

# Deployer: Deploying a rule project to MWS

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This page describes how to deploy a wM Business Rules project to a My webMethods Server, using wM Deployer.

## Build a rule project with the Asset Build Environment (ABE)

- Refer to the "webMethods Deployer User's Guide", Chapter "Deploying Assets from a Source Asset Repository"
- Install the Asset Build Environment (ABE) using Installer
- Locate a directory containing rule project sources that were created with Designer - Business Rules Development
  - This can either be in the Designer workspace
  - Or checked out from a Version Control System
  - For example, a "E:\ABE\_INPUT\RULES" folder would contain rule project source files for individual rule projects:

```
E:\ABE_INPUT\RULES
RuleProjectA
    .classpath
    .project
    .version
    Actions
        .category
        someAction.action
        anotherAction.action
    Data Models
        .category
        Customer.datamodel
        someActionInput.actiondatamodel
    Decision Tables
        .category
        CustomerRating.decisiontable
    Decision Trees
        .category
        CustomerRating.decisiontree
    Event Models
        .category
        PartInventoryLow.eventmodel
    Event Rules
        .category
        OrderChanged.eventrule
        InventoryAlert.externaleventrule
    Rule Sets
        .category
        RuleSetA
            .ruleset
        RuleSetB
            .ruleset
RuleProjectB
    Actions
    Data Models
    Decision Tables
    Decision Trees
    Event Models
    Event Rules
    Rule Sets
```

- Configure the *build.properties* file in "Software AG\_directory \common\AssetBuildEnvironment\master\_build"
  - Set the *build.src.dir* property to the directory containing rule project sources, for example "E:\ABE\_INPUT"
  - *build.source.dir=E:/ABE\_INPUT*

- The *build.src.dir* property may also contain directories for other asset types besides Rules, such as
  - Integration Server - *E:\ABE\_INPUT\IS*
  - Universal Messaging - *E:\ABE\_INPUT\UniversalMessaging*
  - BPM - *E:\ABE\_INPUT\BP*
- Configure the *build.output.dir* property in the *build.properties* file
  - This defines the directory where the ABE build will place the created Rules assets, for example
  - *build.output.dir=E:\ABE\_OUTPUT*
- Execute the ABE build by calling *build.bat* or *build.sh*
  - During the build you might see messages like

```

buildRULES:
...
[RulesArchiveAndAcldFileBuilder] E:\SL101\IS\MyCustomISPackage is no rule project
...

```

- This is expected and indicates that the Rules ABE build encountered and skipped sources of a different asset type (for example, and IS package).
- The results of the ABE build will be available in the ABEs output directory under the RULES folder
  - for example:

```

E:\ABE_OUTPUT\RULES
RuleProjectA.jar
RuleProjectA.acdl
RuleProjectB.jar
RuleProjectB.acdl

```

## Create a repository

- Select the Asset Build Environment output directory as "File Directory", for example the "*E:\ABE\_OUTPUT*" directory used above.

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Repositories

- [Add Repository](#)
- [Refresh this Page](#)

Name	Repository Type	Test	Create Index	Delete
* No Repository servers.				

Configure Repository Server

**Configure Repository Server**

\* Name:

Repository Type: **FlatFile**

File Directory:

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Repositories

[DEP.0002.0181] Repository localRepository is connected.

- [Add Repository](#)
- [Refresh this Page](#)

Name	Repository Type	Test	Create Index	Delete
<a href="#">localRepository</a>	FLATFILE			

Repository Properties

**Repository Configuration**

Alias: **localRepository**

Repository Type: **FLATFILE**

File Directory:

# Configure a Business Rules MWS server



## Hint: Configuration Required for MWS Server

Before you can hot deploy and merge a rule project using webMethods Deployer, you must configure the file system location used by webMethods Deployer for Business Rules asset deployment.

[blocked URL](#) To configure the file system location:

1. On your file system, open YourInstallationFolder\profiles\<MWS profile>\configuration\custom\_wrapper.conf.
2. Add the path to the file system location wrapper.java.additional.110=-DBRMS\_SPI2\_PERSISTENCE\_PATH=YourPath.
3. Save file.
4. Restart My webMethods Server.

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Business Rules MWS Servers

[Configure Business Rules MWS Server](#)

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Business Rules MWS Servers

Save

Name	Host	Port	Version	Test	Delete
* No Business Rules MWS servers.					
Save					

Configure Business Rules MWS Server

\* Name

localhostMWS

\* Host

localhost

\* Port

8585

\* User

Administrator

\* Password

\*\*\*\*\*

\* Version

10.1

Root Context

Use SSL

☐ Yes ☒ No

Required fields are indicated by \*

Configure

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[Configure Business Rules MWS Server](#)

[Refresh this Page](#)

Business Rules MWS Servers

Save

Successfully connected to Business Rules MWS Server  
localhostMWS. Plugin reports version 10.1.0.0.65

Name	Host	Port	Version	Test	Delete
<a href="#">localhostMWS</a>	localhost	8585	10.1		
Save					

localhostMWS > Properties

[Refresh this Page](#)

localhostMWS Properties

Name

localhostMWS

\* Host

localhost

\* Port

8585

\* User

Administrator

\* Password

\*\*\*\*\*

\* Version

10.1

Root Context

Use SSL

☐ Yes ☒ No

Save

# Create a Deployer project

- Select "Project Type: Repository"

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Projects

[Refresh this Page](#)  
[Create Project](#)  
[Copy Project](#)

Name	Description	Home	Lock Status	Authorize	Delete
* No Projects authorized for current User.					

Create Project

Create Project

\* Name

RulesToMWS

Description

Project Type

☐ Runtime ☒ Repository

Required fields are indicated by \*

Create

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Projects

[DEP.0002.0046] Successfully created project RulesToMWS.  
[Refresh this Page](#)  
[Create Project](#)  
[Copy Project](#)

Name	Description	Home	Lock Status	Authorize	Delete
<a href="#">RulesToMWS</a>					

RulesToMWS > Properties

Define Map Deploy

\*\*Locking is disabled.  
[Refresh this Page](#)  
[Export Project properties](#)  
[Import Project Properties](#)

Project Properties

Project Name	RulesToMWS
Description	
Project Type	Repository

General Project Settings

Enable Project Locking	<input type="radio"/> Yes <input checked="" type="radio"/> No
Enable Concurrent Deployment	<input checked="" type="radio"/> Yes <input type="radio"/> No
Ignore Missing Dependencies	<input type="radio"/> Yes <input checked="" type="radio"/> No
Enable Transactional Deployment	<input checked="" type="radio"/> Yes <input type="radio"/> No

Save

## Define a Deployment Set

- Select the Deployer project, click "Define", "Create Set", set "Set" to "Deployment"

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RulesToMWS > Define

Define Map Deploy

\*\*Locking is disabled.  
[Create Set](#)  
[Refresh this Page](#)  
[Project Properties](#)

Deployment Sets

Name	Description	Unresolved Dependencies	Delete
* No Deployment Sets			

Create Set

Create Set

Source Of Truth

Repository

Set

Deployment

\* Name

RulesDeploymentSet

Description

Required fields are indicated by \*

Create

- Select the previously created "localRepository"

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RulesToMWS > Define

Define

Map

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[DEP.0002.0045] Successfully added deployment set RulesDeploymentSet to project RulesToMWS.

\*\*Locking is disabled.

Create Set

Refresh this Page

Project Properties

Deployment Sets

Name	Description	Unresolved Dependencies	Delete
RulesDeploymentSet		<div>Check</div>	<div></div>

RulesDeploymentSet > Properties

Refresh this Page

Set Properties

Name	RulesDeploymentSet
Source Of Truth	Repository
Description	

Save

Select Repository

Select	Repository Alias
<div></div>	localRepository

Save

- Select the localRepository and select the rule project to be deployed (here, "functionalRuntimeTest")

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\*\*Locking is disabled.

Create Set

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Project Properties

Deployment Sets

Name	Description	Unresolved Dependencies	Delete
RulesDeploymentSet		<div>Check</div>	<div></div>
localRepository			<div></div>

RulesDeploymentSet > Repository

Refresh this Page

Select Composites from the Repository

Save

Repository

localRepository

RULES

functionalRuntimeTest (10.0)

functionalRuntimeTest 9100 (10.0)

functionalRuntimeTest 970 (10.0)

3 Composites displayed.

Save

- Check "Unresolved Dependencies" and check "Ignore Missing Dependencies"

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RulesToMWS > Define

Define

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\*\*Locking is disabled.

Create Set

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Project Properties

Deployment Sets

Name	Description	Unresolved Dependencies	Delete
RulesDeploymentSet		<div>Check</div>	<div></div>
localRepository			<div></div>
RULES			<div></div>

Deletion Sets

IMPORTANT: Deployer cannot detect dependencies across products. Make sure assets marked for deletion are not required by assets of other products.

Name	Description	Unresolved Dependencies	Delete
* No Deletion Sets			

RulesDeploymentSet > Unresolved Dependencies

Refresh this Page

Auto resolve by Composite

Auto resolve by Asset

Unresolved Dependencies

Deployment Set has no unresolved dependencies.

Missing Dependencies

Ignore Missing Dependencies (Project Level)

Apply

Missing Assets	Runtime	Assets
docTypes.allDataTypes	IS	functionalRuntimeTest/c
docTypes.additionalInformation	IS	functionalRuntimeTest/c
docTypes.address	IS	functionalRuntimeTest/c
docTypes.Boolean_DocType	IS	functionalRuntimeTest/c
docTypes.Byte_DocType	IS	functionalRuntimeTest/c
docTypes.Character_DocType	IS	functionalRuntimeTest/c
docTypes.customer	IS	functionalRuntimeTest/c
docTypes.Date_DocType	IS	functionalRuntimeTest/c
docTypes.Double_DocType	IS	functionalRuntimeTest/c
docTypes.Float_DocType	IS	functionalRuntimeTest/c
docTypes.Integer_DocType	IS	functionalRuntimeTest/c

## Create a Deployment Map

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**\*\*Locking is disabled.**

- [Create Deployment Map](#)
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**Deployment Maps**

Name	Description	Configure	Export	Delete
* No Deployment Maps				

Create Deployment Map

**Create Deployment Map**

\* Name

RulesDeploymentMap

Description

**Required fields are indicated by \***

Create

## Add a Target Server

- Select the previously created Deployment Map and click "Add Target Servers" under "Deployment Map Topology"

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**[DEP.0002.0023] Successfully added deployment map RulesDeploymentMap to project RulesToMWS.**

**\*\*Locking is disabled.**

- [Create Deployment Map](#)
- [Refresh this Page](#)
- [Project Properties](#)
- [Import Map](#)

**Deployment Maps**

Name	Description	Configure	Export	Delete
<a href="#">RulesDeploymentMap</a>				

RulesDeploymentMap > Properties1

- [Refresh this Page](#)
- [Export Variable Substitution](#)
- [Import Variable Substitution](#)

**Deployment Map Properties**

Name	RulesDeploymentMap
Description	
Status	✓
Save	

**Deployment Map Topology**

Set	Set Mapping
RulesDeploymentSet (Repository)	<a href="#">Add Target Servers</a>
	* The deployment set is not mapped.
	<a href="#">Add Target Group</a>
	* The deployment set is not mapped.

- Select Server: "Business Rules MWS" and select the previously created "Business Rules MWS" server

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Deploy

**[DEP.0002.0023] Successfully added deployment map RulesDeploymentMap to project RulesToMWS.**

**\*\*Locking is disabled.**

- [Create Deployment Map](#)
- [Refresh this Page](#)
- [Project Properties](#)
- [Import Map](#)

**Deployment Maps**

Name	Description	Configure	Export	Delete
<a href="#">RulesDeploymentMap</a>				

RulesDeploymentMap > RulesDeploymentSet > Add Targets

- [Refresh this Page](#)
- [Return to RulesDeploymentMap > Properties](#)

Select Server: Business Rules MWS

**Add RULESMWS Target Servers**

Add	Runtime Type	Alias	Server	User
<input checked="" type="checkbox"/>	Business Rules MWS	localhostMWS	localhost:8585	Administrator
Add				

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[DEP.0002.0023] Successfully added deployment map RulesDeploymentMap to project RulesToMWS.

\*\*Locking is disabled.

Create Deployment Map

Refresh this Page

Project Properties

Import Map

Deployment Maps

Name	Description	Configure	Export	Delete
RulesDeploymentMap				

RulesDeploymentMap > Properties1

[DEP.0002.0024] Successfully updated deployment map RulesDeploymentMap.

Refresh this Page

Export Variable Substitution

Import Variable Substitution

Deployment Map Properties

Name	RulesDeploymentMap
Description	
Status	

Save

Deployment Map Topology

Set	Set Mapping						
	<a href="#">Add Target Servers</a>						
RulesDeploymentSet (Repository)	<table> <tr> <th>Target Server</th> <th>Status</th> <th>Delete</th> </tr> <tr> <td>localhostMWS (Business Rules MWS)</td> <td> <a href="#">Check</a></td> <td></td> </tr> </table>	Target Server	Status	Delete	localhostMWS (Business Rules MWS)	<a href="#">Check</a>	
Target Server	Status	Delete					
localhostMWS (Business Rules MWS)	<a href="#">Check</a>						
	<a href="#">Add Target Group</a>						
	* The deployment set is not mapped.						

Note: If your are deploying to a cluster of MWS servers, you MUST only configure one MWS server, NOT each cluster node. Rule projects are synchronized in the MWS cluster after deployment to this one MWS server. Deploying to multiple MWS cluster nodes in parallel will lead to synchronization errors.

## Configure the Deployment Map - "Merge project" and "Hot Deploy project"

- Select the Deployment Project, click on "Map", click on "Configure" for the Deployment Map

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\*\*Locking is disabled.

Create Deployment Map

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Import Map

Deployment Maps

Name	Description	Configure	Export	Delete
RulesDeploymentMap				

- Select the "RULESMWS" target server

RulesToMWS > RulesDeploymentMap > Target Servers

<input type="checkbox"/>	Name (RunTime Type)	Target Group
<input checked="" type="checkbox"/>	localhostMWS (RULESMWS)	

Configurable Composites

RulesDeploymentSet:localRepository:RULES

functionalRuntimeTest

>Configurable Components

- Select the rule project to configure (here "functionalRuntimeTest")

RulesToMWS > RulesDeploymentMap > Target Servers		
<input type="checkbox"/>	Name (RunTime Type)	Target Group
<input checked="" type="checkbox"/>	localhostMWS (RULESMWS)	

Configurable Composites

RulesDeploymentSet:localRepository:RULES

functionalRuntimeTest

functionalRuntimeTest > Configurable Components

- Enter desired values for the "Hot Deploy Project" and "Merge Project" substitution values, "Save Substitutions" and close the page
- See [Deployment of rule projects to the RMC#MergeDetails](#) for details

RulesToMWS > RulesDeploymentMap > Target Servers		
<input type="checkbox"/>	Name (RunTime Type)	Target Group
<input checked="" type="checkbox"/>	localhostMWS (RULESMWS)	

Configurable Composites

RulesDeploymentSet:localRepository:RULES

functionalRuntimeTest

functionalRuntimeTest > Configurable Components

Target Substitutions and Source Values

Runtime Type	RULES				
Composite Name	functionalRuntimeTest		Implementation Type	ruleproject	
Asset Properties					
Property Name	New Value	Default Value	Property Name	New Value	Default Value
Hot Deploy Project	<input type="text" value="false"/>	false	Merge Project	<input type="text" value="true"/>	false
<input type="button" value="Save Substitutions"/>		<input type="button" value="Restore Defaults"/>			

Successfully saved properties of 'functionalRuntimeTest' composite

Runtime Type	RULES				
Composite Name	functionalRuntimeTest		Implementation Type	ruleproject	
Asset Properties					
Property Name	New Value	Default Value	Property Name	New Value	Default Value
Hot Deploy Project	<input type="text" value="false"/>	false	Merge Project	<input type="text" value="true"/>	false
<input type="button" value="Save Substitutions"/>		<input type="button" value="Restore Defaults"/>			

## Create a Deployment Candidate

- Select the Deployment Project, click "Deploy", "Create Deployment Candidate", select the previously created Deployment Map

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\*\*Locking is disabled.

Create Deployment Candidate

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Project Properties

Deployment Candidates

Name	Status	Simulate	Deploy	Rollback	Delete	Progress Report
* No Deployment Candidates						

Projects > RulesToMWS > Create Deployment Candidate

Create Deployment Candidate

\* Name

RulesDeployment

Description

\* Deployment Map

RulesDeploymentMap

Required fields are indicated by \*

Create



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Successfully created Deployment Candidate RulesDeployment.

\*\*Locking is disabled.

[Create Deployment Candidate](#)
[Refresh this Page](#)
[Project Properties](#)

Deployment Candidates

Name	Status	Simulate	Deploy	Rollback	Delete	Progre Report
<a href="#">RulesDeployment</a>	✓					

RulesDeployment > Properties

[Refresh this Page](#)

Deployment Properties

Name	RulesDeployment
Description	
Deployment Map	RulesDeploymentMap
Checkpoint Exists	No

Save

Deployment History

No Deployment History

# Deploy the rule project to MWS

- Select the Deployment Project, click "Deploy" and the "Deploy" icon

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\*\*Locking is disabled.

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Deployment Candidates

Name	Status	Simulate	Deploy	Rollback	Delete	Progress Report
<a href="#">RulesDeployment</a>	✓					

RulesDeployment > Properties

[Refresh this Page](#)

Deployment Properties

Name	RulesDeployment
Description	
Deployment Map	RulesDeploymentMap
Checkpoint Exists	No

Save

Deployment History

No Deployment History

- Wait a bit. The rule project will now be deployed and merged, according to the previously set substitution values. This may take a while.
- Check the Deployment report

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\*\*Locking is disabled.

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Deployment Candidates

Name	Status	Simulate	Deploy	Rollback	Delete	Progress Report
<a href="#">RulesDeployment</a>	✓					

RulesDeployment > Properties

[Refresh this Page](#)

Deployment Properties

Name	RulesDeployment
Description	
Deployment Map	RulesDeploymentMap
Checkpoint Exists	Yes

Save

Deployment History

Report	Status	Report Type	Report Created
	✓	Deployment	Sep 07, 2017 12:10:13
	✓	Checkpoint	Sep 07, 2017 12:08:53

Target Server: localhostMWS				
TimeStamp	Message Type	Asset Type	Asset Name	Message
2017-09-07 12:08:53 CEST	MESSAGE			[DEP.0005.1168] Deleted previously delivered artifacts successfully for RULESMWS.
2017-09-07 12:08:53 CEST	MESSAGE			[DEP.0005.1164] Artifacts delivered successfully to RULESMWS.
2017-09-07 12:08:53 CEST	MESSAGE	ruleproject	functionalRuntimeTest	Merge is activated.
2017-09-07 12:10:13 CEST	MESSAGE	ruleproject	functionalRuntimeTest	Merge finished successfully.
2017-09-07 12:10:13 CEST	MESSAGE	ruleproject	functionalRuntimeTest	Hot deployment is not activated.
2017-09-07 12:10:13 CEST	SUCCESS	ruleproject	functionalRuntimeTest	Successfully activated project [functionalRuntimeTest]

- Voila! The rule project is now deployed to MWS and has been **merged** with the previously deployed version.