

DBMS_XEVENT

The DBMS_XEVENT package provides event-related types and supporting subprograms.

This chapter contains the following topics:

- [Security Model](#)
- [Constants](#)
- [Subprogram Groups](#)
- [Summary of DBMS_XEVENT Subprograms](#)



See Also:

Oracle XML DB Developer's Guide for more information about "Oracle XML DB Repository Events"

DBMS_XEVENT Security Model

Owned by XDB, the DBMS_XEVENT package must be created by SYS or XDB. The EXECUTE privilege is granted to PUBLIC. Subprograms in this package are executed using the privileges of the current user.

DBMS_XEVENT Constants

The DBMS_XEVENT package defines several constants that can be used for specifying parameter values.

The constants are defined in the following table.

Table 232-1 DBMS_XEVENT Constants

Name	Type	Value	Description
RENDER_EVENT	PLS_INTEGER	1	
PRE_CREATE_EVENT	PLS_INTEGER	2	
POST_CREATE_EVENT	PLS_INTEGER	3	
PRE_DELETE_EVENT	PLS_INTEGER	4	
POST_DELETE_EVENT	PLS_INTEGER	5	
PRE_UPDATE_EVENT	PLS_INTEGER	6	
POST_UPDATE_EVENT	PLS_INTEGER	7	
PRE_LOCK_EVENT	PLS_INTEGER	8	
POST_LOCK_EVENT	PLS_INTEGER	9	

Table 232-1 (Cont.) DBMS_XEVENT Constants

Name	Type	Value	Description
PRE_UNLOCK_EVENT	PLS_INTEGER	10	
POST_UNLOCK_EVENT	PLS_INTEGER	11	
PRE_LINKIN_EVENT	PLS_INTEGER	12	
POST_LINKIN_EVENT	PLS_INTEGER	13	
PRE_LINKTO_EVENT	PLS_INTEGER	14	
POST_LINKTO_EVENT	PLS_INTEGER	15	
PRE_UNLINKIN_EVENT	PLS_INTEGER	16	
POST_UNLINKIN_EVENT	PLS_INTEGER	17	
PRE_UNLINKFROM_EVENT	PLS_INTEGER	18	
POST_UNLINKFROM_EVENT	PLS_INTEGER	19	
PRE_CHECKIN_EVENT	PLS_INTEGER	20	
POST_CHECKIN_EVENT	PLS_INTEGER	21	
PRE_CHECKOUT_EVENT	PLS_INTEGER	22	
POST_CHECKOUT_EVENT	PLS_INTEGER	23	
PRE_UNCHECKOUT_EVENT	PLS_INTEGER	24	
POST_UNCHECKOUT_EVENT	PLS_INTEGER	25	
PRE_VERSIONCONTROL_EVENT	PLS_INTEGER	26	
POST_VERSIONCONTROL_EVENT	PLS_INTEGER	27	
PRE_OPEN_EVENT	PLS_INTEGER	28	
POST_OPEN_EVENT	PLS_INTEGER	29	
PRE_INCONSISTENT_UPDATE_EVENT	PLS_INTEGER	30	
POST_INCONSISTENT_UPDATE_EVENT	PLS_INTEGER	21	
POST_CHECKIN_EVENT	PLS_INTEGER	21	

Subprogram Groups

The subprograms in the `DBMS_XEVENT` package can be divided in groups.

- [XDBEvent Type Subprograms](#)
- [XDBRepositoryEvent Type Subprograms](#)
- [XDBHandlerList Type Subprograms](#)
- [XDBHandler Type Subprograms](#)
- [XDBPath Type Subprograms](#)
- [XDBLink Type Subprograms](#)

DBMS_XEVENT XDBEvent Type Subprograms

This subprogram group provides an interface for use with the XDBEvent type.

Table 232-2 XDBEvent Subprograms

Subprogram	Description
GETCURRENTUSER Function	Returns the name of the user executing the operation that triggers the event
GETEVENT Function	Returns a value identifying the triggering event
ISNULL Functions	Returns <code>TRUE</code> if input argument is <code>NULL</code>

The [Summary of DBMS_XEVT Subprograms](#) contains a complete listing of all subprograms in the package.

DBMS_XEVT XDBRepositoryEvent Type Subprograms

This subprogram group provides an interface for use in conjunction with the `XDBRepositoryEvent` type.

Table 232-3 XDBRepositoryEvent Subprograms

Subprogram	Description
GETAPPLICATIONDATA Function	Returns the <code><applicationData></code> element extracted from the resource configuration that defines the invoking handler
GETHANDLERLIST Function	Returns an <code>XDBHandlerList</code> object containing the list of handlers that will be executed after the currently executing handler
GETINTERFACE Function	Returns the top-level interface used to initiate the operation that triggered the event
GETLINK Function	Returns an <code>XDBLink</code> object for the target resource
GETLOCK Function	Returns the lock object corresponding to the current operation
GETOLDRESOURCE Function	Returns the original <code>XDBResource</code> object before the operation was executed
GETOPENACCESSMODE Function	Returns the access mode for the open operation
GETOPENDENYMODE Function	Returns the deny mode for the open operation
GETOUTPUTSTREAM Function	Returns the output BLOB in which the handler can write the rendered data
GETPARAMETER Function	Returns the value of a request or session-specific parameter
GETPARENT Function	Returns the resource object corresponding to a parent folder of the target resource
GETPATH Function	Returns the <code>XDBPath</code> object representing the path of the resource for which the event was fired
GETRESOURCE Function	Returns an <code>XDBResource</code> object that provides methods to access and modify the contents and metadata of the target resource
GETUPDATEBYTECOUNT Function	If the current operation is a byte-range write, returns the byte count
GETUPDATEBYTEOFFSET Function	If the current operation is a byte-range write, function returns the byte offset at which the range begins

Table 232-3 (Cont.) XDBRepositoryEvent Subprograms

Subprogram	Description
GETXDBEVENT Function	Converts an <code>XDBRepositoryEvent</code> object to an <code>XDBEvent</code> type
ISNULL Functions	Returns <code>TRUE</code> if input argument is <code>NULL</code>
SETRENDERPATH Procedure	Specifies the path of the resource that contains the rendered contents
SETRENDERSTREAM Procedure	sets the <code>BLOB</code> from which the rendered contents can be read

The [Summary of DBMS_XEVENT Subprograms](#) contains a complete listing of all subprograms in the package.

DBMS_XEVENT XDBHandlerList Type Subprograms

This subprogram group provides an interface for use in conjunction with the `XDBHandlerList` type.

Table 232-4 XDBHandlerList Subprograms

Subprogram	Description
CLEAR Procedure	Clears the handler list
GETFIRST Function	Returns the first handler in the list
GETNAME Function	Returns the next handler in the list
ISNULL Functions	Returns <code>TRUE</code> if input argument is <code>NULL</code>
REMOVE Procedure	Removes the specified handler from the handler list

The [Summary of DBMS_XEVENT Subprograms](#) contains a complete listing of all subprograms in the package.

DBMS_XEVENT XDBHandler Type Subprograms

This subprogram group provides an interface for use in conjunction with the `XDBHandler` type.

Table 232-5 XDBHandler Type Subprograms

Subprogram	Description
GETLANGUAGE Function	Returns the implementation language of the handler
GETSCHEMA Function	Returns the schema of the handler's source
GETSOURCE Function	Returns the name of the Java class, PL/SQL package or object type implementing the handler
ISNULL Functions	Returns <code>TRUE</code> if input argument is <code>NULL</code>

The [Summary of DBMS_XEVENT Subprograms](#) contains a complete listing of all subprograms in the package.

DBMS_XEVENT XDBPath Type Subprograms

This subprogram group provides an interface for use in conjunction with the XDBPath type.

Table 232-6 XDBPath Type Subprograms

Subprogram	Description
GETNAME Function	Returns the string representation of the path
GETPARENTPATH Function	Returns the parent's path
ISNULL Functions	Returns <code>TRUE</code> if input argument is <code>NULL</code>

The [Summary of DBMS_XEVENT Subprograms](#) contains a complete listing of all subprograms in the package.

DBMS_XEVENT XDblink Type Subprograms

This subprogram group provides an interface for use in conjunction with the XDblink type.

Table 232-7 XDblink Type Subprograms

Subprogram	Description
GETCHILDROID Function	Returns the OID of the resource to which the link is pointing
GETPARENTNAME Function	Returns the link's parent folder's name
GETPARENTOID Function	Returns the link's parent folder's OID
ISNULL Functions	Returns <code>TRUE</code> if input argument is <code>NULL</code>

The [Summary of DBMS_XEVENT Subprograms](#) contains a complete listing of all subprograms in the package.

Summary of DBMS_XEVENT Subprograms

This table lists the DBMS_XEVENT subprograms and briefly describes them.

Table 232-8 DBMS_XEVENT Package Subprograms

Subprogram	Description	Group
CLEAR Procedure	Clears the handler list	XDBHandlerList Type Subprograms
GETAPPLICATIONDATA Function	Returns the <code><applicationData></code> element extracted from the resource configuration that defines the invoking handler	XDBRepositoryEvent Type Subprograms
GETCHILDROID Function	Returns the OID of the resource to which the link is pointing	XDblink Type Subprograms
GETCURRENTUSER Function	Returns the name of the user executing the operation that triggers the event	XDBEvent Type Subprograms
GETEVENT Function	Returns a value identifying the triggering event	XDBEvent Type Subprograms

Table 232-8 (Cont.) DBMS_XEVENT Package Subprograms

Subprogram	Description	Group
GETFIRST Function	Returns the first handler in the list	XDBHandlerList Type Subprograms
GETHANDLERLIST Function	Returns an <code>XDBHandlerList</code> object containing the list of handlers that will be executed after the currently executing handler	XDBRepositoryEvent Type Subprograms
GETINTERFACE Function	Returns the top-level interface used to initiate the operation that triggered the event	XDBRepositoryEvent Type Subprograms
GETLANGUAGE Function	Returns the implementation language of the handler	XDBHandler Type Subprograms
GETLINK Function	Returns an <code>XDBLink</code> object for the target resource	XDBRepositoryEvent Type Subprograms
GETLOCK Function	Returns the lock object corresponding to the current operation	XDBRepositoryEvent Type Subprograms
GETNAME Function	Returns the string representation of the path	XDBPath Type Subprograms
GETNAME Function	Returns the next handler in the list	XDBHandlerList Type Subprograms
GETOLDRESOURCE Function	Returns the original <code>XDBResource</code> object before the operation was executed	XDBRepositoryEvent Type Subprograms
GETOPENACCESSMODE Function	Returns the access mode for the open operation	XDBRepositoryEvent Type Subprograms
GETOPENDENYMODE Function	Returns the deny mode for the open operation	XDBRepositoryEvent Type Subprograms
GETOUTPUTSTREAM Function	Returns the output BLOB in which the handler can write the rendered data	XDBRepositoryEvent Type Subprograms
GETPARAMETER Function	Returns the value of a request or session-specific parameter	XDBRepositoryEvent Type Subprograms
GETPARENT Function	Returns the resource object corresponding to a parent folder of the target resource	XDBRepositoryEvent Type Subprograms
GETPARENTNAME Function	Returns the link's parent folder's name	XDBLink Type Subprograms
GETPARENTOID Function	Returns the link's parent folder's OID	XDBLink Type Subprograms
GETPARENTNAME Function	Returns the parent's path	XDBPath Type Subprograms
GETPATH Function	Returns the <code>XDBPath</code> object representing the path of the resource for which the event was fired	XDBRepositoryEvent Type Subprograms
GETRESOURCE Function	Returns an <code>XDBResource</code> object that provides methods to access and modify the contents and metadata of the target resource	XDBRepositoryEvent Type Subprograms
GETSCHEMA Function	Returns the schema of the handler's source	XDBHandler Type Subprograms

Table 232-8 (Cont.) DBMS_XEVENT Package Subprograms

Subprogram	Description	Group
GETSOURCE Function	Returns the name of the Java class, PL/SQL package or object type implementing the handler	XDBHandler Type Subprograms
GETUPDATEBYTECOUNT Function	If the current operation is a byte-range write, returns the byte count	XDBRepositoryEvent Type Subprograms
GETUPDATEBYTEOFFSET Function	If the current operation is a byte-range write, function returns the byte offset at which the range begins	XDBRepositoryEvent Type Subprograms
GETXDBEVENT Function	Converts an <code>XDBRepositoryEvent</code> object to an <code>XDBEvent</code> type	XDBRepositoryEvent Type Subprograms
ISNULL Functions	Returns <code>TRUE</code> if input argument is <code>NULL</code>	XDBEvent Type Subprograms XDBRepositoryEvent Type Subprograms XDBHandlerList Type Subprograms XDBHandler Type Subprograms XDBPath Type Subprograms
REMOVE Procedure	Removes the specified handler from the handler list	XDBHandlerList Type Subprograms
SETRENDERPATH Procedure	Specifies the path of the resource that contains the rendered contents	XDBRepositoryEvent Type Subprograms
SETRENDERSTREAM Procedure	sets the <code>BLOB</code> from which the rendered contents can be read	XDBRepositoryEvent Type Subprograms

CLEAR Procedure

This procedure clears the handler list.



See Also:

[XDBHandlerList Type Subprograms](#) for other subprograms in this group

Syntax

```
DBMS_XEVENT.CLEAR (
    hl          IN OUT  XDBHandlerList);
```

Parameters

Table 232-9 CLEAR Procedure Parameters

Parameter	Description
hl	Handler list

GETAPPLICATIONDATA Function

This function returns the <applicationData> element extracted from the resource configuration that defines the invoking handler.



See Also:

[XDBRepositoryEvent Type Subprograms](#) for other subprograms in this group

Syntax

```
DBMS_XEVENT.GETAPPLICATIONDATA (  
    ev    IN    XDBRepositoryEvent)  
RETURN XMLType;
```

Parameters

Table 232-10 GETAPPLICATIONDATA Function Parameters

Parameter	Description
ev	Event of XDBRepositoryEvent type

GETCHILDROID Function

This function returns the OID of the resource to which the link is pointing.



See Also:

[XDBLink Type Subprograms](#) for other subprograms in this group

Syntax

```
DBMS_XEVENT.GETCHILDROID (  
    link  IN    XDBLink)  
RETURN RAW;
```

Parameters

Table 232-11 GETCHILDROID Function Parameters

Parameter	Description
link	Link

GETCURRENTUSER Function

This function returns the name of the user executing the operation that triggers the event.



See Also:

[XDBEvent Type Subprograms](#) for other subprograms in this group

Syntax

```
DBMS_XEVENT.GETCURRENTUSER (  
    ev    IN    XDBEvent)  
RETURN VARCHAR2;
```

Parameters

Table 232-12 GETCURRENTUSER Function Parameters

Parameter	Description
ev	Event of XDBEvent type

GETEVENT Function

This function returns the name of the user executing the operation that triggers the event.



See Also:

[XDBEvent Type Subprograms](#) for other subprograms in this group

Syntax

```
DBMS_XEVENT.GETEVENT (  
    ev    IN    XDBEvent)  
RETURN XDBEventID;
```

Parameters

Table 232-13 GETEVENT Function Parameters

Parameter	Description
ev	Event of XDBEvent type

GETFIRST Function

This function returns the first handler in the list.



See Also:

[XDBHandlerList Type Subprograms](#) for other subprograms in this group

Syntax

```
DBMS_XEVENT.GETFIRST (  
    hl    IN    XDBHandlerList)  
RETURN XDBHandler;
```

Parameters

Table 232-14 GETFIRST Function Parameters

Parameter	Description
hl	Handler list

GETHANDLERLIST Function

This function returns an `XDBHandlerList` object containing the list of handlers that will be executed after the currently executing handler.

The current handler can then filter out some of the subsequent handlers if necessary, subject to security checks. An insufficient privilege exception is raised if the executing user does not have the required access privilege to any of the resource configuration associating with a handler in the list.



See Also:

[XDBRepositoryEvent Type Subprograms](#) for other subprograms in this group

Syntax

```
DBMS_XEVENT.GETHANDLERLIST (  
    ev    IN    XDBRepositoryEvent)  
RETURN XDBHandlerList;
```

Parameters

Table 232-15 GETHANDLERLIST Function Parameters

Parameter	Description
ev	Event of <code>XDBRepositoryEvent</code> type

GETINTERFACE Function

This function returns the top-level interface used to initiate the operation that triggered the event. This could be HTTP, FTP or SQL.



See Also:

[XDBRepositoryEvent Type Subprograms](#) for other subprograms in this group

Syntax

```
DBMS_XEVENT.GETINTERFACE (  
    ev    IN    XDBRepositoryEvent)  
RETURN VARCHAR2;
```

Parameters

Table 232-16 GETINTERFACE Function Parameters

Parameter	Description
ev	Event of XDBRepositoryEvent type

GETLANGUAGE Function

This function returns the implementation language of the handler.



See Also:

[XDBHandler Type Subprograms](#) for other subprograms in this group

Syntax

```
DBMS_XEVENT.GETLANGUAGE (  
    handler IN    XDBHandler)  
RETURN VARCHAR2;
```

Parameters

Table 232-17 GETLANGUAGE Function Parameters

Parameter	Description
handler	Handler

GETLINK Function

This function returns an `XDBLink` object for the target resource.

For a `link*` or `unlink*` event, this will be the link involved in the operation. For other events, an error is returned. Using this object the handler can access link properties, such as, `ParentName`, `ParentOID`, `ChildOID` and `LinkName`.



See Also:

[XDBRepositoryEvent Type Subprograms](#) for other subprograms in this group

Syntax

```
DBMS_XEVENT.GETLINK (  
    ev    IN    XDBRepositoryEvent)  
RETURN XDBLink;
```

Parameters

Table 232-18 GETLINK Function Parameters

Parameter	Description
ev	Event of XDBRepositoryEvent type

GETLINKNAME Function

This function returns the name of the link.



See Also:

[XDBLink Type Subprograms](#) for other subprograms in this group

Syntax

```
DBMS_XEVENT.GETLINKNAME (  
    link  IN    XDBLink)  
RETURN VARCHAR2;
```

Parameters

Table 232-19 GETLINKNAME Function Parameters

Parameter	Description
link	Link

GETLOCK Function

This function returns the lock object corresponding to the current operation. It is only valid for lock and unlock events.



See Also:

[XDBRepositoryEvent Type Subprograms](#) for other subprograms in this group

Syntax

```
DBMS_XEVENT.GETLOCK (  
    ev    IN    XDBRepositoryEvent)  
    RETURN XDBLock;
```

Parameters

Table 232-20 GETLOCK Function Parameters

Parameter	Description
ev	Event of XDBRepositoryEvent type

GETLANGUAGE Function

This function returns the implementation language of the handler.



See Also:

[XDBHandler Type Subprograms](#) for other subprograms in this group

Syntax

```
DBMS_XEVENT.GETLANGUAGE (  
    handler IN    XDBHandler)  
    RETURN VARCHAR2;
```

Parameters

Table 232-21 GETLANGUAGE Function Parameters

Parameter	Description
handler	Handler

GETNAME Function

This function returns the string representation of the path.



See Also:

[XDBPath Type Subprograms](#) for other subprograms in this group

Syntax

```
DBMS_XEVENT.GETNAME (  
    path IN XDBPath)  
RETURN VARCHAR2;
```

Parameters

Table 232-22 GETNAME Function Parameters

Parameter	Description
path	Path

GETNEXT Function

This function returns the next handler in the list.



See Also:

[XDBHandlerList Type Subprograms](#) for other subprograms in this group

Syntax

```
DBMS_XEVENT.GETNEXT (  
    hl IN XDBHandlerList)  
RETURN XDBHandler;
```

Parameters

Table 232-23 GETNEXT Function Parameters

Parameter	Description
hl	Handler list

GETOLDRESOURCE Function

This function returns the original `XDBResource` object before the operation was executed.

This method applies only to update event. For other events, an error is returned. This is a read-only object, and consequently none of the modifier methods will work on this object.



See Also:

[XDBRepositoryEvent Type Subprograms](#) for other subprograms in this group

Syntax

```
DBMS_XEVENT.GETOLDRESOURCE (  
    ev    IN    XDBRepositoryEvent)  
RETURN XDBResource;
```

Parameters

Table 232-24 GETOLDRESOURCE Function Parameters

Parameter	Description
ev	Event of XDBRepositoryEvent type

GETOPENACCESSMODE Function

This function returns the access mode for the open operation.



See Also:

[XDBRepositoryEvent Type Subprograms](#) for other subprograms in this group

Syntax

```
DBMS_XEVENT.GETOPENACCESSMODE (  
    ev    IN    XDBRepositoryEvent)  
RETURN PLS_INTEGER;
```

Parameters

Table 232-25 GETOPENACCESSMODE Function Parameters

Parameter	Description
ev	Event of XDBRepositoryEvent type

Return Values

- `XDBRepositoryEvent.OPEN_ACCESS_READ` (value 1)

- XDBRepositoryEvent.OPEN_ACCESS_WRITE (value 2)
- XDBRepositoryEvent.OPEN_ACCESS_READ_WRITE (value 3)

GETOPENDENYMODE Function

This function returns the deny mode for the open operation. It is only valid for the open event.



See Also:

[XDBRepositoryEvent Type Subprograms](#) for other subprograms in this group

Syntax

```
DBMS_XEVENT.GETOPENDENYMODE (
    ev    IN    XDBRepositoryEvent)
RETURN PLS_INTEGER;
```

Parameters

Table 232-26 GETOPENDENYMODE Function Parameters

Parameter	Description
ev	Event of XDBRepositoryEvent type

Return Values

- XDBRepositoryEvent.OPEN_DENY_NONE (value 0)
- XDBRepositoryEvent.OPEN_DENY_READ (value 1)
- XDBRepositoryEvent.OPEN_DENY_READ_WRITE (value 2)

GETOUTPUTSTREAM Function

This function returns the output BLOB in which the handler can write the rendered data. It is only valid for the render event.



See Also:

[XDBRepositoryEvent Type Subprograms](#) for other subprograms in this group

Syntax

```
DBMS_XEVENT.GETOUTPUTSTREAM (
    ev    IN    XDBRepositoryEvent)
RETURN BLOB;
```


Parameters

Table 232-27 GETOUTPUTSTREAM Function Parameters

Parameter	Description
ev	Event of XDBRepositoryEvent type

GETPARAMETER Function

This function returns the value of a request or session-specific parameter. The definition of the `key` parameter can be found in RFC 2616 (HTTP/1.1). They will be mapped to equivalent SQL session parameters (if any).



See Also:

[XDBRepositoryEvent Type Subprograms](#) for other subprograms in this group

Syntax

```
DBMS_XEVENT.GETPARAMETER (  
    ev    IN    XDBRepositoryEvent,  
    key   IN    VARCHAR2)  
RETURN VARCHAR2;
```

Parameters

Table 232-28 GETPARAMETER Function Parameters

Parameter	Description
ev	Event of XDBRepositoryEvent type
key	Supported parameters: <ul style="list-style-type: none">• ACCEPT• ACCEPT-LANGUAGE• ACCEPT-CHARSET• ACCEPT_ENCODING

GETPARENT Function

This function returns the resource object corresponding to a parent folder of the target resource. Note that this could be any folder that contains a link to the target resource. This is a read-only object, and consequently none of the modifier methods will work on this object. For a `link*` or `unlink*` event, this method returns the link's parent folder.



See Also:

[XDBRepositoryEvent Type Subprograms](#) for other subprograms in this group

Syntax

```
DBMS_XEVENT.GETPARENT (  
    ev    IN    XDBRepositoryEvent)  
RETURN XDBResource;
```

Parameters

Table 232-29 GETPARENT Function Parameters

Parameter	Description
ev	Event of XDBRepositoryEvent type

GETPARENTNAME Function

This function returns the link's parent folder's name.



See Also:

[XDBLink Type Subprograms](#) for other subprograms in this group

Syntax

```
DBMS_XEVENT.GETPARENTNAME (  
    link  IN    XDBLink)  
RETURN VARCHAR2;
```

Parameters

Table 232-30 GETPARENTNAME Function Parameters

Parameter	Description
link	Link

GETPARENTOID Function

This function returns the link's parent folder's OID.



See Also:

[XDBLink Type Subprograms](#) for other subprograms in this group

Syntax

```
DBMS_XEVENT.GETPARENTOID (  
    link  IN    XDBLink)  
RETURN RAW;
```

Parameters

Table 232-31 GETPARENTOID Function Parameters

Parameter	Description
link	Link

GETPARENTPATH Function

This function returns the parent's path. The level indicates the number of levels up the hierarchy. This value must be greater than zero. Level 1 means the immediate parent. If level exceeds the height of the tree then a `NULL` is returned.



See Also:

[XDBPath Type Subprograms](#) for other subprograms in this group

Syntax

```
DBMS_XEVENT.GETPARENTPATH (  
    path    IN    XDBPath,  
    level   IN    INTEGER)  
RETURN XDBPath;
```

Parameters

Table 232-32 GETPARENTPATH Function Parameters

Parameter	Description
path	Path
level	Number of levels up the hierarchy

GETPATH Function

This function returns the `XDBPath` object representing the path of the resource for which the event was fired. From this object, functions are provided to get the different path segments.



See Also:

[XDBRepositoryEvent Type Subprograms](#) for other subprograms in this group

Syntax

```
DBMS_XEVENT.GETPATH (  
    ev    IN    XDBRepositoryEvent)  
RETURN XDBPath;
```

Parameters

Table 232-33 GETPATH Function Parameters

Parameter	Description
ev	Event of XDBRepositoryEvent type

GETRESOURCE Function

This function returns an `XDBResource` object that provides methods to access and modify the contents and metadata of the target resource. This object reflects any changes made by previous handlers to the resource.

The modifier methods will work only in the pre-create and pre-update event handlers. For a `link*` or `unlink*` event, this method returns the resource that the link is pointing to. For a `create` event, this method returns the resource that is being created.



See Also:

[XDBRepositoryEvent Type Subprograms](#) for other subprograms in this group

Syntax

```
DBMS_XEVENT.GETRESOURCE (  
    ev    IN    XDBRepositoryEvent)  
RETURN XDBResource;
```

Parameters

Table 232-34 GETRESOURCE Function Parameters

Parameter	Description
ev	Event of XDBRepositoryEvent type

GETSCHEMA Function

This function returns the schema of the handler's source.



See Also:

[XDBHandler Type Subprograms](#) for other subprograms in this group

Syntax

```
DBMS_XEVENT.GETSCHEMA (  
    handler    IN    XDBHandler)  
RETURN VARCHAR2;
```

Parameters

Table 232-35 GETSCHEMA Function Parameters

Parameter	Description
handler	Handler

GETSOURCE Function

This function returns the name of the Java class, PL/SQL package or object type implementing the handler.



See Also:

[XDBHandler Type Subprograms](#) for other subprograms in this group

Syntax

```
DBMS_XEVENT.GETSOURCE (  
    handler IN XDBHandler)  
RETURN VARCHAR2;
```

Parameters

Table 232-36 GETSOURCE Function Parameters

Parameter	Description
handler	Handler

GETUPDATEBYTECOUNT Function

If the current operation is a byte-range write, the `GETUPDATEBYTECOUNT` function returns the byte count. It is only valid for the inconsistent-update event.



See Also:

[XDBRepositoryEvent Type Subprograms](#) for other subprograms in this group

Syntax

```
DBMS_XEVENT.GETUPDATEBYTECOUNT (  
    ev IN XDBRepositoryEvent)  
RETURN NUMBER;
```

Parameters

Table 232-37 GETUPDATEBYTECOUNT Function Parameters

Parameter	Description
ev	Event of XDBRepositoryEvent type

GETUPDATEBYTEOFFSET Function

If the current operation is a byte-range write, the `GETUPDATEBYTEOFFSET` function returns the byte offset at which the range begins. It is only valid for the inconsistent-update event.



See Also:

[XDBRepositoryEvent Type Subprograms](#) for other subprograms in this group

Syntax

```
DBMS_XEVENT.GETUPDATEBYTEOFFSET (  
    ev    IN    XDBRepositoryEvent)  
RETURN NUMBER;
```

Parameters

Table 232-38 GETUPDATEBYTEOFFSET Function Parameters

Parameter	Description
ev	Event of XDBRepositoryEvent type

GETXDBEVENT Function

This function converts an `XDBRepositoryEvent` object to an `XDBEvent` type.



See Also:

[XDBRepositoryEvent Type Subprograms](#) for other subprograms in this group

Syntax

```
DBMS_XEVENT.GETXDBEVENT (  
    ev    IN    XDBRepositoryEvent)  
RETURN XDBEvent;
```

Parameters

Table 232-39 GETXDBEVENT Function Parameters

Parameter	Description
ev	Event of XDBRepositoryEvent type

ISNULL Functions

This function returns `TRUE` if input argument is `NULL`.



See Also:

- [XDBEvent Type Subprograms](#) for other subprograms in this group
- [XDBRepositoryEvent Type Subprograms](#) for other subprograms in this group
- [XDBHandlerList Type Subprograms](#) for other subprograms in this group
- [XDBHandler Type Subprograms](#) for other subprograms in this group
- [XDBPath Type Subprograms](#) for other subprograms in this group
- [XDBLink Type Subprograms](#) for other subprograms in this group

Syntax

```
DBMS_XEVENT.ISNULL (
    ev          IN    XDBEvent)
RETURN BOOLEAN;

DBMS_XEVENT.ISNULL (
    ev          IN    XDBRepositoryEvent)
RETURN BOOLEAN;

DBMS_XEVENT.ISNULL (
    hl          IN    XDBHandlerList)
RETURN BOOLEAN;

DBMS_XEVENT.ISNULL (
    handler     IN    XDBHandler)
RETURN BOOLEAN;
RETURN BOOLEAN;

DBMS_XEVENT.ISNULL (
    path        IN    XDBPath)
RETURN BOOLEAN;

DBMS_XEVENT.ISNULL (
    link        IN    XDBLink)
RETURN BOOLEAN;
```

Parameters

Table 232-40 ISNULL Function Parameters

Parameter	Description
ev	Event of specified type
hl	Handler list
handler	Handler
path	Path

REMOVE Procedure

This procedure removes the specified handler from the handler list.



See Also:

[XDBHandlerList Type Subprograms](#) for other subprograms in this group

Syntax

```
DBMS_XEVENT.REMOVE (  
    hl          IN OUT  XDBHandlerList,  
    handler IN      XDBHandler);
```

Parameters

Table 232-41 REMOVE Procedure Parameters

Parameter	Description
hl	Handler list
handler	Handler

SETRENDERPATH Procedure

This procedure specifies the path of the resource that contains the rendered contents.

This should not be called after the stream returned by [GETOUTPUTSTREAM Function](#) is written to or after the [SETRENDERSTREAM Procedure](#) is called; doing so will result in an error. This is only valid for the render event.

Syntax

```
DBMS_XEVENT.SETRENDERPATH (  
    ev      IN  XDBRepositoryEvent,  
    path    IN  VARCHAR2);
```


Parameters

Table 232-42 SETRENDERPATH Procedure Parameters

Parameter	Description
ev	XDB Repository Event object
path	Path of the resource containing the rendered contents

SETRENDERSTREAM Procedure

This procedure sets the `BLOB` from which the rendered contents can be read.

This should not be called after the stream returned by `GETOUTPUTSTREAM` is written to or after `SETRENDERPATH` is called; doing so will result in an error. This is only valid for the render event.

Syntax

```
DBMS_XEVENT.SETRENDERSTREAM (  
    ev      IN    XDBRepositoryEvent,  
    istr    IN    BLOB);
```

Parameters

Table 232-43 SETRENDERSTREAM Procedure Parameters

Parameter	Description
ev	XDBRepositoryEvent object
istr	Input stream from which to get the rendered contents