

# Installing Oracle Reports Release 6i Web CGI and Cartridge with OAS 4.0

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## TABLE OF CONTENTS

<b>Web Cartridge Migration to Web CGI .....</b>	<b>1</b>
<b>Who should read this.....</b>	<b>1</b>
<b>Benefits for Migrating to Web CGI.....</b>	<b>1</b>
<b>Migrating to Web CGI.....</b>	<b>1</b>
<b>Step 1. Installing the software .....</b>	<b>1</b>
<b>Step 2. Configure the OAS .....</b>	<b>2</b>
<b>Step 3. Configure the Web CGI.....</b>	<b>3</b>
<b>Step 4. (Optional) Rename the key mapping file.....</b>	<b>3</b>
<b>Step 5. (Optional) Set CGI environment variables .....</b>	<b>3</b>
<b>Step 6. Run a report using the Web CGI URL.....</b>	<b>4</b>
<b>Step 7. Update the report links on your Web pages .....</b>	<b>4</b>
<b>Reports Web Cartridge Supplementary Instructions.....</b>	<b>5</b>
<b>Who should read this.....</b>	<b>5</b>
<b>OAS 4.0.8 limitations that affect the Web Cartridge installation.....</b>	<b>5</b>
<b>Web Cartridge work-around for OAS Release 4.0.8.....</b>	<b>5</b>
<b>For Windows NT.....</b>	<b>5</b>
<b>For UNIX.....</b>	<b>6</b>
<b>Appendix A. Web CGI Environment Variables.....</b>	<b>7</b>

# Installing Oracle Reports Release 6i Web CGI and Cartridge with OAS 4.0

The Reports Web CGI or Web Cartridge is required for the Reports Server when using the Oracle Application Server (OAS) Release 4.0 to process report requests from Web clients. To enable users to launch reports from a Web client, you must configure either the Web CGI or Cartridge to transmit job requests and output between the OAS and the Reports Server.

This paper serves two purposes:

1. It describes how to migrate from an existing Web Cartridge implementation to Web CGI implementation that is configured on OAS. It assumes that you have an existing, working Reports Server that is configured on OAS using the Web Cartridge. See "Web Cartridge Migration to Web CGI" for more information.
2. It addresses limitations to OAS Release 4.0.8 that affect the Web Cartridge installation. See "Web Cartridge Supplementary Instructions" for more information.

**Note:** If you are installing and configuring the Reports Server for the first time, refer to the *Publishing Reports* manual for detailed instructions on how to do this.

## WEB CARTRIDGE MIGRATION TO WEB CGI

### Who should read this

This section is for you if you want to migrate from an existing Web Cartridge implementation to a Web CGI implementation, and your Reports Server is currently configured to:

- Use the Oracle Application Server (OAS) for your Web listener.
- Transmit job requests between OAS and the Reports Server using the Reports Web Cartridge.

**Note:** If you configured the Reports Server using the WebDB listener, any CGI-enabled Web server, or any Java-aware servlet, then you did so by configuring the Reports Web CGI. Migration to Web CGI is not necessary.

### Benefits for migrating to Web CGI

CGI is a component of the Web's HTTP protocol. It is a standard, platform-independent way to dynamically communicate with the Reports Server.

Two benefits for choosing a CGI implementation are:

- **Openness.** Most Web servers support CGI. It is the most common implementation.
- **Easy to implement.** CGI is faster and easier to implement than Web Cartridge.

## Migrating to Web CGI

To migrate to Web CGI, do the following:

- Step 1. Install the software.
- Step 2. Configure the OAS
- Step 3. Configure the Web CGI.
- Step 4. (Optional) Set environment variables.
- Step 5. (Optional) Rename the mapping file.
- Step 6. Run a report using the Web CGI URL.
- Step 7. Update the report links on your Web pages.


These steps are performed on the OAS machine and assume that you have an existing, operational Reports Server using Web Cartridge.

### Step 1. Install the software

1. Install the Reports Developer Thin Client component if you have not already. Refer to the *Publishing Reports* manual for more information on the installation process.
2. Ensure that a TNS names service entry exists for the Reports Server in the `tnsnames.ora` file that is used by Web CGI to communicate with the Reports Server.
  - If OAS is installed on a different machine than the Reports Server, check the `tnsnames.ora` file to ensure that a TNS names service entry exists for the Reports Server in the OAS `ORACLE_HOME`. Refer to Section E.1.3.1., "To create a service entry for the Reports Server" in the *Publishing Reports* manual for more information.
  - If OAS Release 4.0.8 is installed on the same machine as the Reports Server, but in a different Oracle home, then you will need to add a TNS names service entry for the Reports Server in the `tnsnames.ora` in the OAS `ORACLE_HOME`. Refer to Section E.1.3.1., "To create a service entry for the Reports Server" in the *Publishing Reports* manual for more information.
  - If OAS Release 4.0 (previous to OAS 4.0.8) is installed on the same machine as the Reports Server and is in the same `ORACLE_HOME` as the Reports Server, then no additional TNS names entries are required.

### Step 2. Configure the OAS

For more information on these steps, refer to your OAS server documentation.

1. Start your browser.
2. In the Oracle Application Server Welcome page, click **OAS Manager**.
3. In the OAS Manager navigational tree, click the + icon beside the web  site icon.
4. Expand HTTP listeners node.
5. Create a listener if necessary, or expand the listener you want use.
6. Click **Directory** and configure the OAS directory mapping:

Directory Description	Physical directory example	Virtual directory example	Permissions required
BIN	C:\OAS\BIN	/CGI-BIN	read, execute

**Table 1: OAS CGI physical and virtual directories**

### Step 3. Configure the Web CGI

1. On Windows, copy `rwsgi60.exe` (located in the `ORACLE_HOME\BIN` directory) to your `cgi-bin` directory. On Unix, copy `rwsgi60` (located in the `ORACLE_HOME\BIN` directory) to your `cgi-bin` directory.

**Tip:** The `cgi-bin` directory is defined in the OAS directory mapping. In this example, it is `C:\OAS\BIN`.

2. If OAS and Reports Developer are in different home directories, you also need to copy the authentication template files (`dbauth.htm`, `sysauth.htm`, `dbsysdif.htm`, and `dbsysam.htm`) from the Reports Developer home into the OAS home.

On Windows, if the Reports Developer home is `d:\orant\reports60` and the OAS home is `e:\orant\oas`, you would need to create a `reports60` subdirectory in `e:\orant\oas` and move the template files from `d:\orant\reports60` to `e:\orant\oas\reports60`.

For example, on Unix, if the Reports Developer home is `/private1/oracle6i/reports60` and the OAS home is `/private1/oas`, you would execute the following commands:

```
cd /private1/oas
mkdir reports60
cd reports60
cp /private1/oracle6i/reports60/dbauth.htm .
cp /private1/oracle6i/reports60/sysauth.htm .
cp /private1/oracle6i/reports60/dbsysdif.htm .
cp /private1/oracle6i/reports60/dbsysam.htm .
```

### Step 4. (Optional) Rename the key mapping file

If you use a key mapping file to simplify or hide parameters, you will need to rename the key mapping file (i.e., `owscmd.dat`) that was for Web Cartridge to a file name that Web CGI can recognize (i.e., `cgicmd.dat`).

1. Copy and rename the `owscmd.dat` file (located on `ORACLE_HOME\REPORT60`) to `cgicmd.dat`.

### Step 5. (Optional) Set CGI environment variables

If you set Web Cartridge parameters (e.g., `REPORTS60_OWSHELP` to specify the location of the map or the help file), then you will need to set these environment variables for Web CGI (e.g., `REPORTS60_CGIHELP`).

**Tip:** To display the Web Cartridge parameters that are currently in use, start your browser and type your OAS Cartridge URL with the `show environment variables` command. For example:

```
http://my_webserver/rwows60?showenv
```

#### For Windows NT:

Before you begin, we recommend that you back up the registry before making any changes. Refer to your operating system's documentation for more information.

1. On your desktop, choose **Start→Run**.
2. Type `regedit` to display the Registry Editor.
3. Expand **Hkey\_Local\_machine→Software→Oracle**.
4. Choose **Edit→New→String value** to add the Web CGI environment variable.

See "Appendix A: Web CGI Environment Variables" for a description of the CGI-specific environment variables.

**Note:** Refer to your operating system's documentation to determine if the values you set are case sensitive.

#### For UNIX:

**Tip:** You may want to create a shell script that sets environment variables on your OAS machine. To do this, create a file that contains the command described below for each environment variable that you want to set.

1. Set the Web CGI environment variable(s) as desired. For example:

```
setenv REPORTS60_CGIHELP myhelp.html
```

See "Appendix A: Web CGI Environment Variables" for a description of the CGI-specific environment variables.

#### Step 6. Run a report using the Web CGI URL

Now that you have migrated to Web CGI, you should test the configuration to ensure that it can communicate with the Reports Server. The URL call for Web CGI is different than the Web Cartridge.

1. Run a test report using the Web CGI call. Recall that the Web Cartridge URL was:

```
http://your_webserver/rrows60?report=your_report.rdf+  
userid=username/password@mydb+desformat=html+destype=cache
```

and the URL call for the Web CGI is:

```
http://your_webserver/cgi-bin/rwsgi60.exe?report=your_report.rdf+  
userid=username/password@mydb+desformat=html+destype=cache
```

Notice that instead using the `rrows60` executable (for Web Cartridge) you are calling the `rwsgi60` executable (for Web CGI) from the `cgi-bin` path (defined in Step 2. Configure the OAS) to call the URL. The arguments that follow the `?` are the same regardless of whether you are using Web Cartridge or Web CGI to communicate with the Reports Server.

**Note:** If you cannot successfully run the report, refer to the "Troubleshooting" section of the *Publishing Reports* manual for assistance.

**Note:** For this example, it is assumed that the `REPORTS60_REPORT_SERVER` environment variable was set to point to a default Reports Server. The `SERVER` command line argument is not needed in this case.

### Step 7. Update the report links on your Web pages

If you maintain a Web page with links to run report requests, then you will need to change the URL reference to call the `rwcgi60` executable from the `cgi-bin` path.

If you configured your Reports Server for access control using Oracle WebDB, you will need to change the Web Gateway value in the Reports Server Access control that was created for the Reports Server.

## REPORTS WEB CARTRIDGE SUPPLEMENTARY INSTRUCTIONS

### Who should read this

This section is for you if you want to install and configure the Reports Web Cartridge on Oracle Application Server (OAS) Release 4.0.8. It addresses limitations in OAS Release 4.0.8 that affect the Web Cartridge installation and discusses the work-around.

Refer to "Appendix E. Reports Web Cartridge" in the *Publishing Reports* manual for comprehensive information on how to install the Web Cartridge on the OAS.

### OAS 4.0.8 limitations that affect the Web Cartridge installation

OAS Release 4.0.8 is installed in a different `ORACLE_HOME` than Reports Developer. The Web Cartridge will not work properly if OAS and Reports Developer are installed in the same home directories. The work-around requires that for Windows NT you create a new registry entry, and that for UNIX, you copy files from the Developer `ORACLE_HOME` to the OAS `ORACLE_HOME`.

**Note:** If you prefer not to perform this work-around, but want to continue using OAS as the Web listener, you can install and configure the Reports Web CGI on OAS. Refer to "Web Cartridge migration to Web CGI" discussed previously in this technical white paper.

### Web Cartridge work-around for OAS Release 4.0.8

Perform this work-around after you have completed the Reports Server configuration steps in Appendix E "Reports Web Cartridge" of the *Publishing Reports* manual.

#### For Windows NT

This work-around assumes the following:

- On the OAS machine, OAS Release 4.0.8 is installed in the OAS `ORACLE_HOME` (i.e., `c:\OAS`) and the Reports Thin Client is installed in the Developer `ORACLE_HOME` (i.e., `c:\orant`).
  - Two subkeys exist in the `HKEY_LOCAL_MACHINE\SOFTWARE\ORACLE\HOME0` (for the Oracle Developer `ORACLE_HOME`) and `HOME1` (for the OAS `ORACLE_HOME`).
1. On OAS machine desktop, choose **Start→Run**.
  2. Type `regedit` to display the Registry Editor.
  3. Expand **Hkey\_Local\_machine→Software→Oracle→HOME1**.
  4. Choose **Edit→New→String** value to add the following environment variable:

RW60

5. Double click RW60.
6. Add the following path to point to the Developer ORACLE\_HOME:

```
c:\orant\report60
```

**For UNIX**

Perform this work-around after you have completed the Reports Server configuration steps in Appendix E "Reports Web Cartridge" of the *Publishing Reports* manual.

This work-around assumes the following:

On the OAS machine, OAS Release 4.0.8 is installed in the OAS ORACLE\_HOME (i.e., /PRIVATE/OAS) and the Reports Thin Client is installed in the Developer ORACLE\_HOME (i.e., /PRIVATE/ORACLE).

1. On the OAS machine, type the following commands to create a new directory in the OAS ORACLE\_HOME and to copy the Reports Developer message files to it.

```
cd /privateoas
mkdir reports60
cd reports60
mkdir mesg
cp /private/oracle/reports60/mesg/*.*
```

2. Copy the following libraries from the Reports Developer ORACLE\_HOME to the OAS ORACLE\_HOME:

```
cd /private/oas/bin
cp /private/oracle/bin/libzrc60.* .
cp /private/oracle/bin/libca60.* .
```

**Note:** These libraries are used by Web Cartridge and must be located in the OAS ORACLE\_HOME.

3. Copy the authentication template files (dbauth.htm, sysauth.htm, dbsysdif.htm, and dbsyssam.htm) from the Reports Developer home into the OAS home. For example, if the Reports Developer home is /private1/oracle6i/reports60 and the OAS home is /private1/oas, you would execute the following commands:

```
cd /privatel1/oas
mkdir reports60
cd reports60
cp /privatel1/oracle6i/reports60/dbauth.htm .
cp /privatel1/oracle6i/reports60/sysauth.htm .
cp /privatel1/oracle6i/reports60/dbsysdif.htm .
cp /privatel1/oracle6i/reports60/dbsyssam.htm .
```

## APPENDIX A: WEB CGI ENVIRONMENT VARIABLES

Variable	Description
REPORTS60_CGIDIAGBODYTAGS	For the Reports Web CGI, specifies HTML tags that will be inserted as a <BODY...> tag in the RWCGI60 diagnostic/debugging output. For instance, you may want to use this environment to set up text/background color, image, etc.
REPORTS60_CGIDIAGHEADTAGS	For the Reports Web CGI, specifies HTML tags to insert between <HEAD> ...</HEAD> tags in the RWCGI60 diagnostic/debugging output. For instance, you may want to use this environment to set up <TITLE> or <META...> tags.
REPORTS60_CGIHELP	For the Reports Web CGI, defines URL/URI of the RWCGI60 help file, which will be navigated to when RWCGI60 is invoked with the empty request: <code>http://your_webserver/rwsgi60?</code> . For example., setting it to <code>http://www.yahoo.com</code> will go to that URL; setting it to <code>myhelpfile.htm</code> will display the file: <code>http://your_webserver/myhelpfile.htm</code> . If this parameter is not defined, a default help screen will be displayed.
REPORTS60_CGIMAP	For the Reports Web CGI, defines fully qualified filename/location of the RWCGI60 map file (if map file configuration is used), e.g., <code>C:\ORANT\REPORT60\cgicmd.dat</code> .
REPORTS60_CGINODIAG	For the Reports Web CGI, when defined, disables all debugging/diagnostic output, such as help and showmap, from RWCGI60. For example, <code>http://your_webserver/rwsgi60/help?</code> will not work when REPORTS60_CGINODIAG is defined.

**Table 2: Environment variables for Web CGI**



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