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Управление и конфигурирование ОС4J

Цели

После завершения этого урока Вы должны будете уметь делать следующее:

- **Создавать OC4J инстансы**
- **Запускать и останавливать OC4J инстансы**
- **Изменять параметры запуска приложений (Enable or disable) инстансов**
- **Конфигурировать свойства инстансов OC4J**
- **Конфигурировать свойства Web site и JSP**
- **Редактировать конфигурационные файлы для OC4J**

Введение в управление ОС4J

Вы можете управлять инстансами ОС4J в структуре OAS 10g, используя:

- **Application Server Control:**
 - Рекомендуемый management tool для любой инсталляции Oracle Application Server 10g
 - Графический интерфейс для управления ОС4J компонентами, кластерами и разворачивания приложений
- **Утилиты командной строки:**
 - `opmnctl`: Запуск и останов инстанса ОС4J
 - `dcmctl`: Создание инстанса ОС4J и разворачивание приложений на нем

Создание инстанса OC4J

System Components

Enable/Disable Components Configure Component **Create OC4J Instance** 2

Start Stop Restart Delete OC4J Instance

Select All | Select None

Select	Name	Status	Start Time	CPU Usage (%)	Memory Usage (MB)
<input type="checkbox"/>	Discoverer	↑	Nov 17, 2003 11:49:50 AM	0.00	14.57
<input type="checkbox"/>	Forms	↑	Nov 17, 2003 11:50:13 AM	0.00	0.00
<input type="checkbox"/>	home	↑	Nov 17, 2003 11:49:55 AM	0.00	44.29
<input type="checkbox"/>	HTTP Server	↑	Nov 17, 2003 11:39:57 AM	6.90	4,181.91
<input type="checkbox"/>	OC4J BI Forms	↑	Nov 17, 2003 11:50:12 AM	0.00	88.21
<input type="checkbox"/>	OC4J Portal	↑	Nov 17, 2003 11:49:55 AM	0.00	111.84

Farm > Application Server: bi.edcdr6p1.us.oracle.com > Create OC4J Instance

Create OC4J Instance

Enter the name of the OC4J instance you wish to create.

* OC4J Instance Name **OC4J_Temp** 3 4

Cancel Create

Confirmation

OC4J instance "OC4J_Temp" was created. 5

OK

Application Server Control: домашняя страница OC4J

ORACLE Enterprise Manager 10g
Application Server Control [Logs](#) [Preferences](#) [Help](#)

Farm > [Application Server: bi.edcdr6p1.us.oracle.com](#) > OC4J: home

OC4J: home

[Home](#) [Applications](#) [Administration](#)

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General

 Status **Up** [Stop](#) [Restart](#)
Start Time **Nov 17, 2003 11:49:55 AM**
Virtual Machines **1**

JDBC Usage

Open JDBC Connections	0
Total JDBC Connections	0
Active Transactions	0
Transaction Commits	0
Transaction Rollbacks	0

Status

CPU Usage (%)	0.00
Memory Usage (MB)	44.31
Heap Usage (MB)	5.86

Response - Servlets and JSPs

Active Sessions	3
Active Requests	1
Request Processing Time (seconds)	0.03
Requests per Second	0.14

Response - EJBs

Active EJB Methods	0
Method Execution Time (seconds)	0.00
Method Execution Rate (per second)	0.00

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Запуск и останов инстанса OC4J

OC4J: OC4J_Demos

Home Applications Administration

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1

General

	Status	Down
	Start Time	Unavailable
	Virtual Machines	Unavailable

Start

Status

CPU Usage (%)	Unavailable
Memory Usage (MB)	Unavailable
Heap Usage (MB)	Unavailable

 **Processing: Start**

"OC4J_Demos" is being started.
This operation may take a while to complete.

 Start is in progress.

Confirmation

"OC4J_Demos" has been started.

2

OK

OC4J: OC4J_Demos

Home Applications Administration

3

General

	Status	Up	Stop	Restart
	Start Time	Jul 23, 2003 2:38:53 PM		
	Virtual Machines	1		

Запуск и останов инстансов OC4J с использованием OPMN

- Вы можете использовать утилиту `opmnctl` для запуска и останова всех сконфигурированных инстансов OC4J instances из командной линии.
- Запуск и останов инстанса OC4J_Demos:

```
$> opmnctl startproc process-type=OC4J_Demos  
$> opmnctl stopproc process-type=OC4J_Demos
```

- Запуск и останов всех инстансов OC4J:

```
$> opmnctl startproc ias-component=OC4J  
$> opmnctl stopproc ias-component=OC4J
```

Вывод из режима готовности инстансов OC4J

Farm > Application Server: bi01.edcdr6p1 > Enable/Disable Components

Enable/Disable Components

Components are enabled or disabled together if they run in the same process or otherwise have a internal runtime dependency. Components that are disabled will not appear in the system components table on the Application Server home page and will not be started when the application server is started.

Enabled Components

- OC4J_Portal, Portal:portal
- Forms
- HTTP_Server
- OC4J Demos**
- OC4J_BI_Forms, Reports Server: rep_EDCDR6P1
- Web Cache
- home

Disabled Components

-

1 2

Move
Move All
Remove

Farm > Application Server: bi01.edcdr6p1 > Enable/Disable Components

Enable/Disable Components

Components are enabled or disabled together if they run in the same process or otherwise have a internal runtime dependency. Components that are disabled will not appear in the system components table on the Application Server home page and will not be started when the application server is started.

Enabled Components

- OC4J_Portal, Portal:portal
- Forms
- HTTP_Server
- OC4J_BI_Forms, Reports Server: rep_EDCDR6P1
- Web Cache
- home

Disabled Components

- OC4J Demos**

3

Cancel OK

Ввод в режим готовности инстансов ОС4J

Farm > Application Server: bi01.edcdr6p1 > Enable/Disable Components

Enable/Disable Components

Components are enabled or disabled together if they run in the same process or otherwise have a internal runtime dependency. Components that are disabled will not appear in the system components table on the Application Server home page and will not be started when the application server is started.

Enabled Components

OC4J_Portal, Portal:portal
Forms
HTTP_Server
OC4J_BI_Forms, Reports Server: rep_EDCDR6P1
Web Cache
home

Disabled Components

OC4J_Demos **1**

Move
Move All
Remove **2**
Remove All

Enabled Components

OC4J_Portal, Portal:portal
Forms
HTTP_Server
OC4J_BI_Forms, Reports Server: rep_EDCDR6P1
Web Cache
home
OC4J_Demos

Disabled Components

Move
Move All
Remove
Remove All

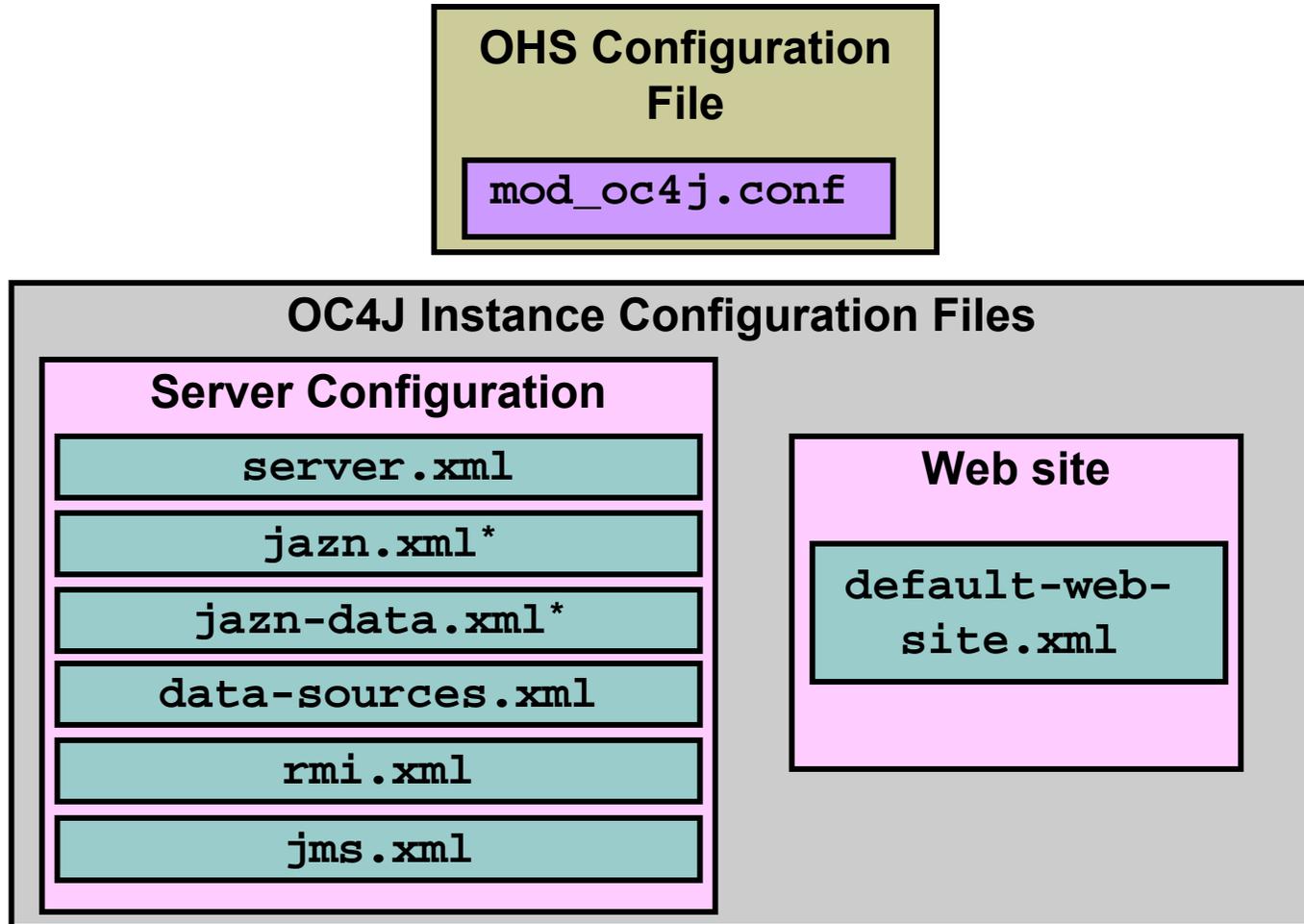
Cancel OK **3**

Основы конфигурации OC4J

OC4J имеет три группы конфигурационных файлов:

- **mod_oc4j конфигурационные файлы:**
 - Используются для конфигурации модуля mod_oc4j для Oracle HTTP Server
 - В \$ORACLE_HOME/Apache/Apache/conf
- **OC4J Server конфигурационные файлы:**
 - Используются для конфигурации OC4J Server
 - В \$ORACLE_HOME/j2ee/<instance>/config
- **Два типа конфигурационных файлов для OC4J приложений:**
 - J2EE-стандарт: В /applications/<app-name>
 - OC4J-специфика: В /application-deployments/<app-name>

Файлы конфигурации инстанса OC4J



Взаимосвязь конфигурационных файлов

Когда разворачивается приложение добавляется запись в `\config\server.xml` файл:

```
<application name="app01"  
  path="../applications/app01.ear" />
```

`Context root` для этого ввода определяется в `/config/default-web-site.xml`:

```
<web-app application="app01" name="app01"  
  root="/app01" />
```

Модули приложения определяются в:
`\applications/app01/META-INF/application.xml`:

```
<web><web-uri>webapp1.war</web-uri></web>
```

Пример файла server.xml

```
<application-server
  localhostIsAdmin="true"
  application-directory="../applications"
  deployment-directory="../application-deployments"
  connector-directory="../connectors">

  <rmi-config path="../rmi.xml" />
  <jms-config path="../jms.xml" />
  <log><file path="../log/server.log" /></log>

  <global-application name="default"
    path="application.xml" />

  <global-web-app-config
    path="global-web-application.xml" />
  <web-site path="../default-web-site.xml" />

  <application name="app01"
    path="../applications/app01.ear" />
  ...
</application-server>
```

Пример файла default-web-site.xml

```
<web-site port="3301" protocol="ajp13"
  display-name="Default OC4J Web Site">
  <default-web-app application="default"
    name="defaultWebApp" root="/j2ee"/>
  <web-app application="default" name="dms"
    root="/dmsoc4j"/>
  <web-app application="app01" name="app01"
    root="/app01"/>
  <web-app application="BC4J" name="webapp"
    root="/webapp"/>
  <access-log
    path="../../log/default-web-access.log"/>

</web-site>
```

Конфигурирование OC4J с использованием Application Server Control

Нажимаем на линк “Administration” на домашней странице OC4J для доступа к странице “OC4J Administration”.

Home Applications **Administration**

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Instance Properties

- [Server Properties](#)
- [Website Properties](#)
- [JSP Container Properties](#)
- [Replication Properties](#)
- [Advanced Properties](#)

Application Defaults

- [Data Sources](#)
- [Security](#)
- [JMS Providers](#)
- [Global Web Module](#)

Related Links

- [BC4J](#)

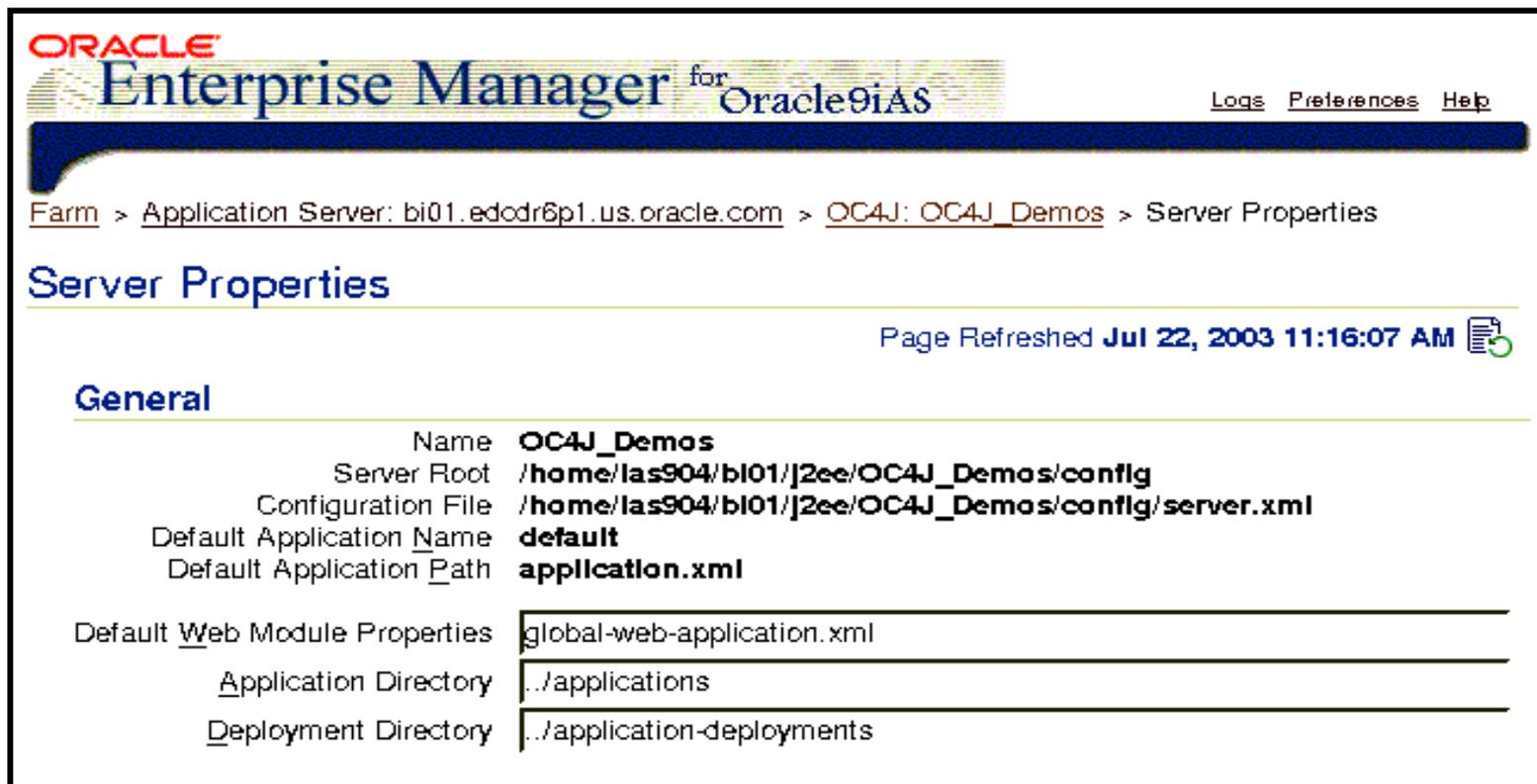
OC4J Inheritance

OC4J applications have a hierarchical parent-child relationship to facilitate administration through inheritance. A child application inherits certain attributes from its parent application such as principals and JNDI objects including data sources, JMS providers and EJBs. When an OC4J application is deployed, you specify the parent application. The Default Application is the top of the parent hierarchy.

Home Applications **Administration**

Страница параметров сервера: Основная секция

Нажимаем на линк “Server Properties” в “OC4J Administration page” для доступа к “Server Properties.



The screenshot displays the Oracle Enterprise Manager interface for Oracle9iAS. The page title is "Server Properties" and it shows the configuration for the "OC4J_Demos" application. The "General" section lists various server parameters and their values.

ORACLE
Enterprise Manager[®] for Oracle9iAS

Logs Preferences Help

Farm > Application Server: bi01.edodr6p1.us.oracle.com > OC4J: OC4J_Demos > Server Properties

Server Properties

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General

Name	OC4J_Demos
Server Root	/home/las904/bi01/j2ee/OC4J_Demos/config
Configuration File	/home/las904/bi01/j2ee/OC4J_Demos/config/server.xml
Default Application Name	default
Default Application Path	application.xml
Default Web Module Properties	global-web-application.xml
Application Directory	../applications
Deployment Directory	../application-deployments

Web Site Параметры

ORACLE
Enterprise Manager for Oracle9iAS [Logs](#) [Preferences](#) [Help](#)

Farm > Application Server: bi01.edodr6p1.us.oracle.com > OC4J: OC4J_Demos > **Website Properties**

Website Properties

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Default Web Module

Name **defaultWebApp**
Application **default**
Load on startup **true**

URL Mappings for Web Modules

Name	Application	URL Mapping	Load on startup
dms	default	/dmsoc4j	<input type="checkbox"/>
FAQAppWeb	FAQApp	/FAQApp	<input checked="" type="checkbox"/>
FAQAppWebService	FAQApp	/FAQAppWebService	<input checked="" type="checkbox"/>
IsWebCacheWorkingWeb	IsWebCacheWorking	/IsWebCacheWorking	<input checked="" type="checkbox"/>
web	reportsDemo	/repdemo	<input checked="" type="checkbox"/>

[Revert](#) [Apply](#)

[Logs](#) | [Preferences](#) | [Help](#)

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About Oracle Enterprise Manager Oracle9iAS Console

JSP Параметры

JSP Properties: jsp

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Oracle JSP Container Properties

The following properties may be used to configure the Oracle JSP Container.

Debug Mode	<input type="text" value="No"/>	Emit Debug Info	<input type="text" value="No"/>
External Resource for Static Content	<input type="text" value="No"/>	When a JSP Changes	<input type="text" value="Recompile JSP"/>
Generate Static Text as Bytes	<input type="text" value="No"/>	Precompile Check	<input type="text" value="No"/>
Tags Reuse Default	<input type="text" value="No"/>	Validate XML	<input type="text" value="No"/>
Reduce Code Size for Custom Tags	<input type="text" value="No"/>		

SQLJ Command	<input type="text"/>
Alternate Java Compiler	<input type="text"/>

[Logs](#) | [Preferences](#) | [Help](#)

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[About Oracle Enterprise Manager Oracle9iAS Console](#)

Расширенные параметры

Advanced Server Properties

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Configuration Files

File Name	Location
jms.xml	/home/ias904/bi01/j2ee/OC4J_Demos/config
server.xml	/home/ias904/bi01/j2ee/OC4J_Demos/config
rmi.xml	/home/ias904/bi01/j2ee/OC4J_Demos/config
global-web-application.xml	/home/ias904/bi01/j2ee/OC4J_Demos/config
default-web-site.xml	/home/ias904/bi01/j2ee/OC4J_Demos/config

Edit server.xml

This configuration file is located at server.xml

```
<?xml version="1.0"?>
<!DOCTYPE application-server PUBLIC "-//Oracle//DTD OC4J Application-server 9.04//EN"
"http://xmlns.oracle.com/ias/dtds/application-server-09_04.dtd">

<application-server localhost:Admin="true"
application-directory="..applications"
deployment-directory="..application-deployments"
connector-directory="..connectors"
>
  <rmi-config path="..rmi.xml" />
  <sep-config path="..internal-settings.xml" />
  <jms-config path="..jms.xml" />
  <javacache-config path="..../javacache/admin/javacache.xml" />
  <log>
    <file path="..log/server.log" />
  </log>
</application-server>
```

Разворачивание приложений

- Разворачивание приложений на Oracle Application Server 10g не является сверхсложным механизмом, но зависит от типов приложений.
- Специалист по deployment конфигурирует инстанс OC4J совместно с приложениями:
 - Web, EJB, and J2EE приложения
 - Использует автоматический или ручной методы для deployment
- Инстанс OC4J верифицирует и разворачивает приложения:
 - Автоматически deploy и redeploy для новых приложений.
 - Генерирует требуемые OC4J-специфические файлы для приложения.
 - Для сложных приложений инстанс OC4J должен быть рестартирован

Страница о приложениях, размещенных на OC4J

OC4J: OC4J_Demos

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Default Application Name [default](#)
Default Application Path **application.xml**

Deployed Applications

[Deploy EAR file](#) [Deploy WAR file](#)
[Edit](#) [Undeploy](#) [Redeploy](#)

Select	Name	Path	Parent Application	Active Requests	Request Processing Time (seconds)	Active EJB Methods
<input checked="" type="radio"/>	FAQApp	../applications/FAQApp.ear	default	0	0.00	0
<input type="radio"/>	IsWebCacheWorking	../applications/IsWebCacheWorking.ear	default	0	0.00	0
<input type="radio"/>	reportsDemo	../applications/reportsDemo.ear	default	0	0.00	0

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Управление приложениями

Application: FAQApp

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General **Response - Servlets and JSPs** **Response - EJBs**

[Redeploy](#) [Undeploy](#)

Status **Loaded**

Auto Start **true**

Parent Application default

Active Sessions **0**

Active Requests **0**

Request Processing Time (seconds) **0.00**

Requests per Second **0.00**

Active EJB Methods **0**

Method Execution Time (seconds) **0.00**

Method Execution Rate (per second) **0.00**

Web Modules

Name	Path	Active Requests	Request Processing Time (seconds)	Active Sessions
FAQAppWeb	FAQAppWeb.war	0	0.00	0
FAQAppWebService	FAQAppWebService.war	0	0.00	0

EJB Modules

Name	Path	Active EJB Methods	Method Execution Time (seconds)
FAQAppEJB	FAQAppEJB.jar	0	Not Yet Available

Administration

Properties **Resources** **Security**

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[Advanced Properties](#) [JMS Providers](#)

Управления Web модулями

Web Module: FAQAppWeb

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General

Status **Not Loaded**
URL Mapping **/FAQApp**
Referenced EJBs **1**

Response and Load

Active Sessions **0**
Active Requests **0**
Request Client Time (seconds) **0.00**
Request Load Time (seconds) **0.00**
Requests per Second **0.00**
Requests Processed **0**

Servlets/JSPs

Name	Status	Type	Source	Active Requests	Request Client Time (seconds)	Requests per Second	Startup Priority
 StrutsActionServlet	Not Loaded	Servlet	org.apache.struts.action.ActionServlet	0	0	0	2

Administration

Properties

[General](#)
[Mappings](#)
[Filtering and Chaining](#)
[Environment](#)
[Advanced Properties](#)

Security

[General](#)

Заключение

В этом уроке Вы должны были познакомиться со следующим:

- **Как создавать инстансы OC4J**
- **Запускать и останавливать инстансы OC4J**
- **Enable или disable приложения для запуска**
- **Конфигурировать свойства инстанса OC4J**
- **Конфигурировать свойства Web site и JSP**
- **Редактировать конфигурационные файлы OC4J**
- **Конфигурировать разворачиваемые приложения и Web модули**

Информация для контактов по техническим вопросам:

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