



eDeveloper 9.4 Service Pack 4 Release Notes

We are proud to introduce eDeveloper Enterprise Server Version 9.4 Service Pack 4. eDeveloper 9.4 Service Pack 4 is an improved and updated version of the eDeveloper 9.4 release. Read the information in this document to find out more about this latest eDeveloper version.

For more information about previous eDeveloper releases, see the [PastReleaseNotes.pdf](#) file provided with this installation.

General Information

Installing Service Pack 4

When you install eDeveloper 9.4 SP4 using the Installation wizard's Upgrade option, the wizard automatically replaces the files that were changed since your last installed version.

eDeveloper 9.4 Samples Package

The Samples package demonstrating the new eDeveloper 9.4 features has been updated with additional samples. You can download the updated Samples package from our FTP site using the following link:

<http://v9product:PrEver983@ftp.magicsoftware.com/v9product/94samples/>

Special Settings

A special setting, sometimes referred to as a special flag, is an entry in the INI file that modifies the behavior of the product in specific aspects. A detailed list of the supported special flags is available in a PDF document.

You may download this document from the following link:

<ftp://v9product:PrEver983@ftp.magicsoftware.com/v9product/Documents/SpecialSetting.pdf>

eDeveloper Licensing Mechanism

eDeveloper has a built-in license-metering mechanism that uses your local area network (LAN) to communicate between eDeveloper instances running on different machines on the network.

For more information about this mechanism refer to the document available at: <ftp://ftp.magicsoftware.com/v9product/Documents/eDeveloperLicensingMechanism.pdf>

Behavior changes

Note a change in behavior with the error log in the [Behavior Changes section](#).



eDeveloper for iSeries SQL Client

eDeveloper 9.4 Service Pack 4 includes the iSeries SQL client 9.4-0.4 release for eDeveloper. You can read more about this in the [README400sql.htm](#) file.

eDeveloper for iSeries ISAM Client

eDeveloper 9.4 Service Pack 4 includes the updated version of the iSeries ISAM client 9.4-0.3 for eDeveloper. You can read more about this in the [README400.htm](#) file.

eDeveloper for iSeries DBCS Client

The iSeries DBCS Client installation allows you to install a special iSeries client for the Double-byte character set (DBCS) version of an operating system. You can read more about this in the [README400.htm](#) file.



Behavior Changes

eDeveloper Error Log – Specifying File Name and Path

In previous versions, the error log file created by the engine to log all errors that occurred during application execution was created by default with the name **MGError.log**, within the eDeveloper engine's working directory.

In SP4 you can now control the error log file name and path using a new Magic.ini entry: **GeneralErrorLog**.

To define the error log file name and path, enter a path and file name in the entry, for example:

```
GeneralErrorLog=C:\MyLogs\MGError.log
```

If you leave this entry blank, an error log file will not be created.

Note: When you upgrade to SP4, your existing .ini file is not updated and therefore the **GeneralErrorLog** entry is not defined. This causes the engine not to create the error log file.

To define the engine to continue and create the error log, enter the following line in your Magic.ini file:

```
GeneralErrorLog=mgerror.log
```

Changing the Printer in the Main Printer Dialog (QCR #301328)

Changing the printer in the main printer dialog box opened from the **File** menu affected programs that print to the default printer.

The Printers dialog is only used to modify printer settings but not to change the default printer. Programs that print to the default printer will continue printing to the system default printer.

Clicking on a Non-parkable Element

In previous versions, clicking the form background or a non-parkable control made the engine exit and re-enter the current control and execute the entire control cycle (Change, Verification, Suffix, and Prefix).

In SP4 this behavior has been corrected and now the control only exits its Edit mode and only executes the Control Change handler.

Control Cycle Re-executed When Clicking Phantom Tasks (QCR #771650)

The Control cycle (Prefix, Verification, and Suffix) was re-executed when clicking a phantom task.



Hyphens in a Check Box Control (QCR #297963)

A Check Box control did not display its text if the text was set by an expression and the text string contained a hyphen.

Switching Between Phantom Tasks (QCR #297493)

Switching to a Phantom Task by clicking a record that was not the first record always set the focus in the Phantom Task to the first record.

Logon Function in Main Program (QCR #571895)

A user logged on by the Logon function in the Main Program was not retained as the logged-on user for the duration of the application.

Modal Batch Task Window Not Refreshing its Display (QCR #587893)

A Batch task window did not refresh its view when opened as a Modal window.

EJB - Interface change

The eDeveloper EJB builder has had a face-lift and is now in the format of a wizard.

For more information, please refer to the XCG chapter.

Java Messaging (JMS) and Java Component Generator (JCG) – Modification

The Java modules that are used by the Java Component Generator and the Java Messaging component are now provided in the following file: **Support\edevUtils.jar**. If you upgrade to SP4 from a previous service pack you should manually modify the CLASSPATH entry under the [MAGIC_JAVA] section in the INI file to include the new path. For example:

```
[MAGIC_JAVA]  
CLASSPATH=Support\edevUtils.jar; ;
```



New Features and Features Enhancements

View Refresh Event Enhancements

In previous versions, the View Refresh internal event always attempted to remain parked on the last parked record by re-locating the record. The View Refresh internal event has been enhanced to let you control the locate procedure by passing an argument in the Raise Event operation.

For more information on the View Refresh event, see the *View Refresh Help* page.

Flow Properties in Handlers

The Flow Mode and Flow Direction properties available for Record Main operations are now also available for operations in handlers.

These properties are available in these handlers:

- Control Prefix *(Only Flow direction)
- Control Suffix *(Only Flow direction)
- Control Verification
- User event
- Internal event
- System event

Revert – New Mode for Verify Operation

You can define a Verify operation to produce an Error-style message box, as with the regular Error mode, by using the Revert mode. However, unlike the Error mode, instead of exiting the handler where the Verify operation is executed, the Revert mode instructs the engine to re-execute in reverse order all operations that preceded the Verify operation in the handler.

The Revert mode is only available for these handlers:

- User events
- System events
- Internal events
- Timer
- Expression
- Control Prefix
- Control Suffix
- Control Verification

Note: The Revert mode behavior simulates the behavior of executing the Error mode in the Record Main.



Editing – New Force Exit Level

The Force Exit property of a User event supports a new level: Editing.

The Editing level instructs the engine to exit a control's Edit mode before executing the corresponding handler.

For more information on the Force Exit property of the user event, see the *eDeveloper Reference Guide*.

MainLevel – New Function

The new MainLevel function is similar to the existing Level function. However, the MainLevel function only returns a task's main levels, i.e. Task, Group, and Record.

For more information on this function, see the *eDeveloper Reference Guide*.

System Environment Variables – Retrieval and Setting

Two new functions: **OSEnvGet**, and **OSEnvSet** let you retrieve and set the values of system environment variables.

For more information about these new functions, see the *eDeveloper Reference Guide*.

Retrieval of a Directory's File List

A new function, **FileListGet**, lets you easily retrieve the list of files in a designated folder.

For more information about this new function, see the *eDeveloper Reference Guide*.

Identifying the First Record Cycle in a Task

The new **IsFirstRecordCycle** function lets you identify the first record cycle in the task. This information is useful for running logic that on the one hand is based on the already-fetched data, after the Task Prefix, and on the other hand for logic that is run only once, on entering the task.

For more information about this new function, see the *eDeveloper Reference Guide*.

Default Push Button

A new GUI Display form property lets you define a push button as the form's default push button. This lets you activate a default push button directly by pressing the ENTER key without the need to reach the push button explicitly.

For more information about this property, see the *eDeveloper Reference Guide*.



Transparent Background in Read-only Mode

If an Edit control is defined with a transparent background color, when you park on such a control in read-only mode the background color becomes opaque. This is to indicate that the control is the control in focus.

Prior to SP4, the opaque color was always the 3D Object system color and you could not modify this color. In SP4, when you set a background color as Transparent, you can now also select the background opaque color.

When you park on a read-only Edit control defined with a transparent background color, the opaque color you selected will be the background color of the parked control.

Note: Colors that were set as transparent in previous versions will retain the 3D Object system color as their Opaque background color.

Row Highlight

The GUI Display form's Table control lets you easily define how the current record in the table should be highlighted. You define the row highlighting by using the following two new Table control properties:

- Row Highlight Style
- Row Highlight Color

For more information about these new properties, see the *eDeveloper Reference Guide*.

Keep Tree View – New property

When you place a Tree control in a phantom task, on reentering the phantom task, the Tree control display is reset, even if the range of records is not modified.

In SP4 you can instruct the Tree to keep its view and state on reentry by using the Tree control's new **Keep Tree View** property.

For more information about this new property, see the *eDeveloper Reference Guide*.

Tree Control – Proper Handling of Drag-and-Drop Operations

SP4 supports the Drag-over and Drop phase of the Drag-and-Drop operation when performed on a Tree control.

The Tree control is now sensitive to the Drag-over phase so that the Tree control responds to the pointer in Drag mode as it is placed and moved over a Tree control. Moreover, on performing the Drop, the dropped-on node becomes the current node so that the Drop operation can be completed.



Packing and Unpacking Shared Values

Shared Values can now be passed from one eDeveloper process to another by packing and unpacking the Shared Values using these two new functions:

- SharedValPack
- SharedValUnPack

For more information about these new functions, see the *eDeveloper Reference Guide*.

Browser Client – Execution Failure Notification

In previous versions, when you ran a Browser Client application and for some reason the Browser Client modules failed to load the client, the user didn't receive any proper indication that the application was unable to run.

In SP4, a Browser Client page that fails to load the Browser Client modules invokes the **BCMissingModules** JavaScript function that can produce the proper indication.

You can place your own Java definition of this function on your Browser Client application pages to provide the feedback you require.

WAP Support – Default HTML

In previous versions, the default HTML page returned to indicate a request fault always returned with an HTML content indication in the HTTP header.

To enable other content indications, such as WML, the default HTML feature is now sensitive to the defined file name's file extension. If the extension is WML, the HTTP header will indicate the content as WML.

Broker Activity Log

In previous versions, the Broker activity log file created by the Broker was created by default with the name `mr_b_event.log`.

In SP4 you may explicitly define the file name and path of the Broker activity log.

Use the new INI setting, `ActivityLog`, of the broker INI file to set the file name and path of the log file. For example:

```
ActivityLog = C:\MyLogs\broker.log
```

Tools Infrastructure – Object List Export

A new operation, **ObjectList**, has been added to the Tools infrastructure. This operation instructs the Toolkit engine to export the entire list of a given repository.

For more information about this new operation in particular and the Tools Infrastructure in general, see the *eDeveloper Reference Guide*.



Swedish Language Support

SP4 provides “const” files to support the Swedish language.

MailConnect – Support of Non-Default Port Number

The second parameter of the **MailConnect** function supports the **URL:Port** format. This lets you define a port number that is not the mail server’s default port.

For more information about this function, see the *eDeveloper Reference Guide*.

Mapping Magic BLOB RTF to SQLServer TEXT

You can now map an eDeveloper BLOB to an **SQLServer TEXT** data type. To map in this way, enter TEXT in the **Type** property of a **BLOB** variable. The recommended method of inputting data into a TEXT field is either by using the **Update** operation or the **File2Bib** function.

When using this data type in a Direct SQL statement, the maximum blob size will be 64K. In order to change that size (either increasing or decreasing it) you can use the **SQLBLOB = size** keyword in the database properties.

Note: When you retrieve data from this field, eDeveloper adds an extra byte to the end of the BLOB. When you use the **Bib2File** function to save the BLOB to a file, the file size will be one byte larger than the original size.

UDDI Interface Change

An interface change has been implemented in the search mechanism to improve performance when fetching multiple services from a UDDI server.

MSMQ Acknowledgement queue

You can now send a queues message acknowledgement to a queue other than the MSMQ default. You can also now read the acknowledgment messages from this queue.

For more information see the *Messaging Connectivity* guide.

Application Installation Utility – User-defined Variables

A new section has been added to the Application Installation Utility (AIU) that lets you add your own variables to the AIU.

For more information see the *Application Installation Utility* guide.



Application Installation Utility – New Keywords

Some new keywords have been added that let you fetch information from the server on which you are installing an application.

For more information see the *Application Installation Utility* guide.

XCG Support for Paths Beginning With "/"

As the XML functions now support "/" when you define a path, XCG-generated components have been amended so that they use "/" instead of ".", which was previously used.

For more information about the XCG, see the *eDeveloper Reference Guide*.

J2EE - Access to EJB Invoker Credentials

eDeveloper J2EE support has been enhanced so that you can access the Principal information (credentials) of the user or application that invoked the eDeveloper-generated EJB method. To access the Principal information, you should define a BLOB variable for storing a Java reference and update the variable with the value of the expression: `GetParam('EJB_PRINCIPAL')`.

The EJB deployment descriptor includes a new environment entry: **PropagatePrincipal**, which controls the enabling of this feature.

For more information about this enhancement, see the EJB-request Credentials section of the *eDeveloper Reference Guide*.

J2EE - Passing Java Objects

eDeveloper J2EE support has been enhanced so that EJBs generated by the eDeveloper EJB Builder support Java objects as arguments and return values. The EJB Builder's **Arguments** screen lets you specify Java classes for arguments and BLOB-type return values. For each argument/return value, if the **Java type** is set to **Object**, you can specify the complete Java class name, for example `java.util.Vector`. The Java class name specified should implement the **java.io.Serializable** class.

When the eDeveloper Enterprise Server receives a request from the EJB, each BLOB parameter corresponding to an argument mapped to a Java object, will automatically be set to a Java reference of the passed object. To return a Java object, the BLOB return value should be set to a Java reference to a Java object.

For more information about this enhancement, see the *eDeveloper Reference Guide*.



Fixed Problems

Browser Client & ODBC – Crash on View Refresh (QCR #4413)

A Browser Client application used to crash while performing View Refresh when working with a MySQL database through ODBC.

Browser Client – Updating Controls in Modal State (QCR #6144)

Radio buttons could be modified while a Modal window such as that of a Verify operation message box locked the page.

Working with an Oracle Unicode Database (QCR #7189)

When working with a UTF8 Oracle database, eDeveloper sometimes returned an Oracle error, "ORA-01461: can bind a LONG value only for insert into a LONG column". This happened when trying to update an Alpha field.

Missing Mail Body Text – (QCR #129647)

When retrieving a large number of email messages, the body text of some messages could not be retrieved.

Multiple Selection List Box – Clearing All Selections (QCR #139036)

A multiple selection List box variable was not updated when clearing all selections.

MouseOver & MouseOut in KBGET Function (QCR #166693)

The Expression Editor rejected the use of MouseOver and MouseOut events in the KBGet Function.

Multi-marking of Tree Nodes Using the Mouse (QCR #276379)

Multi-marking of tree nodes could not be performed using the mouse.

Crash When Using Variable Functions in a Single Expression (QCR #280488)

eDeveloper crashed if the VarAttr, VarInp, and VarPic functions were used together in a single expression of a control's picture.

Retrieving the Context Name (QCR #283670)

The CtxGetID function failed to retrieve the context name after it was set for the second time using a shorter name.



Checker Error in DB SQL Where (QCR #288813)

The checker gave an incorrect error when ranging on a parent task's Real variable in a DB SQL Where clause.

Cross Reference During Team Development (QCR #292891)

The Cross Reference procedure locked all other stations working on the same application in Team Development.

Split Window Subtask (QCR #298151)

A subtask, displaying a split window, was not properly refreshed when switching between subtasks.

Wrong Cross Reference Result (QCR #304307)

The Cross Reference utility failed to report a reference to a Variable used in an expression containing an application Right that the user did not possess.

Support for different Decimal Separators in XCG (QCR #309070)

When the decimal separator of the eDeveloper environment was not a decimal point, this caused problems in the XCG-developed component when using numeric values that had decimal values. The Write program in the component now updates decimal separator with a decimal point in the task prefix and returns the user-defined value in Task Suffix.

XML Function on XML Direct Access (QCR #309724)

XML functions did not work properly for an XML Direct Access IO device if the XML file was provided through a URL.

Oracle Error When Having Both a Link Join and Link Query (QCR #406210)

When a program containing both a Link Join and a Link Query was executed, an Oracle error was generated "ORA 01480: Trailing Null missing from STR bind value".

Right-click on Multi-marked Tree Nodes (QCR #420901)

A right-click on multi-marked Tree nodes cancelled the multi-marking sequence.

Mixed Character Set in Log Files (QCR #431803)

In some languages, the engine log file was created with some of the strings written in OEM instead of ANSI.



Long Object Names in Selection Lists (QCR #443013)

Long object names, usually a result of an object name concatenated with a component name, were cut in selection lists. ToolTips now show the full name.

Model Referencing a Model (QCR #445115)

A model referencing another model had a mixed-up reference if more models were added.

Browser Client – Dynamic Combo Boxes on .NET (QCR #450887)

Combo boxes were not properly refreshed with new items when executing a Browser Client application using the .NET modules.

Connecting to Multiple Databases in MSSQL (QCR #490042)

Direct SQL did not work properly when trying to connect to more than one database at the same time.

Dynamic Printer Settings (QCR #557963)

eDeveloper failed to respond to modifications of the Printers settings at runtime.

Browser Client – Updating Main Program Variables (QCR #596189)

A Browser Client application did not perform properly after updating a Main Program's variable that was also set with an initial value.

Fractions in Call Remote Operations (QCR #685470)

Fractions were not passed correctly in Call Remote operations.

MGStations – Incorrect Results (QCR #695342)

The MGStations utility returned incorrect results if the license file was in the same working directory as the utility.

Updating an Alpha field with the Contents of a Rich Edit Field (QCR #695432)

When an Alpha field was updated with the contents of a Rich Edit field, the contents of the previous record were displayed instead.



Create Table Syntax Problem in Informix (QCR #708363)

There was a problem with the CREATE TABLE syntax when a table was created using eDeveloper's Informix gateway.

Large Views in MSSQL (QCR #730249)

The Checker rejected large record length views.

Crash when Toggling from Toolkit to Runtime and Back (QCR #743877)

eDeveloper crashed in some cases when toggling from Toolkit to Runtime and then back to Toolkit when the **ISAMTransactions** setting was set to True.

Control in a Hidden Column Appeared on Fit-to-MDI (QCR #754472)

A control set in a hidden column appeared when opening the window to fit the MDI.

XMLGet Function – Retrieving CRLF (QCR #758956)

The XMLGet function failed to return a CRLF sequence in an XML element.

Web Services Builder and Special Characters, Such as a Tab Stop (QCR #760506)

When the XSD of a document-style operation contained special characters, such as a tab stop, the builder misinterpreted these characters. These characters are now ignored.

Printing Tables with Hidden Columns (QCR #760616)

Tables were not printed properly if a column that was not the last column was hidden.

PDF Output in Background (QCR #764013)

The size of images in background engine PDF output differed from PDF output in a foreground engine.

Browser Client – VecGet of Context Names (QCR #775922)

A Browser Client application using the .NET Modules failed to retrieve a context name from the GetAllCtxName function.



DB2/400 Get Definition Problem (QCR #874898)

When performing a get definition of a physical file, the unique Logical Files were not fetched.

MSSQL – Get Definition of a Table with a Descending Index (QCR #929771)

A descending index in an MSSQL table was created as an ascending index after getting its definition.

AS/400 Get Definition Problem (QCR #931350)

There was an incompatibility problem with previous versions when performing a Get Definition of a table. eDeveloper now fetches the "column name" of a Physical Table instead of the "column heading".

Browser Client – Task Prefix Execution (QCR #978290)

In some cases, a called Browser Client task's Task Prefix handler failed to execute.

Upper Function in French Language (QCR #984141)

The Upper function did not work properly for the French language

eDeveloper inserted 32000 Characters to Oracle LONG Data Type (QCR #987931)

When an alpha field was mapped to LONG, eDeveloper always appended blanks, thereby inserting the full 32000 characters.

Misplacement of Floating Palettes (QCR #989509)

The Toolkit palettes were reduced to zero width and height after opening and closing the Export\Import dialog box.

Wrong Cross Reference Result (QCR #997028)

The Cross Reference utility failed to report a variable reference used as an argument in a Call Task operation.

Passing Numeric Values in Call Remote Operations (QCR #999602)

Numeric values were not passed properly from one background engine to another using the Call Remote operation.

