

Installing SAP Hybris (6.X) (6.0 to 6.6) Commerce

Note: - For demonstration / development = Install Hybris locally,
But for production = You may have a distributed system to setup.

1) System Requirements: -

CPU	Dual Core (i5 – Min)	Quad Core (i7 – Recommended)
RAM	8 GB (Min)	16 GB (Reco)
Hard Disk	10 GB (Min)	20 GB (Reco)
Note:-	For Production, HD 40GB (Min)	>40GB (Reco)

2) Downloading Hybris (6.X) (6.0 / 6.2 / 6.4 / 6.6) and Unpacking Packages

Method 1 = <https://support.sap.com/swdc> → Software Downloads → Enter Credentials & Search 4 Hybris 6.X & Download (Size = ~2GB). Extract ZIP archives & see C:\Softwares\HYBRISCOMM62\hybris

Note: - Don't use spaces in paths, because build fails.

For unzip, you can also use "jar -xvf <zipfilename>" (Use this only in Windows, Not in Unix).

Method 2 = <https://help.hybris.com> → Download

Method 3 = <https://wiki.hybris.com/display/downloads/Download> → Download

Note: - Set "ANT" Path

-- My Computer -- Advanced System Settings -- Advanced -- Environment Variables --

ANT_HOME = C:\Softwares\ HYBRISCOMM62\hybris\bin\platform\apache-ant-1.9.1

PATH = ;%ANT_HOME%\bin;

3) Download Java (1.8) & Set PATH

Setup the Java Home PATH in environment variables. You can download JDK from <http://www.oracle.com/technetwork/java/javase/downloads/jdk8-downloads-2133151.html> & Install.

-- My Computer -- Environment Variables, add

JAVA_HOME = C:\Program Files\Java\jdk1.8.0_102

PATH = %JAVA_HOME%\bin;

4) Installing IDE (Eclipse – STS) = It is good to use Spring Tool Suite (STS) IDE Eclipse.

Download = <https://spring.io/tools/sts/all> & Use "STS.exe" file (OR)

If you already have **Eclipse** & want to install **STS** then → Eclipse → Help → Install New Software

Location = <http://dist.springsource.com/release/TOOLS/update/e4.6/>

5) Installing Hybris Using Installer Recipes (b2b_acc / b2c_acc / b2c_telco / b2c_acc_oms/...)

Recipe helps process of automating the things. You are looking for **b2c** flavor of hybris commerce then you can use **b2c_acc** & it will have all the required extension for b2c.

Installer is a **Gradle-based** project written in **Groovy** & simplifies installing hybris. **Installer** is an automated script that takes care of creating **directories**, **moving files**, **updating configuration** and properties files, and initializing the system.

Installer recipes are for Demo / Dev purposes only. Don't used for production systems.

Recipe concept is available from > **Hybris 5.5** versions.

Q: Explain Creating Installer Recipes? = Hybris installer is **Gradle**-based project written in Groovy.

It simplifies installing the hybris commerce suite. File Name = **build.gradle**

To install flavors (B2C Accelerator / Telco Accelerator / Datahub / ...), developers create **recipes**.

A **recipe** contains: -

a. **3 Mandatory Tasks** =

a. **Setup** = Invoked by default if no task is specified with install command. It installs recipe & copies files.

b. **Initialize** = Initializes the recipes application.

c. **Start** = Start the application.

b. **Calls required plugins** = You must reference & invoke plugins that requires for your recipe.

E.g.: - installer-platform-plugin.jar, installer-addon-plugin.jar & installer-coreplus-plugin.jar

c. **Local Properties** = Specify any local properties that requires in your recipe.

d. **Extensions** = You must include all required extensions in your recipe.

e. Database Configuration =

f. Web archives

g. Server information. **Example** = Apache Tomcat.

Note: - Content of installer recipes varies depending on what flavor of hybris commerce is to be installed. **Mandatory** content is "**setup, initialize & start**". Depending on flavor of hybris commerce suite, installer recipe may require additional info such as: - Plugins, Extensions, Properties & Servers.

Q: How to create Your Installer Recipe? =

Step 1 = Using Groovy, write your Installer recipe (Following the info. provided in Installer Recipes).

Step 2 = Create folder in **/hybris/installer/recipes/**. Name of recipe must same as name of your folder.

Step 3 = Create **README.txt**. Tell about recipe & commands required to setup, initiate & start recipe.

Step 4 = Save your recipe as a **build.gradle** file in the recipe's folder

Q: What Installer Do? = It's automated script that takes care of: -

(1) Directory Creation

(2) Moving files

(3) Updating Configuration & Properties files

(4) System Initialization

Q: Where to find Recipe names = C:\Softwares\HYBRISCOMM62\installer\recipes

Q: How to know more about Recipe Installation = C:\Softwares\HYBRISCOMM62\installer\Readme

Q: What extensions comes with Recipe = C:\HYBRISCOMM62\installer\recipes\b2b_acc\build.gradle

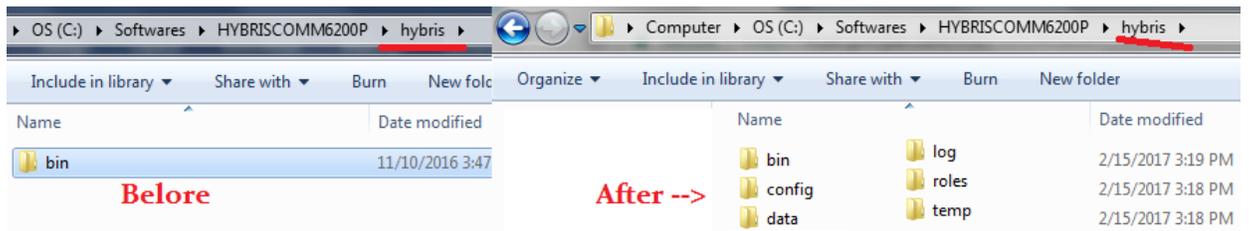
Note: - Go to "C:\Softwares\HYBRISCOMM62\hybris" – You can only **bin** folder.

Q: Install / Setup Recipe = C:\Softwares\HYBRISCOMM62\installer> **install.bat -r b2c_acc**

Q: Initialize Recipe = C:\Softwares\HYBRISCOMM62\installer> **install.bat -r b2c_acc initialize**

Q: Start Recipe = C:\Softwares\HYBRISCOMM62\installer> **install.bat -r b2c_acc start**

Note: - Go to "C:\Softwares\HYBRISCOMM62\hybris" – Creates **5 folders (config, data, log, roles & temp)**.



Note: - Inside **config**, we see **localextensions.xml** with all extensions specified in given recipe.

Q: Explain Hybris directory structure? (or) What is there in each folder?

Bin = Contains all the extensions. (Binary files stored here).

Log = We can find the server / jdbc log here

Temp = Some temp files and junk files are available here

Data = Holds **hsqldb (Hyper – Default)** related files & schema (**mydb.data/mydb.log**).

Config = It has all config files. Instead modifying files in **platform** folder, modify them in the **config** folder (**localextensions.xml / local.properties**). If you are sure what you doing, then you can also do in platform folder.

Q: Can we do changes in **bin\platform\project.properties** & **bin\platform\extensions.xml**?

Ans: - Generally we **should not** touch any of existing extensions including **platform** extension.
 So alternate for “platform\project.properties” is “\hybris\config\local.properties”
 And alternate for “platform\extensions.xml” is “\hybris\config\localextensions.xml”
 Going forward, please do your changes inside “\hybris\config\local.properties” & “\hybris\config\localextensions.xml”

6) Customizing the Accelerator / Extensions = modulegen & extgen tools – Optional

7) To start Hybris Commerce – You must do 2 things = (a) Build & (b) Initialization

Q: Why we need to build SAP Hybris Commerce?

- (1) Hybris is extendable complex solution. During build, all **referenced components** are **integrated**.
- (2) Runtime files and **configuration files** are created, prepared, and validated.
- (3) Some parts of Hybris are **compiled**, such as: - Service Layer & Other Hybris Components

8) How to Build Hybris eCommerce? = We have ANT / Gradle / Maven (Use it for Data Hub).

Step 1 = Setup Apache Ant.

Q: What is the purpose of Build Tool? = It is program / script used for automating list of tasks that software developer do in their day-day Like: -

- (1) Compiling Source code into Binary code
- (2) Generates & compiles Model classes based on definitions in “*-items.xml” file
- (3) Running tests
- (4) Deployment to production systems
- (5) It builds every extension listed (or) referenced by “**localextensions.xml**”.

Q: What is Ant = Tool for automating the software build processes.

Hybris contains pre-bundled Apache Ant.

C:\Softwares\HYBRISCOMM62\hybris\bin\platform> **setantenv.bat**

Note: - If Unix / MAC then use “**run setantenv.sh**”

Step 2 = Build SAP Hybris Commerce

Q: What are Ant Build Targets = (1) all (2) clean (3) modulegen (4) extgen (5) initialize (6) -p

Note: - You can see list of build targets in “**build.xml**” file.

C:\Softwares\HYBRISCOMM62\hybris\bin\platform> **ant clean all**

Q: What are the ways to build Application? =

1st Way – **ant clean all** → It do 2 things: -

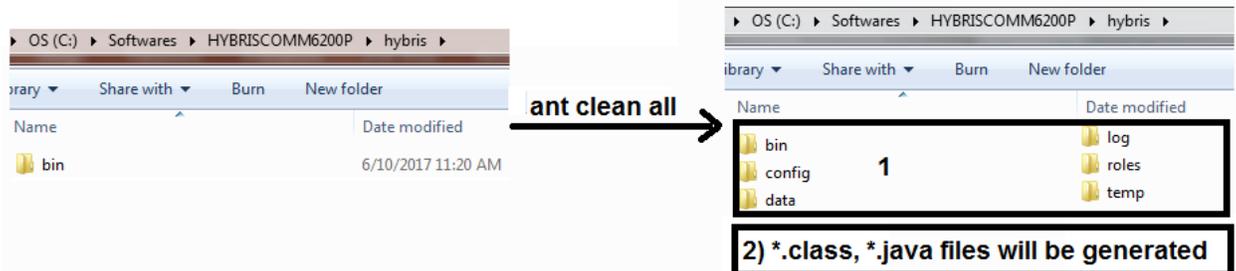
- 1) It checks required **folders** (log/data/config/roles/temp) structure is available / not?
 - a. If **available**, then it **skips** creating the folders
 - b. It **not available**, then it **creates** the folders
- 2) It checks the **build** (.class/.java/Files generated)
 - a. If there is a build, then it delete & **recreate** it again
 - b. If there is no build, then it creates build from the scratch

2nd Way – **ant all** → It's lazy. This assume that folder structures already available.

So it directly goes to the build process.

If build is already there, then it just **modifies** it.

If build not there already, then it creates build from scratch.



Note: - “ant all” – Just focus on 2nd step (*.class, *.java files will be generated).

Q: When to use “ant clean all” & when to use “ant all” = Use **ant clean all** during the **first time setup** or if some changes are **not reflecting** even after doing ant all.

Ant all is **faster** than ant clean all for the above reasons.

Note: - Once build is Successful, do below steps based on the need.

Step 3 = Setting Up / Change Functional Range – Optional

1 = Add/Remove extensions from your Hybris installation (Do using **localextensions.xml**).

Do changes in “/config/localextensions.xml” instead of “/platform/extensions.xml”.

2 = Configuring extensions through a set of properties (Do this using **local.properties** file).

Do changes in “/config/local.properties” instead of “/platform/project.properties”.

Step 4 = Setting Up Commerce Infrastructure Services (CIS) – Optional

Consists of a number of web applications that provide a RESTful interface for accessing third-party services. Each service is focused on a particular business function, such as shipping, tax calculation, or fraud detection, and can be executed separately from the others.

Step 5 = Providing Custom Database Configuration – Optional

Hybris by default use HSQLDB. If you want to change to different database (MySQL / Oracle / MS SQL Server / HANA DB) then do it in “/config/local.properties” file.

Note: - We also need to check corresponding driver `#{HYBRIS_BIN_DIR}/platform/lib/dbdriver`

MySQL Connector No Longer Shipped with hybris Commerce Suite. So we have to add it.

HANA allows column-based style, apart from traditional row-based data storage.

`hanadb.storage.columnbased=true` (It is recommended)

If we **don't define** any DB related configuration inside `local.properties` file then **HSQL DB** configuration inside `platform/project.properties` file will be considered and HSQL DB will be connected.

Q: How do we know different DB (Oracle / MySQL / HANA / MS SQL Server /...) Connectivity Details?

Open “\hybris\bin\platform\project.properties” file & you can find all the details: -

```
##### --- Database settings for Microsoft SQLServer 2008 --- #####
#db.url=jdbc:sqlserver://<host>:1433;databaseName=<dbname>;responseBuffering=adaptive;loginTimeout=10
#db.driver=com.microsoft.sqlserver.jdbc.SQLServerDriver
#db.username=<username>
#db.password=<password>
#db.tableprefix=
##### --- Database settings for Sap Hana db --- #####
#db.url=jdbc:sap://<host>:30015?reconnect=true
#db.driver=com.sap.db.jdbc.Driver
#db.username=<username>
#db.password=<password>
```

Note: - Take above entries & put in “/config/local.properties” file and change host & details.

Step 6 = Starting the Application Server & Deploying the Application – Optional

Hybris Server by default has pre-configured application server based on Apache Tomcat. Hybris allows 3rd-party application servers (WebLogic/tcServer/ ...). Do these changes inside “/config/local.properties”.

Step 7 = How to start Hybris Server

C:\Softwares\HYBRISCOMM62\hybris\bin\platform> **hybrisserver.bat**

Note: - In case of Unix, you can use “/hybrisserver.sh”.

Q: How to stop Hybris Server? = CTRL + C

(Don't use close button, bcoz some threads / processes still might be running).

9) Initializing SAP Hybris Commerce

Q: Why to do the Initialization = During the initialization, the database tables, the type system, and the mandatory system data are created.

Note: - Go to “C:\Softwares\HYBRISCOMM62\hybris\data\hsqldb” & see what is there **before** Initialization & **after** Initialization.

hAC Open browser → <http://localhost:9001> (OR) <https://localhost:9002>
Credentials = admin & nimda → Initialization

Note: - Initialize may takes close to 1 Hour (Because, this brings all tables/mandatory data /...).

Q: Try to avoid 3 things while initialization in happening? =

- (1) Don't close the browser
- (2) Don't go sleep mode
- (3) Don't stop the server.

Note: - Hybris can also be initialized using = “**ant initialize**”.

Note: - After initialization is done – U want to find URL's for all types of consoles & cockpits then “**localhost:9001/mcc**” with user name = admin & pwd = nimda (**MCC** = Multi Channel Cockpit)

Q: How this user comes? = While in initialization, there will be Users table created with some rows of data. Hence we can use those records / rows / users for login. You can see the information in “mydb.data / mydb.log”.

Q: How to see what extensions are installed = Go to hAC – Platform – Extensions

10) Setup URL Mappings in Host file for default Sites: -

You can see Info “C:\Softwares\HYBRISCOMM62\hybris\config\local.properties”.

Go to “C:\Windows\System32\drivers\etc”

```
127.0.0.1 apparel.local
127.0.0.1 electronics.local
```

Now Access Sites -- <http://localhost:9001/yacceleratorstorefront/?site=apparel-de> (B2C Site)

<http://localhost:9001/yacceleratorstorefront/?site=apparel-uk> (B2C Site)

<https://localhost:9002/y2bacceleratorstorefront/powertools/?site=powertools> (B2B Site).

Q: When you **initialize** Hybris from ant, what actions are executed?

1. **Aborts all running cronjobs**
2. Delete & recreate the DB = DB is never deleted by SAP Hybris.
3. **Delete all known tables** = Hybris will delete only tables he knows from its type definition.
4. **Import all project data**

Q: Changing Hybris configuration from **project.properties** file of your platform project is bad because ?

1. This doesn't follow SAP Hybris licence
2. **It makes future updates harder** = Keeping Configurations OOB is recommended.
3. The file is already too big
4. This file is ignored after you create a new config folder from it

Contact us for more information → chennareddytraining@gmail.com (Java–Salesforce–SAP Portal–UI5/Fiori–Hybris)