

Text is everywhere

- Substitutions
- Shortcuts
- Text Messages



Substitutions

The screenshot shows the Oracle APEX Page Designer interface for 'Application 112 \ Page Designer'. The 'Process' configuration panel is active, showing the following settings for the process 'Initialize form Maintain Employee':

- Execution Options:** Sequence: 10, Point: Before Header, Run Process: Once Per Page Visit (default).
- Success Message:** Success Message: Start editing now!
- Error:** Error Message: (empty)
- Server-side Condition:** When Button Pressed: - Select -, Type: - Select -

The left sidebar shows the page structure for 'Page 200: Maintain Employee', including 'Pre-Rendering', 'Regions', 'Dialog Header', 'Content Body', and 'Dialog Footer'.

The screenshot shows the Oracle APEX 'Maintain Employee' form. The form is displayed over a table of employees. A success message 'Start editing now!' is overlaid on the form. The form fields are:

- ENAME: KING
- JOB: PRESIDENT
- MGR: (empty)
- HIREDATE: 11/17/1981
- SAL: 5001
- COMM: (empty)
- DEPTNO: 10

The table in the background shows the following data:

ENAME	JOB	COMM	DEPTNO
KING	President		10
BLAKE	Manager		30
CLARK	Manager		10

Application 112 \ Shared Components

Application Logic

- Application Definition Attributes
 - Application Items
 - Application Processes
 - Application Computations
 - Application Settings
 - Automations
 - Build Options

Security

- Security Attributes
 - Authentication Schemes
 - Authorization Schemes
 - Application Access Control
 - Session State Protection
 - Web Credentials

Other Components

- List of Values
 - Plug-ins
 - Component Settings
 - Shortcuts
 - Email Templates

Navigation

- Lists
 - Navigation Menu
 - Breadcrumbs
 - Navigation Bar List

Data Sources

- Data Load Definitions
 - REST Enabled SQL
 - REST Data Sources
 - Legacy Web Service References

User Interface

- User Interface Attributes
 - Themes
 - Templates

Files

- Static Application Files
- Static Workspace Files

Globalization

- Globalization Attributes
 - Text Messages
 - Translate Application

Reports

- Report Queries
- Report Layouts

About

Shared components can display or be applied on any page within the application. This page provides a list of available shared components. Learn More ...

Tasks

- Export Application Components
- Manage Supporting Objects
- Edit Application Comment
- Developer Comments

Workspace Objects

Workspace Objects are stored at the workspace-level and are therefore visible in all applications.

- Static Workspace Files
- Credentials
- REST Enabled SQL
- Remote Servers

Application 112 \ Edit Application Definition

Definition Security Globalization User Interface

Application 112

Cancel Delete **Apply Changes**

Show All Name Properties Application Icon Availability Error Handling Global Notification **Substitutions** Build Options Report Printing

Substitutions

Use static substitution strings for phrases or labels that occur in many places within an application. To create a substitution string, enter the string name in the Substitution String column and the string value in the Substitution Value column.

Substitution String	Substitution Value
APP_NAME	Lost in Translation
START_EDIT	Start editing now and enjoy!

About

Edit the general application definition.

Tasks

- Edit Application Comment
- Unsubscribe Templates

Application 112 \ Page Designer

Rendering Dynamic Actions Processing Page Shared Components Layout Page Search

Page 200: Maintain Employee

- Pre-Rendering
 - Before Header
 - Processes
 - Initialize form Maintain Employee
 - After Header
 - Before Regions
 - Regions
 - Dialog Header
 - Content Body
 - Maintain Employee
 - Items
 - P200_EMPNO
 - P200_ENAME
 - P200_JOB
 - P200_MGR
 - P200_HIREDATE
 - P200_SAL
 - P200_COMM
 - P200_DEPTNO
 - Dialog Footer
 - Buttons
 - Region Buttons
 - CANCEL

Process

Filter

Previous Primary Key Item(s)

Current Row/Total Item

Execution Options

Sequence: 10

Point: Before Header

Run Process: Once Per Page Visit (default)

Success Message

Success Message: &START_EDIT.

Error

Error Message

Display Location: Inline in Notification

Server-side Condition

When Button: - Select -

Go Actions

The maximum row count for this report is 3 rows.

Name	Job	Comm	Deptno
KING	President		10
BLAKE	Manager		30
CLARK	Manager		10

1 - 3

Maintain Employee

ENAME KING

Job PRESIDENT

MGR

Hiredate 11/17/1981

Sal 5001

Comm

Deptno 10

Cancel Delete **Apply Changes**

Start editing now and enjoy!

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STATIC

text replacement

Application 112 \ Edit Application Definition

Definition Security Globalization User Interface

Application 112

Cancel Delete **Apply Changes**

Show All Name Properties Application Icon Availability Error Handling Global Notification **Substitutions** Build Options Report Printing

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Substitution String	Substitution Value
APP_NAME	Lost in Translation
START_EDIT	Start editing now and enjoy!
DELETE	Throw away for ever
SAVE	Keep for a while

About
Edit the general application definition.

Tasks
Edit Application Comment
Unsubscribe Templates

Application 112 \ Page Designer

Rendering Dynamic Actions Processing Page Shared Components Layout Page Search He

Page 200: Maintain Employee

- Pre-Rendering
- Regions
 - Dialog Header
 - Content Body
 - Maintain Employee
 - Items
 - P200_EMPNO
 - P200_ENAME
 - P200_JOB
 - P200_MGR
 - P200_HIREDATE
 - P200_SAL
 - P200_COMM
 - P200_DEPTNO
- Dialog Footer
 - Buttons
 - Region Buttons
 - CANCEL
 - DELETE
 - SAVE
 - CREATE
- Post-Rendering

Button

Filter

Identification

Button Name: DELETE
Label: &DELETE.

Layout

Sequence: 20
Region: Buttons
Button Position: Delete

Appearance

Button Template: Text
Hot:
Template Options: Use Template Defaults
CSS Classes:
Icon:

Behavior

Action: Redirect to URL
Target: javascript:apex.confirm('htmlidb_delete_message','DELETE');
Execute Validations:

The maximum row count for this report is 3 rows

Ename	Job	Comm	Deptno
KING	PRESIDENT		10
BLAKE	MANAGER		30
CLARK	MANAGER		10

1 - 3

Maintain Employee

Start editing now!

Name: KING
Job: PRESIDENT
Mgr:
Hiredate: 11/17/1981
Sal: 5001
Comm:
Deptno: 10

Cancel Throw away for ever **Keep for a while**

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Home Application 112 Edit Page 200 Session View Debug Debug Page Info Quick Edit Theme Roller

STATIC

text replacement

works great for **BUTTONS** too !

Application 112 \ Edit Application Definition

Definition Security Globalization User Interface

Application 112

Cancel Delete **Apply Changes**

Show All Name Properties Application Icon Availability Error Handling Global Notification **Substitutions** Build Options Report Printing

Substitutions

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Substitution String	Substitution Value
APP_NAME	Lost in Translation
START_EDIT	Start editing now and enjoy!
DELETE	Throw away for ever
SAVE	Keep for a while
DELETE_ICON	fa-trash-o

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Unsubscribe Templates

Application 112 \ Page Designer

Rendering Dynamic Actions Processing Page Shared Components Layout Page Search He

Page 200: Maintain Employee

Pre-Rendering

Regions

Dialog Header

Content Body

Maintain Employee

Items

- P200_EMPNO
- P200_ENAME
- P200_JOB
- P200_MGR
- P200_HIREDATE
- P200_SAL
- P200_COMM
- P200_DEPTNO

Dialog Footer

Buttons

- Region Buttons
- CANCEL
- DELETE
- SAVE
- CREATE

Post-Rendering

Button

Filter

Identification

Button Name: DELETE

Label: &DELETE.

Layout

Sequence: 20

Region: Buttons

Button Position: Delete

Appearance

Button Template: Text with Icon

Hot:

Template Options: Use Template Defaults, Left

CSS Classes

Icon: &DELETE_ICON

Behavior

Action: Redirect to URL

Target: javascript:apex.confirm('htmllob_delete_message','DELETE');

Execute Validations:

Go Actions Create

The maximum row count for this report is 3 rows.

Name	Job	Comm	Deptno
KING	President		10
BLAKE	Manager		30
CLARK	Manager		10

Maintain Employee

Start editing now!

Ename: KING

Job: PRESIDENT

Mgr:

Hiredate: 11/17/1981

Sal: 5001

Comm:

Deptno: 10

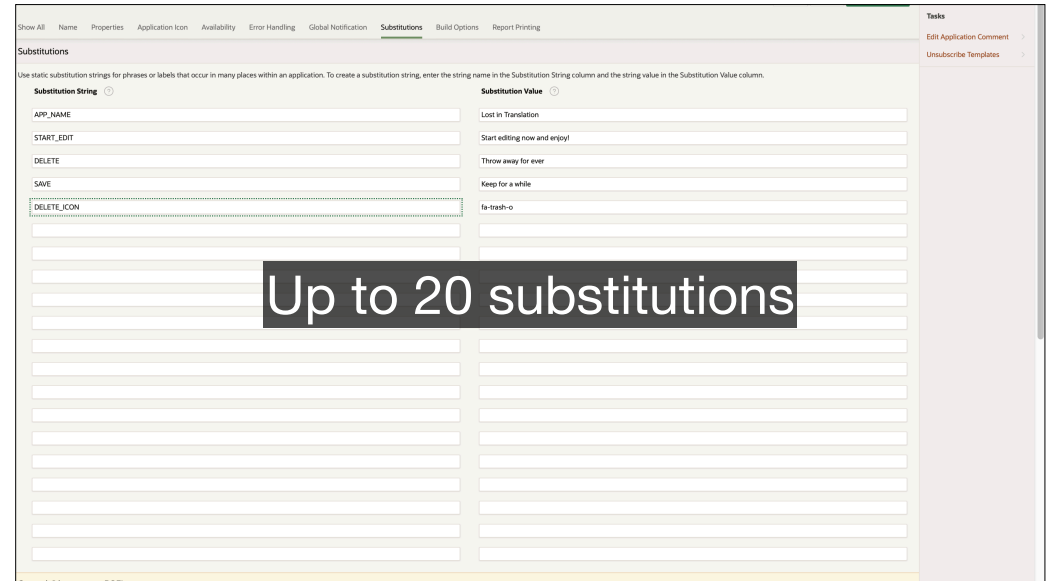
Cancel Throw away for ever Keep for a while

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STATIC

text replacement

works great for ICONS too !



Text is everywhere

- Substitutions
- Shortcuts
- Text Messages



Shortcuts

Shortcuts

who has never used them?

- Who has never seen this?

Sample Database Application - Customer Details

First Name * William Last Name * Hartsfield

Street Address 6000 North Terminal Parkway Line 2

City Atlanta

Zip Code *

Credit Limit *

Phone Number 404 999 9999

Email URL

Tags REPEAT CUSTOMER

Cancel Delete Apply Changes

Would you like to perform this delete action?

Cancel OK

Shortcuts

where does that come from?

- Link on a delete button

Link Builder - Target

Target

Type URL

URL javascript:apex.confirm(htmldb_delete_message,'DELETE');

Cancel Clear OK

Shortcuts

htmldb_delete_message

- Function and Global Variable Declaration - on Page Level

JavaScript

File URLs

Function and Global Variable Declaration

```
var htmldb_delete_message="DELETE_CONFIRM_MSG";
```

Execute when Page Loads

Shortcuts

"DELETE_CONFIRM_MSG"

- No misspelling
- (UPPER)Case sensitive
- Use "SHORTCUTNAME"

Sample Database Application - Customer Details

First Name * William Last Name * Hartsfield

Street Address 6000 North Terminal Parkway Line 2

City Atlanta

Zip Code *

Credit Limit *

Phone Number 404 999 9999

Email URL

Tags REPEAT CUSTOMER

Cancel Delete Apply Changes

"delete_CONFIRM_MSG"

Application 112 \ Shared Components

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Reports

- Report Queries
- Report Layouts

Application 112 \ Shared Components \ Shortcuts \ Edit

Shortcut

Cancel Delete **Apply Changes**

Show All Name Subscription Source Configuration Comments

Name

Name DELETE_CONFIRM_MSG

Subscription

Reference Master Shortcut From

Refresh

This is the "master" copy of this shortcut.

No shortcuts subscribe to this shortcut.

Source

Type Text with JavaScript Escaped Single Quotes

Shortcut Would you like to perform this delete action?

Error Text

Shortcuts are a repository of shared static or dynamic HTML. Shortcuts are substitution strings that are expanded using the syntax: "SHORTCUT_NAME". Shortcuts are used in the following locations:

- Region Source for regions of type HTML_WITH_SHORTCUTS
- Region Templates, Region Headers & Footers
- Item Labels
- Item Default Value
- Item Post Element Text
- Item Help Text
- HTML Header of a page

Item Substitutions

Creating shortcuts on page item labels and page item post element text attributes can include the following substitution strings:

```
#CURRENT_FORM_ELEMENT#
#CURRENT_ITEM_ID#
#CURRENT_ITEM_NAME#
#CURRENT_ITEM_HELP_TEXT#
```

Application 112 \ Shared Components \ Shortcuts \ Edit

Shortcut

Cancel Delete **Apply Changes**

Show All Name Subscription Source Configuration Comments

Name

Name DELETE_CONFIRM_MSG

Subscription

Reference Master Shortcut From

Refresh

This is the "master" copy of this shortcut.

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Source

Type

- Function Body returning VARCHAR2
- HTML Text
- HTML Text with Escaped Special Chars
- Image
- Text with JavaScript Escaped Single Quotes**
- Message
- Message with JavaScript Escaped Single Quotes

Shortcut

Error Text

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#CURRENT_ITEM_HELP_TEXT#
```

Application 112 \ Shared Components \ Shortcuts \ Edit

Shortcut

Cancel Delete **Apply Changes**

Show All Name Subscription Source Configuration Comments

Name

Name NICER_DELETE_CONFIRM_MSG

Subscription

Reference Master Shortcut From

Refresh

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Source

Type

- Function Body returning VARCHAR2**
- HTML Text
- HTML Text with Escaped Special Chars
- Image
- Text with JavaScript Escaped Single Quotes
- Message
- Message with JavaScript Escaped Single Quotes

Shortcut

```
||page_name|| with the '||label||' : ' ||
into :message
from apex_application_page_items
where application_id = :APP_ID
and page_id = :APP_PAGE_ID
and is_primary_key = 'Yes';
```

Error Text

Configuration

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#CURRENT_ITEM_NAME#
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```


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- Item Labels
- Item Default Value
- Item Post Element Text
- Item Help Text
- HTML Header of a page

Item Substitutions

Creating shortcuts on page item labels and page item post element text attributes can include the following substitution strings:

```
#CURRENT_FORM_ELEMENT#
#CURRENT_ITEM_ID#
#CURRENT_ITEM_NAME#
#CURRENT_ITEM_HELP_TEXT#
```

Name

Name: NICER_DELETE_CONFIRM_MSG

Subscription

Reference Master Shortcut From: [dropdown]

Refresh

This is the "master" copy of this shortcut.

No shortcuts subscribe to this shortcut.

Source

Type: Function Body returning VARCHAR2

Language: PL/SQL

```
declare
lmessage varchar2(1000);
begin
select 'Do you really want to delete the ''||page_name||'' with the ''||label||'' : ' || v(''||item_name||'')?'
into lmessage
from apex_application_page_items
where application_id = :APP_ID
and page_id = :APP_PAGE_ID
and is_primary_key = 'Yes';
return lmessage;
end;
```

Error Text: [text area]

Maintain Employee

Start editing now!

Do you really want to delete the Employee with the Empno : 7839?

Cancel OK

Cancel Throw away for ever Keep for a while

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Shortcut

Cancel Delete **Apply Changes**

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- HTML Header of a page

Item Substitutions

Creating shortcuts on page item labels and page item post element text attributes can include the following substitution strings:

```
#CURRENT_FORM_ELEMENT#
#CURRENT_ITEM_ID#
#CURRENT_ITEM_NAME#
#CURRENT_ITEM_HELP_TEXT#
```

Name

Name: CLEAR

Subscription

Reference Master Shortcut From: [dropdown]

Refresh

This is the "master" copy of this shortcut.

No shortcuts subscribe to this shortcut.

Source

Type: HTML Text

Shortcut:

Error Text: [text area]

Configuration

Build Option: - No Build Option -

Shortcuts are substitution strings that are expanded using the syntax: "SHORTCUT_NAME". Shortcuts are used in the following locations:

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Creating shortcuts on page item labels and page item post element text attributes can include the following substitution strings:

```
#CURRENT_FORM_ELEMENT#
#CURRENT_ITEM_ID#
#CURRENT_ITEM_NAME#
#CURRENT_ITEM_HELP_TEXT#
```

Name

Name: CLEAR

Subscription

Reference Master Shortcut From: [dropdown]

Refresh

This is the "master" copy of this shortcut.

No shortcuts subscribe to this shortcut.

Source

Type: HTML Text

Shortcut:

Error Text: [text area]

Configuration

Build Option: - No Build Option -

Application 112 | Page Designer

Rendering Dynamic Actions Processing Page Shared Components Layout Page Item

Page 200: Employee

- Pre-Rendering
- Regions
 - Dialog Header
 - Content Body
 - Maintain Employee
 - Items
 - P200_EMPNO
 - P200_ENAME
 - P200_JOB
 - P200_MGR
 - P200_HIREDATE
 - P200_SAL
 - P200_COMM
 - P200_DEPTNO
 - Dialog Footer
 - Buttons
 - Region Buttons
 - CANCEL
 - DELETE
 - SAVE
 - CREATE

Post-Rendering

Filter

Value Required

Maximum Length 255 characters

Advanced

CSS Classes

Custom Attributes

Pre Text

Post Text

"CLEAR"

Warn on Unsaved Changes Page Default

Source

Form Region Maintain Employee

Column MGR

Data Type NUMBER

Query Only

Primary Key

Go Actions

Create

ENAME	COMM	DEPTNO
KING		10
BLAKE		30
CLARK		10
JONES		20
SCOTT		20
FORD		20
SMITH		20
ALLEN	300	30
WARD	500	30
MARTIN	1400	30
TURNER	0	30
ADAMS		20
JAMES		30
MILLER		10

Maintain Employee

ENAME CLARK

JOB MANAGER

MGR

HiRedate 6/9/1981

Sal 2450

Comm

Deptno 10

Cancel Throw away for ever Keep for a while

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Text is everywhere

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- Text Messages



Text Messages

Application 112 \ Shared Components

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Application 112 \ Shared Components \ Translate \ Text Messages

Text Messages

Text Messages can be used to build translatable text strings with substitution variables that can be called from PL/SQL packages, procedures, and functions.

Learn More ...

Name	Language	Text	Text Length	Used in JavaScript	Updated By	Date
DELETE	en-us	YOU ARE FIRED - Exit %0 %2...	32	No	DEMO	8 minutes ago
DELETE	en-gb	Get rid of this %0 forever (%1: %2)?	37	No	DEMO	10 minutes ago

1 - 2

Create/Edit Text Message

Messages are designed to provide translation services for use in PL/SQL.

Application: 112 Lost in Translation

* Name: DELETE

Language: English (United Kingdom) (en-gb)

Used in JavaScript:

* Text: Get rid of this %0 forever (%1: %2)?

Cancel Delete Apply Changes

Show All Name Subscription Source Configuration Comments

Name

* Name: TRANSLATED_DELETE_CONFIRM_MSG

Subscription

Reference Master Shortcut From

Refresh

This is the "master" copy of this shortcut.

No shortcuts subscribe to this shortcut.

Source

* Type: Function Body returning VARCHAR2

Language: PL/SQL

```

Shortcut:
declare
lPageItem apex_application_page_items%rowtype;
lMessage varchar2(1000);
begin
select *
into lPageItem
from apex_application_page_items
where application_id = :APP_ID
and page_id = :APP_PAGE_ID
and is_primary_key = 'Yes';
lMessage := apex_lang_message('DELETE', lPageItem.page_name, lPageItem.label, v(lPageItem.item_name));
return lMessage;
end;
```

Error Text

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- Item Default Value
- Item Post Element Text
- Item Help Text
- HTML Header of a page

Item Substitutions

Creating shortcuts on page item labels and page item post element text attributes can include the following substitution strings

- #CURRENT_FORM_ELEMENT#
- #CURRENT_ITEM_ID#
- #CURRENT_ITEM_NAME#
- #CURRENT_ITEM_HELP_TEXT#

Go Actions

Create

Ename	Comm	Deptno
KING		10
BLAKE		30
CLARK		10
JONES		20
SCOTT		20
FORD		20
SMITH		20
ALLEN		30
WARD		30
MARTIN		30
TURNER		30
ADAMS		20
JAMES		30
MILLER		10

1 - 14

EN-GB EN-US

Maintain Employee

Start editing now!

ENAME: SCOTT

JOB: MANAGER

MGR: 7566

HIREDATE: 09/12/1982

SAL: 3000

COMM: 0

DEPTNO: 20

Cancel Throw away for ever Keep for a while

Get rid of this Employee forever (Empno : 7788)?

Cancel OK

Similar for all other (standard) text

Worksheet Query Builder

```
1 select translatable_message, message_text
2 from apex_application_translations
3 where application_id = 4411
4 and message_text = 'Actions'
5 ;
6
```

Query Result x

All Rows Fetched: 5 in 0.237 seconds

TRANSLATABL_MESSAGE	MESSAGE_TEXT
1 ACTIONS	Actions
2 APEXIR_ACTIONS	Actions
3 PE.COMPONEN.TYPE.CARD_ACTION.PLURAL	Actions
4 PE.COMPONEN.TYPE.DYNAMIC_ACTION_ACTION.PLURAL	Actions
5 APEX.IG.ACTIONS	Actions

Add a Text Message

Create/Edit Text Message

Messages are designed to provide translation services for use in PL/SQL.

Application **112 Manage your Application Messages the easy way** ?

* Name ?

Language ?

Used in JavaScript

* Text

Add a Text Message

Search: Go

Things to do

	Ename	
<input type="text"/>	KING	<input type="text"/>
<input type="text"/>	BLAKE	<input type="text"/>
<input type="text"/>	CLARK	<input type="text"/>
<input type="text"/>	JONES	<input type="text"/>

- Columns
- Filter
- Data >
- Format >

Error Messages

- + 11 APEX_CSS
- + 12 APEX_CUSTOM_AUTH
- + 13 APEX_DATA_EXPORT
- + 14 APEX_DATA_PARSER
- + 15 APEX_DEBUG
- + 16 APEX_ESCAPE
- 17 APEX_ERROR
 - 17.1 Constants and Attributes Used for Result Types
 - 17.2 Example of an Error Handling Function
 - 17.3 ADD_ERROR Procedure Signature 1
 - 17.4 ADD_ERROR Procedure Signature 2
 - 17.5 ADD_ERROR Procedure Signature 3
 - 17.6 ADD_ERROR Procedure Signature 4
 - 17.7 ADD_ERROR Procedure Signature 5
 - 17.8 APEX_ERROR.HAVE_ERRORS_OCCURRED Function
 - 17.9 AUTO_SET_ASSOCIATED_ITEM Procedure
 - 17.10 EXTRACT_CONSTRAINT_NAME Function
 - 17.11 GET_FIRST_ORA_ERROR_TEXT Function
 - 17.12 INIT_ERROR_RESULT Function
- + 18 APEX_EXEC
- + 19 APEX_EXPORT

17.2 Example of an Error Handling Function

The following is an example of an error handling function.

```

create or replace function apex_error_handling_example (
  p_error in apex_error.t_error )
return apex_error.t_error_result
is
  l_result      apex_error.t_error_result;
  l_reference_id number;
  l_constraint_name varchar2(255);
begin
  l_result := apex_error.init_error_result (
    p_error => p_error );

  -- If it's an internal error raised by APEX, like an invalid statement or
  -- code which can't be executed, the error text might contain security sensit-
  -- information. To avoid this security problem we can rewrite the error to
  -- a generic error message and log the original error message for further
  -- investigation by the help desk.
  if p_error.is_internal_error then
    -- mask all errors that are not common runtime errors (Access Denied
    -- errors raised by application / page authorization and all errors
    -- regarding session and session state)
    if not p_error.is_common_runtime_error then
      -- log error for example with an autonomous transaction and return
      -- l_reference_id as reference#
      -- l_reference_id := log_error (
      --
      --
      p_error => p_error );
    --
    -- Change the message to the generic error message which doesn't expo

```

The screenshot shows the APEX App Builder interface for 'Application 112'. The 'Error Handling' configuration is visible, with the 'Default Error Display Location' dropdown set to 'Inline with Field and In Notification' and the 'Error Handling Function' dropdown set to 'apex_error_handling_example'. The interface also shows 'Created: 2 months ago - ROEL' and 'Updated: 4 minutes ago - DEMO'.

```

create or replace function my_error_message (
  p_error in varchar2
) return varchar2 as
  pragma autonomous_transaction;
  l_my_error varchar2(2000);
begin
  l_my_error := apex_lang.message(p_error);
  if p_error = l_my_error then
    apex_lang.create_message(
      p_application_id => v('APP_ID'),
      p_name           => p_error,
      p_language       => apex_application.g_browser_language,
      p_message_text   => 'TODO'
    );
    commit;
  end if;
  return l_my_error;
end my_error_message;

```

```

61      -- -) ORA-02292: integrity constraint violated - child record found
62      --
63      -- we try to get a friendly error message from our constraint lookup configuration.
64      -- If we don't find the constraint in our lookup table we fallback to
65      -- the original ORA error message.
66      if p_error.ora_sqlcode in (-1, -2091, -2290, -2291, -2292) then
67          l_constraint_name := apex_error.extract_constraint_name (
68              p_error => p_error );
69      -- Begin of new stuff
70          l_result.message := my_error_message( l_constraint_name );
71      --
72      --
73      --
74      --
75      --
76      --
77      --
78      -- End of new stuff
79
80      end if;

```

Lost in Translation

Go Actions Create

Ename	Comm	Deptno
KING		10
BLAKE		30
CLARK		10
JONES		20
SCOTT		20
FORD		20
SMITH		20
ALLEN	300	30
WARD	500	30
MARTIN	1400	30
TURNER	0	30
ADAMS		20
JAMES		30
MILLER		10

Maintain Employee

Ename: KING

Job: PRESIDENT

Mgr:

Hiredate: 11/17/1981

Sal: 5001

Comm:

Deptno: 1

1 error has occurred
• EMP_DEPT_FK

Cancel Throw away for ever Keep for a while

Lost in Translation

Go Actions Create

Ename	Comm	Deptno
KING		10
BLAKE		30
CLARK		10
JONES		20
SCOTT		20
FORD		20
SMITH		20
ALLEN	300	30
WARD	500	30
MARTIN	1400	30
TURNER	0	30
ADAMS		20
JAMES		30
MILLER		10

Maintain Employee

Ename: KING

Job: PRESIDENT

Mgr:

Hiredate: 11/17/1981

Sal: 5001

Comm:

Deptno: 1

1 error has occurred
• TODO

Cancel Throw away for ever Keep for a while

APEX App Builder SQL Workshop Team Development App Gallery

Application 112 Shared Components Translate Text Messages

Reset Grid Edit Create Text Message Text Messages

Text Messages can be used to build translatable text strings with substitution variables that can be called from PL/SQL packages, procedures, and functions. Learn More ...

Create/Edit Text Message

Messages are designed to provide translation services for use in PL/SQL.

Application: 112 Lost in Translation

Name: EMP_DEPT_FK

Language: English (United States) (en-us)

Used in JavaScript:

Text: This department does not exist!

Cancel Delete Apply Changes

Lost in Translation

Go Actions Create

Ename	Comm	Deptno
KING		10
BLAKE		30
CLARK		10
JONES		20
SCOTT		20
FORD		20
SMITH		20
ALLEN	300	30
WARD	500	30
MARTIN	1400	30
TURNER	0	30
ADAMS		20
JAMES		30
MILLER		10

Maintain Employee

Ename: KING

Job: PRESIDENT

Mgr:

Hiredate: 11/17/1981

Sal: 5001

Comm:

Deptno: 1

1 error has occurred
• This department does not exist!

Cancel Throw away for ever Keep for a while

Nice, but what about AJAX calls?

```
Code Errors Dependencies Grants Details References Profiles
APEX_ERROR_HANDLING_EXAMPLE
Code Errors Dependencies Grants Details References Profiles
20
21
22
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25
26
27
28
29
30
31
32
33
34
35
36
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38
39
40
-- Begin of new stuff
l_result.display_location := apex_error.c_inline_in_notification;
l_constraint_name := apex_error.get_first_ora_error_text (
    p_error => p_error );
l_result.message := my_error_message( l_constraint_name );
l_result.message := 'An unexpected internal application error has occurred. ' ||
    'Please get in contact with XXX and provide ' ||
    'reference# ' || to_char(l_reference_id, '999G999G999G990') ||
    ' for further investigation.';
-- End of new stuff
l_result.additional_info := null;
end if;
```

The screenshot shows the 'Maintain Employee' form in Oracle APEX. The form contains the following fields: Empno (7566), Ename (JONES), Job (MANAGER), Mgr (7839), Hiredate (4/2/1981), Sal (5950), Comm, and Deptno (20). At the bottom, there are buttons for 'Cancel', 'Throw away for ever', 'AJAX Call', 'AJAX Call - onDemand Process', and 'Keep for a while'. A modal dialog box is displayed in the center, containing the text 'Something went terribly wrong in this AJAX call' and an 'OK' button.

apex.server.process("onDemand"

```
begin
  raise_application_error( -20001, 'Something serious happened in the DB!');
exception
  when others then
    apex_json.initialize_output;
    apex_json.open_object;
    -- apex_json.write('result', sqlerrm);
    apex_json.write('error', my_error_message( sqlerrm ));
    apex_json.close_object;
end;
```

Maintain Employee

Empno
7698

Ename
BLAKE

Job
MANAGER

Mgr
7839

Hiredate
5/1/1981

Sal
2850

Comm

Deptno
30

1 error has occurred
• ORA-20001: Something serious happened in the DB!

Cancel Throw away for ever AJAX Call AJAX Call - onDemand Process **Keep for a while**

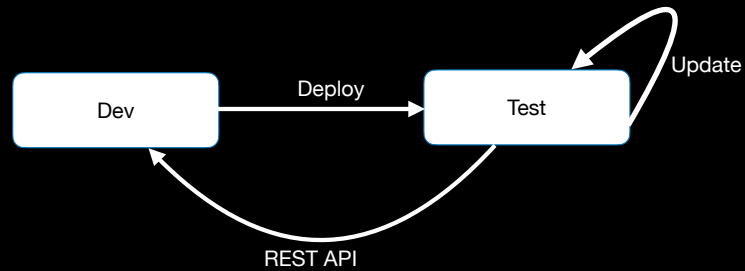
DYNAMIC

text replacement

APEX_LANG

Managing Your Messages

Update Text Messages from Test / Acc / Prod



IG DML process

```
declare
  l_result clob;
begin
  apex_lang.update_message
  ( p_id => :TRANSLATION_ENTRY_ID
  , p_message_text => :MESSAGE_TEXT
  );
  l_result := apex_web_service.make_rest_request
  ( p_url => 'http://<REST URL>/application_messages/' || :TRANSLATION_ENTRY_ID
  , p_http_method => 'PUT'
  , p_body => :MESSAGE_TEXT
  );
end;
```

REST API definition

```
begin
  apex_session.create_session
  ( p_app_id => 300
  , p_page_id => 100
  , p_user_name => 'From Test'
  );
  apex_lang.update_message
  ( p_id => :id
  , p_message_text => utl_raw.cast_to_varchar2( dbms_lob.substr( :body, 4000, 1 ) )
  );
  :status := 200;
end;
```

Text is everywhere

- Substitutions
- Shortcuts
- Text Messages



Q & A

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