
Enciva XE

Release 0.4.3

acugis

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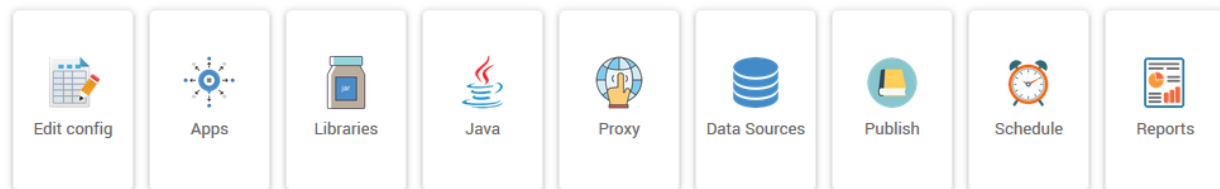
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The screenshot shows the Oracle APEX console interface. At the top, there is a blue header with the Oracle APEX logo and version information: "Tomcat 9.0.33 / Java 1.8.0_242-b08". Below the header, there is a row of nine icons representing different management functions: Edit config, Apps, Libraries, Java, Proxy, Backups, Publish, Schedule, and Reports. Below this row, the status of the Tomcat server is displayed: "Tomcat is running with PID 408". There are four control buttons: a red "STOP" button, an orange "RESTART" button, a green "STARTUP" button, and a green "STARTUP NO MOUNT" button. Each button has a corresponding instruction: "Click this button to stop Apache Tomcat", "Click this button to restart Apache Tomcat", "Click this button to start the Oracle XE server", and "Click this button to start/nomount the Oracle XE server". A mouse cursor is pointing at the "STARTUP NO MOUNT" button.

1.1 Overview

Enciva XE is a Webmin module that manages Oracle XE, Apex, Tomcat, Java, and JasperReportsIntegration. It also provides Backups, Report Publishing, Report Scheduling, and Report Management.



Tomcat is running with PID 408



1.2 Operating Systems

- CentOS 7
- OEL 7

1.3 Authors

- David Ghedini

1.4 Components

Oracle XE

Oracle APEX

Oracle ORDS

JasperReportsIntegration

Jasper Reports Library

Apache Tomcat

OpenJDK

CHAPTER 2

Webmin

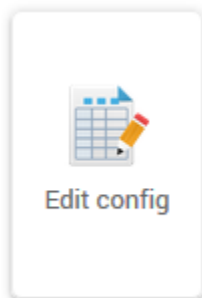
Webmin can be accessed via:

```
https://yourdomain.com:10000
```


Table of Contents

- *General*
 - *Edit Config*
 - *Apps*
 - *Libraries*
 - *Java*
 - *Proxy*

3.1 Edit Config



The Config tab is used to edit the following files:

```
application.properties  
server.xml
```

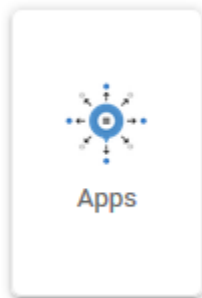
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```
web.xml
context.xml
tomcat-users.xml
setenv.sh
```

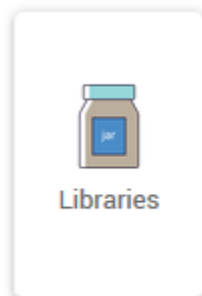
These files can, of course, be edited via the file system or VI as well.

3.2 Apps



The Apps manager allows you to deploy, undeploy, and redeploy WAR files in Apache Tomcat

3.3 Libraries



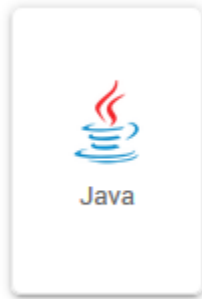
The Libraries tab is for managing Jar files under:

```
/home/tomcat/<tomcat-version>/libs
```

These files can, of course, via the file system.

Note: The advantage of the Libraries tab is that it tracks Jar files installed, This allows you to easily roll back changes.

3.4 Java



The Java tab is used during installation as well as for updating of JDK.

It can also be used to un-install the selected JDK and replace it with a new version.

⏪ ⏩
Java

Install
Uninstall
Default

Install Java Development Kit(JDK) from distribution repository or from Oracle .tar.gz archive

Install Options

<div style="border: 1px solid #ccc; height: 100px; width: 100%;"></div> <p style="font-size: x-small; margin-top: 5px;">JDK source</p>	<div style="display: flex; justify-content: space-between; align-items: flex-start;"> <div style="width: 40%;"> <input checked="" type="radio"/> OpenJDK <input type="radio"/> Oracle JDK <input type="radio"/> Local file <input type="radio"/> Uploaded file <input type="radio"/> FTP or HTTP URL </div> <div style="width: 55%;"> <div style="display: flex; align-items: center; margin-bottom: 5px;"> <div style="flex: 1;">8</div> <div style="font-size: x-small;">▼</div> </div> <div style="display: flex; align-items: center; margin-bottom: 5px;"> <input checked="" type="checkbox"/> Headless package </div> <hr/> <div style="display: flex; align-items: center; margin-bottom: 5px;"> <div style="flex: 1;">13.0.2+8</div> <div style="font-size: x-small;">▼</div> </div> <div style="display: flex; align-items: center; margin-bottom: 5px;"> <input type="text"/> <div style="font-size: x-small; margin-left: 5px;">📎</div> </div> <div style="display: flex; align-items: center; margin-bottom: 5px;"> <input type="text"/> <div style="font-size: x-small; margin-left: 5px;">📎</div> </div> <div style="display: flex; align-items: center; margin-bottom: 5px;"> <input type="text"/> </div> </div> </div>
<div style="display: flex; justify-content: space-between; align-items: center; font-size: x-small;"> Set as system default Java <input checked="" type="checkbox"/> (using alternatives) </div>	

📦 Install

Note: When installing or removing, there is an option to set as System default.

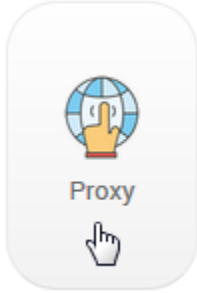
3.5 Proxy

By default, JRI Publisher enables a Proxy for Apache and maps port 8080 to 80.

This enables you to reach reports via <http://yourdomain.com/JasperReportsIntegration> without need to add the 8080 port.

Warning: While the proxy is convenient for development or intranet use, in production you should remove the proxy. To remove the Proxy, follow the steps below:

To edit, remove, or update Proxies, click on the Proxy tab as shown below.



Select the default Proxy of / as shown below, and click Remove.

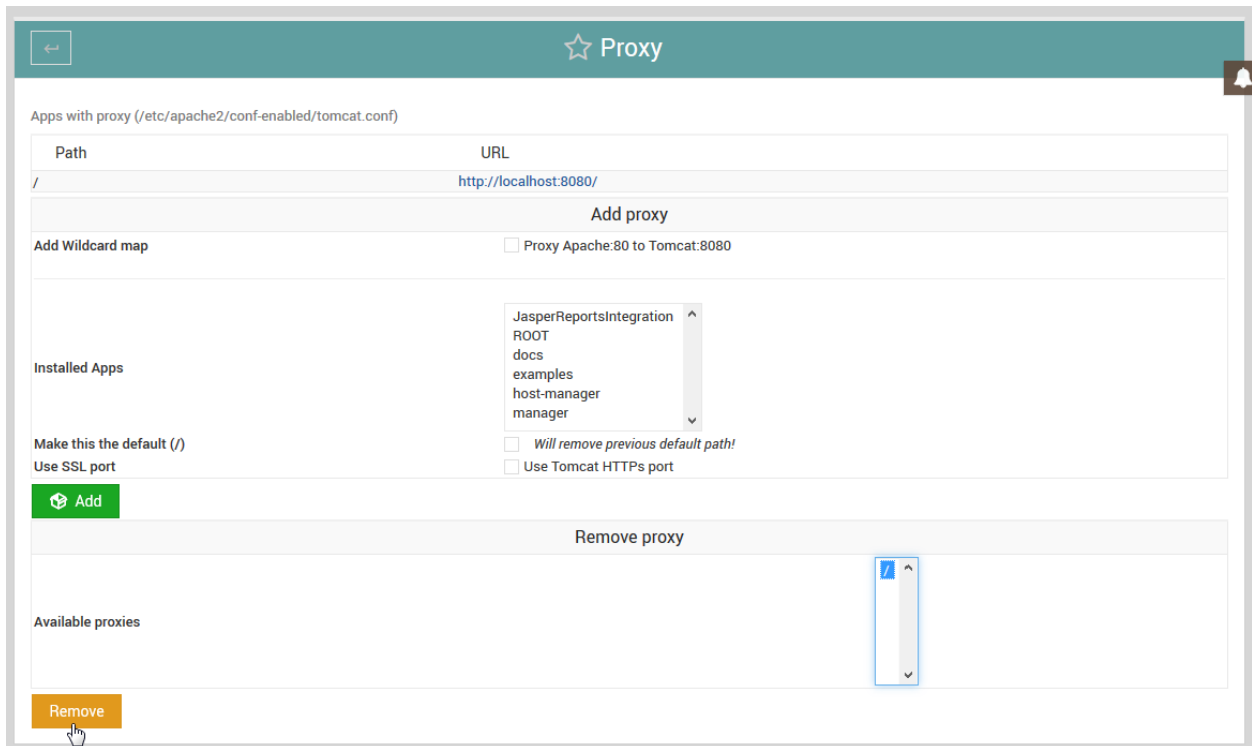
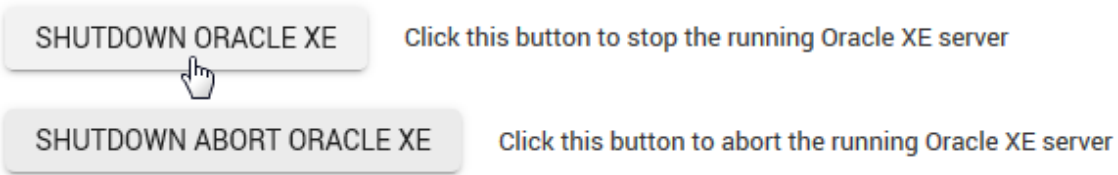


Table of Contents

- *Oracle XE*
 - *Controls*
 - *Command Line*
 - *Init Script*
 - *Version*

4.1 Controls

Oracle XE can be started and stopped via Servers > Tomcat XE



SHUTDOWN ORACLE XE

Click this button to stop the running Oracle XE server

SHUTDOWN ABORT ORACLE XE

Click this button to abort the running Oracle XE server

4.2 Command Line

To start/stop/restart Oracle XE via command line.

1. Connect to SQLPlus:
2. Issue the start/stop commands

```
startup | shutdown | shutdown abort | startup nomount | startup mount
```

4.3 Init Script

The XE init script is located in `/etc/init.d/oracle-xe-18c`

4.4 Version

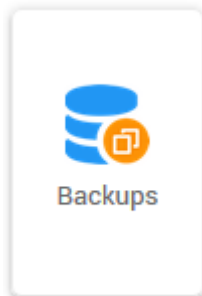
XE Version is 18c

Table of Contents

- *Schema Backups*
 - *Backup Manager*
 - *Layout*
 - *Create Backup*
 - *Edit Backup*
 - *Backup Location*
 - *Scheduling Backups*
 - *Scheduling Options*

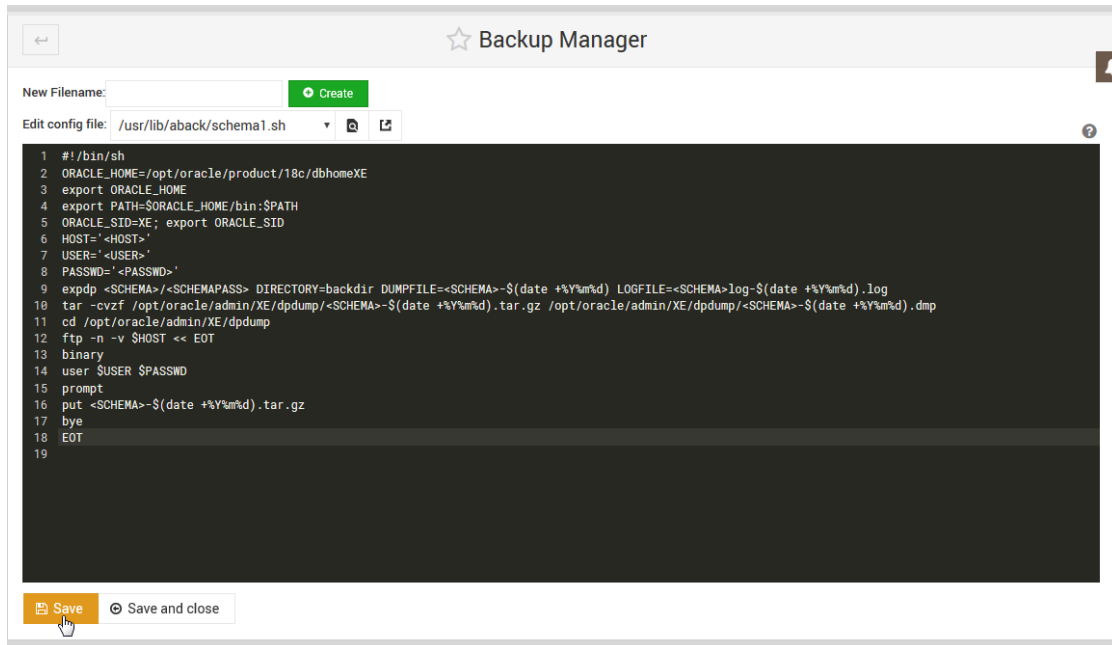
5.1 Backup Manager

To access the Schema Backups Manager, click the Backups icon as show below.



5.2 Layout

The Backup Manager tab allows you to create, edit, and delete scheduled schema backups.



5.3 Create Backup

To create a new schema backup, enter the backup name and click create.

A template will be created and you just need to simply fill in the schema/password and FTP or offsite information.

5.4 Edit Backup

To edit a backup, select the script from the drop down.

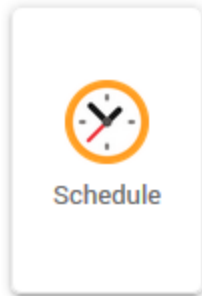
Make the required edits and click Save.

5.5 Backup Location

By default, backups are saved to /opt/oracle/admin/XE/dpdump unless otherwise specified.

5.6 Scheduling Backups

Backups can be scheduled with a variety of options via the Schedule tab as shown below:



On the main Schedule page, click the Add tab to open the Create Schedule page as shown below.

5.7 Scheduling Options

The Schedule module offers the following options.

Execute:

```
Options:
  now
  custom
  hourly
  weekly
  monthly
```

now: This will run the Backup immediately, with no subsequent runs.

custom: This option allows you to enter a custom cron for running the Backups

hourly, weekly, and monthly are as stated.

Name:

```
Options:  
  Drop-down list of all available Backups
```

The Name field will display a list of all available Backup scripts.

Above, we have select the DemoScript.sh we created earlier.

File Name:

```
Options:  
  Set in backup.sh file
```

Enter the desired Data Source for the report.

Email:

```
Options:  
  Set in backup.sh file
```

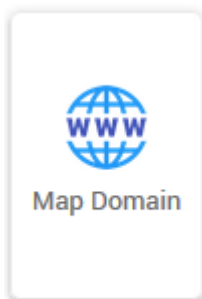
Note: All options are set within your backup.sh file

Table of Contents

- *Domain Mapping*
 - *Map a Domain*
 - *Create Conf File*
 - *Restart HTTPD*
 - *Edit Conf*
 - *Conf Location*

6.1 Map a Domain

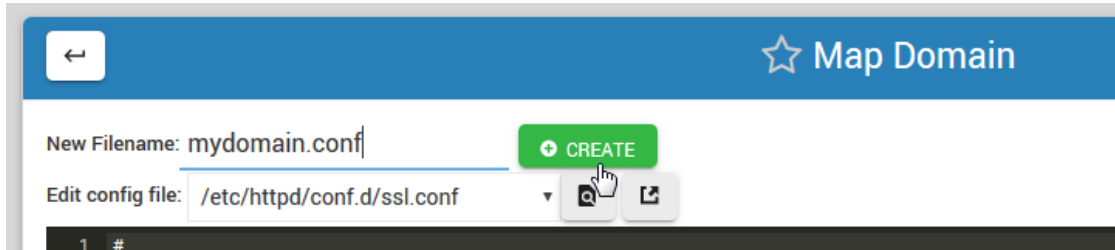
To access the Domain Mapping manager, click the Map Domain icon as show below.



6.2 Create Conf File

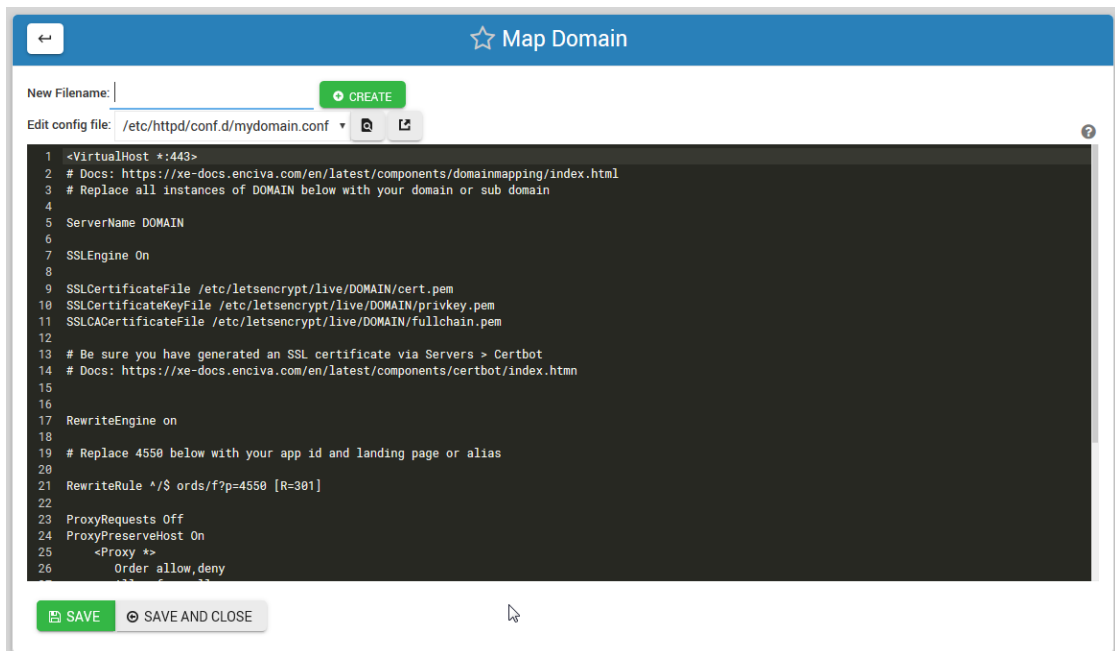
Enter a new filename.conf and click the Create button.

Give your file a name that will make it easy to identify, such as mydomain.conf



Click the Create button.

The Create button will load the template below.



The template is commented.

1. Replace all instances of DOMAIN with the domain or sub domain you wish to map.
2. Replace '4550' to the app id and landing page (or page alias).

```

1 <VirtualHost *:443>
2 # Docs: https://xe-docs.enciva.com/en/latest/components/domainmapping/index.html
3 # Replace all instances of DOMAIN below with your domain or sub domain
4
5 ServerName DOMAIN
6
7 SSLEngine On
8
9 SSLCertificateFile /etc/letsencrypt/live/DOMAIN/cert.pem
10 SSLCertificateKeyFile /etc/letsencrypt/live/DOMAIN/privkey.pem
11 SSLCACertificateFile /etc/letsencrypt/live/DOMAIN/fullchain.pem
  
```

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```
12
13 # Be sure you have generated an SSL certificate via Servers > Certbot
14 # Docs: https://xe-docs.enciva.com/en/latest/components/certbot/index.htmn
15
16 RewriteEngine on
17
18 # Replace 4550 below with your app id and landing page or alias
19 RewriteRule ^/$ ords/f?p=4550 [R=301]
20
21 ProxyRequests Off
22 ProxyPreserveHost On
23 <Proxy *>
24     Order allow,deny
25     Allow from all
26 </Proxy>
27
28 SSLProxyEngine On
29 SSLProxyCheckPeerCN off
30 SSLProxyCheckPeerName off
31 SSLProxyVerify none
32 ProxyPass / https://localhost:8443/ connectiontimeout=300 timeout=600
33 ProxyPassReverse / https://localhost:8443/
34
35 </VirtualHost>
```

6.3 Restart HTTPD

For the mapping to take effect, you must restart Apache HTTPD server.

This can be done via Servers > Apache Webserver in your control panel.

It can also be done via command line using:

```
service httpd restart
```

6.4 Edit Conf

To edit a Conf File you have created, simply select the conf file from the drop down.

Make the required edits and click Save.

6.5 Conf Location

By default, all conf files are saved to /etc/httpd/conf.d

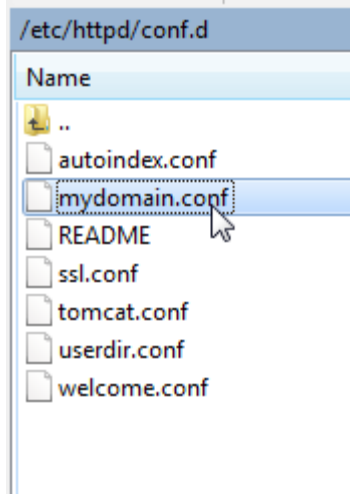


Table of Contents

- *Apache Tomcat*
 - *Usage*
 - *Layout*
 - *ORDS File Locations*
 - *APEX Image Folder*
 - *JRI File Locations*
 - *Starting and Stopping*
 - *Init Script*
 - *Version*

7.1 Usage

Apache Tomcat is used as the container for Oracle ORDS as well as JRI Publisher.

Stop/Starting/Restarting will restart both the APEX and JRI services.

7.2 Layout

The Apache Tomcat (CATALINA) home directory is:

```
/home/tomcat/apache-tomcat-v/
```

Where `apache-tomcat-v` is the version installed.

The `CATALINA_HOME` variable is set both in the Tomcat init script as well as `setenv.sh` files.

7.3 ORDS File Locations

ORDS is deploy as a war file under:

```
/home/tomcat/apache-tomcat-v/webapps/ords
```

7.4 APEX Image Folder

The APEX image directory (`/i/`) is deploy under:

```
/home/tomcat/apache-tomcat-v/webapps/i
```

This is the location you would use for deploying static and custom content.

7.5 JRI File Locations

For JasperReportsIntegration layout and customization options, please see the Jasper section below.

7.6 Starting and Stopping

There are two ways to start/stop/restart Tomcat.

1. Via Module, using the Stop/Start/Restart buttons as shown below:
2. Via SSH, using the following commands

```
1 /etc/init.d/tomcat { start | stop | restart | status }
```

7.7 Init Script

The Tomcat init script is located in `/etc/init.d` and has the following content.

```
1  #!/bin/bash
2  ### BEGIN INIT INFO
3  # Provides:          tomcat
4  # Required-Start:    $network
5  # Required-Stop:     $network
6  # Default-Start:     2 3 4 5
7  # Default-Stop:      0 1 6
8  # Short-Description: Start/Stop Tomcat server
9  ### END INIT INFO
10
```

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```

11  # Source function library.
12  . /etc/environment;      #Catalina variables
13  . $CATALINA_HOME/bin/setenv.sh
14
15  RETVAL=$?
16
17  function start(){
18  echo "Starting Tomcat"
19  /bin/su - tomcat $CATALINA_HOME/bin/startup.sh
20  RETVAL=$?
21  }
22
23  function stop(){
24  echo "Stopping Tomcat"
25  /bin/su - tomcat -c "$CATALINA_HOME/bin/shutdown.sh 60 -force"
26  RETVAL=$?
27  }
28
29  case "$1" in
30  start)
31      start;
32  ;;
33  stop)
34      stop;
35  ;;
36  restart)
37      echo "Restarting Tomcat"
38  stop;
39      start;
40  ;;
41  status)
42
43      if [ -f "${CATALINA_PID}" ]; then
44          TOMCAT_PID=$(cat "${CATALINA_PID}")
45          echo "Tomcat is running with PID ${TOMCAT_PID}";
46          RETVAL=1
47      else
48          echo "Tomcat is not running";
49          RETVAL=0
50      fi
51      ;;
52  *)
53  echo $"Usage: $0 {start|stop|restart|status}"
54  exit 1
55  ;;
56  esac
57  exit $RETVAL

```

7.8 Version

Currently, it is deployed with the latest stable version of Tomcat 9.x

Table of Contents

- *Data Sources*
 - *Data Source Types*
 - *Working with Data Sources*

8.1 Data Source Types

Data Sources are used to connect your Oracle database.

JRI Publisher supports both JDBC and JNDI Data Source types included with JRI.

JDBC Data Sources are stored in a flat file at:

```
${CATALINA_HOME}/jasper_reports/conf/
```

JDBC Data Sources have the following form:

```
#####  
# JDBC datasource configuration  
# http://www.orafaq.com/wiki/JDBC#Thin_driver  
# additional jdbc configurations, please uncomment  
#####  
[datasource:test]  
name=test  
url=jdbc:oracle:thin:@127.0.0.1:1521:XE  
username=my_oracle_user  
password=my_oracle_user_pwd
```

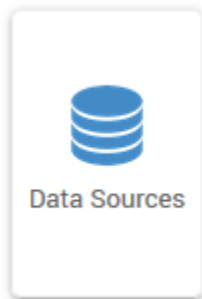
JNDI Data Sources are stored in a database and referenced in the application server rather than stored in a flat file as with JDBC Data Sources.

JNDI Data Sources have the following form:

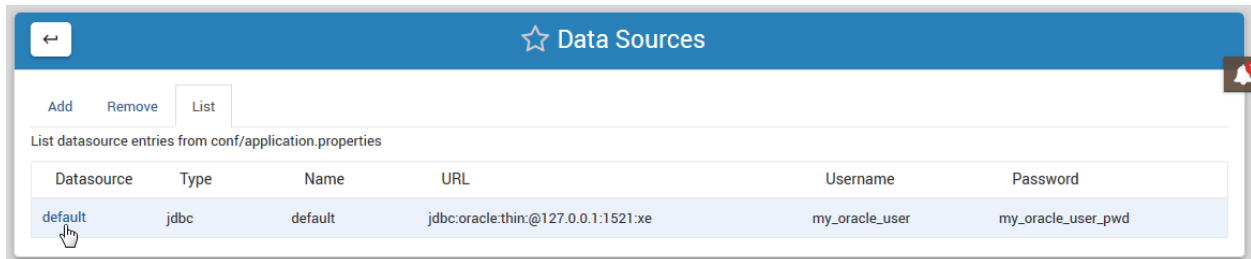
```
#####  
# Native JNDI datasource, to be configured in the application server  
# name: jndi_test  
#####  
[datasource:jndi_test]  
type=jndi  
name=jndi_test
```

8.2 Working with Data Sources

Data Sources can be added, edited and removed from the JRI Publisher Module via the Data Source tab, as shown below



The default view on clicking the tab is the List view, as shown below.



To add a Data Source, click on the Add tab at top.

Select the desired Data Source type and enter the required information as shown below. Then click the Add button:

On the main Data Source tab we can confirm the Data Source has been added:

Datasource	Type	Name	URL	Username	Password
Demo DS	jdbc	Demo DS	jdbc:oracle:thin:@domain.com:1521:orc	Scott	Tiger
default	jdbc	default	jdbc:oracle:thin:@127.0.0.1:1521:xe	my_oracle_user	my_oracle_user_pwd

To remove a Data Source, click on the Remove tab and select the Data Source you wish to remove using the drop-down selector as shown below:

← Data Sources

Add Remove List

Remove entries from conf/application.properties

Remove options	
Datasource	Demo DS ▾ Demo DS default

REMOVE

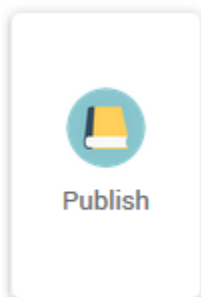
Publish

Table of Contents

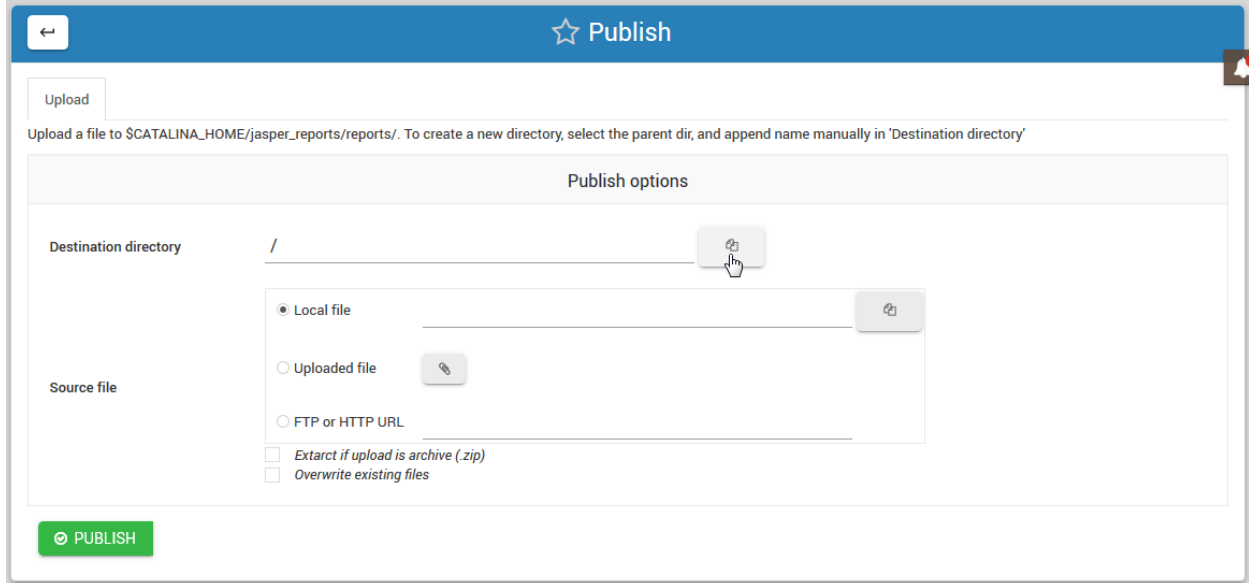
- *Publish*
 - *Publishing Reports*
 - *Creating Directories*
 - *Options*

9.1 Publishing Reports

To publish a report, click the Publish tab as shown below:



This will open the screen below.

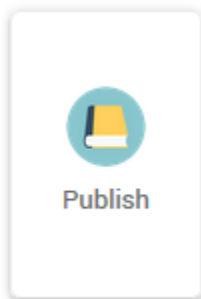


Note: The file browser location is set to /home/tomcat/apache-tomcat-v/jasper_reports/reports

Select the directory you wish to publish to and then select Upload to upload both your .jspx and .jasper files. You would also include any support files, such as image files.

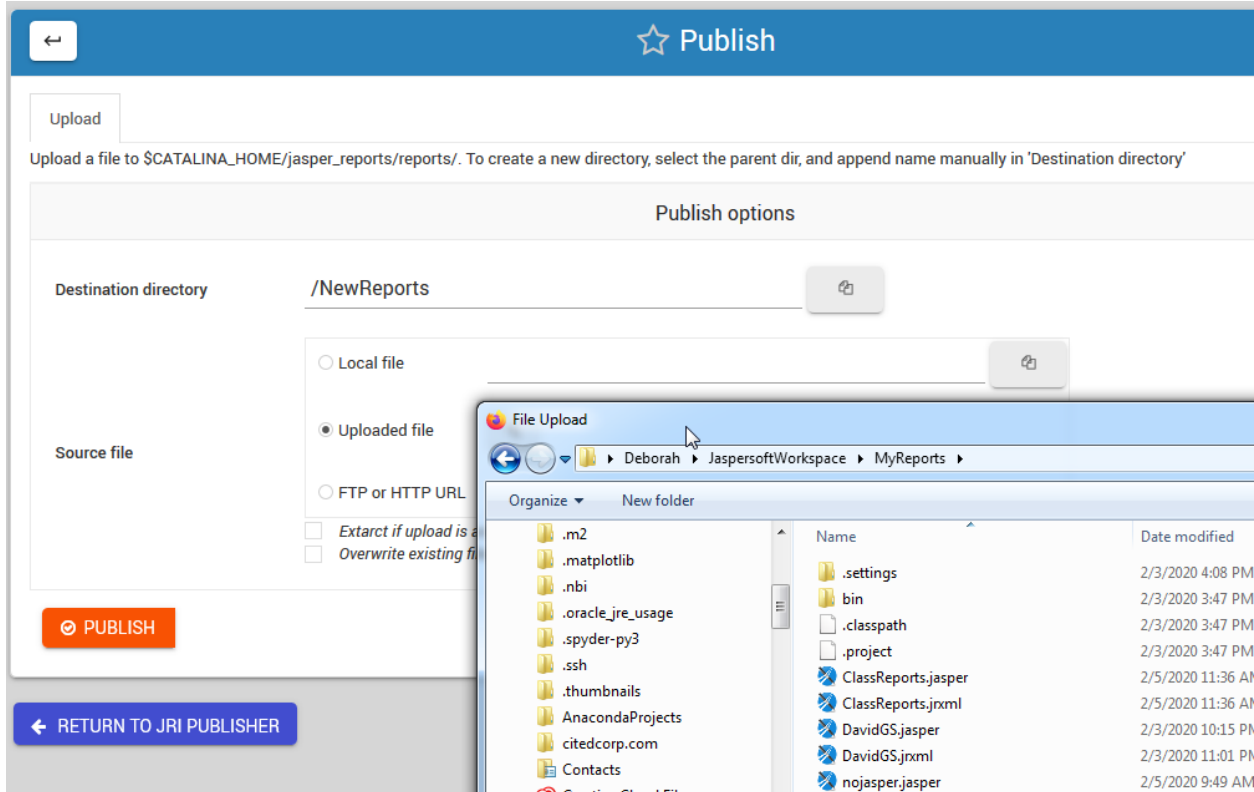
9.2 Creating Directories

To publish a report, click the Publish tab as shown below.

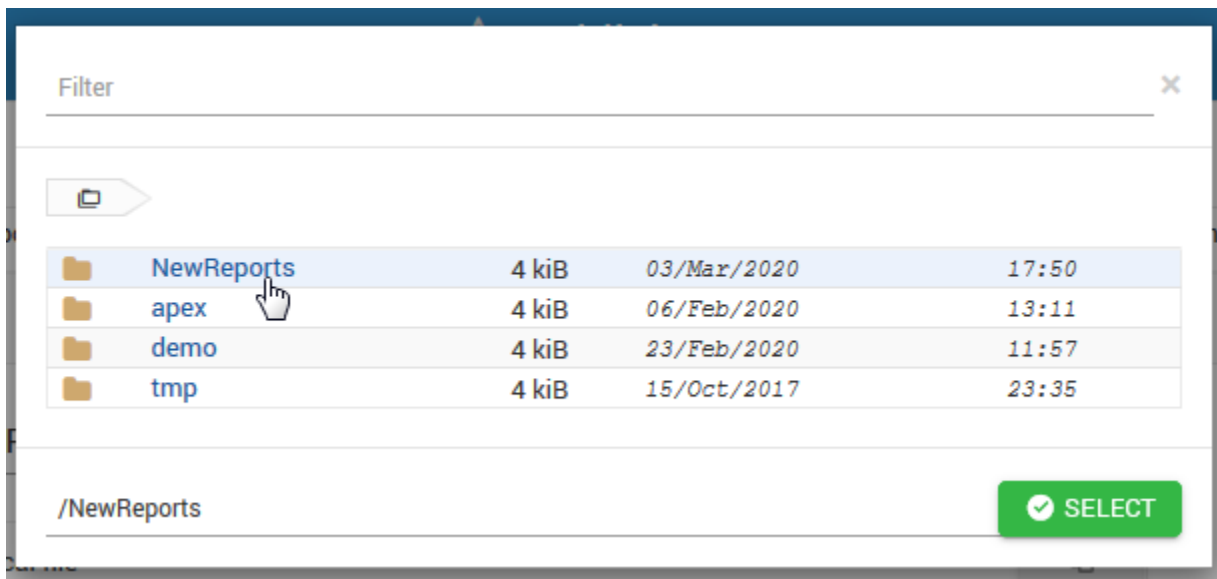


Enter the name of the directory you wish to create as show below. This will create a new directory, NewReports, under the main reports directory.

Once text is entered, upload any files you wish to.



Note that once a Directory has been created, it will be added to the available directories for subsequent publications:



9.3 Options

There are four options for uploading files.

1. Local File - this is a file already on the device.
2. Uploaded File - upload from your local machine.

3. HTTP or FTP URL - obtain files via HTTP or FTP

Additionally, select the options to upload zip archives as well as to over-write any existing files (for when you publish updates to your reports).

- FTP or HTTP URL _____
- Extarct if upload is archive (.zip)*
- Overwrite existing files*

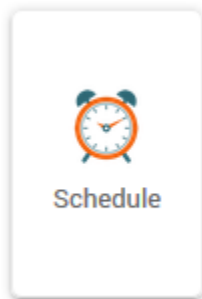


Table of Contents

- *Schedule*
 - *Scheduling Reports*
 - *Scheduling Options*
 - *Optional Params*
 - *URL Parameters*
 - *Additional Examples*

10.1 Scheduling Reports

Reports can be scheduled with a variety of options via the Schedule tab as shown below:



On the main Schedule page, click the Add tab to open the Create Schedule page as shown below.

←
☆ Schedule

Add View

Fill in parameters for the new JRI Schedule

Parameters

CRON string	daily ▾	*/30 * * * *	Cron helper
Name	NewReports/StateInfo ▾		
Format	pdf ▾		
Datasource	Demo DS ▾		
Filename	State-Info.pdf		
Email	user@company.com		<input type="checkbox"/> Don't send email

▶ Optional Parameters

+ ADD

10.2 Scheduling Options

The Schedule module offers the following options.

Execute:

```
Options:
now
custom
hourly
weekly
monthly
```

now: This will run the report immediately, with no subsequent runs.

custom: This option allows you to enter a custom cron for running the report

hourly, weekly, and monthly are as stated.

Name:

Options:
Drop-down list of all available reports

The Name field will display a list of all available reports. Above, we have select the NewReports/ClassReports we created earlier.

Format:

Options:
csv
docx
html
html2
jxl
pdf
pptx
rtf
xls
xlsx

Select the desired output format for the report.

Data Source:

Options:
Displays a drop-down list of Data Sources you have created.

Select the desired Data Source for the report.

File Name:

Options:
Enter the desired file name WITH Extension.
Example: ClassReports.pdf

Enter the desired Data Source for the report.

Email:

Options:
Enter email address or comma separated list of addresses for delivery.

Enter the desired Data Source for the report.

Note: If you do not wish to email the report, tick the “Don’t send email” box. This will run the report and save it to disk on the server. The report can be retrived via disk or downloaded via Reports tab.

10.3 Optional Params

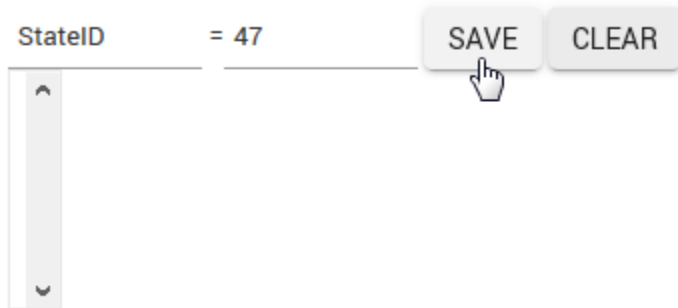
The Optional Params tab allows you to:

1. Set email subject
2. Set email message

3. Add report parameters

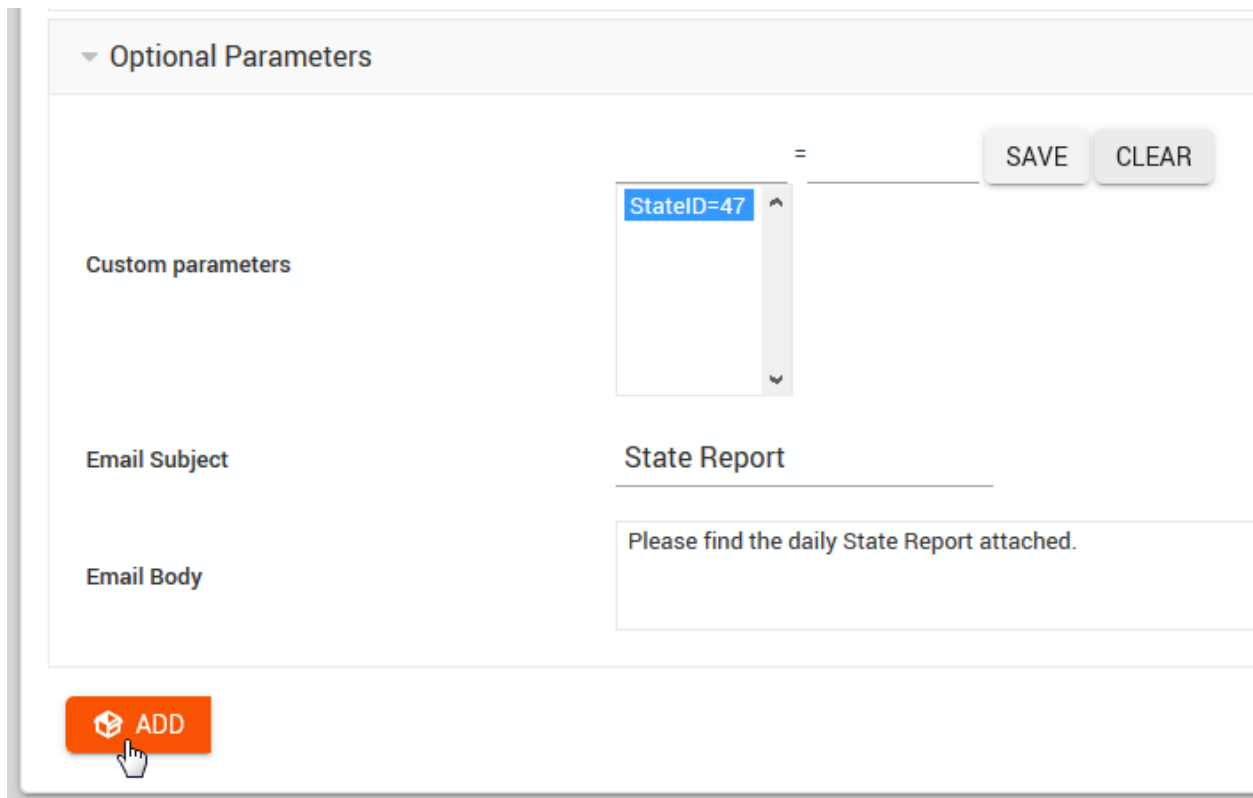
10.4 URL Parameters

To add a Report Parameter to the report URL, enter the variable in the left box and the value in the right box as shown below:



A screenshot of a web interface showing a parameter input field. The field contains the text "StateID = 47". To the right of the field are two buttons: "SAVE" and "CLEAR". A mouse cursor is pointing at the "SAVE" button.

Click the Save button.



A screenshot of a report configuration window. The window has a title bar with a dropdown arrow and the text "Optional Parameters". Below the title bar, there is a section for "Custom parameters" with a text input field containing "StateID=47" and an equals sign. To the right of the input field are "SAVE" and "CLEAR" buttons. Below the "Custom parameters" section, there are sections for "Email Subject" and "Email Body". The "Email Subject" section contains the text "State Report". The "Email Body" section contains the text "Please find the daily State Report attached." At the bottom left of the window, there is an orange button with a plus icon and the text "ADD". A mouse cursor is pointing at the "ADD" button.

You can add as many parameters as you wish to.

Finally, click the Creat button to schedule the report.

10.5 Additional Examples

Below are some additional examples.

Send report every Tuesday at 1500 (3 PM)

← Schedule

Add View

Fill in parameters for the new JRI Schedule

Parameters	
CRON string	custom ▼ 0 * * * TUE Cron helper
Name	NewReports/StateInfo ▼
Format	docx ▼
Datasource	Demo DS ▼
Filename	State-Info.docx
Email	user@company.com <input type="checkbox"/> Don't send email

▶ Optional Parameters

ADD

Send report every hour without email delivery

← ☆ Schedule

Add View

Fill in parameters for the new JRI Schedule

Parameters

CRON string [Cron helper](#)

Name

Format

Datasource

Filename

Email Don't send email

▶ Optional Parameters

Send report weekly with StudentID = 51

← ☆ Schedule

Add View

Fill in parameters for the new JRI Schedule

Parameters

CRON string: weekly */30 * * * * [Cron helper](#)

Name: NewReports/StateInfo

Format: pptx

Datasource: Demo DS

Filename: State-Info.pptx

Email: user@company.com *Don't send email*

Optional Parameters

Custom parameters: StateID=51 = SAVE CLEAR

Email Subject: Weekly State Report

Email Body: Please find the weekly State PPTX Report attached.

ADD

CHAPTER 11

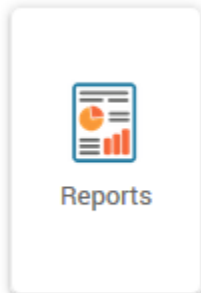
Report Dashboard

Table of Contents

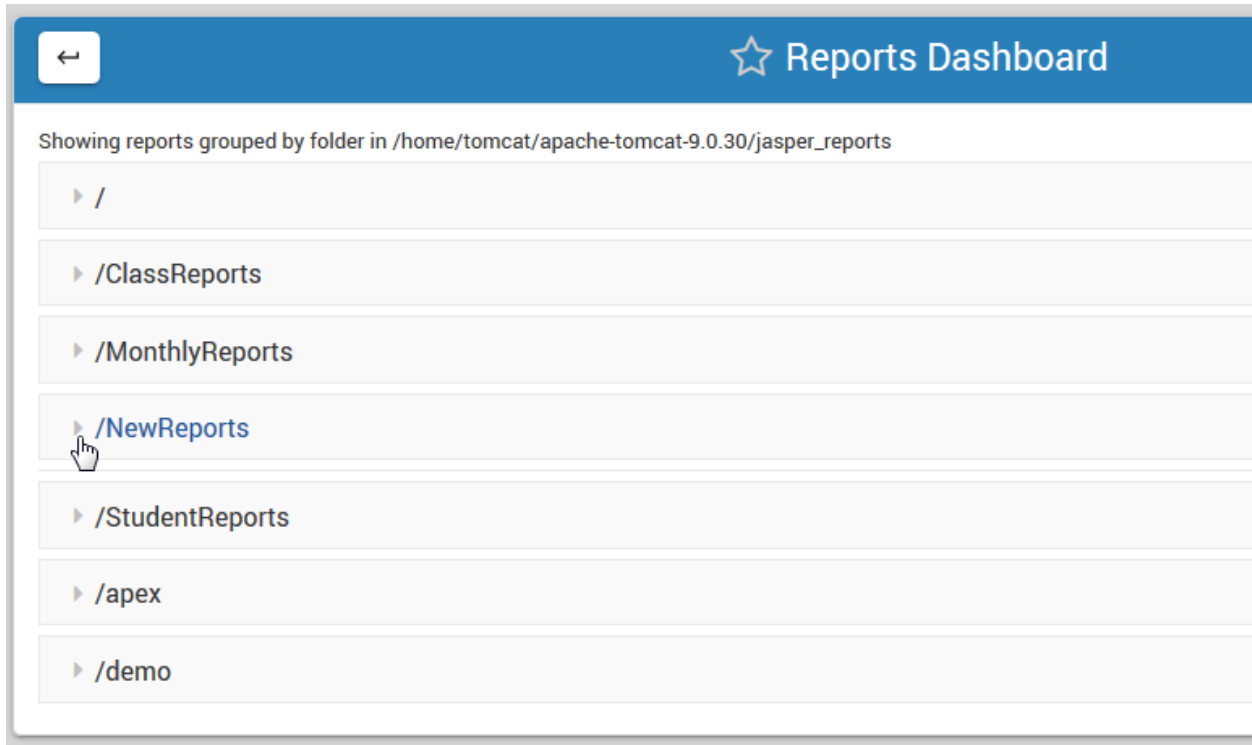
- *Report Dashboard*
 - *Overview*
 - *Dashboard Layout*
 - *Dashboard Functions*
 - *No Schedule*

11.1 Overview

Click the Reports tab to open the Reports Dashboard.



This will open the screen below.



As we can see above, the creation of our NewReports Directory has been added to the directory structure. This is true for all directories and sub directories added.

11.2 Dashboard Layout

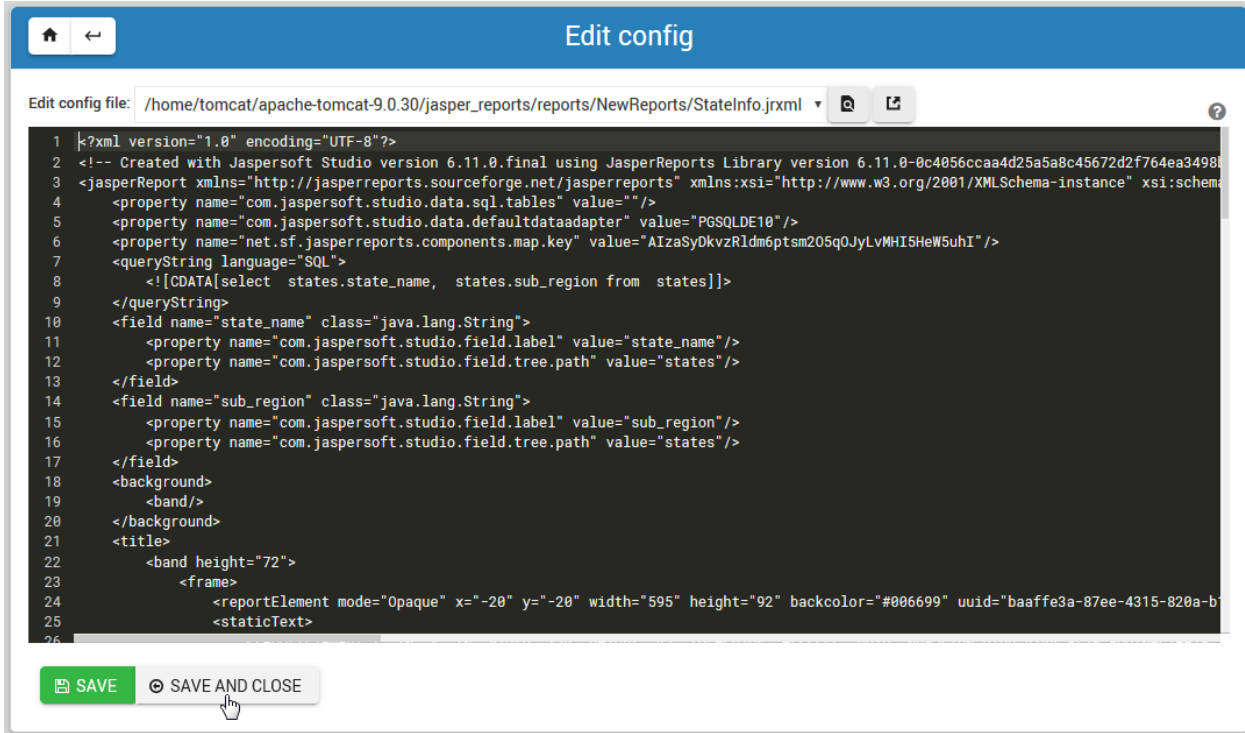
Expanding the NewReports directory, we see below:

▼ /NewReports									
Name	Actions	SchID	Cron	Format	Datasource	Output	Email	Optional Params	
StateInfo		12	@daily	pdf	Demo DS	Browse	user@company.com	StateID=51	

11.3 Dashboard Functions

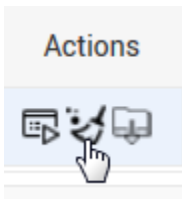
Name:

Clicking on the report name will open the .jrxml file for editing, as shown below:

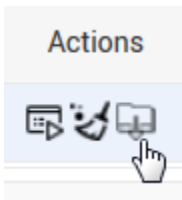
**Actions:**

Run: Runs the report on demand.

Clean: Opens a new window to delete any reports you may wish to delete



Download: Opens a new window to download selected report(s) in .zip or .bgz format.

**SchID:**

Link to edit the Schedule for the report

Cron:

Displays the cron in use for the Schedule

Format:

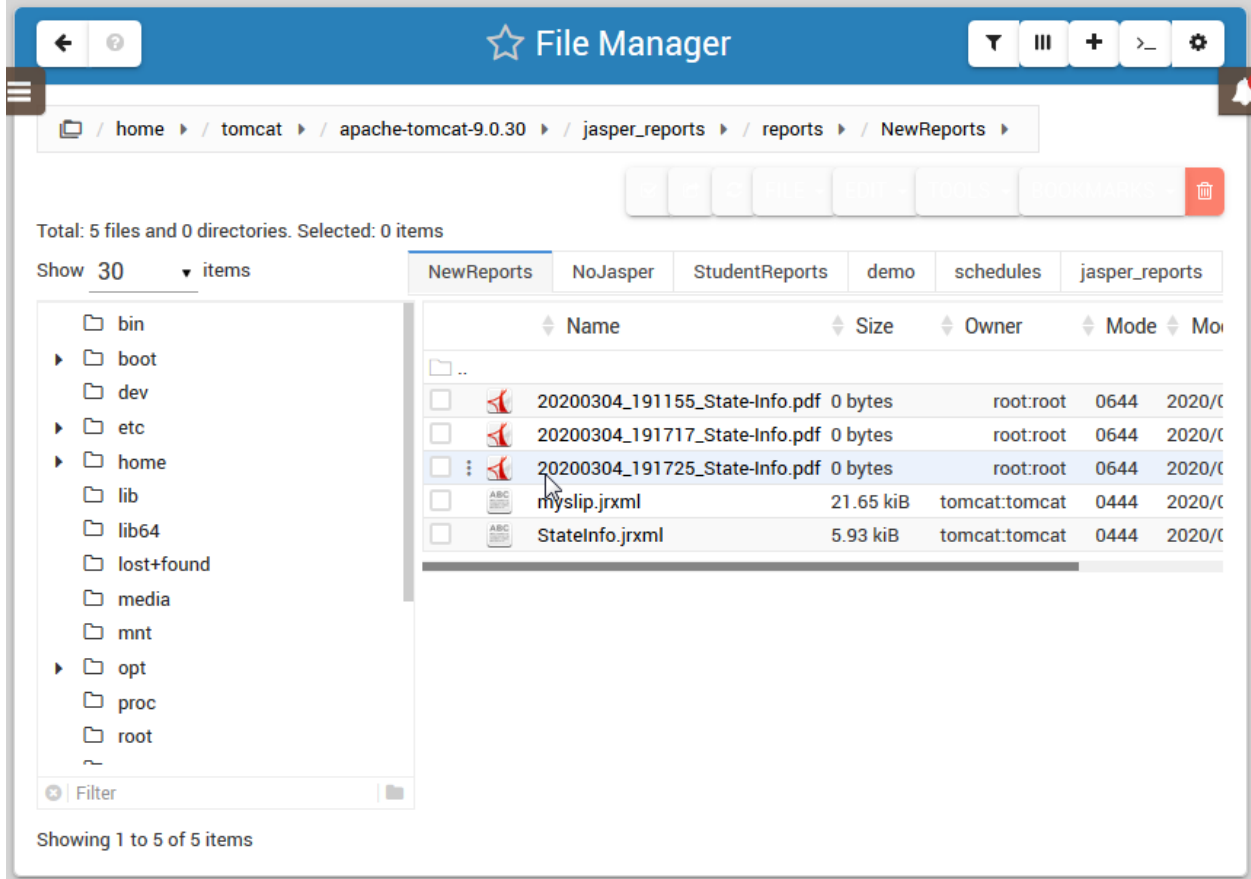
Displays the report format (e.g. pdf, csv, etc. . .)

Data Source:

Displays report Data Source

Output:

Clicking the Browse button will open the report directory in the File Manager as shown below:



Email:

Displays report email recipient(s).

Optional Params:

Displays any URL Parameters the report is using.

11.4 No Schedule

Note: Any report that does not have a schedule will show the Scheduler icon in the Actions menu. To add a Schedule, click the icon as shown below.

▼ /NewReports


Name	Actions	SchID	Cron	Format	Datasource	Out
StateInfo						

Table of Contents

- *Jasper*
 - *JasperReportsIntegration*
 - *File Locations*
 - *Gen Script*
 - *JRI Module Files*
 - *Version*
 - *Schedule Files*
 - *MUTT Parameters*

12.1 JasperReportsIntegration

The information below pertains to the deployment of JasperReportsIntegration in JRI Publisher. For full documentation of JasperReportsIntegration, please see http://www.opal-consulting.de/downloads/free_tools/JasperReportsIntegration/

12.2 File Locations

On installation, the JRI files are saved to:

```
/home/tomcat/apache-tomcat-v/jasper_reports
```

Here, you will find the following:

```

/home/tomcat/apache-tomcat-v/jasper_reports/conf
/home/tomcat/apache-tomcat-v/jasper_reports/schedules
/home/tomcat/apache-tomcat-v/jasper_reports/reports
/home/tomcat/apache-tomcat-v/jasper_reports/logs

```

- ** reports ** contains your Jasper report files.
- ** conf ** contains the application.properties file
- ** schedules ** contains the .sh files for the Scheduler

12.3 Gen Script

The Report Scheduler script is located under `/etc/init.d/gen_jri_report.sh` and can be customized to suit and extend your requirements.

```

1  #!/bin/bash -e
2
3  source /etc/environment
4
5  JRI_HOME="${CATALINA_HOME}/jasper_reports/"
6
7  #source the report environment
8  source "${JRI_HOME}/schedules/${1}_env.sh"
9
10 DONT_MAIL="${2}"
11
12 #set who is sending the mail
13 export EMAIL='root@localhost'
14 REPORT_FOLDER=$(dirname ${REP_ID})
15
16 #encode the / in report id
17 REP_ID=$(echo "${REP_ID}" | sed 's/\//%2F/g')
18
19 if [ "${OPT_PARAMS}" ]; then
20 OPT_PARAMS="${OPT_PARAMS}"
21 fi
22
23 URL="http://localhost:8080/JasperReportsIntegration/report?_repName=${REP_ID}&_
↪repFormat=${REP_FORMAT}&_dataSource=${REP_DATASOURCE}&_outFilename=${REP_FILE}$
↪{OPT_PARAMS}"
24
25 TSTAMP=$(date '+%Y%m%d_%H%M%S')
26 REP_FILEPATH="${JRI_HOME}/reports/${REPORT_FOLDER}/${TSTAMP}_${REP_FILE}"
27
28 wget -O"${REP_FILEPATH}" "${URL}"
29 if [ $? -ne 0 ]; then
30 rm -f "${REP_FILEPATH}"
31 fi

```

12.4 JRI Module Files

On installation, the JRI Module files are saved to:

```
/usr/libexec/webmin/jri_publisher (CentOS)
/usr/share/webmin/jri_publisher (Ubuntu)
```

The JRI Module configuration files are located at `/etc/webmin/jri_publisher`:

```
/etc/webmin/jri_publisher/config
/etc/webmin/jri_publisher/openjdk_version_cache
/etc/webmin/jri_publisher/oracle_version_cache
```

reports contains your Jasper report files.

conf contains the application.properties file

schedules contains the .sh files for the Scheduler

12.5 Version

The JasperReportsIntegration version is the one selected while using the install Wizard.

12.6 Schedule Files

Each schedule creates a numeric file under:

```
/home/tomcat/apache-tomcat-version/jasper_reports/schedules
```

The file has the following structure:

```
1 REP_FORMAT=pdf
2 REP_ID=NewReports/StateInfo
3 OPT_PARAMS="StateID=51"
4 REP_DATASOURCE="Demo DS"
5 EMAIL_SUBJ="State Report"
6 REP_FILE=State-Info.pdf
7 EMAIL_BODY="Please find the State Reports attached."
8 SCH_ID=12
9 RECP_EMAIL=user@company.com
```

The above parameters are passed to the Jasper url as well as to MUTT for email delivery.

12.7 MUTT Parameters

JRI Publisher uses MUTT in conjunction with Postfix to deliver reports via email.

The final input has the form:

```
./etc/init.d/gen_jri_report.sh schedules.{1}
```

Where `schedules.{1}` is passed to `gen_jri_report.sh`

The screenshots in the documentation use a Material Design CSS Extension we created.

This can be added directly to Webmin > Configuration > Webmin Themes

In addition to making the screens a bit more vivid, it also increases the size of objects on the page as well as padding, making it easier to work with

```
1  .row.icons-row .icons-container {
2  border-radius: 25px!important;
3  -webkit-filter: none!important;
4  filter: none!important;
5  }
6
7  html[data-theme="brown"] #sidebar {
8  background:
9  darkslategray!important;}
10
11 .panel-default>.panel-heading {
12 color: #fff;
13 background-color: rgb(0, 188, 212)!important;text-align:left !important;
14
15 }
16
17 .panel-default>.panel-heading, .panel-default {
18 border-top-left-radius: 5px !important;
19 border-top-right-radius: 5px !important;
20 }
21 .panel-default , .panel{
22 border-bottom-left-radius: 5px !important;border-top:0 !important;border-top-
↪width: 0px;
23 border-bottom-right-radius: 5px !important;
24 box-shadow: 0 2px 2px 0 rgba(0,0,0,.14), 0 3px 1px -2px rgba(0,0,0,.12), 0 1px_
↪5px 0 rgba(0,0,0,.2);
25 }
26
```

(continues on next page)

```

27     .row.icons-row .icons-container:not(.highlighted) {
28     border-radius: 5px !important;
29     background: rgb(255, 255, 255) !important;
30     box-shadow: 0 2px 2px 0 rgba(0,0,0,.14), 0 3px 1px -2px rgba(0,0,0,.12), 0 1px_
↪5px 0 rgba(0,0,0,.2);
31     }
32
33     h2.form-signin-heading {
34     display: none !important;
35     }
36
37     i.wbm-webmin {
38     display: none !important;
39     }
40
41     .card {
42     font-size: .875rem;
43     font-weight: 400
44     }
45
46     .btn:not(.btn-round), button.btn:not(.btn-round), .csf-container input[type=
↪'submit']:not(.btn-round), .csf-container button.input:not(.btn-round), input[type=
↪'submit']:not(.btn-round) {
47     text-align: center;
48     vertical-align: middle;
49     font-size: 1rem;
50     line-height: 1.5;
51     border-radius: 0.325em !important;
52     transition: color .15s ease-in-out,background-color .15s ease-in-out,border-
↪color .15s ease-in-out,box-shadow .15s ease-in-out;
53     text-transform: uppercase;
54     cursor: pointer;
55     border: 0;
56     outline: 0;
57     transition: box-shadow .2s cubic-bezier(.4,0,1,1),background-color .2s cubic-
↪bezier(.4,0,.2,1),color .2s cubic-bezier(.4,0,.2,1) !important;
58     will-change: box-shadow,transform;
59     color: rgba(0,0,0,.87);
60     background-color: rgb(255, 255, 255);
61     border-color: rgb(204, 204, 204) !important;
62     box-shadow: 0 2px 2px 0 rgba(0,0,0,.14), 0 3px 1px -2px rgba(0,0,0,.2), 0 1px_
↪5px 0 rgba(0,0,0,.12) !important;
63     margin-left: 0 !important;
64     margin-right: 0 !important
65     }
66
67     html[data-script-name*='settings-editor_read.cgi'] #content .CodeMirror+.ui_form_
↪end_buttons .btn {
68     margin-left: 0 !important;
69     margin-right: 0 !important
70     }
71
72     html[data-script-name*='settings-editor_read.cgi'] #content .CodeMirror+.ui_form_
↪end_buttons td:last-child .btn {
73     margin-left: 0 !important;
74     margin-right: 5px !important
75     }

```

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```

76
77   .btn-group .btn, .btn {
78     box-shadow: 0 2px 2px 0 rgba(0,0,0,.14), 0 3px 1px -2px rgba(0,0,0,.2), 0 1px_
↪5px 0 rgba(0,0,0,.12);
79   }
80
81   .btn-group>.btn:first-child:not(:last-child):not(.dropdown-toggle) {
82     border-top-right-radius: 0 !important;
83     border-bottom-right-radius: 0 !important;
84   }
85
86   .btn-group>.btn:last-child:not(:first-child):not(.dropdown-toggle) {
87     border-top-left-radius: 0 !important;
88     border-bottom-left-radius: 0 !important;
89   }
90
91   body .btn.btn-primary {
92     color: rgb(255, 255, 255) !important;
93     background-color: rgb(63, 81, 181) !important;
94     border-color: rgb(63, 81, 181) !important;
95   }
96   body .btn.btn-default {
97     color: rgba(0, 0, 0, 0.87);
98     background-color: rgba(153, 153, 153, 0.2);
99     border-color: rgba(153, 153, 153, 0.2);
100  }
101  body .btn.btn-success {
102    color: rgb(255, 255, 255) !important;
103    background-color: rgb(76, 175, 80) !important;
104    border-color: rgb(76, 175, 80) !important;
105  }
106
107  .btn.btn-secondary {
108    color: rgb(255, 255, 255) !important;
109    background-color: rgb(108, 117, 125) !important;
110    border-color: rgb(108, 117, 125) !important;
111  }
112
113  .btn.btn-info, .btn.btn-inverse, .btn.ui_link.btn-inverse, .btn-tiny, .ui_link.
↪btn.btn-inverse.btn-tiny.ui_link_replaced, .btn-inverse {
114    color: rgb(255, 255, 255) !important;
115    background-color: rgb(3, 169, 244) !important;
116    border-color: rgb(3, 169, 244) !important;
117  }
118
119  .btn.btn-info:hover, .btn.btn-inverse:hover, .btn.ui_link.btn-inverse:hover, .btn-
↪tiny:hover, .ui_link.btn.btn-inverse.btn-tiny.ui_link_replaced:hover, .btn-
↪inverse:hover,
120
121  .btn.btn-inverse:hover, .btn.ui_link.btn-inverse:hover, .btn-tiny:hover, .ui_
↪link.btn.btn-inverse.btn-tiny.ui_link_replaced:hover, .btn-inverse:hover{
122    border-color: rgb(255, 255, 255) !important;background-color: rgb(3, 169, 244) !
↪important;
123  }
124
125  .btn:hover {
126    cursor: pointer !important;

```

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```
127     }
128     .btn.btn-warning {
129     color: rgb(255, 255, 255) !important;
130     background-color: rgb(255, 87, 34) !important;
131     border-color: rgb(255, 87, 34) !important;
132     }
133
134     .btn.btn-danger {
135     color: rgb(255, 255, 255) !important;
136     background-color: rgb(244, 67, 54) !important;
137     border-color: rgb(244, 67, 54) !important;
138     }
139
140     .alert-success {
141     color: rgb(40, 91, 42);
142     background-color: rgb(219, 239, 220);
143     border-color: rgb(205, 233, 206);
144     }.alert-danger {
145     color: rgb(127, 35, 28);
146     background-color: rgb(253, 217, 215);
147     border-color: rgb(252, 202, 199);
148     }.alert-primary {
149     color: rgb(33, 42, 94);
150     background-color: rgb(217, 220, 240);
151     border-color: rgb(201, 206, 234);
152     }.alert-secondary {
153     color: rgb(56, 61, 65);
154     background-color: rgb(226, 227, 229);
155     border-color: rgb(214, 216, 219);
156     }.alert-warning {
157     color: rgb(133, 45, 18);
158     background-color: rgb(255, 221, 211);
159     border-color: rgb(255, 208, 193);
160     }.alert-info {
161     color: rgb(2, 88, 127);
162     background-color: rgb(205, 238, 253);
163     border-color: rgb(184, 231, 252);
164     }.alert-light {
165     color: rgb(127, 127, 127);
166     background-color: rgb(253, 253, 253);
167     border-color: rgb(252, 252, 252);
168     }.alert-dark {
169     color: rgb(34, 34, 34);
170     background-color: rgb(217, 217, 217);
171     border-color: rgb(202, 202, 202);
172     }
173     #right-side-tabs .btn-tiny.ui_submit.ui_form_end_submit, #content #system-status_
↪ .btn-tiny.ui_submit.ui_form_end_submit {
174     line-height: 21px;
175     padding: 5px 12px !important;    height: 32px !important;
176     }
177     .table-subtable tbody tr td, .panel-body .table-subtable tr th, .panel-body .
↪ table-subtable tr td, .table-subtable tbody tr td, .panel-body tr th, .panel-body_
↪ tr td {
178     padding: .75rem !important;
179     }
180
```

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```

181     body.csf .dataTables_filter input[type='search'], body .dataTables_filter_
↪input[type='search'], .csf-container input[type='text'], .csf-container input[type=
↪'search'], .csf-container input, .csf-container select, input[id^='CSF'],_
↪input[type='button'], input[type='reset'], input[name]:not([type='image
↪']):not([type='checkbox']):not([type='radio']):not(.btn):not(.session_login),_
↪input[name]:not([type='image']):not(.sidebar-search):not([type='button']):not([type=
↪'checkbox']):not([type='radio']):not(.btn), .csf-container input[type='text'], .csf-
↪container input[type='search'], .chooser_button, .form-control {
182         font-size: 1rem;
183         box-sizing: content-box;
184         width: 100%;
185         height: 3rem;
186         margin: 0;
187         padding: 0;
188         -webkit-transition: box-shadow .3s,border .3s;
189         transition: box-shadow .3s,border .3s;
190         border: none;
191         border-bottom: 1px solid rgb(158, 158, 158);
192         border-radius: 0;
193         outline: 0;
194         background-color: rgba(0, 0, 0, 0);
195         box-shadow: none;font-size:16px;padding-left:5px;padding-right:5px;
196     }
197
198     input[name]:not([type='image']):not([type='checkbox']):not([type='radio']):not(.
↪btn):not(.session_login):focus, input[name]:not([type='image']):not(.sidebar-
↪search):not([type='button']):not([type='checkbox']):not([type='radio']):not(.
↪btn):focus, .csf-container input[type='text']:focus, .csf-container input[type=
↪'search']:focus, .chooser_button:focus, .form-control:focus{
199         border-bottom-width:2px;border-bottom-color :   rgb(63, 81, 181)
200     }
201
202     li.user-link, li.user-link span, li.user-link, li.user-link i {
203         background: rgb(85, 189, 212);
204         color: rgb(255, 255, 255) !important;
205         border-radius: 5px !important;
206         border: 0 !important;
207         line-height: 18px;
208     }
209     html[data-theme="brown"] #sidebar .form-group .form-control.sidebar-
↪search::placeholder{
210         color:#bbb !important
211     }
212     html[data-theme="brown"] #sidebar .form-group .form-control.sidebar-search{
213         color: #fff!important;
214     }

```

Above can be pasted into Theme Extensions

CHAPTER 14

Security

As with JasperReportsIntegration, JRI Publisher should be run behind a firewall with access to port 8080 and 1521 restricted to the database server.

You should also change the Webmin port, as well as disable root access via SSH.

Note: All Tomcat and JRI services are owned and run by user tomcat with minimal privileges.

CHAPTER 15

Support

All required Support contacts are contained in your Welcome Email.

Support is available 24x7x365