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|  | Abstract  This document describes the step by step installation of IBM Watson Explorer Foundational Components 12.0.3 together with example use on the CENTOS 8.0 Linux Operating system created as described in the earlier document URLs: https://doi.org/10.13140/RG.2.2.12248.44803 https://doi.org/10.13140/RG.2.2.20256.94729   1. Alan S Bluck |

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# IBM Installations - ASB Software Development Limited Publications

<https://doi.org/10.13140/RG.2.2.12248.44803>

Watson Explorer 12.0.3 oneWEX Installation on IBM Cloud CENTOS 8.0 Linux with Docker Containers

**(NB The above covers the download and initial installation of rpm packages used in this document)**

<https://doi.org/10.13140/RG.2.2.20256.94729>

IBM Cloud Private P8 Container CPIT Installation on CENTOS Linux 8.0

**(NB Above describes the installation of the base CENTOS 8.0 Linux system for this document)**

<https://doi.org/10.13140/RG.2.2.36842.88007>

Installation of Eclipse Codewind and Docker Compose on RHEL 8 Linux with IBM Cloud Private CE (Community Edition)

<https://doi.org/10.13140/RG.2.2.20160.69129>

IBM FileNet P8 Java Development on ECM Cloud Private Container P8 Examples

<https://doi.org/10.13140/RG.2.2.27358.18246>

IBM Cloud Private P8 Container CPIT Installation on RedHat Enterprise Linux 8.0

<https://doi.org/10.13140/RG.2.2.22030.92486>

Problem Resolution Procedures For fixing Software Installation Issues

<https://doi.org/10.13140/RG.2.2.27345.89440>

IBM BAW 18.0 Installation phase1 preprint with install of IBM Workflow Center 8.6.1.19002

<https://doi.org/10.13140/RG.2.2.10491.67369>

DB2 10.5 Installation on CENTOS 8.0 V1

<https://doi.org/10.13140/RG.2.2.33527.57761>

IBM Security Directory Services 6.4- Installation on RHEL 8.0

<https://doi.org/10.13140/RG.2.2.15007.10408>

WebSphere 8.5.5.15 Installation 29-06-2019 on VMWare Workstation Pro 15.1

<https://doi.org/10.13140/RG.2.2.15737.83048>

IBM BAW 18.0 Installation 18 07 2019 - Install of IBM Security Directory Suite 8.0.1.1 on CENTOS 8 using VMWare Workstation Pro 15.1

<https://doi.org/10.13140/RG.2.2.21708.16001>

Case Manager 5.3.3 Installation on RHEL 8.0 with Content Navigator 3.0.6

<https://doi.org/10.13140/RG.2.2.31489.10082>

Installation of Oracle 12C on the Linux operating system

<https://doi.org/10.13140/RG.2.2.14590.95049>

Content Navigator 3.0.6 Installation on RHEL 8.0\_V1.docx

<https://doi.org/10.13140/RG.2.2.21170.76480>

Content Foundation 5.5.3 Installation on RHEL 8.0\_V2.docx

<https://doi.org/10.13140/RG.2.2.30401.51048>

 Case Manager Installation on RHEL 8.0\_Preparation.docx

This document provides step by step Installation steps to install

IBM FileNet Content Engine 5.5.2

# Watson Foundational Component Installation

**REF**

<http://www.redbooks.ibm.com/abstracts/sg247877.html>

REF: <https://www.ibm.com/support/knowledgecenter/en/SS8NLW_12.0.0/com.ibm.swg.im.infosphere.dataexpl.install.doc/c_module_oview.html>

“The Watson Explorer foundational components are comprised of the following installable modules:

**Application Builder**

Simplifies developing 360-degree information applications that deliver targeted, relevant data to users based on their roles or interests within the enterprise or a specific organization.

**Watson Explorer Engine**

Provides a web-based development and deployment environment for enterprise information navigation applications.

**Annotation Administration Console**

Provides a web-based administration tool for configuring custom and domain specific text analytics that can enhance Watson Explorer 360-degree view and content mining applications.

**IBM Knowledge Center**

Provides online help for IBM Watson Explorer Foundational Components and IBM Watson Explorer Analytical Components.

**Results Module**

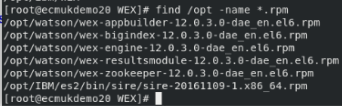
Enables local administrators of enterprise information navigation applications to easily extend those applications with business-specific highlighting of selected query results and by incorporating domain-specific knowledge such as taxonomies.

**ZooKeeper**

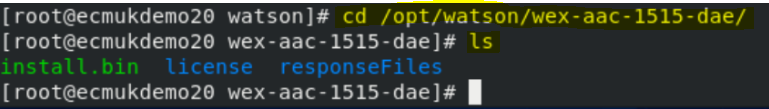
Provides a distributed coordination service and associated data repository for storing configuration information about distributed applications.”

The available Watson Explorer foundational component modules are:

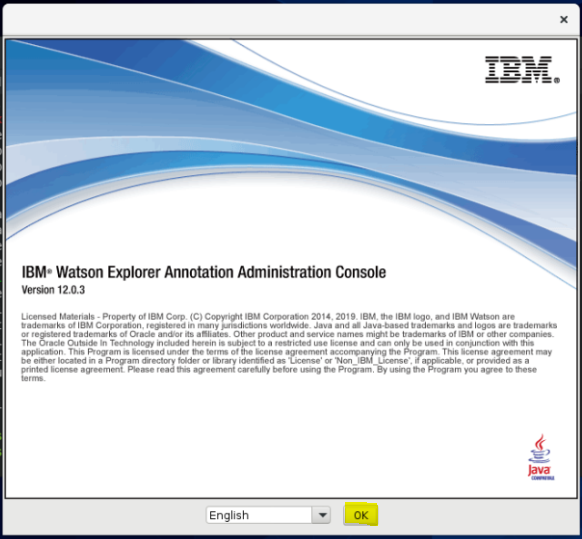
| **Module** | **Module file extension** |
| --- | --- |
| Watson Explorer Engine | wex-engine-12.0.0.x.rpm |
| Zookeeper | wex-zookeeper-12.0.0.x.rpm |
| Application Builder | wex-appbuilder-12.0.0.x.rpm |
| Results Module | wex-resultsmodule-12.0.0.x.rpm |
| BigIndex | wex-bigindex-12.0.0.x.rpm |

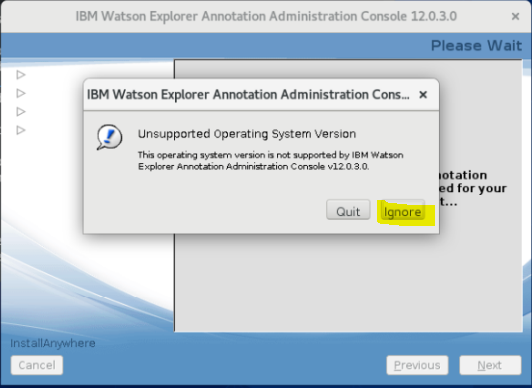


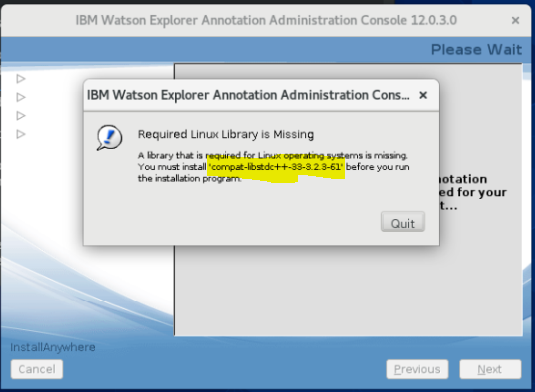
## Install Annotation Administration Console



**./install.bin**





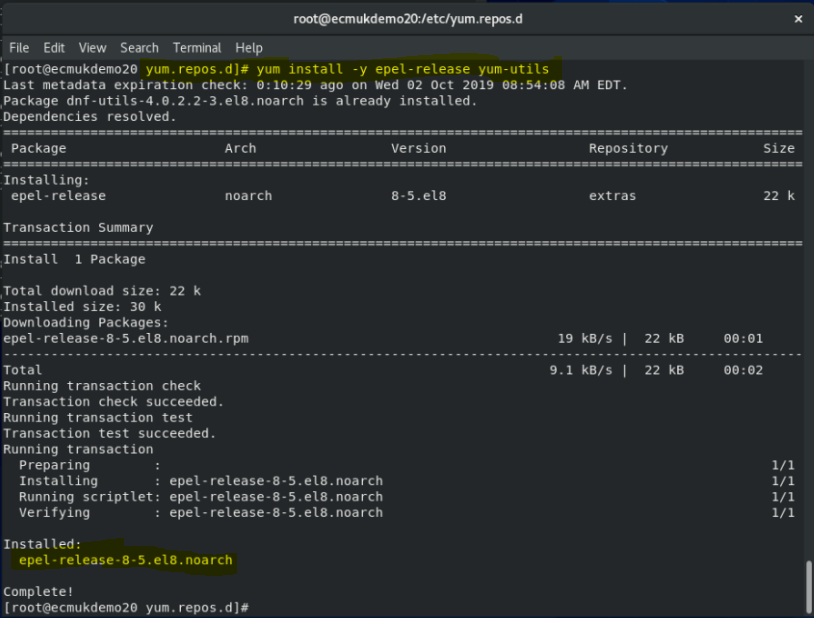


**compat-libstdc++-33-3.2.3-61**

Additionally if required, the packages from the Fedora project can also be accessed:

<https://fedoraproject.org/wiki/EPEL>

**yum install -y epel-release yum-utils**



yum-config-manager --enable epel

yum clean all && sudo yum update -y

yum install https://dl.fedoraproject.org/pub/epel/epel-release-latest-8.noarch.rpm

REF: <http://mirror.centos.org/centos/7/os/x86_64/Packages/>

**The following fixed the missing library issue:**





**Download and save the highlighted rpm packages :**

**Change the security on the rpm files:**

**[root@ecmukdemo20 Downloads]# chmod 775 \*.rpm**

**[root@ecmukdemo20 Downloads]# ls**

**compat-libstdc++-33-3.2.3-72.el7.i686.rpm Container-PIT.zip ufone\_tweets.csv**

**compat-libstdc++-33-3.2.3-72.el7.x86\_64.rpm enron\_mail\_20150507.tar.gz**

**Install the 32 bit compat-libstdc++-33 library**

**[root@ecmukdemo20 Downloads]# yum install compat-libstdc++-33-3.2.3-72.el7.i686.rpm**

**CentOS-8 - AppStream 1.7 kB/s | 4.3 kB 00:02**

**CentOS-8 - Base 1.7 kB/s | 3.8 kB 00:02**

**CentOS-8 - Extras 645 B/s | 1.5 kB 00:02**

**CentOS-8 - Plus 1.4 kB/s | 3.0 kB 00:02**

**Docker CE Stable - x86\_64 3.1 kB/s | 3.5 kB 00:01**

**Docker CE Stable - Sources 2.8 kB/s | 3.5 kB 00:01**

**Extra Packages for Enterprise Linux 8 - x86\_64 23 kB/s | 29 kB 00:01**

**Dependencies resolved.**

**=====================================================================================================**

**Package Arch Version Repository Size**

**=====================================================================================================**

**Installing:**

**compat-libstdc++-33 i686 3.2.3-72.el7 @commandline 196 k**

**Transaction Summary**

**=====================================================================================================**

**Install 1 Package**

**Total size: 196 k**

**Installed size: 722 k**

**Is this ok [y/N]: y**

**Downloading Packages:**

**Running transaction check**

**Transaction check succeeded.**

**Running transaction test**

**Transaction test succeeded.**

**Running transaction**

**Preparing : 1/1**

**Installing : compat-libstdc++-33-3.2.3-72.el7.i686 1/1**

**Running scriptlet: compat-libstdc++-33-3.2.3-72.el7.i686 1/1**

**Verifying : compat-libstdc++-33-3.2.3-72.el7.i686 1/1**

**Installed:**

**compat-libstdc++-33-3.2.3-72.el7.i686**

**Complete!**

**[root@ecmukdemo20 Downloads]# ls**

**compat-libstdc++-33-3.2.3-72.el7.i686.rpm Container-PIT.zip ufone\_tweets.csv**

**compat-libstdc++-33-3.2.3-72.el7.x86\_64.rpm enron\_mail\_20150507.tar.gz**

**Install the 64 bit compat-libstdc++-33 library**

**[root@ecmukdemo20 Downloads]# yum install compat-libstdc++-33-3.2.3-72.el7.x86\_64.rpm**

**Last metadata expiration check: 0:00:38 ago on Wed 02 Oct 2019 09:27:27 AM EDT.**

**Dependencies resolved.**

**=====================================================================================================**

**Package Arch Version Repository Size**

**=====================================================================================================**

**Installing:**

**compat-libstdc++-33 x86\_64 3.2.3-72.el7 @commandline 191 k**

**Transaction Summary**

**=====================================================================================================**

**Install 1 Package**

**Total size: 191 k**

**Installed size: 811 k**

**Is this ok [y/N]: y**

**Downloading Packages:**

**Running transaction check**

**Transaction check succeeded.**

**Running transaction test**

**Transaction test succeeded.**

**Running transaction**

**Preparing : 1/1**

**Installing : compat-libstdc++-33-3.2.3-72.el7.x86\_64 1/1**

**Running scriptlet: compat-libstdc++-33-3.2.3-72.el7.x86\_64 1/1**

**Verifying : compat-libstdc++-33-3.2.3-72.el7.x86\_64 1/1**

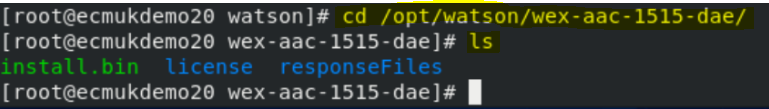
**Installed:**

**compat-libstdc++-33-3.2.3-72.el7.x86\_64**

**Complete!**

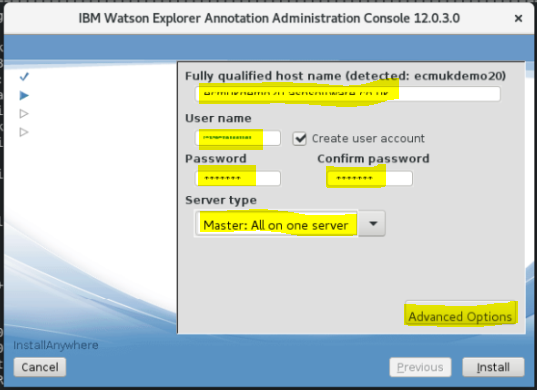
**[root@ecmukdemo20 Downloads]#**

**cd /opt/watson/wex-aac-1515-dae/**



**./install.bin**

**NB Although the default font-size was impossibly small to read,it is possible to use cut and paste to view and modify each of the fields (if the defaults are not required).**

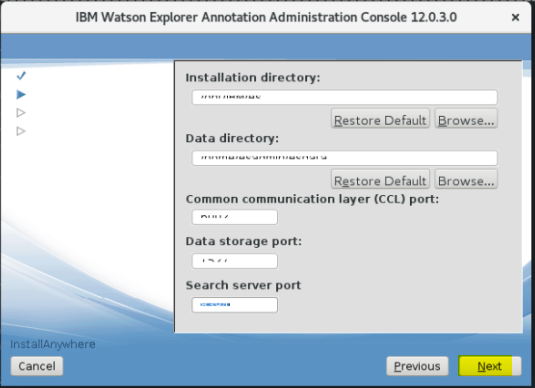


**Host Name: ecmukdemo20.asbsoftware.co.uk**

**User name: esadmin**

**Password: filenet**

**Click Advanced Options**



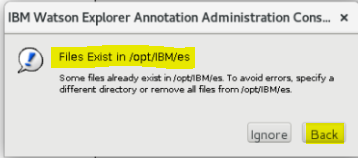
**Installation directory: /opt/IBM/es**

**Data directory: /home/esadmin/esdata**

**Common communication layer (CCL) port: 6002**

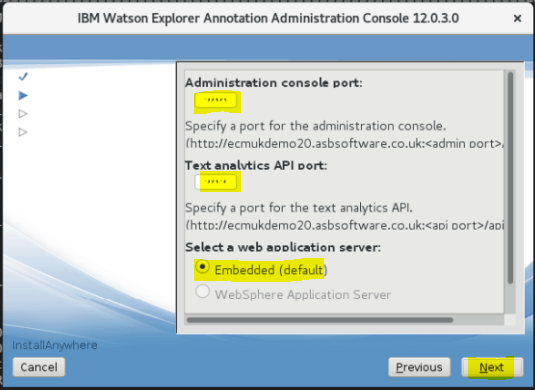
**Data storage port: 1527**

**Search server port: 8394**



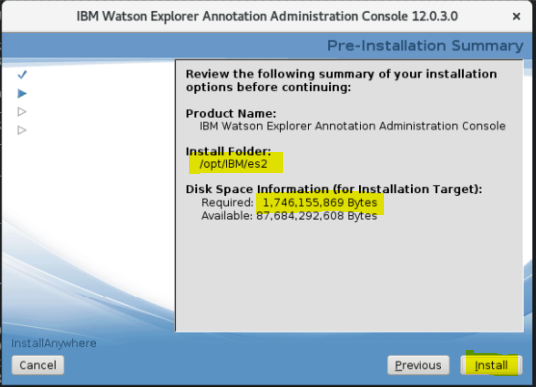
**Change to**

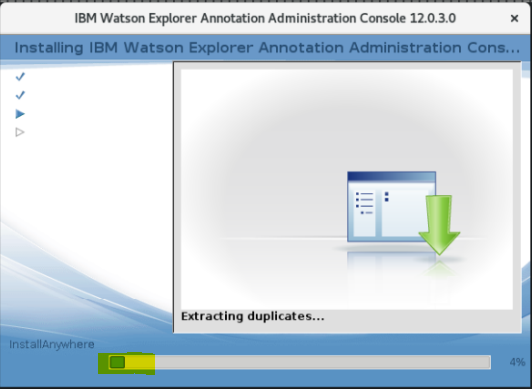
**Installation directory: /opt/IBM/es2**

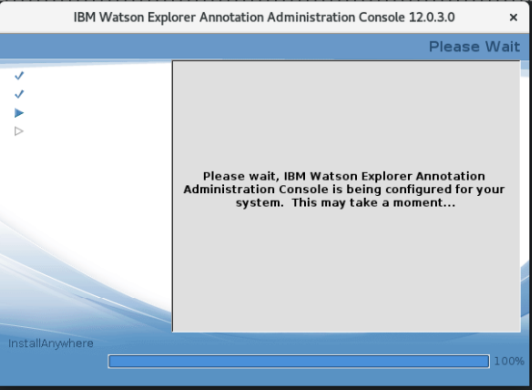


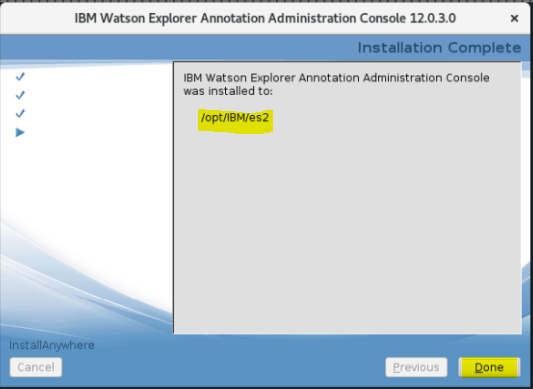
**Administration console port: 390**

**Text analytics API port: 8393**



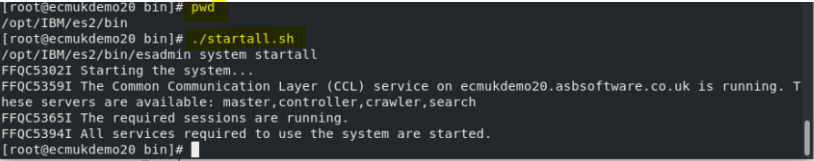














**[root@ecmukdemo20 bin]# ./esadmin**

**FFQC5335I Usage: esadmin COMMAND [PARAMETERS] ...**

**Possible command values are:**

**system executes system related commands such as start, stop, and setMaster system**

**report reports state of system sessions, configuration of system, and so on**

**session executes session specific commands such as start, stop, and so on**

**help displays this help menu**

**Example 1: To start the system**

**cd /opt/IBM/es2/bin**

**./esadmin system start**

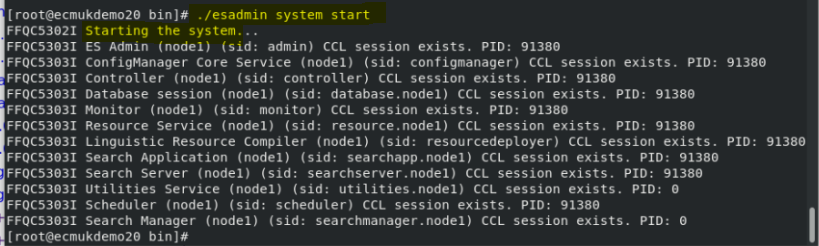
**Example 2: To view a report of all running sessions in the system**

**esadmin report sessions -pid**

**Example 3: To add a crawler server to the system**

**esadmin session configmanager addNode -nid node2 -destination tango.svl.ibm.com -port $CCL\_PORT -nodeRoot ~/test\_es/node -role crawler**

**Use 'esadmin COMMAND help' for more usage information on the command**



**[root@ecmukdemo20 bin]# ./esservice.sh**

**Error: Cannot locate a JAVA JRE to execute esservice.sh. Terminating.**

**[root@ecmukdemo20 bin]# yum install java**

**Last metadata expiration check: 3:00:45 ago on Wed 02 Oct 2019 11:13:00 AM EDT.**

**Dependencies resolved.**

**==================================================================================**

**Package Arch Version Repository Size**

**==================================================================================**

**Installing:**

**java-1.8.0-openjdk x86\_64 1:1.8.0.222.b10-0.el8\_0 AppStream 297 k**

**Installing dependencies:**

**copy-jdk-configs noarch 3.7-1.el8 AppStream 27 k**

**java-1.8.0-openjdk-headless x86\_64 1:1.8.0.222.b10-0.el8\_0 AppStream 32 M**

**javapackages-filesystem noarch 5.3.0-1.module\_el8.0.0+11+5b8c10bd AppStream 30 k**

**tzdata-java noarch 2019a-1.el8 AppStream 188 k**

**lksctp-tools x86\_64 1.0.18-3.el8 BaseOS 100 k**

**Enabling module streams:**

**javapackages-runtime 201801**

**Transaction Summary**

**==================================================================================**

**Install 6 Packages**

**Total download size: 33 M**

**Installed size: 113 M**

**Is this ok [y/N]: y**

**Downloading Packages:**

**(1/6): copy-jdk-configs-3.7-1.el8.noarch.rpm 200 kB/s | 27 kB 00:00**

**(2/6): javapackages-filesystem-5.3.0-1.module\_el8.0.0+11+5b8c10bd.noarch 455 kB/s | 30 kB 00:00**

**(3/6): java-1.8.0-openjdk-1.8.0.222.b10-0.el8\_0.x86\_64.rpm 1.3 MB/s | 297 kB 00:00**

**(4/6): tzdata-java-2019a-1.el8.noarch.rpm 1.0 MB/s | 188 kB 00:00**

**(5/6): lksctp-tools-1.0.18-3.el8.x86\_64.rpm 146 kB/s | 100 kB 00:00**

**(6/6): java-1.8.0-openjdk-headless-1.8.0.222.b10-0.el8\_0.x86\_64.rpm 6.4 MB/s | 32 MB 00:05**

**----------------------------------------------------------------------------------**

**Total 4.3 MB/s | 33 MB 00:07**

**Running transaction check**

**Transaction check succeeded.**

**Running transaction test**

**Transaction test succeeded.**

**Running transaction**

**Running scriptlet: copy-jdk-configs-3.7-1.el8.noarch 1/1**

**Running scriptlet: java-1.8.0-openjdk-headless-1:1.8.0.222.b10-0.el8\_0.x86\_64 1/1**

**Preparing : 1/1**

**Installing : lksctp-tools-1.0.18-3.el8.x86\_64 1/6**

**Running scriptlet: lksctp-tools-1.0.18-3.el8.x86\_64 1/6**

**Installing : tzdata-java-2019a-1.el8.noarch 2/6**

**Installing : javapackages-filesystem-5.3.0-1.module\_el8.0.0+11+5b8c10bd.noarch 3/6**

**Installing : copy-jdk-configs-3.7-1.el8.noarch 4/6**

**Installing : java-1.8.0-openjdk-headless-1:1.8.0.222.b10-0.el8\_0.x86\_64 5/6**

**Running scriptlet: java-1.8.0-openjdk-headless-1:1.8.0.222.b10-0.el8\_0.x86\_64 5/6**

**Installing : java-1.8.0-openjdk-1:1.8.0.222.b10-0.el8\_0.x86\_64 6/6**

**Running scriptlet: java-1.8.0-openjdk-1:1.8.0.222.b10-0.el8\_0.x86\_64 6/6**

**Running scriptlet: copy-jdk-configs-3.7-1.el8.noarch 6/6**

**Running scriptlet: java-1.8.0-openjdk-1:1.8.0.222.b10-0.el8\_0.x86\_64 6/6**

**Verifying : copy-jdk-configs-3.7-1.el8.noarch 1/6**

**Verifying : java-1.8.0-openjdk-1:1.8.0.222.b10-0.el8\_0.x86\_64 2/6**

**Verifying : java-1.8.0-openjdk-headless-1:1.8.0.222.b10-0.el8\_0.x86\_64 3/6**

**Verifying : javapackages-filesystem-5.3.0-1.module\_el8.0.0+11+5b8c10bd.noarch 4/6**

**Verifying : tzdata-java-2019a-1.el8.noarch 5/6**

**Verifying : lksctp-tools-1.0.18-3.el8.x86\_64 6/6**

**Installed:**

**java-1.8.0-openjdk-1:1.8.0.222.b10-0.el8\_0.x86\_64**

**copy-jdk-configs-3.7-1.el8.noarch**

**java-1.8.0-openjdk-headless-1:1.8.0.222.b10-0.el8\_0.x86\_64**

**javapackages-filesystem-5.3.0-1.module\_el8.0.0+11+5b8c10bd.noarch**

**tzdata-java-2019a-1.el8.noarch**

**lksctp-tools-1.0.18-3.el8.x86\_64**

**Complete!**

**[root@ecmukdemo20 bin]#**

## Install Application Builder

**[root@ecmukdemo20 watson]# yum install wex-appbuilder-12.0.3.0-dae\_en.el6.rpm**

**Last metadata expiration check: 0:53:51 ago on Wed 02 Oct 2019 09:27:27 AM EDT.**

**Dependencies resolved.**

**===================================================================**

**Package Arch Version Repository Size**

**===================================================================**

**Installing:**

**wex-appbuilder x86\_64 12.0.3.0-2487 @commandline 363 M**

**Transaction Summary**

**===================================================================**

**Install 1 Package**

**Total size: 363 M**

**Installed size: 517 M**

**Is this ok [y/N]: y**

**Downloading Packages:**

**Running transaction check**

**Transaction check succeeded.**

**Running transaction test**

**Transaction test succeeded.**

**Running transaction**

**Preparing : 1/1**

**Running scriptlet: wex-appbuilder-12.0.3.0-2487.x86\_64 1/1**

**Installing : wex-appbuilder-12.0.3.0-2487.x86\_64 1/1**

**Running scriptlet: wex-appbuilder-12.0.3.0-2487.x86\_64 1/1**

**Verifying : wex-appbuilder-12.0.3.0-2487.x86\_64 1/1**

**Installed:**

**wex-appbuilder-12.0.3.0-2487.x86\_64**

**Complete!**

**[root@ecmukdemo20 watson]# yum install wex-bigindex-12.0.3.0-dae\_en.el6.rpm**

**Last metadata expiration check: 1:07:45 ago on Wed 02 Oct 2019 09:27:27 AM EDT.**

**Dependencies resolved.**

**==========================================================================**

**Package Arch Version Repository Size**

**==========================================================================**

**Installing:**

**wex-bigindex x86\_64 12.0.3.0-2487 @commandline 38 M**

**Transaction Summary**

**==========================================================================**

**Install 1 Package**

**Total size: 38 M**

**Installed size: 43 M**

**Is this ok [y/N]: y**

**Downloading Packages:**

**Running transaction check**

**Transaction check succeeded.**

**Running transaction test**

**Transaction test succeeded.**

**Running transaction**

**Preparing : 1/1**

**Running scriptlet: wex-bigindex-12.0.3.0-2487.x86\_64 1/1**

**Installing : wex-bigindex-12.0.3.0-2487.x86\_64 1/1**

**Running scriptlet: wex-bigindex-12.0.3.0-2487.x86\_64 1/1**

**Verifying : wex-bigindex-12.0.3.0-2487.x86\_64 1/1**

**Installed:**

**wex-bigindex-12.0.3.0-2487.x86\_64**

**Complete!**

**[root@ecmukdemo20 watson]#**

## Configuration of Application Builder

**REF** <https://www.ibm.com/support/knowledgecenter/en/SS8NLW_12.0.0/com.ibm.swg.im.infosphere.dataexpl.install.doc/r_ab-config-ab.html>

### Default login credentials

* User name: data-explorer-admin
* Password TH1nk1710

**REF:**

<https://www.ibm.com/support/knowledgecenter/en/SS8NLW_12.0.0/com.ibm.swg.im.infosphere.dataexpl.appbuilder.doc/t_de-ab-devapp-entities-user.html>

Stop services

Make a backup of the **server.xml** file from the **AppBuilder/wlp/usr/servers/AppBuilder** directory, and then open the file in a text editor.

The following example shows the default Application Builder administrator user, data-explorer-admin, and sample user names and passwords:

<basicRegistry id="basic" realm="customRealm">

<user name="data-explorer-admin" password="TH1nk1710" />

<user name="*user-1*" password="*password-1*" />

<user name="*user-2*" password="*password-2*" />

</basicRegistry>

## Starting Services

REF: <https://www.ibm.com/support/knowledgecenter/SS8NLW_12.0.0/com.ibm.watson.wex.fc.install.doc/c_wex_native_services.html#c_wex_native_services.dita>

**Important:**When starting the Services always:

* Start ZooKeeper first (Application Builder relies on ZooKeeper for configuration data).
* Start all other services except Application Builder.
* Start **Application Builder last.**

## Install the Zoo Keeper service

REF: <https://www.ibm.com/support/knowledgecenter/en/SS8NLW_12.0.0/com.ibm.watson.wex.fc.install.doc/c_wex_native_config_zk.html>

**cd /opt/ibm/WEX/ZooKeeper**

[root@ecmukdemo20 ZooKeeper]# **./zookeeper-config**

Which language do you want to use for the configuration tool? The current language is ['en']. Other available languages are: ['en']:

Which port do you want ZooKeeper to listen on for clients? The port is currently [**2181**]:

Specify the directory to store ZooKeeper's data in. The current directory is **[/opt/ibm/WEX/ZooKeeperData**]:

Specify the ZooKeeper ID. It is currently [**1**]:

Specify the servers and ports ZooKeeper's cluster will use. The current list is [server.1**=localhost:16777:16888**]:

Provide any additional zookeeper configuration as a semicolon-separated list. The configuration is currently:

**[tickTime=2000;autopurge.snapRetainCount=3;autopurge.purgeInterval=1;initLimit=1000;syncLimit=1000**]

Do you want to install ZooKeeper's service? [y/N]:

**y**

[root@ecmukdemo20 ZooKeeper]# **pwd**

/opt/ibm/WEX/ZooKeeper

**NB: The Zookeeper service will automatically start Zookeeper whenever you restart a system on which it is installed.**

**Installing the service is recommended.**

[root@ecmukdemo20 ZooKeeper]#

**systemctl start**zookeeper.service

## Install the ResultsModule service

**NB This module is deprecated as of Watson Explorer 12.0.x**

**REF**

<https://www.ibm.com/support/pages/release-notes-ibm-watson-explorer-foundational-components-version-120#new12031>

See Appendix C for details of the deprecated 12.0.x features

[root@ecmukdemo20 WEX]# **cd /opt/ibm/WEX/ResultsModule**

[root@ecmukdemo20 ResultsModule]# **ls**

daemon intl java license README.txt resultsmodule-config resultsmodule.properties swidtag wlp

[root@ecmukdemo20 ResultsModule]# **./resultsmodule-config**

Which language do you want to use for the configuration tool? The current language is ['en']. Other available languages are: [**'en'**]:

Which port do you want Results Module to listen on? The port is currently [**8081**]:

What virtual directory should Results Module use? It is currently [ResultsModule]:

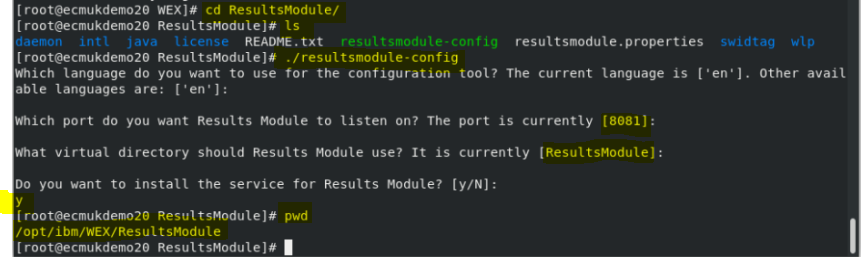
Do you want to install the service for Results Module? [y/N]:

**y**

[root@ecmukdemo20 ResultsModule]# **pwd**

**/opt/ibm/WEX/ResultsModule**

[root@ecmukdemo20 ResultsModule]#

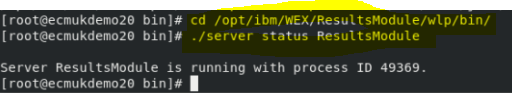


**systemctl start**resultsmodule.service

### Check the status of the ResultsModule service

**cd /opt/ibm/WEX/ResultsModule/wlp/bin/**

**./server status ResultsModule**



## Install the AppBuilder Service

**cd /opt/ibm/WEX/AppBuilder**

**[root@ecmukdemo20 AppBuilder]# ./appbuilder-config**

**Which language do you want to use for the configuration tool? The current language is ['en']. Other available languages are: ['en']:**

**What virtual directory should Application Builder use? The name is currently [AppBuilder]:**

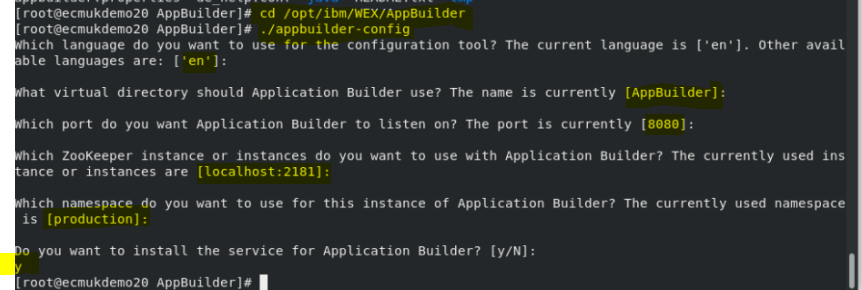
**Which port do you want Application Builder to listen on? The port is currently [8080]:**

**Which ZooKeeper instance or instances do you want to use with Application Builder? The currently used instance or instances are [localhost:2181]:**

**Which namespace do you want to use for this instance of Application Builder? The currently used namespace is [production]:**

**Do you want to install the service for Application Builder? [y/N]:**

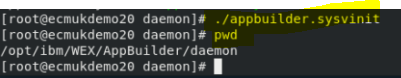
**y**



**systemctl start**appbuilder.service

**cd /opt/ibm/WEX/AppBuilder/daemon**

**./appbuilder.sysvinit**



### Start the services in this order

**systemctl start**zookeeper.service

**systemctl start**resultsmodule.service

**systemctl start**appbuilder.service

**systemctl enable**zookeeper.service

**systemctl enable**resultsmodule.service

**systemctl enable**appbuilder.service

## Stopping Services

**You must stop the services in this order.**

**systemctl stop**appbuilder.service

**systemctl stop**resultsmodule.service

**systemctl stop**zookeeper.service

## Open the ports on the firewall service

systemctl start firewalld

systemctl enable firewalld

firewall-cmd --zone=public --permanent --add-port 2181/tcp

firewall-cmd --zone=public --permanent --add-port 43981/tcp

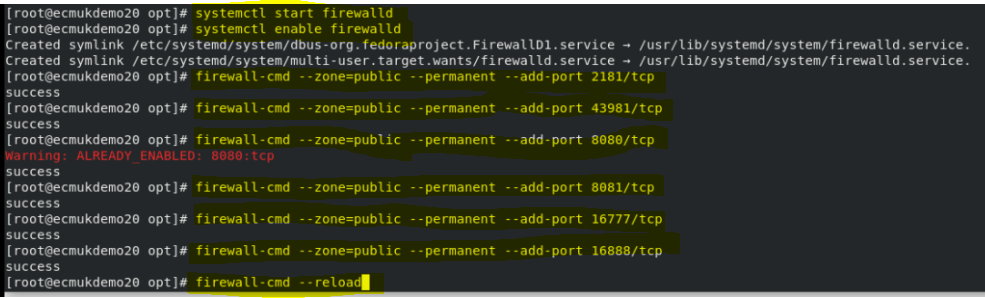
firewall-cmd --zone=public --permanent --add-port 8080/tcp

firewall-cmd --zone=public --permanent --add-port 8081/tcp

firewall-cmd --zone=public --permanent --add-port 16777/tcp

firewall-cmd --zone=public --permanent --add-port 16888/tcp

firewall-cmd --reload



You can adjust the configuration of the application server by editing the server.xml file in the AppBuilder/wlp/usr/servers/AppBuilder directory of your installation

Ie

**vi /opt/ibm/WEX/AppBuilder/wlp/usr/servers/AppBuilder/server.xml**

REF: **server.xml**

**See** Appendix A – server.xml of the Application Builder web app **for the full server.xml OOTB**

<https://www.ibm.com/support/knowledgecenter/SS8NLW_12.0.0/com.ibm.swg.im.infosphere.dataexpl.appbuilder.doc/c_de-ab-system-wlp.html>

## Add oneWEX Datasource

For a oneWEX data source, enter the fully qualified URL of the oneWEX instance. The URL takes the following form: http://hostname:port/

<https://localhost/admin/main/#/admin/datasets>

The process to use oneWEX as a data source for Application Builder is the same as for a Watson Explorer Engine backend:

1. Index the data. For oneWEX, that means that you upload data to the oneWEX instance.
2. Add the data source in Application Builder. In this case, the data source is oneWEX.
3. Create entity types. For oneWEX, you connect the entity types to an instance and collection.
4. Use the entity type as you develop your entity model and application.

REF

<https://www.ibm.com/support/knowledgecenter/SS8NLW_12.0.0/com.ibm.swg.im.infosphere.dataexpl.appbuilder.doc/c_onewex_ab_ds.html>

## Install Watson Explorer Engine

**[root@ecmukdemo20 watson]# yum install wex-engine-12.0.3.0-dae\_en.el6.rpm**

**Last metadata expiration check: 1:09:59 ago on Wed 02 Oct 2019 09:27:27 AM EDT.**

**Dependencies resolved.**

**==========================================================================**

**Package Arch Version Repository Size**

**==========================================================================**

**Installing:**

**wex-engine x86\_64 12.0.3.0-2487 @commandline 1.2 G**

**Transaction Summary**

**==========================================================================**

**Install 1 Package**

**Total size: 1.2 G**

**Installed size: 1.9 G**

**Is this ok [y/N]: y**

**Downloading Packages:**

**Running transaction check**

**Transaction check succeeded.**

**Running transaction test**

**Transaction test succeeded.**

**Running transaction**

**Preparing : 1/1**

**Running scriptlet: wex-engine-12.0.3.0-2487.x86\_64 1/1**

**Installing : wex-engine-12.0.3.0-2487.x86\_64 1/1**

**Running scriptlet: wex-engine-12.0.3.0-2487.x86\_64 1/1**

**Verifying : wex-engine-12.0.3.0-2487.x86\_64 1/1**

**Installed:**

**wex-engine-12.0.3.0-2487.x86\_64**

**Complete!**

**[root@ecmukdemo20 watson]#**

## Install Results Module

**[root@ecmukdemo20 watson]# yum install wex-resultsmodule-12.0.3.0-dae\_en.el6.rpm**

**Last metadata expiration check: 1:15:22 ago on Wed 02 Oct 2019 09:27:27 AM EDT.**

**Dependencies resolved.**

**=================================================================================**

**Package Arch Version Repository Size**

**=================================================================================**

**Installing:**

**wex-resultsmodule x86\_64 12.0.3.0-2487 @commandline 326 M**

**Transaction Summary**

**=================================================================================**

**Install 1 Package**

**Total size: 326 M**

**Installed size: 455 M**

**Is this ok [y/N]: y**

**Downloading Packages:**

**Running transaction check**

**Transaction check succeeded.**

**Running transaction test**

**Transaction test succeeded.**

**Running transaction**

**Preparing : 1/1**

**Running scriptlet: wex-resultsmodule-12.0.3.0-2487.x86\_64 1/1**

**Installing : wex-resultsmodule-12.0.3.0-2487.x86\_64 1/1**

**Running scriptlet: wex-resultsmodule-12.0.3.0-2487.x86\_64 1/1**

**Verifying : wex-resultsmodule-12.0.3.0-2487.x86\_64 1/1**

**Installed:**

**wex-resultsmodule-12.0.3.0-2487.x86\_64**

**Complete!**

## Install ZooKeeper

**[root@ecmukdemo20 watson]#**

**[root@ecmukdemo20 watson]# yum install wex-zookeeper-12.0.3.0-dae\_en.el6.rpm**

**Last metadata expiration check: 1:20:55 ago on Wed 02 Oct 2019 09:27:27 AM EDT.**

**Dependencies resolved.**

**===================================================================**

**Package Arch Version Repository Size**

**===================================================================**

**Installing:**

**wex-zookeeper x86\_64 12.0.3.0-2487 @commandline 150 M**

**Transaction Summary**

**===================================================================**

**Install 1 Package**

**Total size: 150 M**

**Installed size: 250 M**

**Is this ok [y/N]: y**

**Downloading Packages:**

**Running transaction check**

**Transaction check succeeded.**

**Running transaction test**

**Transaction test succeeded.**

**Running transaction**

**Preparing : 1/1**

**Running scriptlet: wex-zookeeper-12.0.3.0-2487.x86\_64 1/1**

**Installing : wex-zookeeper-12.0.3.0-2487.x86\_64 1/1**

**Running scriptlet: wex-zookeeper-12.0.3.0-2487.x86\_64 1/1**

**Verifying : wex-zookeeper-12.0.3.0-2487.x86\_64 1/1**

**Installed:**

**wex-zookeeper-12.0.3.0-2487.x86\_64**

**Complete!**

**[root@ecmukdemo20 watson]#**

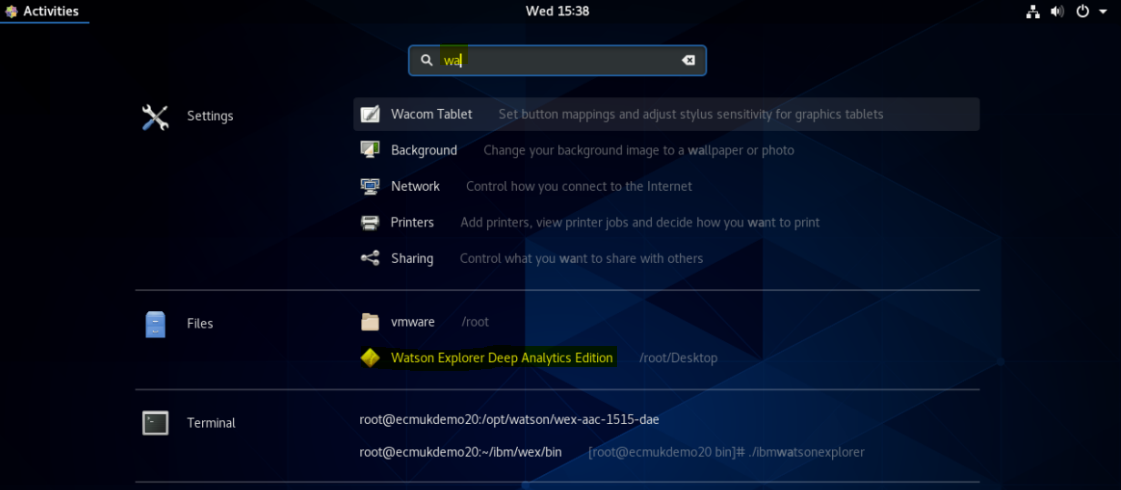
**REF:**

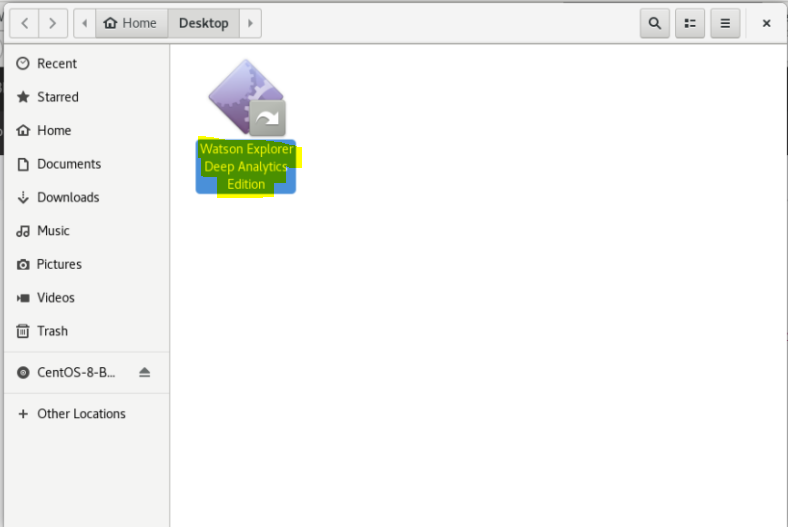
<https://www.ibm.com/support/knowledgecenter/SS8NLW_12.0.0/com.ibm.watson.wex.wks.integration.doc/anno-machine-export-upload.html>

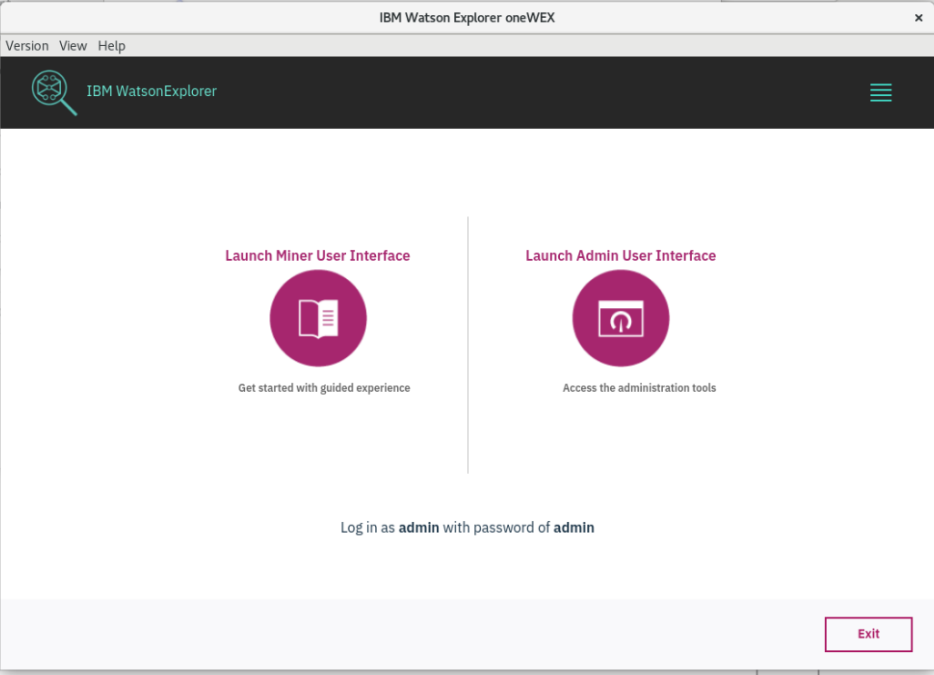
In the field for the path to the file, enter the path, including the name of the file, and click **OK**. For example, /home/esadmin/sample.zip.

REF:

<https://www.ibm.com/support/knowledgecenter/SS8NLW_12.0.0/com.ibm.watson.wex.wks.integration.doc/anno-machine-sire.html>







REF

<https://www.ibm.com/support/knowledgecenter/SS8NLW_12.0.0/com.ibm.discovery.es.tm.doc/iiyscviewlet.html>

## Installing the SIRE RPM file for Watson Explorer

## Procedure

1. Install the required libraries, by running the following command:

yum -y install apr apr-util boost-filesystem boost-iostreams boost-program-options boost-regex boost-serialization

[root@ecmukdemo20 watson]# **yum -y install apr apr-util boost-filesystem boost-iostreams boost-program-options boost-regex boost-serialization**

Last metadata expiration check: 2:08:22 ago on Wed 02 Oct 2019 11:13:00 AM EDT.

Package boost-iostreams-1.66.0-6.el8.x86\_64 is already installed.

Package boost-program-options-1.66.0-6.el8.x86\_64 is already installed.

Package boost-regex-1.66.0-6.el8.x86\_64 is already installed.

Dependencies resolved.

==========================================================================

Package Arch Version Repository Size

==========================================================================

Installing:

apr x86\_64 1.6.3-9.el8 AppStream 125 k

apr-util x86\_64 1.6.1-6.el8 AppStream 105 k

boost-filesystem x86\_64 1.66.0-6.el8 AppStream 49 k

boost-serialization x86\_64 1.66.0-6.el8 AppStream 128 k

Installing weak dependencies:

apr-util-bdb x86\_64 1.6.1-6.el8 AppStream 25 k

apr-util-openssl x86\_64 1.6.1-6.el8 AppStream 27 k

Transaction Summary

==========================================================================

Install 6 Packages

Total download size: 458 k

Installed size: 1.4 M

Downloading Packages:

(1/6): apr-util-bdb-1.6.1-6.el8.x86\_64.rpm 21 kB/s | 25 kB 00:01

(2/6): apr-util-openssl-1.6.1-6.el8.x86\_64.rpm 405 kB/s | 27 kB 00:00

(3/6): apr-1.6.3-9.el8.x86\_64.rpm 100 kB/s | 125 kB 00:01

(4/6): apr-util-1.6.1-6.el8.x86\_64.rpm 84 kB/s | 105 kB 00:01

(5/6): boost-filesystem-1.66.0-6.el8.x86\_64.rpm 472 kB/s | 49 kB 00:00

(6/6): boost-serialization-1.66.0-6.el8.x86\_64.rpm 1.0 MB/s | 128 kB 00:00

--------------------------------------------------------------------------

Total 185 kB/s | 458 kB 00:02

Running transaction check

Transaction check succeeded.

Running transaction test

Transaction test succeeded.

Running transaction

Preparing : 1/1

Installing : apr-1.6.3-9.el8.x86\_64 1/6

Running scriptlet: apr-1.6.3-9.el8.x86\_64 1/6

Installing : apr-util-bdb-1.6.1-6.el8.x86\_64 2/6

Installing : apr-util-openssl-1.6.1-6.el8.x86\_64 3/6

Installing : apr-util-1.6.1-6.el8.x86\_64 4/6

Running scriptlet: apr-util-1.6.1-6.el8.x86\_64 4/6

Installing : boost-serialization-1.66.0-6.el8.x86\_64 5/6

Running scriptlet: boost-serialization-1.66.0-6.el8.x86\_64 5/6

Installing : boost-filesystem-1.66.0-6.el8.x86\_64 6/6

Running scriptlet: boost-filesystem-1.66.0-6.el8.x86\_64 6/6

Verifying : apr-1.6.3-9.el8.x86\_64 1/6

Verifying : apr-util-1.6.1-6.el8.x86\_64 2/6

Verifying : apr-util-bdb-1.6.1-6.el8.x86\_64 3/6

Verifying : apr-util-openssl-1.6.1-6.el8.x86\_64 4/6

Verifying : boost-filesystem-1.66.0-6.el8.x86\_64 5/6

Verifying : boost-serialization-1.66.0-6.el8.x86\_64 6/6

Installed:

apr-1.6.3-9.el8.x86\_64 apr-util-1.6.1-6.el8.x86\_64

boost-filesystem-1.66.0-6.el8.x86\_64 boost-serialization-1.66.0-6.el8.x86\_64

apr-util-bdb-1.6.1-6.el8.x86\_64 apr-util-openssl-1.6.1-6.el8.x86\_64

Complete!

[root@ecmukdemo20 watson]#

1. Install the SIRE ES\_INSTALL\_ROOT/bin/sire/sire-20160429-2.x86\_64.rpm file by running the following command:

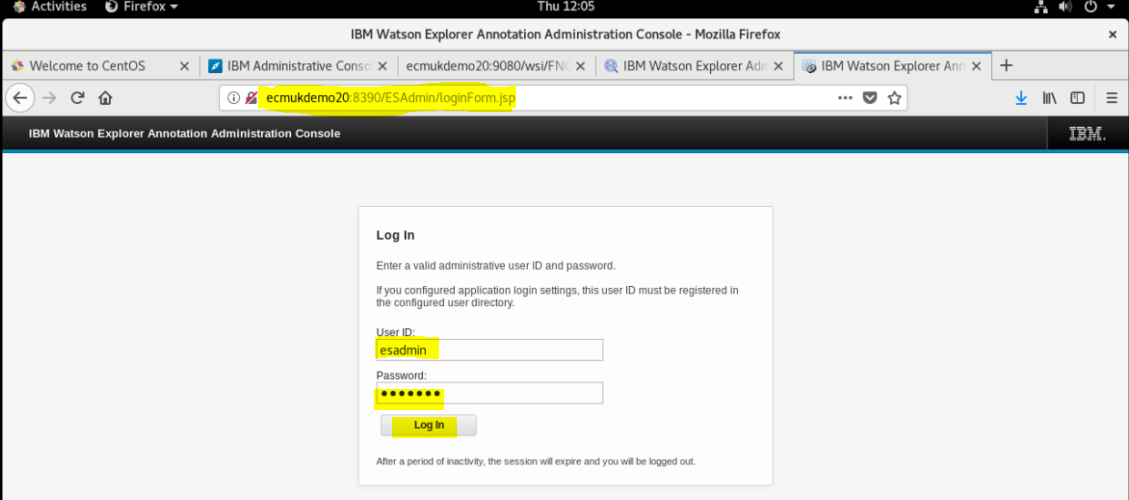
rpm -ivh sire-20160429-2.x86\_64.rpm

1. Log in as the default content analytics administrator. The default user ID is esadmin.
2. To set the SIRE environment variables, enter the following commands to restart the system:
3. esadmin system stopall

esadmin system startall[Copy](javascript:void(0);)

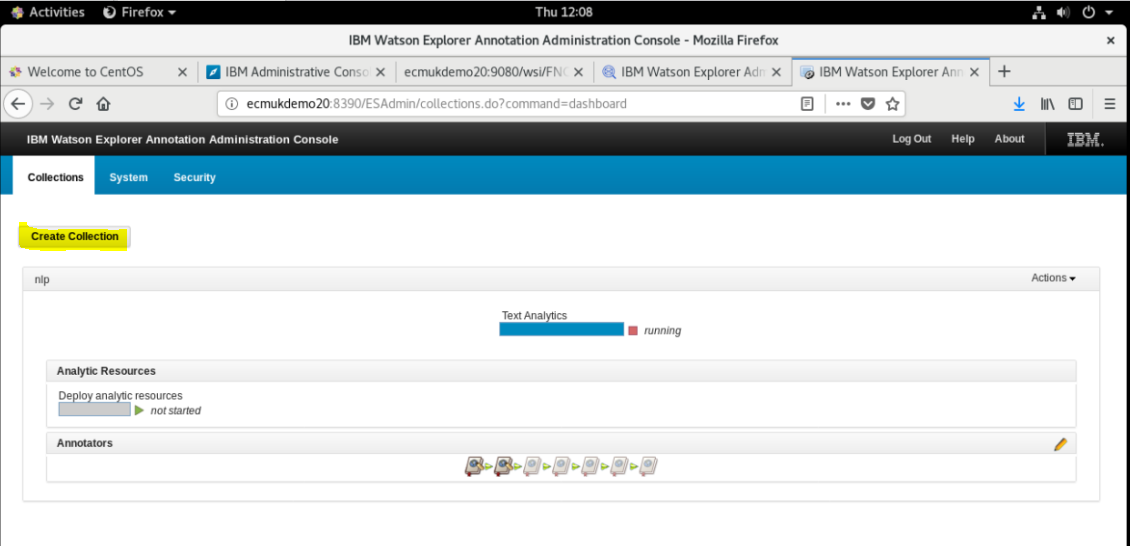
# Annotation Administration Console

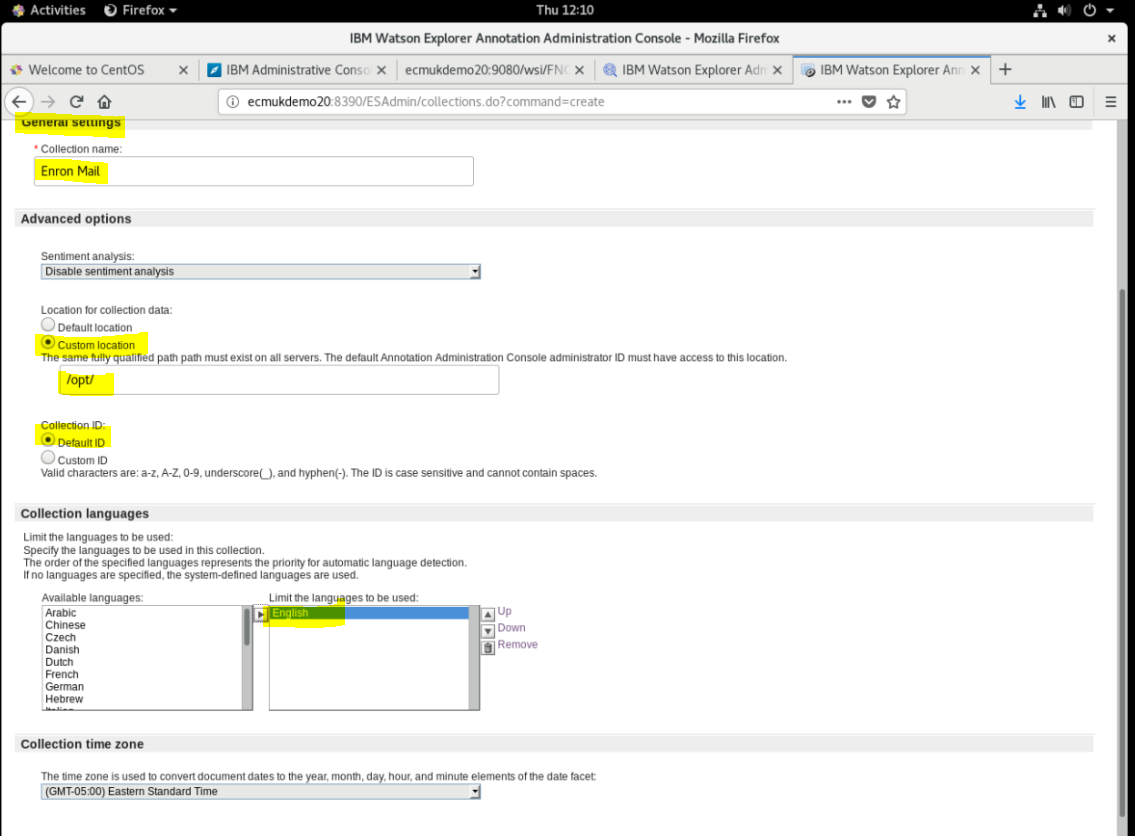
<http://ecmukdemo20:8390/ESAdmin/loginForm.jsp>

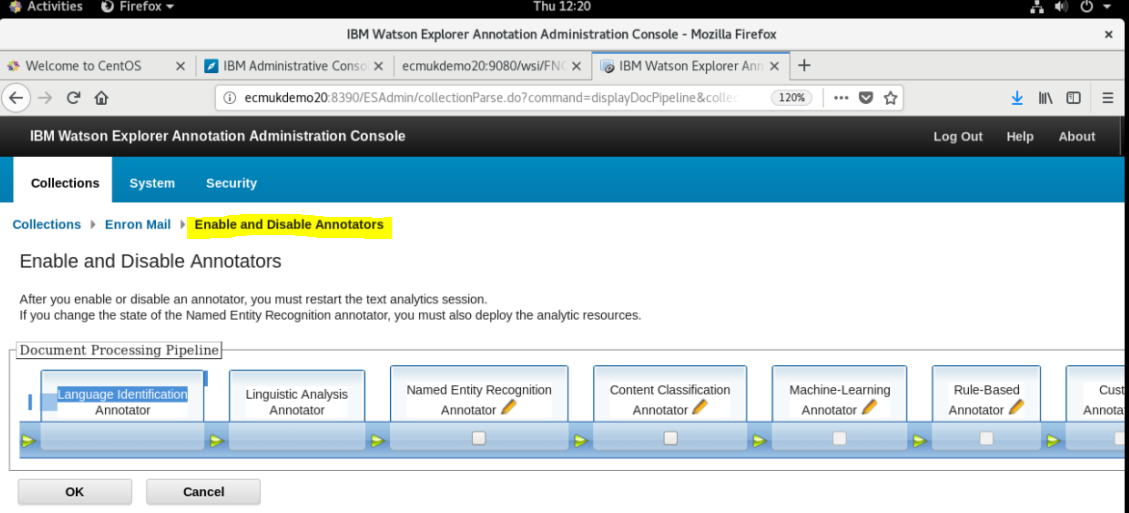


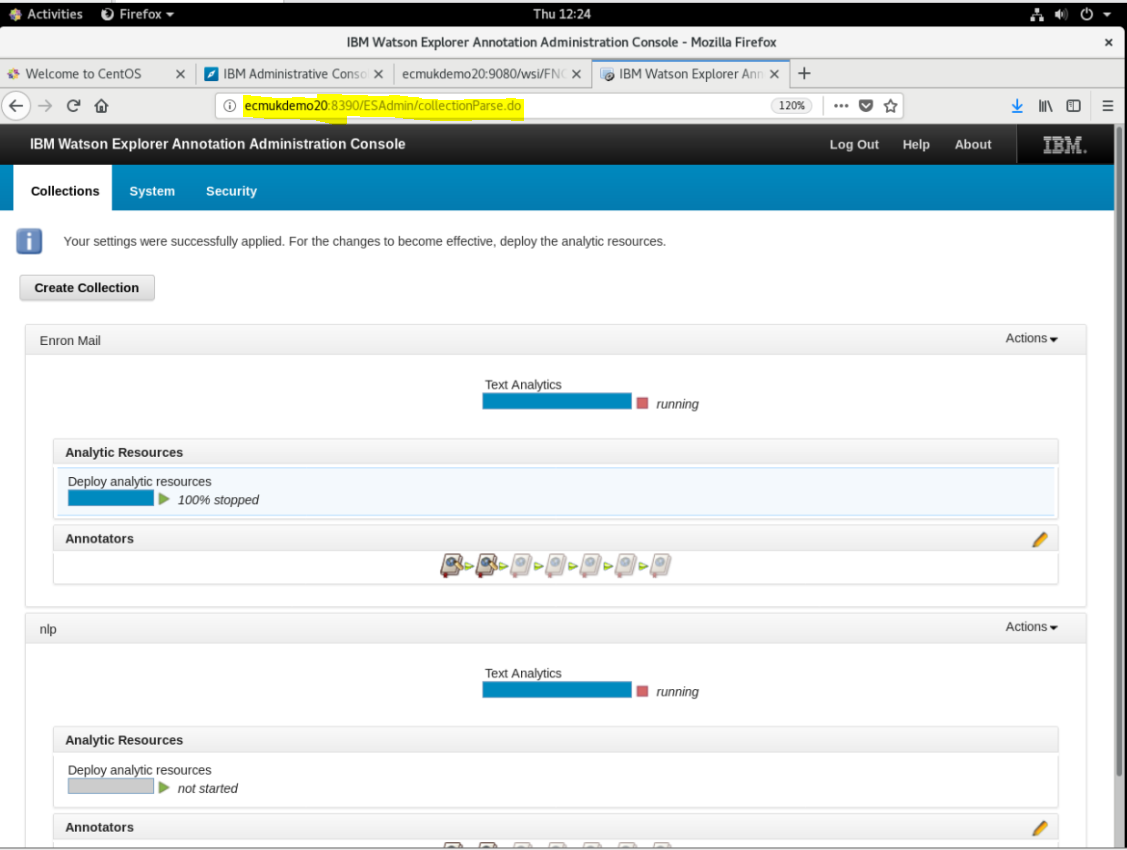
Login esadmin/filenet











# Watson Explorer Engine administration tool Installation

REF

<https://www.ibm.com/support/knowledgecenter/SS8NLW_12.0.0/com.ibm.watson.wex.fc.install.doc/c_wex_native_config_engine.html>

### Encryption Key Generation

A default encryption key is included when you install Watson Explorer Engine

To Change this follow:

<https://www.ibm.com/support/knowledgecenter/SS8NLW_12.0.0/com.ibm.watson.wex.fc.install.doc/c_wex_native_config_engine_enc.html>

**(NB This change is recommended by IBM)**

### Checks on the System

**NB Requires at least 40 Gigabytes of free disk space**

**mkdir /opt/tests**

**/opt/ibm/WEX/Engine/bin/micro-test --all /opt/tests**

#### Check Log results

[root@ecmukdemo20 bin]# **mkdir /opt/tests**

[root@ecmukdemo20 bin]# **/opt/ibm/WEX/Engine/bin/micro-test --all /opt/tests**

System micro-test tool.

Run with --help for information about individual tests.

Starting full run.

Starting mktemp test: 20000 reps, P=0.00, dir=/opt/tests/micro-test-temp.

20000 20000 0.06 ms/temp

Starting **buffered write test**: 42949672960 bytes in /opt/tests/micro-test-temp

40900 40960 **110.76 MB/secc**

Waiting for I/O to be flushed to disk.

40960 40960 103.44 MB/sec

Starting **buffered read test** : /opt/tests/micro-test-temp

40960 **94.51 MB/sec**

Starting seek test: /opt/tests/micro-test-temp, nthreads=16, block\_size=8192, n\_blocks=976562, ms=30000

**228.63 seeks/sec**

Starting unbuffered write test: 1073741824 bytes in /opt/tests/micro-test-temp

1024 1024 509.71 MB/sec

Starting **unbuffered read test**: /opt/tests/micro-test-temp

1024 **665.80 MB/sec**

Starting **sqlite-insert test**: 5000 inserts

5000 **527.26 inserts/sec**

Starting **sqlite-insert-transaction test:** 5000 inserts

5000 **90909.09 inserts/sec**

Starting **sqlite-insert-indexed test**: 5000 inserts

5000 **79365.08 inserts/sec**

Starting **sqlite-select test**: 5000 selects

5000 **1613.42 selects/sec**

Starting **sqlite-select-indexed test**: 5000 selects

5000 **3516.17 selects/sec**

Starting **sqlite-update test**: 5000 updates

5000 **2777.78 updates/sec**

Starting **sqlite-update-indexed test**: 5000 updates

5000 **31446.54 updates/sec**

Starting **sqlite-update-text-indexed** test: 5000 updates

5000 **61728.39 updates/sec**

Starting **sqlite-delete test**: 5000 deletes

5000 **570.78 deletes/sec**

Starting **sqlite-delete-transaction test**: 5000 deletes

5000 **5347.59 deletes/sec**

Starting **sqlite-delete-indexed** test: 5000 deletes

5000 **83333.34 deletes/sec**

Starting the **xsl test. 100 iterations**

xslt result **15 ms**

Starting virus scanner test: 5 reps 6 sleep /opt/tests/micro-test-temp

virus scanner not detected

Checking ability to create core dumps:

**Overall, the check(s) passed with warnings.**

The "system-wide core dump handler" **check passed** with warnings (reason: core dumps will be captured by a non-kernel process: /usr/lib/systemd/systemd-coredump %P %u %g %s %t %c %h %e

).

The "value of RLIMIT\_CORE" **check passed** (reason: core dumps are enabled and there is no restriction on core dump size).

#### Results:

**Temporary file creation: 0.06 ms**

**Buffered Write speed: 103.44 MB/sec**

**Buffered Read speed: 94.51 MB/sec**

**Unbuffered Write speed: 509.71 MB/sec**

**Unbuffered Read speed: 665.80 MB/sec**

**Unbuffered Seek rate: 228.63 seeks/sec**

**Virus scanner detected: no**

**sqlite-insert time: 527.26 inserts/sec**

**sqlite-insert-transaction time: 90909.09 inserts/sec**

**sqlite-insert-indexed time: 79365.08 inserts/sec**

**sqlite-select time: 1613.42 selects/sec**

**sqlite-select-indexed time: 3516.17 selects/sec**

**sqlite-update time: 2777.78 updates/sec**

**sqlite-update-indexed time: 31446.54 updates/sec**

**sqlite-update-text-indexed time: 61728.39 updates/sec**

**sqlite-delete time: 570.78 deletes/sec**

**sqlite-delete-transaction time: 5347.59 deletes/sec**

**sqlite-delete-indexed time: 83333.34 deletes/sec**

**Runtime environment's ability to create core dumps: passed with warnings**

Consult the documentation to properly understand and interpret your system's ability or inability to create core dumps.

**xsl time: 15.39 ms**

[root@ecmukdemo20 bin]#

### Configure the Watson Explorer Engine embedded webserver (non-production use only)

REF: <https://www.ibm.com/support/knowledgecenter/SS8NLW_12.0.0/com.ibm.swg.im.infosphere.dataexpl.install.doc/c_velocity-web-server-configuration.html>

#### Running embedded-webserver-config

**NB this command can also be rerun to change the parameters after stopping the engine using** **./engine-shutdown**

NB the port 9080 is already used by the acce tool on the FileNet P8 container, so I am using **19080**

**netstat -nlp 9080|grep 9080**



**cd /opt/ibm/WEX/Engine/bin**

**./embedded-webserver-config**

Which language do you want to use for the configuration tool? The current language is ['en']. Other available languages are: ['en']:

Specify the virtual directory for the embedded webserver to place Engine in. It is currently [vivisimo]:

Do you wish to enable debugging mode for the embedded webserver? [y/N]:

**y**

**NB use N for production deployments!**

Specify the group that the embedded webserver's workers will run in. It is currently [**apache**]:

Specify the hostname that the embedded webserver should use. It is currently [**ecmukdemo20.asbsoftware.co.uk**]:

Specify the port the embedded webserver will listen on. It is currently using [9080]:

**19080**

Specify the user that the embedded webserver will run its workers as. It is currently [apache]:

Do you want to enable the embedded webserver? [y/N]:

**y**

[root@ecmukdemo20 bin]#

“Once you have started the Watson Explorer Engine embedded webserver, you can complete your Watson Explorer Engine installation by accessing the Watson Explorer Engine administration tool through the embedded web server.”

If you do not know how to contact the Watson Explorer Engine embedded web server, you can use the **./engine-status** command to show a URL that you can use to contact the web server.

**(NB this is stated in the IBM documentation as embedded-webserver is-running but this just gives the following:)**

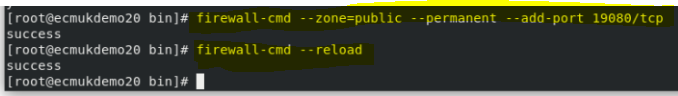


**http://ecmukdemo20.asbsoftware.co.uk:19080/vivisimo/cgi-bin/admin**

#### Open the port 19080 on the firewall

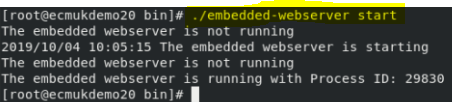
**firewall-cmd --zone=public --permanent --add-port 19080/tcp**

**firewall-cmd --reload**

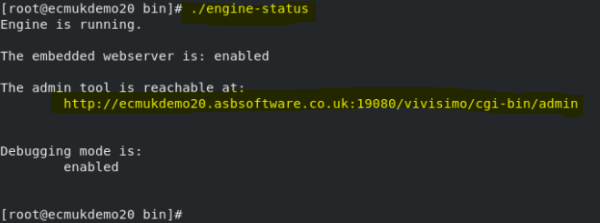


**cd /opt/ibm/WEX/Engine/bin**

**./embedded-webserver start**



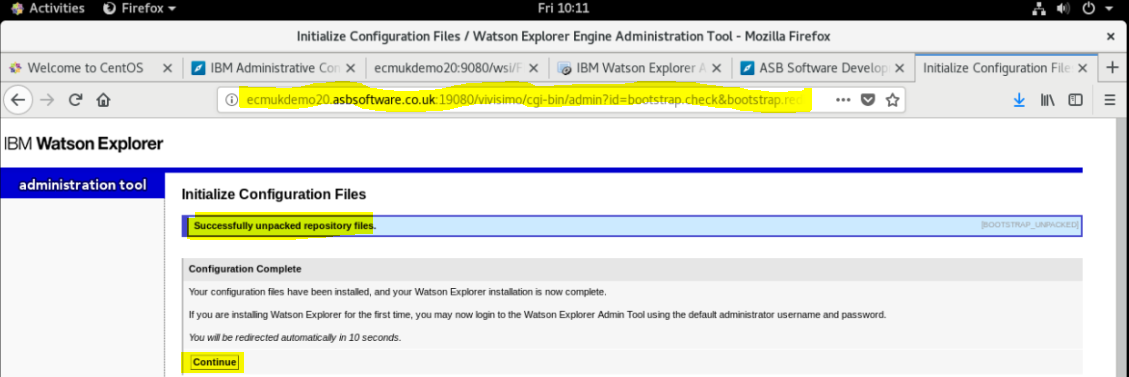
**./engine-status**

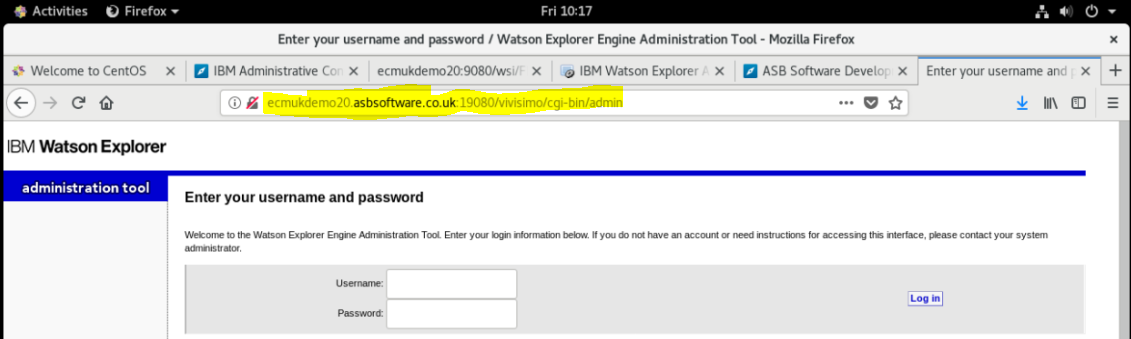


REF:

<https://www.ibm.com/support/knowledgecenter/SS8NLW_12.0.0/com.ibm.watson.wex.fc.install.doc/c_wex_native_accessing.html>

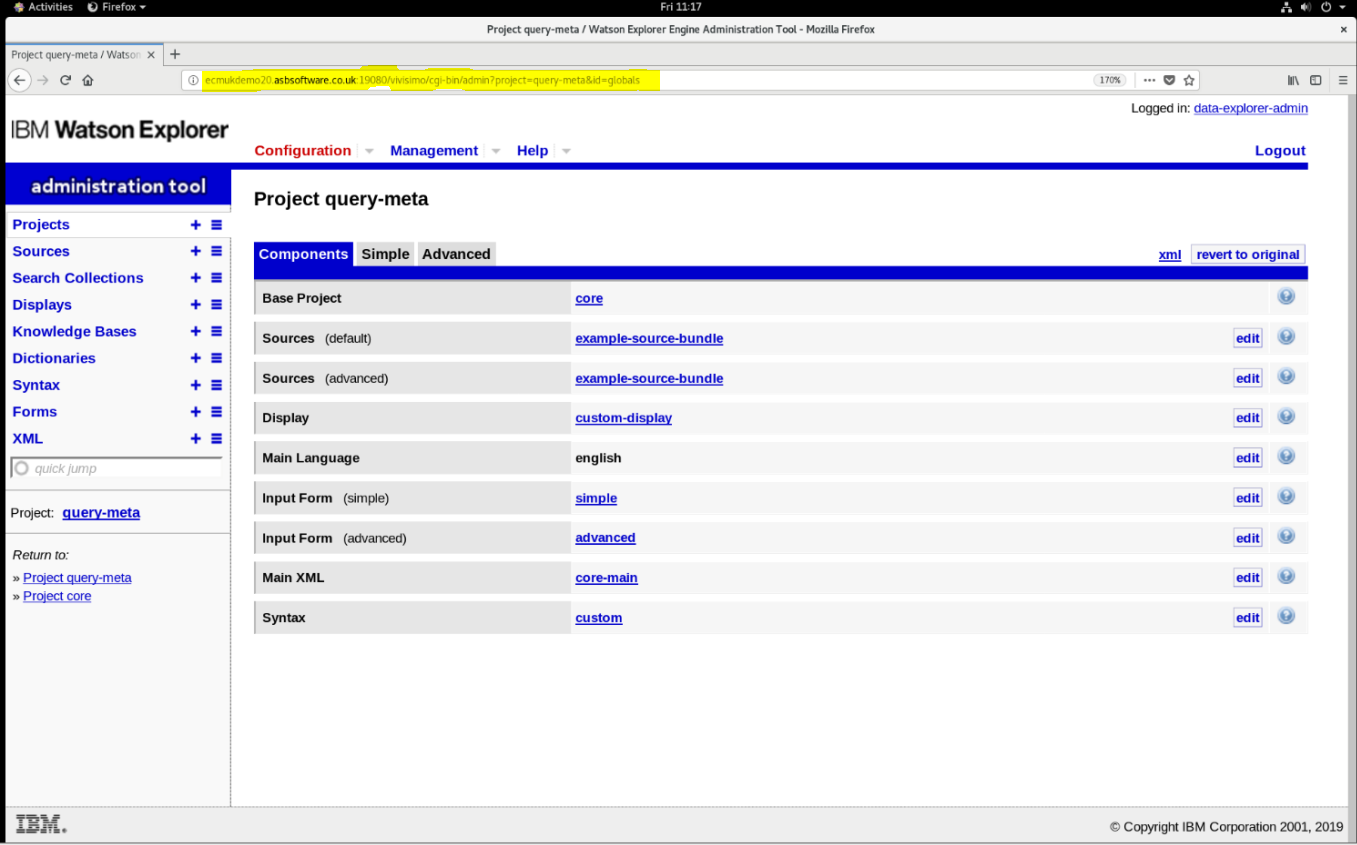
**http://ecmukdemo20.asbsoftware.co.uk:19080/vivisimo/cgi-bin/admin**

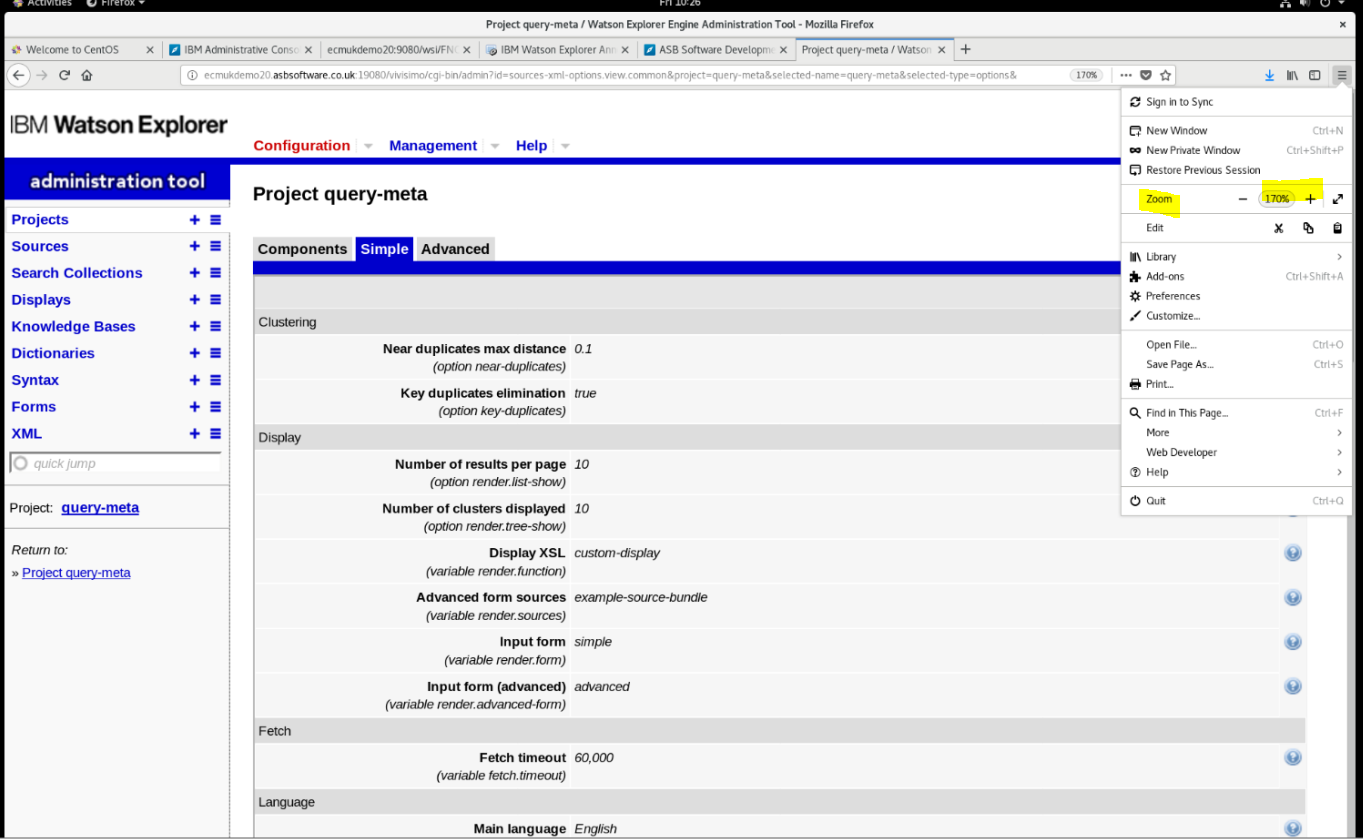




### Default login credentials

* User name: data-explorer-admin
* Password TH1nk1710

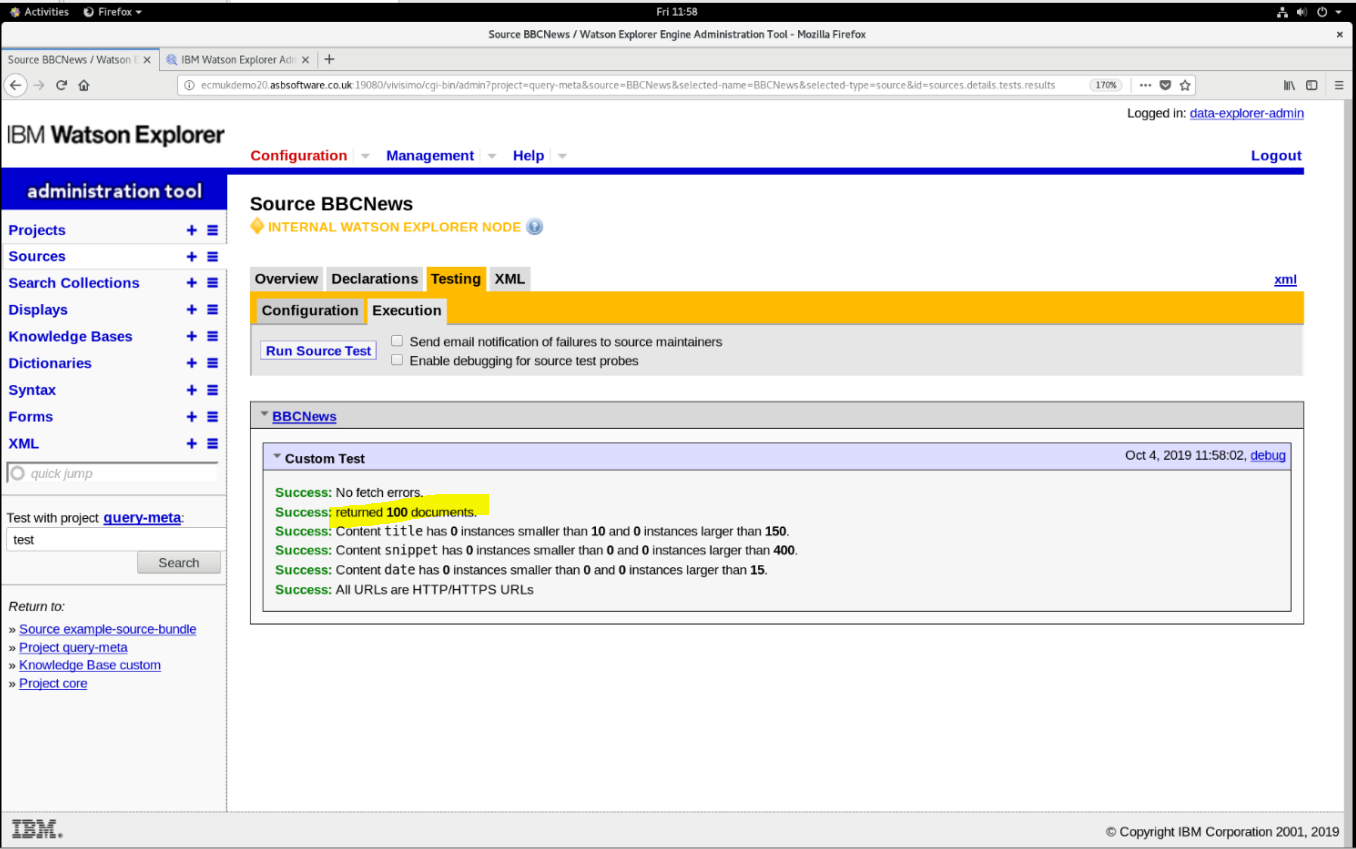




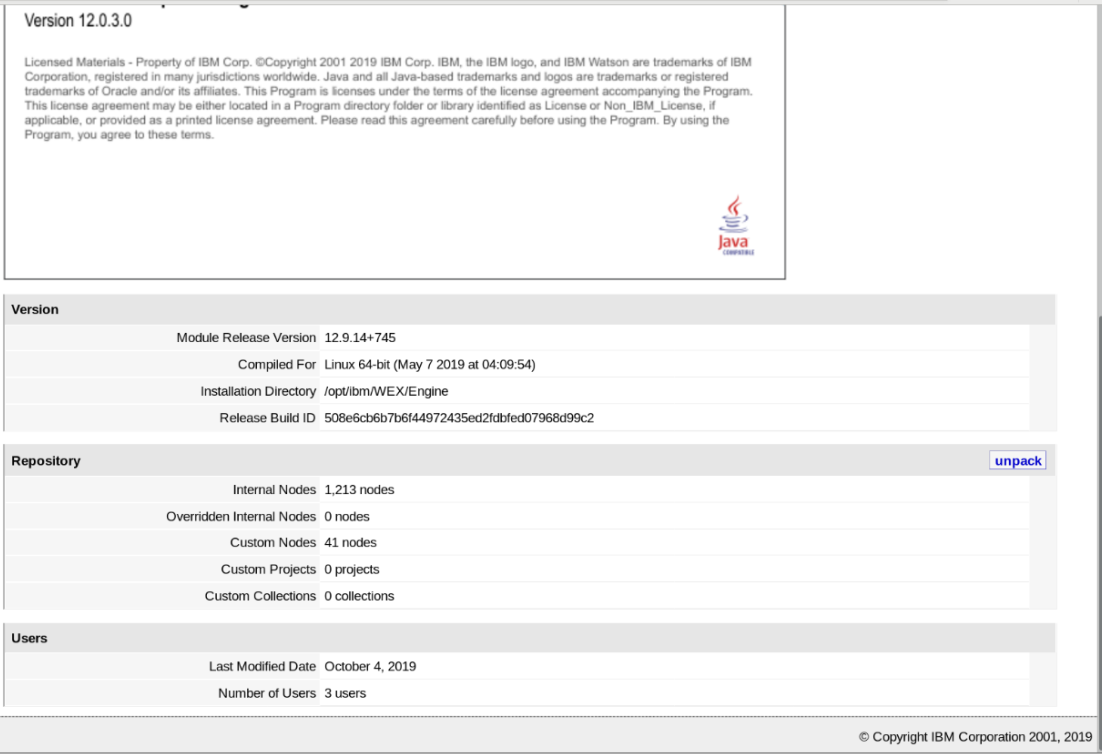
Zoom in to see the options more clearly!

### To unpack the repositories

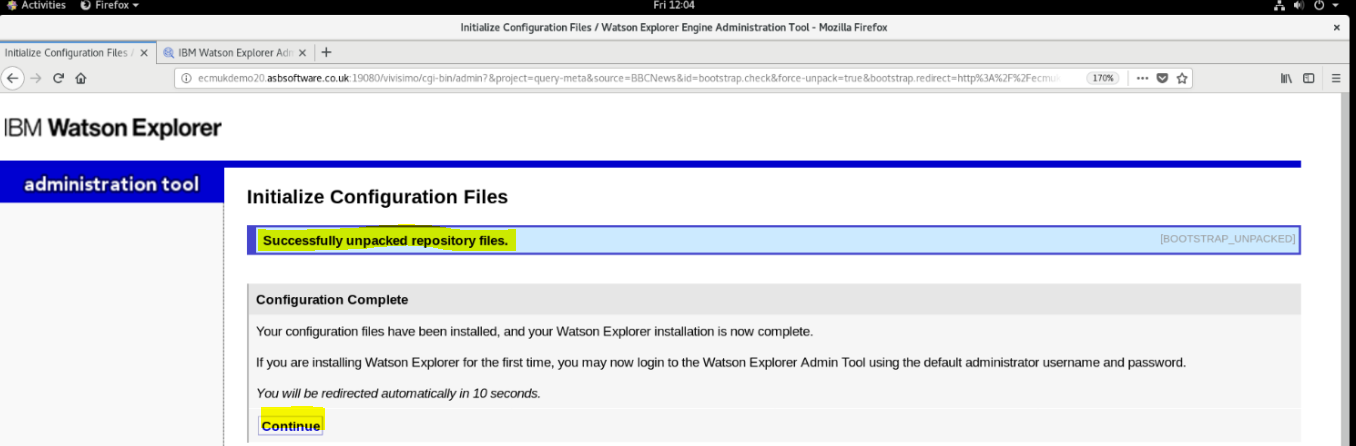
Click Help->About



#### Help About



Click **unpack**

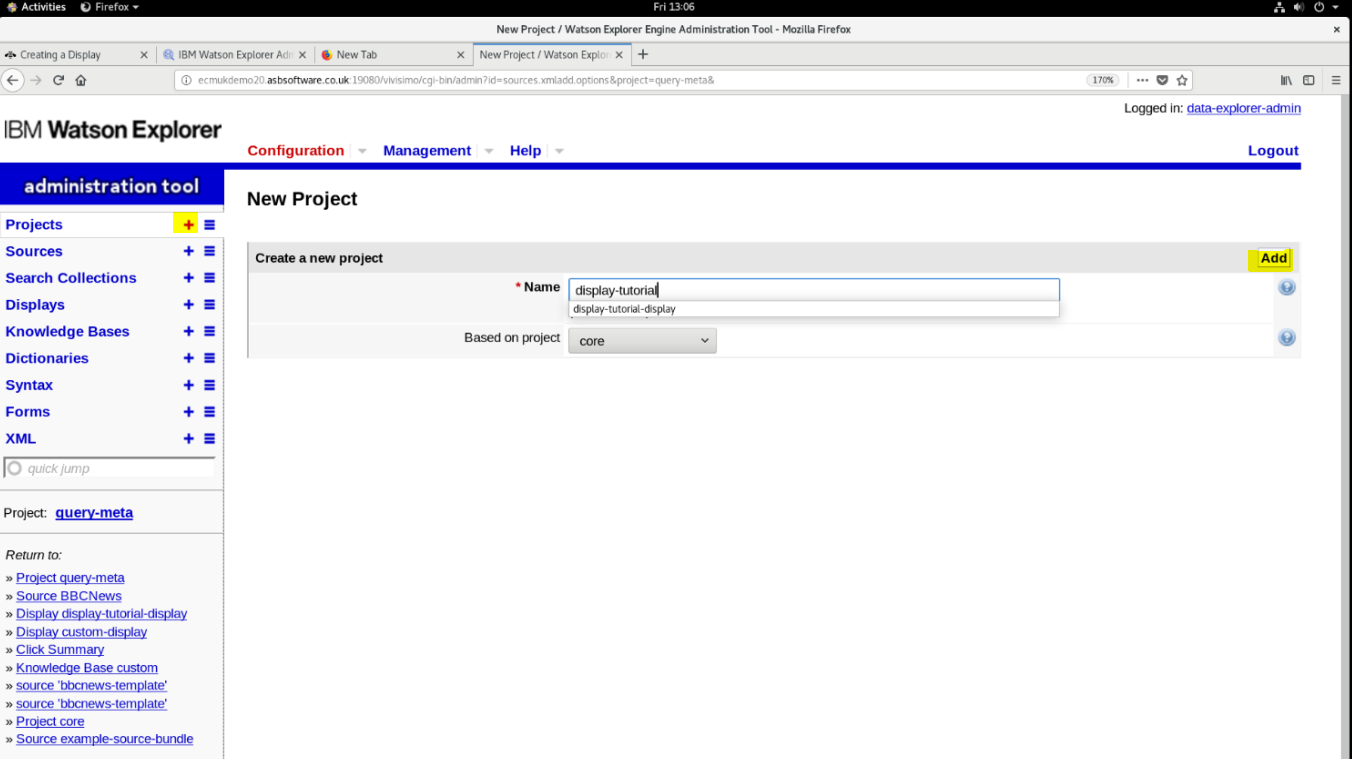


# Display Creation Tutorial

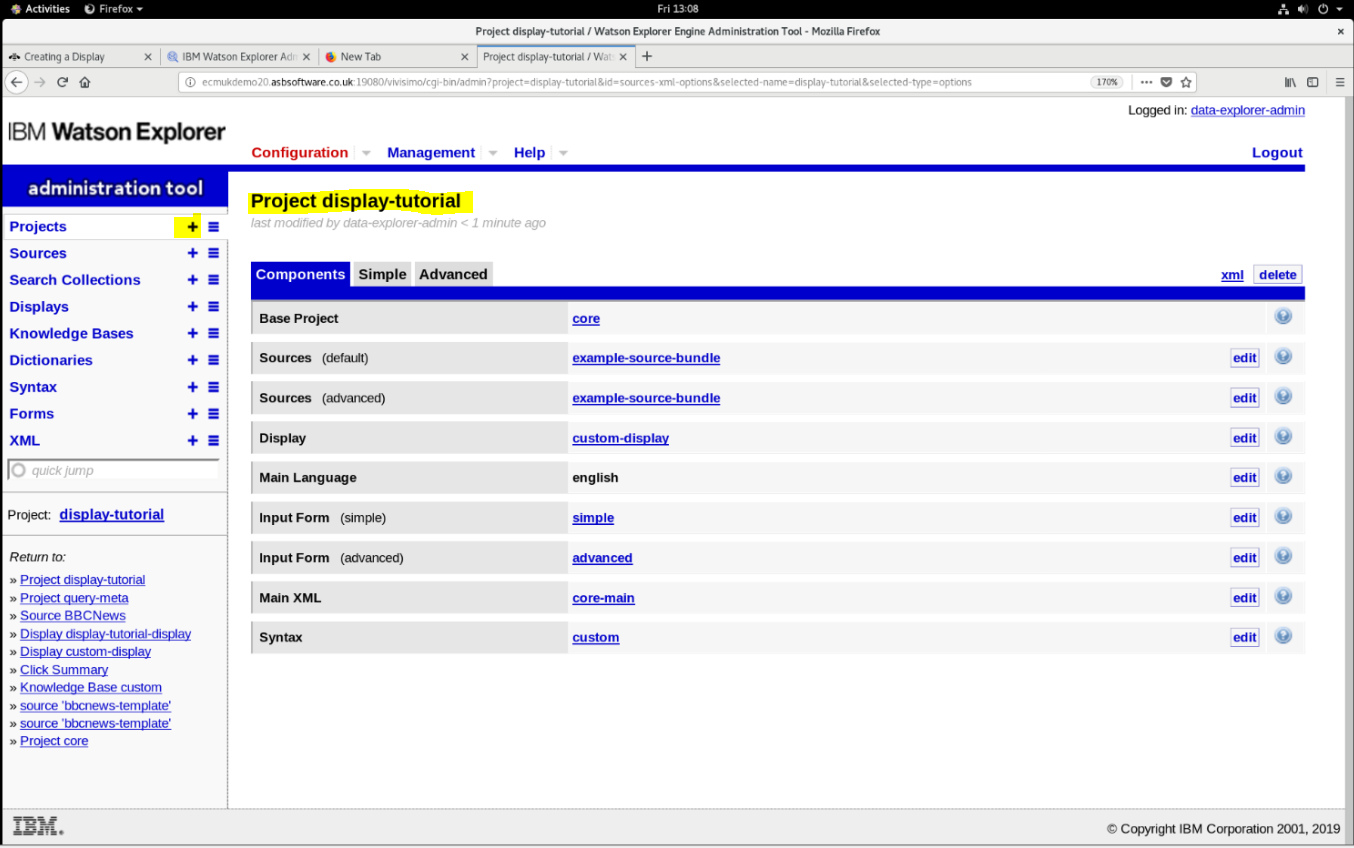
REF

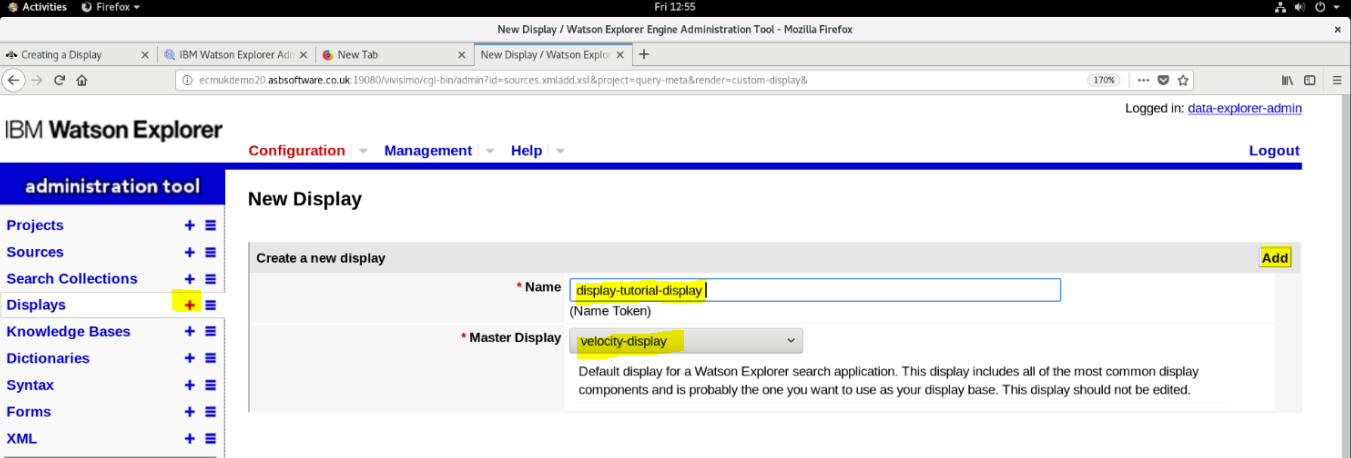
<https://www.ibm.com/support/knowledgecenter/SS8NLW_12.0.0/com.ibm.swg.im.infosphere.dataexpl.engine.tut.display.doc/c_graphical-displays.html>

<https://www.ibm.com/support/knowledgecenter/SS8NLW_12.0.0/com.ibm.swg.im.infosphere.dataexpl.engine.tut.display.doc/t_display-tut-create-display.html>

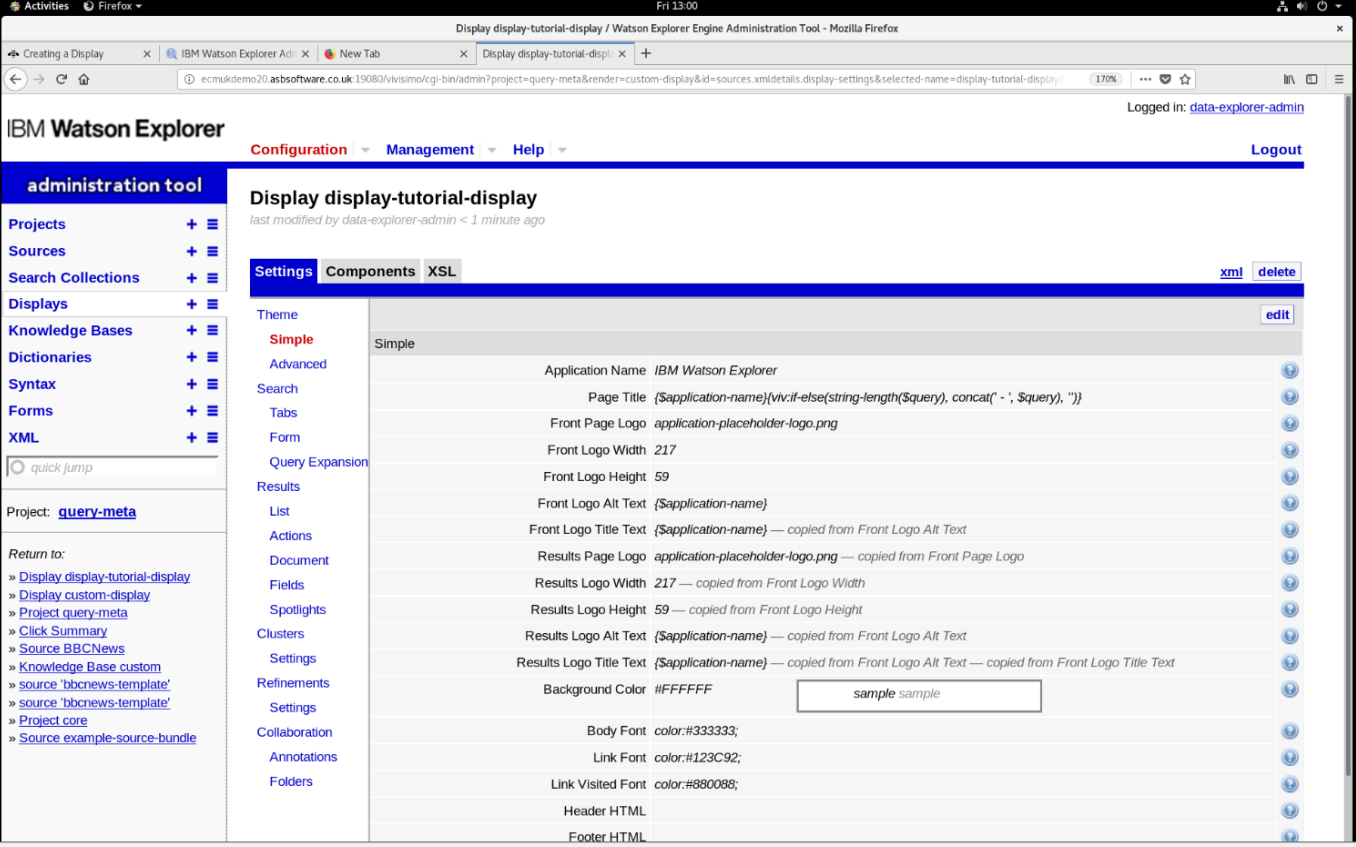


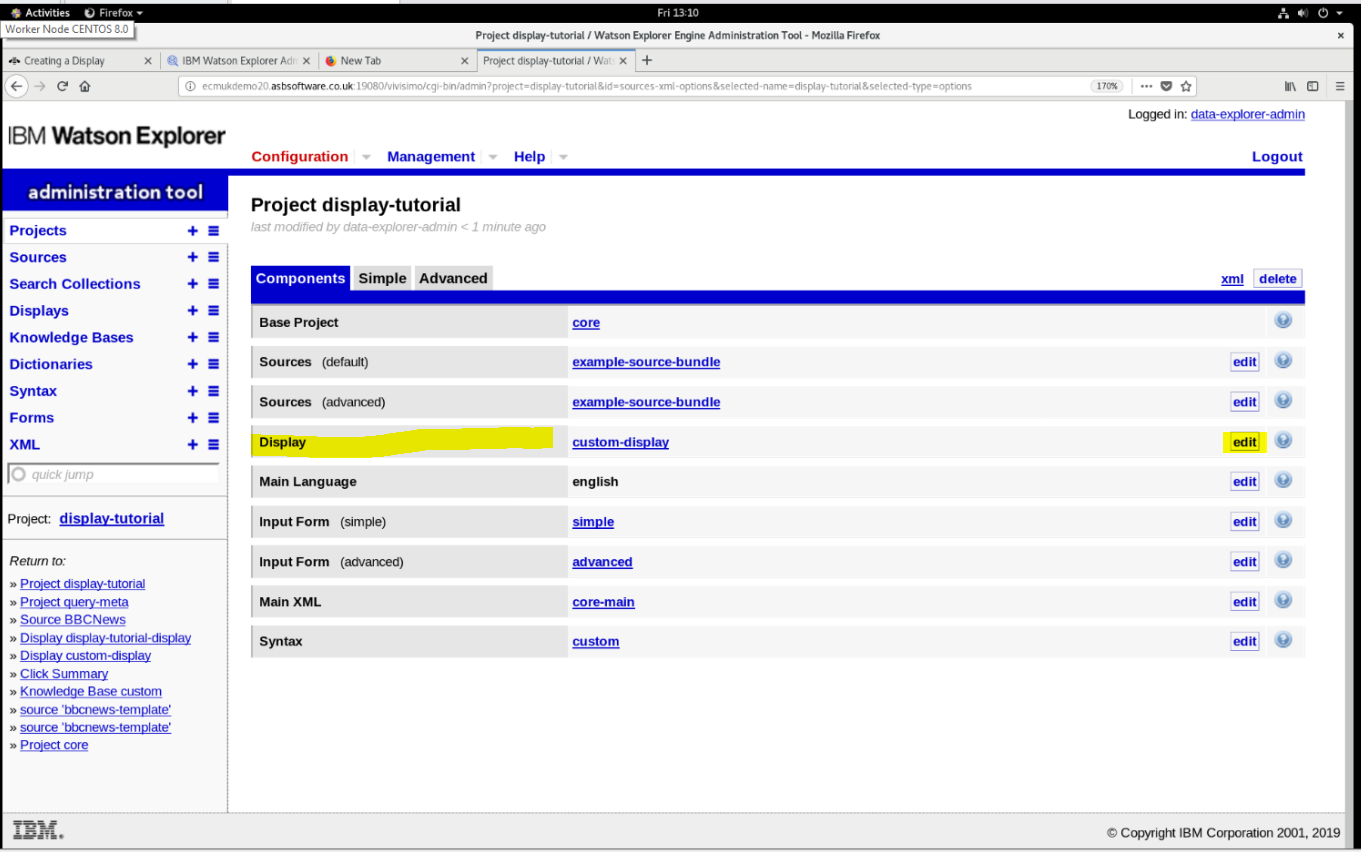
Click **+** on Projects and enter display-tutorial based on the core project and Add





Click + then enter the display name (display-tutorial-display) required, click Add

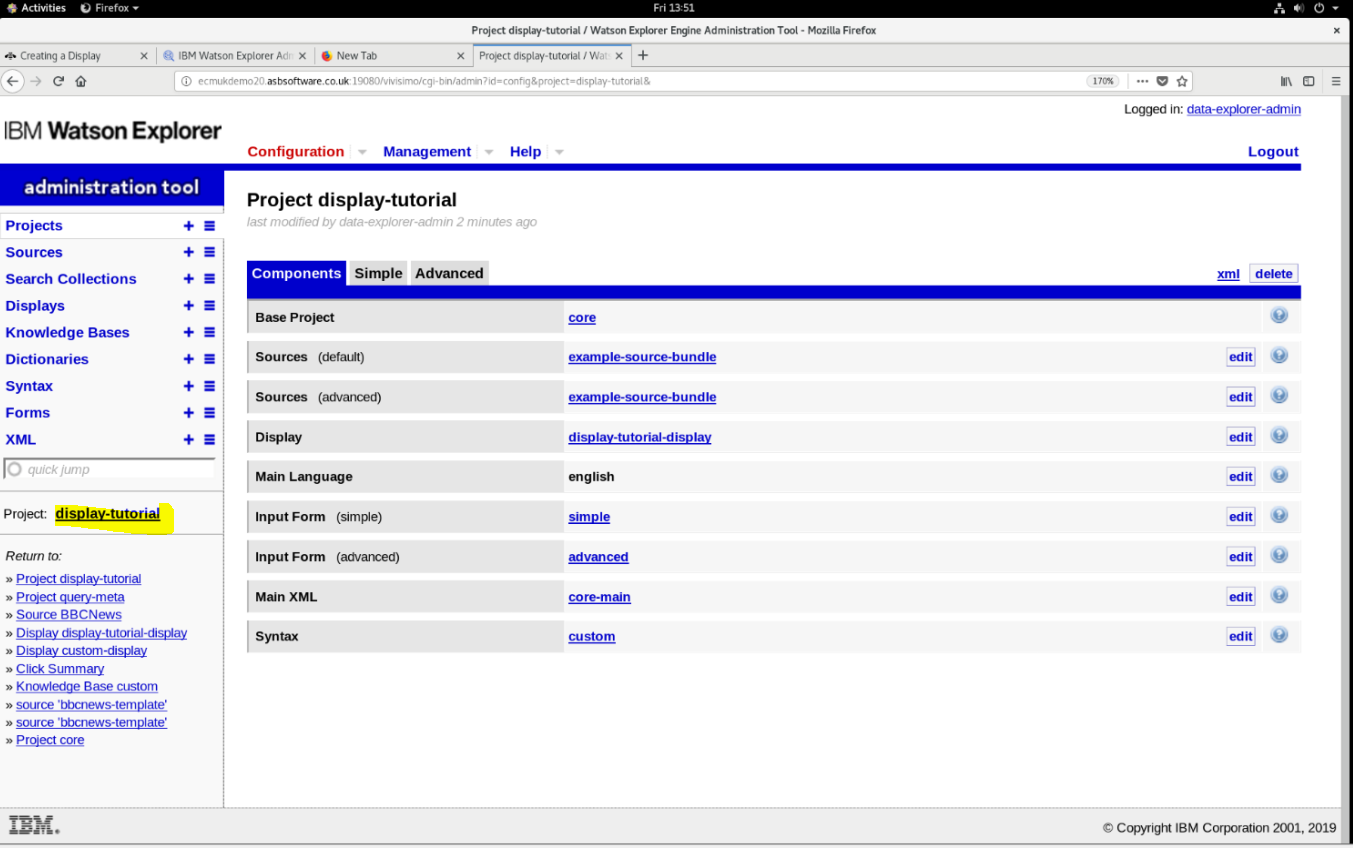




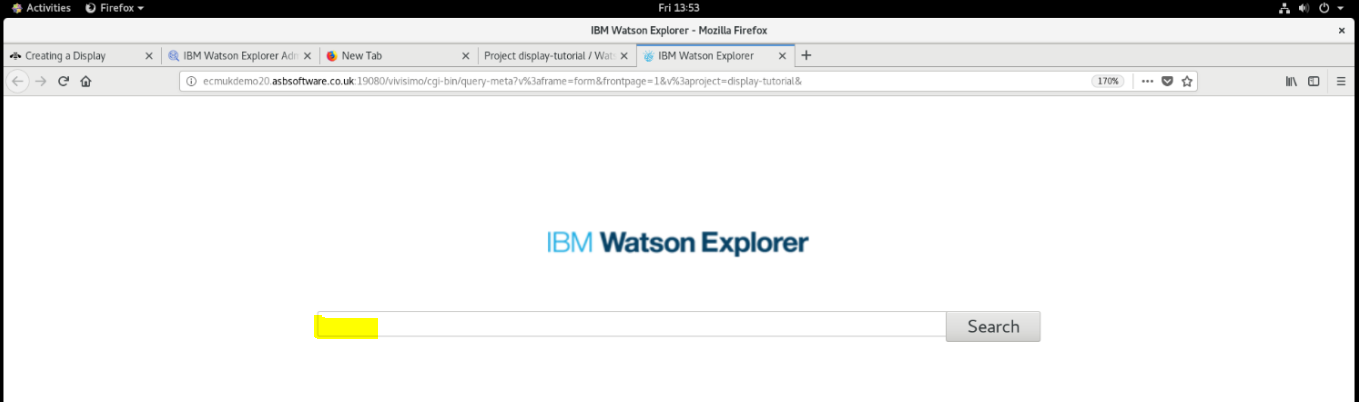
Click edit on the project display-tutorial Display line



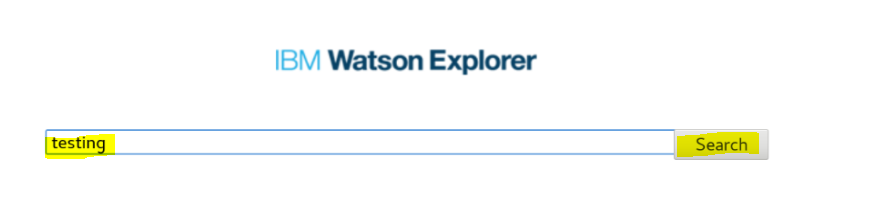
Click OK



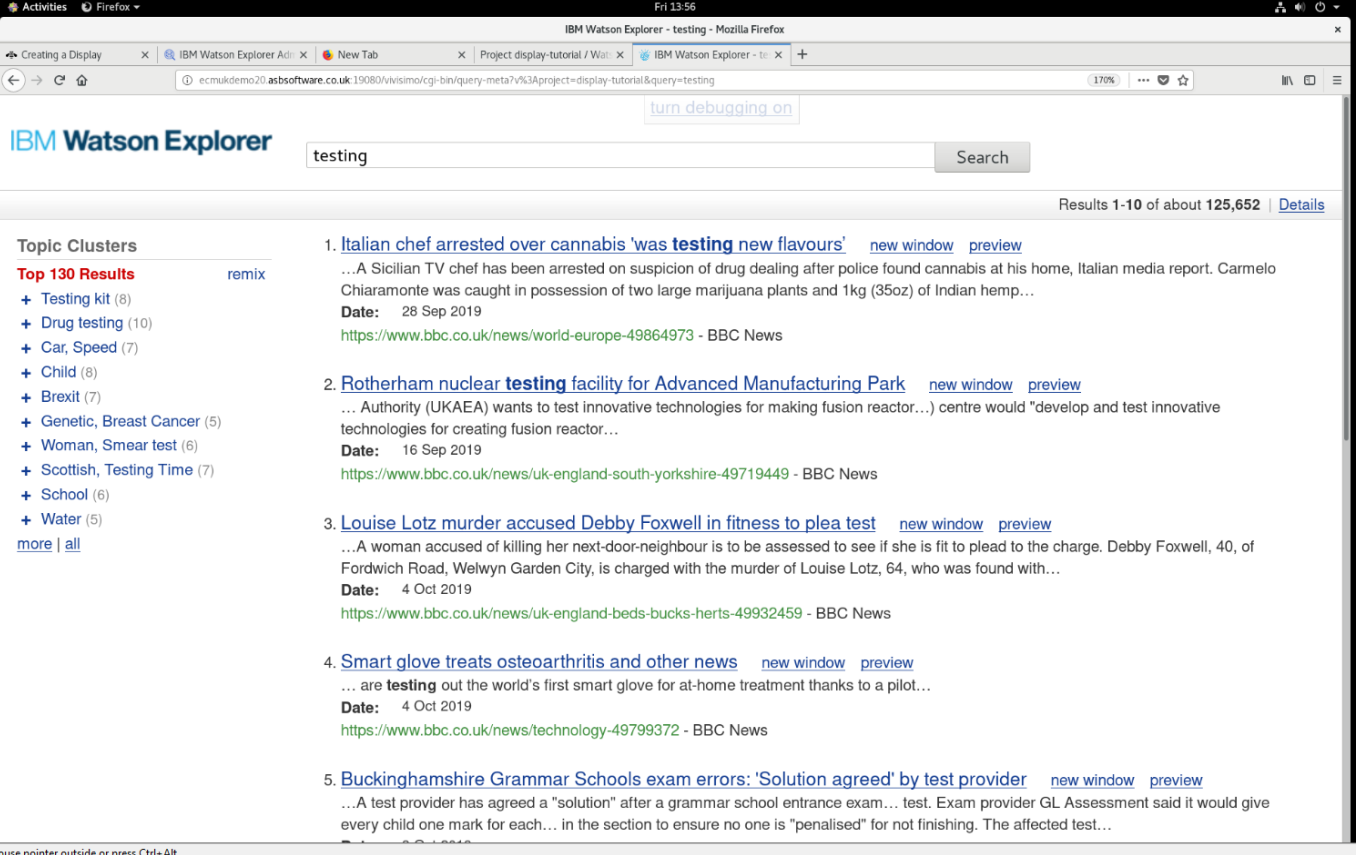
click **display-tutorial** beside the **Project:** label in the left-hand Watson Explorer Engine administration tool navigation menu



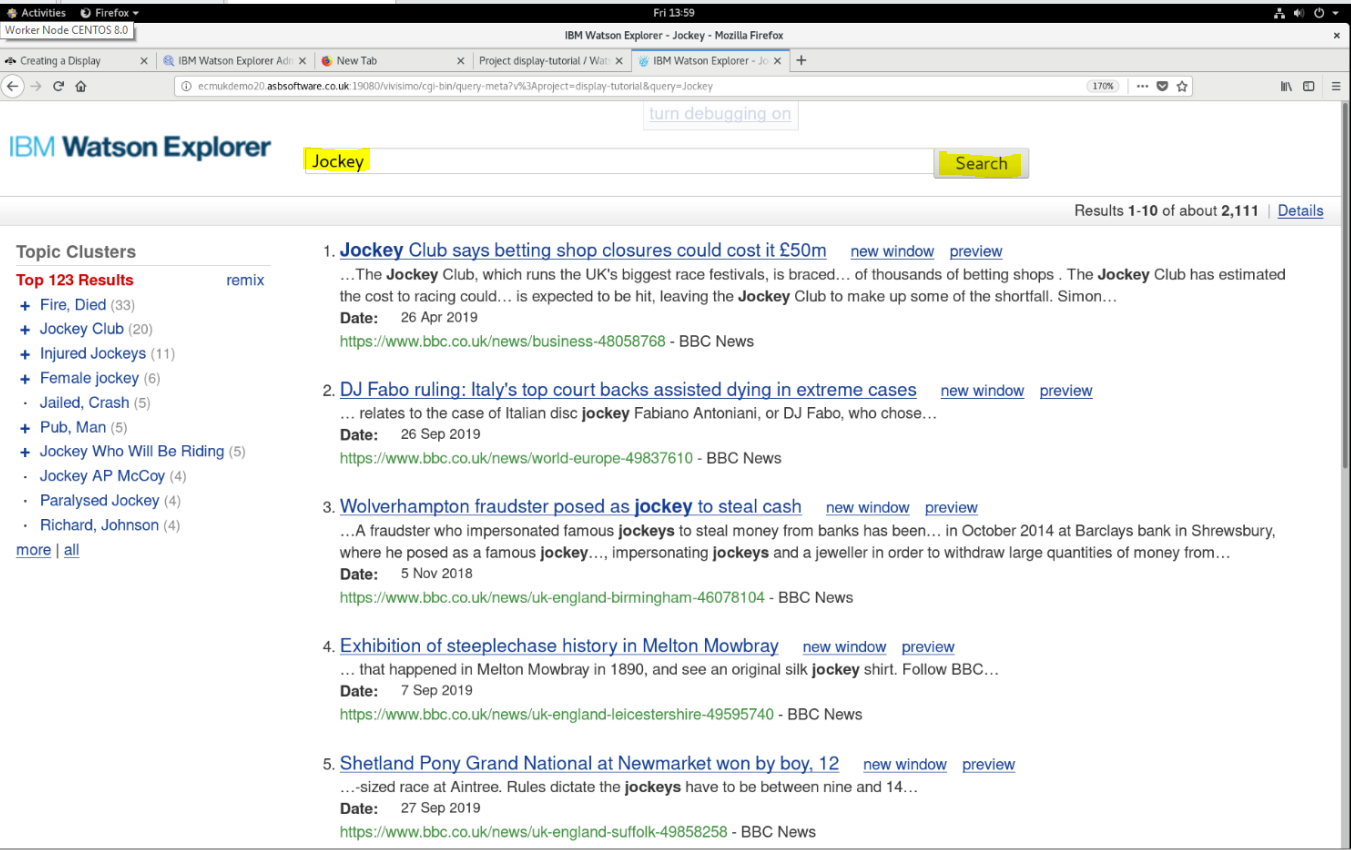
Enter testing as a search string and click Search



The screen below is displayed:



Enter Jockey to see a subset (as in the IBM Tutorial!)



My URL is

<http://ecmukdemo20.asbsoftware.co.uk:19080/vivisimo/cgi-bin/query-meta?v%3Aproject=display-tutorial&query=Jockey>

REF:

<https://www.ibm.com/support/knowledgecenter/SS8NLW_12.0.0/com.ibm.swg.im.infosphere.dataexpl.engine.tut.display.doc/c_display-tut-customizing.html>

# Appendix A – server.xml of the Application Builder web app

**<server description="AppBuilder">**

**<webContainer useoriginalrequeststate="true"></webContainer>**

**<!-- Enable features -->**

**<featureManager>**

**<feature>servlet-3.0</feature>**

**<feature>appSecurity-1.0</feature>**

**<feature>ldapRegistry-3.0</feature>**

**</featureManager>**

**<httpEndpoint id="defaultHttpEndpoint" host="\*" httpPort="8080" httpsPort="9088"></httpEndpoint>**

**<!-- Hard-coded username and password to allow initial configuration -->**

**<basicRegistry id="basic" realm="customRealm">**

**<user name="data-explorer-admin" password="TH1nk1710"></user>**

**</basicRegistry>**

**<!-- Sample LDAP configuration:**

**\* Keep the value of the realm attribute as Login. It matches the value**

**of the <realm-name> node that is referenced in the web.xml file, which**

**is located in the**

**/WEX/AppBuilder/wlp/usr/servers/AppBuilder/apps/AppBuilder/WEB-INF**

**directory. The value is determined by Application Builder code.**

**\* Change the baseDN to the node which is the parent of both the Users**

**and Groups DNs**

**\* Change the bindDN to the DN of an account in the LDAP server, created**

**for the Application Builder service**

**\* The value for the userFilter and userIdMap user entry attributes**

**("sAMAccountName" in the following example) should be set in**

**Application Builder in the user entity's "Identifier" field. If you**

**use the LDAP directory as the data store that populates the user**

**entity, it is optional to select the value from the "Login with field"**

**list. However, if you use a search collection as the data store to**

**authorize user names that are authenticated with the LDAP registry,**

**you must select the value from the "Login with field" list.**

**-->**

**<!-- Sample LDAP configuration -->**

**<!--**

**<ldapRegistry**

**id="ldap"**

**realm="Login"**

**host="sample.ibm.com"**

**port="389"**

**ignoreCase="true"**

**baseDN="DC=sample,DC=ibm,DC=com"**

**bindDN="sample@sample.ibm.com"**

**bindPassword="PASSWORD"**

**ldapType="Microsoft Active Directory">**

**<activedFilters**

**userFilter="(&amp;(sAMAccountName=%v)(objectClass=user))"**

**groupFilter="(&amp;(cn=%v)(objectClass=group))"**

**userIdMap="user:sAMAccountName"**

**groupIdMap="\*:cn"**

**groupMemberIdMap="memberOf:member">**

**</activedFilters>**

**</ldapRegistry>**

**-->**

**<!-- Sample LDAP configuration with SSL enabled -->**

**<!--**

**<ldapRegistry**

**id="ldap"**

**realm="Login"**

**host="ldap.sample.com"**

**port="389"**

**ignoreCase="true"**

**baseDN="DC=sample,DC=ibm,DC=com"**

**bindDN="sample@sample.ibm.com"**

**bindPassword="PASSWORD"**

**ldapType="Microsoft Active Directory"**

**sslEnabled="true"**

**sslRef="LDAPSSLSettings">**

**<activedFilters**

**userFilter="(&amp;(sAMAccountName=%v)(objectClass=user))"**

**groupFilter="(&amp;(cn=%v)(objectClass=group))"**

**userIdMap="user:sAMAccountName"**

**groupIdMap="\*:cn" groupMemberIdMap="memberOf:member">**

**</activedFilters>**

**</ldapRegistry>**

**<sslDefault sslRef="LDAPSSLSettings" />**

**<ssl id="LDAPSSLSettings"**

**keyStoreRef="LDAPKeyStore"**

**trustStoreRef="LDAPTrustStore" />**

**<keyStore id="LDAPKeyStore"**

**location="installation\_directory/WEX/AppBuilder/wlp/usr/servers/AppBuilder/sslCert.jks"**

**type="JKS" password="PASSWORD" />**

**<keyStore id="LDAPTrustStore"**

**location="installation\_directory/AppBuilder/wlp/usr/servers/AppBuilder/sslCert.jks"**

**type="JKS" password="PASSWORD" />**

**-->**

**<!--**

**Security role configuration:**

**\* Ensure the group name(s) nested in the ApplicationBuilderUsers security**

**role has the same value as the "cn" attribute of the group(s) to which**

**acccess is being restricted.**

**\* Multiple "group" elements can be used to allow access to multiple LDAP**

**groups.**

**\* If an attribute other than "cn" is used for group identifier, change it**

**above in both the "groupFilter" and the "groupIdMap" attributes above.**

**\* If all WebSphere-authenticated users should get access to Application**

**Builder, then replace all "group" elements with the "special-subject"**

**entry commented out below.**

**-->**

**<application type="war" id="AppBuilder" name="AppBuilder" location="${server.config.dir}/apps/AppBuilder">**

**<application-bnd>**

**<security-role name="ApplicationBuilderUsers">**

**<!-- Use one or more group or user elements to restrict Application**

**Builder access -->**

**<!--**

**<group name="REPLACE\_THIS\_WITH\_THE\_CUSTOMER\_LDAP\_GROUP"/>**

**<user name="REPLACE\_THIS\_WITH\_ADDITIONAL\_USER\_TO\_BE\_GRANTED\_ACCESS"/>**

**-->**

**<!-- Use this entry, rather than groups or users , if all LDAP**

**authenticated users should be granted access to Application**

**Builder. -->**

**<special-subject type="ALL\_AUTHENTICATED\_USERS"></special-subject>**

**</security-role>**

**</application-bnd>**

**</application>**

**<applicationMonitor updateTrigger="disabled" dropinsEnabled="false"></applicationMonitor>**

**<mimeTypes>**

**<type>svg=image/svg+xml</type>**

**<type>SVG=image/svg+xml</type>**

**<type>ico=image/vnd.microsoft.icon</type>**

**<type>ICO=image/vnd.microsoft.icon</type>**

**</mimeTypes>**

**</server>**

# Appendix B – Integration of the Watson Explorer services into the startup of Linux

REF <https://www.ibm.com/support/knowledgecenter/SS8NLW_12.0.0/com.ibm.swg.im.infosphere.dataexpl.install.doc/c_de-init.html>

For users of **Systemd** initialization system, for example RHEL 7 (**and CENTOS 8**), service scripts are automatically tied into startup and shutdown mechanisms after enabling the background service.

# Appendix C – Deprecated Features of Watson Explorer 12.0.x

REF:

<https://www.ibm.com/support/pages/release-notes-ibm-watson-explorer-foundational-components-version-120#new12031>

Effective with Watson Explorer V12, the following features in Watson Explorer Foundational Components are included as a convenience, but will be removed in the subsequent releases.

* **Results Module**
* **Big Index**
* The Collection Broker
* SMB Connector supports SMB 1.0 only.

The following data source connectors in Watson Explorer Foundational Components are included as a convenience and will no longer be supported. They will be removed in subsequent releases.

* Large Database Connector
* Legacy SharePoint Connector
* Universal SAP KM Connector
* Enovia Connector
* Exchange 2003 / 2007 Connector
* SMB Fileshares Connector
* Confluence Connector
* IBM Web Content Manager Connector