

# Oracle® Application Express

Release Notes

Release 3.1.2

E10495-02

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These *Release Notes* contain important information not included in the Oracle Application Express documentation. For the most current information, refer to updates of this document, which are located at the following Web site:

<http://www.oracle.com/technology/documentation/>

This document contains these topics:

- [Important Configuration Changes](#)
- [Components and Features Not Supported](#)
- [Open Bugs and Known Issues](#)
- [Documentation Accessibility](#)

## 1 Important Configuration Changes

The value of the character set portion of `PlsqlNLSLanguage` in the configuration of the `mod_plsql` Database Access Descriptor (DAD) must be set to `AL32UTF8`, regardless of the underlying database character set.

The Database Access Descriptor now contains a parameter for `PlsqlRequestValidationFunction`. The purpose of this parameter is to limit the number of procedures which can be invoked through `mod_plsql`. By default, the only procedures permitted are the public entry points of Oracle Application Express. This can be extended using the validation functions shipped with Oracle Application Express. To learn more, see "Restricting Access to Oracle Application Express by Database Access Descriptor (DAD) in *Oracle Database Application Express User's Guide*.

Enabling the `PlsqlRequestValidationFunction` for a Database Access Descriptor may cause existing applications which relied upon publicly executable procedures to fail. You may choose to either omit the `PlsqlRequestValidationFunction` from the Database Access Descriptor definition, or follow the recommended approach of extending the supplied validation function.

## 2 Components and Features Not Supported

The following are no longer supported in Oracle Application Express, release 3.1.2.

## 2.1 Web Browsers No Longer Supported

The following Web browsers are no longer supported:

- Netscape Communicator 7.2 or higher
- Mozilla 1.7 or higher

**See Also:** ["Supported Web Browsers"](#) on page 3

## 3 Open Bugs and Known Issues

This section describes bugs and known issues for Oracle Application Express:

- [Access Denied When Validating Migration Export File](#)
- [Supported Web Browsers](#)
- [Editing Scripts with Multibyte Characters in the First Line](#)
- [Problems with SVG Charts](#)
- [No Support for Running in an EBCDIC Character Set](#)
- [Problems with Queries Containing a Bind Variable and a String with Two Dashes](#)
- [Online Help Not Translated into Japanese for Release 3.1.2](#)
- [Importing Spreadsheet Data Containing Quotation Marks](#)
- [Column Attribute Format in Japanese](#)
- [Creating an Item with Multibyte Characters](#)
- [Runtime Errors in an Application Imported from a Previous Release](#)
- [No Support for Corel SVG Viewer](#)
- [Enabling Network Services in Oracle Database 11g](#)
- [Issues with New HTML Editor](#)
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- [Exporter Tool Support for Microsoft Access](#)
- [Issue with Interactive Reports](#)

### 3.1 Access Denied When Validating Migration Export File

If you enter invalid text in the Migration Export File field in the first step of the Create Project wizard, you might receive an Access Denied error and the progress bar might persist. This may occur when you are using Internet Explorer 6.0 on Windows XP.

This issue is tracked with Oracle bug 5614432.

**Workaround:**

Use either the Browse option or enter the full path manually. Be sure to enter a valid SQL script and path in this field.

## 3.2 Supported Web Browsers

To view or develop Oracle Application Express applications, Web browsers must support JavaScript and the HTML 4.0 and CSS 1.0 standards. The following browsers meet this requirement:

- Microsoft Internet Explorer 6.0 or higher (Windows only)
- Firefox 1.0 or higher

**See Also:** ["Web Browsers No Longer Supported"](#) on page 2

## 3.3 Editing Scripts with Multibyte Characters in the First Line

SQL scripts containing multibyte characters cannot be edited in the SQL Script editor if multibyte characters occur in the first line. Note that this issue does not occur when using Internet Explorer 7.0 and Firefox 1.5.0 or higher.

### Workaround:

This issue most often occurs when the first line of the script contains multibyte characters. You can correct this problem by adding a new first line containing non-multibyte characters, for example two hyphens (--), and making sure the line containing multibyte characters moves to the second line.

## 3.4 Problems with SVG Charts

If you experience problems with an SVG chart, try migrating the chart to a Flash chart.

To migrate an SVG chart to Flash:

1. Navigate to the appropriate Page Definition.
2. Under Regions, click the region name. The region name displays to the left of SVG Chart.
3. On the Region Definition, click **Migrate SVG Chart to Flash Chart** on the Tasks list.
4. Click **Migrate**.

**See Also:** "Creating Charts" in *Oracle Database Application Express User's Guide*

## 3.5 No Support for Running in an EBCDIC Character Set

Oracle Application Express does not support an EBCDIC character set. The value of the character set in the configuration of the `mod_plsql` Database Access Descriptor (DAD) must be set to `AL32UTF8`, regardless of the underlying database character set.

**See Also:** ["Important Configuration Changes"](#) on page 1

### 3.6 Problems with Queries Containing a Bind Variable and a String with Two Dashes

Creating a report region based on a query that contains a string with two dashes may hinder the Application Express Engine's ability to handle item bind variable references. Consider the following example:

```
SELECT ename, job, sal, comm, deptno
FROM emp
WHERE instr ('-'||'-dash-'||-', 'uu') = 0
AND deptno = :P18_X
AND 1 = 1
```

#### Workaround:

You can correct this behavior by changing the bind variable format. For example, to correct this issue in the previous example you would change :P18\_X to v('P18\_X').

### 3.7 Online Help Not Translated into Japanese for Release 3.1.2

In Oracle Application Express, release 3.1.2 online Help is not translated into Japanese.

### 3.8 Importing Spreadsheet Data Containing Quotation Marks

If you import spreadsheet data by copying and pasting and a column value contains a double quotation mark, the data will not import correctly (for example, 54" Plasma Flat Screen). To avoid this problem, you have two options:

- Option 1:
  - a. Save the data in a delimited format (such as comma-delimited (.csv) or tab-delimited).
  - b. Use Import Text Data wizard to upload and import the saved file.
- Option 2:
  - a. Replace the quotation mark with two double quotation marks as shown in the following example:

```
54"" Plasma Flat Screen
```
  - b. Use the Import Spreadsheet Data wizard to import the file.

### 3.9 Column Attribute Format in Japanese

When you view the Number/Date Format popup dialog on the Column Attributes page, the following appears in the dialog box:

```
\ + 5,234.10
```

It is expected that the symbol of 'yen' displays accurately in a Japanese environment.

Note that the backslash (\) and yen are the same character code point, but display differently depending on the selected font. A backslash (\) also displays when applying the data format on the page in the application.

This issue is tracked with Oracle bug 3384664.

### 3.10 Creating an Item with Multibyte Characters

If you create a form on a table or view using a wizard and the included column name contains multibyte characters, the name of the new item will contain multibyte characters.

This issue is tracked with Oracle bug 3393090.

#### **Workaround:**

To correct this problem, when you create new items on the Page Definition use alphanumeric characters A\_Z, 0-9 and '\_' for the item names. You may also need to change item names to alphanumeric before you apply changes to the item.

### 3.11 Runtime Errors in an Application Imported from a Previous Release

If you export an application from an earlier Oracle Application Express release and then import and install it using the installation pages in Application Builder, in rare situations you may encounter runtime errors after the application installs.

These errors often manifest themselves as PL/SQL parser or execution errors pertaining to blocks of PL/SQL code embedded within application components. The installation process sometimes splits strings greater than 200 characters into multiple lines. For example, lines may split between PL/SQL keywords, or at other places that cause parsing errors.

#### **Workaround:**

If you encounter these types of errors and suspect the installation process has split large strings:

1. Isolate the failing component containing the suspect PL/SQL within the application by editing the failing page in Application Builder.
2. Locate the blocks of code that appear to split incorrectly.
3. Attempt to split the blocks of code in more appropriate places, or insert white space with the lines until no runtime errors are observed.
4. Export the application, import the export file, and then reinstall it.
5. Retain the new export file as a permanent backup copy.

### 3.12 No Support for Corel SVG Viewer

Oracle Application Express release 3.1.2 does not support the Corel SVG Viewer.

### 3.13 Enabling Network Services in Oracle Database 11g

By default, the ability to interact with network services is disabled in Oracle Database 11g release 1 (11.1). Therefore, if you are running Oracle Application Express with Oracle Database 11g release 1 (11.1), you need to use the new `DBMS_NETWORK_ACL_ADMIN` package to grant connect privileges to any host for the `FLows_030100` database user. Failing to grant these privileges results in issues with:

- Sending outbound mail in Oracle Application Express.

Users can call methods from the `APEX_MAIL` package, but issues arise when sending outbound email.

- Using Web services in Oracle Application Express.
- PDF/report printing.
- Searching for content in online Help (that is, using the Find link).

Topics in this section include:

- [Granting Connect Privileges to a Host](#)
- [Granting Connect Privileges to a Local Host](#)
- [Troubleshooting an Invalid ACL Error](#)

**Tip:** To run the examples described in this section, the compatible initialization parameter of the database must be set to at least 11.1.0.0.0. By default an 11g database will already have the parameter set properly, but a database upgraded to 11g from a prior version may not. See "Creating and Configuring an Oracle Database" in *Oracle Database Administrator's Guide* for information about changing database initialization parameters.

### 3.13.1 Granting Connect Privileges to a Host

The following example demonstrates how to grant connect privileges to any host for the `FLows_030100` database user.

```
DECLARE
  ACL_PATH VARCHAR2(4000);
  ACL_ID   RAW(16);
BEGIN
  -- Look for the ACL currently assigned to '*' and give FLOWs_030100
  -- the "connect" privilege if FLOWs_030100 does not have the privilege yet.

  SELECT ACL INTO ACL_PATH FROM DBA_NETWORK_ACLs
  WHERE HOST = '*' AND LOWER_PORT IS NULL AND UPPER_PORT IS NULL;

  -- Before checking the privilege, make sure that the ACL is valid
  -- (for example, does not contain stale references to dropped users).
  -- If it does, the following exception will be raised:
  --
  -- ORA-44416: Invalid ACL: Unresolved principal 'FLOWs_030100'
  -- ORA-06512: at "XDB.DBMS_XDBZ", line ...
  --
  SELECT SYS_OP_R20(extractValue(P.RES, '/Resource/XMLRef')) INTO ACL_ID
  FROM XDB.XDB$ACL A, PATH_VIEW P
  WHERE extractValue(P.RES, '/Resource/XMLRef') = REF(A) AND
        EQUALS_PATH(P.RES, ACL_PATH) = 1;

  DBMS_XDBZ.ValidateACL(ACL_ID);
  IF DBMS_NETWORK_ACL_ADMIN.CHECK_PRIVILEGE(ACL_PATH, 'FLOWs_030100',
    'connect') IS NULL THEN
    DBMS_NETWORK_ACL_ADMIN.ADD_PRIVILEGE(ACL_PATH,
    'FLOWs_030100', TRUE, 'connect');
  END IF;

EXCEPTION
  -- When no ACL has been assigned to '*'.
  WHEN NO_DATA_FOUND THEN
```

```

DBMS_NETWORK_ACL_ADMIN.CREATE_ACL('power_users.xml',
  'ACL that lets power users to connect to everywhere',
  'FLOWS_030100', TRUE, 'connect');
DBMS_NETWORK_ACL_ADMIN.ASSIGN_ACL('power_users.xml','*');
END;
/
COMMIT;

```

### 3.13.2 Granting Connect Privileges to a Local Host

The following example is a less privileged demonstration of how to access resources on a local host. This example would enable indexing of Oracle Application Express Online Help and could possibly enable email and PDF printing if those servers were also on the local host.

```

DECLARE
  ACL_PATH  VARCHAR2(4000);
  ACL_ID    RAW(16);
BEGIN
  -- Look for the ACL currently assigned to 'localhost' and give FLOWS_030100
  -- the "connect" privilege if FLOWS_030100 does not have the privilege yet.
  SELECT ACL INTO ACL_PATH FROM DBA_NETWORK_ACLS
    WHERE HOST = 'localhost' AND LOWER_PORT IS NULL AND UPPER_PORT IS NULL;

  -- Before checking the privilege, make sure that the ACL is valid
  -- (for example, does not contain stale references to dropped users).
  -- If it does, the following exception will be raised:
  --
  -- ORA-44416: Invalid ACL: Unresolved principal 'FLOWS_030100'
  -- ORA-06512: at "XDB.DBMS_XDBZ", line ...
  --

  SELECT SYS_OP_R20(extractValue(P.RES, '/Resource/XMLRef')) INTO ACL_ID
    FROM XDB.XDB$ACL A, PATH_VIEW P
    WHERE extractValue(P.RES, '/Resource/XMLRef') = REF(A) AND
      EQUALS_PATH(P.RES, ACL_PATH) = 1;

  DBMS_XDBZ.ValidateACL(ACL_ID);
  IF DBMS_NETWORK_ACL_ADMIN.CHECK_PRIVILEGE(ACL_PATH, 'FLOWS_030100',
    'connect') IS NULL THEN
    DBMS_NETWORK_ACL_ADMIN.ADD_PRIVILEGE(ACL_PATH,
      'FLOWS_030100', TRUE, 'connect');
  END IF;

EXCEPTION
  -- When no ACL has been assigned to 'localhost'.
  WHEN NO_DATA_FOUND THEN
    DBMS_NETWORK_ACL_ADMIN.CREATE_ACL('local-access-users.xml',
      'ACL that lets power users to connect to everywhere',
      'FLOWS_030100', TRUE, 'connect');
    DBMS_NETWORK_ACL_ADMIN.ASSIGN_ACL('local-access-users.xml','localhost');
END;
/
COMMIT;

```

### 3.13.3 Troubleshooting an Invalid ACL Error

If you receive an ORA-44416: Invalid ACL error after running the previous script, use the following query to identify the invalid ACL:

```
REM Show the dangling references to dropped users in the ACL that is assigned
REM to '*'.
```

```
SELECT ACL, PRINCIPAL
FROM DBA_NETWORK_ACLS NACL, XDS_ACE ACE
WHERE HOST = '*' AND LOWER_PORT IS NULL AND UPPER_PORT IS NULL AND
      NACL.ACLID = ACE.ACLID AND
      NOT EXISTS (SELECT NULL FROM ALL_USERS WHERE USERNAME = PRINCIPAL);
```

Next, run the following code to fix the ACL:

```
DECLARE
  ACL_ID RAW(16);
  CNT NUMBER;
BEGIN
  -- Look for the object ID of the ACL currently assigned to '*'
  SELECT ACLID INTO ACL_ID FROM DBA_NETWORK_ACLS
  WHERE HOST = '*' AND LOWER_PORT IS NULL AND UPPER_PORT IS NULL;

  -- If just some users referenced in the ACL are invalid, remove just those
  -- users in the ACL. Otherwise, drop the ACL completely.
  SELECT COUNT(PRINCIPAL) INTO CNT FROM XDS_ACE
  WHERE ACLID = ACL_ID AND
        EXISTS (SELECT NULL FROM ALL_USERS WHERE USERNAME = PRINCIPAL);

  IF (CNT > 0) THEN

    FOR R IN (SELECT PRINCIPAL FROM XDS_ACE
              WHERE ACLID = ACL_ID AND
                    NOT EXISTS (SELECT NULL FROM ALL_USERS
                                WHERE USERNAME = PRINCIPAL)) LOOP

      UPDATE XDB.XDB$ACL
      SET OBJECT_VALUE =
          DELETEXML(OBJECT_VALUE,
                    '/ACL/ACE[PRINCIPAL="' || R.PRINCIPAL || '"]')
      WHERE OBJECT_ID = ACL_ID;
    END LOOP;

  ELSE
    DELETE FROM XDB.XDB$ACL WHERE OBJECT_ID = ACL_ID;
  END IF;

END;
/

REM commit the changes.

COMMIT;
```

Once the ACL has been fixed, you need to run the first script in this section to apply the ACL to the FLOWS\_030100 user. See ["Granting Connect Privileges to a Host"](#) on page -6.

### 3.14 Issues with New HTML Editor

Users may encounter unexpected results when using the new item type HTML Editor Standard and the Find functionality. When using an item of type HTML Editor Standard with a Firefox browser, the cursor must be placed at the beginning of the text for the Find feature to function properly. In certain situations, the Find functionality may incorrectly report that the text is not found.

### 3.15 Restrictions for Features Requiring DBA Authentication

The following restriction applies to features in Oracle Application Express that require DBA authentication (for example, the Session report on the Database Monitor page). The DBA account used for authentication must not require double-quoting. In other words, it cannot be lower or mixed case.

### 3.16 Exporter Tool Support for Microsoft Access

When migrating a Microsoft Access application and to an Oracle Application Express application, you export your Microsoft Access metadata using the Exporter tool. Note that Exporter Tool for Microsoft Access supports Microsoft Access 97, Microsoft Access 2000, Microsoft Access 2002, and Microsoft Access 2003, but does not support Microsoft Access 2007.

### 3.17 Issue with Interactive Reports

Interactive Reports do not work with Oracle Database release 10.1.0.3.

This issue is tracked with Oracle bug 3800614.

## 4 Documentation Accessibility

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