

JNDI environment references

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Resources referenced by JNDI names often must be mapped into the names of the resources as deployed in the server. This allows resource programmers to choose names without regard to the server's configuration. Deployment plans contain the information necessary to map the names chosen to resources deployed in the server.

References must be defined in the following order.

- [#EJB references](#)
- [#EJB local references](#)
- [#Web service references](#)
- [#Resource references](#)
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EJB references

Use the `<ejb-ref>` to map a reference to an EJB's remote home interface. Choose one of the following templates.

Choose this template when the referenced remote home interface can be found by searching in your module's EAR (when the module is included in an EAR) or your module's `<dependencies>`.

```
<ejb-ref>
  <ref-name>name</ref-name>
  <ejb-link>link</ejb-link>
</ejb-ref>
```

where

- *name* is the name of the remote home interface used in your module. The JNDI name used by your module will be `java:comp/env/name` and it should map to the `ejb-ref-name` provided in the Java EE deployment descriptor.
- *link* is the name of the remote home interface in the EJB module.

Choose this template when the referenced remote home interface can only be found with additional selection criterion. For example, if the remote home interface name is not unique within your module's EAR (when the module is included in an EAR) or your module's `<dependencies>` this template will remove any ambiguity.

```
<ejb-ref>
  <ref-name>name</ref-name>
  <pattern>
    <groupId>group</groupId>
    <artifactId>artifact</artifactId>
    <version>version</version>
    <module>module</module>
    <type>type</type>
    <name>link</name>
  </pattern>
</ejb-ref>
```

where

- *name* is the name of the remote home interface used in your module. The JNDI name used by your module will be `java:comp/env/name` and it should map to the `ejb-ref-name` provided in the Java EE deployment descriptor.
- *group* is the directory or directory tree in the repository where the unique artifact directory is located.
- *artifact* is the prefix (no version or file extension) of the library's file name.
- *version* is the version number to be appended to the file name.
- *type* is the file extension for the file in the repository.
- *link* is the name of the remote home interface in the EJB module.

EJB local references

Use the **<ejb-local-ref>** to map a reference to an EJB's local home interface. Choose one of the following templates.

Choose this template when the referenced local home interface can be found by searching in your module's EAR (when the module is included in an EAR) or your module's <dependencies>.

```
<ejb-local-ref>
  <ref-name>name</ref-name>
  <ejb-link>link</ejb-link>
</ejb-local-ref>
```

where

- *name* is the name of the local home interface used in your module. The JNDI name used by your module will be `java:comp/env/name` and it should map to the `ejb-ref-name` provided in the Java EE deployment descriptor.
- *link* is the name of the local home interface in the EJB module.

Choose this template when the referenced remote home interface can only be found with additional selection criterion. For example, if the remote home interface name is not unique within your module's EAR (when the module is included in an EAR) or your module's <dependencies> this template will remove any ambiguity.

```
<ejb-local-ref>
  <ref-name>name</ref-name>
  <pattern>
    <groupId>group</groupId>
    <artifactId>artifact</artifactId>
    <version>version</version>
    <module>module</module>
    <type>type</type>
    <name>name</name>
  </pattern>
</ejb-local-ref>
```

where

- *name* is the name of the local home interface used in your module. The JNDI name used by your module will be `java:comp/env/name` and it should map to the `ejb-ref-name` provided in the Java EE deployment descriptor.
- *group* is the directory or directory tree in the repository where the unique artifact directory is located.
- *artifact* is the prefix (no version or file extension) of the library's file name
- *version* is the version number to be appended to the file name.
- *type* is the file extension for the file in the repository.
- *link* is the name of the local home interface in the EJB module.

Web service references

Use the **<service-ref>** element to map a reference to a Web service. Choose one of the following templates.

Use this template when the WSDL for the referenced Web service is complete. This reference will target only the ports listed.

```

<service-ref>
  <service-ref-name>name</service-ref-name>
  <!-- Repeat the port element for each port available through the reference -->
  <port>
    <port-name>portName</port-name>
    <protocol>protocol</protocol>
    <host>host</host>
    <port>port</port>
    <uri>uri</uri>
    <credentials-name>credentials</credentials-name>
  </port>
</service-ref>

```

where

- *name* is the name of the service reference used in your module. The JNDI name used by your module will be `java:/comp/env/name` and it should map to the `service-ref-name` provided in the Java EE deployment descriptor.
- *portName* specifies the name to identify the port to connect to.
- *protocol* specifies the protocol to use for the connection, typically **http** or **https**.
- *host* specifies the host for the connection.
- *port* specifies the port for the connection.
- *uri* specifies the web service to connect to.
- *credentials* identifies the credentials name to be used for secure connections.

Use this template when the WSDL for the referenced service is not complete. The elements specified here will provide the information needed to complete the WSDL.

```

<service-ref>
  <service-ref-name>name</service-ref-name>
  <service-name>service</service-name>
  <!-- Repeat the port-completion element for every port available from the reference -->
  <port-completion>
    <port>
      <port-name>portName</port-name>
      <protocol>protocol</protocol>
      <host>host</host>
      <port>port</port>
      <uri>uri</uri>
      <credentials-name>credentials</credentials-name>
    </port>
    <binding-name>binding</binding-name>
  </port-completion>
</service-ref>

```

where

- *name* is the name of the service reference used in your module. The JNDI name used by your module will be `java:/comp/env/name` and it should map to the `service-ref-name` provided in the Java EE deployment descriptor.
- *service* is the service name for the service block in the WSDL.
- *portName* specifies the name to identify the port to connect to.
- *protocol* specifies the protocol to use for the connection, typically **http** or **https**.
- *host* specifies the host for the connection.
- *port* specifies the port for the connection.
- *uri* specifies the web service to connect to.
- *credentials* identifies the credentials name to be used for secure connections.
- *binding* specifies the binding name to that identifies this web service port configuration.

Resource references

Use the `<resource-ref>` element to map a reference to a URL or a connector's connection factory. Choose one of the following templates.

Choose this template when the reference is for a URL.

```
<resource-ref>
  <ref-name>name</ref-name>
  <url>url</resource-url>
</resource-ref>
```

where

- *name* is the name of the reference used in your module. The JNDI name used by your module will be `java: /comp/env /name` and it should map to the `resource-ref-name` provided in the Java EE deployment descriptor.
- *URL* is the URL that is to be mapped to that reference.

Choose this template when the reference is used to find a connection factory that can be found by searching in your module's EAR (when the module is included in an EAR) or your module's <dependencies>. Typically, this will be a JDBC or JMS connection factory, but it could be any connection factory from a [Java EE connector](#) with an **<outbound-resourceadapter>**.

```
<resource-ref>
  <ref-name>name</ref-name>
  <resource-link>link</resource-link>
</resource-ref>
```

where

- *name* is the name of the reference used in your module. The JNDI name used by your module will be `java: /comp/env /name` and it should map to the `resource-ref-name` provided in the Java EE deployment descriptor.
- *link* is the name to be mapped to the reference and should match the name specified in the **<connectiondefinition-instance>** element of the connector's deployment plan.

Choose this template when the referenced connection factory can only be found with additional selection criterion. For example, if the connection factory name is not unique within your module's EAR (when the module is included in an EAR) or your module's <dependencies> this template will remove any ambiguity.

```
<resource-ref>
  <ref-name>name</ref-name>
  <pattern>
    <groupId>group</groupId>
    <artifactId>artifact</artifactId>
    <version>version</version>
    <module>module</module>
    <type>type</type>
    <name>name</name>
  </pattern>
</resource-ref>
```

where

- *name* is the name of the reference used in your module. The JNDI name used by your module will be `java: /comp/env /name` and it should map to the `resource-ref-name` provided in the Java EE deployment descriptor.
- *group* is the directory or directory tree in the repository where the unique artifact directory is located.
- *artifact* is the prefix (no version or file extension) of the library's file name
- *version* is the version number to be appended to the file name.
- *type* is the file extension for the file in the repository.
- *link* is the name to be mapped to the reference and should match the name specified in the **<connectiondefinition-instance>** element of the connector's deployment plan.

Resource environment references

Use the **<resource-env-ref>** to map a reference to a Java connector's administered object. If you are deploying an asset that uses Java EE 1.3 conventions for its Java EE deployment descriptors, this can also be used to map JMS topics and queues, but for any asset that follows Java EE 1.4 connections or better, the [<message-destination>](#) element should be used instead.

Choose this template when the reference is used to find an administered object that can be found by searching in your module's EAR (when the module is included in an EAR) or your module's <dependencies>.

```
<resource-env-ref>
  <ref-name>name</ref-name>
  <!--
  <admin-object-module>module</admin-object-module>
  -->
  <admin-object-link>link</admin-object-link>
</resource-env-ref>
```

where

- *name* is the name of the reference used in your module. The JNDI name used by your module will be `java:/comp/env/name` and it should map to the `resource-ref-name` provided in the Java EE deployment descriptor.
- The **<admin-object-module>** element is required when the queue or topic name is not unique in the server. In this case, *module* is the name of the [connector](#) that contains the topic or queue specified in the **<admin-object-link>** element.
- *link* is the name of the administered object to be mapped to the reference and should match the name specified in the **<message-destination-name>** element of the `<adminobject-instance>` of the connector's deployment plan.

Choose this template when the referenced administered object can only be found with additional selection criterion. For example, if the administered object name is not unique within your module's EAR (when the module is included in an EAR) or your module's <dependencies>, this template will remove any ambiguity.

```
<resource-env-ref>
  <ref-name>name</ref-name>
  <pattern>
    <groupId>group</groupId>
    <artifactId>artifact</artifactId>
    <version>version</version>
    <module>module</module>
    <type>type</type>
    <name>link</name>
  </pattern>
</resource-env-ref>
```

where

- *name* is the name of the reference used in your module. The JNDI name used by your module will be `java:/comp/env/name` and it should map to the `resource-ref-name` provided in the Java EE deployment descriptor.
- *group* is the directory or directory tree in the repository where the unique artifact directory is located.
- *artifact* is the prefix (no version or file extension) of the library's file name
- *version* is the version number to be appended to the file name.
- *type* is the file extension for the file in the repository.
- *link* is the name of the administered object to be mapped to the reference and should match the name specified in the **<message-destination-name>** element of the `<adminobject-instance>` of the connector's deployment plan.