



Product: OpenText™ Magellan™ Auto-Classification
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Platform: All
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White Paper

OpenText™ Magellan™ Auto-Classification Deployment and Troubleshooting Guide

Contents

Introduction	3
Sample of an Installation Worksheet	4
OTAC + IF Architecture Diagram - High Level Overview.....	5
OTAC Content Server Module Installation.....	6
Alternate Advclass web configuration (similar to how other modules handle it):.....	7
Download locations for Magellan InfoFusion Components:	8
IF Zookeeper.....	8
IF Integration Service.....	8
IF Integration Services - Content Server CWS Connector:.....	9
IF Conversion Service	9
OTDS.....	10
Enterprise Library Services (ELS)?	11
InfoFusion Search API.....	12
Ingestion Pipeline	14
OTAC Preparation	16
OTAC Crawler Installation.....	17
OTAC Classifier Installation	19
OTAC Statistics Installation.....	22
OTAC Orchestrator Installation	23
OTAC Installer (Main GUI Dashboard)	25
Final OTAC Installation Process	31
OTAC Dashboard Walkthrough	31
Troubleshooting / Most Important KB's.....	37
OTAC - Logs and Tips to better identify unexpected events	37
OTAC Services.....	37
External Components (InfoFusion).....	38
Solr : The persistence Database.....	38
Zookeeper Service	39
InfoFusion Admin UI.....	39
Conversion Service.....	40
Common miss-configurations (Questions & Answers)	41
About OpenText	47

Introduction

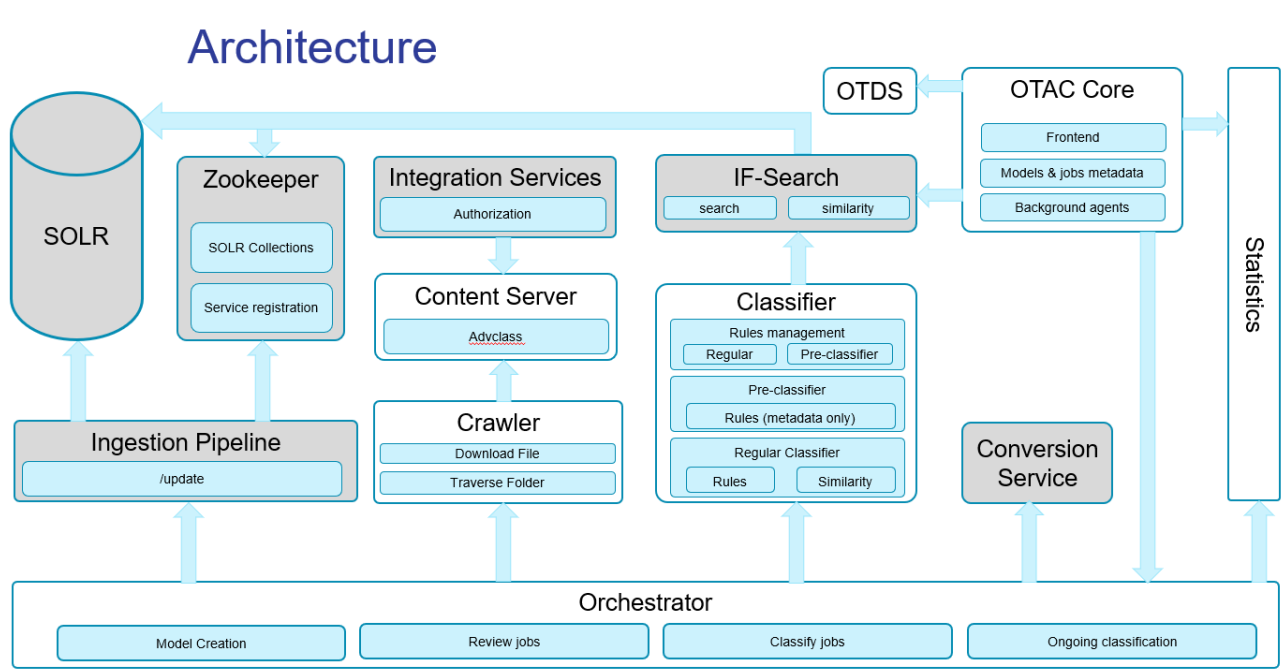
The purpose of this OpenText™ Magellan™ Auto-Classification (OTAC) Whitepaper is to be used as a supplement to the official documentation. This guide aims to provide a more in-depth description of the product's architecture, to assist in deployment and troubleshooting.

To ensure greatest probability of a successful deployment, it is strongly recommended to follow the OpenText™ InfoFusion™ Platform 16.6 Installation Guide, Auto-Classification 16.6 Installation Guide as well as this White Paper.

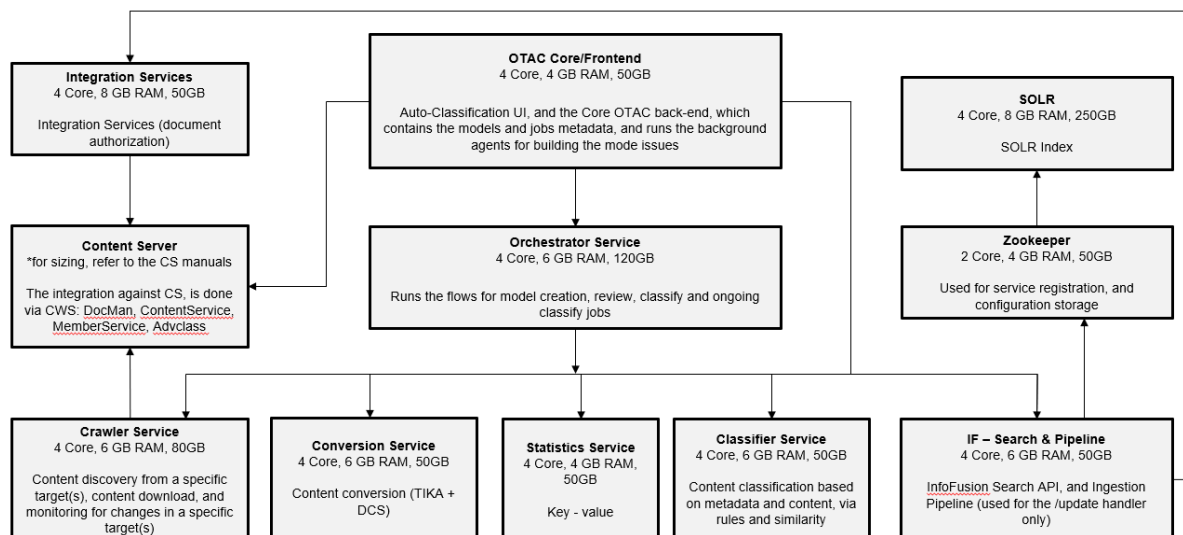
Sample of an Installation Worksheet

Component	Details	Ports	UI Access
Classifier	DB: Requires its own SQL DB Service: OpenText auto-classification classifier service	9196,9195,9194 8784	n/a
OTAC (Dashboard)	DB: Point installer to same DB created in Classifier install. It will generate additional tables. Service: OTSP, Auto-Classification Dashboard	9999, 8888	Main OTAC: http://hostname:8888 Login: CS credentials
Crawler		9197, 8783	n/a
Orchestrator		9198, 8782	n/a
Statistics	DB: Derby built-in	9193, 8786	n/a
IF Zookeeper		2181	No built-in UI 3rd party use: https://github.com/echoma/zkui/wiki/Download
IF Solr	DB: Solr, UI login: admin /admin	8983	http://hostname:8983/solr
IF Integration Services	DB: SQL, UI login: admin /admin	18080	http://hostname:18080/ifis-admin-gui
IF Search API Secured	security enabled, UI login: admin /admin swagger: http://localhost:7170/otif/ (test / update users / configs)	7070, 7470, 7170	http://hostname:7170
IF Search API Unsecured	security disabled, UI login: admin /admin	17070, 17470, 17170	http://hostname:17170
IF Ingestion Pipeline	UI login: admin /admin	7071, 7471	http://hostname:7171
IF Doc Conversion Svcs	accessed internally within IF	9799	http://hostname:9993
Content Server/OTDS	Each has its own database	CS: 80, OTDS: 8002 or 8080	http://hostname/OTCSa/cs.exe http://hostname:8002/otds-admin

OTAC + IF Architecture Diagram - High Level Overview



Sizing & Scalability



OTAC Content Server Module Installation



NOTE: Log in as a local administrator account on the servers in which you will install the components.

1. Install 16.0.0 or **16.2_cs_advclass_setup64_win.exe** for version of CS you will use with OTAC on the Content Server instance.
2. On the CS admin page for OTAC you do not need to enter any values for OTAC Configuration screen.
3. ON the CS admin page for OTAC, managed objects, check the objects that you want OTAC Classifications to manage. See screenshot here that goes with steps to configure the app in IIS:

Figure 1

The screenshot shows the 'Add Application' dialog box in IIS Manager. The fields are as follows:

- Site name: Default Web Site
- Path: /
- Alias: cs-services-advclass
- Application pool: DefaultAppPool (with a 'Select...' button)
- Example: sales
- Physical path: C:\OPENTEXT\webservices\dotnet\cs-services-advclass (with a browse button '...')
- Pass-through authentication:
 - Connect as... (button)
 - Test Settings... (button, highlighted with a blue border)
- ☐ Enable Preload
- OK (button)
- Cancel (button)



NOTE: If you test this endpoint with <http://cshost/cs-services-advclass/advclass.svc?wsdl> and get a 404.17 error, proceed to follow these steps:

May 2021: The OTAC 16.6 install steps for advclass web service setup should be successful so the below steps normally should NOT be required. Follow the documented steps if possible.

Alternate Advclass web configuration (similar to how other modules handle it):

- Follow the steps in OTAC guide section 2.1.3.
- after adv Class module install it adds resources into a newly created directory in C:\OPENTEXT\webservices\dotnet\cs-services-advclass
- open the web.config file copy within this directory as well as the copy cws\web.config file used by the other CS endpoints.
- from the adv class web.config copy the <behaviors>, the two <binding> sections, and <service behaviorconfiguration...> into corresponding sections of the cws web.config file.

Section 1 - WARN: put this within <serviceBehaviors> not <endpointBehaviors>

```
<behavior name="AdvclassBehavior">
<serviceMetadata httpGetEnabled="true" httpGetUrl="" />
<serviceDebug includeExceptionDetailInFaults="true" httpHelpPageUrl="" />
</behavior>
```

Section 2:

```
<binding name="AdvclassBinding" maxReceivedMessageSize="1024000"
messageEncoding="Text" transferMode="Buffered">
<security mode="None">
<transport clientCredentialType="None"/>
</security>
</binding>
<binding name="AdvclassBinding_SSL" maxReceivedMessageSize="1024000"
messageEncoding="Text" transferMode="Buffered">
<security mode="Transport">
<transport clientCredentialType="None"/>
</security>
</binding>
```

Section 3:

```
<service behaviorConfiguration="AdvclassBehavior"
name="OpenText.Livelink.Service.Advclass.Advclass_WCF">
<endpoint address="" binding="basicHttpBinding" bindingConfiguration="AdvclassBinding"
bindingNamespace="urn:Advclass.service.livelink.opentext.com"
contract="OpenText.Livelink.Service.Advclass.IAdvclass_WCF" />
<!-- SSL disabled
<endpoint address="" binding="basicHttpBinding" bindingConfiguration="AdvclassBinding_SSL"
bindingNamespace="urn:Advclass.service.livelink.opentext.com"
contract="OpenText.Livelink.Service.Advclass.IAdvclass_WCF" />
-->
</service>
```

Download locations for Magellan InfoFusion Components:

Only download and install the specific InfoFusion/Magellan components that the OTAC install guide asks you to install.

Whenever available, install the version 16.6 of InfoFusion component, or one version back (16.5) as not all components had an update to 16.6.

On the **Knowledge Center > Downloads** location, you can find all the downloads under the following products:

- InfoFusion Platform
- Magellan Text Mining Engine
- InfoFusion Platform > ECM Edition

IF Zookeeper

3rd party Zookeeper UI to verify functionality as noted in Installation Worksheet example.

Follow this article to increase ephemeral ports and **tcp timedwaitdelay** as these OS limits can be easily reached when installing all IF components on one server:
<https://knowledge.opentext.com/knowledge/cs.dll/kcs/kbarticle/view/KB8091289>

IF Integration Service

- you may use steps in documentation for install/configure and the below is additional details that may be useful.
- OTAC doc lists a specific version of IFIS to use "16.0.4" that doesn't exist, Services confirmed they had used IFIS 16.2 so this may be documentation error, you can use latest version available.
- Ensure that the IFIS-server as well as rest of the IFIS services are running by checking for these in the IS UI, Instances screen. In order for IFIS-server to be run you have to do the "configuration" of IFIS to activate OTDS resource.
- `C:\Program Files\OpenText\OpenText InfoFusion 16.6\Integration Services1\webapps\ifis-server\WEB-INF\web.xml > allowotdscookieauthentication must be TRUE as well as the other auth methods.`

IF Integration Services - Content Server CWS Connector:



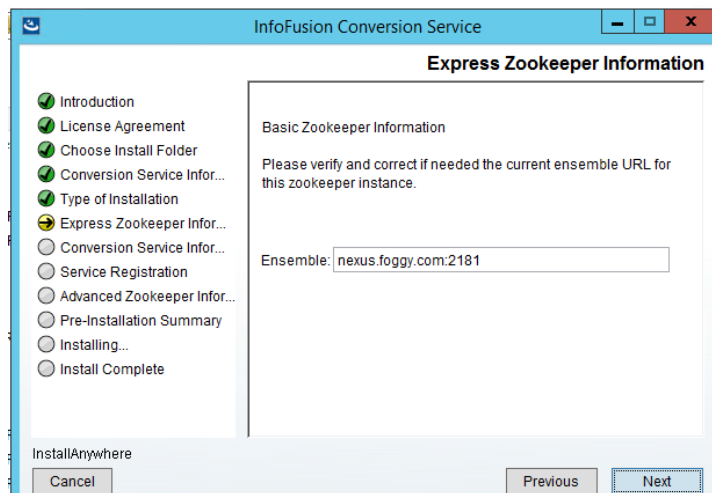
NOTE: Based on support testing, OTAC only uses IFIS as a sort of gateway to access components of IF, however OTAC installations will ask for your connector ID # so you must set up the connector.

- Link to the Content Server connector to be used with this for OTAC:
<https://knowledge.opentext.com/knowledge/llisapi.dll?func=ll&objId=68338469&objAction=browse&viewType=1>
- Create a new directory within IFIS\connectors folder and extract contents of zip into here.
- Make sure to restart IFIS and then choose the "Discovery" option on the repo types screen.
- You may also be able to use the CS REST connector, but I have tested it on the CWS version.
- CS CWS connector – follow connector's release notes for install and setup information.
 - Required configuration parameters are:
 - CS user / password
 - CS host, CS port
 - The core CWS endpoints: AdminService, Authentication, DocumentManagement, ContentService

IF Conversion Service

- Ensure that the installation path is as short as possible (do not use the default) or one of the services may not start.

Figure 2



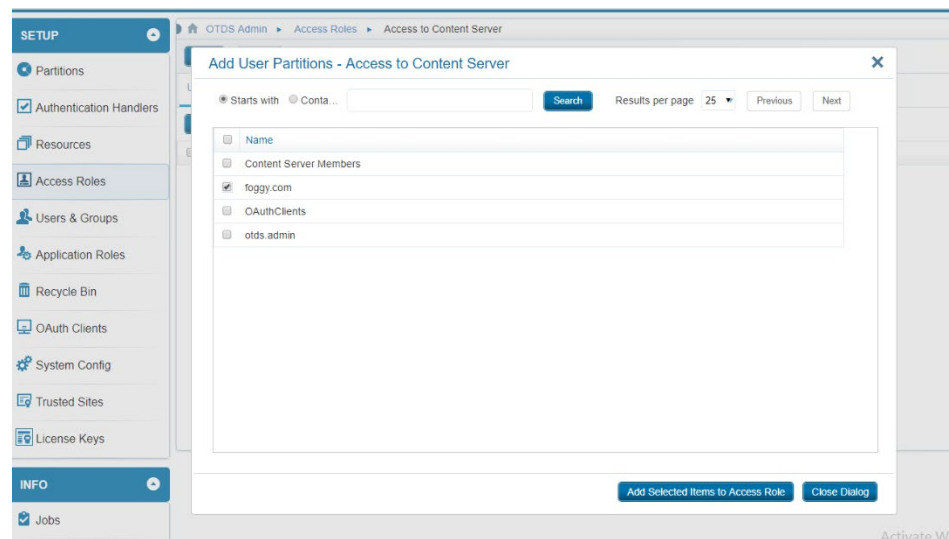
The **opentext infofusion conversion service** and **opentext infofusion DCS** should be running now (if DCS is not then your install path is too long).

OTDS

- OTAC requires OTDS with Active Directory users and groups associated.
- Login to **OTDS > partitions > add partition > encryption = simple > Authentication = simple**, use the username format **username@domain.com** >
- The rest of the settings remain as **default > Access Roles** > on "**Access to CS**" click **Actions** > choose your domain partition just created to "link" this OTDS and your domain's AD users and groups partition together.

In **Access Roles**, for **IFIS role** > **Actions** > **view access role details** > **Add** > choose **same domain** to link as in previous step (this will later allow "sign in to IS" to work for the IFIS CS connector).

Figure 3



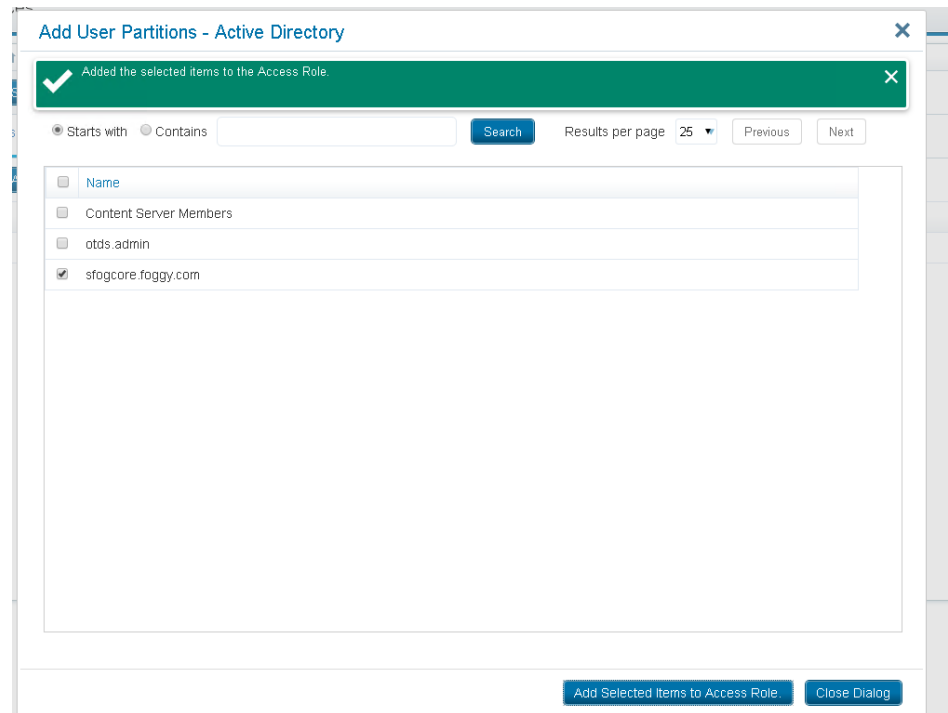


Figure 4

Testing if this worked: You can test by creating a user in your AD then check in your CS users and groups as well as OTDS users and groups to find the user has been auto synchronized.

Enterprise Library Services (ELS)?

The install guide mentions this as a required component; however, it is not required as a critical component of OTAC. If installed, it does take care of the automatic support of additional managed objects such as the Email subtype. If you do not install ELS, you can use the below manual configuration steps if you need OTAC to work with Emails.

Alternate Config: Manual entry of the supported node types into `opentext.ini` and **CS admin page > Managed objects > check all**. Servers as the manual configuration when ELS is not in use.

Opentext.ini entry:

```
[Classification]
```

```
RegisteredSubTypes={199,196,551,426,427,829}
```

InfoFusion Search API

Figure 5

Figure 6

Figure 7

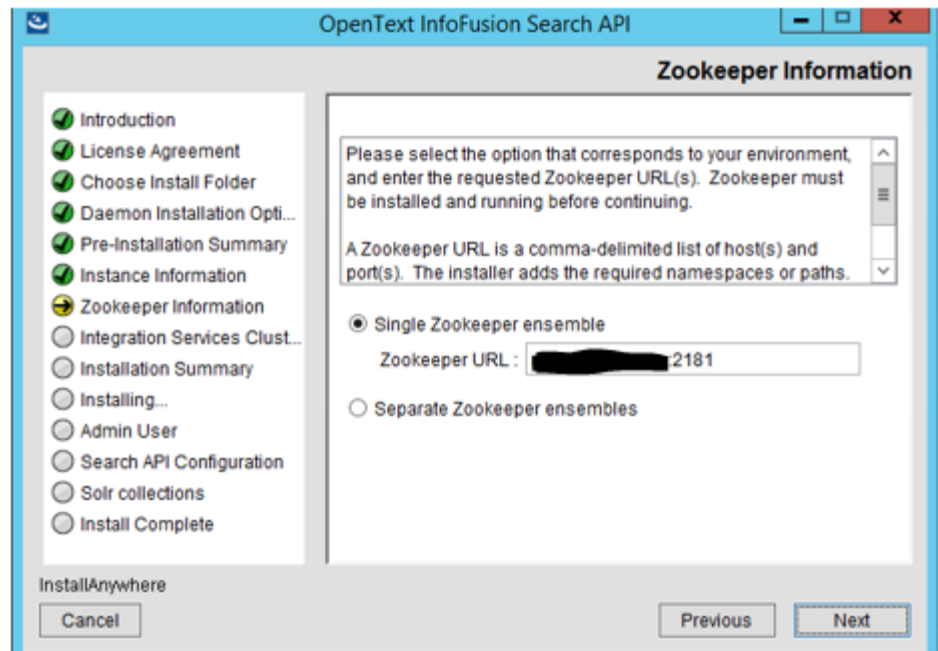
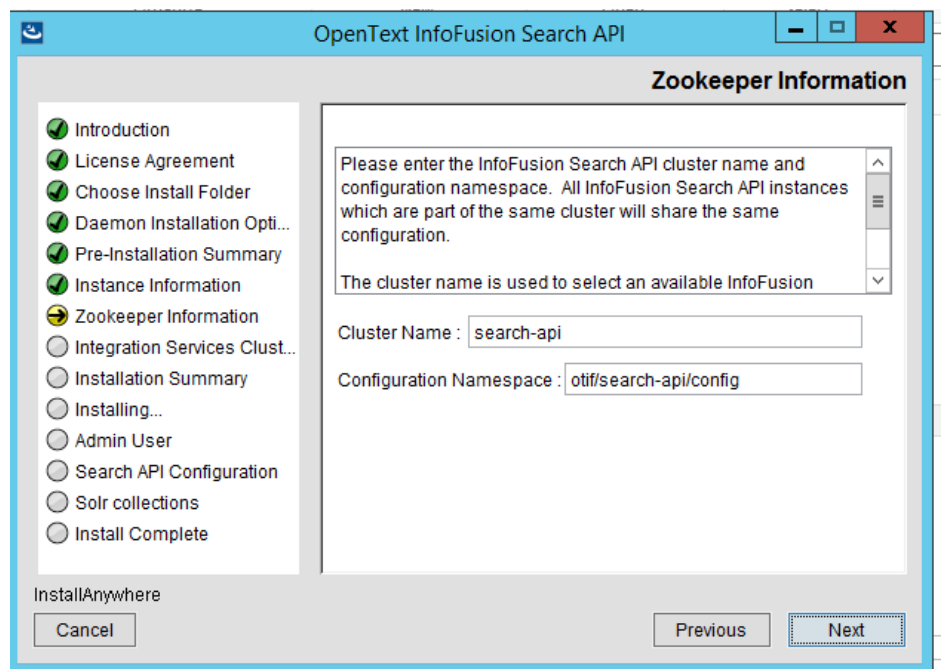


Figure 8



- Admin page is hostname:7170
- Step clarification comment: In OTAC step by step confluence page "**search api infofusion settings**" The repo id defined in IS + name" is the ID of the Content Server CWS connector.
- OTAC needs to use one secured API for Search (default port : 7170) AND another one unsecured (default 17170). Each of them need to know which repo to use (1) and which Default Collection to use (3) and obviously should be the same.

If during the installation the user selected «unsecured installation», the « security » tab (2) is automatically set to «SECURITY: FALSE»

- it requires 2 instances of the search api installed, one on 7170 port and other on 17170.
- the 1st instance of the search api should have path name modified with "unsecured" appended and in the config screens modify cluster name to "unsecured-search-api" as this is what OTAC default is expecting.

Cluster name: ensure that secured instance of Search API cluster name is "search-api" and the unsecured instance name is "unsecured-search-api" as this is what the OTAC installation will be expecting later.

Ingestion Pipeline

- OTAC requires you to select only the option "**Persist data in Solr**".

Figure 9

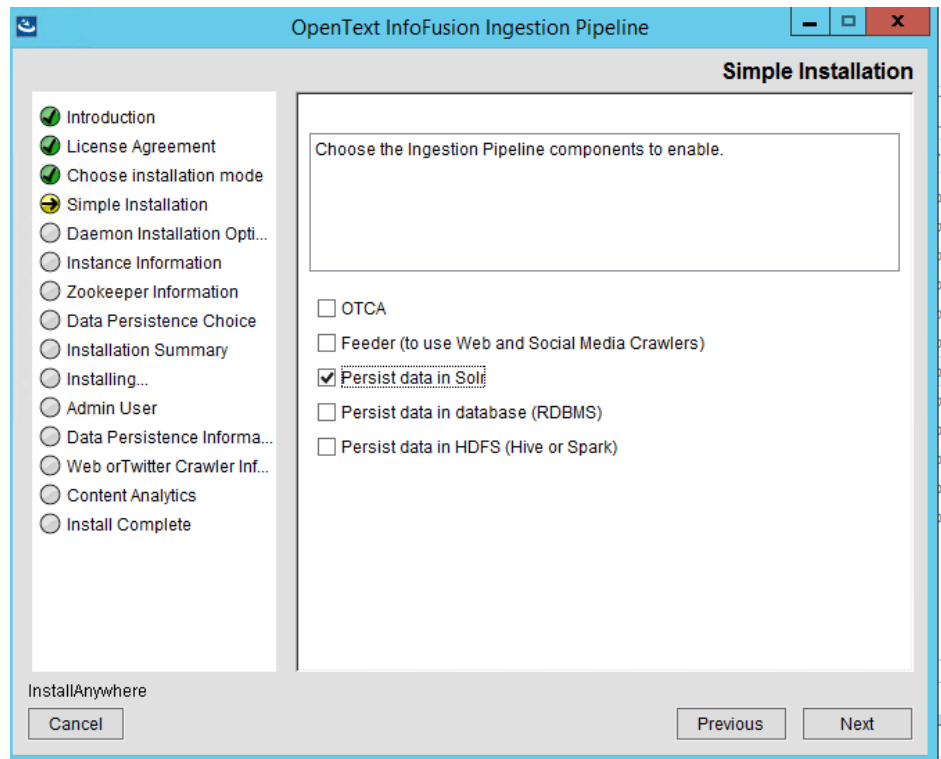
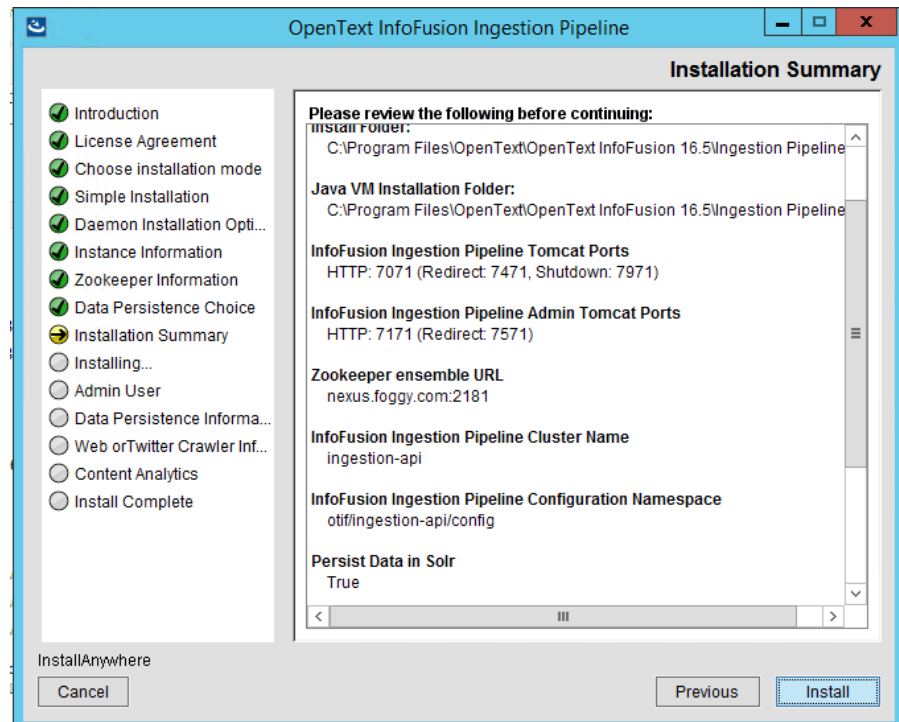


Figure 10



NOTE: Regarding Install Guide's mention of pushing OTAC collections to Solr.

In the first portion of the guide, it says to run an OTAC command to push OTAC collections to Solr. You can disregard at this time because you have not yet installed the OTAC components containing this command yet. Once OTAC components are installed and running, you can come back to this section and perform the steps.

OTAC Preparation

OTDS Resource Activation Steps:

- OTDS secret key generator tool download:
<https://knowledge.opentext.com/knowledge/lisapi.dll?func=ll&objId=56177613&objAction=browse&viewType=1>
- Download and install JDK 1.8 (latest compatible for OTAC) > REBOOT SYSTEM

command: java -jar c:\patch-1.4.2\otds-resource-utility\otac-otds-otds-utils-10.5.jar -activate -resid <your resource id from otds admin page> -otds http://<otds hostname>:8002

If you like, add a pipe to this command to write output into text file for easier copying of secret key.

If successful you should see something like the below:

Figure 11

```
Administrator: Command Prompt
Unrecognized option: -jarfile
Error: Could not create the Java Virtual Machine.
Error: A fatal exception has occurred. Program will exit.

C:\Windows\system32>java -jarfile c:\patch-1.4.2\otds-resource-utility\otac-otds-otds-utils-10.5.jar -activate -resid ae48da7a-862b-404f-bd2d-0c2a1e3cc44a -otds http://tesla.foggy.com:8002
Unrecognized option: -jarfile
Error: Could not create the Java Virtual Machine.
Error: A fatal exception has occurred. Program will exit.

C:\Windows\system32>java -jar c:\patch-1.4.2\otds-resource-utility\otac-otds-otds-utils-10.5.jar -activate -resid ae48da7a-862b-404f-bd2d-0c2a1e3cc44a -otds http://tesla.foggy.com:8002
Mar 29, 2019 10:29:54 PM com.opentext.otds.client.OtdsClient <init>
INFO: OtdsClientImpl constructed. resource ID='ae48da7a-862b-404f-bd2d-0c2a1e3cc44a'
Mar 29, 2019 10:29:54 PM com.opentext.otds.client.OtdsClientBase initializeConnectionWithRetry
INFO: initializeConnectionWithRetry(): Attempting connection #0 of 0
[main] INFO com.opentext.otac.otds.utils.OTDSResourceManageCLI - Activated resource:
[main] INFO com.opentext.otac.otds.utils.OTDSResourceManageCLI - resid: ae48da7a-862b-404f-bd2d-0c2a1e3cc44a
[main] INFO com.opentext.otac.otds.utils.OTDSResourceManageCLI - secret: 9BF0B36EFD464CEF741142256DF7D7EF
```


OTAC Crawler Installation

Figure 12

IzPack - Installation of OpenText Auto-Classification Crawler Service

opentext™ | Auto-Classification Crawler Service

Please provide the information for Auto-Classification Crawler Service

Crawler Service Host:

Crawler Service Port:

Crawler Service Swagger Port:

(Made with IzPack - <http://izpack.org/>)

Step 6 of 13

Previous Next Quit

Figure 13

IzPack - Installation of OpenText Auto-Classification Crawler Service

opentext™ | Auto-Classification Crawler Service

Please review the default values and provide the settings for ZooKeeper for Crawler Service

Crawler ZooKeeper Ensemble:

ZooKeeper Configuration Namespace:

ZooKeeper Cluster Name for Crawler Service:

ZooKeeper Cluster Name for Statistics Service:

Download path:

(Made with IzPack - <http://izpack.org/>)

Step 7 of 13

Previous Next Quit

Figure 14

IzPack - Installation of OpenText Auto-Classification Crawler Service

opentext™ | Auto-Classification Crawler Service

Please provide the information for Content server and WSDL URL information

Protocol:

Host Name:

Repository ID:

Authentication:

Content Service:

Document Management:

Member Service:

Advanced Auto-Classification:

Admin User Name:

Admin Password:

(Made with IzPack - http://izpack.org/)

Step 8 of 13

Previous Next Quit

- Test the wsdl links to make sure they work (should show an xml page).
- In Crawler installation when prompted for base URL it is this format: http://otds host:8002 or possibly 8080 (internal OTDS / external OTDS).
- Zookeeper host: use *IP address*:2181

OTAC Classifier Installation

Figure 15

IzPack - Installation of OpenText Auto-Classification Classifier Service

opentext™ | Auto-Classification Classifier Service

Please provide the information for OpenText Directory Services (OTDS)

Login Base URL:

Content Server Resource ID:

Auto-Classification Resource Secret:

Auto-Classification Resource ID:

(Made with IzPack - http://izpack.org/)

Step 11 of 15

Previous Next Quit

Figure 16

IzPack - Installation of OpenText Auto-Classification Classifier Service

opentext™ | Auto-Classification Classifier Service

Please provide the information for Auto-Classification Classifier Service

Classifier Service Host:

Classifier Service Port:

Preclassifier Service Port:

Rules Management Service Port:

Classifier Service Swagger Port:

(Made with IzPack - http://izpack.org/)

Step 6 of 15

Previous Next Quit

Figure 17

Figure 17 is a screenshot of the 'IzPack - Installation of OpenText Auto-Classification Classifier Service' window, specifically the 'Please review the default values and provide the settings for ZooKeeper for Classifier Service' step. The window title is 'IzPack - Installation of OpenText Auto-Classification Classifier Service'. The OpenText logo and 'Auto-Classification Classifier Service' are displayed at the top. The main content area contains a list of settings for ZooKeeper, each with a label and a text input field. The settings are: Classifier ZooKeeper Ensemble (nexus.foggy.com:2181), ZooKeeper Configuration Namespace (/ot/service-registry), ZooKeeper Cluster name for Classifier Service (classifier-service), ZooKeeper Cluster name for Classifier Management Service (classifier-management-service), ZooKeeper Cluster name for Pre-Classifier Service (preclassifier-service), ZooKeeper Cluster name for Pre-Classifier Management Service (preclassifier-management-service), ZooKeeper Cluster name for Rules Service (rules-service), ZooKeeper Cluster name for InfoFusion Search API (search-api), and ZooKeeper Cluster name for InfoFusion Unsecured Search API (unsecured-search-api). At the bottom, it says '(Made with IzPack - http://izpack.org/)', 'Step 7 of 15', and buttons for 'Previous', 'Next', and 'Quit'.

Setting	Value
Classifier ZooKeeper Ensemble:	nexus.foggy.com:2181
ZooKeeper Configuration Namespace:	/ot/service-registry
ZooKeeper Cluster name for Classifier Service:	classifier-service
ZooKeeper Cluster name for Classifier Management Service:	classifier-management-service
ZooKeeper Cluster name for Pre-Classifier Service:	preclassifier-service
ZooKeeper Cluster name for Pre-Classifier Management Service:	preclassifier-management-service
ZooKeeper Cluster name for Rules Service:	rules-service
ZooKeeper Cluster name for InfoFusion Search API:	search-api
ZooKeeper Cluster name for InfoFusion Unsecured Search API:	unsecured-search-api

Figure 18

Figure 18 is a screenshot of the 'IzPack - Installation of OpenText Auto-Classification Classifier Service' window, specifically the 'Please provide the information for Content Server' step. The window title is 'IzPack - Installation of OpenText Auto-Classification Classifier Service'. The OpenText logo and 'Auto-Classification Classifier Service' are displayed at the top. The main content area contains a list of settings for the Content Server, each with a label and a text input field. The settings are: Protocol (http), Host Name (tesla.foggy.com), Repository ID (2), Content Server Admin Username (Admin), and Content Server Admin Password (masked with dots). At the bottom, it says '(Made with IzPack - http://izpack.org/)', 'Step 9 of 15', and buttons for 'Previous', 'Next', and 'Quit'.

Setting	Value
Protocol:	http
Host Name:	tesla.foggy.com
Repository ID:	2
Content Server Admin Username:	Admin
Content Server Admin Password:	••••••••

Figure 19



NOTE: for above screenshot, the login base URL For an internal OTDS should be: `http://otdshost:8002`.



NOTE: Classifier's DB script requires you use SQL with default instance (SQL servername only). Installation is not possible if you use a SQL Server with named instance (ex: `servername\instancename`)
-Zookeeper host: use `IP address:2181`

OTAC Statistics Installation

Figure 20

IzPack - Installation of OpenText Auto-Classification Statistics Service

opentext™ Auto-Classification Statistics Service

Please provide the information for Auto-Classification Statistics Service

Statistics Service Host:

Statistics Service Port:

Statistics Service Swagger Port:

(Made with IzPack - <http://izpack.org/>)

Step 6 of 11

Previous Next Quit

Figure 21

IzPack - Installation of OpenText Auto-Classification Statistics Service

opentext™ Auto-Classification Statistics Service

Please review the default values and provide the settings for ZooKeeper for Statistics Service

Statistics ZooKeeper Ensemble:

ZooKeeper Configuration Namespace:

ZooKeeper Cluster Name for Statistics Service:

(Made with IzPack - <http://izpack.org/>)

Step 7 of 11

Previous Next Quit

- This component does not require use of separate DB, it uses a packed in Derby database.

OTAC Orchestrator Installation

Figure 22

IzPack - Installation of OpenText Auto-Classification Orchestrator Service

opentext™ | Auto-Classification Orchestrator Service

Please provide the information for Auto-Classification Orchestrator Service

Service Host:

Service Port:

Service Swagger Port:

(Made with IzPack - <http://izpack.org/>)

Step 6 of 13

Previous Next Quit

Figure 23

IzPack - Installation of OpenText Auto-Classification Orchestrator Service

opentext™ | Auto-Classification Orchestrator Service

Please review the default values and provide the settings for ZooKeeper for Orchestrator Service

Orchestrator ZooKeeper Ensemble:

ZooKeeper Configuration Namespace:

ZooKeeper Cluster Name for Orchestrator Service:

(Made with IzPack - <http://izpack.org/>)

Step 7 of 13

Previous Next Quit

Figure 24

IzPack - Installation of OpenText Auto-Classification Orchestrator Service

opentext™ | Auto-Classification Orchestrator Service

Please provide the dependent services registration names

Crawler Service Registration Name:	<input type="text" value="crawler-service"/>
Conversion Service Registration Name:	<input type="text" value="conversion-service"/>
Classifier Service Registration Name:	<input type="text" value="classifier-service"/>
Pre-Classifier Service Registration Name:	<input type="text" value="preclassifier-service"/>
Statistics Service Registration Name:	<input type="text" value="statistics-service"/>
ZooKeeper Cluster name for InfoFusion Unsecured Search API:	<input type="text" value="unsecured-search-api"/>
ZooKeeper Cluster Name for InfoFusion Ingestion Pipeline:	<input type="text" value="ingestion-api"/>

(Made with IzPack - <http://izpack.org/>)

Step 8 of 13

Previous Next Quit

Figure 25

IzPack - Installation of OpenText Auto-Classification Orchestrator Service

opentext™ | Auto-Classification Orchestrator Service

Please provide the information for Content Server

Protocol:	<input type="text" value="http"/>
Host Name:	<input type="text" value="tesla.foggy.com"/>
Authentication WSDL URL:	<input type="text" value="/cws/Authentication.svc?wsdl"/>
Advanced Auto-Classification WSDL URL:	<input type="text" value="/cws/Advclass.svc?wsdl"/>

(Made with IzPack - <http://izpack.org/>)

Step 9 of 13

Previous Next Quit

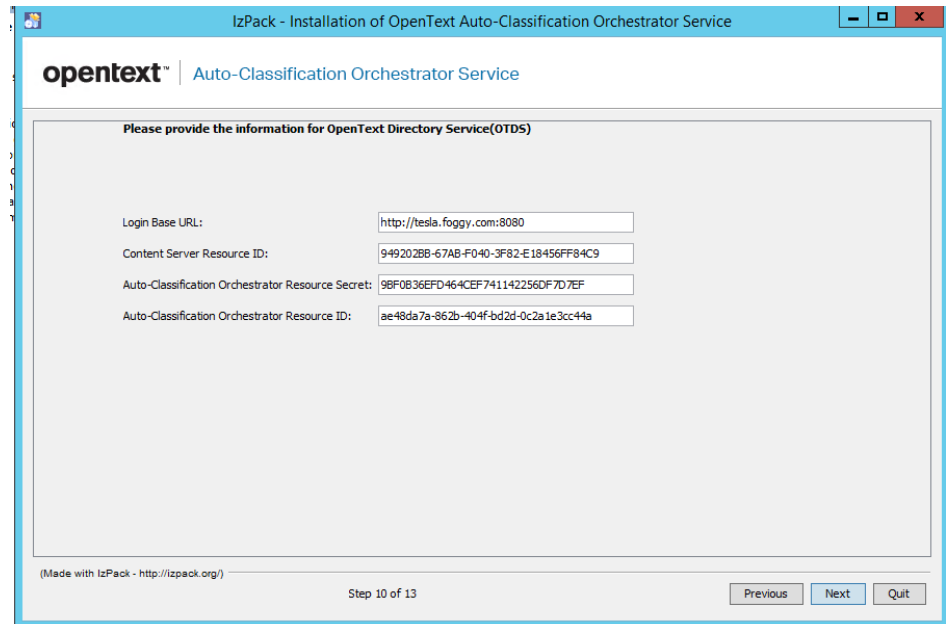


Figure 26

- The 5th install screen (OTDS parameters) calls the secret and resource ID's "Auto-Classification Orchestrator Resource ID" and "Auto Classification Resource Secret" but it is not a separate orchestrator secret and resource ID, just enter the same OTAC secret key and resource ID as in the previous OTAC installers.

OTAC Installer (Main GUI Dashboard)

- Confirmed that the CS class root node ID is referring to your node ID for the root Content Server Classification directory below.
- Confirmed that the CWS root paths should be left as defaults `/cws` for everything or depending on the path you already set up for your actual CS install and CWS deployment, but the default will be `/cws`
- **Database:** needs its own SQL database (but is the same DB created for Classifier install that you must create prior to installing this service. Make sure to use a SQL Server that only uses the default instance.
- **Default install directory** is `C:\OTAC`, recommend you do not change it just in case this path is specified for a reason but just to point out, this is different install path than all the rest of the installers.
- **OTDS base URL** - should be `http://otdshostname:8002` (internal 8002, external is 8080) but if you enter incorrect one during installer you need to

change it in multiple config files later. The main ones are: `ots-override.prop` and `app.ini`.

- **InfoFusion User:** this is the IFIS web UI login. Default is admin / admin but this can be set during IFIS installation by user.

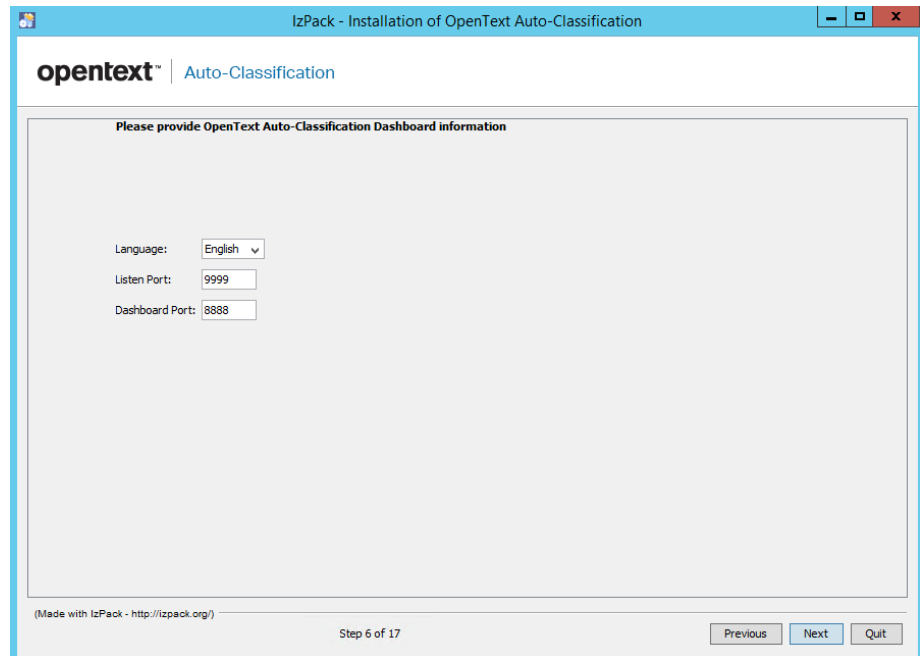


Figure 27

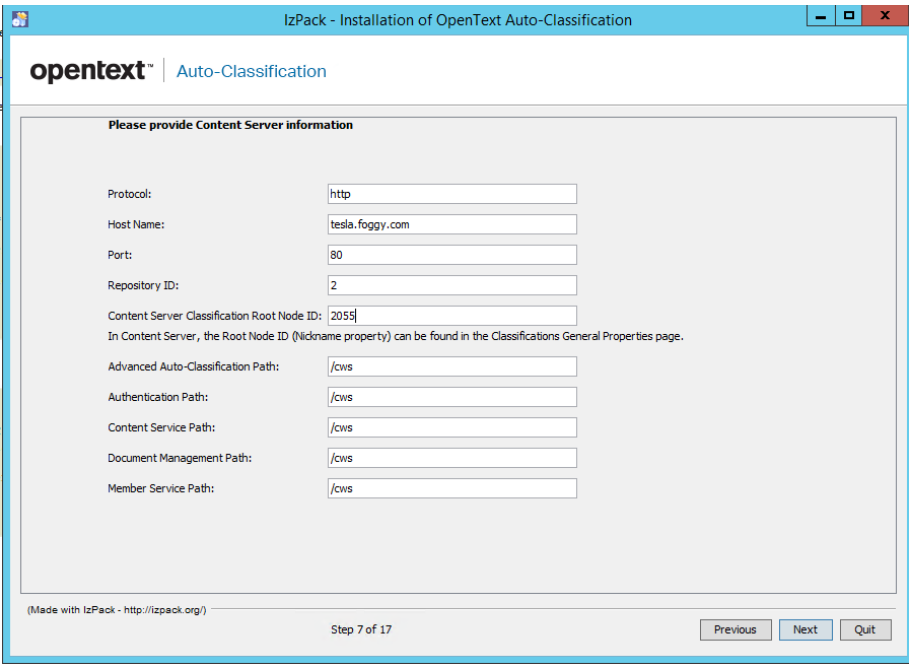


Figure 28

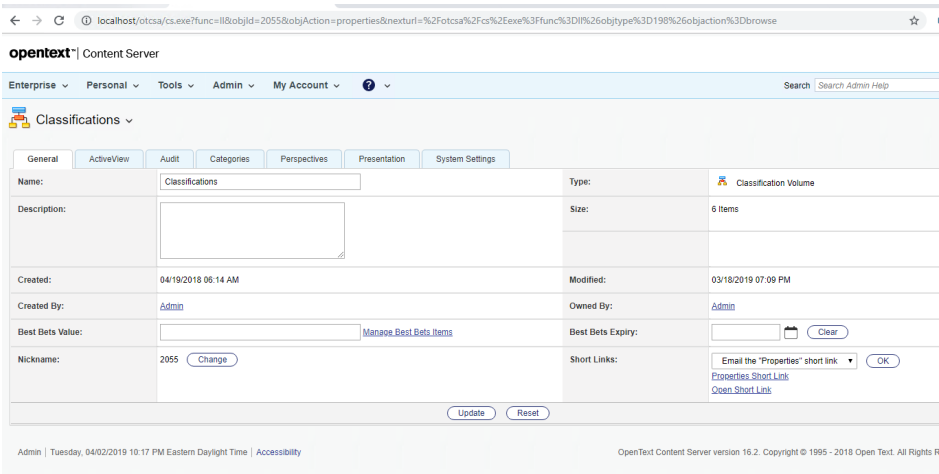


Figure 29

Figure 30

IzPack - Installation of OpenText Auto-Classification

opentext™ | Auto-Classification

Please provide Auto-Classification dependent services registration information

ZooKeeper Ensemble: 10.5.83.155:2181

ZooKeeper Configuration Namespace: /ot/service-registry

Orchestrator Service Registration Name: orchestrator-service

Crawler Service Registration Name: crawler-service

Classifier Service Registration Name: classifier-service

Classifier Management Service Registration Name: classifier-management-service

Preclassifier Service Registration Name: preclassifier-service

Preclassifier Management Service Registration Name: preclassifier-management-service

Statistics Service Registration Name: statistics-service

(Made with IzPack - <http://izpack.org/>)

Step 9 of 17

Previous Next Quit

Figure 31

IzPack - Installation of OpenText Auto-Classification

opentext™ | Auto-Classification

Please provide OpenText InfoFusion dependent services registration information

Collection Management Service Name: search-api-admin

Search Service Name: search-api

Unsecured Search Service Name: unsecured-search-api

Ingestion Pipeline Service Name: ingestion-api

Conversion Service Name: conversion-service

IS Service Name: ifs-server

(Made with IzPack - <http://izpack.org/>)

Step 10 of 17

Previous Next Quit

Figure 32

IzPack - Installation of OpenText Auto-Classification

opentext™ | Auto-Classification

Please provide admin user information

Content Server Admin User
User Name: Admin
Password: ●●●●●●

Infofusion Admin User
User Name: admin
Password: ●●●●●●

(Made with IzPack - <http://izpack.org/>)

Step 11 of 17

Previous Next Quit

Figure 33

IzPack - Installation of OpenText Auto-Classification

opentext™ | Auto-Classification

User Data

DB connection information for rules used in Auto-Classification Service in a central location

OTAC Database Type: Microsoft SQL Server ▼

Database Host Name: 10.5.100.79

Database Port: 1433

Database Name: pythonOTACdashb

Username: sa

Password: ●●●●●●

(Made with IzPack - <http://izpack.org/>)

Step 12 of 17

Previous Next Quit

- If you receive a MS Visual C++ setup failed message indicating another version is already installed, remove that existing version, run the VS installer from OTAC install directory then continue the OTAC installation.
- After installation is complete, go back to page 35 in OTAC install guide to copy the necessary files from OTAC install directory onto IFIS install directory for the UNSECURED and Secured instance of the Search API.
- Check for proper Solr/Search API configuration using the zookeeper UI. You should see something like **otac_en** like this:

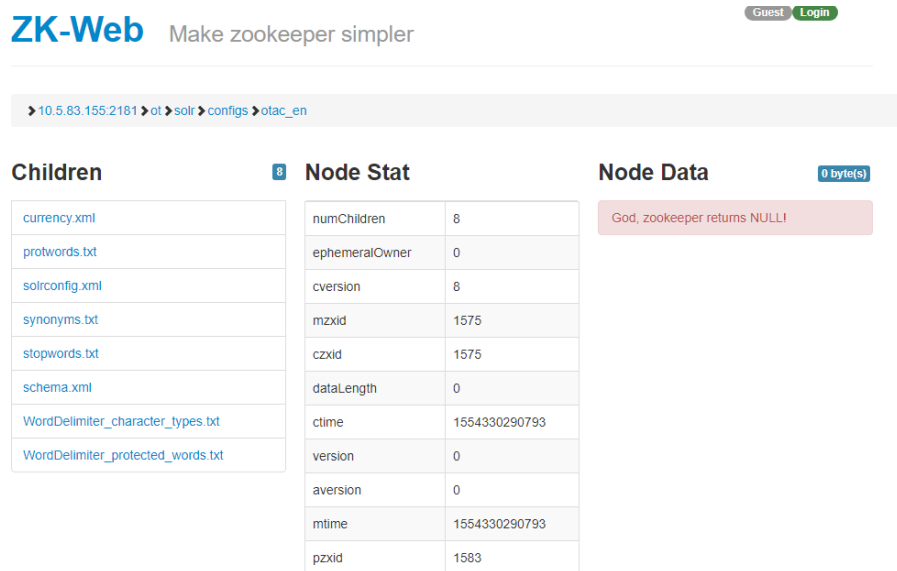


Figure 34

- Added server names that host OTAC components to OTDS Trusted sites including the server and port #:

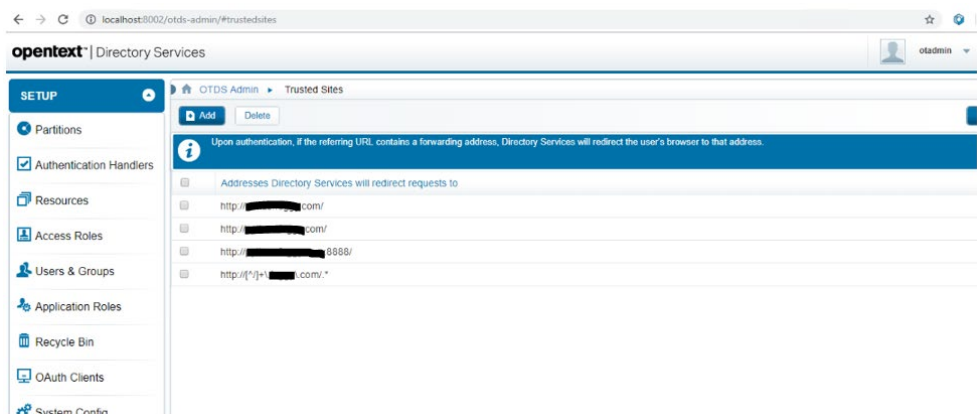


Figure 35

- May need to add more URL variations as it may be ignoring `http://`
- OTAC Dashboard has two services that must be running: "OTSP" and "OpenText Auto-Classification Dashboard" as seen in **services.msc**.

Final OTAC Installation Process

(Push OTAC configs to Solr - Ref: OTAC install guide section 2.2)

Do these steps only once for the secured searched API instance and not the unsecured.

- Copy the <Auto-Classification_HOME>/otsp/etc/solr/otac directory.
- Paste the directory to <SearchAPI_HOME>/etc/solr/.
- Copy the scripts <Auto-Classification_HOME>/bin/push-otac-solr-configs.sh and <Auto-Classification_HOME>/bin/push-otac-solr-configs.bat.
- Paste the scripts to <SearchAPI_HOME>/bin.
- Execute bin/push-otac-solr-configs.bat -user <OTIF SearchAPI Admin User> -pwd <OTIF SearchApi Admin pwd>
- Restart services.

OTAC Dashboard Walkthrough

(Also see the Dashboard's online help)

- **Default URL to Dashboard** is: http:<otac_hostname>:8888 Then you will be redirected to OTDShost:port/otdsws/login?RFA=..... and log into Dashboard via OTDS authentication handler.
- **Login:** Even though in OTAC setup you may have entered the Admin account, you can actually log in as any CS/OTDS user with appropriate permissions to perform classification tasks as it will use the logged in account to perform the classifying.
- In Content Server create a new Classification or RM Classification then on its **Extra's** tab, enable **Advanced Auto** in order to allow this Class to be used by OTAC.
- Create a Model using assistant.

Figure 36

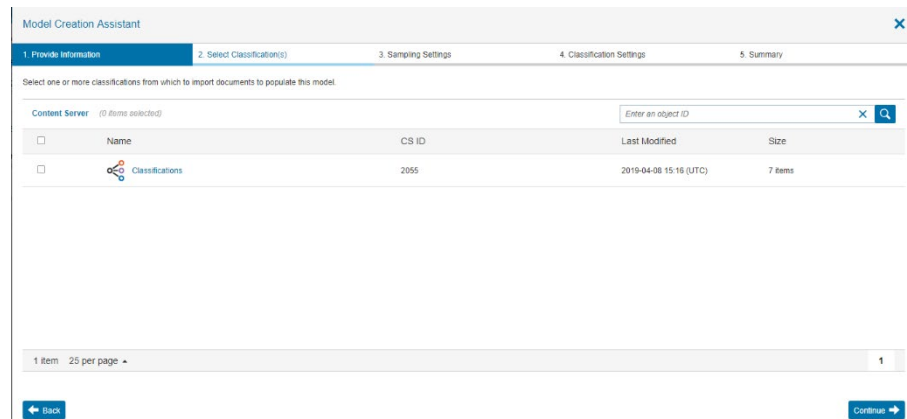
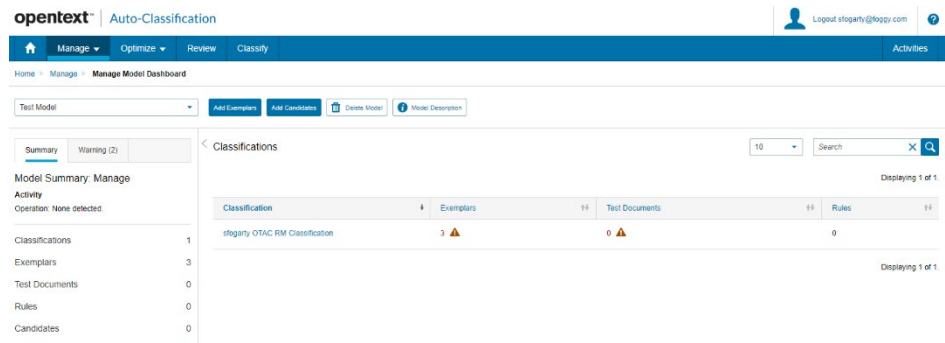


Figure 37



- There is a fully automatic mode that will auto import any existing documents classified under the classification you have selected to use them as *Exemplars*. **Exemplars = sample documents that train OTAC** so it can compare new documents added with the samples to determine which classification they belong to and perform the auto classification process. Docs can be classified no matter where they were added into Content Server.
- **Add Exemplars** - allows you to choose sample documents already manually classified under the classification you chose for the model.
- **Add Candidates** - allows you to add documents from Content Server that are not yet classified. A copy of them will be added to OTAC and can be manually classified later and added as an Exemplar.
- **Activities** - to track status of activities performed in OTAC Dashboard, example below shows activity for adding a Candidate document.

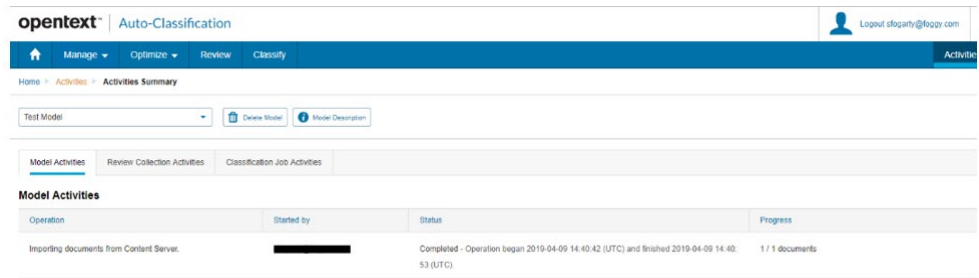


Figure 38

- InfoFusion works in the backend automatically working for OTAC to "crawl" Content Server, parse and extract metadata from the CS documents and then stores it in Solr. Below is an example of stored metadata in Solr from Exemplars added to model in OTAC and that are associated manually to an RM Classification:

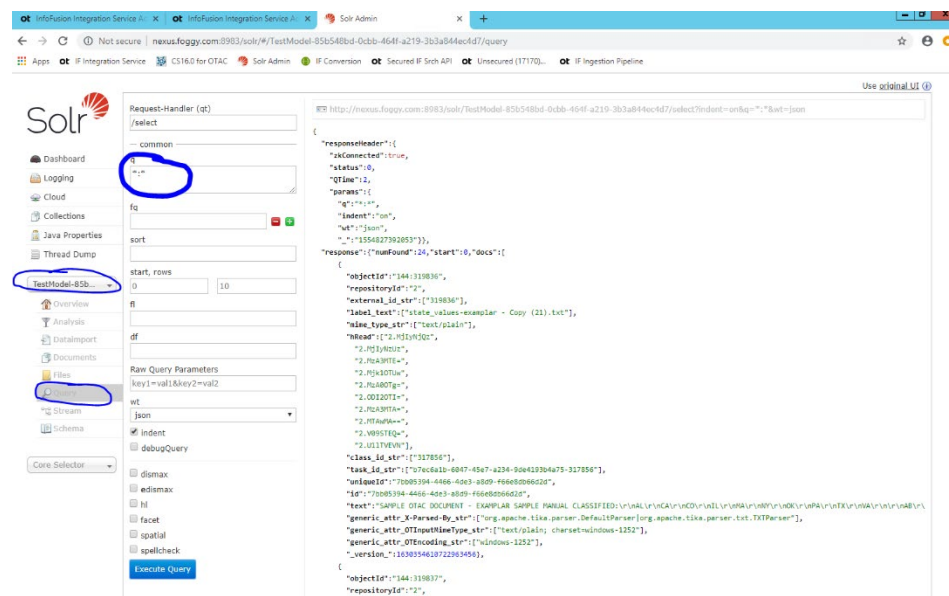
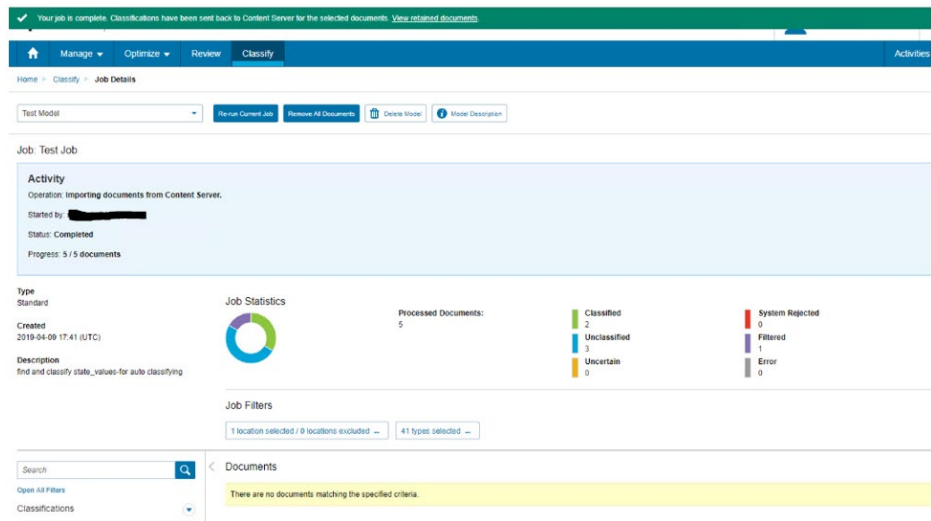


Figure 39

- What type of data does OTAC read from the documents? It supports subtype 144 documents like Word, text, rtf and is able to extract basic text or xml data from contents of these types of documents. It can also extract metadata from Categories and attributes associated to the documents.
- What about PDF, images and other "non text" related documents? OTAC can't read that type of content unless there has been OCR (optical character recognition and that metadata is part of the document) so if classifying these types, you will have to rely on metadata from Cats and Atts then when adding them as Exemplars in the model, check Solr admin UI to see if it has picked up that metadata as this capability is based on Solr's capabilities.

- Enter steps:

Figure 40



- After adding 25 Exemplars (sample documents manually to the classification), I then added a new document with similar content as the exemplars and after creating and running the classify job, the document was classified by OTAC as shown in the screenshot below. Note on Classification tab of document under "By" column it shows "Advanced Classification". This is how you know if it's doing the job vs a manual or inherited traditional means of classification.
- In 2nd screenshot below where I targeted specific folder to be checked for documents to classify, it did not classify the other documents there that did not match the Exemplars close enough.

Figure 41

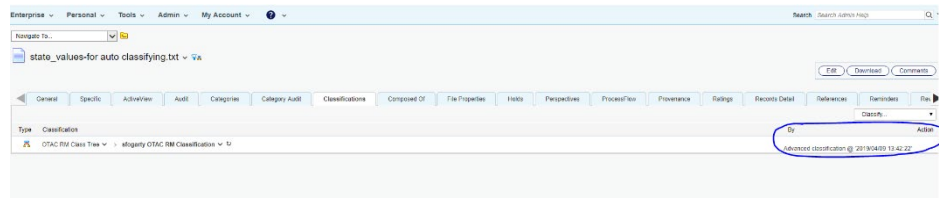
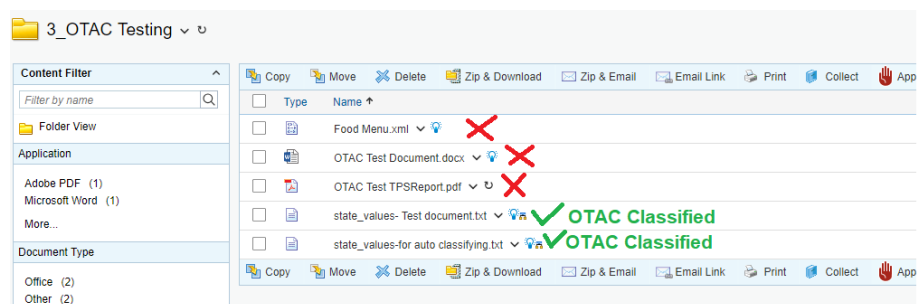
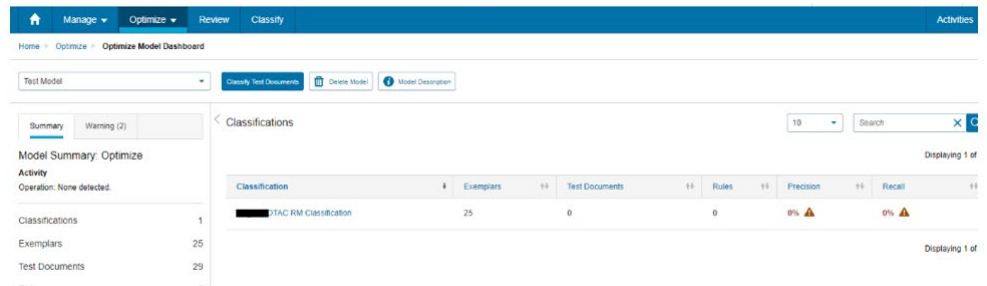


Figure 42



Optimize > Review: Allows you to "test classify" of test documents you add to the system. This all is done within OTAC and does not affect Content Server's classifications. You can also use this to check **Precision** and **Recall** %.

Figure 43

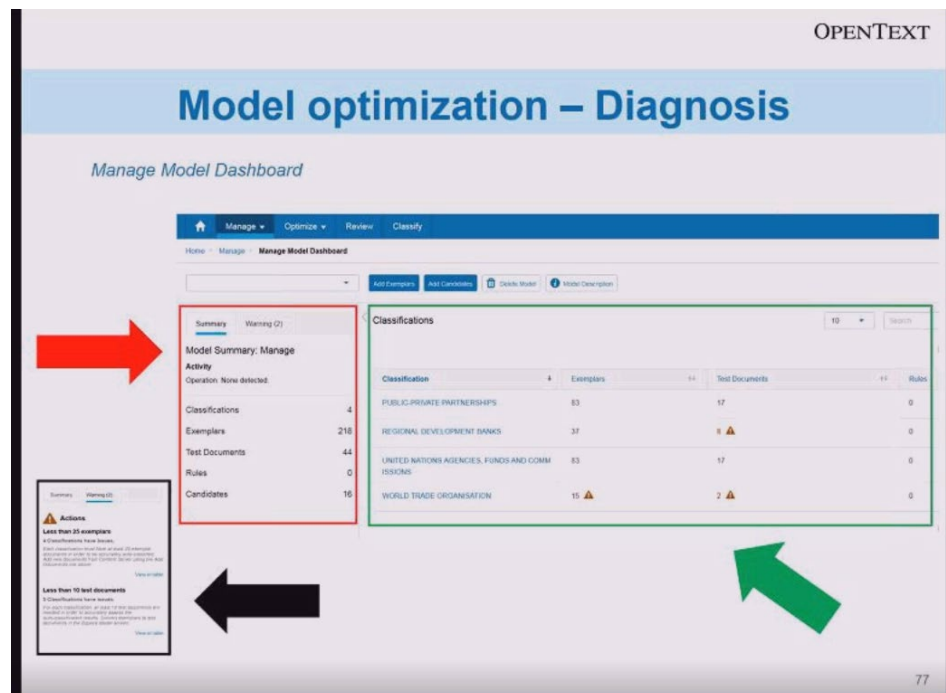


The screenshot shows the 'Optimize Model Dashboard' in the OTAC interface. The top navigation bar includes 'Manage', 'Optimize', 'Review', and 'Classify'. The main content area displays a table of classifications. The table has columns for Classification, Exemplars, Test Documents, Rules, Precision, and Recall. The first row shows 'ITAC RM Classification' with 25 exemplars, 0 test documents, 0 rules, 0% precision, and 0% recall. The table is filtered to show 10 items, and the first item is displayed.

Classification	Exemplars	Test Documents	Rules	Precision	Recall
ITAC RM Classification	25	0	0	0%	0%

Workbench: Used to test and refine your classification accuracy.

Figure 44



The screenshot shows the 'Model optimization – Diagnosis' dashboard. The dashboard includes a 'Manage Model Dashboard' section with a table of classifications. The table has columns for Classification, Exemplars, Test Documents, and Rules. The first row shows 'PUBLIC-PRIVATE PARTNERSHIPS' with 83 exemplars, 17 test documents, and 0 rules. The second row shows 'REGIONAL DEVELOPMENT BANKS' with 37 exemplars, 8 test documents, and 0 rules. The third row shows 'UNITED NATIONS AGENCIES, FUNDS AND COMMISSIONS' with 83 exemplars, 17 test documents, and 0 rules. The fourth row shows 'WORLD TRADE ORGANISATION' with 15 exemplars, 2 test documents, and 0 rules. The dashboard also includes a 'Summary' section with a 'Warnings' tab and a 'Candidates' section with a 'Candidates' tab. A red arrow points to the 'Candidates' section, and a green arrow points to the 'Candidates' section.

Figure 45

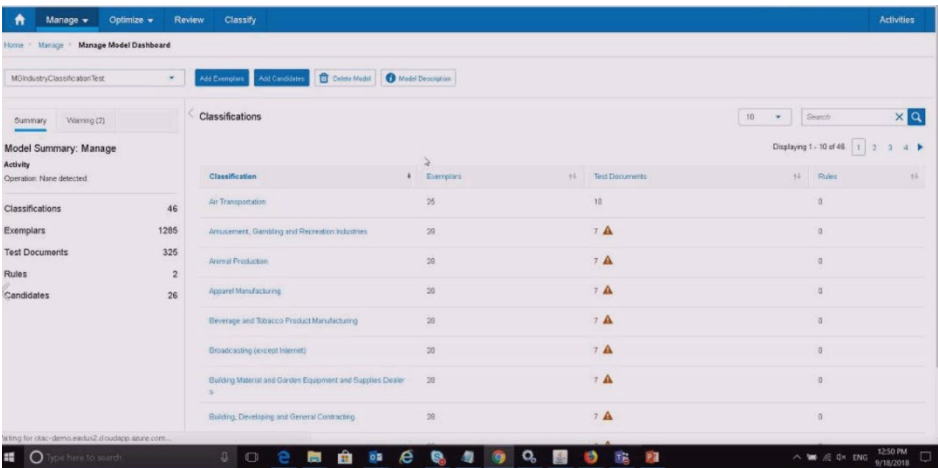
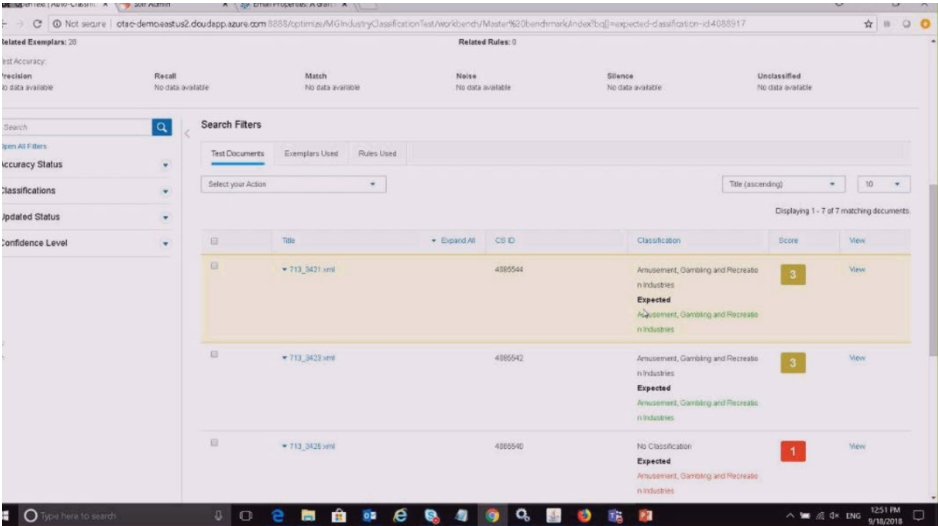


Figure 46



Troubleshooting / Most Important KB's

This section contains additional troubleshooting tips discovered by support that can aid in working on OTAC issues.

[Auto-Classification - How to gather logs for troubleshooting issues?](#)

[Auto-Classification - Where are the configuration files for the OTAC solution?](#)

[Magellan Auto-Classification - Identifying and troubleshooting unexpected events, errors or failures](#)

[Magellan Auto-Classification - No Exemplars, test documents or classify jobs are able to be imported](#)

OTAC - Logs and Tips to better identify unexpected events

OTAC is composed by different modules. Each of them generates numerous information in log files, depending on the chosen level of information. This document is written to help user to identify unexpected events during the execution.

OTAC Services



Classifier Service

- LOG: ...\\Auto-Classification\\Classifier Service\\log\\classifier.wrapper.log
- This service is used when a query to classify documents (Tests, Reviews, Job) is send. If during the creation of a model, the classification of test documents has been asked, the classifier is invoked. Classification Rules also use this service. Classifier Service is mainly able to push the calculated classification to Content Server.



Crawler Service

- LOG: ...\\Auto-Classification\\Crawler Service\\service\\log\\crawler.wrapper.log
- This service is the initial contact with Content Server. Its function is to dig into Content Server Hierarchy and get appropriate documents (Documents with manual classification for Exemplars, Documents with correct type for review, jobs, candidates). If the classification Tree is not visible in the UI, The Crawler Service log can be a good source of information.



Orchestrator

- LOG: ...\\Orchestrator\\log\\orchestrator.wrapper.log
- This service is often aware of all types of impediment. Responsible for managing the flow of queries sent by user (document conversion, batch classification, creation of model, importation of documents...), Orchestrator logs could be a good first track of investigation on what's happened in case of unexpected events.



OTAC

- LOG: ...\\OTAC\\otsp\\log\\otsp.wrapper.log
- This service, internally named OTSP (Semantic Platform) is the first to fail in case of inconsistency in Installation Process. If any service or external tool is not usable/ reachable, this service will be immediately fail.



Statistics Service

- LOG: ...\\Statistics Service\\log\\statistics.wrapper.log
- This service is a complement to OTAC Universe and allows to preserve an historic of User manipulation. Rarely found wanting during the process, the main issue could be a memory issue or an unexpected shut down of the service.

External Components (InfoFusion)

Solr : The persistence Database

Log: ...\\OpenText InfoFusion\\Solr\\server\\logs\\wrapper.log

More efficient than the textual file is the Solr UI, accessible at:
[SOLR_MACHINE_HOST]:8983/solr

Figure 47

Time (Local)	Level	Core	Logger	Message
12/18/2018, 10:44:12 AM	WARN	false	FieldTypePluginLoader	TokenFilterFactory is using 6.0, because 5.x
12/18/2018, 10:44:12 AM	WARN	false	FieldTypePluginLoader	TokenFilterFactory is using 6.0, because 5.x
12/18/2018, 10:44:12 AM	WARN	false	FieldTypePluginLoader	TokenFilterFactory is using 6.0, because 5.x
12/18/2018, 10:44:12 AM	WARN	false	IndexSchema	'defaultSearchField' is depr
12/18/2018, 10:44:12 AM	WARN	false	IndexSchema	[Human-Candidates-5e38

Figure 48



Zookeeper Service

LOG: ...\\OpenText\\OpenText InfoFusion\\Zookeeper\\logs\\wrapper.log

More efficient than a textual file, a Zookeeper UI could be an excellent helper to verify the registration of each service.

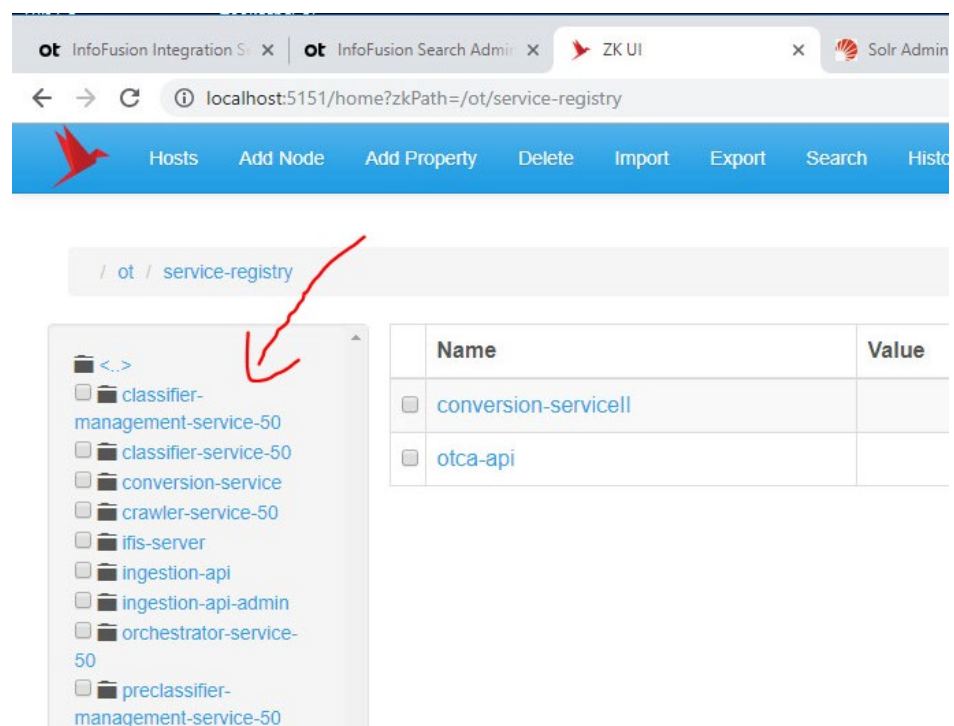


Figure 49

InfoFusion Admin UI

InfoFusion provides some User Interface to manage its services.

InfoFusion and OTAC Components can be managed via the different settings in:

- Integration Service: <http://localhost:18080/ifis-admin-gui/>
- Ingestion Pipeline: <http://localhost:7171>
- Search: <http://localhost:7170>

Conversion Service

This service is used by OTAC to be able to convert any type of file document (Word, Excel, PDF...).

To verify if Conversion Service is up and running, the Conversion service Swagger can be used: [http://\[CONVERSION_SERVICE_HOST\]:9993](http://[CONVERSION_SERVICE_HOST]:9993)

Parameter	Value	Default
file path	C:\Infofusion.pptx	Parameter content type: application/json
want-fields-mapping	false (default)	File not found
correlation-id		ID of the message

HTTP Status Code	Reason	Response
404	Not Found. File does not exist.	
500	Internal server error.	

Try it out! Hide Response

Curl

```
curl -X PUT --header "Content-Type: application/json" --header "Correlation-ID: < >"
```

Request URL

http://wlotif2.lab.opentext.com:9799/conversion/file-by-path?w

Response Body

```
{
  "metadata-list": [
    {
      "name": "OTDocLastModifiedDate",
      "value": "2014-05-06T19:50:20Z"
    },
    {
      "name": "cp:revision",

```

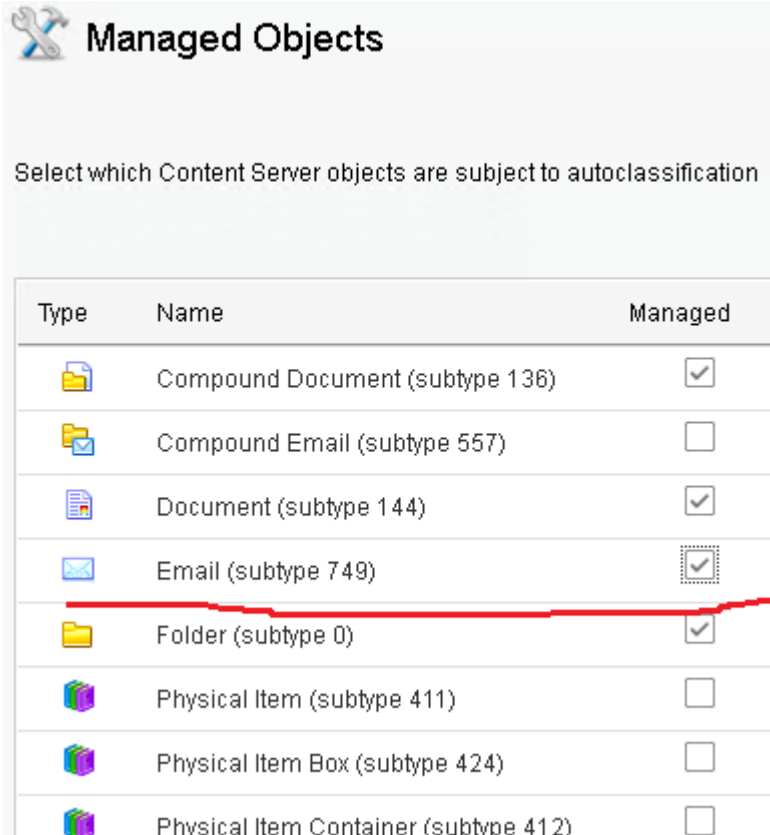
Figure 50









Common miss-configurations (Questions & Answers)

Q: Emails are not visible in imported documents.

A: Verify that Emails are selected in "Managed Object" window in Admin/ Advanced Auto-classifications Administration.

Figure 51



Type	Name	Managed
	Compound Document (subtype 136)	<input checked="" type="checkbox"/>
	Compound Email (subtype 557)	<input type="checkbox"/>
	Document (subtype 144)	<input checked="" type="checkbox"/>
	Email (subtype 749)	<input checked="" type="checkbox"/>
	Folder (subtype 0)	<input checked="" type="checkbox"/>
	Physical Item (subtype 411)	<input type="checkbox"/>
	Physical Item Box (subtype 424)	<input type="checkbox"/>
	Physical Item Container (subtype 412)	<input type="checkbox"/>

If this option is not proposed, editing the
`<ContentServer_Installation_Directory>\config\opentext.ini` file
 and making sure the following section contains the 749 subtype:

```
[Advclass]
SubTypes={136,144,0,411,412,419,424,557,749,145}
```

Q: The OTAC landing page can't be displayed!

A: Verify the port (by default the OTAC port is 8888).

Verify the "Auto-Classification Dashboard" Service is started.

Verify OTDS is reachable (often `[Content Server Host]:8080`)

Verify the entered credential are valid and well defined in "**Partitions**" and "**Users & Groups**" in OTDS Setup.

Verify the machine you want to Access OTAC with belongs to the "**Trusted Sites**" defined in OTDS.

Q: During the step 2 of Model Creation Process, the Classification Tree cannot be displayed!

A: Verify Content Server is Up and running...

Verify Crawler Service is started.

Verify

- 1) Content Server Host
- 2) Repository ID
- 3) Root ID
- 4) Content Server ID and
- 5) Credential entered during Installation (See CS Config to Verify in Annex)

Verify Memory of OTAC Machine (should be up to 100 MG and more than 5% free).

Q: The two Search Services cannot be started together. Once one is started, the other stopped.

A: The second Search service must have its own installation in its own folder named "**Unsecured-Search**".

During the installation, make sure to change the default name space "**search-API**" to "**Unsecured-Search-API**".

Q: Get Message: "Could Not Connect to OTSP"!

A: Verify that the Concerned service is started and the Back-end reachable.

Look at "C:\OTAC\webapp\www\logs\common.log" and verify the last front-end request get a 200 Status.

```
2019-01-10T15:58:35+00:00 INFO (6): REST 5c376baab74f3 - [GET]
-- Status: 200 - OK -- URI: http://[OTAC_HOST]:9999/otac/model
```

In case of "Unable to Connect to tcp://[OTAC_HOST]:9999.", the machine is clearly non reachable.

In case of a 400 or 500 Status, the back-end is not able to deal with the front-end request.

Q:During the step 5 of Model Creation Process, no document are added!

A: If the counter is jammed to 0/0, the crawler is not able to browse into Content Server (Verify Content Server Config in Annex).

A: If the right counter increases, but the left one is blocked to 0, documents can be read but not added to the model.

- 1) Verify "**Conversion Services are Up and running**"
- 2) This could be a problem coming from Solr.

Verify that Solr Service (In OTIF Machine Installation) is started

Verify the 3 collection is created (MODELNAME-UID + MODELNAME-Masterbenchmark-UID + MODELNAME-Candidates-UID)

Verify and Read Solr Logs

[http://\[OTIF_MACHINE_HOST\]:8983/solr/#/~logging](http://[OTIF_MACHINE_HOST]:8983/solr/#/~logging)

Verify in Zookeeper that OTAC Configuration was pushed into Solr

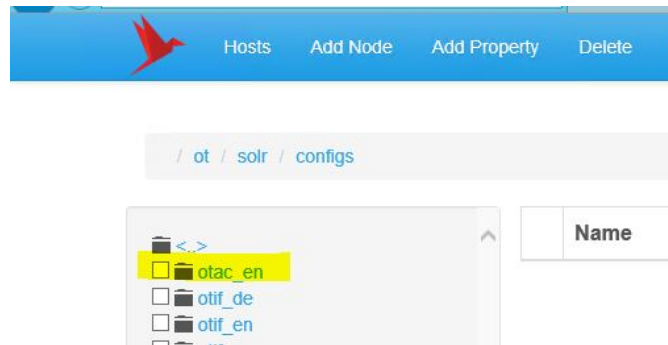


Figure 52

Verify and Read Solr Logs

[http://\[OTIF_MACHINE_HOST\]:8983/solr/#/~logging](http://[OTIF_MACHINE_HOST]:8983/solr/#/~logging)

Q:During the step 5 of Model Creation Process, no document are classified!

A: Verify that Classifier Service is Started and the OTAC Database is reachable, and the specific tables well created.

With a SQL Database viewer (Microsoft SQL Server Management Studio) verify the OTAC database contains tables like : `dbo.ClassifyJobs` and `dbo.RuleAsset`. If not, OTAC and Classifier must be reinstalled.

Q:After the Model Creation Process, even if the process is going well, I was not able to see document!

A: Document could be ingested by OTAC (Solr) but not visible by user. When OTAC attempt to search and display document content, something happened.

Verify Permissions, Credentials

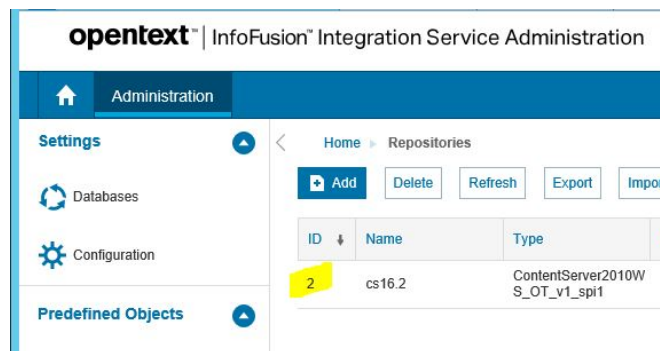
Verify Resource Activation of Integration Service (OTIF IS) in OTDS

Figure 53



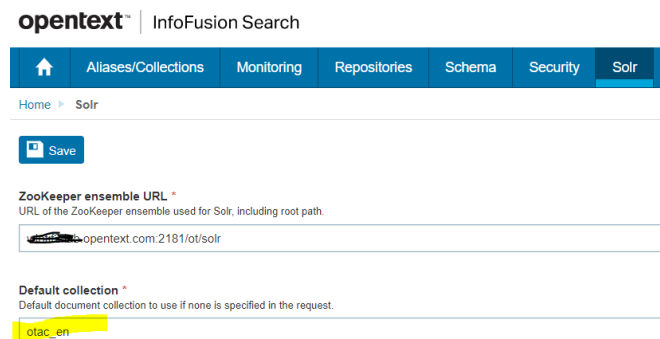
Verify the "CS Repository ID" entered during OTAC and Crawler Installation is the same than the one defined in Integration Service Administration.

Figure 54



Verify that the default collection defined in InfoFusion Search Admin API / Solr is "otac_en".

Figure 55



Q: The Ongoing Process seems to be idle

A: Only a Content Server User with elevated rights can run an Ongoing For performance optimization, the Ongoing Process keeps a trace of processed documents. Even if the ongoing is stopped and restarted, the ongoing doesn't restart classification process from scratch.

Q:Classifications appear in digital form instead of clear label.

A: The crawler cannot map Content Server ID (Internally stored) to Content Server Label. It could be a connection issue with Content Server (See CS Config to Verify in [Annex](#)) or an authentication issue (Verify the OTDS URL for Crawler Service).

Q:The ingestion of documents stops in the middle (the left counter is stuck at the same place)

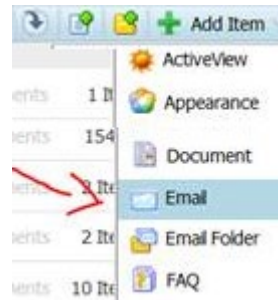
A: Depending on the machine, documents size, other activities, the Java heap space could be increased in `crawler.wrapper.conf`

```
wrapper.java.additional.2=-XX:MaxPermSize=512m
wrapper.java.additional.2=-XX:MaxPermSize=1024m
wrapper.java.additional.2=-XX:MaxPermSize=2048m
wrapper.java.additional.2=-XX:MaxPermSize=4096m
```

Q:Pre-classification rules have no effects on emails added in CS

A: Pre-classification rules work only on emails... and only on emails which was imported as "email" type. Dragging a .msg file into Content Server is not enough to make it an Email file type. Email should be imported as "email" to be able to use the attached Metadata.

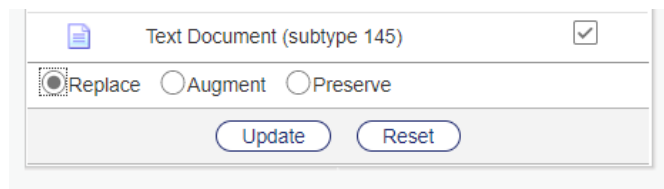
Figure 56



Q:Classifications are not push back in Content Server after a job was run.

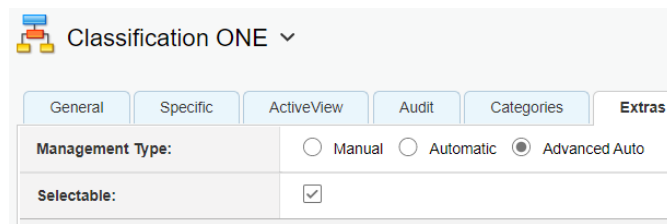
A: Ensure that the Managed Objects preferences are set to "Replace" or "Augment".

Figure 57



A: Ensure that the Classification tree and all classifications are set to "**Advanced Auto**".

Figure 58



Classification ONE ▾

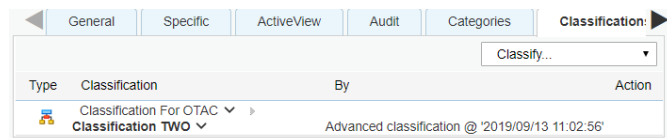
General Specific ActiveView Audit Categories Extras

Management Type: ☐ Manual ☐ Automatic ☒ Advanced Auto

Selectable: ☒

A: Even if the icon is not present, verify the classification is not apply anyway.

Figure 59



General Specific ActiveView Audit Categories Classification: ▶

Classify... ▾

Type	Classification	By	Action
	Classification For OTAC ▾		
	Classification TWO ▾		Advanced classification @ '2019/09/13 11:02:56'



NOTE: In any cases, to investigate on what is happen when something is going wrong, the browser integrated developer tool is an excellent alternative option (F12). The "Network" tab lists the successive commands sent to the back-end and JavaScript errors can also be easily discovered in "Console" tab.

About OpenText

OpenText enables the digital world, creating a better way for organizations to work with information, on premises or in the cloud. For more information about OpenText (NASDAQ: OTEX, TSX: OTC) visit opentext.com.

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