# **OpenShift Tools Reference Guide**

Version: 3.3.0.GA

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# Introduction

OpenShift is a cloud solution for your application server requirements. OpenShift Express in particular is a free, cloud-based application platform for Java, Perl, PHP, Python, and Ruby applications. JBoss Developer Studio supports OpenShift Express and this guide will show you how to connect, create and deploy with OpenShift Express from your JBoss Developer Studio workbench.

# Creating an OpenShift Express Application

From the workbench go to  $\textbf{File} \rightarrow \textbf{New} \rightarrow \textbf{Other}.$ 

۲	New		×
Select a wizard			
Wizards:			
type filter text			4
👂 🗁 Maven			<u> </u>
▽ 🗁 OpenShift			
M OpenShift Express Application			
👂 🗁 Plug-in Development			
👂 🗁 Remote System Explorer			
👂 🗁 SAR / MBean Components			
👂 🗁 Seam 2			=
Server			
👂 🗁 SQL Development			~
?	Next >	Cancel	Finish

## Figure 2.1. Selecting the OpenShift Express Application wizard

In the wizard, go to and select **OpenShift**  $\rightarrow$  **OpenShift Express Application**. With the wizard choice selected, click on the **Next** button.

0	OpenShift applic	ation wizard	×
Server con	netion		
(i) You have t	o validate your credentials		
		0 P E N <b>S H</b>	IFT™
		PaaS by	Red Hat <sup>®</sup> Cloud
If you have	no user account on OpenShift Exp	ress yet, please sign up <u>here</u> .	
<u>U</u> sername	username		
Password	•••••		
<u>-</u>			
	<u>V</u> alidate		
?	< Back Next	Cancel	inish

#### Figure 2.2. Validating OpenShift credentials

If you have already signed up for an OpenShift Express account then you can input your **Username** and **Password** here and click **Validate**. If validation is successful you will see the button is now unavailable and no error was presented.

If you do not have an OpenShift Express account, you can create one through the link at the top of the wizard screen. This will open the OpenShift sign-up page within your workbench. Once you have created an account you will need to relaunch the **OpenShift Express Application** wizard and input your new username and password.

Click the **Next** button to proceed.

٢	OpenShift apı	olication	wizard	×
Application sel	ection		LTTN	
<ol> <li>Please select a a new one</li> </ol>	an application to start with,	or create		S H L F T
			OPEN	PaaS by Red Hat <sup>®</sup> Cloud
Domain				
<u>D</u> omain name	irooskovdomain			Rename
Available Applic	ations			
Name		Туре		
New	<u>D</u> elete <u>Ed</u> it			De <u>t</u> ails
(?)	< Back	lext >	Cancel	Einish
$\odot$	- Duck	12/15 -	Curreer	

# Figure 2.3. Setting the domain name

If you already have a domain name then you can type this into the **Domain name** field.

If you need to create a domain, type the name you wish to have into the **Domain name** field and click the **Create** button. After clicking **Create**, you will need to provide your public SSH key. You will need to ensure that the paired private key is listed within the SSH2 Preferences. If you are unsure, click the **SSH2 Preferences** link in the window. Click **Finish** to complete domain creation.

<ul> <li>Domain</li> <li>Could not find the private portion for your public key. Make sure it is listed in the ssh2 preferences.</li> </ul>	O P E N	S H I F PaaS by Red Hat
Domain name irooskovdomain		
SSH Public Key <sup>&amp;</sup> /home/irooskov/.ssh/id_rsa.pub	Browse	New
Please make sure that your private key for the public k	ey is listed in th	e <u>SSH2 Prefere</u> r
?	Cancel	Finish

# Figure 2.4. Creating a domain name



Click the **New** in the **Available Applications** section of the wizard to begin creating your first OpenShift application for the specified domain.

0		×
Create new	v OpenShift Express application	
Create new	Opensnitt Express application	0 P E N <b>S H I F T</b> ™
		PaaS by Red Hat*Cloud
Name	jbossas	
Cartridge	jbossas-7.0	\$
		Cancel Finish

# Figure 2.5. Creating a new OpenShift Express application

You will need to specify a name for the application and the platform to deploy for, from the **Cartdige** drop-down list. Click the **Next** to embedd cartridges or click **Finish** to create the application.



	×
Embed Cartridges Please select the cartridges to embed into your application	OPENSHIFT <sub>M</sub> PaaS by Red Hat <sup>*</sup> Cloud
Embeddable Cartridges	
<ul> <li>jenkins-client-1.4</li> <li>10gen-mms-agent-0.1</li> <li>mongodb-2.0</li> <li>rockmongo-1.1</li> <li>metrics-0.1</li> <li>mysql-5.1</li> <li>phpmyadmin-3.4</li> </ul>	
Embed All Embed None	Cancel Finish

## Figure 2.6. Embed Cartridges

If you clicked **Next**, you will now see the **Embed Cartridges** screen. From here you can choose to embed any numbe rof cartridges, or none. Once you have finished your selection click **Finish**.



۲	OpenShift aj	oplication v	vizard	×
Application select	ion			
Please select an app	lication to start with,	or create a		
new one.			OPEN	BaaS by Red Hat <sup>®</sup> Cloud
Domain				Tubby Rearray Cloud
<u>D</u> omain name iroo	oskovdomain			Rename
Available Applicatio	ns			
Name		Туре		
jbossas		jbossas-7	7.0	
Ne <u>w</u> Del	ete E <u>d</u> it			Details
?	< Back	Next >	Cancel	Finish

# Figure 2.7. Created application availability

You can select an available application by clicking on it in the **Available Applications** section of the window. Having selected an application, you can now **Delete** or view the details of the application by clicking the **Details**; try that now.

Application jbossas

 $\circ$ 

	OPE
Name:	jbossas
Туре:	jbossas-7.0
Embedded Cartridges:	
Creation Time:	2011-12-20T13:25:32.859+10:00
UUID:	8bd439c005c648acbd2a81df43be14b4
Git URL:	ssh://8bd439c005c648acbd2a81df43be14b4@jbossas-irooskovdomain.rhcloud
Public URL:	https://jbossas-irooskovdomain.rhcloud.com/
?	

**Application Details** 

#### Figure 2.8. Application details

The **Application Details** will provide you with all the information available concentring the application. To close this window and return to the previous window, click **OK**.

OpenShif	it application wizard	×
Application selection		
Please select an application to start w	vith, or create a	
new one.	O P E N <b>S H I</b>	F Tm
Domain	Paas by Re	d Hat Cloud
Domain pame lireagleudemain		
		ame
Available Applications		
Name	Туре	
jbossas	jbossas-7.0	
	_	
Ne <u>w</u> <u>D</u> elete E <u>d</u> it		e <u>t</u> ails
? < Back	Next > Cancel Fir	nish

# Figure 2.9. Application availability

Click the **Next** to proceed to the next screen.

٥	Ор	enShift application	wizard				×
Import OpenS Choose to creat GITbranch and o server adapter	hift applicati e a new/use ex clone destinatio	ion jbossas kisting project, the on, and configure your	С 0 р	E N	S H PaaS b	V Red Hat	<b>T</b> ™ Cloud
Project Create new Existing Project	Project					Browse	
Git clone Cloning From Destination	ssh://8bd439d ✓ default	c005c648acbd2a81df43 /home/irooskov/git	be14b4@	)jbossa:	s-iroosk	<b>covdoma</b> Browse	in.
Remote name Make sure you	☑ default Ir SSH key used	origin d with the domain is list	ed in <u>SSI</u>	H2 Prefe	erences		
Server Adapter	enShift Server A ′jbossas-iroosk	Adapter ovdomain.rhcloud.com/					
?	< Ba	Ack Next >	Ca	incel		Finish	

#### Figure 2.10. Cloned Git Repository

The final screen of the **OpenShift application wizard** specifies **Git clone** settings and **JBoss Server adapter** options.

In the **Git clone** section of the window sets the properties for creating a local copy of your application for you to work with. The location of your application in the Git repository of your domain is present in the **Cloning From** field. The **Destination** and **Remote name** options will be set to default automatically, however you are able to change these by deselecting the default option and specifying custom settings in the fields provided.

The **JBoss Server adapter** section of the window will have the option to Create a JBoss server adapter selected automatically. Creating a JBoss server adapter will allow you to publish changes you make to your application, back to your OpenShift Express domain.

Click the **Finish** to begin the cloning of the Git repository.



## Figure 2.11. Importing the project

After the Git repository has been cloned, you will see a new **Git Repositories** tab appear near the bottom of your workbench. If you do not see the tab you can open it manually by navigating to **Window**  $\rightarrow$  **Show View**  $\rightarrow$  **Other**  $\rightarrow$  **Git**  $\rightarrow$  **Git Repositories**. With the **Git Repositories** option selected, click **OK**.



# Figure 2.12. Project in Package Explorer

The OpenShift application that you created through the wizard, will appear in your **Package Explorer** tab.

😰 Problems 🙆 Java	doc 😟 Declaration 👭 S	ervers 🛛				
🛡 Ç jbossas OpenShift Server [Stopped, Republish]						
🔓 jbossas	Ne <u>w</u>	>				
🕨 🖹 XML Config	<u>S</u> tart					
	Stop					
	<u>R</u> estart					
	Remove	Delete				
	Incremental Publish					
2	Full Publish					
	Explore %					

## Figure 2.13. Publising your project through the server adaptor

The wizard has also created a server adaptor that connects to your OpenShift service. In the **Servers** tab there will be an OpenShift server available that contains your application. Any changes you make locally to the application can be published to your OpenShift instance by right-clicking on the application under the server in the **Servers** view, and selecting **Full Publish**.

🐛 jbossas OpenShift Serve	r 🛙						
Overview							
General Information			Publishing				
Server name: jbossas OpenShift Server			Timeouts				
Host name:	jbossas-testnamespace.rhcloud.com		- Server Stat	e Detectors			
Runtime Environment:	JBoss 7.0 Runtime	$\sim$	Startup Poller	JBoss 7 N	lanager Service	$\sim$	
Open launch configuration			Shutdown Polle	Process	Process Terminated V		
- Server Behaviour			- Server Port	s			
<ul> <li>✓ Server is externally managed. Assume server is started.</li> <li>OpenShift Express ✓</li> </ul>			The ports entered here are which ports the tools will poll the server on. Changing these fields will not change the ports the server itself listen				
OpenShift Username: [	toolsjboss@gmail.com		Web	80	🗆 Automatic	ally d	
OpenShift Password:			Management	0000	Automatic	allv d	
Domain: testnamespace	e		Management	5555		any a	
App: jbossas							
Mode: Binary							

## Figure 2.14. OpenShift server overview and settings

As with a local server, double-clicking on the OpenShift server instance in the **Servers** tab will open the server overview page in your workbench.

# **Appendix A. Revision History**

Revision History Revision 1-0 Initial creation of book

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