JRI Publisher

Release 0.4.3

acugis

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Getting Started

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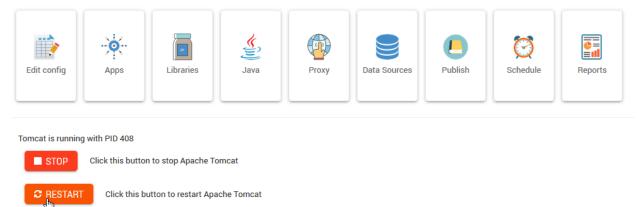


Intro

1.1 Overview

JRI Publisher is a Webmin module that installs, configures, and manages Tomcat, Java, and JasperReportsIntegration It also provides Publishing, Scheduling, and Report Management.

It can be used with or without Oracle APEX.



1.2 Use Cases

- Those looking to get up and running quickly and easily with JasperReportsIntegration
- Those looking for the advanced functionality JRI Publisher adds to JasperReportsIntegration (UI, Scheduling, and Dashboard)

• Non-APEX Oracle users who want a Jasper reporting solution. While JasperReportsIntegration was designed for Oracle APEX (and can be used with Oracle APEX), JRI Publisher does not require APEX or installing the JRI SQL objects.

1.3 System Requirements

- CentOS 8 or
- Ubuntu 18
- Webmin
- Postfix
- 1 GB Ram
- 10 GB SSD

1.4 Authors

- David Ghedini
- Kaloyan Petrov

1.5 Components

JasperReportsIntegration Jasper Reports Library Apache Tomcat OpenJDK

1.6 Open Source

JRI Publisher is Free, Open Source Software. GNU GENERAL PUBLIC LICENSE v3

Installation

Installation can be done using the pre-installer.sh script or via GIT.

2.1 Using the Pre-Installer

On a fresh CentOS 8 or Ubuntu 18 installation, the fastest method is to use the pre-installer script:

```
./pre-install-jrip-centos.sh
```

1

2

4

The above will install Webmin, Apache HTTPD Server, JRI Publisher module, as well as our (optional) Certbot Module for SSL.

When the script completes, you will see the message below:

```
/opt ~
Installed CertBot in /usr/share/webmin/certbot (336 kb)
~
JRI Publisher is now installed. Go to Servers > JRI Publisher to complete_
→installation
```

Note: Following above, you will need to log in to Webmin to complete installation using the install Wizard.

2.2 Via Git or Download

You can use Git to build module for an existing Webmin installation:

```
git clone https://github.com/cited/Tomcat-Webmin-Module
mv Tomcat-Webmin-Module-master tomcat
tar -cvzf tomcat.wbm.gz tomcat/
```

Note: Following above, you will need to log in to Webmin to complete installation using the install Wizard.

2.3 Postfix

In order to use the email functionality for Report Scheduling, a working MTA is required.

If one is not already installed, the simplest to install is Postfix.

Postfix can be installed on Webmin.

Navigate to Servers > Unused Modules > Postfix Mail Server

Accept the defaults and click "Install Now" as shown below.

¢ Ø	A Postfix Mail Server	٩
	ommand /usr/sbin/postfix is not installed on your system. Maybe your module configuration is incorrect, or Postfix is not installed. can be automatically installed by Webmin using APT.	1
ি Install Now √		

CHAPTER $\mathbf{3}$

Wizard

Once the module is installed, the Wizard is used to configure the components.

Go to Servers > JRI Publisher:



The main Wizard screen will a link for completing each step.

While most steps are self-explanatory, we will cover Tomcat, JDK, and JRI selection below:

Install Java/JDK:

← Å Setup	
Warning: Java is not found. Install it manually or from the Java tab Warning: haveged package is not installed. Install it manually or click here to have it downloaded and installed. Apache Tomcat is not found. Click here to install Tomcat from Apache site. Warning: Missing package dependencies - mutt - are not installed. Install them manually or click here to have them installed. Apache default proxy is not configured. click here JRI report script is not installed. To install it click here If you don't see any warning above, you can complete setup from here	K

Select the JDK you wish to use. We have tested with JDK 8

↔ 🖓 Java								
Install Uninstall Default								
Install Java Development Kit(JDK) fro	om distribution repository or fro	om Oracle .tar.gz archive						
		Install Options						
	OpenJDK	8 ▼ ▼ Headless package						
JDK source	Oracle JDK	8u241-b07 🔻						
	O Local file		ළ					
	O Uploaded file	Ø						
	O FTP or HTTP URL							
Set as system default Java 🗸 (using alternation		ves)						

JRI Publihsher has been tested with OpenJDK 8 and Oracle JDK 8.

Apache Tomcat:

4	☆ Setup	
	Click here to install Tomcat from Apache site. ျမာ pendencies - mutt - are not installed. Install them manually or click here to have them installed. onfigured, click here	
JRI report script is not installe If you don't see any warning a	xd. To install it click here bove, you can complete setup from here	

JRI Publihsher has been tested with Apache Tomcat 8.x and 9.x:

Download an archive of Apache	Tomcat Server from Apache website and install it		
	Opt	ions	
Tomcat Major Version	9 ▼ • Apache Archive 9.0.31 ▲		
Install source	Uploaded file	2	

Install JasperReportsIntegration:

\leftarrow	☆S
JasperReportsIntegration is not installed. To select version and install, click here JRI report script is not installed. To install it click here If you don't see any warning above, you can complete setup from here	

JRI Publihsher has been tested with JasperReportsIntegration 2.4.0 and 2.5.1:

~	☆ Setup						
Select version of Jasper Reports Integration to be installed	elect version of Jasper Reports Integration to be installed						
	Options						
Release version	2.4.0 show beta versions						
😵 Download							

Note: If you wish to use a Beta version of JasperReporsIntegration, tick the "Show Beta Versions" select box

Once each step of the Wizard is completed, the Wizard can be removed:

 ← 	☆ Setup
If you don't see any warning above, you can complete setup from here	
← Return to JRI Publisher	

With the Wizard completed, your module should appear as below:

• •	♦ ⊘ JRI Publisher Q Tomcat 9.0.30 / Java 1.8.0_242-802422-b08-0ubuntu3~18.04-b08 Q								
Edit config	Apps	Libraries	Java	Proxy	Data Sources	Publish	Schedule	Reports	
Tomcat is not run									

Note: The JRI application is not deployed at this point. You need to Start Tomcat in order to deploy it. Do so before any further operations as it is required to write configuration files, etc...

3.1 About Haveged

Haveged is an entropy generator that will provide markedly faster JVM startup times. The caveat is that it will use much higher CPU load (although for shorter duration due to decreased JVM start up time). Bear this in mind if deploying on VM with limited CPU or other critical applications.

Webmin

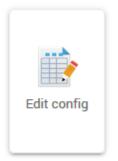
Webmin can be accessed via:

https://yourdomain.com:10000

General

Table of Contents					
• General					
– Edit Config					
– Apps					
– Libraries					
– Java					
– Proxy					

5.1 Edit Config



The Config tab is used to edit the following files:

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

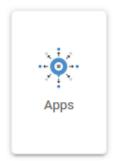
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```
web.xml
context.xml
tomcat-users.xml
setenv.sh
```

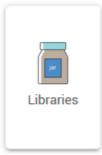
These files can, of course, be edited via the file system or VI as well.

5.2 Apps



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

5.3 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.

5.4 Java



10

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.

Install Uninstall Default			
nstall Java Development Kit(JDK) from dist	ribution repository or from Oracle .t	ar.gz archive	
		Install C	ptions
IDK source	 OpenJDK Oracle JDK Local file Uploaded file FTP or HTTP URL 	8 ▼ ✓ Headless package 13.0.2+8 ▼	2
Set as system default Java	 (using alternativ 	ves)	

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

5.5 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.

~	숬 Proxy	
Apps with proxy (/etc/apache2/conf-enabled/tor	ncat.conf)	
Path	URL	
/	http://localhost:8080/	
	Add proxy	
Add Wildcard map	Proxy Apache:80 to Tomcat:8080	
Installed Apps	JasperReportsIntegration ROOT docs examples host-manager manager	
Make this the default (/)	Will remove previous default path!	
Use SSL port	Use Tomcat HTTPs port	
🍄 Add		
	Remove proxy	
Available proxies		
Remove		

Apache Tomcat

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- Apache Tomcat
 - Layout
 - JRI File Locations
 - Starting and Stopping
 - Init Script
 - Version

6.1 Layout

For installations done using the Wizard, the Apache Tomcat (CATALINA) home directory is:

/home/tomcat/apache-tomcat-v/

Where apache-tomcat-v is the version you chose to install.

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

6.2 JRI File Locations

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

6.3 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

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

6.4 Init Script

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

```
#!/bin/bash
1
         ### BEGIN INIT INFO
2
         # Provides: tomcat
3
         # Required-Start: $network
4
         # Required-Stop: $network
5
         # Default-Start: 2 3 4 5
6
         # Default-Stop:
                             016
7
         # Short-Description: Start/Stop Tomcat server
8
         ### END INIT INFO
9
10
         # Source function library.
11
         . /etc/environment;
                                #Catalina variables
12
         . $CATALINA_HOME/bin/setenv.sh
13
14
         RETVAL=$?
15
16
         function start() {
17
         echo "Starting Tomcat"
18
19
         /bin/su - tomcat $CATALINA_HOME/bin/startup.sh
         RETVAL=$?
20
21
         }
22
         function stop() {
23
         echo "Stopping Tomcat"
24
         /bin/su - tomcat -c "$CATALINA_HOME/bin/shutdown.sh 60 -force"
25
         RETVAL=$?
26
27
         }
28
         case "$1" in
29
         start)
30
31
                 start;
32
         ;;
         stop)
33
                 stop;
34
35
         ;;
         restart)
36
                 echo "Restarting Tomcat"
37
38
         stop;
                 start;
39
40
         ;;
```

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```
status)
41
42
                  if [ -f "${CATALINA_PID}" ]; then
43
                          TOMCAT_PID=$(cat "${CATALINA_PID}")
44
                           echo "Tomcat is running with PID ${TOMCAT_PID}";
45
                          RETVAL=1
46
                  else
47
                          echo "Tomcat is not running";
48
                          RETVAL=0
49
                  fi
50
51
                  ;;
52
         *)
53
         echo $"Usage: $0 {start|stop|restart|status}"
         exit 1
54
55
         ;;
         esac
56
         exit $RETVAL
57
```

6.5 Version

JRI Publisher has been tested with Tomcat 9.x

Data Sources

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

7.1 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:

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:

7.2 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.

4			☆ Data Sources			
Add Remov		application.properties				
Datasource	Туре	Name	URL	Username	Password	
default	jdbc	default	jdbc:oracle:thin:@127.0.0.1:1521:xe	my_oracle_user	my_oracle_user_pwd	

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:

+	☆ Data Sources
Add Remove	List
Add entries in conf/applic	ation.properties
	Add options
Туре	jdbc ▼
Name	Demo DS
URL	jdbc:oracle:thin:@domiain.com:1521:orc
Username	Scott
Password	Tiger
◆ ADD	

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

🛩 🏠 Data Sources					
Add Remov		application.properties			
Datasource	Туре	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
REMOVE	default

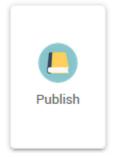
Publish

Table of Contents

- Publish
 - Publishing Reports
 - Creating Directories
 - Options

8.1 Publishing Reports

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



This will open the screen below.

4	☆ Publish
Upload	
Upload a file to \$CATALINA_HO	ME/jasper_reports/reports/. To create a new directory, select the parent dir, and append name manually in 'Destination directory'
	Publish options
Destination directory	
Source file	Local file Uploaded file
	 FTP or HTTP URL Extarct if upload is archive (.zip) Overwrite existing files

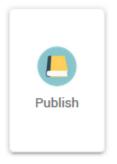
Note: The file browser location is set to /home/tomcat/apache-tomcat-v/jasper_reports/reports

Select the directory you wish to publish to and then select Upload to upload both your .jrxml and .jasper files.

You would also include any support files, such as image files.

8.2 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.

4		☆ Publish		
Upload Upload a file to \$CATALINA_HO	IE/jasper_reports/reports/. To create a	new directory, select the parent dir, and Publish options	l append name manually in 'Des	tination directory'
Destination directory	/NewReports		& &	
Source file	Uploaded file FTP or HTTP URL Organi	▼ → Deborah → JaspersoftWorkspa ze ▼ New folder	A	
PUBLISH RETURN TO JRI PUBLISH		.matplotlib .nbi .oracle_jre_usage .spyder-py3 .ssh .thumbnails AnacondaProjects citedcorp.com	ame settings bin classpath project ClassReports.jasper ClassReports.jrxml DavidGS.jasper DavidGS.jrxml nojasper.jasper	Date modified 2/3/2020 4:08 PM 2/3/2020 3:47 PM 2/3/2020 3:47 PM 2/3/2020 3:47 PM 2/5/2020 11:36 A 2/5/2020 11:36 A 2/3/2020 10:15 P 2/3/2020 11:01 P 2/5/2020 9:49 AM

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

þ				
	NewReports	4 kiB	03/Mar/2020	17:50
	apex 🖑	4 kiB	06/Feb/2020	13:11
	demo	4 kiB	23/Feb/2020	11:57
	tmp	4 kiB	15/0ct/2017	23:35

8.3 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).





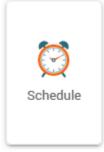
Schedule

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

9.1 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 Sc	hedule	
		Parameters
CRON string	daily • */30 * * *	Cron helper
Name	NewReports/StateInfo	T
Format	pdf •	
Datasource	Demo DS 🔹	
Filename	State-Info.pdf	-
Email	user@company.com	Don't send email
Optional Parameters		
ADD		

9.2 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.

9.3 Optional Params

The Optional Params tab allows you to:

- 1. Set email subject
- 2. Set email message

3. Add report parameters

9.4 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:



Click the Save button.

 Optional Parameters 		
	= SAVE CLEAR	1
Custom parameters	,	
Email Subject	State Report	
Email Body	Please find the daily State Report attached.	
ADD		

You can add as many parameters as you wish to.

Finally, click the Creat button to schedule the report.

9.5 Additional Examples

Below are some additional examples.

Send report every Tuesday at 1500 (3 PM)

4		☆ Schedule
Add View		
Fill in parameters for the new JRI Sc	hedule	
		Parameters
CRON string	custom • 0 * ** TUE	Cron helper
Name	NewReports/StateInfo •	
Format	docx •	
Datasource	Demo DS 🔻	
Filename	State-Info.docx	
Email	user@company.com	Don't send email
Optional Parameters		
ADD		

Send report every hour without email delivery

4		☆ Schedule
Add View		
Fill in parameters for the new JRI Scl	nedule	
		Parameters
CRON string	custom • */30 * * * *	Cron helper
Name	NewReports/StateInfo	7
Format	CSV V	
Datasource	Demo DS 🔹	
Filename	State-Info.csv	-
Email		Don't send email
Optional Parameters		

Send report weekly with StudentID = 51

۲.	☆ 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 	
	StateID=51
Custom parameters	
	•
Email Subject	Weekly State Report
Email Body	Please find the weekly State PPTX Report attached.

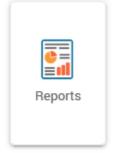
Report Dashboard

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

10.1 Overview

Click the Reports tab to open the Reports Dashboard.



This will open the screen below.

	☆ Reports Dashboard
Showing reports grouped by folder in /home/tomcat/apache-tomcat	-9.0.30/jasper_reports
▶ /	
▶ /ClassReports	
/MonthlyReports	
► /NewReports	
/StudentReports	
▶ /apex	
▶ /demo	

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.

10.2 Dashboard Layout

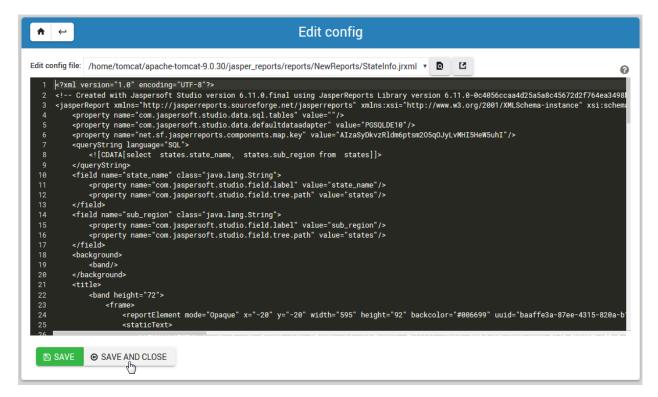
Expanding the NewReports directory, we see below:

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

10.3 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

Actions



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

Actions

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:

D / home > / tomcat > /	apache-tomcat-9.0.30	/ jasper_rep	orts 🕨 / reports	/ NewF	eports 🕨		
Total: 5 files and 0 directories. Selec	stad: O itams	2	C C FILE -	EDIT •	TOOLS - BOO	KMARKS	Ŵ
Show 30×10^{-1} items	NewReports	NoJasper	StudentReports	demo	schedules	jasper_re	ports
□ bin ▶ □ boot	—	Name		Size	Owner	Mode Mode	∲ Mo
🗅 dev			55_State-Info.pdf		root:root	0644	2020/
C etc home			717_State-Info.pdf		root:root	0644	2020/
 home lib 			25_State-Info.pdf		root:root	0644	2020/
		myslip.jrxml		21.65 kiB	tomcat:tomcat	0444	2020/
 Ibb4 Iost+found 		StateInfo.jrxml		5.93 kiB	tomcat:tomcat	0444	2020/
🗅 media						-	
🗅 mnt							
▶ 🗅 opt							
D proc							
root							
~							

Email:

Displays report email recipient(s).

Optional Params:

Displays any URL Parameters the report is using.

10.4 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.

 /NewRe 	ports					
Name	Actions	SchID	Cron	Format	Datasource	Οι
StateInfo						

Jasper

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11.1 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/

11.2 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

11.3 Gen Script

1 2

8

14 15

21

25

26 27

31

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

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

11.4 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

11.5 Version

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

11.6 Schedule Files

Each schedule creates a numeric file under:

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

The file has the following structure:

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

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

11.7 MUTT Parameters

JRI Publisher uses MUTT in conjuction 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

CSS

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 increaes the size of objects on the page as well as padding, making it easier to work with

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

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27

30

31

35 36

37 38

44

48 49

54

55

57

59

60

64 65

70

71

72

75

```
(continued from previous page)
```

```
.row.icons-row .icons-container:not(.highlighted) {
        border-radius: 5px !important;
28
        background: rgb(255, 255, 255) !important;
29
        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);
        }
32
        h2.form-signin-heading {
33
        display: none !important;
34
        }
        i.wbm-webmin {
        display: none !important;
        }
39
40
        .card {
41
        font-size: .875rem;
42
        font-weight: 400
43
        }
45
        .btn:not(.btn-round), button.btn:not(.btn-round), .csf-container input[type=
46
   → 'submit']:not(.btn-round), .csf-container button.input:not(.btn-round), input[type=

→ 'submit']:not(.btn-round) {

47
        text-align: center;
        vertical-align: middle;
        font-size: 1rem;
        line-height: 1.5;
50
        border-radius: 0.325em !important;
51
        transition: color .15s ease-in-out, background-color .15s ease-in-out, border-
52
   \leftrightarrow color .15s ease-in-out, box-shadow .15s ease-in-out;
53
        text-transform: uppercase;
        cursor: pointer;
        border: 0;
        outline: 0;
56
        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;
        color: rgba(0,0,0,.87);
        background-color: rgb(255, 255, 255);
        border-color: rgb(204, 204, 204) !important;
61
        box-shadow: 0 2px 2px 0 rgba(0,0,0,.14), 0 3px 1px -2px rgba(0,0,0,.2), 0 1px
62
   →5px 0 rgba(0,0,0,.12) !important;
        margin-left: 0 !important;
63
        margin-right: 0 !important
        }
66
        html[data-script-name*='settings-editor_read.cgi'] #content .CodeMirror+.ui form
67
   →end_buttons .btn {
        margin-left: 0 !important;
68
        margin-right: 0 !important
69
        }
        html[data-script-name*='settings-editor_read.cgi'] #content .CodeMirror+.ui_form_

→end_buttons td:last-child .btn {

        margin-left: 0 !important;
73
        margin-right: 5px !important
74
```

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```
(continued from previous page)
```

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

76

}

127

```
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```

```
128
129
130
131
132
133
134
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136
137
138
139
140
141
142
143
144
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147
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161
162
163
164
165
166
167
168
169
170
171
172
173
174
175
176
177
178
179
```

```
.btn.btn-warning {
    color: rgb(255, 255, 255) !important;
    background-color: rgb(255, 87, 34) !important;
    border-color: rgb(255, 87, 34) !important;
    .btn.btn-danger {
    color: rgb(255, 255, 255) !important;
    background-color: rgb(244, 67, 54) !important;
    border-color: rgb(244, 67, 54) !important;
    }
    .alert-success {
    color: rgb(40, 91, 42);
    background-color: rgb(219, 239, 220);
    border-color: rgb(205, 233, 206);
    }.alert-danger {
    color: rgb(127, 35, 28);
    background-color: rgb(253, 217, 215);
    border-color: rgb(252, 202, 199);
    }.alert-primary {
    color: rgb(33, 42, 94);
    background-color: rgb(217, 220, 240);
    border-color: rgb(201, 206, 234);
    }.alert-secondary {
    color: rgb(56, 61, 65);
    background-color: rgb(226, 227, 229);
    border-color: rgb(214, 216, 219);
    }.alert-warning {
    color: rgb(133, 45, 18);
    background-color: rgb(255, 221, 211);
    border-color: rgb(255, 208, 193);
    }.alert-info {
    color: rgb(2, 88, 127);
    background-color: rgb(205, 238, 253);
    border-color: rgb(184, 231, 252);
    }.alert-light {
    color: rgb(127, 127, 127);
    background-color: rqb(253, 253, 253);
    border-color: rgb(252, 252, 252);
    }.alert-dark {
    color: rgb(34, 34, 34);
    background-color: rgb(217, 217, 217);
    border-color: rgb(202, 202, 202);
    #right-side-tabs .btn-tiny.ui submit.ui form end submit, #content #system-status.
↔.btn-tiny.ui_submit.ui_form_end_submit {
    line-height: 21px;
    padding: 5px 12px !important;
                                    height: 32px !important;
    }
    .table-subtable tbody tr td, .panel-body .table-subtable tr th, .panel-body .
→tr td {
    padding: .75rem !important;
    }
```

(continues on next page)

180

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```
body.csf .dataTables filter input[type='search'], body .dataTables filter.
181
    --input[type='search'], .csf-container input[type='text'], .csf-container input[type='search']
    \leftrightarrow'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='button'])
    → 'checkbox']):not([type='radio']):not(.btn), .csf-container input[type='text'], .csf-
    Gontainer input[type='search'], .chooser_button, .form-control {
         font-size: 1rem;
182
         box-sizing: content-box;
183
         width: 100%;
184
         height: 3rem;
185
         margin: 0;
186
         padding: 0;
187
         -webkit-transition: box-shadow .3s, border .3s;
188
         transition: box-shadow .3s, border .3s;
189
         border: none;
190
         border-bottom: 1px solid rgb(158, 158, 158);
191
         border-radius: 0;
192
         outline: 0;
193
         background-color: rgba(0, 0, 0, 0);
194
         box-shadow: none;font-size:16px;padding-left:5px;padding-right:5px;
195
196
         }
197
         input[name]:not([type='image']):not([type='checkbox']):not([type='radio']):not(.
198
    →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{
         border-bottom-width: 2px; border-bottom-color : rgb(63, 81, 181)
199
200
20
         li.user-link, li.user-link span, li.user-link, li.user-link i {
202
         background: rgb(85, 189, 212);
203
         color: rgb(255, 255, 255) !important;
204
         border-radius: 5px !important;
205
         border: 0 !important;
206
         line-height: 18px;
207
208
         html[data-theme="brown"] #sidebar .form-group .form-control.sidebar-
209
    →search::placeholder{
         color:#bbb !important
210
211
         }
         html[data-theme="brown"] #sidebar .form-group .form-control.sidebar-search{
212
213
         color: #fff!important;
214
         }
```

Above can be pasted into Theme Extensions

Security

As with JasperReportsIntegration, JRI Publisher should be run behind a firewall with access to port 8080 and 1521 restriced 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 privilages.

Project Support

14.1 Contributing

We welcome all contributors.

While any code contributions are welcome, areas that could use improvement are:

- · Providing feedback
- Email Formating
- iReport Library Updates

14.2 Issues

If you've found a bug, let us know.

14.3 Pull Requests

Create a fork of our repo.

To submit a pull request for a **new feature**:

- 1. Run the tests. Every pull request for a new feature should have an accompanying unit test and docs changes.
- 2. Create a new branch off of the master branch for your feature.
- 3. Add a test (or multiple tests) for your feature.
- 4. Add your new feature.
- 5. Push to your fork and submit the pull request.

To submit a bug fix:

- 1. Create a new branch off of the *master* branch.
- 2. Add a test that demonstrates the bug.
- 3. Make the test pass.
- 4. Push to your fork and submit the pull request!

To submit a **documentation fix**:

- 1. Create a new branch off of the *master* branch.
- 2. Add your documentation fixes (no tests required).
- 3. Push to your fork and submit the pull request!

Commercial Support

Commercial Support is available via Enciva LLC

In addition to JRI Publisher, Enciva also offers a multi-user edition written in PHP.

License

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1. Source Code.

The "source code" for a work means the preferred form of the work

for making modifications to it. "Object code" means any non-source form of a work.

A "Standard Interface" means an interface that either is an official

standard defined by a recognized standards body, or, in the case of interfaces specified for a particular programming language, one that is widely used among developers working in that language.

The "System Libraries" of an executable work include anything, other

than the work as a whole, that (a) is included in the normal form of packaging a Major Component, but which is not part of that Major Component, and (b) serves only to enable use of the work with that Major Component, or to implement a Standard Interface for which an implementation is available to the public in source code form. A "Major Component", in this context, means a major essential component (kernel, window system, and so on) of the specific operating system (if any) on which the executable work runs, or a compiler used to produce the work, or an object code interpreter used to run it.

The "Corresponding Source" for a work in object code form means all

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