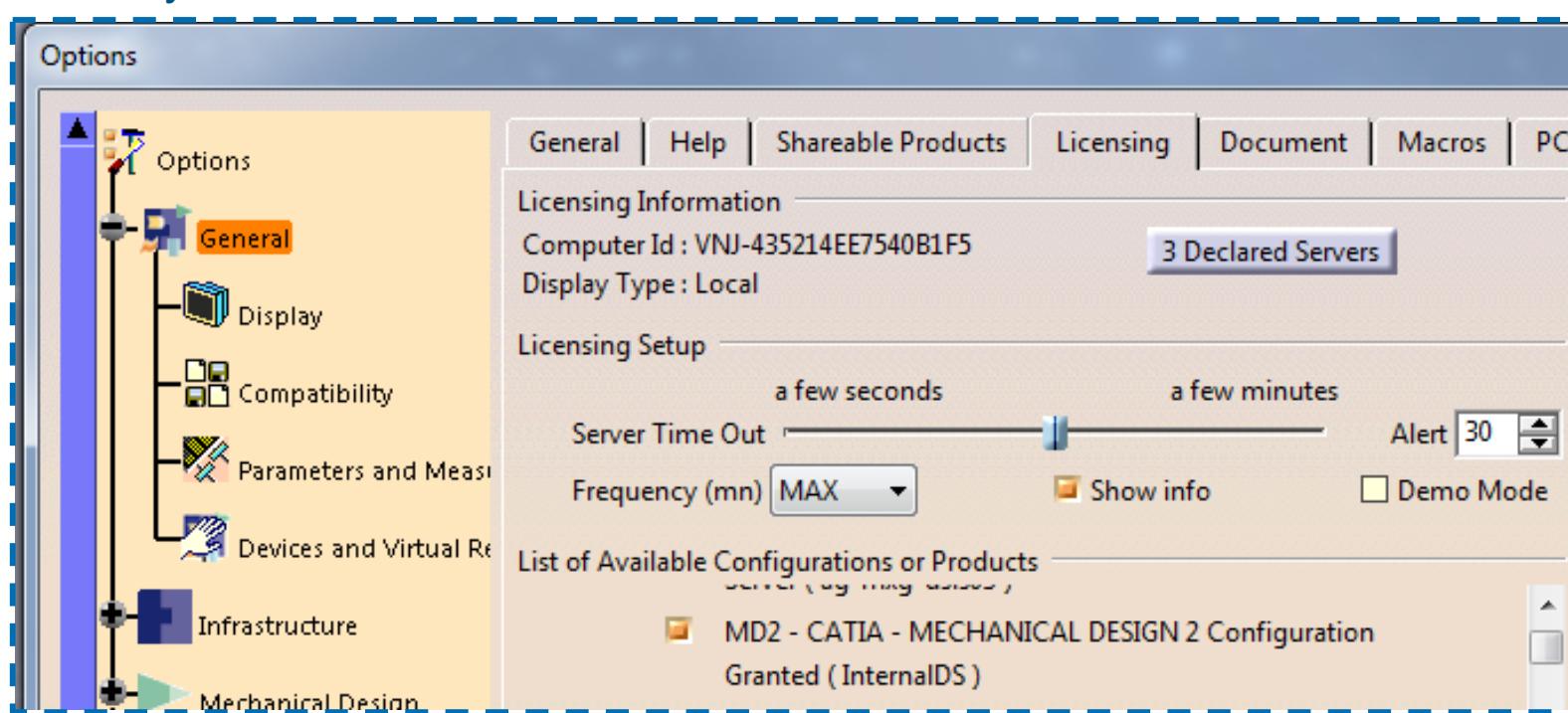
Client Connectors: Post Configuration

CATIA V5-6R2017:

- a. In your desktop open “CATIA P1 V5-6R2017”
- b. You may be challenged to select a license and re-start CATIA.

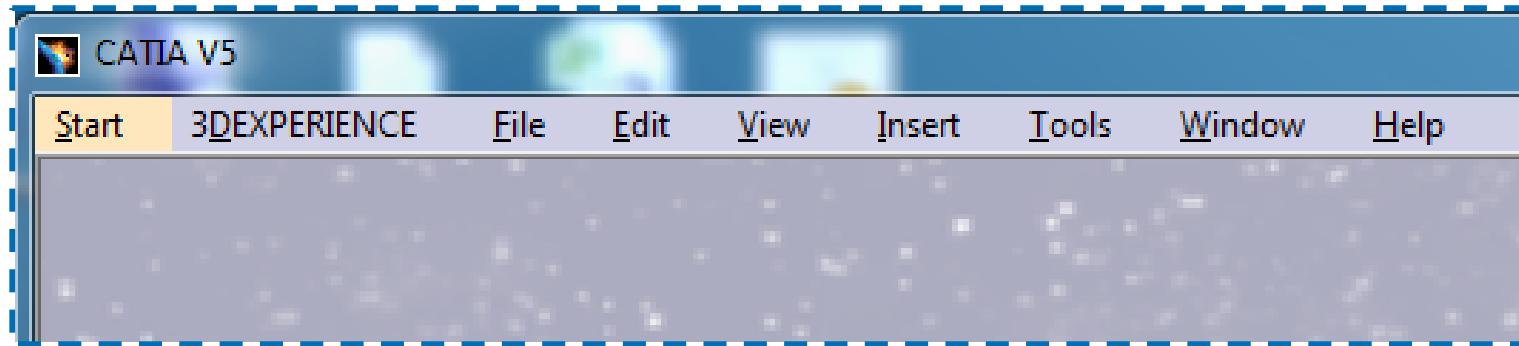


- c. Select your license and re-start

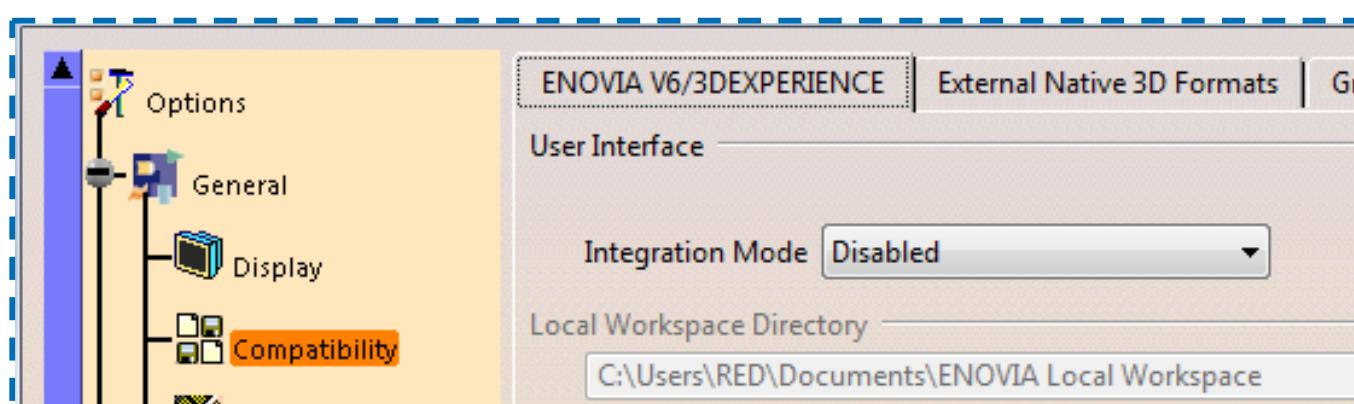


Client Connectors: Post Configuration

1. CATIA V5-6R2017, you need to define the connection parameters:
 - i. Depending on your previous configuration, you may already see:



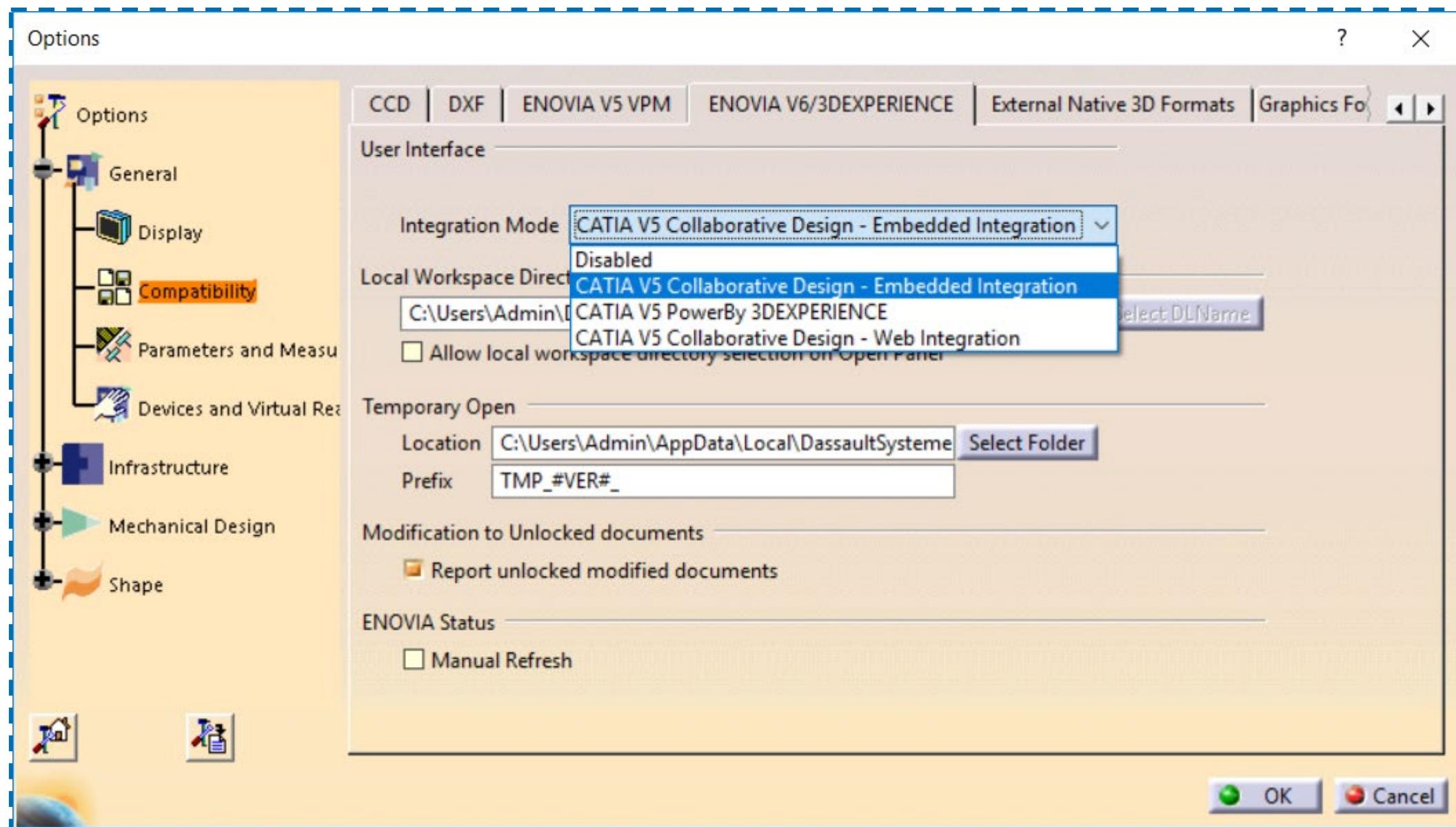
- ii. If you don't see the ENOVIA V6 tab, Open the menu **Tools > Options**, then select "Compatibility", then in tab "ENOVIAV6/3DEXPERIENCE" Enable the "Integration Mode"



Client Connectors: Post Configuration

1. CATIA V5-6R2017:

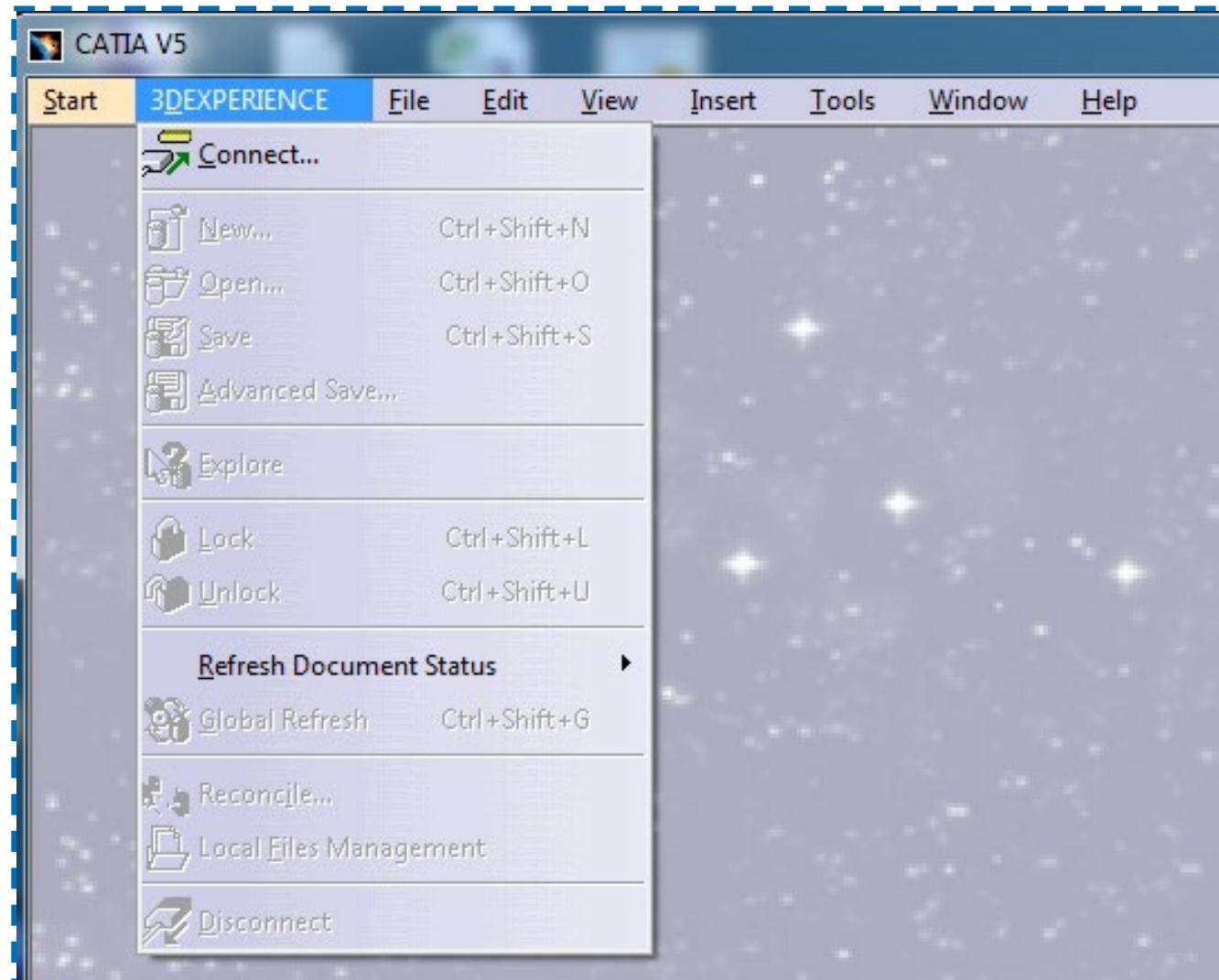
- i. Select “Embedded Integration” in the drop down list:



Client Connectors : Post Configuration

1. CATIA V5-6R2017:

- i. Re-start CATIA
- ii. Now you should see:



- iii. You may now close CATIA.

Client Connectors: Uninstallation

This is a Windows “classic” uninstallation via "Programs and Features":
if you want to uninstall all DS products, order the list by publisher and you should see all “Dassault Systemes” software.

The **3DEXPERIENCE** launcher could have been installed by another product, it is assumed that you are uninstalling all.

3DEXPERIENCE Native Apps

- ▶ In this lesson, you have installed the native apps, connectors and the client.

Lesson 7: Functional Validation

Topics to be covered:

- ▶ Introduction
- ▶ Synthesis on Technical Validation
- ▶ Synthesis on Admin Validation
- ▶ End-User Validation



Introduction

Topics to be covered:

1. Introduction
2. Synthesis on Technical Validation
3. Synthesis on Admin Validation
4. End-User Validation

Introduction

At this stage, the **3DEXPERIENCE** platform is installed and each component can properly communicate with each other.

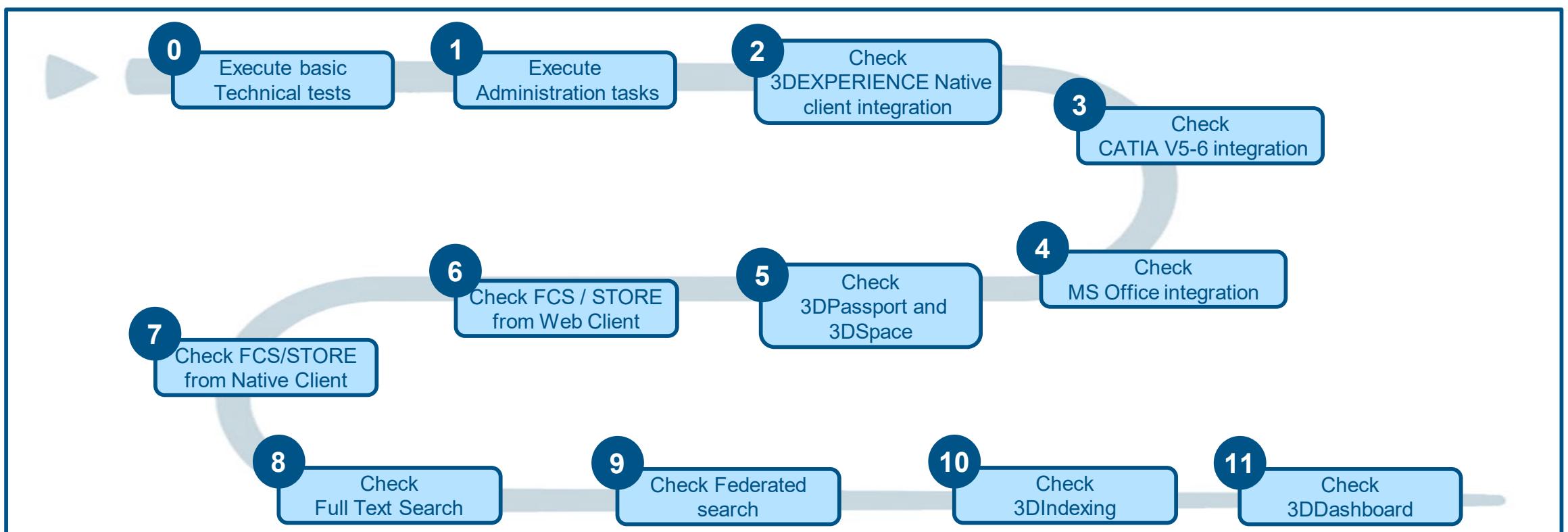
The next step is to proceed with functional validation tests by running some basic end-to-end scenarios, that you are likely to encounter very soon after a deployment. These tests can be used to quickly validate the core component functionality.

► The core components that must be validated are:

- 3DPassport
- 3DDashboard
- 3DSearch
- FCS
- 3DSpace
- 3DComment
- 3DNotification
- 3DSwym
- 3DIndexing

3DEXPERIENCE platform: Core Validation Path

- ▶ There are multiple ways to validate overall system integrity, the easiest method is to execute a scenario with a minimum number of steps that exercises the maximum number of services.
 - Create 2 users : Check 3DPassport, 3DSpace and 3DDashboard
 - 3DSpace object creation : Check 3DSpace and FCS's (locations), 3DIndexing and 3DSearch
 - Client Integration : Check All integrations and FCS's



Ensuring a proper Start

- ▶ Before stating the Functional Validation you have to make sure that all 3DS Services and other supporting components are up and running:
 - Apache, TomEE+
 - Mail Server

← Have all the CMD windows in visible view
← Is the application running?
- ▶ It is a short but essential list, always keep an eye on your resources.



Synthesis on Technical Validation

Topics to be covered:

- ✓ 1. *Introduction*
- 2. **Synthesis on Technical Validation**
- 3. Synthesis on Admin Validation
- 4. End-User Validation

Quick Connection Tests

This first set of tests are the equivalent to “ping” tests ensuring that all services are responding and ready to be configured for the functional validation test.

If any test fails you cannot proceed!

- Validate direct database connection using MQL
 - For 3DSpace and studio Modeling
- Validate STORE fcs & path
 - Get path for each store, check that each folder exists
- Validate service connections (from server and client)
 - FCS URL
 - Web Client Connections
 - **3DEXPERIENCE** Native clients
 - **3DEXPERIENCE** Client connectors
- Validate and configure full text search (3DSpace Index)
 - Log parameters
 - First FULL indexation

Note: Be patient and methodical. Keep in mind a real deployment would typically have more RAM, CPU and faster disk.

Exercise: First Level Validation

Open a “Command Prompt”, and execute the following commands:

This will test communication from 3DSpace MQL to the database.

- ▶ Test MQL server – This the MQL that should be used for all admin server tasks:

```
D:\3DEXPERIENCE\R2019x\3DSpace\win_b64\code\bin\mql.exe
```

```
Matrix Query Language Interface, Version 3DEXPERIENCE R2019x HotFix 2 (64 bits)
```

```
Copyright (c) 1993-2016 Dassault Systemes.
```

```
All rights reserved.
```

```
MQL<1>set context user creator;
```

```
MQL<2>quit;
```

- ▶ Test the desktop shortcut in the same way:



30 minutes

First Level Validation

- ▶ These tests will check if there were any inconsistencies created during FP. This can sometimes happen during an upgrade from one FP to a newer FP. Normally GA + initial FP applied is free of these types of issues.

- ▶ Use the desktop shortcut to open MQL, execute the following commands:

```
MQL> set context user creator;  
MQL> validate level 0;
```

- ▶ If you have loaded a significant amount of data it is usually recommended to recalculate statistics for the database (optimization).

- 1) Instead of level “0”, execute validate level 4:

```
MQL> validate level 4;
```

Even though both commands use the same “validate” key word they do different tasks. Level 0 simply verifies the table structures and checks for table corruption while Level 4 executes a recalculation of database statistics

Do not close the MQL window.

First Level validation

You will now validate the “STORE” objects where the files will be saved. Prior to creating any file data in the system you must understand the default file store destinations. Using the same MQL window execute the following commands:

- ▶ This is how you find out which store objects exist in the system:

```
MQL> list store;
```

```
STORE  
Image Store  
plmx
```



The “Image Store” has a blank space and mixed case in the name. When referring to an object you must respect the case and enclose object names in quotes if they have a space in the name:
MQL> print store “Image Store” ;

- ▶ Now that you have the store names you can query for the FCS URL to determine which (FCS) each store object is associated with:

```
MQL> list store * select name fcsurl dump;
```

```
STORE      ,https://fcscentral.mytraining.com/fcs  
Image Store,https://fcscentral.mytraining.com/fcs  
Plmx      ,https://fcscentral.mytraining.com/fcs
```



The keyword “dump” puts the output for each object on 1 line.

- ▶ You will also need to know which directory each of the store objects / FCS servers will use to store files

```
MQL> list store * select name path dump;
```

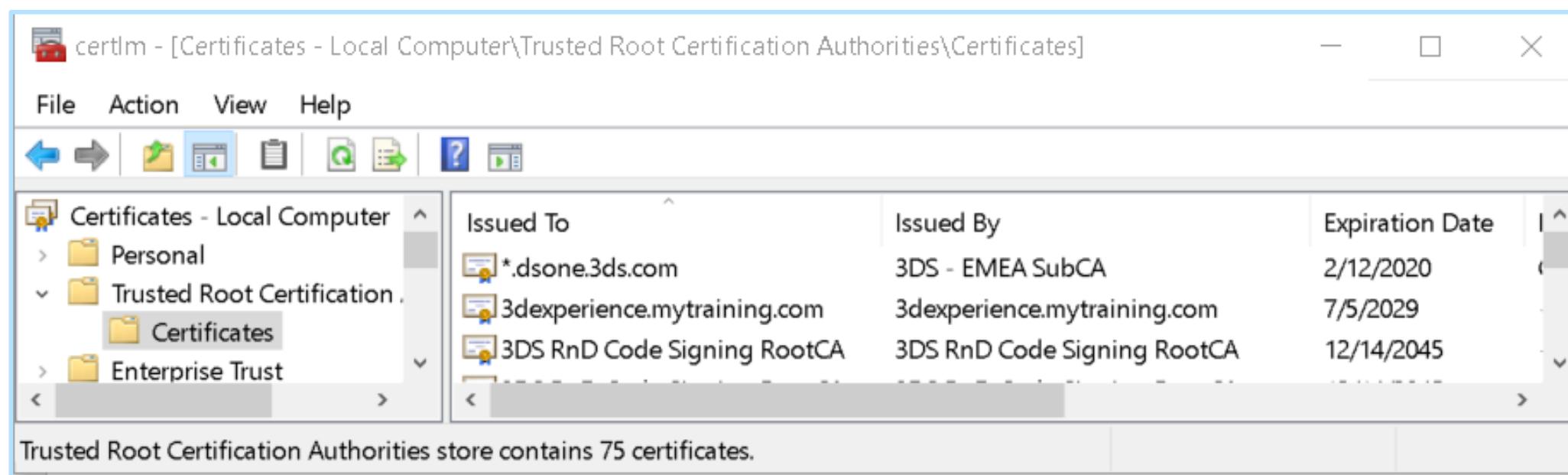
```
STORE      ,D:\3DEXPERIENCE\data\3DSpaceData\STORE  
Image Store,D:\3DEXPERIENCE\data\3DSpaceData\ImageStore  
Plmx      ,D:\3DEXPERIENCE\data\3DSpaceData\plmx
```



Normally the installation default for the FCSURL is the “internal” web application and the path defined during the installation process. All of this can be modified.

Import CA Cert to Client

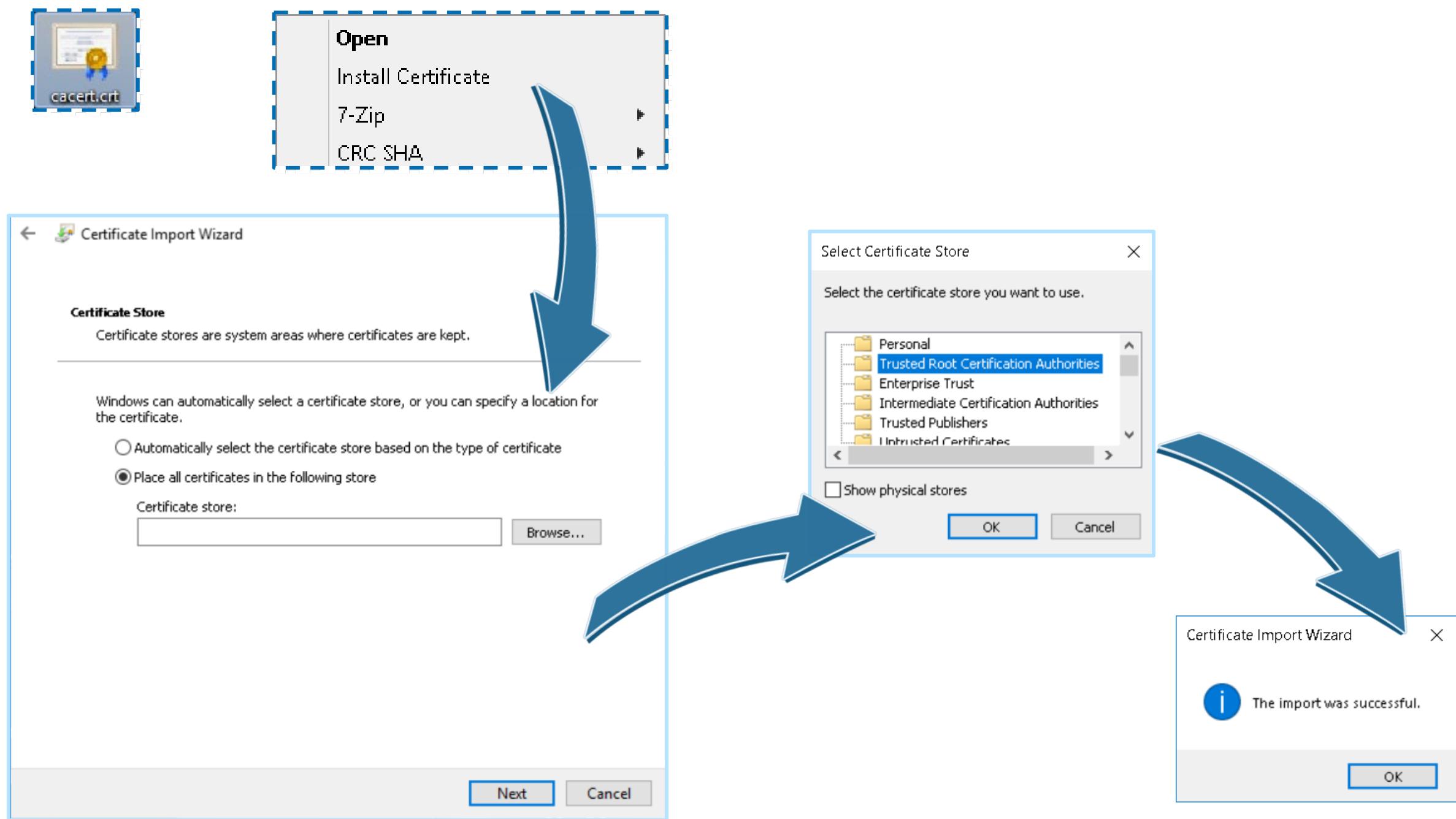
1. Each connection test should be done via the client machine, if there is an issue, you can fallback to the server for all tests using “Internet Explorer” but you will need to do both. “Server side” testing cannot usually be done for native clients or connectors.
2. You should have already imported the certificate in your client machine during the “Core Configuration document”.
3. Execute the command “certmgr.msc”. Under “Trusted Root Certificate Authority” you should see the Server certificate.



Import CA Cert to Client

If you do not have the certificate in your client machine refer the next slides to import it:

1. Copy the file D:\3DEXPERIENCE\conf\ssl\cacert.crt from the server directory to your client desktop then RMB and **Install Certificate**:
2. Choose: Place all certificates in the following store > **Browse** > **Trusted Root Certification Authorities** > **OK**.



Import CA Cert to Client

1. For IEF/CATIA V5-6 you will also need to perform the following actions:
 - a. Create a folder **C:\3DEXPERIENCE\cert**, you may need to be Administrator.
 - b. Copy the *cacerts* file from the server path:
D:\3DEXPERIENCE\Java64\jdk8\jre\lib\security to the **C:\3DEXPERIENCE\cert**

- c. Edit file “config.xml” in folder:

**C:\Program
Files\DassaultSystemes\B421\xcadconnectors\win_b64\reffiles\IEFClientWorkspaceService**

- d. In the “javaoptions” tag add the following keys:

**-Djavax.net.ssl.trustStore=C:\3DEXPERIENCE\cert\cacerts
-Djavax.net.ssl.trustStorePassword=changeit**

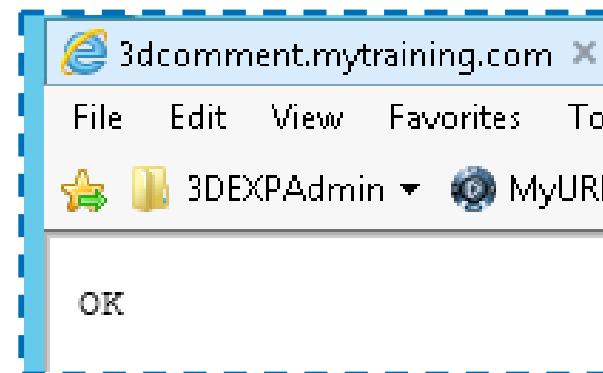
- e. It should look like this:

```
1 <?xml version="1.0" encoding="UTF-8"?>
2 <config>
3   <serverURL>https://3dspace.mytraining.com/3dspace</serverURL>
4   <language>en</language>
5   <debug>false</debug>
6   <charset>utf8</charset>
7   <multiport>true</multiport>
8   <portrangemin>2000</portrangemin>
9   <portrangemax>5000</portrangemax>
10  <jrehome>C:\Program Files\Java\jdk1.8.0_171\jre</jrehome>
11  <javaoptions>-Xmx256m -Xms256m -Djavax.net.ssl.trustStore=C:\3DEXPERIENCE\cert\cacerts -Djavax.net.ssl.trustStorePassword=changeit</javaoptions>
12 </config>
```

First Level Validation

The next validation steps are to ensure that you can access the URLs and login with the platform admin user: admin_platform.

- ▶ Start the TomEE+ for all services.
- ▶ Remember the “MyURLs.html” that you created? You will use this file for a quick validation.
 - ▶ Execute these tests using “Internet Explorer” on both the server and the client!
 - ▶ First we will check the URLs that have an information page but no login page:
 - ▶ 3DComment
 - ▶ FCS Central
 - ▶ FCS Remote



HTTP TEST URLs
3DPassport
3DDashboard
FedSearch
3DSpace
3DSpace Internal
3DComment
FCS Central
FCS Remote
3DSwym
HTTPS TEST URLs
3DPassport
3DDashboard
FedSearch
3DSpace
3DSpace Internal
3DComment
FCS Central
FCS Remote
HEALTH CHECK SERVICE HTTPS
3DPassport
3DDashboard
FedSearch
3DSpace
3DSpace Internal
3DComment
FCS Central
FCS Remote
3DNotification
3DSpaceIndex
3DSwym
SERVICE HTTPS
3DPassport
3DDashboard
FedSearch
3DSpace
3DSpace Internal
3DSpaceIndex
3DSwym

First Level Validation

- ▶ Execute these tests using “Internet Explorer” on both the server and the client!
- ▶ Second set of URLs with Login for each link close the IE that pops up and then go to the next Link:

- ▶ 3DPassport
- ▶ 3DDashboard
- ▶ 3DSpace
- ▶ 3DSpace Internal
- ▶ 3DSpace Index

User is admin and <Your 3DSpace Index password>



This will test the redirects.

3DPassport - Login

3DEXPERIENCE ID

>Password

Remember me

Log in

Not registered? [Create your 3DEXPERIENCE ID](#)

[Forgot my password?](#)

English

HTTP TEST URLs

[3DPassport](#)
[3DDashboard](#)
[FedSearch](#)
[3DSpace](#)
[3DSpace Internal](#)
[3DComment](#)
[FCS Central](#)
[FCS Remote](#)
[3DSwym](#)

HTTPS TEST URLs

[3DPassport](#)
[3DDashboard](#)
[FedSearch](#)
[3DSpace](#)
[3DSpace Internal](#)
[3DComment](#)
[FCS Central](#)
[FCS Remote](#)

HEALTH CHECK SERVICE HTTPS

[3DPassport](#)
[3DDashboard](#)
[FedSearch](#)
[3DSpace](#)
[3DSpace Internal](#)
[3DComment](#)
[FCS Central](#)
[FCS Remote](#)
[3DNotification](#)
[3DSpaceIndex](#)
[3DSwym](#)

SERVICE HTTPS

[3DPassport](#)
[3DDashboard](#)
[FedSearch](#)
[3DSpace](#)
[3DSpace Internal](#)
[3DSpaceIndex](#)
[3DSwym](#)

First Level Validation

► 3DPassport

The screenshot shows the 3DPassport login interface and a user's profile page. The login page features a large 3DEXPERIENCE logo on the left and a login form on the right. The profile page is titled 'My Profile' and displays the user's email and login information.

3DPassport - Login

3DEXPERIENCE ID

>Password

Remember me

Log in

Not registered? [Create your 3DEXPERIENCE ID](#)
[Forgot my password](#)

English

My Profile

Email
admin_platform@smtp.mytraining.com *

Login
admin_platform *

Update my password

First Level Validation

► 3DDashboard

The screenshot shows the 3DEXPERIENCE 3DDashboard Platform Management interface. The top navigation bar includes links for My Platform, Members, Communities, Content, Dashboards, Vocabularies, and Legal. A search bar and a user menu labeled "Admin PLATFORM AP" are also present. The main content area displays a welcome message: "Welcome to your platform onPremises". It informs the user they have been selected as an administrator to manage users & roles, and suggests navigating to the "Members" tab. Below this, there are two cards: "Members" (7) and "Roles" (6). At the bottom, a footer states "About 3DEXPERIENCE platform".

Welcome to your platform
onPremises

You have been selected as an administrator to manage users & roles,
To do that, go to the next Tab: "Members".

Members

7

Roles

6

About 3DEXPERIENCE platform

First Level Validation

► 3DSpace

The screenshot shows the 3DEXPERIENCE Platform interface for the 3DSpace module. The browser title bar reads "3DEXPERIENCE Platform" and the URL is "https://3dspace.mytraining.com/3dspace/common/emxNavigator.jsp?collabSpace=Default". The main header includes the 3DEXPERIENCE logo, a search bar, and a user dropdown for "VPLM Administration User Default".

The left sidebar contains a navigation menu with the following items:

- Change Management
 - My Changes
- Collaboration and Approvals
 - Home Dashboard
 - Issues Summary
 - Issue Categories
 - Collections
 - Companies
- Utilities
- Routes
- Tasks
- Subscriptions
- Decisions
- Discussions
- Metrics

The main content area displays the "Home" dashboard for the 3DSpace module. It features a toolbar with tabs for "New Docs", "Changed Docs", and "My Recent Docs", along with various document management icons. Below the toolbar is a table header with columns: Name, Title, Lock, Rev, Ver, RSS, and Type.

On the right side, there are two sections: "Assigned Items" (showing 0 locked documents) and "Updates of documents over time" (showing 0 new/modified documents for the week and month).

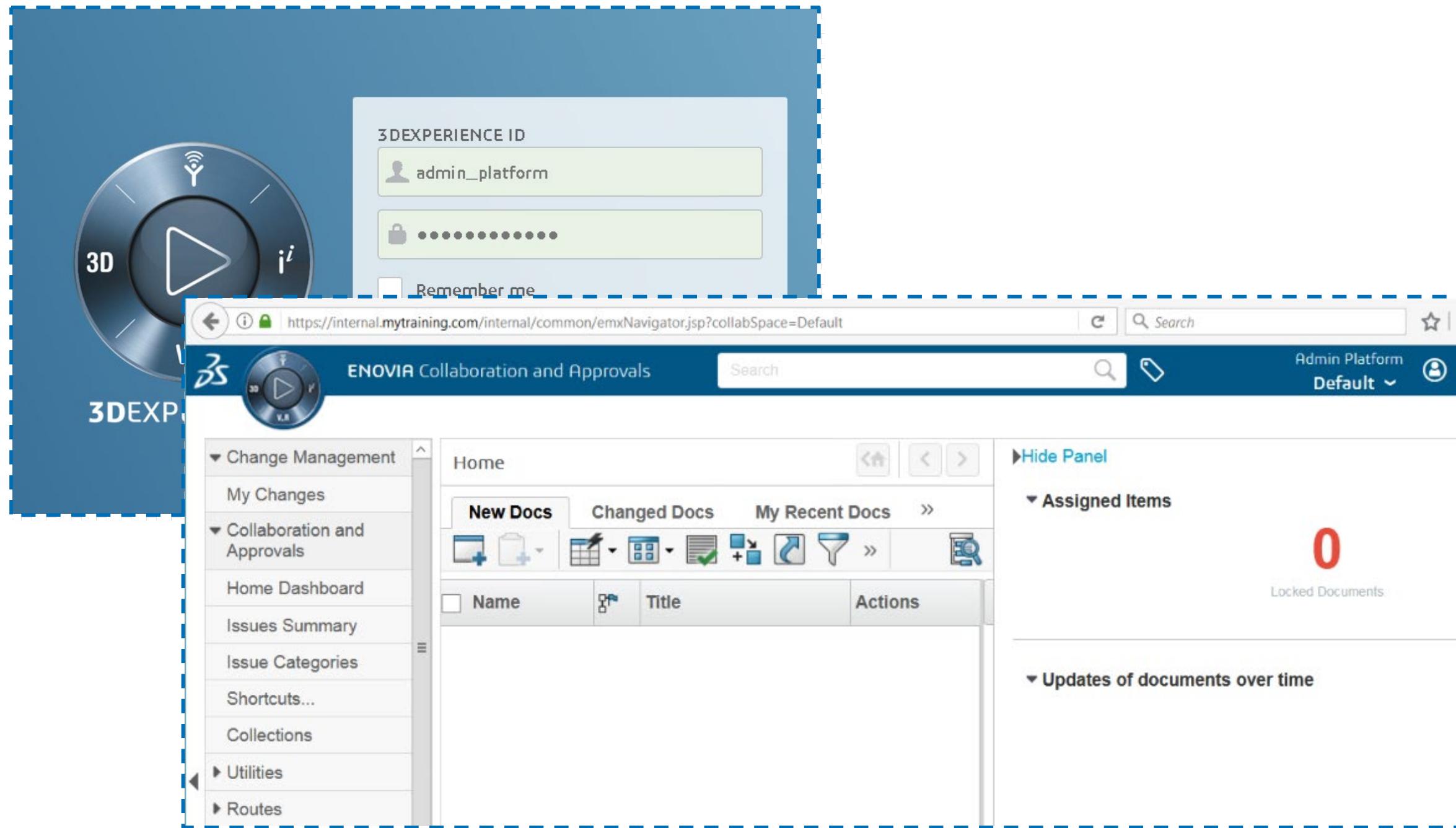
At the bottom of the page, there is a footer link "About 3DEXPERIENCE platform".

First Level Validation

► 3DSpace Internal

You did not get redirected to the 3DPassport and you will see the old style login.

You have the option of removing 3DSpace Internal from HTTPS and Apache redirect. You can leave it as a backend service accessed via HTTP and port number for simple batch usage.



First Level Validation

- ▶ 3DSpace Index
 - ▶ Click on the **Administration Console**.
 - ▶ Do not logout yet, in the next page you are going to do some minor configuration.



User is “admin” and <Your 3DSpace Index password>.

The screenshot shows the EXALEAD CloudView Administration Console interface. At the top, there's a navigation bar with icons for back, forward, refresh, and home, followed by the URL 3dspaceindex.mytraining.com:19001/index.html and standard browser controls. The main header features the EXALEAD logo and the word "CloudView".

BUILD APPLICATION

- Administration Console**
Connect to data source, process, extract information and store it into the index.
- Business Console**
Tune relevance, define content recommendation, edit semantic resources and alerting rules.

GET HELP

GUIDES

- Getting Started
- Installation & Deployment
- Administration
- Connectors
- Configuration
- Mashup application development

CUSTOMIZE

- Connectors & Push API
- Customization SDK
- Java APIs SDK
- Mashup UI SDK

CloudView

Login
Password **Login**

Apply **Go to...**

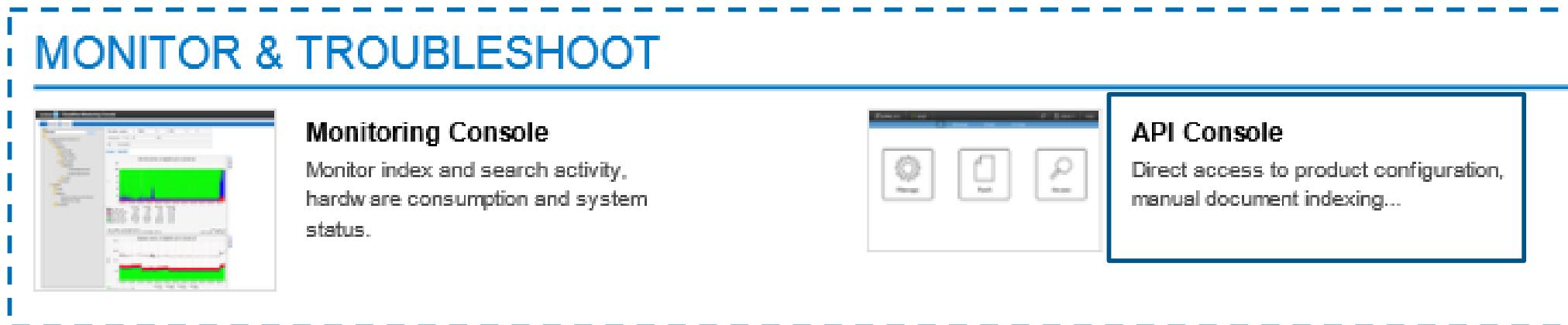
The bottom section of the screenshot shows a detailed view of the "Index" page under the "Connectors" tab. The page title is "Home" and the sub-page title is "Index". A message says: "Use this page to manage indexing and monitor running processes for a selected host." Below this is a table listing connectors:

Name	Type	Status
consolidation-sxiconsolidation0	Unmanaged (Push API)	n/a
default	Unmanaged (Push API)	n/a

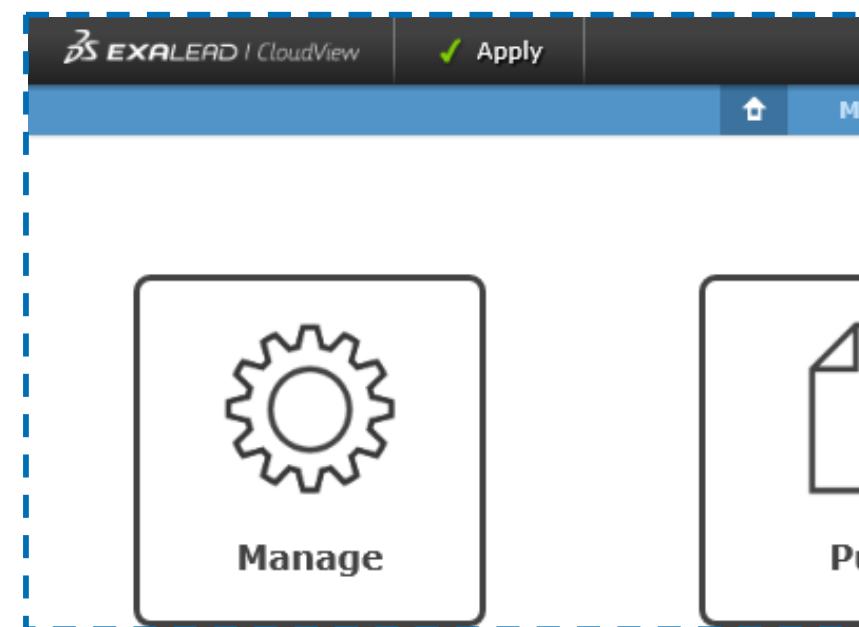
First Level Validation

You will now configure the log file mechanism in order to prevent excessive file growth.

Go back to the main page, on the bottom right you will see “API Console”.



The click on the “BIG” manage button:



First Level Validation

- a. “Filter...” on “setLogging” then double click “setLoggingConfig”
- b. Change the value for:
 - i. LogPurgeMaxSizeKB → From 1048576 to 204800 (1GB → 200MB)
- c. Click on Save and then Apply.

The screenshot shows the EXALEAD CloudView interface. The top navigation bar includes 'EXALEAD CloudView', 'Apply' (with a checkmark icon), a user icon, and 'admin'. Below the bar are tabs: 'Manage', 'Push', 'Access', and 'Browse'. A sidebar on the left is titled 'Select MAMI' and shows 'All' selected. Under 'Configuration', 'setLoggingConfig' is highlighted. Under 'Operation', 'setLoggingLevel' is listed. The main content area has tabs 'SetLoggingConfig' (selected) and 'SetLoggingLevel'. It contains buttons 'Save' and 'Reload'. On the right, there are 'Find', 'Replace', and 'Replace' buttons. The code editor displays XML configuration code with a line wrap checkbox checked. A blue box highlights the 'logPurgeMaxSizeKB="204800"' line. The XML code is as follows:

```
1 <master:SetLoggingConfig xmlns:cdesc="exa:com.exalead.mercury.component.config.descriptor" xmlns:secs="exa:com.exalead.security.sources.common" xmlns:bee="exa:exa.bee">
2   <master:LoggingConfig enableTimeBasedLogRotation="false" logRotationCronExpression="0 0 0 * * ?" logRotationMaxSizeKB="0" logPurgeMaxSizeKB="204800"
3     <master:LoggingLevel level="info"/>
4     <master:LoggingLevel level="info" logger="httpclient"/>
5     <master:LoggingLevel level="info" logger="org.eclipse.jetty"/>
6     <master:LoggingLevel level="info" logger="org.apache.commons"/>
7     <master:LoggingLevel level="info" logger="org.apache.tiles"/>
8     <master:LoggingLevel level="info" logger="org.apache.jasper"/>
9     <master:LoggingLevel level="info" logger="org.apache.http.wire"/>
```

- d. Then “Restart” the **3DEXPERIENCE R2019x 3DSpace Index** service

First Level Validation

- ▶ A quick check on the `emxSystem.properties` files located in
D:\3DEXPERIENCE\R2019x\3DSpace\STAGING\ematrix\properties
 - The value of this tag should be:

`emxFramework.FullTextSearch.QueryType = Indexed`

```
3558 #####  
3559 # Property entries for Full Text Search  
3560 #####  
3561 emxFramework.FullTextSearch.QueryType = Indexed  
3562 emxFramework.FullTextSearch.RefreshWindowShade = false  
3563 #TagsMode, NavigationMode, FormBasedMode  
3564 emxFramework.FullTextSearch.DefaultMode=TagsMode
```

First Level Validation

- ▶ Using the same “MQL” window you have open execute these 3DSpace Index validation commands:
 - Execute:

```
MQL> print system searchindex file D:\3DEXPERIENCE\conf\config.xml ;
```
 - Edit the file and check if the server name is ok, if you need to update the SERVER name execute this command after you save your changes:

```
MQL> set system searchindex file D:\3DEXPERIENCE\conf\config.xml ;  
-----  
| <DATABASE name="AdvancedSearchDB0" />  
| <PROVIDER name="XL" />  
| <SERVER host="3dspaceindex" baseport="19000" nbSlices="1" />  
-----
```
 - We will now clear the index by running the following command:
 Short name is being used.

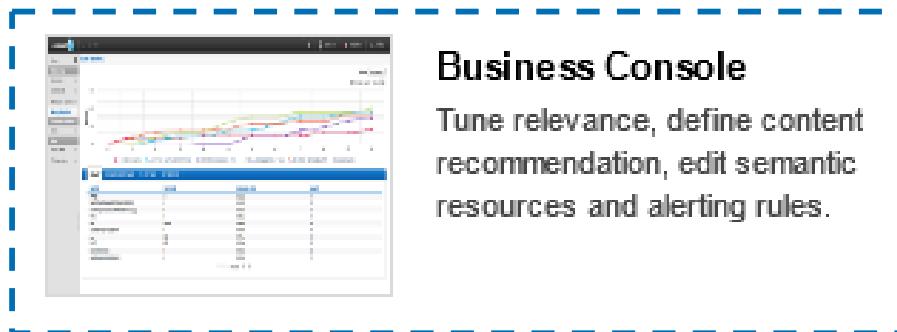
```
MQL> clear searchindex ;
```
 - Next you will execute a fresh baseline index, execute the following command:

```
MQL> start searchindex mode FULL ;
```
- **Note:** these tasks are very CPU intensive, it can take days for scenarios with large amounts of data, you only do a clear and FULL index in very particular cases.
- Now lets have a look on the index status, execute the following command:

```
MQL> status searchindex ;
```

First Level Validation

- ▶ Go back to the main page and click on “Business Console”



- ▶ Then click on “Test Search” in the search page, search for “#all”

The screenshot shows the EXALEAD CloudView interface. The top navigation bar includes links for "Home", "Relevance", "Semantic", "Notification", "Misc", "Test Search", and "Configuration". The "Test Search" link is highlighted in blue. The main content area is titled "Test Search" and features the EXALEAD logo. Below the logo is a search bar with a placeholder "Search" and a "Search" button. The "Advanced Search" link is visible to the right of the search bar.

First Level Validation

- ▶ The search result should be similar to this:

Test Search ?

 #all **Search** Advanced Search

Results, 1-10 of 642 Sort by Relevance Date Size

eno:bo:560A1C520000013458AF03AA00000903_global_			
policy_95_tag	Person	latestrevision	TRUE
reserved	FALSE	policy	Person
vault	eService Production	prg_95_people_95_compan	Company Name y

Refinements

- policy_95_tag
 - Country 246
 - Business Role 96
 - Security Context 94
 - VPLM_SMB_Definition 21
 - VPLM_PosResourceRef 15
 - Person 7

First Level Validation

- ▶ Following are the available commands:

- To apply the config.xml to the ENOVIA database

```
MQL> set system searchindex file <PATH>/config.xml ;
```

- To start a baseline index:

```
MQL> start searchindex mode FULL ;
```

- To start an incremental index:

```
MQL> start searchindex mode PARTIAL ;
```

- To check on the status of a searchindex:

```
MQL> status searchindex ;
```

- To clear a searchindex from the exalead DB:

```
MQL> clear searchindex ;
```

- To update a type in the index :

```
MQL> update searchindex type x;
```

- To Help for all the searchindex commands:

```
MQL> help searchindex ;
```

- To extract the config.xml from the DB:

```
MQL> print system searchindex file D:\3DEXPERIENCE\conf\config.xml ;
```

First Level Validation

- ▶ Validate searchindex generates two reports in the MQL log directory (MX_TRACE_FILE_PATH):
 - **validate_searchindex_counts.log**: object Counts in DB and 3DSpace Index per type
 - **validate_searchindex_objects.log**: missing Objects' physical IDs in DB or 3DSpace index per type and objects with missing files in the 3DSpace Index

```
MQL> validate searchindex ;
```

- ▶ There is batch script that you can execute to check the health of the service, Open a “Command Prompt” and execute these commands:

```
D:\3DEXPERIENCE\data\cv\data\bin\cvinit.bat status
```

NAME	STATUS	PAYLOAD	PID	STARTDATE
index6-sxibg0-sxi0	started	-	5692	2019-03-08T06:59:34-0500
indexingserver-sxibg0	started	-	1944	2019-03-08T06:45:17-0500
searchserver-ss0	started	-	8912	2019-03-08T05:20:40-0500
consolidationserver-sxicconsolidation0	started	-	6688	2019-03-08T06:45:31-0500
master	started	-	11960	2019-03-08T05:20:40-0500
gateway	started	-	1372	2019-03-08T05:20:40-0500
connectors-java0	started	-	7824	2019-03-08T05:20:40-0500
convert-c0	started	-	8240	2019-03-08T06:28:58-0500

```
D:\3DEXPERIENCE\data\cv\data\bin\cvinit.bat check-indexes-up
```

```
Only checking indexes for 3dspaceindex.mytraining.com/cvdefault
```

```
All indexes are OK
```

Synthesis on Admin Validation

Topics to be covered:

- ✓ 1. *Introduction*
- ✓ 2. *Synthesis on Technical Validation*
- 3. **Synthesis on Admin Validation**
- 4. End-User Validation

Exercise: Second Level Validation

This is a first set of administration tasks needed for a realistic user functional tests.

- ▶ **3DEXPERIENCE** platform Identifier setup
 - ▶ The “Interfix”
- ▶ Definition and creation of
 - ▶ Locations
 - ▶ Sites
- ▶ User creation and assignment to the sites.
 - ▶ Central user
 - ▶ Remote use

As with the previous validation steps, most actions will be done in one MQL window, keep it open throughout the validation process.



60 minutes

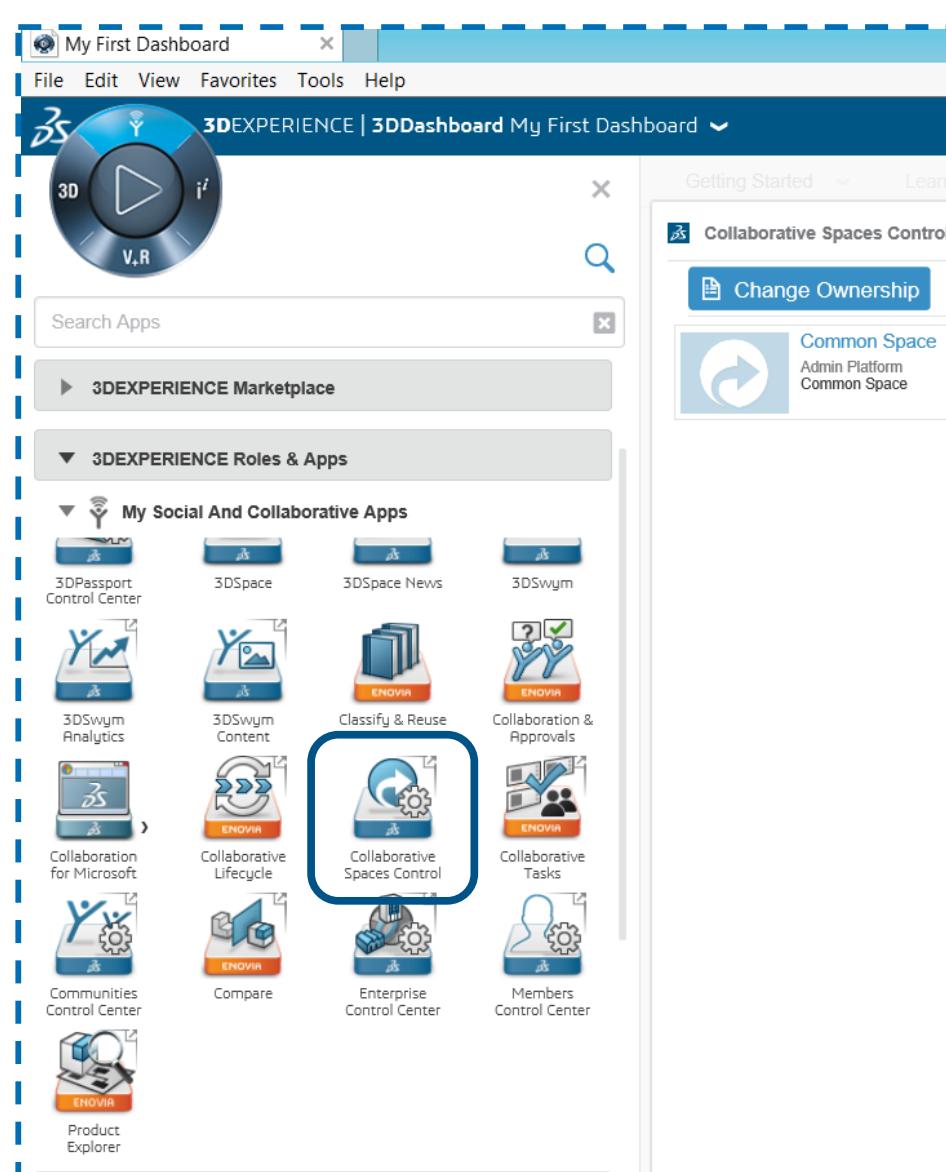
Second Level Validation - Interfix

- ▶ The interfix must be unique, otherwise when exporting data, this data tagged could be the same as another **3DEXPERIENCE** platform and cause issues during the import phase.
- ▶ Proceed as below
 - a. Open the Collaborative SpacesControl widget.
 - b. Click Content Naming Rules.
 - c. Specify the Identifier Interfix “Mytraining” used in naming all types of content and select a Separator from the list.
 - i. You cannot specify different interfix values for different types of content, or different separators between different parts of the content name. You can also choose No Separator so that nothing separates one part of the identification from the other parts.
 - d. For each content type that you want to update, follow these steps:
When you enter a value, the Preview box shows how the server will name content based on those values.
 - i. From the Content Type list, select the content type.
 - ii. If needed, edit the prefix value. The app provides pre-defined, unique prefixes for each type of content. Only change the prefix if required for your business processes.
 - iii. Enter a suffix value.
 - e. Click **Apply**.

All content will be created using the new naming conventions. Names for existing content are not changed

Second Level Validation - Interfix

- Login to Dashboard, Select Collaborative Spaces Control > Content Naming Rules.



The screenshot shows the 'Content Naming Rules' configuration page. At the top, it says 'Allows to define naming rules for each content type'. Below that, a preview shows the formula: 'DOC-mytraining-<counter>-19x'. The configuration fields are as follows:

- Content Type:** Document
- Prefix:** DOC
- Suffix:** 19x
- Interfix (same for all types):** mytraining
- Separator:** (empty)

At the bottom are 'Apply' and 'Reset' buttons.

Second Level Validation – User Creation

User creation for small numbers of users is done via the 3DPassport and 3DSpace user interfaces. There are also batch import tools, VPMPeopleImport/ VPMPeopleExport, which are more for mass imports.

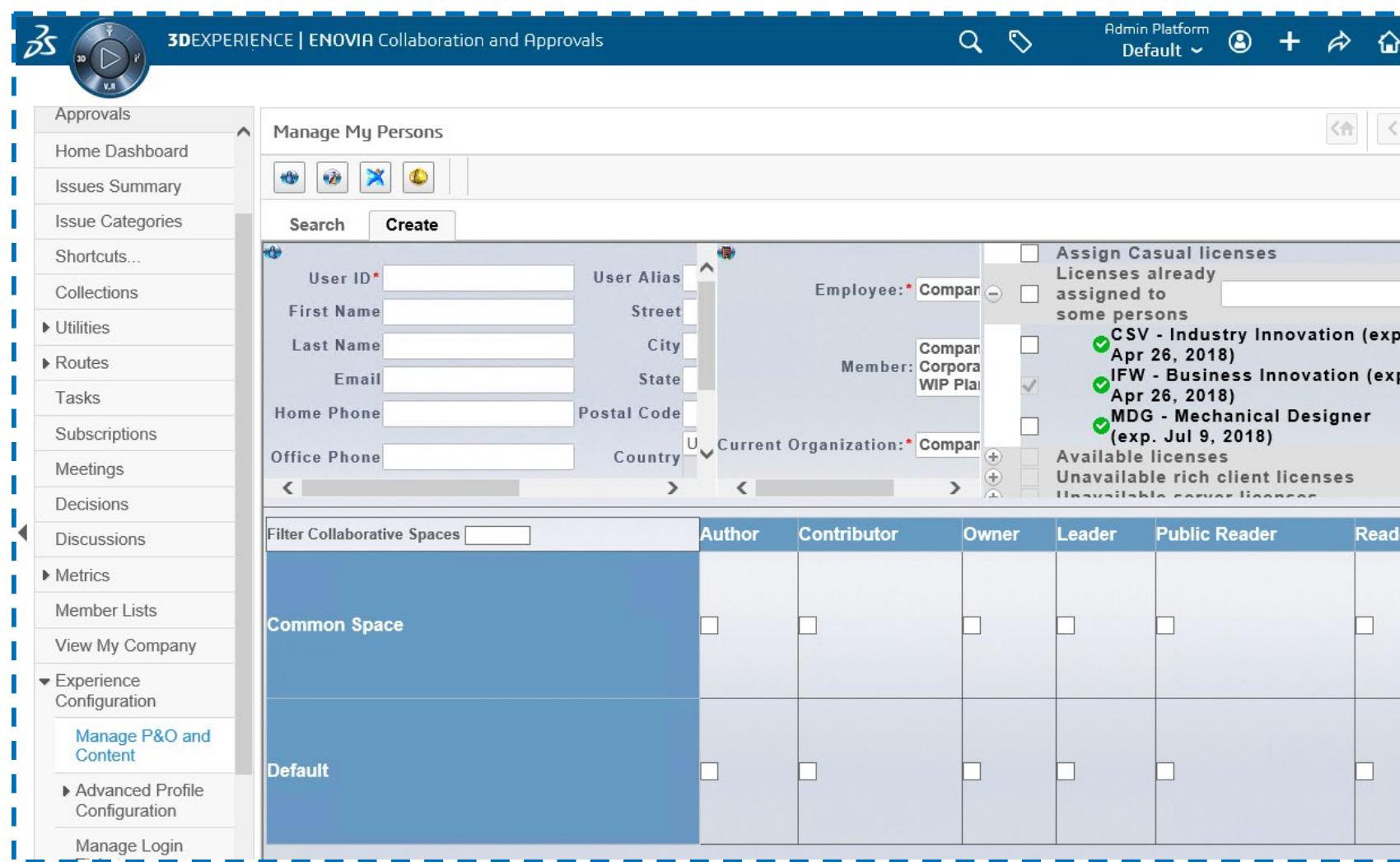
- ▶ It is important to understand that the user definition will exist in 3 locations (databases): 3DPassport, 3DSpace and 3DDashboard. 3DDashboard's user DB information is automatically synchronized from 3DSpace, you simply need to wait a few minutes before a new user in 3DSpace can access 3DDashboard. It is NOT recommended to create users via MQL as it can cause problems due to the fact that MQL no longer contains all the necessary code to create the users properly.
 - ▶ The ideal user creation sequence is as follows:
 - ▶ Admin creates user in 3DSpace
 - ▶ Admin creates user in 3DPassport
 - ▶ User requests connections and roles to be granted
 - ▶ Admin grants the role, and user is ready to go
- The Admin can invite user to request access to the platform via 3DDashboard, this process will not be discussed in this document.

Second Level Validation – User Creation

1. Open 3DSpace with user admin_platform. Navigate to **Experience Configuration > Manage P&O and Content** you should be in the user section, click on the **Create** tab.
2. You only need to enter information for the mandatory attributes. Once the user is created in 3DPassport most of the other attributes will be copied to 3DSpace automatically after login. Let us create two users:
 - ▶ User ID = 3dexpcentral
 - ▶ User ID = 3dexpremote

Then, click **Create** on the bottom right

Default license assignments are; IFW only.



The screenshot shows the 'Manage My Persons' interface in the 3DEXPERIENCE ENOVIA Collaboration and Approvals application. The left sidebar includes links for Approvals, Home Dashboard, Issues Summary, Issue Categories, Shortcuts..., Collections, Utilities, Routes, Tasks, Subscriptions, Meetings, Decisions, Discussions, Metrics, Member Lists, View My Company, Experience Configuration (with 'Manage P&O and Content' selected), Advanced Profile Configuration, and Manage Login. The main area displays a form for creating a new person, with fields for User ID*, First Name, Last Name, Email, Home Phone, Office Phone, User Alias, Street, City, State, Postal Code, and Country. It also includes dropdowns for Employee, Member, and Current Organization, each with a 'Compare' link. To the right of the form is a modal dialog titled 'Assign Casual licenses' which lists available licenses: CSV - Industry Innovation (exp. Apr 26, 2018), IFW - Business Innovation (exp. Apr 26, 2018), and MDG - Mechanical Designer (exp. Jul 9, 2018). Below the dialog is a table with columns for Filter Collaborative Spaces, Author, Contributor, Owner, Leader, Public Reader, and Reader. Two rows are visible: 'Common Space' and 'Default'.

Second Level Validation – User Creation

3. In the same MQL command window, execute the following commands

```
modify person 3dexpcentral site CENTRAL_SITE;
```

```
modify person 3dexpremote site REMOTE_SITE;
```

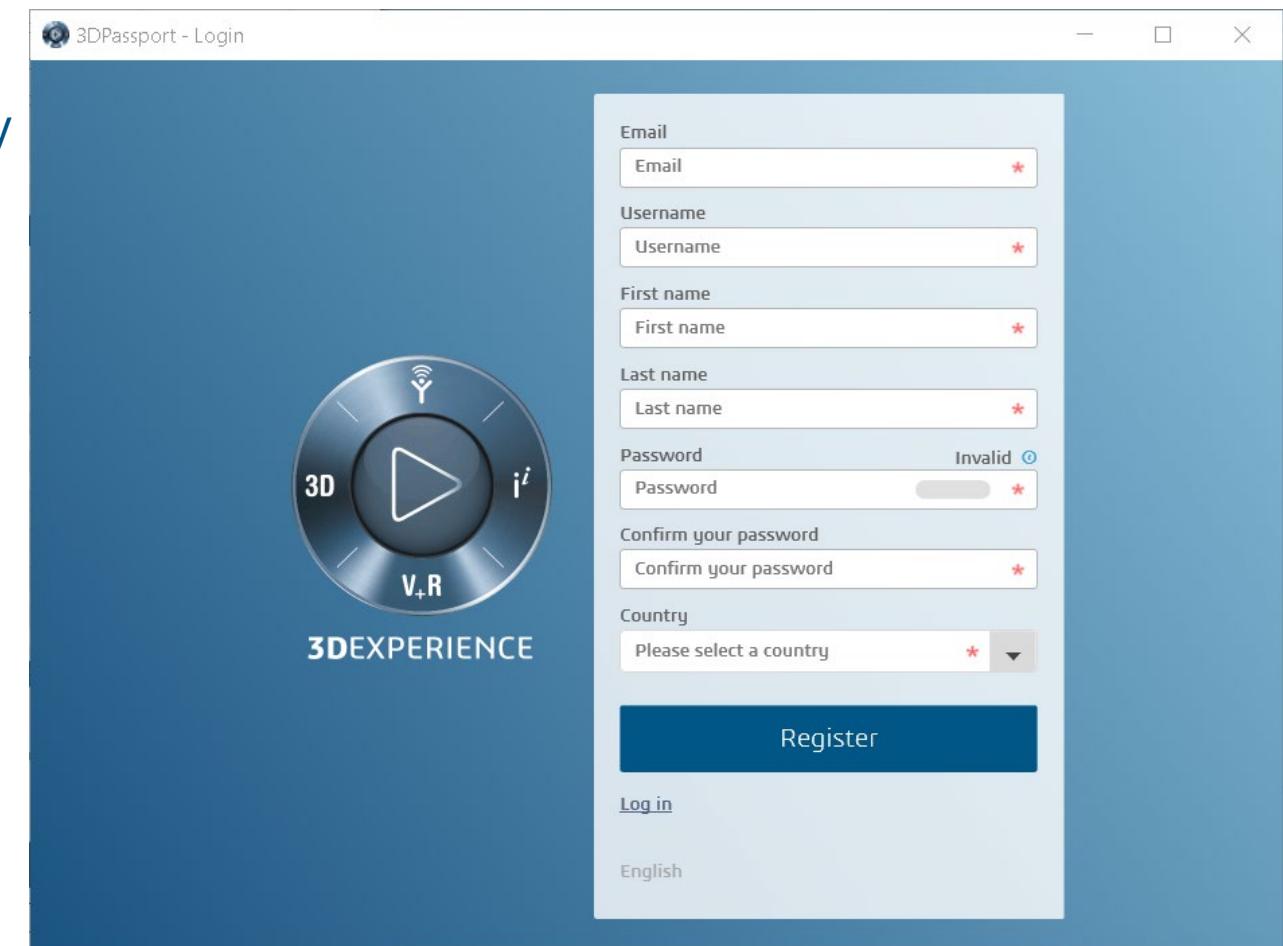
This completes the 3DSpace User Configuration.

4. Close Internet Explorer and open 3DPassport, if you saved your user/password you will have to select “I am not admin_platform”, This will bring you to the default login page.

5. In the **Login** page click **Create an account**.

Second Level Validation – User Creation

6. Normally the end user would be doing this. It is important to understand the new security required by the platform, the Administrator does not know the user's password the Admin cannot change it. This is the reason it is so important that the SMTP e-mail component is valid and functional.
7. Create the two users as described below:

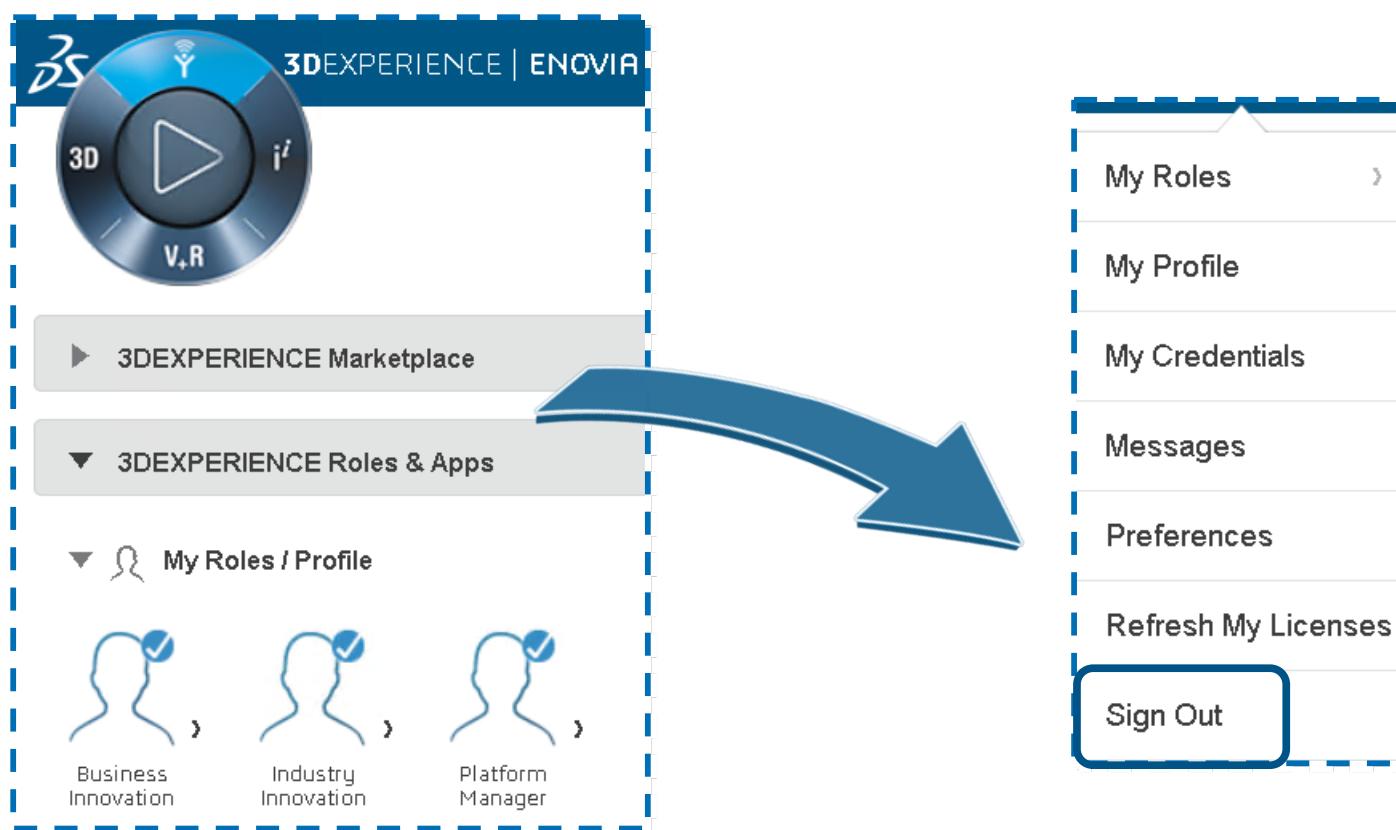


	3dexpcentral	3dexpremote
Mail	3dexpcentral@smtp.mytraining.com	3dexpremote@smtp.mytraining.com
Username	3dexpcentral	3dexpremote
First Name	3DExp	3DExp
Last Name	Central	Remote
Password	<Your Central password>	<Your Remote password>
Country	France	France

Second Level Validation – User Creation

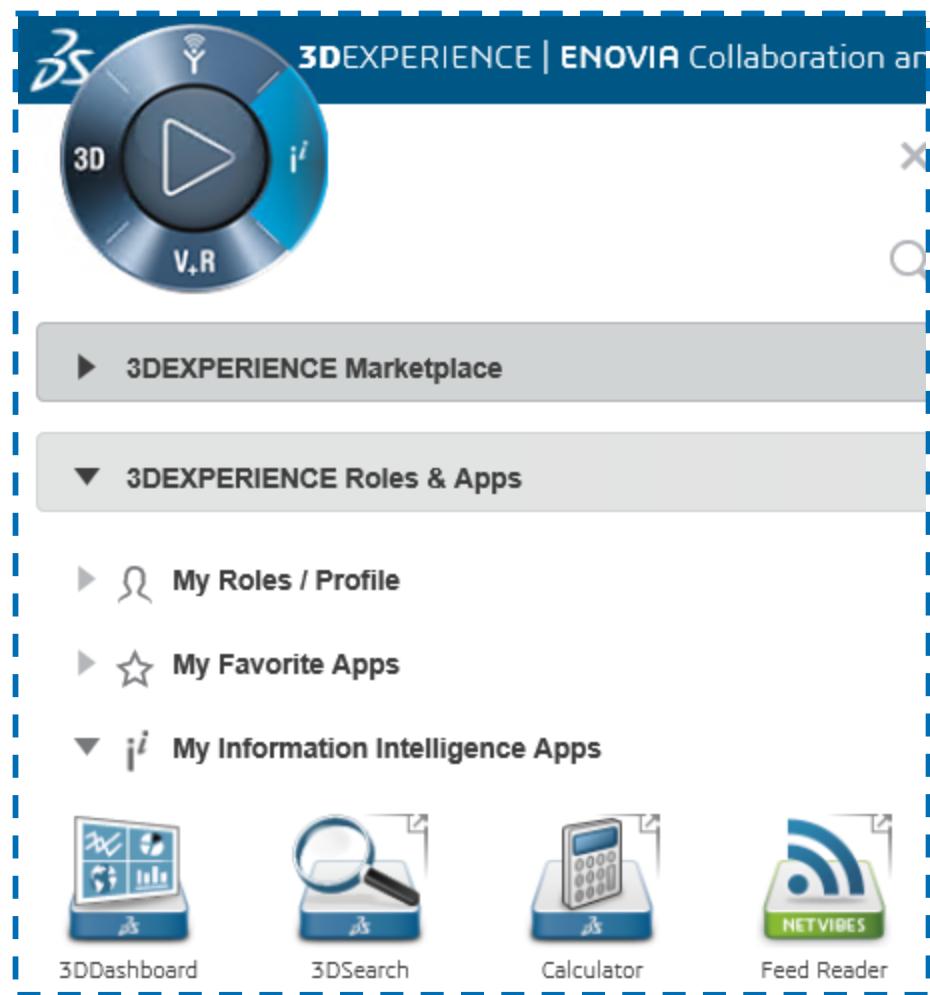
1. Next, each user needs to request their roles, they will need to login to 3DSpace to do so.
2. Click on the North compass quadrant, expand the Roles/profile, note that you currently only have “Business Innovation”, you will need:
 - a. Activate “Industry Innovation” and request the two grey roles, you do this by clicking on the role.

	3dexpcentral	3dexpremote
Login	3dexpcentral	3dexpremote
Password	<Your Central password>	<Your Remote password>



Second Level Validation – User Creation

1. Logout and Close Internet Explorer
2. Login to 3DDashboard with “admin_platform”
 - a. You can use the Direct URL or
 - b. Right Quadrant, in **My Information Intelligence Apps**
3. Note that you have four notifications, click on the Notification icon.
 - a. Click on each “mail” and accept the request.



Second Level Validation – User Creation

1. Go to 3DSpace, no need to log out, you are “admin_platform”:
 - a. You can use the Direct URL or
 - b. North Quadrant, in “My Social And Collaboration Apps”
2. Navigate to “Experience Configuration” then “Manage P&O and Content” and click on “Search” to find all users in the platform.

The image consists of three screenshots illustrating the user creation process in 3DEXPERIENCE:

- Screenshot 1: 3DEXPERIENCE | 3DDashboard**

This screenshot shows the main dashboard with a central circular icon for 3D, VR, and iModel. Below it are sections for "My Roles / Profile", "My Favorite Apps" (with a placeholder "Drop your favorite apps here"), and "My Social And Collaborative Apps" (listing 3DSpace, 3DSpace Control Center, and 3DSpace News).
- Screenshot 2: Manage My Persons - By Personal Info**

This screenshot shows the "Manage My Persons" interface. It includes a toolbar with icons for search, create, and other actions. A search bar is at the top, followed by a "By Personal Info" section with fields for User ID*, Email, First Name, Last Name, Phone, and Active (which is checked). The entire interface is enclosed in a dashed border.
- Screenshot 3: Manage My Persons - Search Results**

This screenshot shows the search results for "Manage My Persons". It features a "Search" tab, a "Create" button, and a "By Personal Info" search panel. Below is a table with columns: Active, User ID, and Email. The table contains two rows of data:

Active	User ID	Email
	<input checked="" type="checkbox"/> 3dexpcentral	3dexpcentral@smtp.mytraining.com
	<input checked="" type="checkbox"/> 3dexpremote	3dexpremote@smtp.mytraining.com

Second Level Validation – User Creation

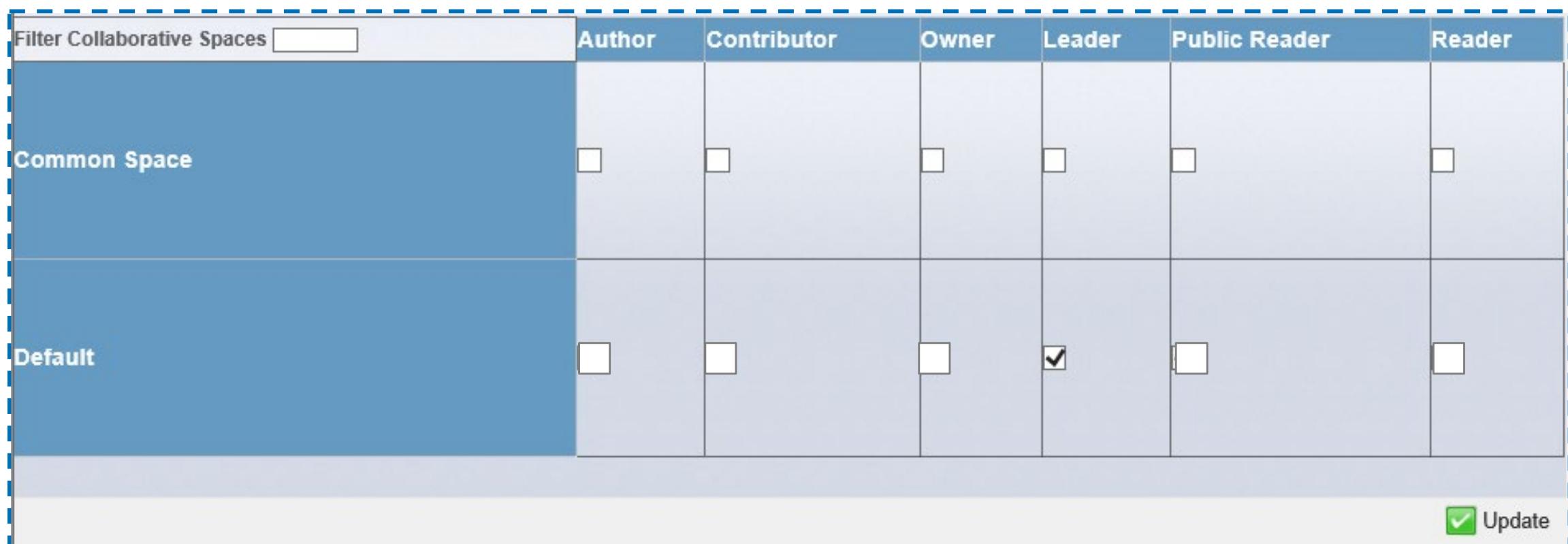
1. For each user, note that the last Name and Email are automatically filled in:



A screenshot of a user creation form. The fields are as follows:

User ID :	3dexpcentral	User Alias
First Name	3DExp	Street
Last Name	Central	City
Email	3dexpcentral@smtp.myti	State
Home Phone		Postal Code
Office Phone		Country

2. In **Default**, grant them required Collaboration Space roles and click **Update**.



A screenshot of a grid for assigning roles to a user across different collaboration spaces. The columns represent roles: Author, Contributor, Owner, Leader, Public Reader, and Reader. The rows represent collaboration spaces: Common Space and Default.

Filter Collaborative Spaces	Author	Contributor	Owner	Leader	Public Reader	Reader
Common Space	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Default	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

At the bottom right of the grid is a green checkmark icon labeled "Update".

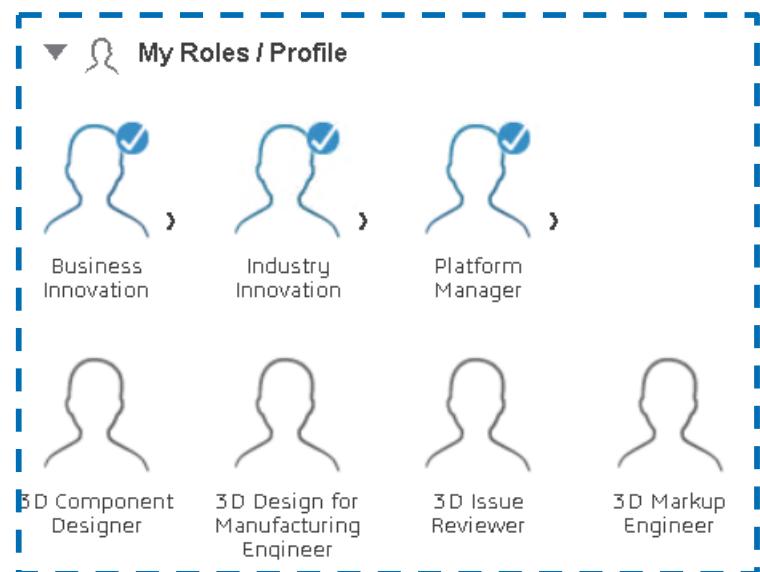
Second Level Validation – User Creation

1. Go to your MQL window, you will assign licenses via MQL. You can also do this via the GUI, but due to the variety of students and processes the license list may not be identical. It is also practical to know a few paths to reach the same goal:
2. Execute the following MQL commands:

```
modify product MDH add person 3dexpremote;  
modify product PPE add person 3dexpremote;  
modify product MES add person 3dexpremote;  
  
modify product MDH add person 3dexpcentral;  
modify product PPE add person 3dexpcentral;  
modify product MES add person 3dexpcentral;  
  
modify product MDH add person admin_platform ;  
modify product PPE add person admin_platform ;  
modify product MES add person admin_platform ;
```

Second Level Validation – User Creation

1. Next each user needs to request activation of the granted roles.
2. Close IE and log in with each user, you will now be prompted to select a Role, keep the default role.
3. Click on the North compass quadrant, expand the Roles/profile, note that you only have “Business Innovation”, you need to:
 - a. Activate the missing roles, if any.



Role approved (Blue head)
Role selected (Blue ticked head)
Role not available(Grey head contour)

Check 3DIndex on Server Side

- ▶ Check 3DIndex status by opening the desktop shortcut.



- ▶ This shortcut always points to the most recent index report located in:

- D:\3DEXPERIENCE\data\3DIndexes\BBDMonitor\Reporting.html
 - If you want to view previous reports you will need to navigate to D:\3DEXPERIENCE\data\3DIndexes
- For production deployments it is very important to create a job that will clean this folder.

The screenshot displays the 'Indexation Report.html' page with two main sections: 'Global status' and 'Crawler report'.

Global status

Name	Status	Status Msg
Global	OK	Nothing to index. 3D Index is uptodate
Initialization	OK	
Crawler	OK	
Geometry	OK	
Metadata	OK	
Synchronization	OK	

Crawler report

Name	Count	Status	Status Msg
Crawler		OK	
Initialization		OK	
Retrieve BSF Change		OK	
Deleted Instances :	0	OK	
New or modified representations :	0	OK	
New or modified instances :	0	OK	
New or modified rep instances :	0	OK	
New or modified references :	0	OK	
PnOProject	0	OK	
Organization	0	OK	
Configuration Dictionary	0	OK	
Representation without valid CGR	0	OK	

Geometry report

Builder	Tasks
Builder Stream 1	0
Builder Stream 2	0
Builder Stream 3	0

Successful Tasks	Waiting Tasks	Running Tasks	Tasks to Retry	Total Tasks
0	0	0	0	0

Client Connections - Hosts File

Prior to being able to use the platform as a normal user from a client you will need to verify a few things.

Check your Client hosts file, it should have the same entries as the server hosts file.

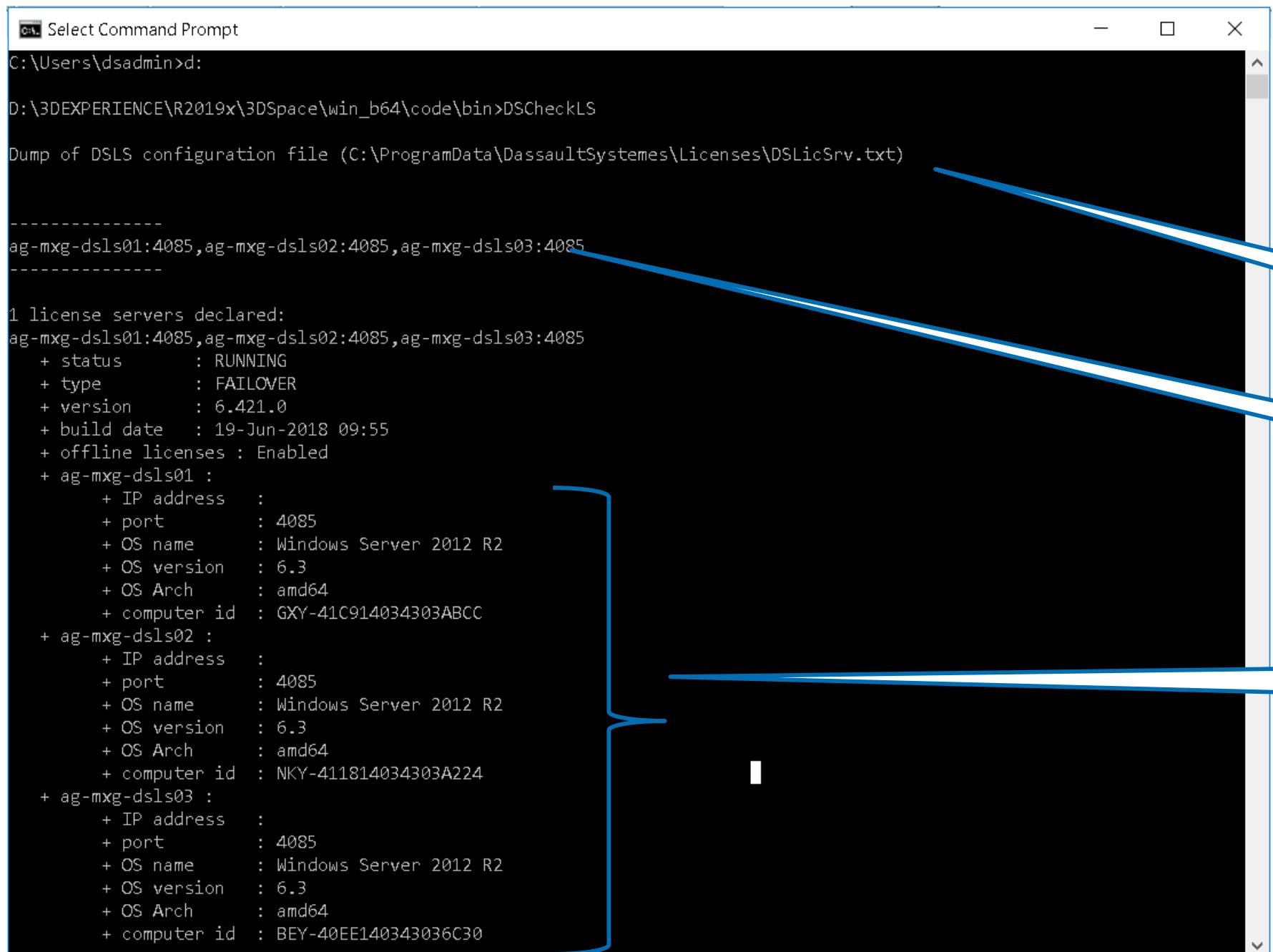


IPs

```
3dexperience.mytraining.com
database.mytraining.com
> 3dlicensing.mytraining.com
3dpassport.mytraining.com
3ddashboard.mytraining.com
untrusted.mytraining.com
fedsearch.mytraining.com
3dspaceindex.mytraining.com
3dindex.mytraining.com
3dspace.mytraining.com
internal.mytraining.com
3dcomment.mytraining.com
3dnotification.mytraining.com
fcscentral.mytraining.com
fcsremote.mytraining.com
smtp.mytraining.com
3dszymytraining.com
3dszymindex.mytraining.com
help.mytraining.com
```

Client Connections - DSLS

- ▶ Check That you have access to your DSLS.
 - ▶ Open a “Command Prompt” under your normal Operating system user.
 - ▶ Go to folder the following folder. It is assumed that you installed the Native Client in its default location, if not you need to change the root path to match yours.
C:\Program Files\Dassault Systemes\B421\win_b64\code\bin
 - ▶ Execute the command “DSCheckLS.exe”



```
-----  
ag-mxg-dsls01:4085,ag-mxg-dsls02:4085,ag-mxg-dsls03:4085  
-----  
  
1 license servers declared:  
ag-mxg-dsls01:4085,ag-mxg-dsls02:4085,ag-mxg-dsls03:4085  
+ status      : RUNNING  
+ type       : FAILOVER  
+ version    : 6.421.0  
+ build date : 19-Jun-2018 09:55  
+ offline licenses : Enabled  
+ ag-mxg-dsls01 :  
  + IP address   :  
  + port         : 4085  
  + OS name     : Windows Server 2012 R2  
  + OS version  : 6.3  
  + OS Arch     : amd64  
  + computer id : GXY-41C914034303ABCC  
+ ag-mxg-dsls02 :  
  + IP address   :  
  + port         : 4085  
  + OS name     : Windows Server 2012 R2  
  + OS version  : 6.3  
  + OS Arch     : amd64  
  + computer id : NKY-411814034303A224  
+ ag-mxg-dsls03 :  
  + IP address   :  
  + port         : 4085  
  + OS name     : Windows Server 2012 R2  
  + OS version  : 6.3  
  + OS Arch     : amd64  
  + computer id : BEY-40EE140343036C30
```

Location of the File that is being detected.

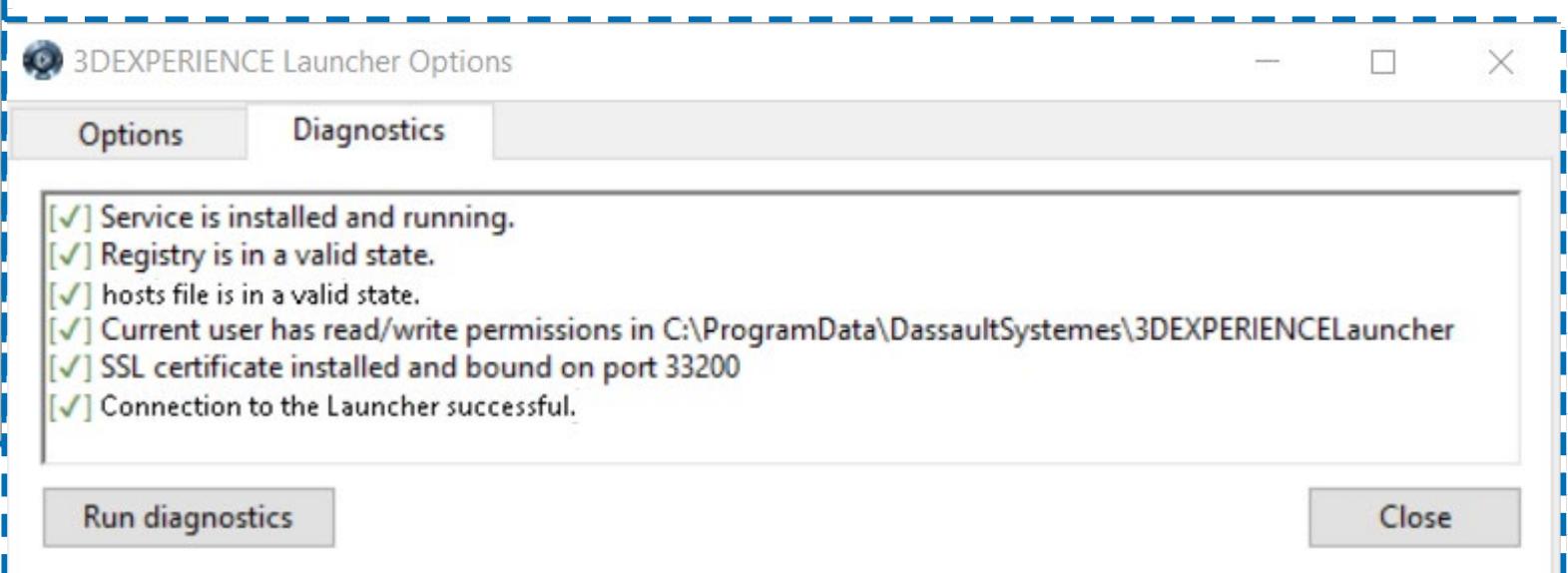
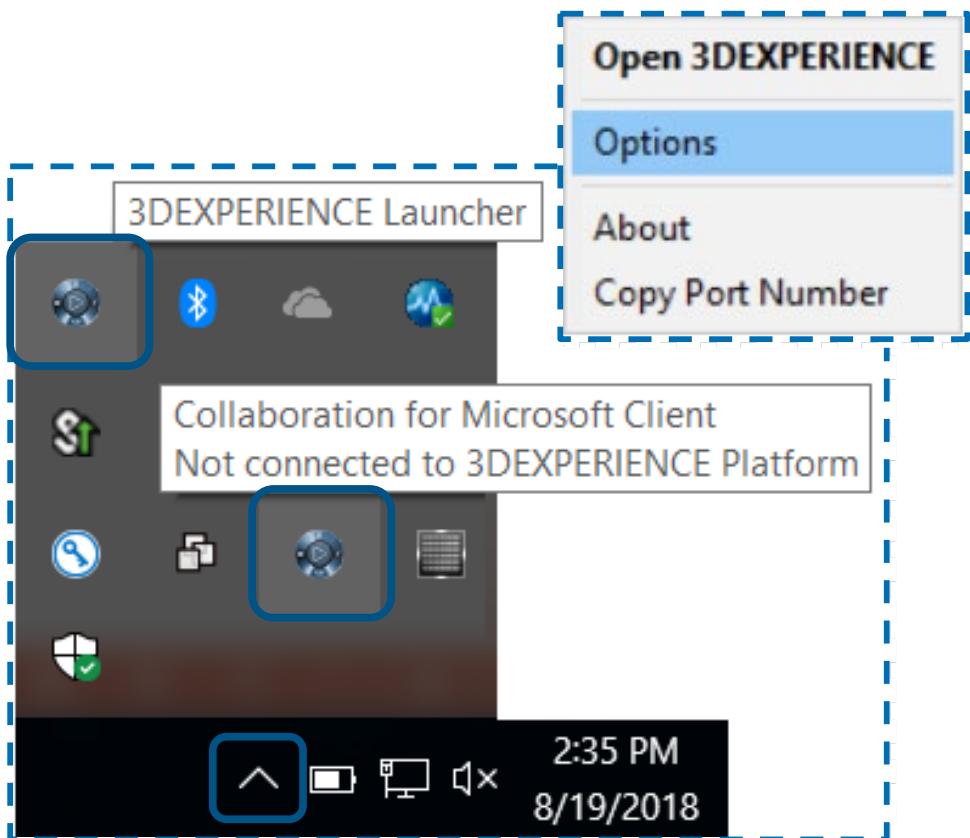
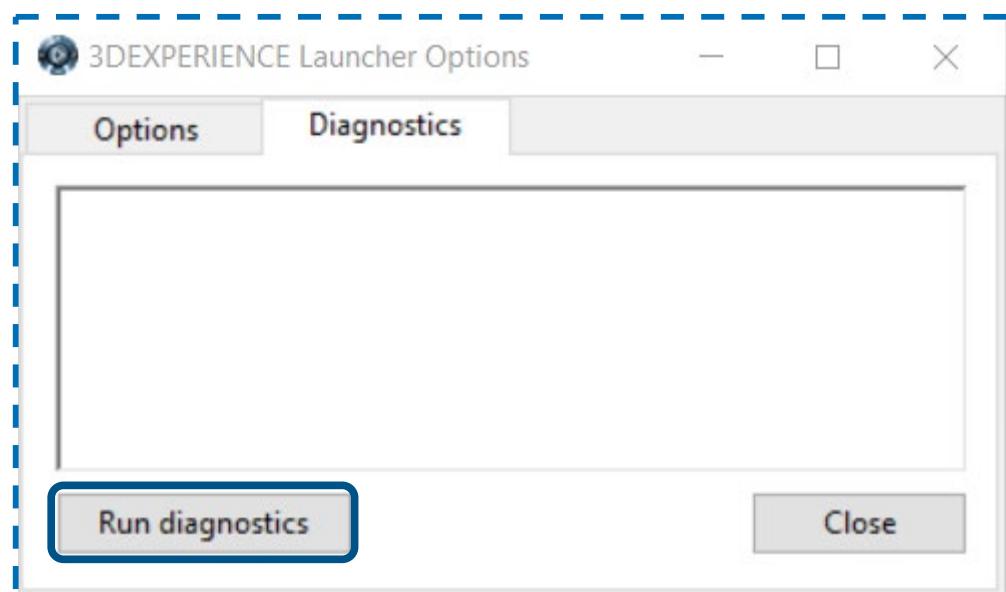
List of servers declared in the file.

Status for all server in the file.

Do you see your server?

Client Connections - Launcher

- ▶ In the Windows taskbar, you should see 2 “Compass” icons
 - ▶ 3DEXPERIENCE Launcher
 - ▶ Collaboration for Microsoft Client
- ▶ Right click on “3DExperience Launcher” icon and select “Options”, in the pop-up:
 - ▶ Go to the “Diagnostic” tab and “Run Diagnostic”, all tests should be successful.
 - ▶ CLOSE



Depending on your client machine's port availability, the SSL port may be different.

Client Connections - Microsoft

- ▶ Start “Collaboration for Microsoft Client” and select the “Settings”, in the windows:

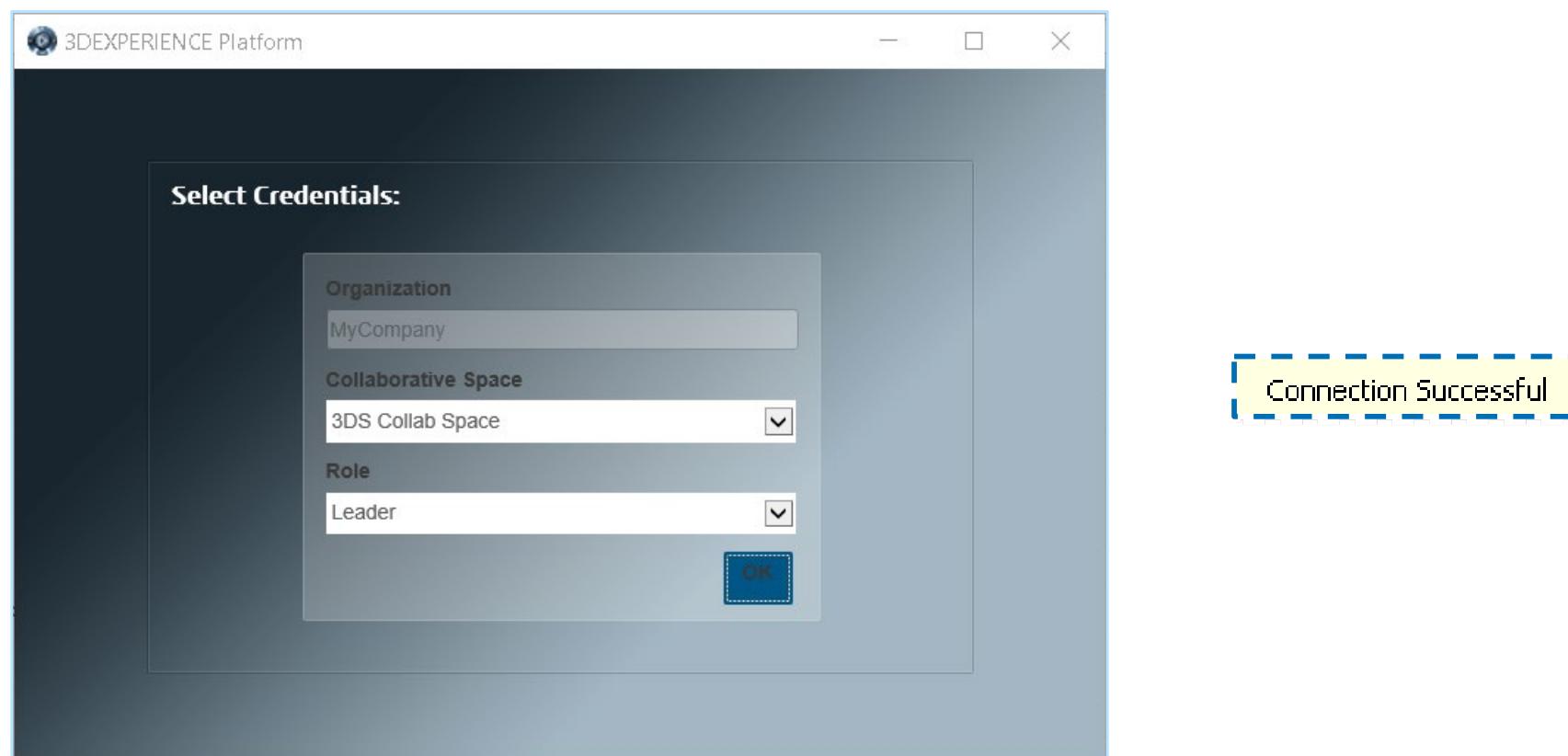


- ▶ The “Server URL should be “<https://3dspace.mytraining.com/3dspace/>”
- ▶ Start “Collaboration for Microsoft Client” and select the “Login”, in the windows:
 - ▶ Connect to with user “3dexpcentral”, you should see:
 - ▶ Logout

The screenshot shows two windows side-by-side. On the left is the “Login to 3DEXPERIENCE Platform” window, which has a URL of <https://3dspace.mytraining.com/3dspace/>. It features a large circular logo with “3D”, “V+R”, and “i” icons, and the text “3DEXPERIENCE”. Below the logo is a login form with fields for “3dexpcentral” and a password, a “Remember me” checkbox, and a “Log in” button. At the bottom are links for “Create an account” and “Forgot my password”. On the right is the Microsoft taskbar, also outlined with a dashed blue border. It shows the battery at 97%, the date and time as “3:15 PM 3/10/2017”, and the Collaboration for Microsoft Client icon. A yellow callout bubble with a lightbulb icon contains the text: “Don’t use “admin_platform” to test user connection.” To the right of the taskbar is a context menu for the Microsoft client, with “Document Status” highlighted in blue. Other menu items include Logout, My Credentials, Settings, Utilities, and Exit.

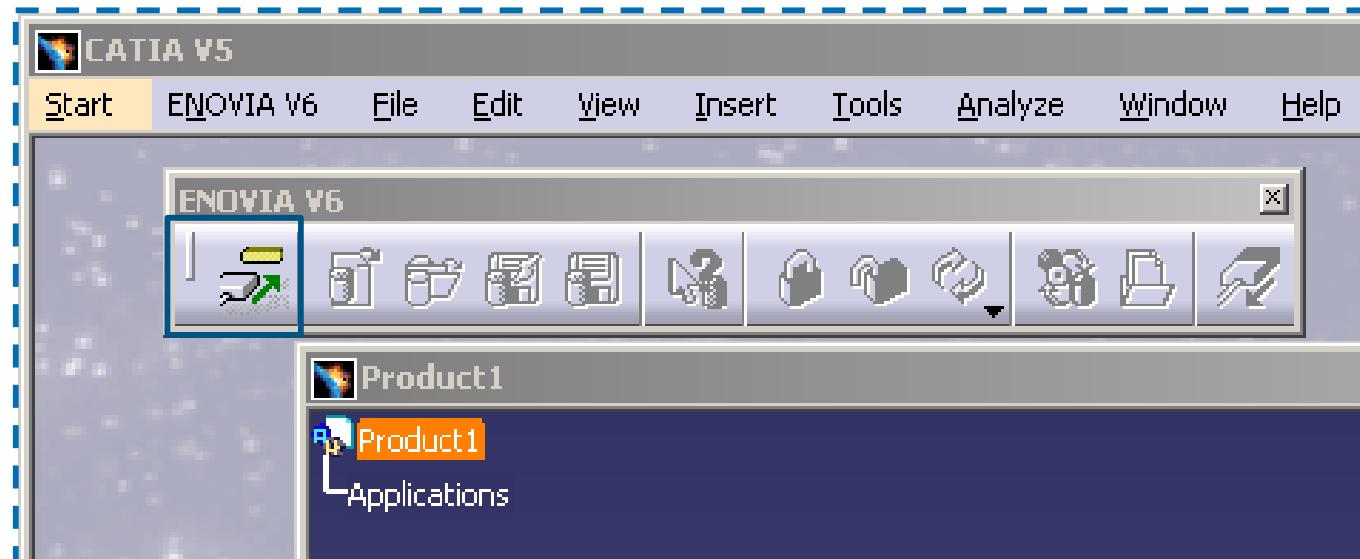
Client Connections – Native App

- ▶ On your client Desktop launch the Native Application shortcut “3DEXPERIENCE R2019x”
- ▶ You should be prompt for your “role”, keep the default → **OK**
 - ▶ Close the Native App.

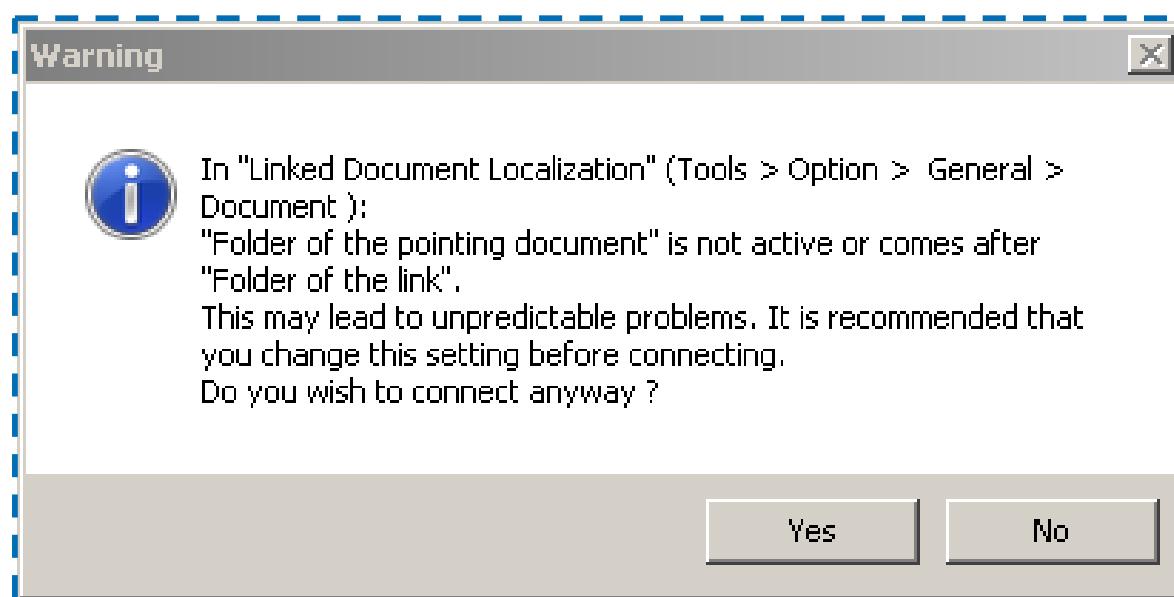


Client Connections – Native App

1. On your client Desktop find the Native Application shortcut “CATIA P1 V5-6R2017”.
2. Start CATIA, you should see something similar to this:



3. You maybe prompted to execute some **Tools > Options** actions, if so follow the instructions.



Client Connections – Native App

4. Update the two following options, based on the warning

The image contains two side-by-side windows with dashed blue borders.

Left Window: Linked Document Localization

Document Location	Active
Feat catalog	Yes
Folder of the pointing document	Yes
Folder of the link	Yes
Relative folder	Yes
Other folders	Yes
Catalog & startup documents	Yes
Entreprise Process-libraries	Yes
IPD	Yes
ENOVIA V5 VPM	Yes
ENOVIA VPM database	Yes

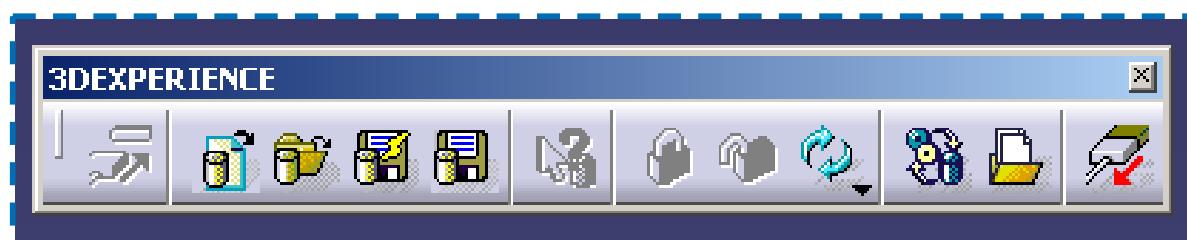
A context menu is open over the "Folder of the pointing document" row, listing: Activate, Deactivate, Up, Down, and Configure... The "Folder of the pointing document" row is highlighted with a dark blue background.

Right Window: Document Environments

Document Environment	State
Folder	Current
DLName	Not allowed
SmarTeam Query	Not allowed
ENOVIA V5 VPM	Not allowed
ENOVIA V6	Allowed
SmarTeam	Not allowed
SMARTTEAM (CWI)	Not allowed
Catalog	Not allowed
Loaded document	Allowed

A context menu is open over the "ENOVIA V6" row, listing: Current, Allowed, Not allowed, and Configure... The "ENOVIA V6" row is highlighted with a dark blue background.

5. Click on the “Connect to V6” Icon.



6. Logout and close CATIA V5-6.

Observer that the:

IEF “config.xml” file is located in:

C:\Program Files\Dassault Systemes\B421xcadconnectors\win_b64\reffiles\IEFClientWorkspaceService

Logs are located here:

<C:\Users\<OS user ID>\ief\logs>

Admin - Scenarios

- ▶ Batch User creation: This is an introduction to the subject, this process will not be used for the training.
- ▶ Batch user creation relies on the tool “VPMPeopleImport”, this tool can be used for both:
 - 3DSpace
 - 3DPassport
 - Note: Both services require a minimum set of attributes, they are not the same for each service.
- ▶ The file structures are similar but not identical, the best way to create a template is to first create a user normally via the GUI and then use the export tool “VPMPeopleExport”. You would then have to adapt a script and XLS macro to create the batch import files.
- ▶ For 3DSpace this tool does much more than simple user creation, it can create Groups, organizations, roles/context, etc...
- ▶ This training is not covering this topic in detail, you just need to be aware the tool exists.

Admin - Scenarios

- ▶ Transferring files from FCS to FCS is another admin scenario that you should become familiar with. Of particular interest are 3 common tasks:
 - Ensure that the FCS Central has a copy of all files.
 - Backup strategy
 - Pre load files to a “slow” destination over night.
- ▶ It is important to understand that if a user is in a “remote” site it is not mandatory to “FCSSynch” all the files to that location. Most synchronization will be done “on demand”. The 3DSpace database keeps track of where all the files are and which file is the most recent.
- ▶ All “forced” synchronizations are Admin “MQL” tasks that can range from location to location full transfers or just a subset of data.
- ▶ This training is not covering this topic in detail, you just need to be aware the capability exists.

Admin - Scenarios

This training is not covering this topic in detail, you just need to be aware that proper process and procedures are required.

- ▶ Backup is an important topic especially if you want the backups to be small and fast
 - First you need to know what to backup:
 - FCS data
 - Database
 - 3DSpace Index and 3DIndexing data
 - Most other files are fairly static and only need to be backed up occasionally (once a month or only when they change).
 - a good 3DSpace Index backup is much easier than rebuilding the whole index
 - How to backup
 - Cold: Simplest method and easiest if the system is not mission critical or active 24/7
 - Warm: For advanced systems, requires specialized DB and system tools
 - When to backup
 - At least once a week when the system is the least busy. It is up to the customer to define what the acceptable limits are for data lost or time lost.
 - How to backup, generally a good approach is
 - Pause all scheduled job (3DSpace Index, 3D indexer and any custom)
 - FCSSync from remote FCS to Central FCS
 - Stop the services ensuring all data is committed and there are no DB connections (apache & TomEE+).
 - Backup DB & FCS
 - This will ensure data consistency

Admin - Scenarios

- ▶ FP deployment Strategy
- ▶ FP deployment on an existing system is not simply “click and install”:
 - Do you have a well defined backup and restore strategy
 - Never FP directly a production system, you must dry execute the process
 - Any customizations and some configurations will need to be:
 - Potentially re-applied
 - Code re-validated
 - A FP deployment is always considered a major system change. The impacts and details of applying a fix pack to an existing system are out of the scope for this training
 - For training purposes it is possible to add another FP on top of the existing system without major impact since there is no custom code and very little data.
- ▶ This training is not covering this topic in detail, you just need to be aware that proper process and procedures are required.

End-User Validation

Topics to be covered:

- ✓ 1. *Introduction*
- ✓ 2. *Synthesis on Technical Validation*
- ✓ 3. *Synthesis on Admin Validation*
- 4. **End-User Validation**

Functional Test Contents

You are now ready to test the platform with actual user scenarios, that is, data creation.

The admin scenario were presented prior to this section because in a normal installation you need to:

- Create additional users
- Do a backup prior to creating test data
- Create core data
- And potentially even more activities (development)

By creating a few simple objects in:

- 3DEXPERIENCE Native client
- CATIA V5 -6
- MS Office
- Internet explorer

And using the two users we have created, all the following services will be validated:

- 3DSPassport
- 3DSpace
- Full Text Search in server
- 3DIndex
- Federated Search
- FCS
- 3DDashboard

All Native clients validation will be done with user “3dexpcentral” and all web client validation will use 3dexpremote and Internet Explorer.

Functional Test Contents

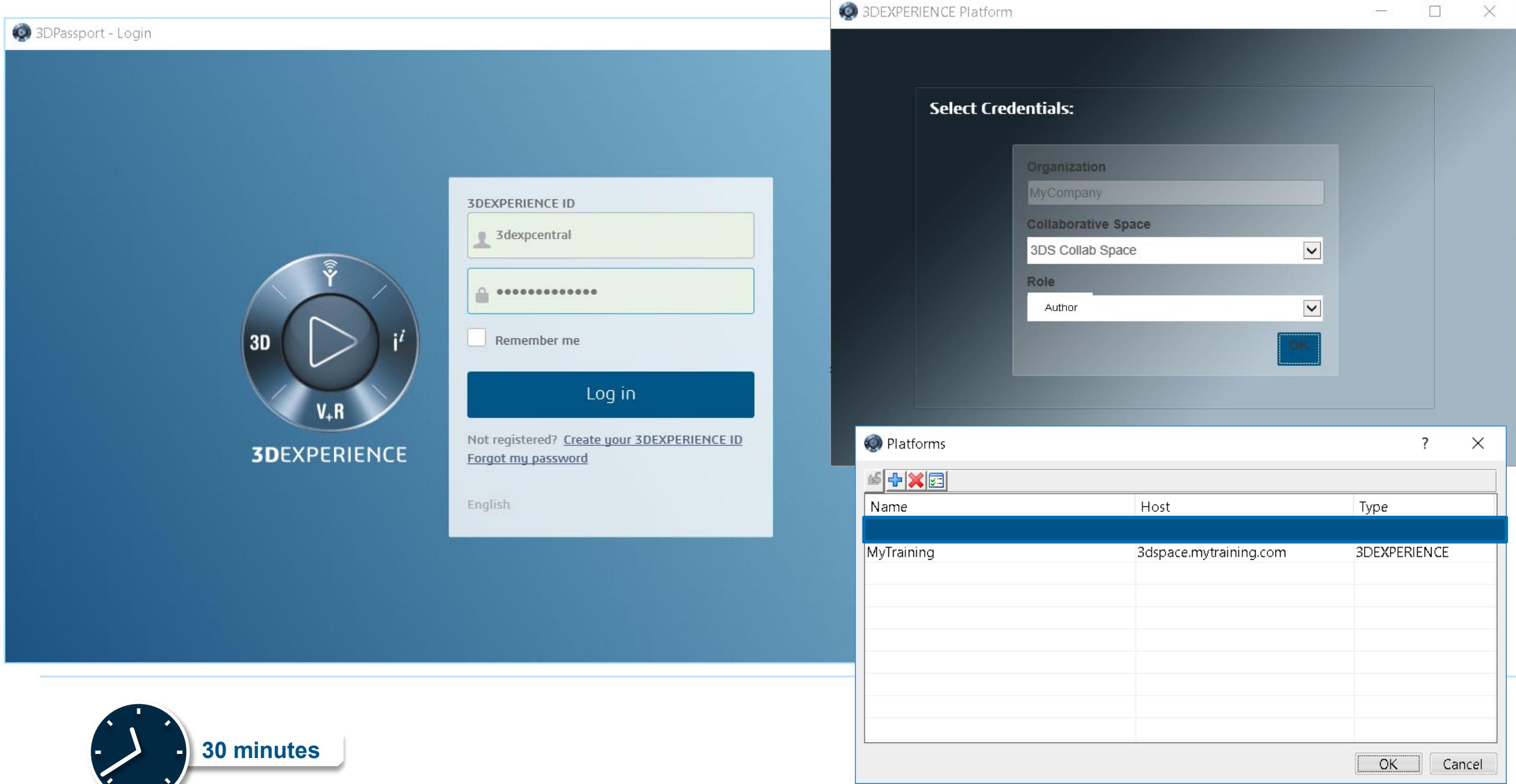
Each test will be used to validate one or more components:

- 3DEXPERIENCE Native client
 - Client Configuration
 - 3DSpace + 3DPassport access
 - Client & server DSLS access
 - FCS Central
 - 3D Indexer
 - 3DSpace VPLM Vault validation
- CATIA V5 -6
 - 3DSpace STORE Vault validation
 - CATIA V5 -6 Integration
- MS Office
 - MS Integration
 - 3DSpace STORE Vault validation
 - 3DSpace Index document indexation
- Internet explorer
 - FCS Remote
 - Dashboard: Send mail

This list is by no means exhaustive, however there is no need to restate for each test, things like: 3Dpassport connections successful, login, licenses, scheduled jobs, etc...

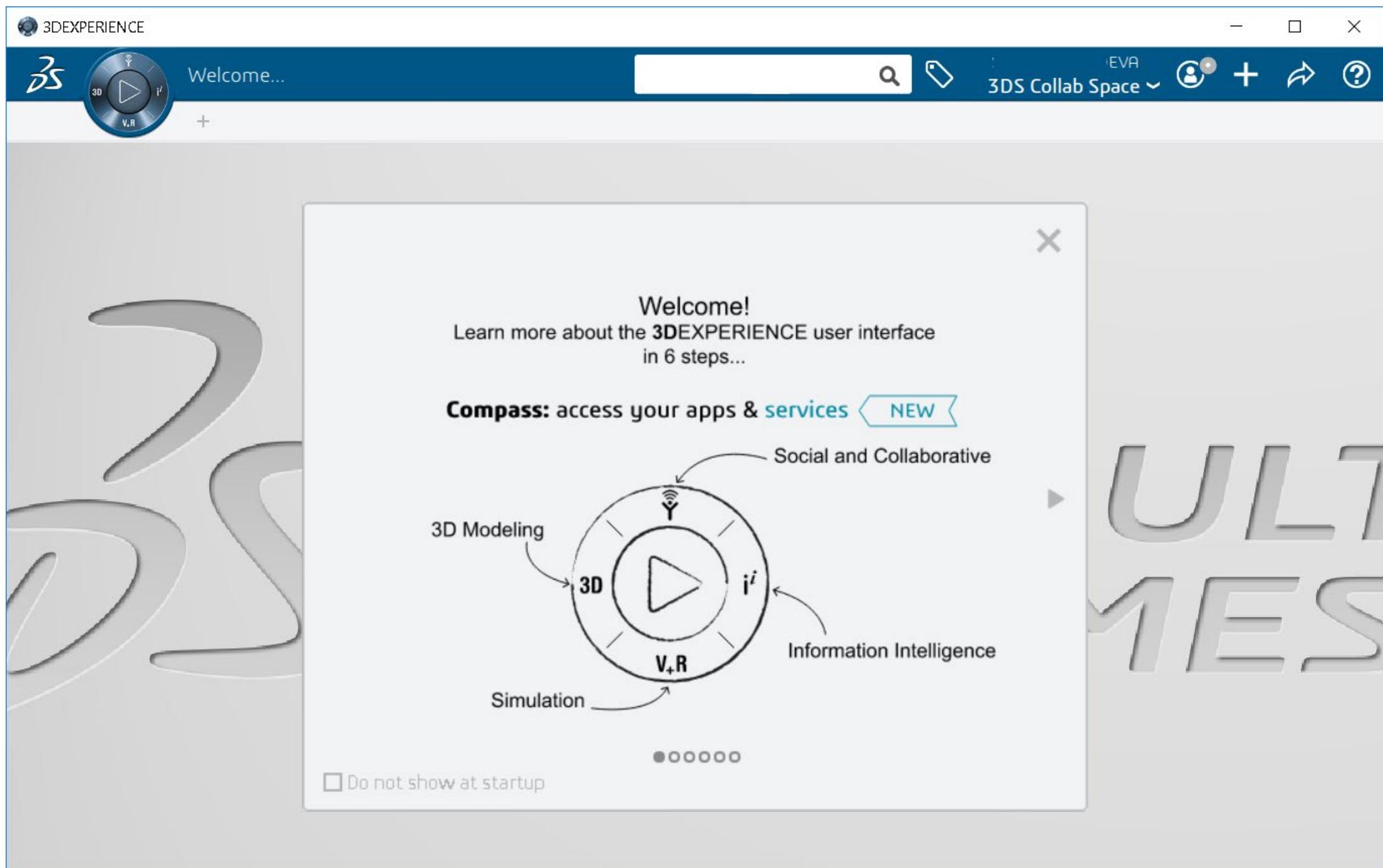
Exercise: 3DEXPERIENCE Native Client

1. Using your desktop icon “3DEXPERIENCE R2019x” start the Native client.
2. Connect with user “3dexpcentral” and role “Author” (do not select “Remember me”).
3. If you have a connectivity issue, you will receive a warning and the “platforms” panel will appear allowing you to check connection values.



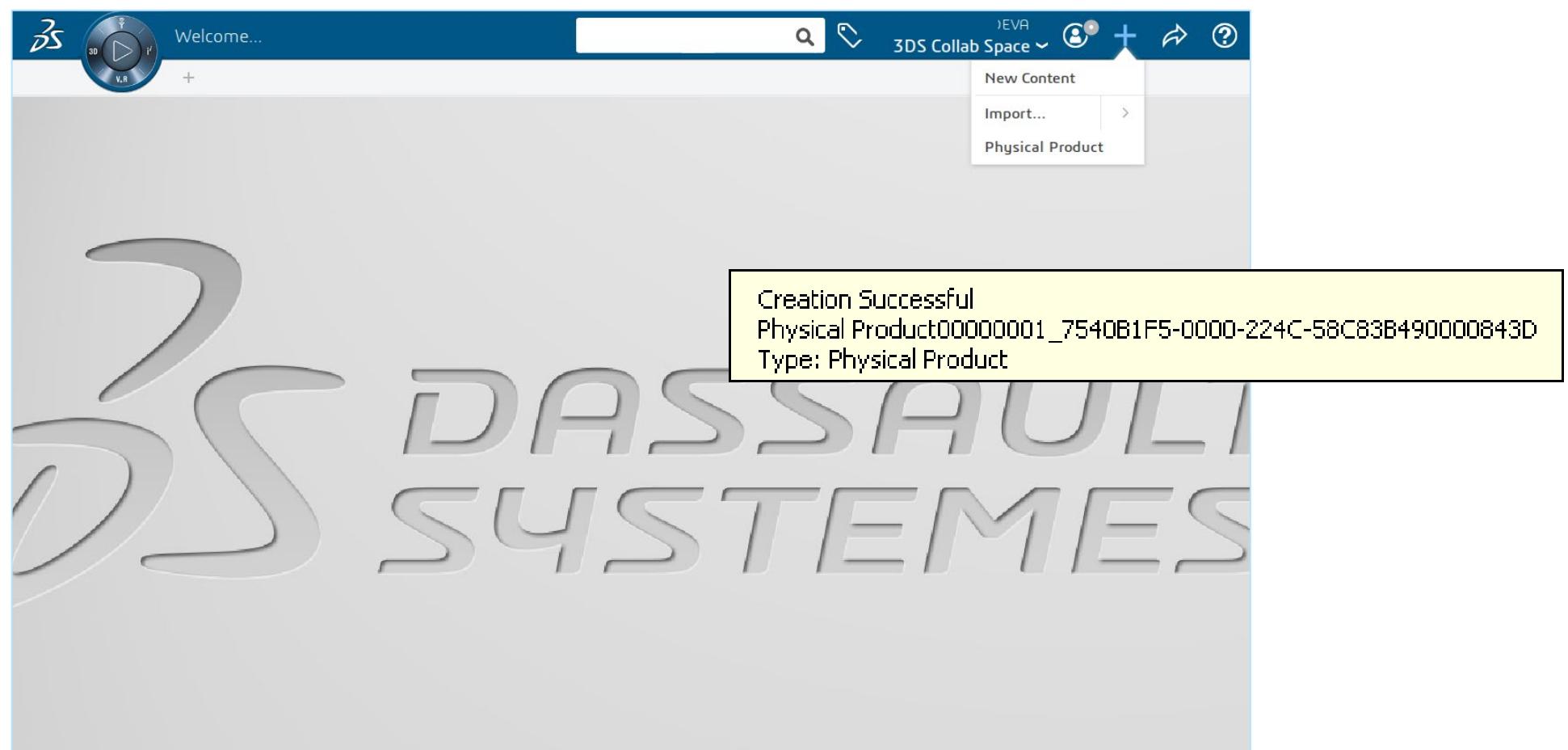
3DEXPERIENCE Native Client

- ▶ The Native application interface:



3DEXPERIENCE Native Client

- ▶ Object creation:
 - ▶ A product, this object is only metadata
 - ▶ A part, this object is geometrical and has an FCS footprint
 - ▶ This object also will have a 3D Index interaction which will create 2D and 3D Thumbnails
- ▶ Click on the + sign and create a Physical Product

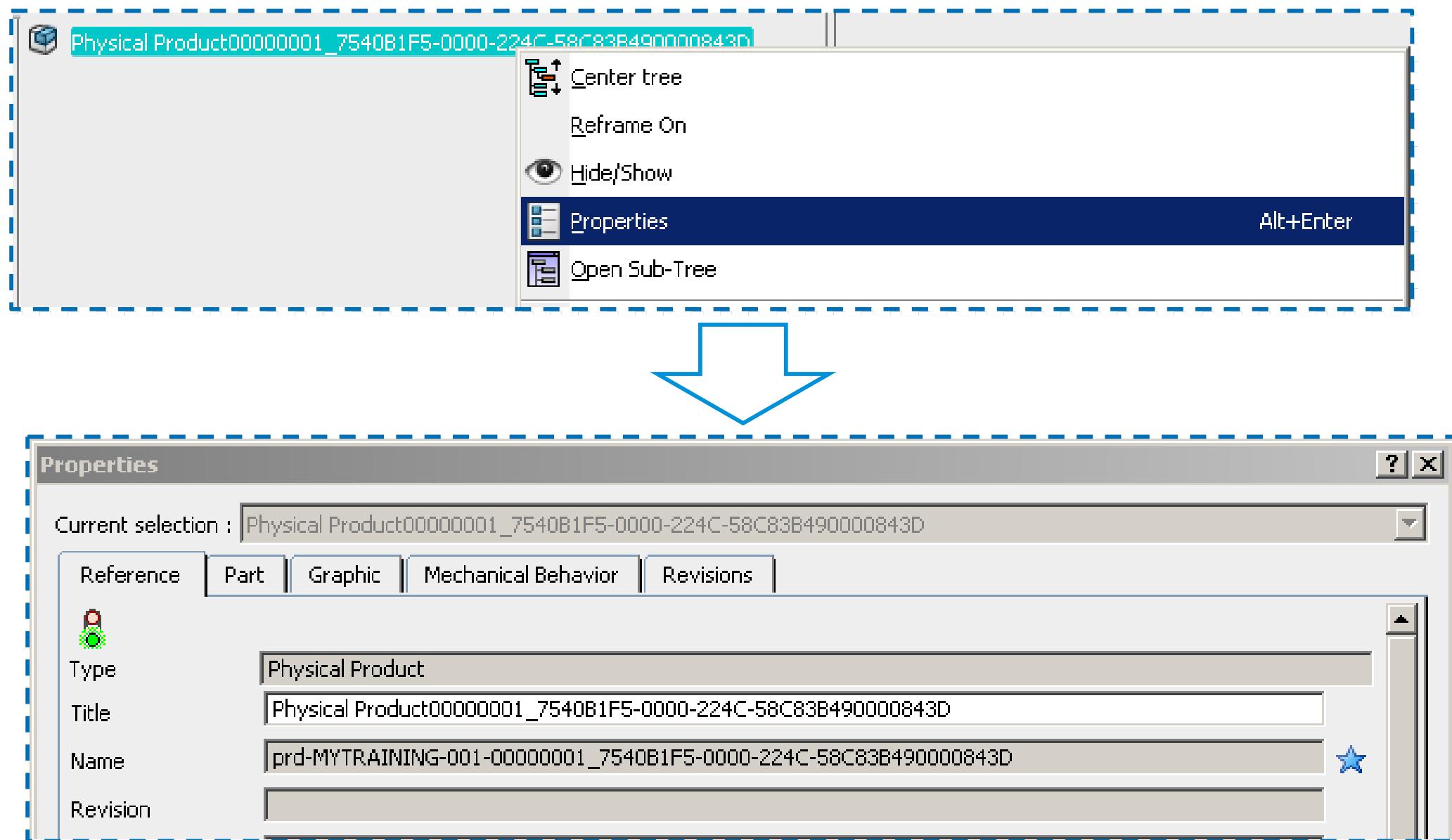


- ▶ Take note of the “Time” and the object “Name”

Time	Name

3DEXPERIENCE Native Client

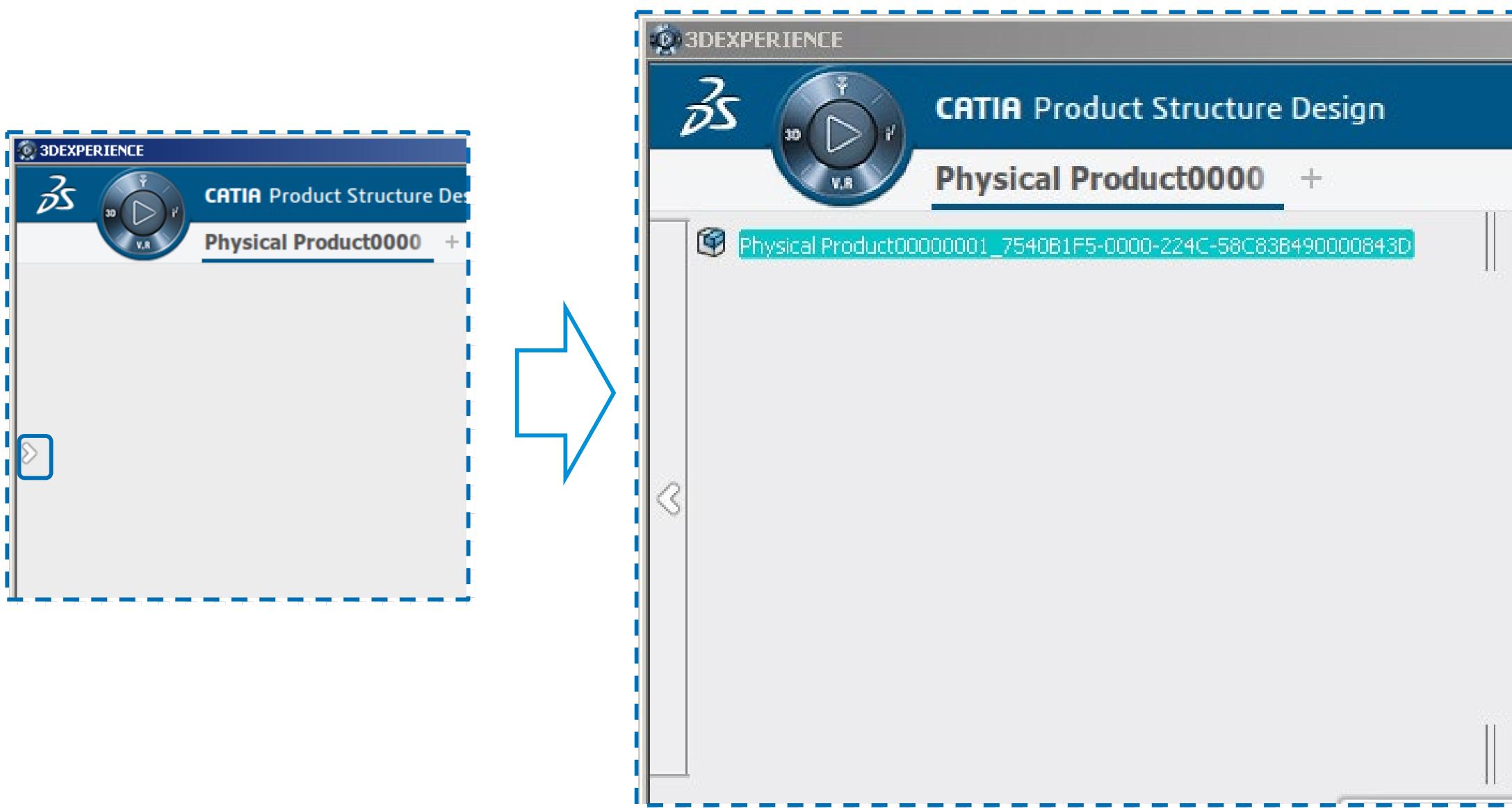
- ▶ It is important to distinguish the “Name” from the “Title”. To see the difference, right click on the object and check the “Properties”:



The “Title” is intended for human readable text, the “Name” is used by the system and will be unique with respect to an object type and revision.

3DEXPERIENCE Native Client

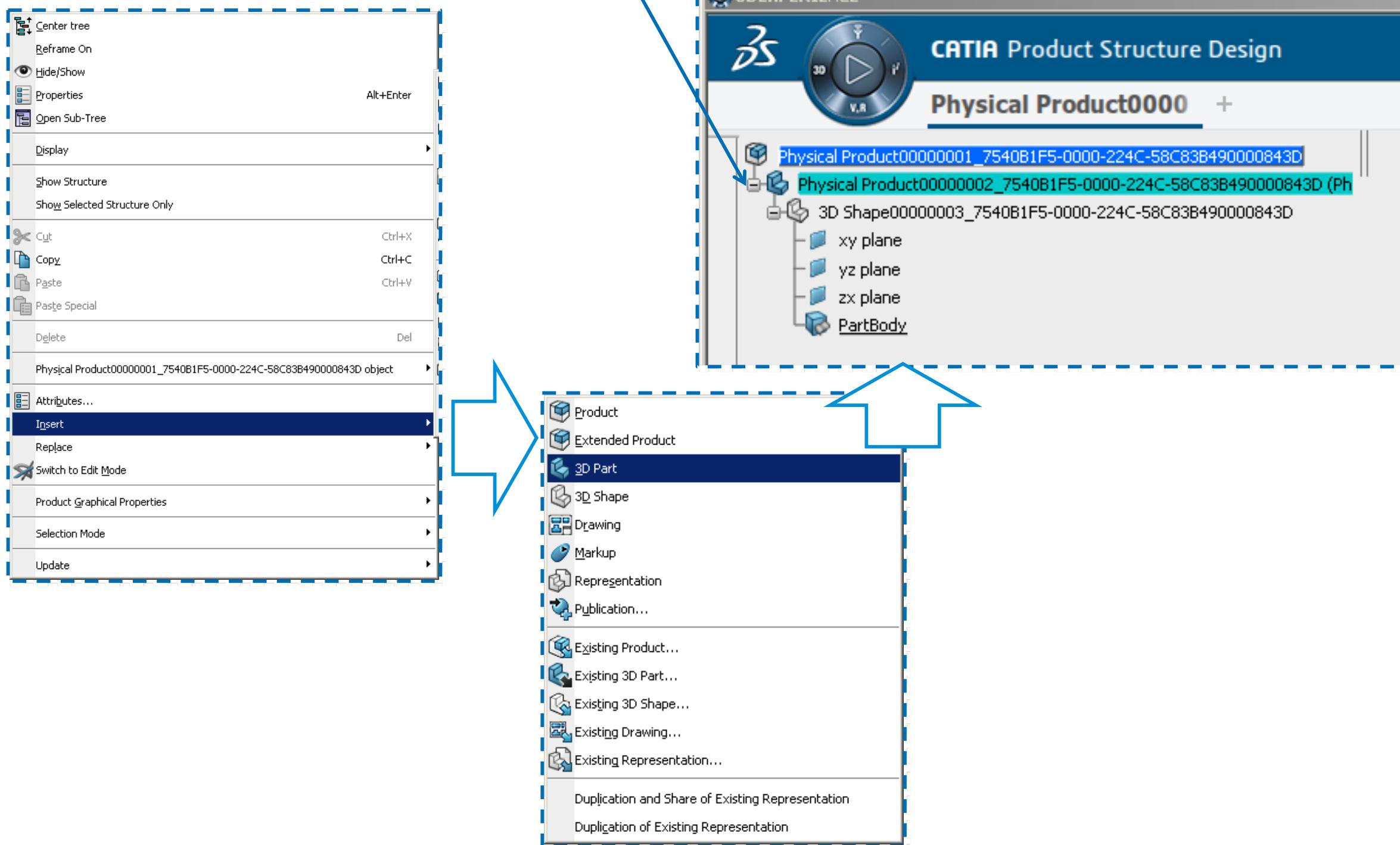
- ▶ Object creation:
 - ▶ If you do not see the structure, it is because the tree is collapsed, click on the arrow to expand:



3DEXPERIENCE Native Client

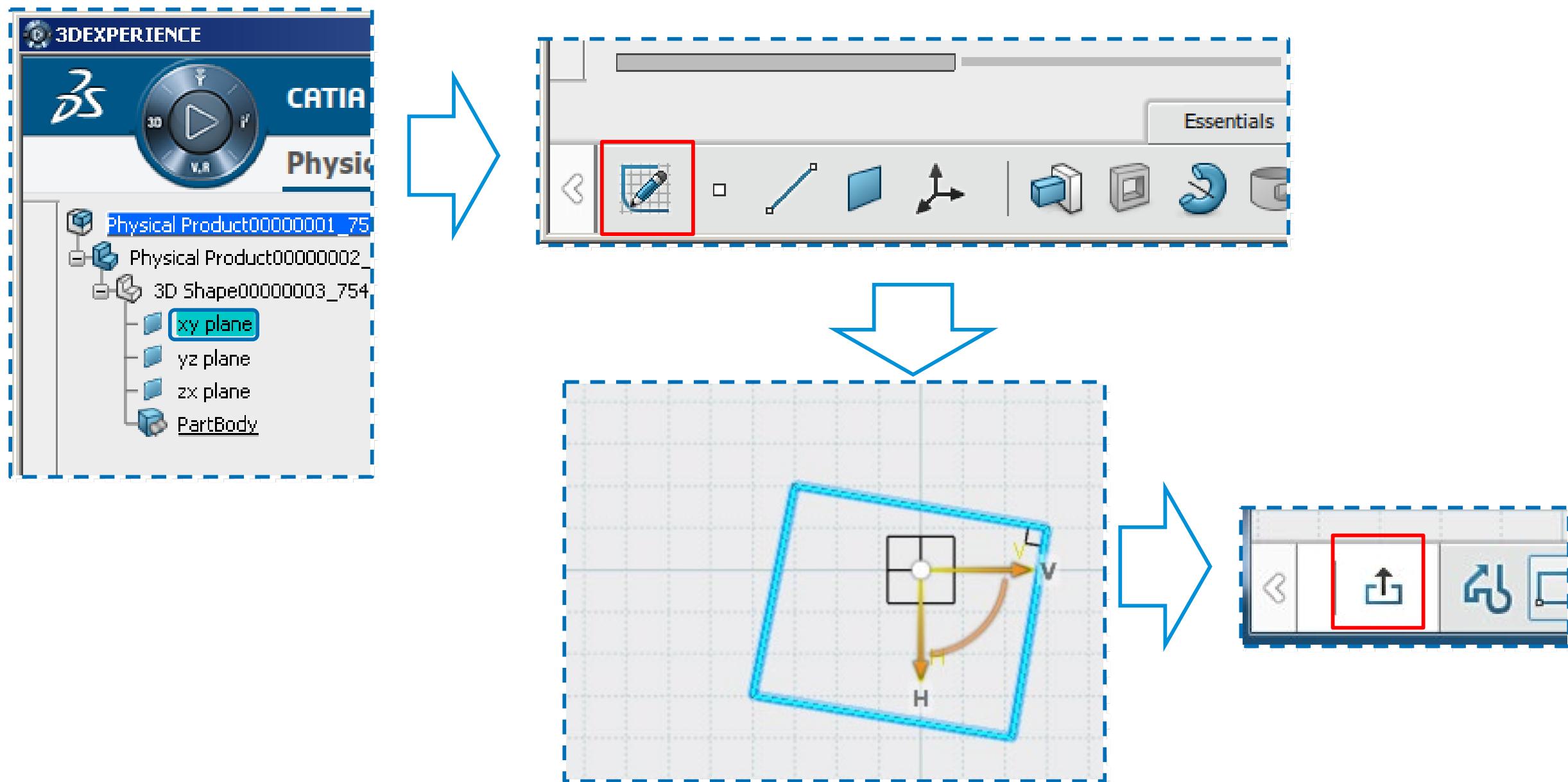
► Object creation:

- Right click on the “Physical Product” and Insert a 3DPart.
- Expand the selection, clicking on the “+”



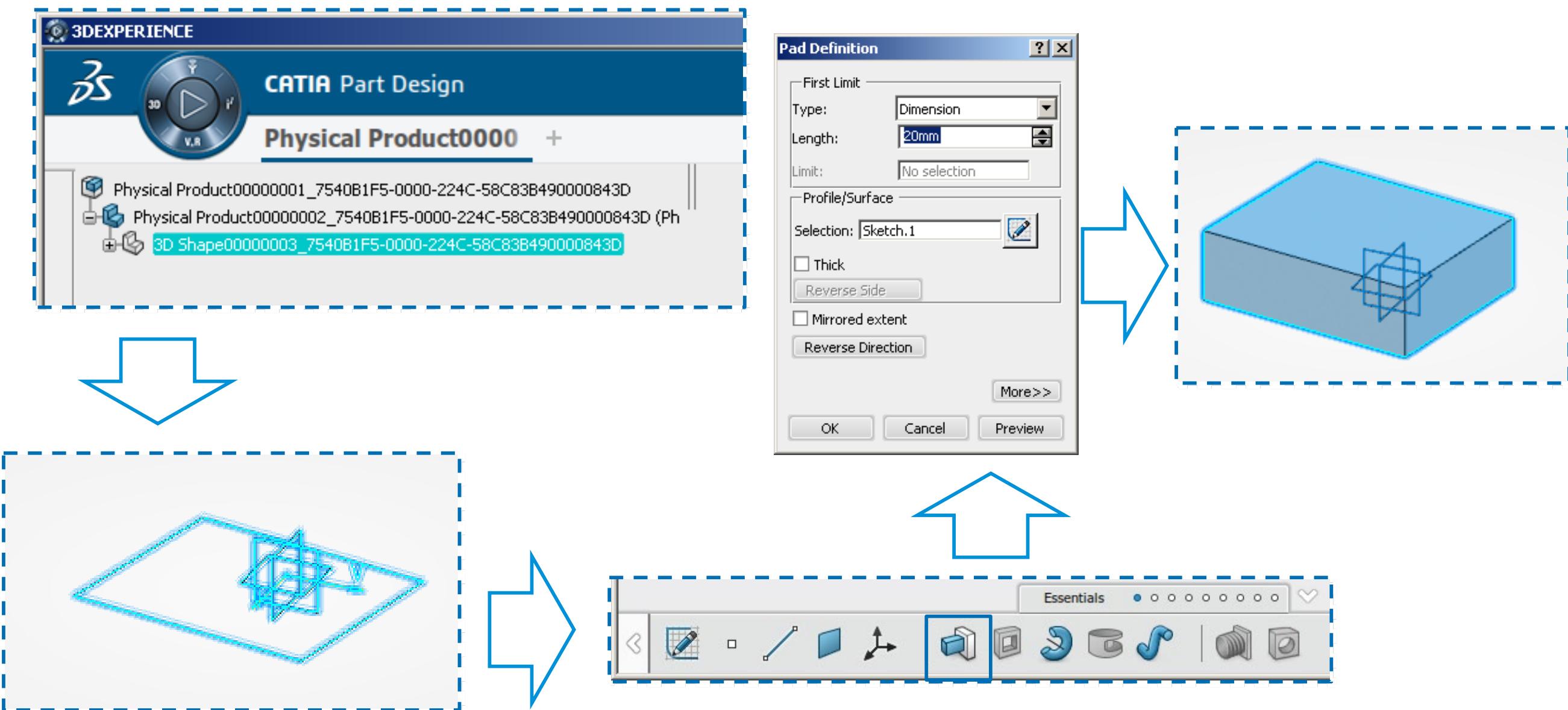
3DEXPERIENCE Native Client

- ▶ Object creation:
 - ▶ Create a cube! Double click on the “XY” plane
 - ▶ In the bottom you will see the ‘Sketcher’, click on it and create a square



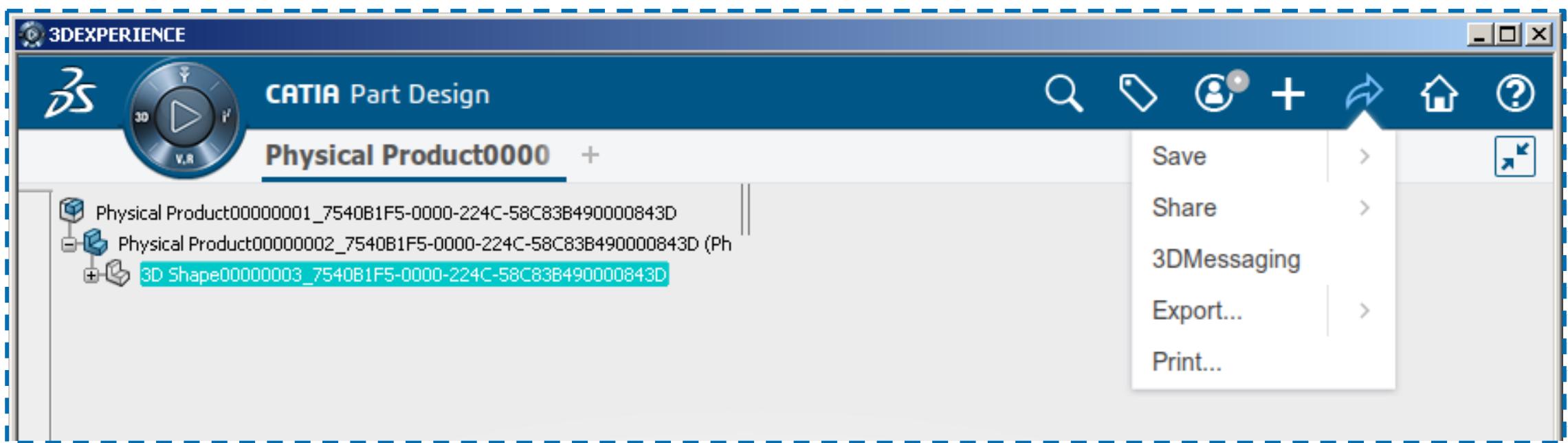
3DEXPERIENCE Native Client

- ▶ Object creation:
 - ▶ Double click on the “3d Shape”, this will collapse part of the structure and bring you out of the 2D plane.
 - ▶ Click on the “Pad” button, select your square contour and keep all default values. “OK”



3DEXPERIENCE Native Client

- ▶ Object creation:
 - ▶ Save your Work



- ▶ Take note of the “Time” and the object “Name”

Time	Name

3DEXPERIENCE Native Client

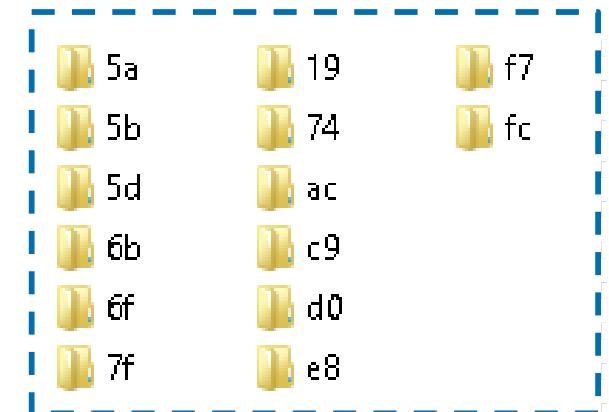
Object Validation:

Go to the platform server under the folder: <D:\3DEXPERIENCE\data\FCS\Central\plmx>

You should see a set of newly created folders.

This is where all the Native objects will be created including the jobs for 3D Indexer.

Using your icon on the desktop for the Index report, check the results.



If you see that the time is older than our save time, you have to wait a few minutes. Keep refreshing the page.

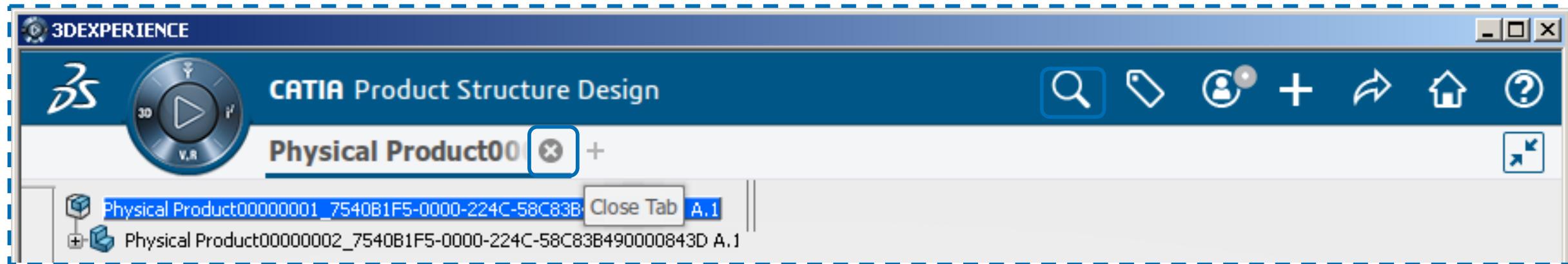
If you see that the time is older than our save time, you have to wait a few minutes. Keep refreshing the page.

If you see that the time is newer than our save time, you must go to the folder <D:\3DEXPERIENCE\data\3DIndexes> and check the folder time (BBDMonitor_1489522863) that correspond to your save time.

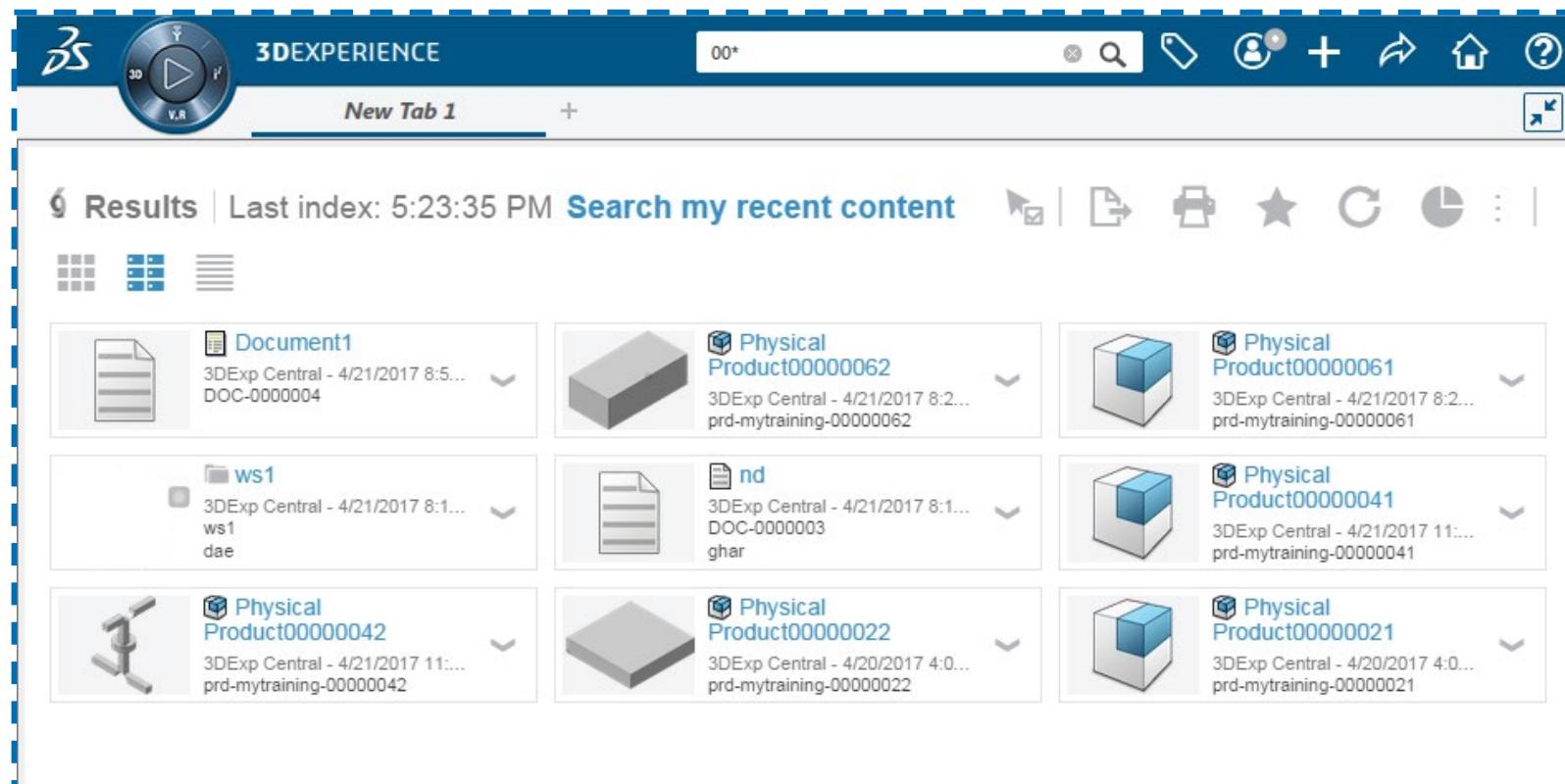
Crawler report				
Name	Count	Status	Status M	
Crawler		OK		
Initialization		OK		
Retrieve BSF Change		OK		
Deleted Instances :	0	OK		
New or modified representations :	1	OK		
New or modified instances :	1	OK		
New or modified rep instances :	1	OK		
New or modified references :	2	OK		
PnOProject	0	OK		
Organization	0	OK		
Configuration Dictionary	0	OK		
Representation without valid CGR	0	OK		

3DEXPERIENCE Native Client

- ▶ Object Validation:
 - ▶ Close the Physical Product tab.

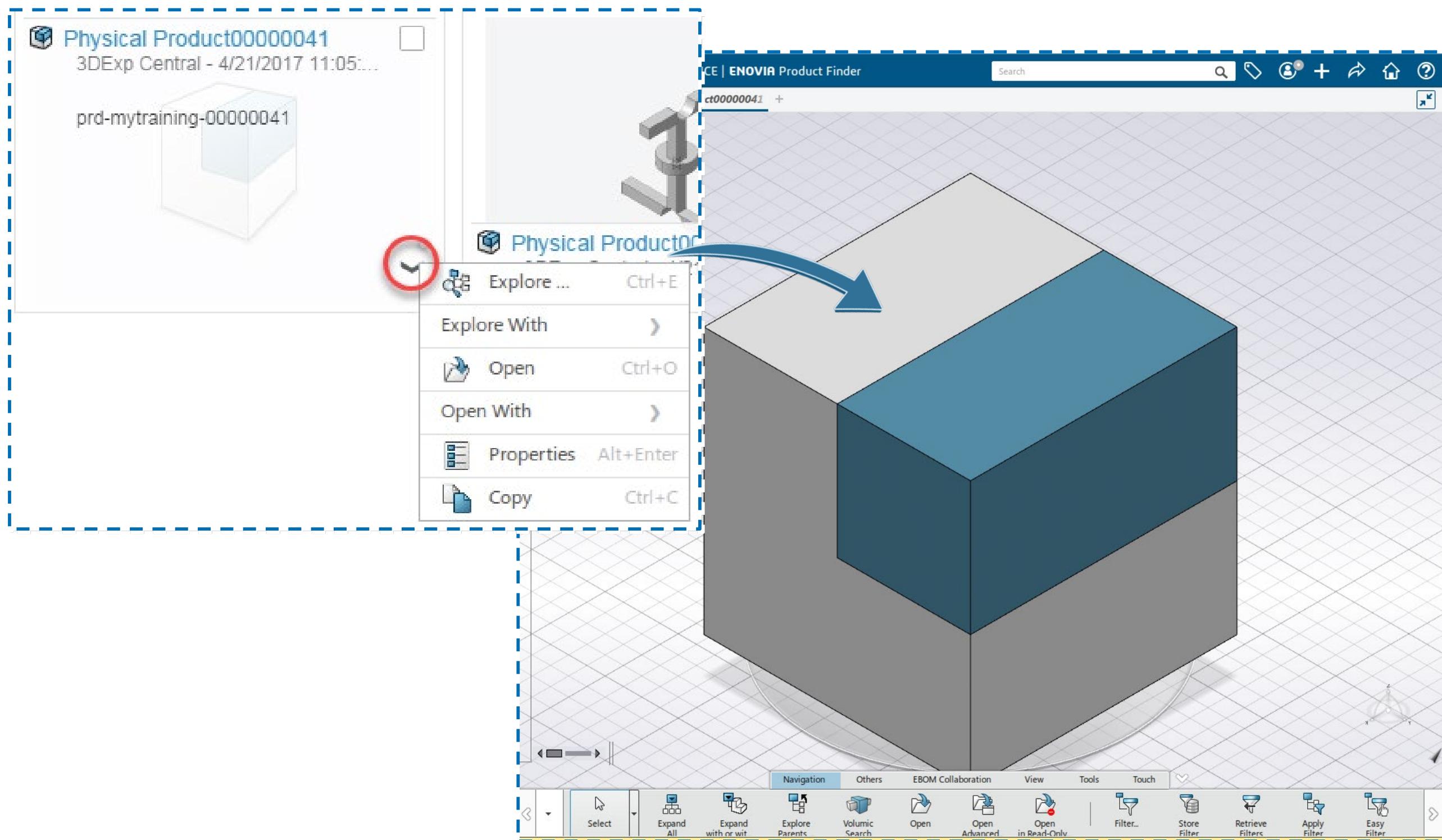


- ▶ Click on the search Icon
 - ▶ Search for 00*



3DEXPERIENCE Native Client

- ▶ Explore the Physical product what you had searched earlier
 - ▶ For example:



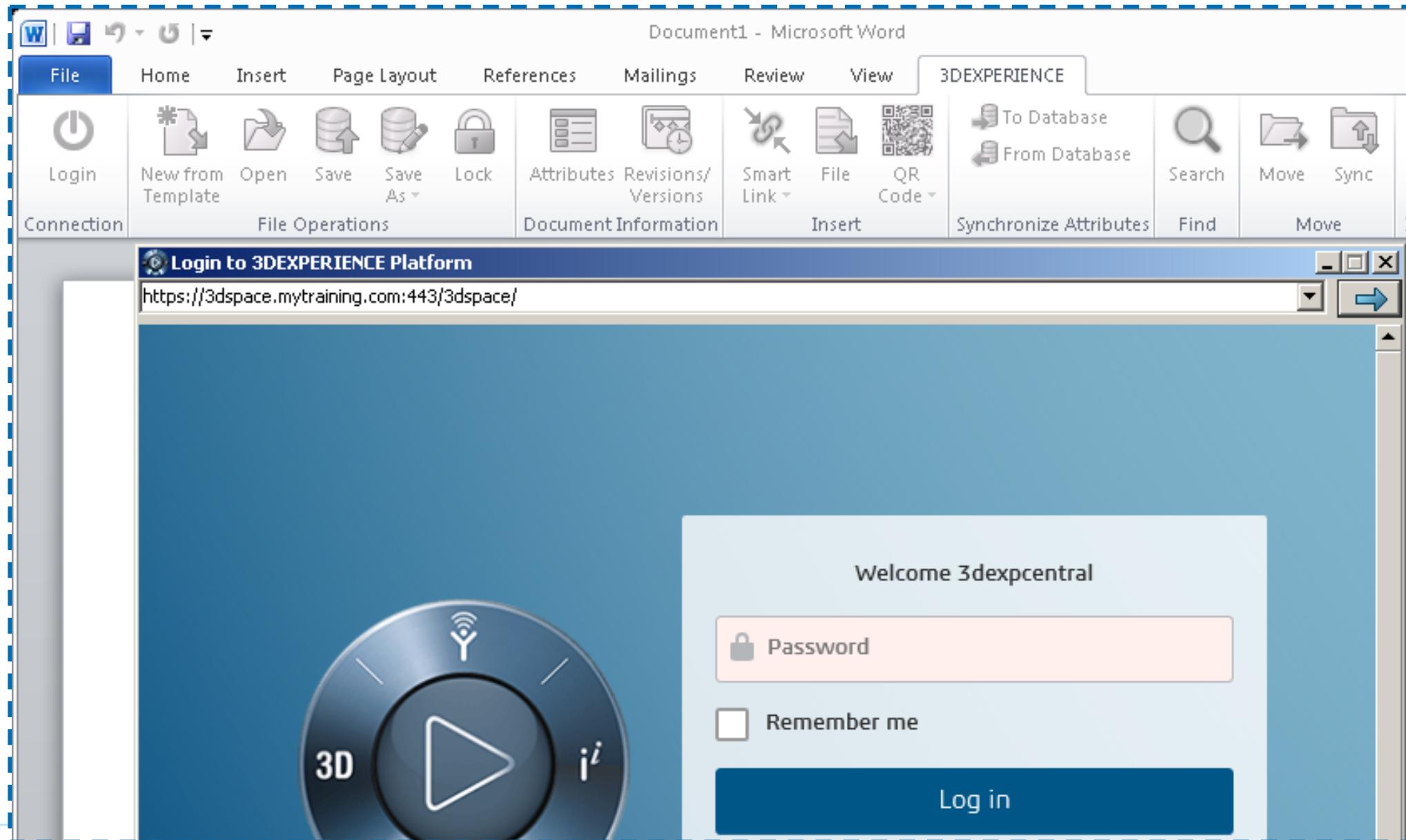
3DEXPERIENCE Native Client - Validation

- a. Client Configuration, access to
 - i. 3DSpace
 - ii. 3DPassport
- b. DSLS access
 - i. 3DSpace by granting you access confirms that it can reach the DSLS
 - ii. Native Client by granting you access confirms that it can reach the DSLS
- c. FCS Central
 - i. By checking the file system under the Central FS set of folders
- d. 3D Indexer
 - i. By checking the Report shows the object being indexed
 - ii. By checking that the client can reach it
- e. 3DSpace VPLM Vault validation
 - i. By finding the data under the FCS Central folder “plmx” which is linked tot the STORE “vplm”

3DEXPERIENCE – Microsoft Integration

1. Open MS Office Word

- a. Login to the platform using the “Login” button.
- b. “3dexpcentral”

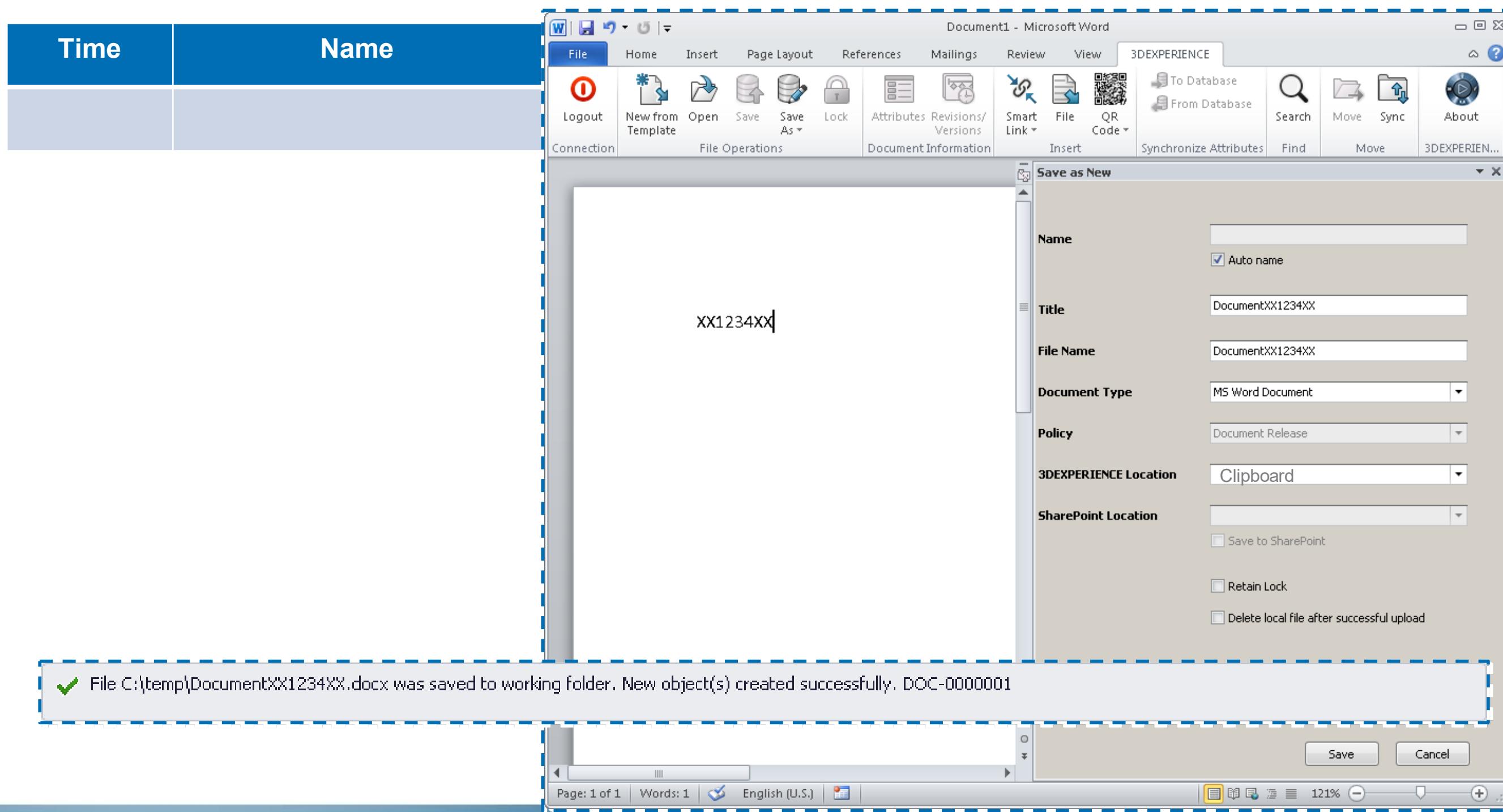


120 minutes

3DEXPERIENCE – Microsoft Integration

1. Open MS Office Word

- a. Create some text that that can be searched later on: “XX1234XX”
- b. Make sure the text is unique, so when we search we only get one result.
 - i. Do a “Save as” and Take note of the “Time” and the object “Name”

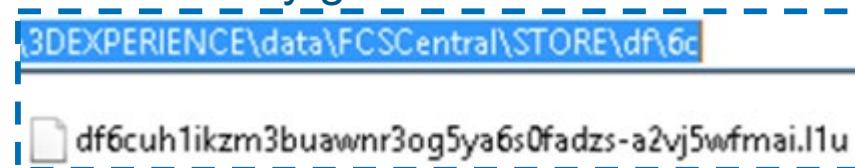


3DEXPERIENCE – Microsoft Integration

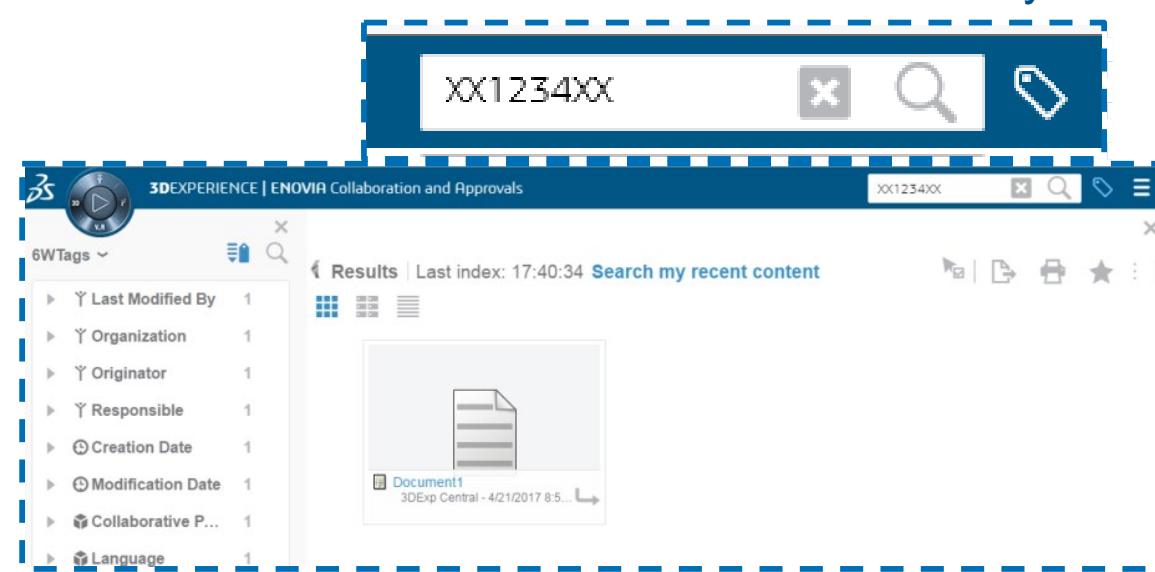
1. Open MS Office Word

- Go to the server; under folder `D:\3DEXPERIENCE\data\FCSCentral\STORE` you should see a new folder.

- The object will be similar to the picture below but may have a different file name as these names are randomly generated

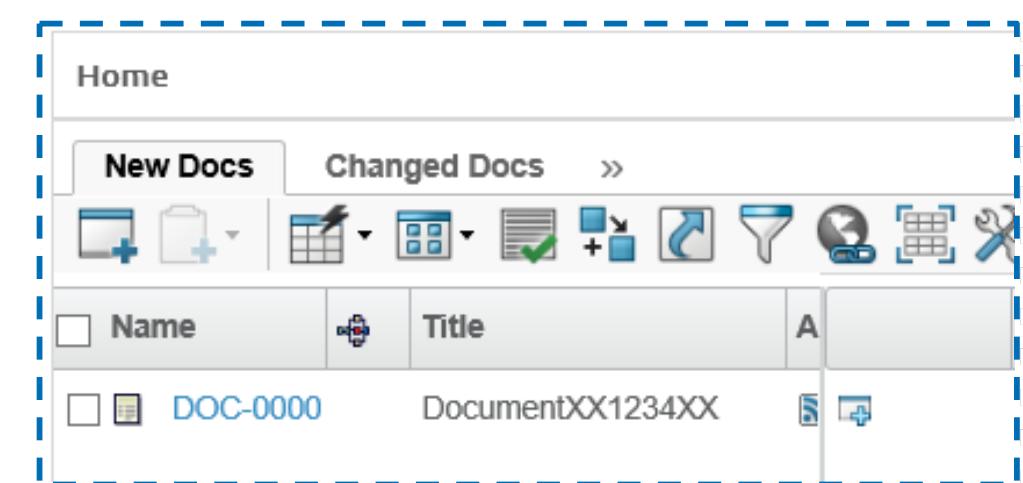


- Close Word and Open Internet Explorer with the same user
- In the Home page you should see your document:
- Click on the search icon and search for your text:



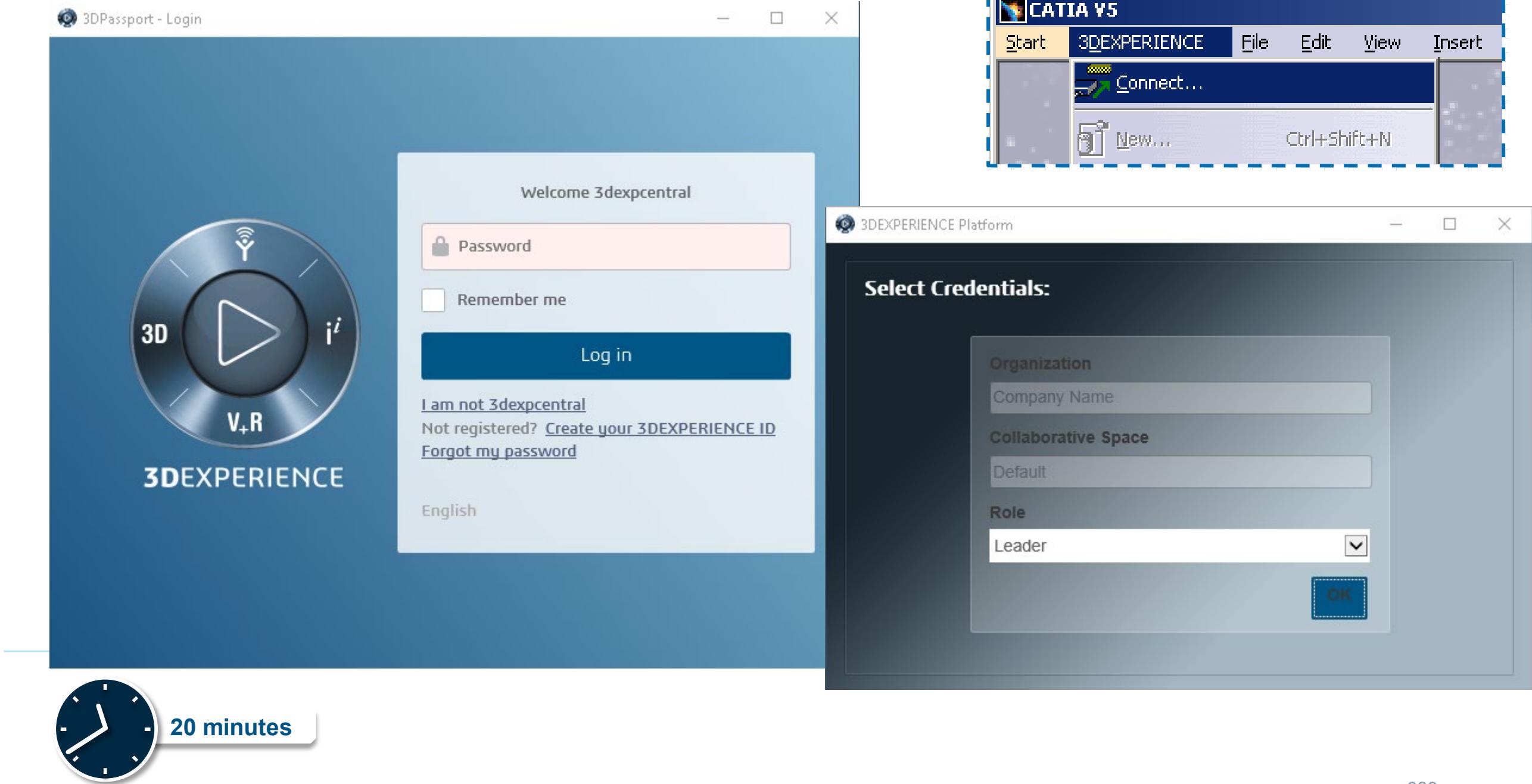
- MS Office Validation achieved

- MS Integration
- 3DSpace STORE Vault
- 3DSpace Index document indexation



Exercise: 3DEXPERIENCE CATIA V5-6 Integration

1. Using your desktop icon “CATIA P1 V5-62017” start CATIA.
2. Using the “3DEXPERIENCE” menu “Connect...” to the platform.
3. Connect using user “3dexpcentral” and role “Author” (do not select “Remember me”)
4. If you have a connectivity issue, check that the server is running and go back to the section “For IEF/CATIA V5-6 you also need to do the following actions” in this document.



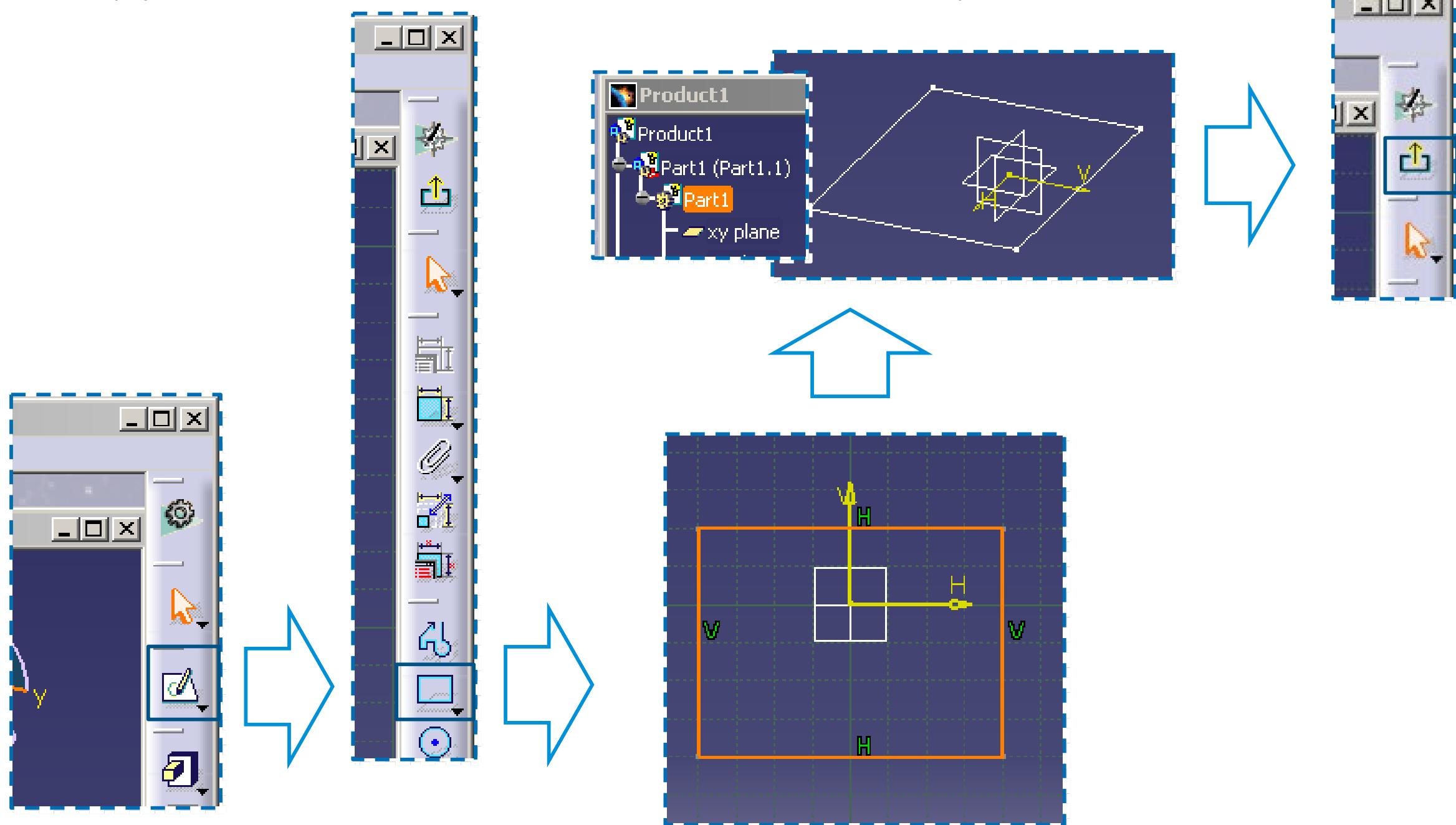
3DEXPERIENCE CATIA V5-6 Integration

1. Similar to what was done with the Native Client you will create:
 - a. A Top Level Product, that by default will open when starting V5
 - b. Add a “New Part”
2. RMB on the “Product”, select “Components”, select “New Part”.
3. Expand the tree (click on the “+”)



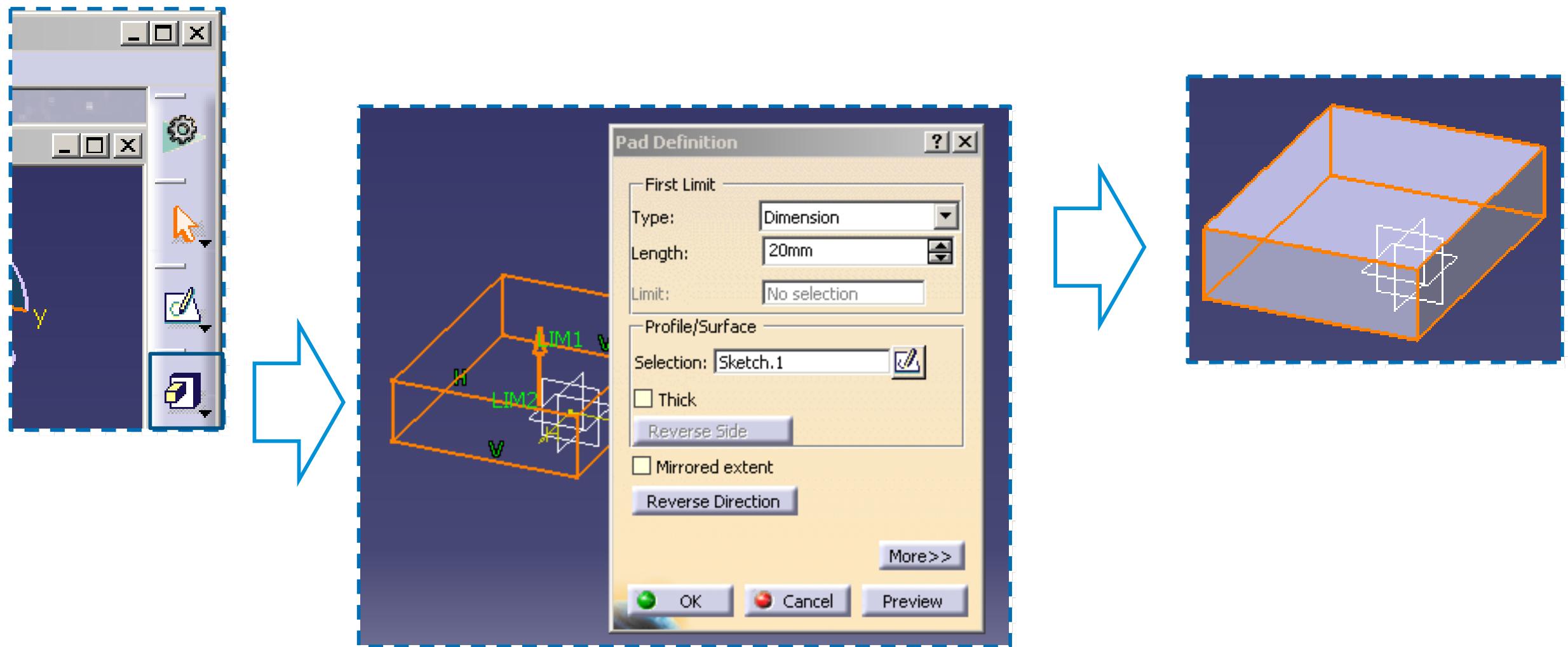
3DEXPERIENCE CATIA V5-6 Integration

1. Double click on the “xy plane”, then on the right side click on the “Sketch” button.
 - a. On the new menus on the right, click on the “Rectangle” button.
 - b. Create a rectangle, then double click on the “Part” just one level up from the “xy plane”.
 - c. (if you do not see it, in the “View” menu use the “Fit All in” option).



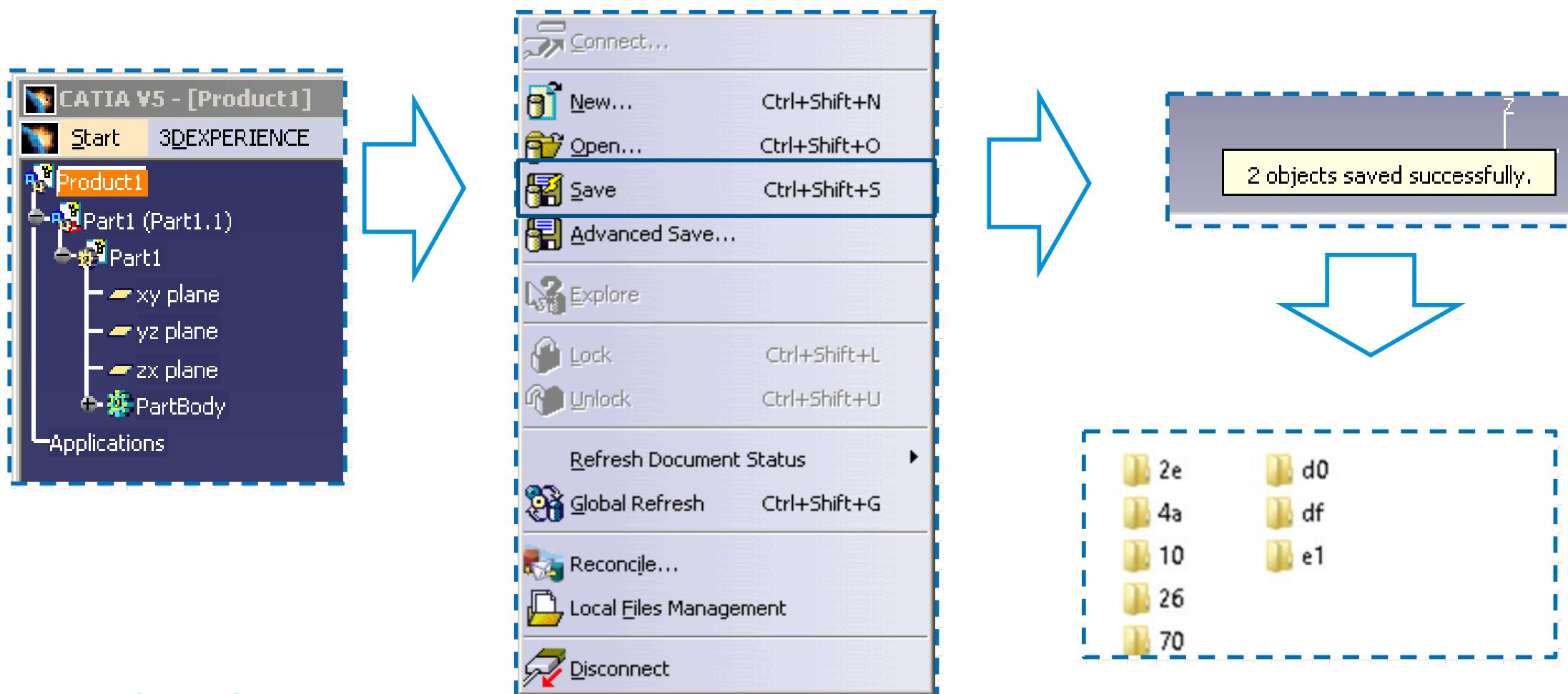
3DEXPERIENCE CATIA V5-6 Integration

- a. On the new menus on the right click on the “Pad” button.
- b. Select the rectangle, keep all values and click **OK**.
(if you do not see it, in the “View” menu use the “Fit All in” option).



3DEXPERIENCE CATIA V5-6 Integration

- a. Double-click on the top “Product”.
- b. Go to the “3DEXPERIENCE” menu and “Save”, accept workspace save.
 - i. You may be prompted for platform reconnect.
- c. In the Server you should see new files in D:\3DEXPERIENCE\data\FCSCentral\STORE



- d. Close CATIA V5-6
- e. MS Office validation achieved
 - i. CATIA V5-6 5 Integration
 - ii. 3DSpace STORE/Vault/FCS

General Remarks About Native Clients and Integrations

- ▶ This training is not intended to be Client application training, platform deep dive or P&O data model training.
 - Test were limited to OOTB behavior with minimal configuration.
 - These scenarios are not representative of industry best practices.
 - These scenarios are intended to test platform functionality only
- ▶ You should have noticed that Files are saved in the FCS based on a few criteria:
 - User site
 - Even applies to “back end” users like “3DIndexAdmin” used by the 3D Indexer
 - “Stores” are linked to “Locations” and “Locations” are linked to the FCS (simplified view)
- ▶ You can see that using some simple scenarios we are able to validate most of the platform quickly and efficiently.
- ▶ At this time you should have closed all Native applications and integrations. The next few slide will enable us to validate additional server components with the “3dexpremote” user directly on the server. We will test:
 - 3DSpace
 - 3DDashboard
 - FCS Remote

If you want you can execute these “Internet Explorer” scenarios on the Client as well. Ideally all tests should be done first on the server (possible only if Windows), and the client as well.

IE - Validations

These validation steps are designed to test the server services. We previously validated 3DPassport by creating users, there is nothing more to validate for 3DPassport. For production systems where 3DPassport is integrated to an external LDAP or 3rd party Identity Provider additional validation would be required but this is out of the scope for this training.

Open “Internet Explorer” in the server, and connect to “3DSpace” using the “3dexpremote” user, the roles selected should be “Author”.

You are viewing all the latest object created in the platform:

Name	Title	Type	Modified	State	Deliverable
Part1	Part1.CATPart	CATPart	Mar 15,...	In Work	0
Part1	Part1.CATPart	CATPart	Mar 15,...	Exists	0
Product1	Product1.CATProduct	CATProduct	Mar 15,...	Exists	0
Product1	Product1.CATProduct	CATProduct	Mar 15,...	In Work	0
DOC-0000	DocumentXX1234XX	MS Word Document	Mar 14,...	In Work	0



15 minutes

IE 3DSpace - Validation

1. The Security Context comprises:

- a. Role
- b. Group or company
- c. Collaboration space

2. Click on the top right the **Me** icon and select **My Credentials**.

The screenshot shows the ENOVIA Collaboration and Approvals application interface. On the left is a navigation sidebar with various options like Change Management, Collaboration and Approvals, Home Dashboard, Issues Summary, etc. The main area displays a grid of documents with columns for Name, Title, Actions, Rev, Ver, and Type. A context menu is open over the first document in the grid, listing options such as My Roles, My Profile, My Credentials (which is highlighted), Messages, Preferences, Refresh My Licenses, and Sign Out. The status bar at the bottom indicates there are 4 objects.

Name	Title	Actions	Rev	Ver	Type
circle_Train	circle_Training.CATPart	[Actions]	0/1	---	CAT
circle_Train	circle_Training.CATPart	[Actions]	0/0	---.0	CAT
ABPart1	ABPart1.CATPart	[Actions]	0/1	---	CAT
ABPart1	ABPart1.CATPart	[Actions]	0/0	---.0	CAT

About 3DEXPERIENCE platform

IE 3DSpace - Validation

1. Login with 3dexpressremote user.
2. Select **Bookmark Workspace** and click **Create New**. Name it as **My Workspace**.
3. Using the menu icon, click on “Create new...” and follow the steps indicated in the image

The screenshot shows the 3DEXPERIENCE Platform interface for ENOVIA Collaboration and Approvals. On the left, there is a sidebar with various options like Subscriptions, Meetings, Decisions, Discussions, Member Lists, View My Company, Experience Configuration, Collaboration, Team, My View, Bookmark Workspaces, and a dropdown for Bookmark Workspace. A blue arrow points from the 'Bookmark Workspaces' option in the sidebar to a context menu that appears when the 'Create New...' option is selected. This context menu contains four items: 'Create New...', 'Bookmark Workspace Wizard...', 'Delete', and 'Change Owner'. Another blue arrow points from the 'Create New...' item in the context menu to a detailed view of the 'Create New Bookmark Works...' dialog box on the right. The dialog box has fields for 'Name' (set to 'My Workspace'), 'Bookmark Workspace Template' (empty), and 'Description' (set to 'My Workspace'). It also includes sections for 'Type' (set to 'Bookmark Workspace') and 'Fields in red italics are required'. At the bottom of the dialog are 'OK' and 'Cancel' buttons.

3DEXPERIENCE Platform

ENOVIA Collaboration and Approvals

Subscriptions

Meetings

Decisions

Discussions

Member Lists

View My Company

Experience Configuration

Collaboration

Team

My View

Bookmark Workspaces

Bookmark Workspace

New Docs

Changed Docs

My Recent Docs

Collections

Name

Title

Actions

circle_Train

circle_Training.CATPart

0/1

circle_Train

circle_Training.CATPart

0/0

ABPart1

ABPart1.CATPart

0/1

ABPart1

ABPart1.CATPart

0/0

Bookmark Workspace | Filter:All

Create New...

Bookmark Workspace Wizard...

Delete

Change Owner

OK

Cancel

Search

Bookmark Workspace

Type

Bookmark Workspace

Name

My Workspace

Bookmark Workspace Template

Clear

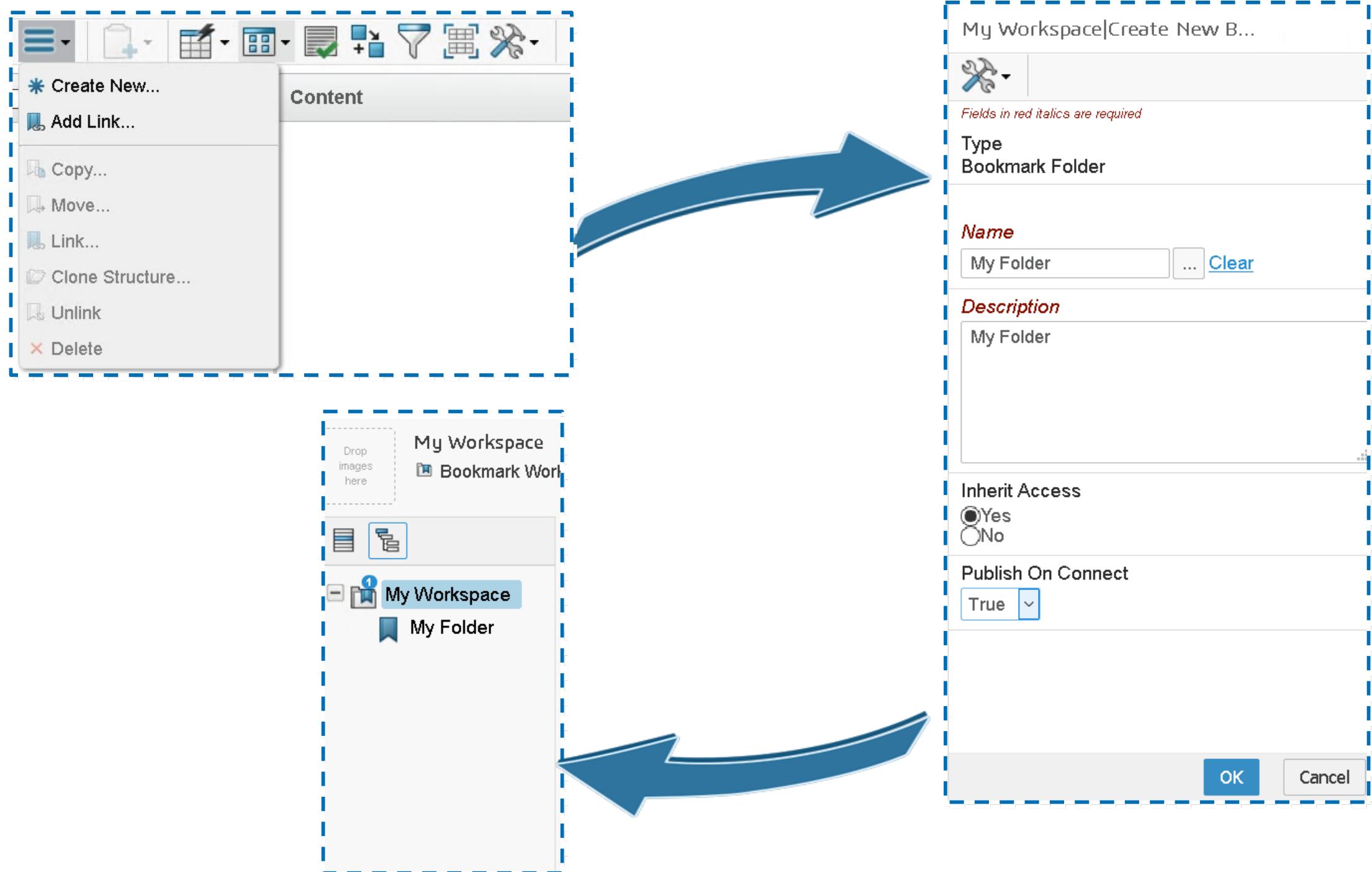
Description

My Workspace

IE 3DSpace - Validation

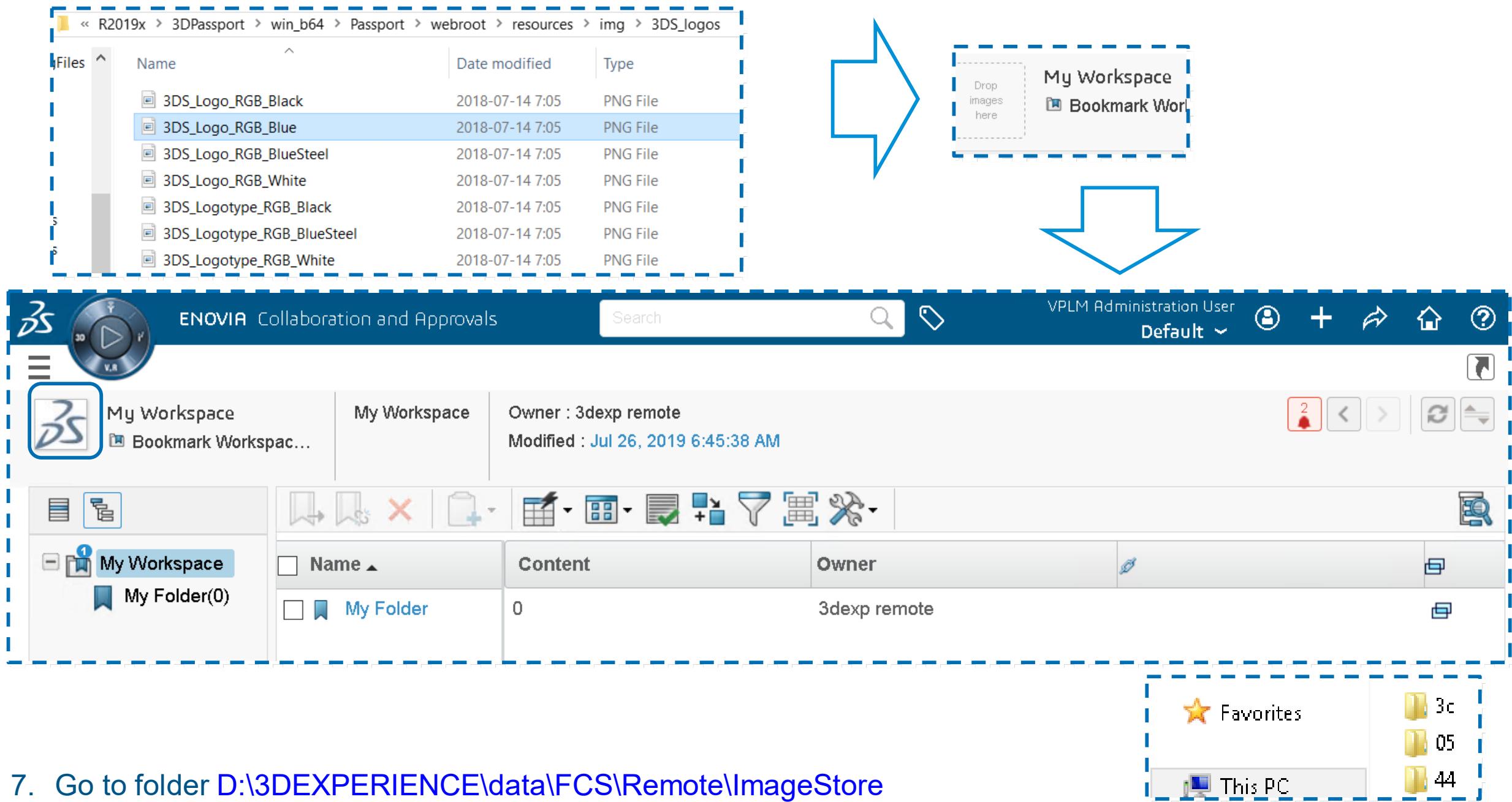
4. Create a new folder called **My Folder** in the workspace.

Observe that all red text fields are mandatory in the creation panel.



IE 3DSpace - Validation

5. Open Folder: D:\3DEXPERIENCE\R2019x\3DPassport\win_b64\Passport\webroot\resources\img\3DS_logos
You should see the file 3DS_Logo_RGB_Blue.png.
6. Drag and drop that image into workspace wksp_test1

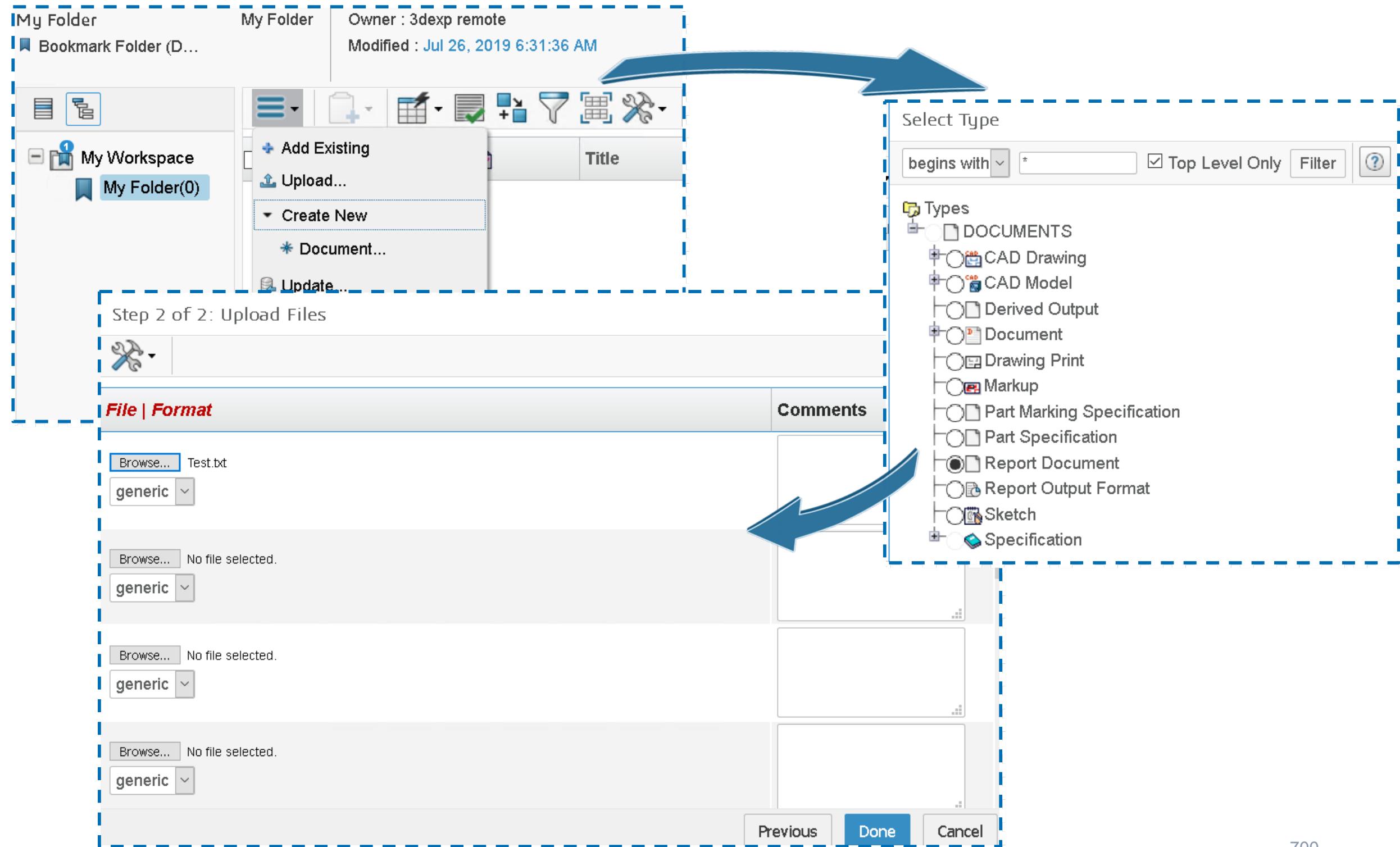


7. Go to folder D:\3DEXPERIENCE\data\FCS\Remote\ImageStore
8. Check the FCS behavior you should see a new folder (You may not see a "new" folder if the FCS chooses a file a name the corresponds to an existing folder).

IE 3DSpace - Validation

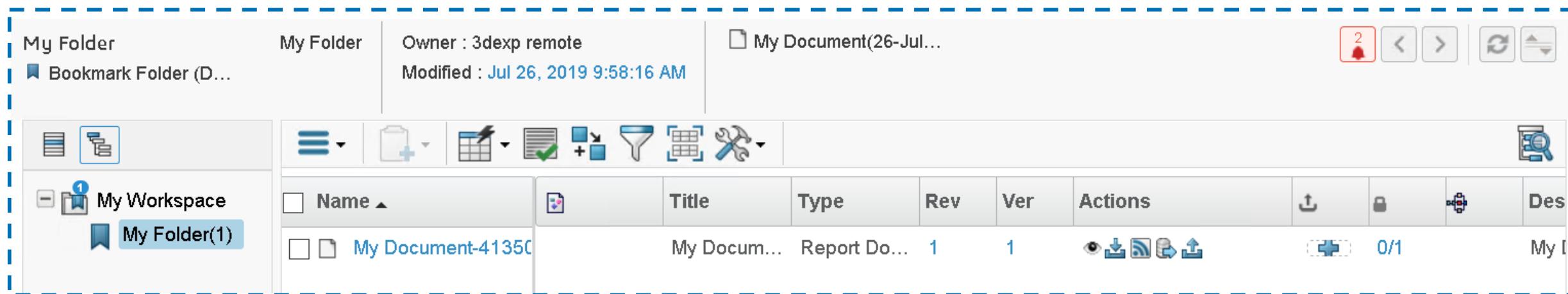
9. Select My folder and select **Create New > Document**.

10. Select a small text file, an ideal text file would have a special keyword inside that could be searched.



IE 3DSpace - Validation

The new document is created containing the text file you choose. Click the **Viewer** icon to view the contents.



11. The FCS Folder should have a new file

D:\3DEXPERIENCE\data\FCS\Remote

12. Open a new tab in your browser and open the URL:

<https://fcsremote.mytraining.com/fcs/servlet/fcs/about>

Cleaned Up Items	0
Current Items	7
http://3dspace.mytraining.com:8380/3dspace	
Cleaned Up Items	0
Current Items	0

IE 3DSpace - Validation

- Launch search with string “test_*”, if the command is successful Federated Search is available on the platform:

The screenshot shows the 3DEXPERIENCE Platform News dashboard titled "My First Dashboard". A search bar at the top contains the query "00*". Below the search bar, a search result card displays "3DSearch - Search results for \"00*\"". The results section shows 9 items, with the last index listed as 17:59:34. A link to "Search my recent content" is provided. The results are presented in a grid format with icons and details for each item.

Icon	Item Type	Identifier	Details
Document icon	Physical Product	Physical Product00000041	3DExp Central - 4/21/2017 11:05:58 AM - Default prd-mytraining-00000041
Product icon	Physical Product	Physical Product00000022	3DExp Central - 4/20/2017 4:05:20 PM - Default prd-mytraining-00000022
Product icon	Physical Product	Physical Product00000021	3DExp Central - 4/20/2017 4:00:55 PM - Default prd-mytraining-00000021
Document icon	Physical Product	Physical Product00000042	3DExp Central - 4/21/2017 11:05:58 AM - Default prd-mytraining-00000042
Document icon	Physical Product	Physical Product0000003	3DExp Central - 4/21/2017 8:13:01 PM - Default DOC-0000003
Collaborative icon	Physical Product	Physical Product00000043	3DExp Central - 4/21/2017 11:05:58 AM - Default prd-mytraining-00000043
Content Structure icon	Physical Product	Physical Product00000023	3DExp Central - 4/20/2017 4:05:20 PM - Default prd-mytraining-00000023
Collaborative icon	Physical Product	Physical Product00000044	3DExp Central - 4/21/2017 11:05:58 AM - Default prd-mytraining-00000044
Content Structure icon	Physical Product	Physical Product00000024	3DExp Central - 4/20/2017 4:05:20 PM - Default prd-mytraining-00000024

IE 3DDashboard - Validation

- ▶ In your 3Dspace Compass select the “East” quadrant, and click on “3DDashboard”
 - ▶ A new tab will appear in “Internet Explorer”

The image shows two side-by-side screenshots of the 3DEXPERIENCE platform interface.

Left Screenshot (3DDashboard):

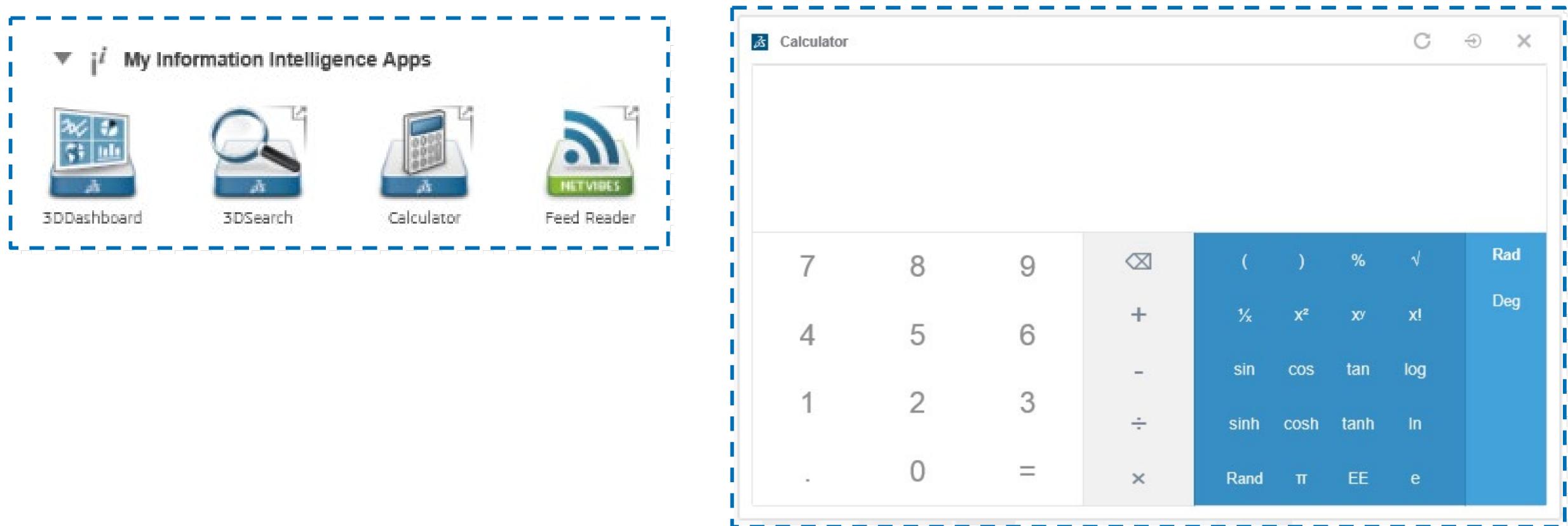
- The title bar reads "3DEXPERIENCE | 3DDashboard My First Dashboard".
- A large circular icon in the top left corner contains "3D" and "V.R".
- The main content area displays a sidebar with the following sections:
 - "3DEXPERIENCE Marketplace"
 - "3DEXPERIENCE Roles & Apps"
 - "My Roles / Profile"
 - "My Favorite Apps"
 - "My Information Intelligence Apps"
- Below the sidebar are several app icons: 3DDashboard, 3DSearch, Calculator, Feed Reader, Mail, Media Links, Metrics Reader, Quick Links, Run your App, Web Notes, and Web Page Reader.

Right Screenshot (3DCompass):

- The title bar reads "3DEXPERIENCE | 3DDashboard My First Dashboard".
- The main content area features a large blue arrow pointing right with the text "Welcome to the 3DEXPERIENCE platform".
- A circular icon in the center contains "3D" and "V.R".
- The text "3DEXPERIENCE" is displayed below the icon.
- A "3DCompass" section is shown with a circular icon containing "3D" and "V.R" with a cursor arrow pointing to it.
- Below the compass are sections for "3DEXPERIENCE Marketplace", "3DEXPERIENCE Roles & Apps", and "3DEXPERIENCE Roles & Apps".
- To the right, a sidebar titled "The 3DEXPERIENCE platform" provides a brief overview of the platform's purpose and capabilities.

IE 3DDashboard - Validation

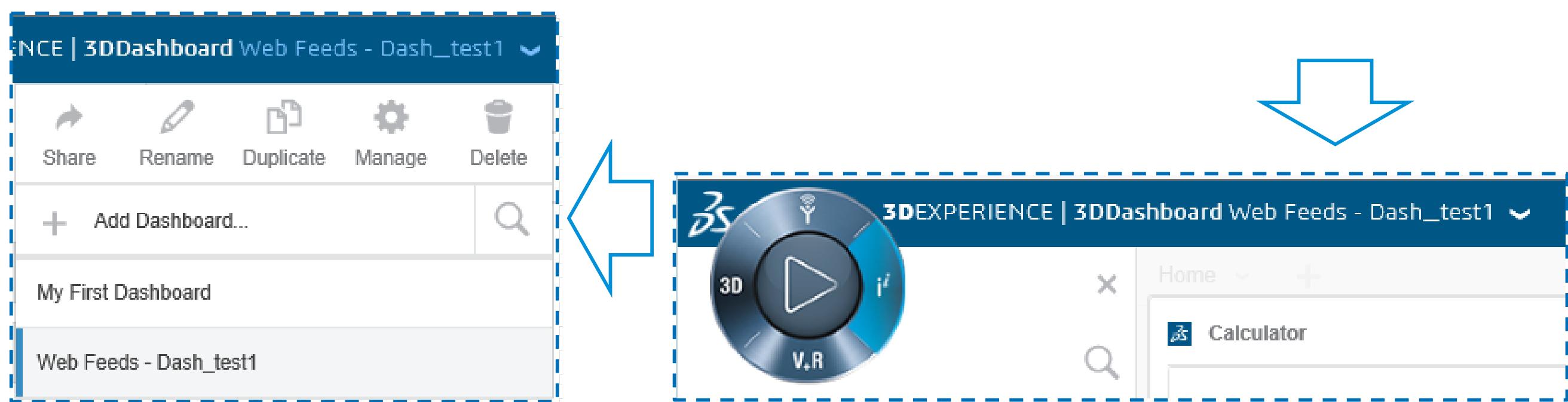
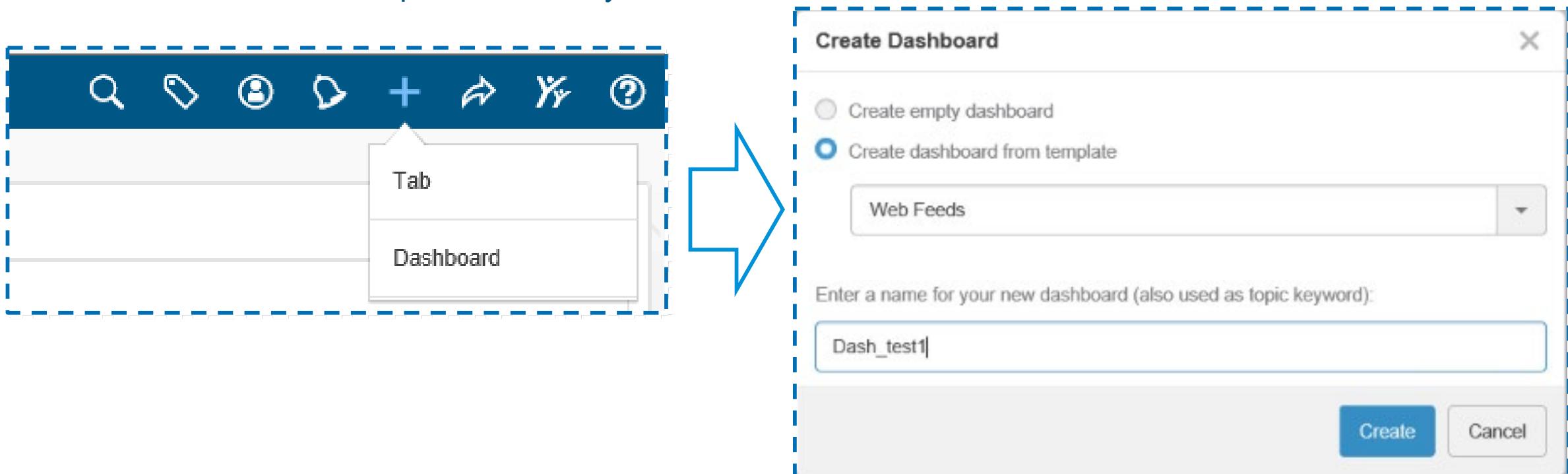
- ▶ Click the “East” quadrant again and Launch the “Calculator”:
 - ▶ This tests a few basic Dashboard tools



- ▶ It is just as easy to switch 3DSpace from 3DDashboard if you started directly in 3DDashboard. The 3DSpace web apps are located on the “North” quadrant and CATIA Native apps are part of the “West” quadrant.

IE 3DDashboard - Validation

- ▶ Create a new 3DDashboard, on the top right click on the “Add (+)”
 - ▶ Use the value proposed in the image, you should see the “Dash_test1” appear
 - ▶ Click on the expand arrow of your new dashboard



Appendix A: Installation - Training Client Prerequisites

Table of Content

- ▶ Introduction
- ▶ Host prerequisite
- ▶ Client Software
 - CATIA V5-6R2017 GA
 - Microsoft Office 2016
- ▶ Annexure
 - Detailed images for CATIA V5-6R2017 GA



30 minutes

Introduction

- ▶ By now you should have completed the prerequisite installations for the **3DEXPERIENCE** platform **server** components. To execute integrations with a Native App, you will need to install additional host client software.
- ▶ This training is designed to be server side training not Native Client training. However, you will be asked to use the Integrations listed below during the training which will require some client preparations.
 - CATIA V5-6R2017 GA
 - Microsoft Office
- ▶ This chapter will introduce the prerequisite information and key messages for the requisite client software installations.
- ▶ The same level of Service Pack as the **3DEXPERIENCE** platform server should be installed for the Native App on the Client slide.

Host - Prerequisites

- Check CATIA V5-6 “Program Directory” for host compatibility:
 - <https://www.3ds.com/support/documentation/program-directories/>

The diagram illustrates a two-step process. Step 1: The 'Access Program Directories' page, which contains fields for selecting a product line (Version 5) and a release (V5-6R2017), followed by a 'Go' button. Step 2: The 'Log in' page, which includes fields for Email or Login and Password, a 'Remember me...' checkbox, and a 'Log in' button. A large blue arrow points from the 'Access Program Directories' page to the 'Log in' page.

Access Program Directories
Deploy and take the full benefit of your Dassault Systèmes product
Select the right version and its release

Choose a product line:
Version 5

Choose a release:
V5-6R2017

Go

Log in

Email or Login
Password

Remember me for a week (use only on trusted computers)

Log in

Forgot your password or login ID?
Need help?

V5 Client Hardware & Software Requirements

This document is provided as a guideline regarding hardware configurations, operating systems and operating system patches recommended for the use with this Version 5-6 Release 2017 on client side. This information applies to the following products:

- ◆ CATIA
- ◆ ENOVIA DMU
- ◆ ENOVIA 3d com (client side only)
- ◆ ENOVIA V5 VPM (client side only)
- ◆ DELMIA Process Detailing & Validation (PLM V5)
- ◆ SIMULIA Abaqus for CATIA
- ◆ CAA-RADE (generic requirements); for detailed information, please read the [dedicated page](#)

To access the page for Server side, [click here](#).

All Windows Platforms	This section contains information common to all Windows operating systems	click here
Microsoft Windows 64-bit	◆ Windows 7 Enterprise Edition/Professional Edition x64 SP1 ◆ 64-bit Windows 8.1 Desktop Enterprise Edition/Pro Edition RTM ◆ 64-bit Windows 10 Desktop Enterprise Edition Edition 1507	click here click here click here
IBM AIX	◆ AIX 7.1	click here

Host - Prerequisites

- ▶ You will perform some simple checks to ensure compatibility.
 - For Certified Hardware compliancy details please reference:
 - <https://www.3ds.com/support/certified-hardware/>



Host - Prerequisites

- ▶ Extract from the “Program Directory” for machine prerequisites:
 - Resources:
 - 15 GB of free space on your fastest drive (SSD is recommended)
 - Physical machine should have at least 8 GB of RAM (more is better)
 - 8 CPUs
 - Operating System
 - Windows 8.1 Desktop
 - Windows 10 Desktop
 - File System for installation
 - File system of the installation directory must be NTFS on Windows Operating systems
 - License Software
 - DSLS 3DS licensing tool
 - MS Office
 - Refer to “Browser and Native Apps Client H/W& S/W Requirements” in the Program Directory for supported Microsoft Office releases for “Collaboration for Microsoft”

Host - Prerequisites

- ▶ Support Policy for Browsers
 - CATIA V5
 - Internet Explorer 11 (*)
- ▶ Support Policy for .NET run time Environment
 - CATIA V5
 - Microsoft .NET Framework 4.6.1 Redistributable Package
- ▶ Support Policy for Java
 - CATIA V5 -6R2017
 - ENOVIA VPLM Web Navigator products require Java run time Environment. Java 8 is the minimum required level (Validated).
- ▶ Microsoft Office 2016

CATIA V5 Overview

- ▶ CATIA supports digital product definition (3D Design) and simulation, it provides functionality for multiple disciplines such as:
 - Mechanical Design
 - Product Synthesis
 - Analysis
 - Shape Design & Styling
 - Equipment & Systems Engineering
 - Machining
- ▶ Using your DS account download the “GA” media or ask your IT organization to procure a copy for you. It is recommended that you download all media on your local machine and not directly to a VM.
- ▶ Copy and extract the media to <Your Media PATH>
- ▶ CATIA V5 -6 media folder structure should look like the example below
`<Your Media PATH>\CATIA_P1.win_b64\1`
- ▶ **DS IT Person please follow the below process in order to procure the media**
 - Copy the media **V5-6R2017.CATIA_P1.win_b64.1-1** to <Installer PATH> from X:\ (Which you had mounted recently)
 - CATIA V5 -6 media folder structure should look like the example below
`<Installer PATH>\V5-6R2017.CATIA_P1.win_b64.1-1\CATIA_P1.win_b64\1`



Note that some installers are OS independent.



<Installer PATH> = any folder which is having free space for example D: or D:

CATIA V5-6R2017: Configuration & Key Parameters

- During the Installation you will be asked about the following parameters:

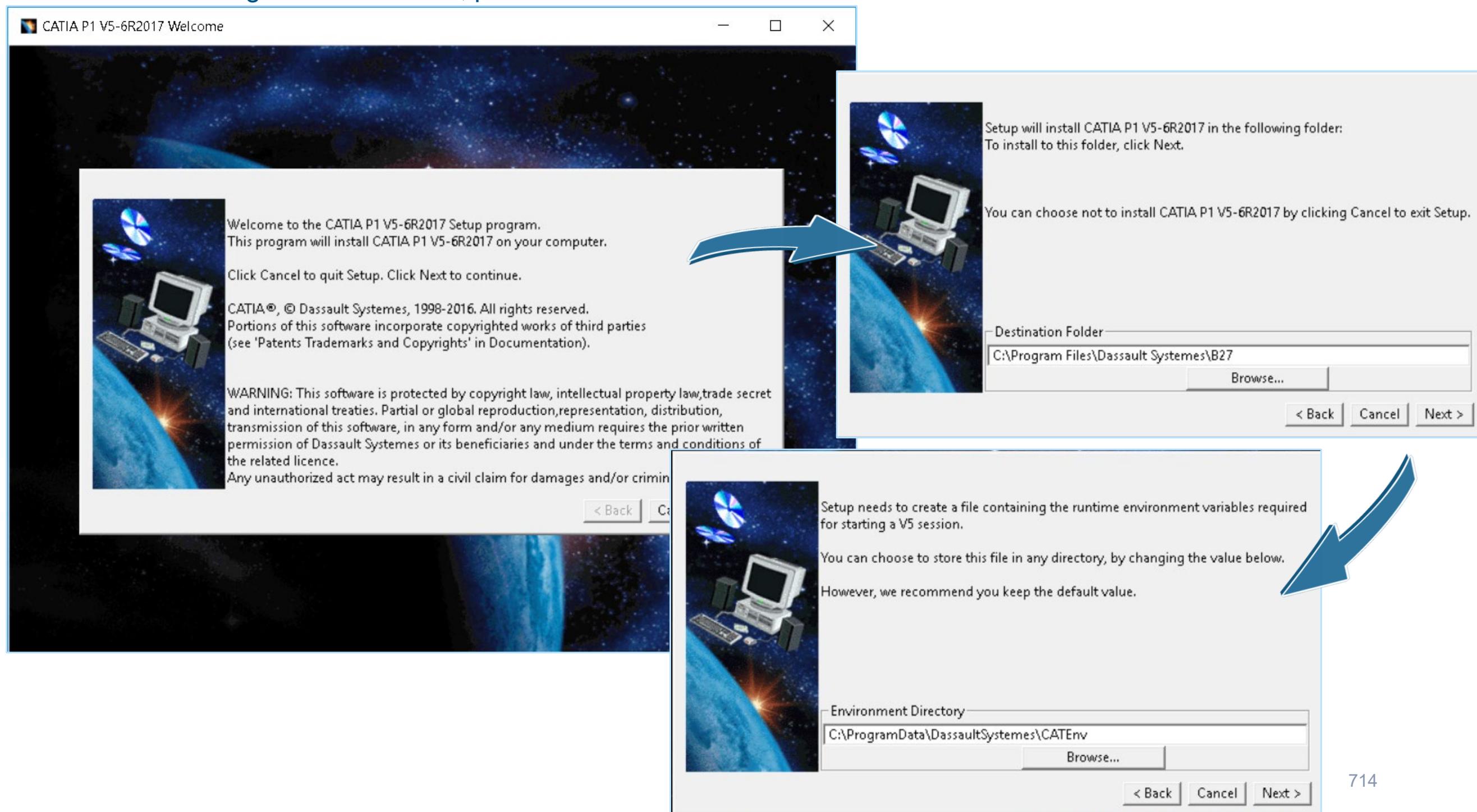
Cheat-Sheet:

Steps	Key	Value
01	Global platform Installer	<Your Media PATH>\CATIA_P1.win_b64\1\setup.exe
02	Destination Folder	C:\Program Files\Dassault Systemes\B27
03	Environment Directory	C:\Program Files\Dassault Systemes\CATEnv
04	Choose the type of setup you prefer	Complete – All the software will be installed
05	Orbix Configuration: Port number for Orbix daemon Starting port number for daemon-execute server Range for daemon-execute server	1570 1590 200
06	Servers Timeout	60
07	Yes, I want to setup the ENOVIA Vault Client	Yes
08	Creates a Startup icon on the desktop Creates a Startup shortcut in the Start Menu Creates administrative tools entries in the Start Menu	Yes Yes Yes

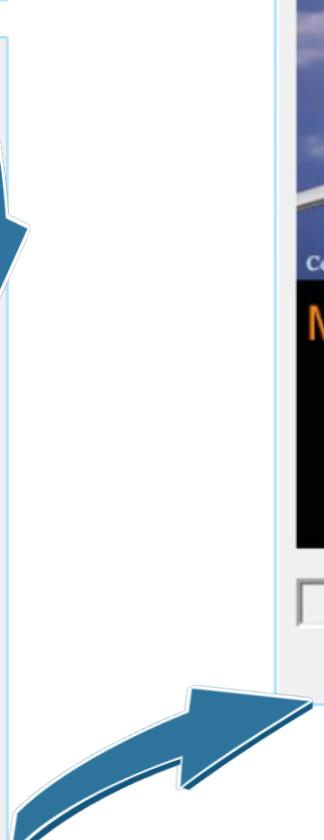
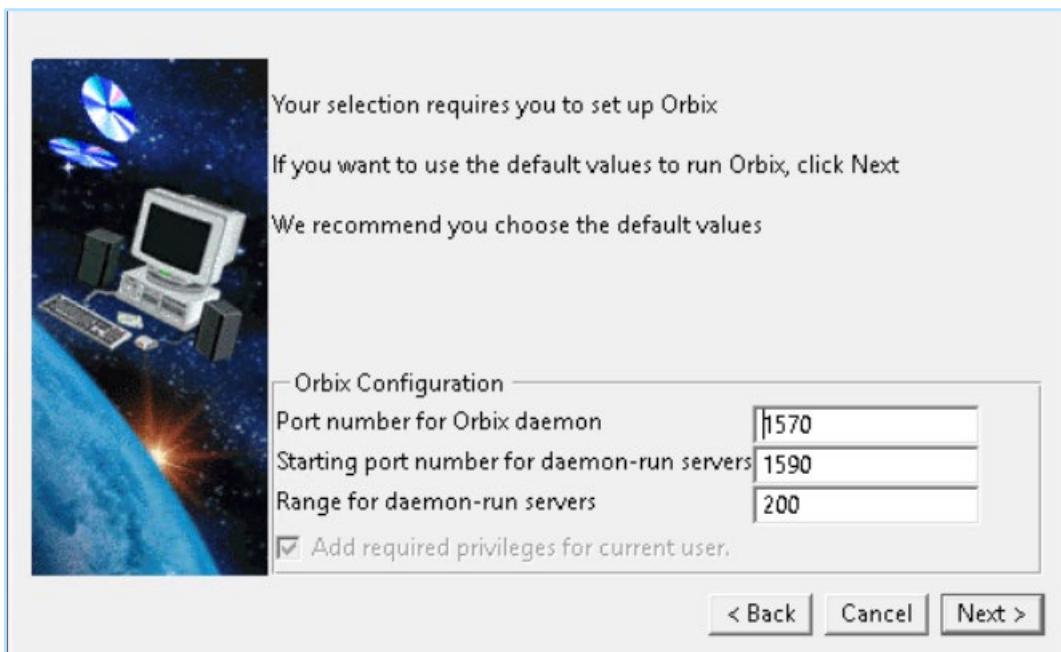
CATIA V5-6R2017 GA Installation

► Based on your OS:

- Navigate to your <Your Media PATH>
- Start the GUI installer corresponding to your OS
- Using the Cheat-sheet, proceed to the installation.



CATIA V5-6R2017 GA Installation



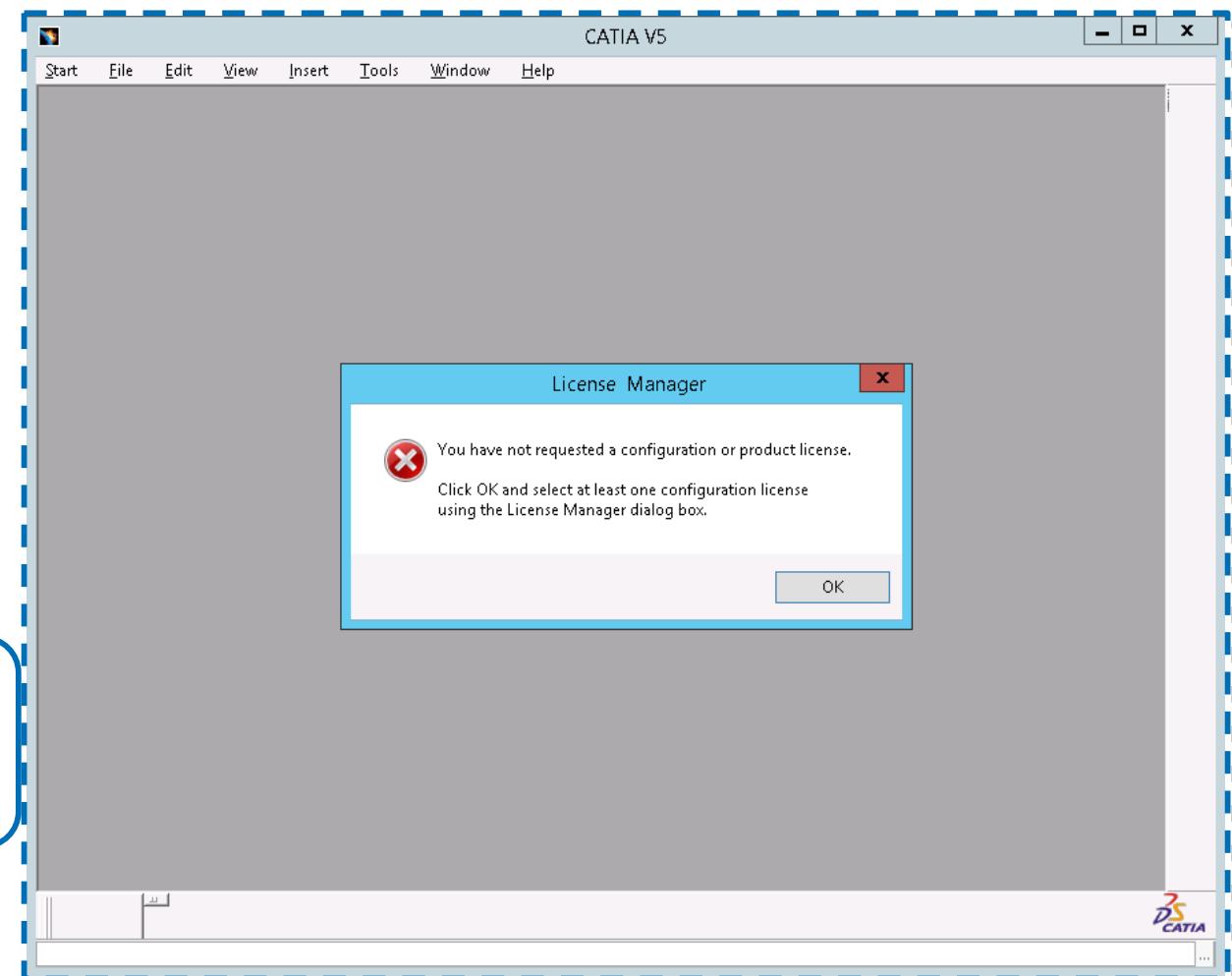
CATIAV5 – Technical Validation

- ▶ Upon completion of the installation please check and verify the items below to ensure your installation has been successful.
 - Make sure you have a “DSLicSrv.txt” file under following directory:
 - C:\ProgramData\DassaultSystemes\Licenses
 - Make sure that you using the correct license server name and port
<License server FQDN>:4085
If the license server is on the same server as 3DSpace you can use “localhost”
 - Test if you can launch CATIAV5

You may ignore the error message at this time.



It is recommended to install the CATIA V5 Service Pack inline with the **3DEXPERIENCE** platform Fixed Pack.



CATIAV5 – Uninstallation

This task explains how to remove the CATIA Version 5 application on Windows

- a. Use the Windows “Programs and Features” component
 - i. Open “Control Panel”
 - ii. Select “Programs and Features”, you will find
Dassault Systemes Software Version 5-6 Release 2017 (B27)
 - i. Proceed to Uninstall
- b. There is also a Uninstall.bat file in the with which you can uninstall a service.



MS Office - Overview

- ▶ Collaboration for Microsoft integrates the **3DEXPERIENCE** platform with Microsoft Office applications (Microsoft Word, Excel, PowerPoint, Project, Outlook, and Office 365 desktop applications) enabling you to manage documents and capture information in a quick and easy way.
- ▶ In this Training you will integrate **Microsoft Office 2016 or 2019 or 365** with **3DEXPERIENCE** platform

There is no detail on the installation of **Microsoft Office 2016 or 2019 or 365** in this document. Please consult your local IT if you need support for installation.

MS Office – Technical Validation

- ▶ Once you have installed **Microsoft Office 2016 or 2019 or 365** or another “Program Directory” supported product level.

- ▶ Below is the list of the versions supported for **3DEXPERIENCE R2019x**, always consult “Program Directory” for updates.
 - Microsoft Office 2016 32-bit and 64-bit on Windows 7 SP1 64-bit, Windows 8.1 64-bit and Windows 10 64-bit

Summary

Summary

You have achieved the often forgotten client side preparation.

You have achieved:

- ✓ **3DEXPERIENCE Client**
 - ✓ CATIA V5 **3DEXPERIENCE** connection configuration
 - ✓ MS Office connector plugin and configuration

CATIA V5-6R2017 GA Installation

1. Software: CATIA V5-6R2017 GA
 - a. MSI installer
 - b. Keep all default values and options unless indicated
 - c. Go to your media folder and navigate to the “CATIA_P1.win_b64” folder
 - i. ...\\CATIA_P1.win_b64\\
 - ii. Execute “setup.exe” as Administrator → “Next>”

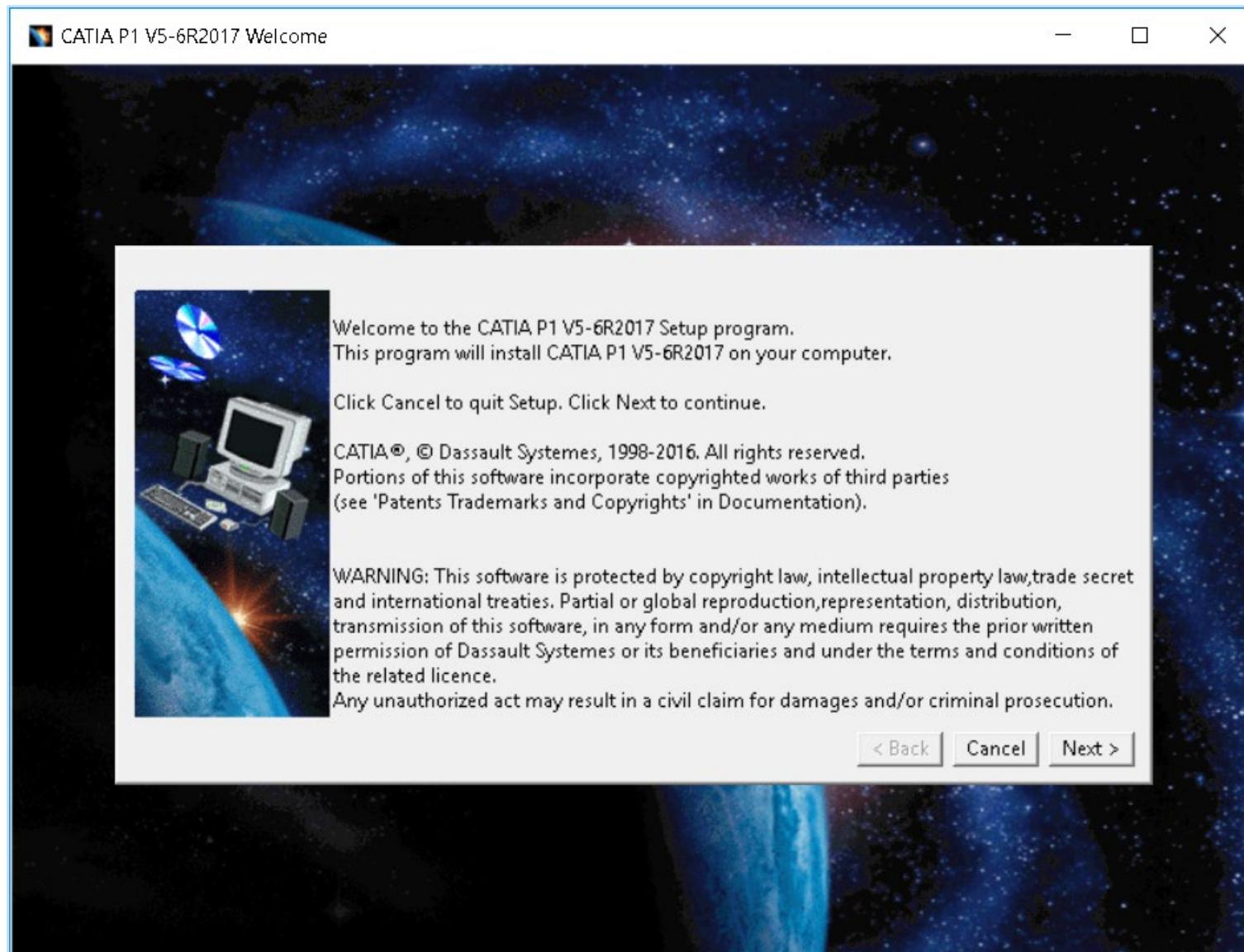


30 minutes

CATIA V5-6R2017 GA Installation

1. Software: CATIA V5-6R2017 GA

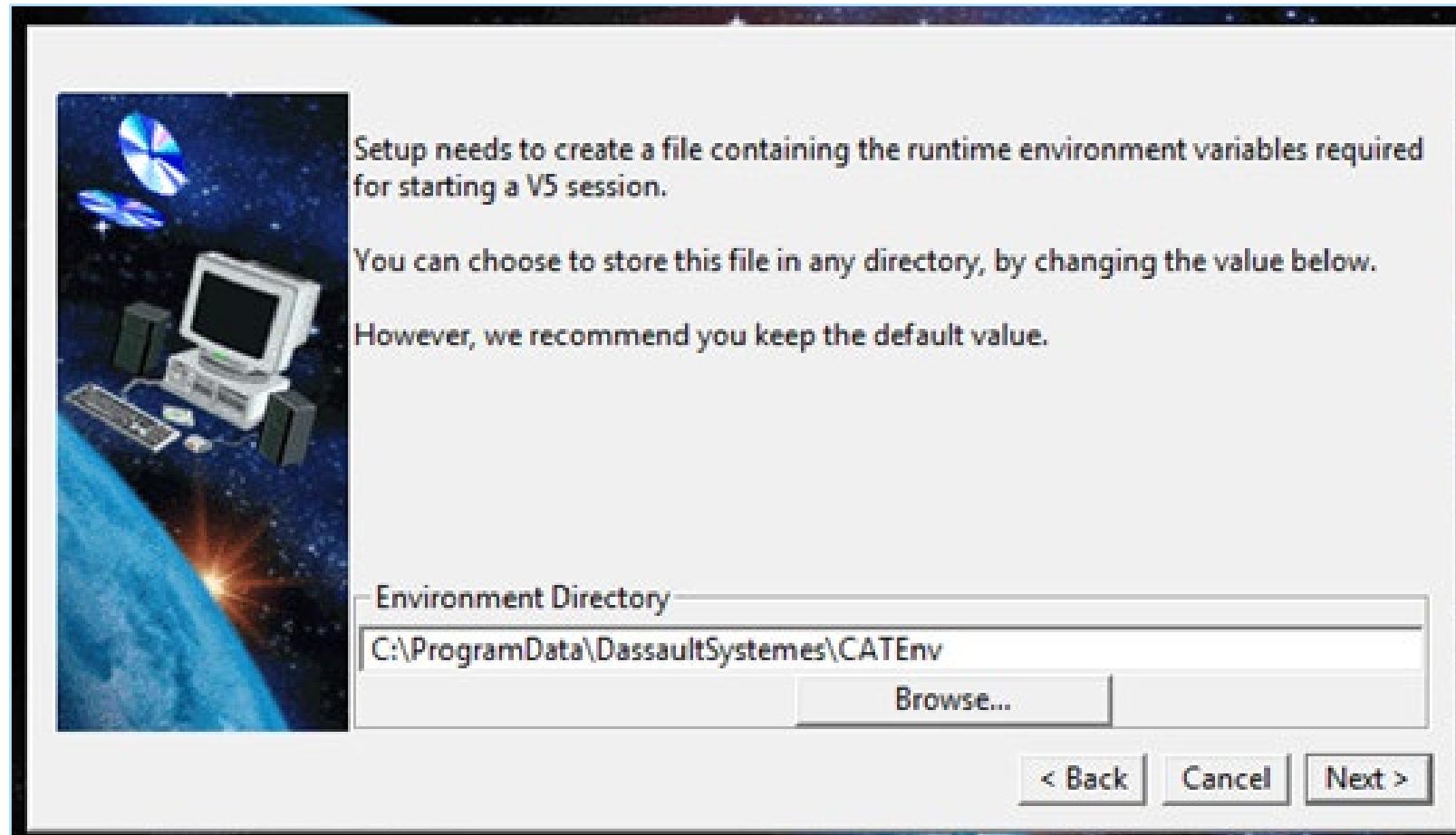
- a. Keep default Destination Folder
 - i. Accept the folder creation → “Next>”
 - “Yes>”



CATIA V5-6R2017 GA Installation

1. Software: CATIA V5-6R2017 GA

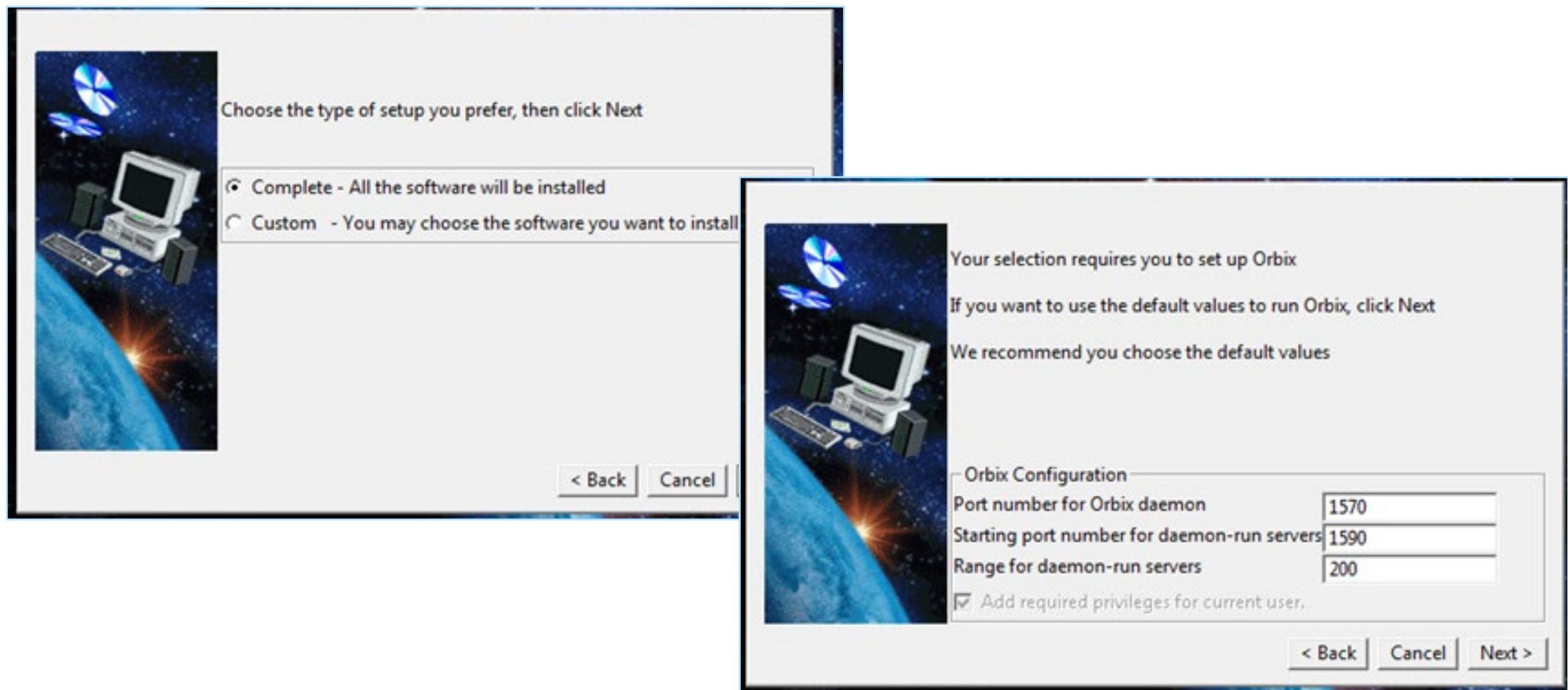
- a. Keep default Environment folder
 - i. Accept the folder creation → “Next>”
 - “Yes>”



CATIA V5-6R2017 GA Installation

1. Software: CATIA V5-6R2017 GA

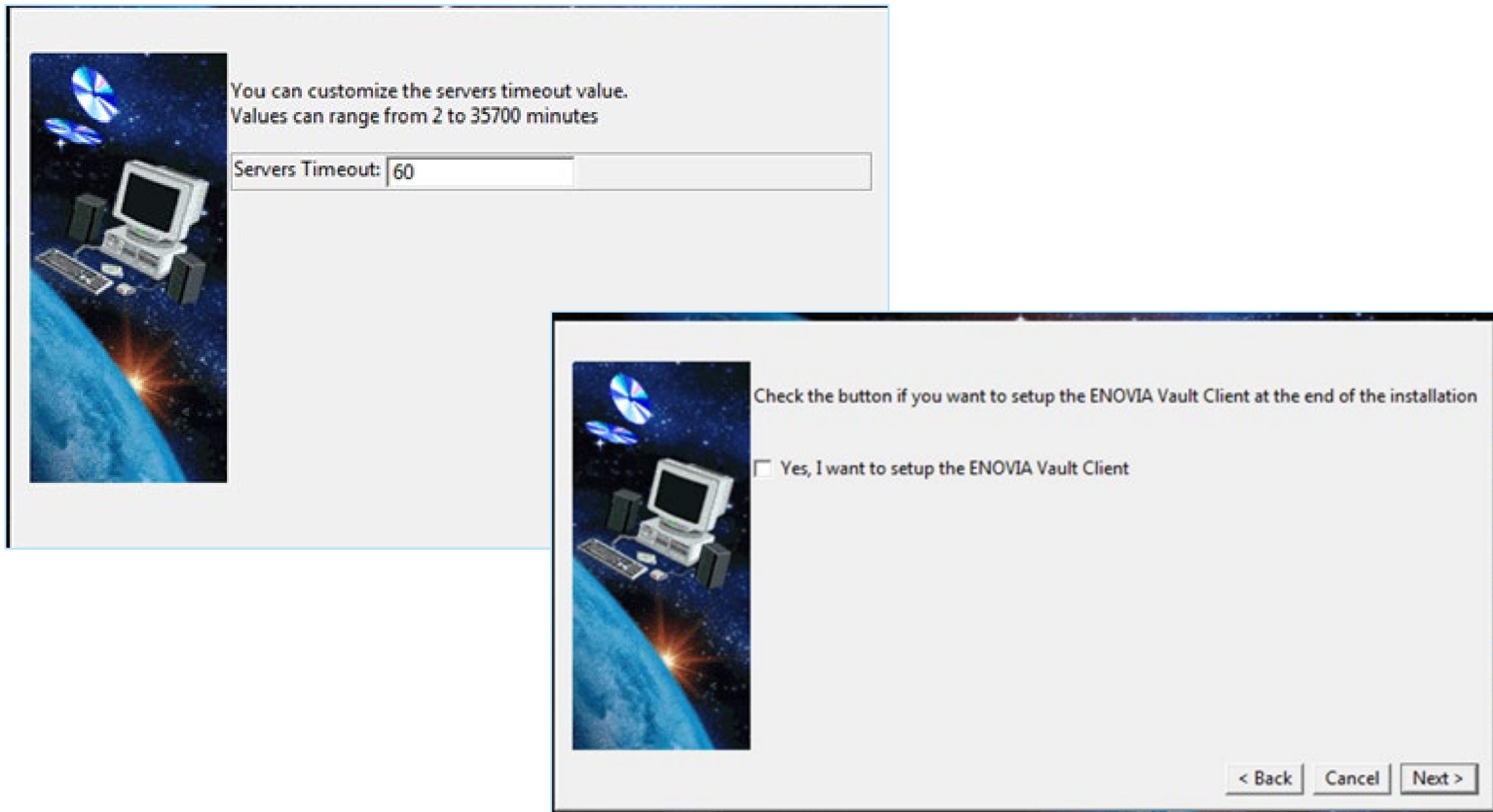
- a. A complete install → “Next>”
- b. Keep default options → “Next>”



CATIA V5-6R2017 GA Installation

1. Software: CATIA V5-6R2017 GA

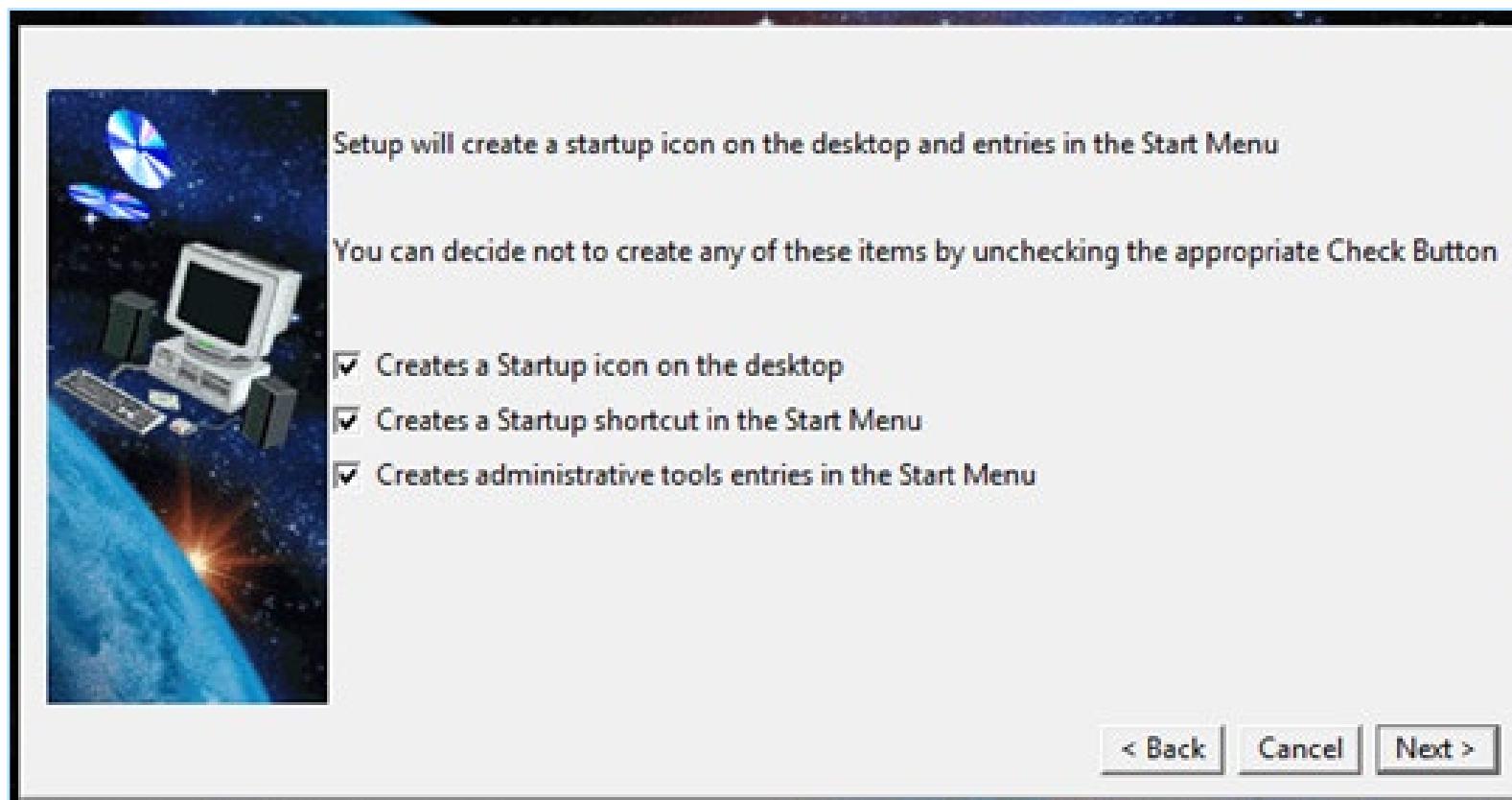
- a. Keep default timeout → “Next>”
- b. Keep default vault → “Next>”



CATIA V5-6R2017 GA Installation

1. Software: CATIA V5-6R2017 GA

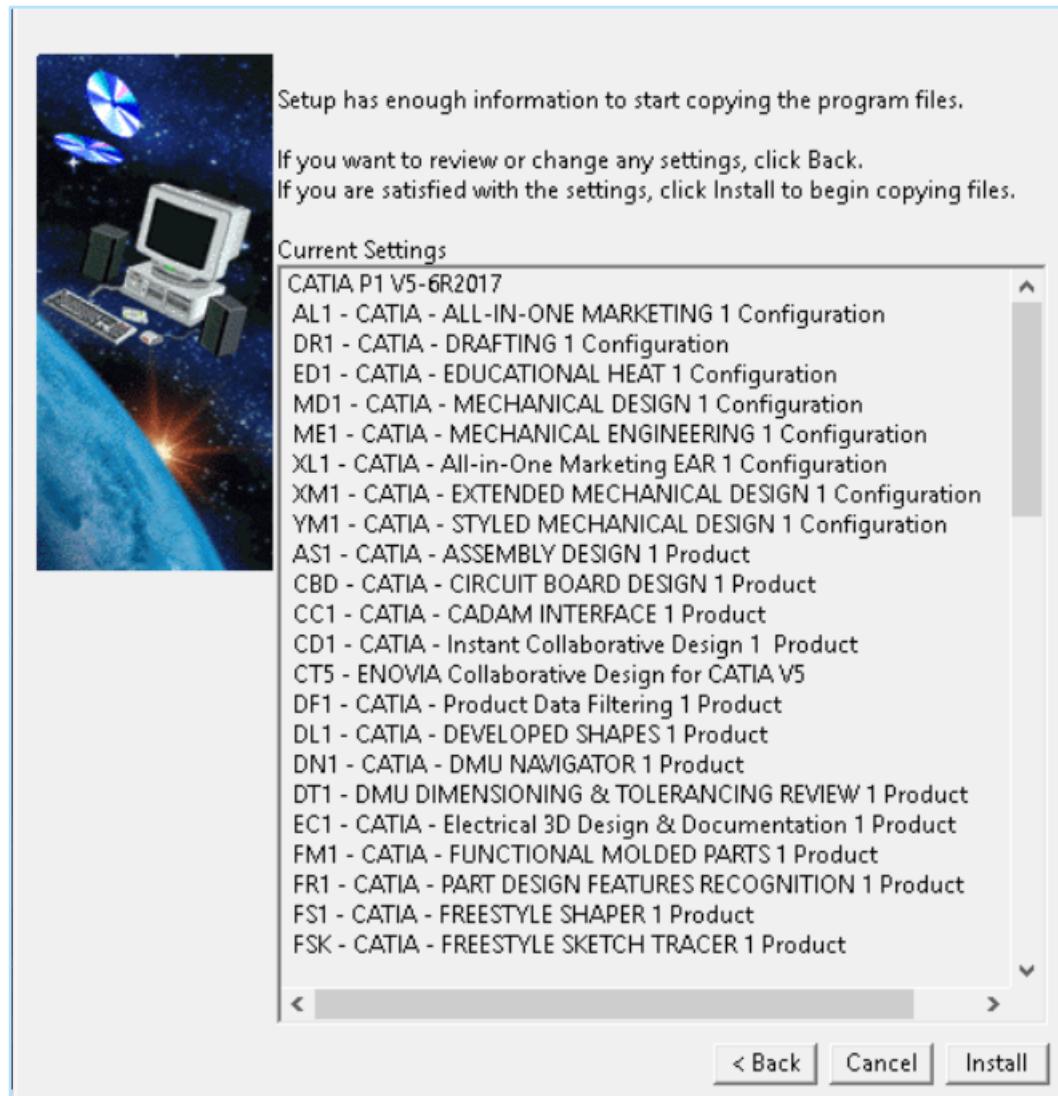
- a. Keep Default shortcut creation → “Next>”
- b. Don't install the documentation → “Next>”



CATIA V5-6R2017 GA Installation

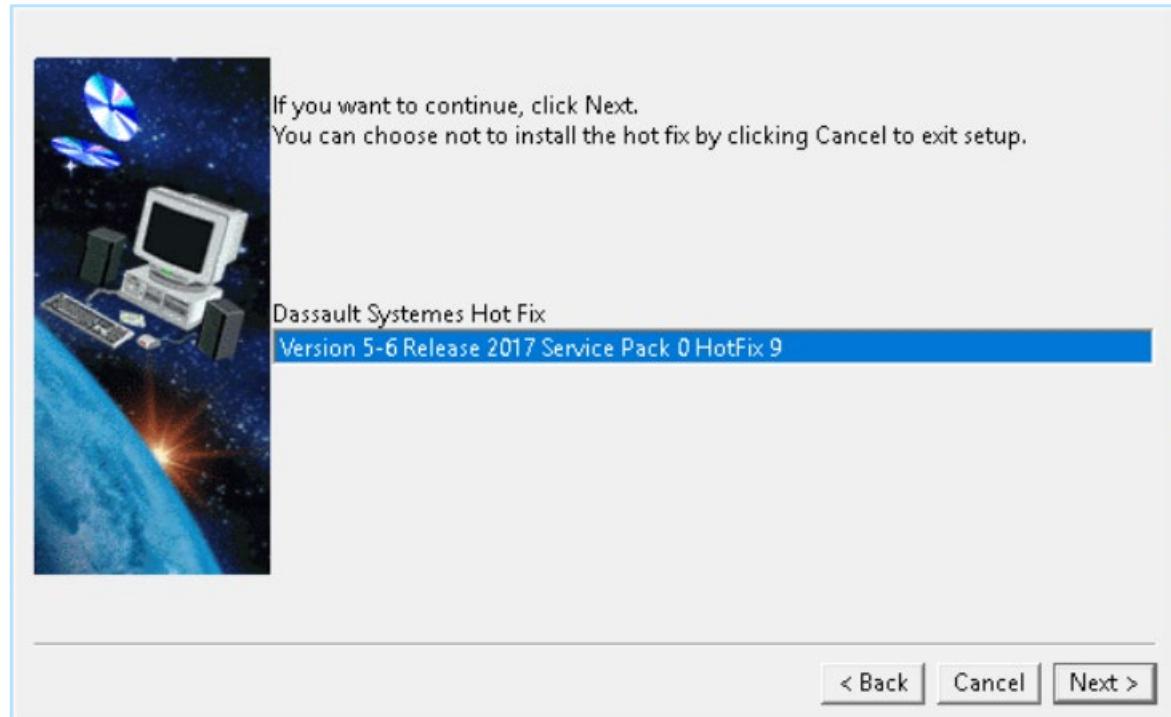
1. Software: CATIA V5-6R2017 GA

- a. Proceed to the install → Install
- b. Unselect “I want to launch CATIA...” → Finish



CATIA V5-6R2017 HF 09 Installation

Install the V5-6R2017 HF 09 upon GA.



Appendix B: Configuring Extra SMTP Server

The **3DEXPERIENCE** platform is more web based than prior version, and many communication are done via mail. A mail Server is a non 3DS middleware, very particular to each enterprise. So it's not really possible to do any recommendation on this software, except for the fact that it must works.

For the training FakeSMTP tool is being used.



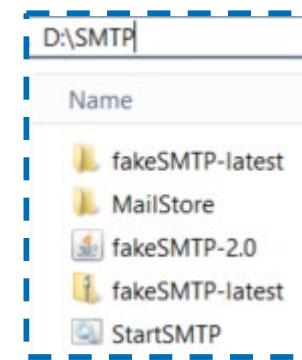
Configuring Extra SMTP Server

1. The training is using FakeSMTP from <https://nilhcem.github.io/FakeSMTP/index.html>.
2. Create the Folder D:\SMTP\MailStore and a empty batch file D:\SMTP\StartSMTP.bat.
3. Unzip the download file into D:\SMTP, delete the zip file afterward to save space.
4. Edit the *StartSMTP.bat* file as follow:

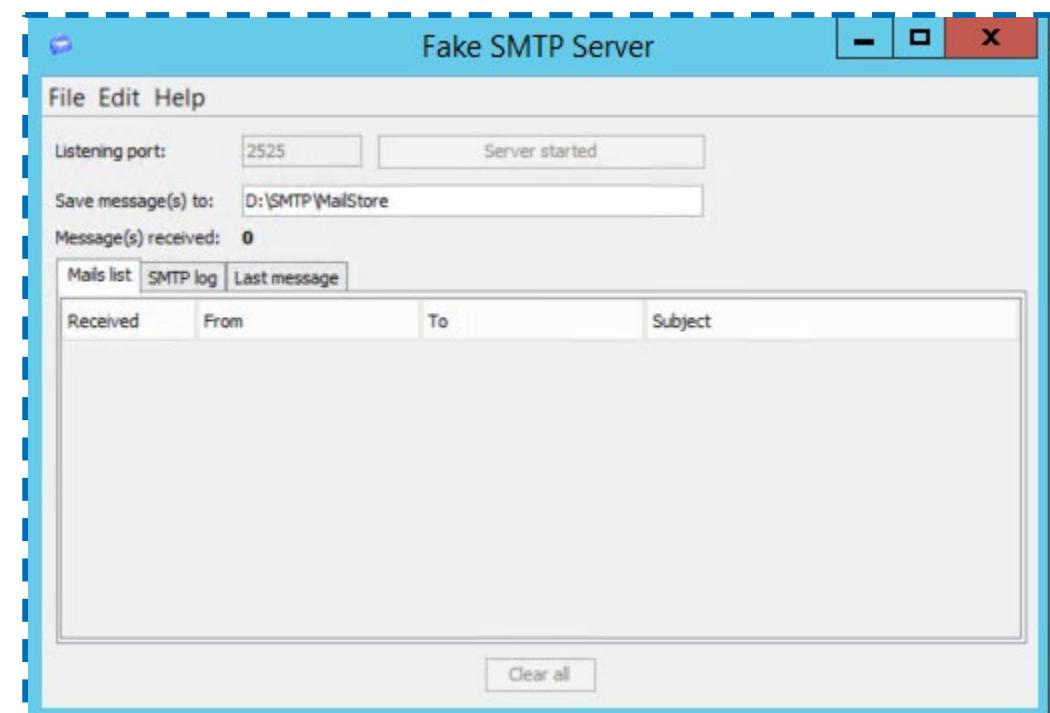
```
REM My SMTP
echo off
@title "My SMTP"
set JAVA_HOME=D:\3DEXPERIENCE\Java64\jdk8
set SMTP_HOME=D:\SMTP
set SMTP_OUT=D:\SMTP\MailStore
set SMTP_PORT=2525
set SMTP_SERVER=smtp.mytraining.com
%JAVA_HOME%\bin\java -jar "%SMTP_HOME%\fakeSMTP-2.0.jar" -s -o "%SMTP_OUT%" -p "%SMTP_PORT%" -a "%SMTP_SERVER%"
```

Configuring Extra SMTP Server

6. Create a shortcut to your desktop of the bat file for easy start.



7. Save and execute the batch file, the following screen should appears.



Appendix C: Installing Documentation

You can install the Documentation. You can refer to this when required using the Help.

The screenshot shows the 'User Assistance' section of the 3DEXPERIENCE platform. The left sidebar contains a table of contents with icons:

- User Assistance (selected)
- Help
- Glossary
- Legal Notices
- Getting Started
- 3DEXPERIENCE Basics
- 3DEXPERIENCE Advance
- Social and Collaborative
- 3D Modeling
- Simulation
- Information Intelligence
- Installation and Setup
- Reference Library

The main content area displays the 'Welcome to the 3DEXPERIENCE User Assistance' page. It includes a brief introduction, navigation instructions, and a list of tips:

Designed as a single entry point, the Dassault Systèmes user assistance covers all 3DEXPERIENCE products. You can access guides and the glossary rapidly via the table of contents on the left. You can also search the documentation using the integrated full-text search engine.

To find out more about:

- Full-text search engine, see [Searching the Online User Assistance](#)
- Navigation features, see [Help](#)
- Conventions used in guides, see [Conventions](#)

To print a page or a whole section of a guide, use [Print](#) in the banner.



20 minutes

About Documentation

- ▶ The Documentation is the life line to many requirements, change and new features.
- ▶ The Documentation is not a tutorial it is a reference document, in order to be effective it must get familiar.
- ▶ It is recommended to install the Documentation first.

The screenshot shows the 'User Assistance' section of the 3DEXPERIENCE platform. At the top, there's a dark blue header with the 'DASSAULT SYSTEMES' logo and the title 'User Assistance'. Below the header is a navigation sidebar on the left containing various links with icons: 'User Assistance' (selected), 'Help', 'Glossary', 'Legal Notices', 'Getting Started', '3DEXPERIENCE Basics', '3DEXPERIENCE Advance', 'Social and Collaborative', '3D Modeling', 'Simulation', 'Information Intelligence', 'Installation and Setup', and 'Reference Library'. To the right of the sidebar, a main content area has a breadcrumb trail 'User Assistance' and a large heading 'Welcome to the 3DEXPERIENCE User Assistance'. Below the heading, there's a paragraph about the user assistance coverage and a list of three items under 'To find out more about:'. At the bottom of the content area, there's a note about printing.

User Assistance

Welcome to the 3DEXPERIENCE User Assistance

Designed as a single entry point, the Dassault Systèmes user assistance covers all 3DEXPERIENCE products. You can access guides and the glossary rapidly via the table of contents on the left. You can also search the content using the full-text search engine.

To find out more about:

- Full-text search engine, see [Searching the Online User Assistance](#)
- Navigation features, see [Help](#)
- Conventions used in guides, see [Conventions](#)

To print a page or a whole section of a guide, use [Print](#) in the banner.

Exercise: Installing Documentation

In this exercise, you will install Documentation.

- ▶ Installing the GA Documentation
- ▶ Validate the GA Documentation
- ▶ Installing FP Documentation
- ▶ Validating FP Installation Technically
- ▶ Validating Documentation Installation Functionally

The screenshot shows the 3DEXPERIENCE User Assistance interface. The top navigation bar includes links for User Assistance, Help, Glossary, Internal Glossary, Legal Notices, Getting Started, 3DEXPERIENCE Basics, 3DEXPERIENCE Advanced Services, Social and Collaborative, 3D Modeling, Simulation, Information Intelligence, Installation and Setup, Reference Library, and Under Development. The main content area displays a welcome message: "Welcome to the 3DEXPERIENCE User Assistance". It states that the site is designed as a single entry point for Dassault Systèmes user assistance across all 3DEXPERIENCE platform apps. It can be viewed using Internet Explorer 11 or Firefox 45 ESR. It explains how to access guides and the glossary via the table of contents on the left, search for topics using the full-text search engine, and print pages or sections using the Print button in the banner. The footer of the page includes the text "3DEXPERIENCE® R2019x © 2019 Dassault Systèmes. All rights reserved."



40 minutes

Prerequisite Configuration

1. Enter the following in the hosts file:

```
127.0.0.1    help.mytraining.com
```

2. Generate an additional certificate for help.mytraining.com

```
openssl req -new -nodes -sha256 -key private.key -subj "%SUBJ%CN=help.mytraining.com" > help.csr
openssl x509 -req -in help.csr -out help.crt -sha256 -days 3650 -CA cacert.crt -CAkey
cakey.key -CAserial caserial.srl
```

Installing the GA Documentation (1/3)

Technical validation will only validate the installer procedure.

1. Target path: *C:\Program Files\Dassault Systemes\B421doc*

2. Installer error log should be empty in:

`<Code Path>\InstallData\log\DOC\<Language>\.....media-<Latest timestamp>\Errors.log & *Stderr.txt`

Size should be 0 bytes



If during the dialog you had to reset some values due to typos, these errors will appear here, you may need to check any message and evaluate its importance.

Installing the GA Documentation (2/3)

1. Log to the Operating System as **dsadmin**

Content is found at the following location:

- ▶ <Your Media PATH>\Documentation
- ▶ You will find the normal installer,
 - GUI: *setup.exe*
 - TUI: *StartTUI.exe*



Ensure that some installers are Operating System independent.
In some condition installers will want to use a legacy temp folder *C:\Temp* we recommend creating this folder ensuring read/write for all users.

- ▶ Navigate to your <Your Media PATH>\Documentation path
- ▶ Start the GUI installer corresponding to preference

2. Using the Cheat-sheet, proceed to the installation:

- ▶ Use all default values proposed

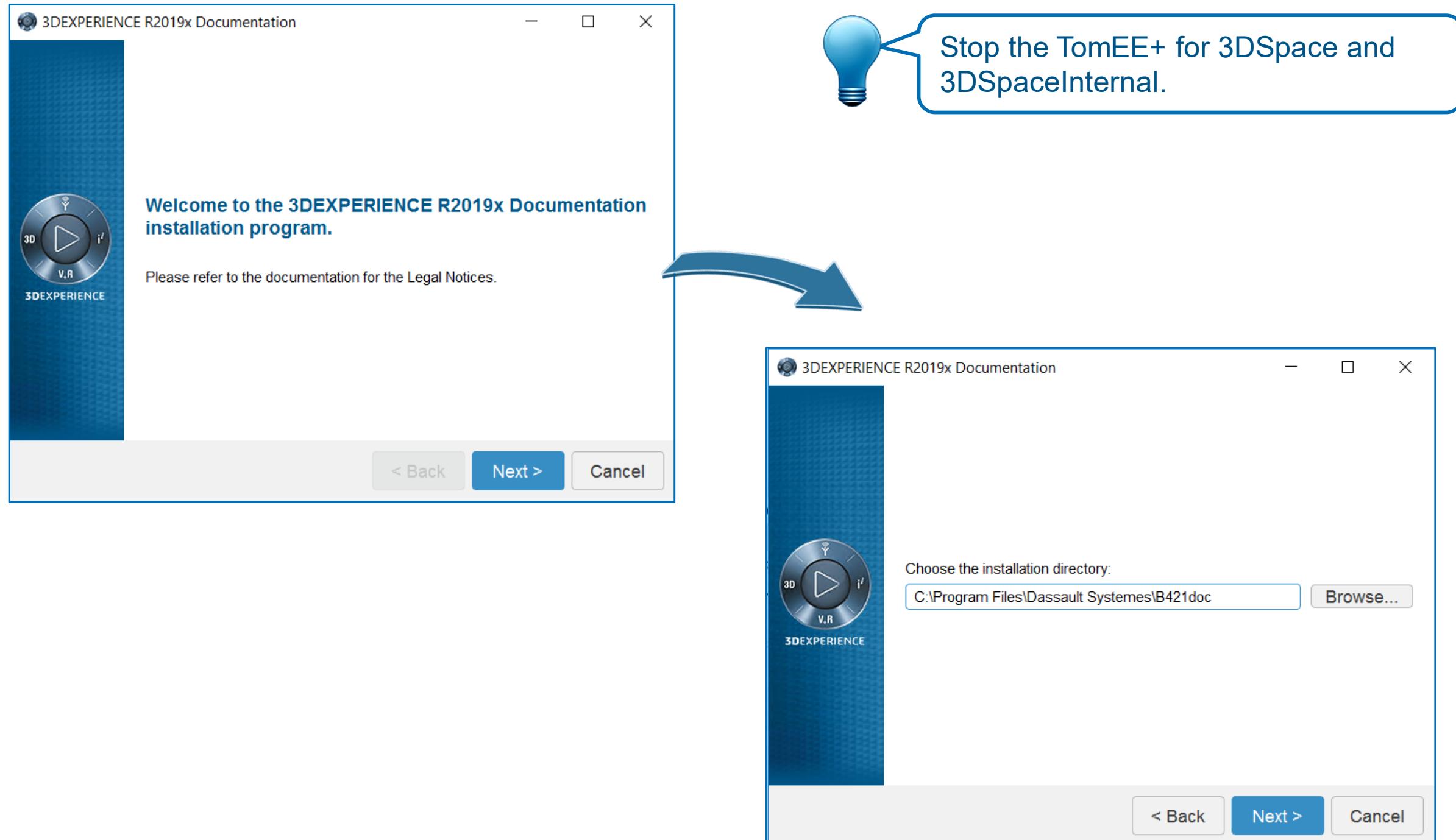
Installing the GA Documentation (3/3)

The installation is going to query about the parameters below:

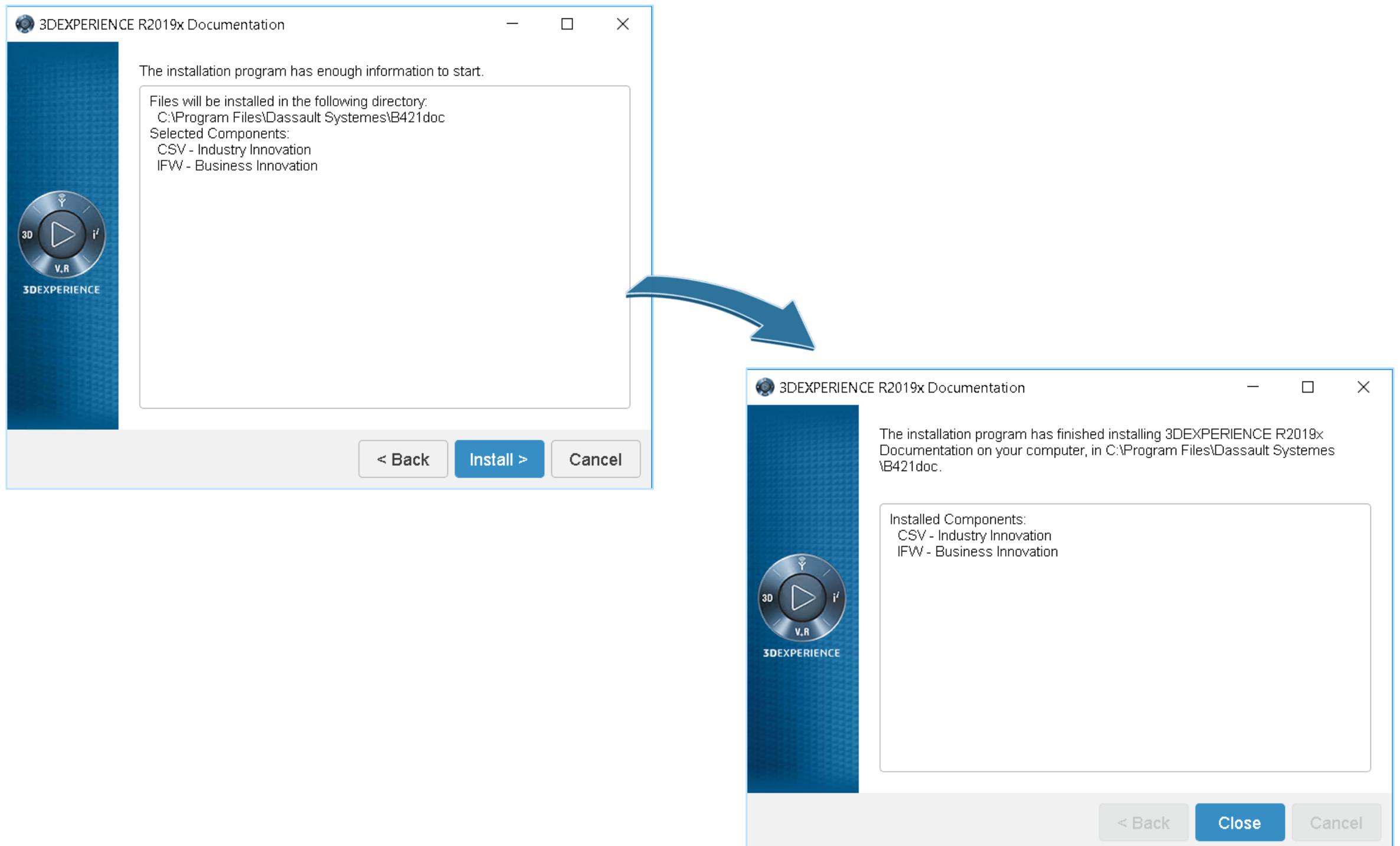
Cheat-Sheet :

Parameters	Values
Installer location	<Your Media PATH>\AM_3DEXP_WebApps.AIROS\4\3DEXPERIENCE_Documentation\1
Installation Directory	C:\Program Files\Dassault Systemes\B421doc
Documentation components	Select IFW and CSV only

Key Parameters (1/2)



Key Parameters (2/2)



Installing the FP Documentation

There is no global **3DEXPERIENCE** platform installer for FP. So, you must proceed with one service at a time.

1. Use the Service Installer:
 - a. Go to your platform media folder: <Your Media PATH>\Part_3DEXP_Documentation.AIOS
You will find:
GUI: setup.exe
TUI: StartTUI.exe
2. Proceed with the update using the same key values as used for the GA.

Post Installation Configuration

1. Update the Virtual host for the help in the *3dexperience.conf file*.

```
# Virtual host configuration for help (OnlineDoc) service
<VirtualHost *:443>
    ServerName help.mytraining.com
    ServerAlias help
    ErrorLog logs/help.err
    TransferLog logs/help.log
    CustomLog logs/help.cus "%t %h %{SSL_PROTOCOL}x %{SSL_CIPHER}x \"%r\" %b"
    LogLevel warn
    SSLEngine on
    SSLProxyEngine on
    SSLCertificateFile D:\3DEXPERIENCE\conf\ssl\help.crt
    SSLCertificateKeyFile D:\3DEXPERIENCE\conf\ssl\private.key

    # Replace D:\3DEXPERIENCE\R2019x\Doc with the location of your installed doc
    DocumentRoot "<Documentation installation location>"
    <Directory "/">
        Require all granted
    </Directory>
</VirtualHost>
```

Post Installation Configuration

2. Modify the file emxSystem.properties in
D:\3DEXPERIENCE\R2019x\3DSpace\STAGING\ematrix\properties\emxSystem.properties

3. Update the following:

```
#Help directory  
emxFramework.Help.URL=https://help.mytraining.com
```

4. Generate new war files for 3DSpace and 3DSpaceInternal.

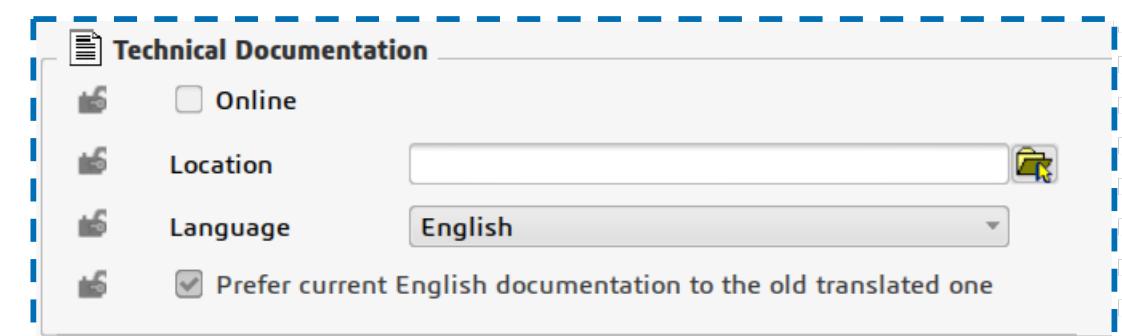
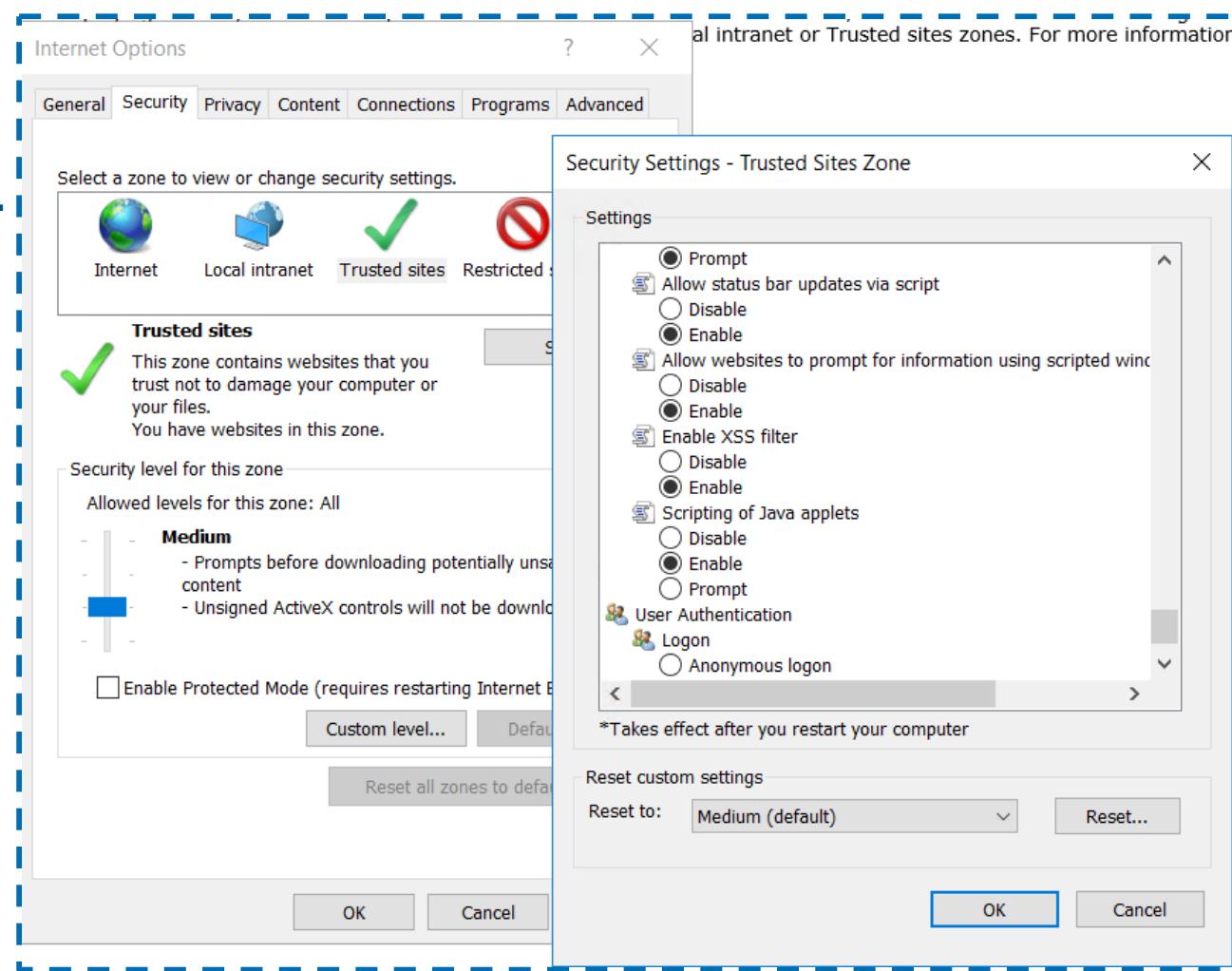
5. Modify the file D:\3DEXPERIENCE\TomEE\TomEE3DSpace\webapps\3dspace\WEB-INF\classes\emxSystem.properties, when TomEE+ is stopped.

```
#Help directory  
emxFramework.Help.URL=https://help.mytraining.com
```

6. Restart TomEE3DSpace and TomEE3DSpaceInternal.

Post Installation Configuration

1. Open the Internet Explorer browser.
2. Select **Internet options > Security > Custom Level.**
3. Select **Scripting > Scripting of Java applets.**
4. Select **Enable** and click **OK**.
5. Open the **3DEXPERIENCE** platform client.
6. Select **Me > Preferences > General > Help > Technical Documentation.**
7. Change the URL to <https://help.mytraining.com>.



Validating the FP Installation Technically

Technical validation will only validate the installer procedure.

1. Target path : C:\Program Files\Dassault Systemes\B421doc.

2. Installer error log should be empty in:

<Code Path>\InstallData\log\DOC\<Language>\.....media-<Latest timestamp>\Errors.log & *Stderr.txt

Size should be 0 bytes

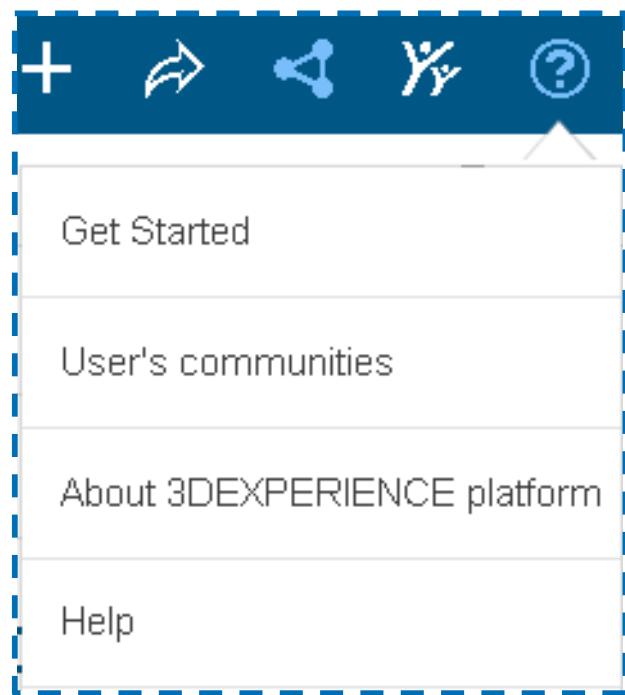


If during the dialog you had to reset some values due to typos, these errors will appear here, you may need to check any message and evaluate its importance.

Validating the Documentation Installation Functionally

Also, you can view the documentation using the Help menu within the platform.

1. Login to the 3DEXPERIENCE platform.
2. Select **Help > Help**.
The documentation appears.
3. Navigate to the page according to the requirement.



Uninstalling the Documentation

- ▶ This is a know-how section.
- ▶ Perform these instructions only if you are required to re-install.

Perform the below steps manually:

1. Select **Windows > Control Panel > Programs > Programs and Features**.
2. Select **Dassault Systemes Documentation 3DEXPERIENCE R2019x** and click **Uninstall**.

Exercise Recap: Installing the GA Documentation

In this exercise, you have:

- ✓ Installed the GA Documentation
- ✓ Validated the GA Documentation
- ✓ Installed FP Documentation
- ✓ Validated FP Installation Technically
- ✓ Validated Documentation Installation Functionally

Appendix D: User Intentions

You can edit the User Intentions as per requirement.



About Silent Installation

- ▶ Silent Installation is an automated process to install components without human intervention.
- ▶ Silent Installation uses the "User Intention XML" file to answer the installer questions. This file is created during a manual installation which means you have to execute the installation at least once to create the file (Unfortunately there is no User Intention template file in the installation media).
- ▶ You will notice that at the end of each GA Installation we backed up and renamed the file called "UserIntentions_CODE.xml".
- ▶ User Intentions file is an excellent solution for creating new environments and ensures repeatability of your deployment processes. This can be used when deploying a large production environment with many similar services.



```
<?xml version="1.0" encoding="UTF-8"?>
<UserIntentions mediaName="CODE\win_b64\ENOVIA_FCS.media" mediaVersion="421">
    <SetVariable name="Java@jdk" value="D:\3DEXPERIENCE\Java64\jdk8"/>
    <SetVariable name="installEmbeddedServerJRE" value="false"/>
    <SetVariable name="install_EMBEDDED_TomEE" value="false"/>
    <SetVariable name="TomEEPath" value="D:\3DEXPERIENCE\TomEE\TomEEFCSRemote"/>
    <SetVariable name="DSYRegIdent" value="FCSRemote"/>
    <SetVariable name="fcsSrvURL" value="https://fcsremote.mytraining.com:443/fcs"/>
    <SetVariable name="X3DCSMA_3DSpaceURL" value="https://3dspace.mytraining.com:443/3dspace"/>
    <SetVariable name="BOOL_UpdateFcsEnvPath" value="false"/>
    <SetVariable name="DSYWELCOMEPanel"/>
    <SetVariable name="TARGET_PATH" value="D:\3DEXPERIENCE\R2019x\FCSRemote"/>
    <SetVariable name="FinishPanel"/>
</UserIntentions>
```

Silent Installation: Pre-Check

The requirements to running a Silent Installation are:

- Previously ran a manual installation on the same Operating System and database configuration
- All prerequisites must be identical

It is Important to note that not all products have the same dependencies and installation requirements, this means that User Intentions files are different between components

- One User Intentions file
- Database objects (up and running)
- TomEE + (stopped)
- Java
- SSL certificates



You will not be able to proceed if any of these are missing.

The most important UserIntentions.xml file to keep is the GA file. The FP UserIntentions.xml does not store all the same parameters as the GA version, the FP file simply stores the user/GUI interactions. You can use the user intention from the GA to install any FPs of the same service but you cannot do the opposite.

In this training you will use the FCSCentral "User Intentions" for the FCS remote GA and FP installation. Using this method allows you to do a manual FCS install then duplicate it using the UserIntentions for the Remote FCS.

The path for the UserIntentions you will use is <D:\3DEXPERIENCE\R2019x\FCSCentral\InstallData>.

The User Intentions files only works with the service installers, they do not work with the global **3DEXPERIENCE** installer. You must become familiar with the UserIntentions path for each service.

Silent Installation: Key Parameters

UserIntentions files do not have “consistent” key parameters as each installer is different, for this example you will use the FCS Central values.

Steps	Key	Value
01	Installer location	<Your Media Path>\AM_3DEXP_platform.AILOS\1\FileCollaborationServer
02	Service Installer	setup.exe
03	Installation Directory	D:\3DEXPERIENCE\R2019x\FCSRremote
05	TomEE+ Path	D:\3DEXPERIENCE\TomEE\TomEEFCSRremote
06	fcsSrvURL	https://fcsremote.mytraining.com:443/fcs
07	Add the new entry after TomEE+ Path	<SetVariable name="DSYRegIdent" value="FCSRremote"/>

In this case you should only update the target folder, the rest is identical.

This installer does not have a password request, "User Intentions" will not store passwords. The password field is considered “protected” and has to be edited manually to "add" the value and unprotect the field.

Silent Installation: Key Parameters

The FCS UserIntentions file is small and that is one of the reasons we have used it as an example. FCS is a perfect candidate for manual install then automating to install remaining FCSs when possible.

```
<?xml version="1.0" encoding="UTF-8"?>
<UserIntentions mediaName="CODE\win_b64\ENOVIA_FCS.media" mediaVersion="421">
  <SetVariable name="Java@jdk" value="D:\3DEXPERIENCE\Java64\jdk8"/>
  <SetVariable name="installEmbeddedServerJRE" value="false"/>
  <SetVariable name="install_EMBEDDED_TomEE" value="false"/>
  <SetVariable name="TomEEPath" value="D:\3DEXPERIENCE\TomEE\TomEEFCSCentral"/>
  <SetVariable name="fcsSrvURL" value="https://fcs.mytraining:443/fcs"/>
  <SetVariable name="X3DCSMA_3DSpaceURL" value="https://3dspace.mytraining:443/3dspace"/>
  <SetVariable name="BOOL_UpdateFcsEnvPath" value="false"/>
  <SetVariable name="DSYWelcomePanel"/>
  <SetVariable name="TARGET_PATH" value="D:\3DEXPERIENCE\R2019x\FCS"/>
  <SetVariable name="FinishPanel"/>
</UserIntentions>
```

As you can see the only thing to change is FCSCentral to FCSRremote.

All media PATHs are relative, this is why it's important to have a "Fixed" repository that can be accessed by all your servers so you don't have to move folders or files out of their default media location.



30 minutes

Silent Installation: Key Parameters

1. In this example "UserIntentions.xml", taken from 3DPassport, you can see a protected password field and how it was changed to expose the password
2. Search for the word "Protected" or the words "Put your password here." to find all the protected/password fields that may need to be updated manually to make the file "silent"!

```
<SetVariableProtected name="PASS_MSSQL_SQLPasswordAdmin" value="Put your password here."/>
<SetVariable name="PASS_MSSQL_SQLUser" value="x3dpass"/>
<SetVariableProtected name="PASS_MSSQL_SQLPassword" value="Put your password here."/>
<SetText value = "Put your password here."/>
</SetVariableProtected>
<SetVariable name="PASS_MSSQL_SQLURLCas_HOST_AND_PORT" value="database.mytraining.com\X3DEXP:1433"/>
```

3. There are two actions:
 - a. Enter the required password, note that the password will be exposed to anyone that has access to this file, after the installation is complete you should remove the password again.
 - b. Modify the SetVariableProtected tag by removing the word "Protected"

```
<SetVariable name="PASS_MSSQL_SQLUser" value="x3dpass"/>
<SetVariable name="PASS_MSSQL_SQLPassword" value="Put your password here."/>
<SetText value = "My SecurePassword"/>
</SetVariable>
<SetVariable name="PASS_MSSQL_SQLURLCas_HOST_AND_PORT" value="database.mytraining.com\X3DEXP:1433"/>
```

Silent Installation: Key Parameters

4. Next steps:
 - a. Open a command prompt using “dsadmin” with the “Run as Administrator” option.
 - b. Go to the Service installer folder where the “StartTUI.exe” file is located
Example: <Your Installer PATH>\FileCollaborationServer.Windows64\1\
 - c. To reduce the length of the command line, set the environment variable “Installer”

Example: `set Installer=-installerPath <Your Installer PATH>\DS_Installer-V6R2019x.windows64\DS_Installer.Windows64\1`
 - d. Execute the following “StartTUI.exe” command:
`StartTUI.exe %installer% --silent <PATH>\UserIntentions_CODE.xml`

`<PATH>\UserIntentions.xml:` Will be your custom UserIntentions file
`D:\3DEXPERIENCE\conf\UserIntentions\UserIntentions_FCSRemote.xml`
5. Edit the D:\3DEXPERIENCE\conf to add the proper ProxyPass and ProxyPassReverse parameters.

Silent Installation: Post Installation Steps

- ▶ There is no [UserIntentions.xml](#) post steps, the install will fail immediately if a parameter is wrong or it will complete normally.
- ▶ All "Post Install" actions, will be specific to the service that you are installing, i.e:
 - Installation logs
 - WAR file creation
 - Auto deployment in TomEE+
 - DB object creation
 - Especial Scheduler, cron or services created in the OS
- ▶ This is why it is important to become familiar with the manual installation process before using the Silent mode. Once you are familiar with the process you will be able to batch install all products under a single bat file in series or parallel, depending on installation dependencies.
- ▶ It is recommended that you use a sequential execution for your silent installation. Trying to do too much in parallel can lead to problems, especially if the services are running on the same machine. For 3DSpace and the Apps, you cannot use a parallel approach.

