

Apex Shared Components

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SrOUG



Quick introduction

- IT Solutions Architect at Abakus plus, d.o.o
- SIOUG - Member of Executive Committee
- Apex Meetups
- HTMLDB – just a toy?, SIOUG, Portorož 2004
- APEX Text Messages
- <http://www.oraopensource.com/blog/?category=APEX+Text+Messages>
- Member of the Month (<https://apex.world/ords/f?p=100:427>)





Abakus plus, d.o.o.

History

from 1992, ~20 employees

Applications:

special (DB – Newspaper Distribution, FIS – Flight Information System)

ARBITER – the ultimate tool in audit trailing

APPM – Abakus Plus Performance and Monitoring Tool

Services:

DBA, OS administration, programming (MediaWiki, Oracle)

networks (services, VPN, QoS, security)

open source, monitoring (Nagios, OCS, Wiki)

Hardware:

servers, **backup server**, **SAN storage**, firewalls

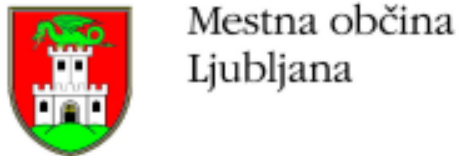
Infrastructure:

from 1995 GNU/Linux (**20 years of experience!**)

Oracle on GNU/Linux: since RDBMS 7.1.5 & Forms 3.0 (**before Oracle!**)

>20 years of experience with High-Availability!
















Shared Components

Shared components can display or be applied on any page within an application. This section describes the advantages of using shared components and specifically how to manage static application files, static workspace files, images, application-level items, lists of values, lists, shortcuts, and report output.

https://docs.oracle.com/cd/E59726_01/doc.50/e39147/shared_comp.htm#HTMDB29851



Application Logic	Security	Other Components
 <ul style="list-style-type: none"> <li>Application Definition Attributes <hr/> <li>Application Items <hr/> <li>Application Processes <hr/> <li>Application Computations 	 <ul style="list-style-type: none"> <li>Security Attributes <hr/> <li>Authentication Schemes <hr/> <li>Authorization Schemes <hr/> <li>Session State Protection <hr/> <li>Build Options 	 <ul style="list-style-type: none"> <li>List of Values <hr/> <li>Plug-ins <hr/> <li>Component Settings <hr/> <li>Shortcuts
Navigation	User Interface	Files
 <ul style="list-style-type: none"> <li>Lists <hr/> <li>Navigation Menu <hr/> <li>Breadcrumbs <hr/> <li>Navigation Bar List 	 <ul style="list-style-type: none"> <li>User Interface Attributes <hr/> <li>Themes <hr/> <li>Templates 	 <ul style="list-style-type: none"> <li>Static Application Files <hr/> <li>Static Workspace Files
Data References	Reports	Globalization
 <ul style="list-style-type: none"> <li>Data Load Definitions <hr/> <li>Web Service References 	 <ul style="list-style-type: none"> <li>Report Queries <hr/> <li>Report Layouts 	 <ul style="list-style-type: none"> <li>Globalization Attributes <hr/> <li>Text Messages <hr/> <li>Translate Application



Agenda

- Theme Subscriptions
- Theme Styles – “Sharing”
- Rejoin session
- Shortcuts
- APEX Text Messages





Theme Subscriptions

- Themes and templates can be subscribed on a theme level now
- Developers subscribe to a theme when
 - Running the Create Application Wizard (validate theme)
 - Creating a new theme from the Theme repository
- When an application subscribes to a master theme, all theme attributes, subscribed template options, and subscribed templates are set to read-only





Theme Subscriptions

- Verify if Theme Refresh is Needed
- Refreshing a Subscribed Theme
 - Refresh Theme (pull - one)
 - Publish Theme (push – to all)
- Subscribed to Standard Theme : Universal Theme
 - After patching / upgrading – REFRESH!





Theme Subscriptions

Confirm Unsubscribe Theme



Please confirm that you wish to unsubscribe the current theme from its master theme. Unsubscribing a theme will prevent future updates to the theme being applied. It is non-trivial to re-subscribe a theme once unsubscribed, as it involves copying and switching themes.

Please note that subscribed themes can be extended by adding templates, styles and files that are local to the theme, for example by creating a new template or copying a subscribed template. Templates, styles and files added to a subscribed theme will be editable, however subscribed components are read-only.

Unsubscribing a theme also unsubscribes all templates, Javascript and CSS, global template options, icons, and styles allowing you to customize any of the currently subscribed components.

Cancel

Unsubscribe Theme





Theme Styles – “Sharing”

- Theme styles are CSS files that are referenced in the page template using the #THEME_STYLE_CSS#
- A theme can have multiple theme styles with one style set active
- “Sharing”
 - Theme Roller JSON Configuration
 - apex.utr.config() (Theme Roller must be running)





Rejoin session

The Rejoin Sessions attribute controls if Oracle Application Express supports application URLs that do not contain session IDs. When rejoin sessions is enabled, Oracle Application Express attempts to use the session cookie to join an existing session, when a URL does not contain a session ID.

Enabling rejoin sessions exposes your application to possible security breaches, as it can enable attackers to take over existing end user sessions.





Rejoin session

When rejoin sessions is enabled, Application Express attempts to use the session cookie to join an existing session, when a URL does not contain a session ID.

- Disabled
- Enabled for Public Sessions
- Enabled for All Sessions

- Can be also set on pages
- A more restrictive instance level setting overrides this page level value





Rejoin session

- Enabled for Public Sessions

If the URL goes to a public page and does not contain a session ID, Application Express attempts to utilize the existing session cookie established for that application. For applications with both public and authenticated pages, a session ID is defined after the end user authenticates. Application Express only joins using the cookie when the session is not yet authenticated.

- Enabled for All Sessions

If the URL does not contain a session ID, Application Express attempts to utilize the existing session cookie established for that application, providing the following conditions are met:

- Session State Protection is enabled for the application and the URL includes a valid checksum. For public bookmarks, the most restrictive item level protection must be either Unrestricted or Checksum Required - Application Level.
- OR, the URL does not contain payload (a request parameter, clear cache or data value pairs). This setting also requires that Embed In Frames is set to Allow from same origin or to Deny for the application.





Rejoin session - example

Internal workspace

Manage Instance → Security → Rejoin Session : **Enabled for All Sessions**

Application

Edit Application Properties → Security

Rejoin Sessions : **Enabled for All Sessions**

Embed in Frames: **Deny**

Session State Protection: **Enabled**

Page 1:

Authentication : **Page Requires Authentication**

Rejoin session : **Application Default**

Page Access Protection: **Arguments Must Have Checksum**

Page 2:

Authentication : **Page is Public**

Rejoin session: **Enabled for Public Sessions**

Page Access Protection: **Unrestricted**





Rejoin session - security

Enabling rejoin sessions exposes your application to possible security breaches, as it can enable attackers to take over existing end user sessions.

- Triggering malicious session state changes or other modifications
- Triggering unintended changes between applications

For security reasons, Oracles recommends that administrators disable Rejoin Sessions unless they implement workspace isolation by configuring the Allow Hostname attribute at the workspace or instance-level.

http://docs.oracle.com/cd/E59726_01/doc.50/e39147/sec_admin_ssl.htm#CIHHIFBG





Shortcuts

- Use Shortcuts to write frequently used code once and then reference it in many places within your application
- Shortcuts also allow for dynamic generation of code in places that typically only support static text
- Shortcuts are substitution strings that are expanded using the syntax: "SHORTCUT_NAME"
- We are all using shortcuts (at least one) :
`javascript:apex.confirm(htmldb_delete_message,'DELETE');`





Shortcuts - types

- PL/SQL Function Body
- HTML Text
- HTML Text with Escaped Special Characters
- Image
- Text with JavaScript Escaped Single Quotes
- Message
- Message with JavaScript Escaped Special Quotes





Shortcuts – used in 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





Shortcuts – 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#





Shortcuts – example

Shared Components → Shortcuts

Type: HTML Text

Name: SC_HTML_1

Shortcut: This is **shortcut**

Type: HTML Text with Escaped Special Chars

Name: SC_HTML_2

Shortcut: This is **shortcut**

On Page: Add new Static Content Region

Source: `
"SC_HTML_1"`
`
"SC_HTML_2"`

Attributes: Expand Shortcuts: **YES**

Shortcuts

This is **shortcut**

This is `shortcut`



Shortcuts – example

Shared Components → Shortcuts

Type: PL/SQL Function Body

Name: SC_LABEL

Shortcut: return 'This is label for #CURRENT_ITEM_NAME#';

On Page: Add New Item

Label: "SC_LABEL"

Shortcuts	
This is label for P2_NEW	<input type="text"/>





Shortcuts – example

Shared Components → Shortcuts

Type: Message

Name: **DELETE_CONFIRM_MSG_1**

Shortcut:**null**

Shared Components → Text Messages

Name: **DELETE_CONFIRM_MSG_1**

Language: Slovenian

Text: Some text in Slovenian language

Name: **DELETE_CONFIRM_MSG_1**

Language: Serbian

Text: Some text in Serbian language

On Page:

Function and Global Variable Declaration:

```
var htmldb_delete_message_shortcut=""DELETE_CONFIRM_MSG_1";
```

Button Behavior:

```
javascript:apex.confirm(htmldb_delete_message_shortcut,'DELETE');
```



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

Oracle Application Express is translated into German, Spanish, French, Italian, Japanese, Korean, Brazilian Portuguese, Simplified Chinese, and Traditional Chinese. If your application uses a language that is not among the ten languages into which Oracle Application Express is translated, you must translate messages displayed by the Application Express reporting engine.

https://docs.oracle.com/database/121/HTMDB/global_messages.htm#HTMDB25939






translate-apex.com

Translate APEX - Collection of APEX translations
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Welcome to Translate APEX - FREE Apex internationalization app!


This website contains collection of translations for Oracle Application Express.
Check available Internal Messages translations, download it for free and upload your translation! [#etsWreckThisTogether](#)

What is it about?

Oracle Application Express is translated by default into 10 languages (English, German, Spanish, French, Italian, Japanese, Korean, Brazilian Portuguese, Simplified Chinese, and Traditional Chinese). Unfortunately if your application uses different language you must translate messages displayed by APEX reporting engine (like Search button or next/previous links in reports) by yourself.


We created this website to collect translations of APEX internal messages, so that there will be no need to translate them on your own. All you need to do is just select your language, download translation script and run it in your database or APEX SQL Workshop.

All translations are provided for free to help APEX community. Collection contains custom translations provided by contributors and standard APEX translations for 10 default languages. If you can't find your language in translation list, feel free to participate in this project – download translation template, translate it to your language, send it to us and be proud of collaboration. We hope that those translations will be included in next APEX releases, so that whole world can fully enjoy benefits of Application Express.
For more information about this project, APEX translations and other localization issues check "Learn more" section.




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Find, download and install APEX translation.




Add



Add your language or new version of existing one.



Learn more

Get more information about localization issues.



An initiative of  



APEX Text Messages

- <http://www.oraopensource.com/blog/?category=APEX+Text+Messages>

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Blog

Introducing APEX Text Messages

March 07, 2016

A while ago, our friends at Pretius released a great application for the global APEX community called translate-apex.com. This application contains a collection of translations for Oracle Application Express. These translations are for the internal APEX Text Messages for system messages like `1 error has occurred`.

During the same time, one of our developers, [Aljaz Mali](#) was working on an application which helps create and manage these Text Message translations. We're pleased to announce that this application is now live and open sourced!

Instead of documenting everything that the application can do, you can go try it out now: apex.oracle.com/pls/apex/f?p=88328 and using `demo/demo123` as the login credentials.

If you want to help contribute to the project or download the application go to our [Github project page](#). Please submit any of your feedback, issues, or enhancement requests on the [issues page](#). If you create a translation in a language that isn't on translate-apex.com you're encouraged to upload it to their site and share with the rest of the community.

Big thanks to [Aljaz Mali](#) for all his time and effort on this project!

Blog Categories

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- [APEX Text Messages](#)
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Welcome to APEX Text Messages application

Manage Oracle Application Express internal messages

What is it about?

Oracle Application Express is from English translated into German, Spanish, French, Italian, Japanese, Korean, Brazilian Portuguese, Simplified Chinese, and Traditional Chinese. If your application uses a language that is not among the ten languages into which Oracle Application Express is translated, you must translate messages displayed by the Application Express reporting engine.

When running an application and when an error occurs your users will see the message "**1 error has occurred**". If you want to translate this message for example in Slovenian or Polish language you must define a Text Message in Shared Components. In this case you create a text message with a name "**FLOW.SINGLE_VALIDATION_ERROR**", a language code "sl" and a text with Slovenian translation. If you also want to have a Polish translation, then you create a new text message with the same name "**FLOW.SINGLE_VALIDATION_ERROR**", but with a different language code "pl" and a text with Polish translation. And you have to do this for every application.

In current release of Oracle Application Express (5.0) there are 462 documented internal text messages. With increasing number of applications and languages, management of text messages must be centralized, consolidated and simplified.

Purpose of this application is to help you with management of Oracle Application Express internal text messages.

How to start?

First thing that you need are translated internal text messages. If you don't already have them, then there is a good chance that you will find them at translate-apex.com

- Download translations (CSV file) from translate-apex.com
- Upload CSV file to APEX Text Messages application
- Review uploaded text messages (translations) in [Prepared Messages](#)
- Import prepared text messages into your applications in [Manage Messages](#)

If you already have a translated application and you want to use this text messages, then you can [Import this application text messages to Prepared Messages](#)



Manage Messages

Import or merge prepared text messages into your applications



Prepared Messages

Repository of uploaded or imported text messages



Import to Prepared

Import existing application text messages into prepared messages



Copy Messages

Copy text messages between applications



Application Messages

View, create, edit and delete text messages in current workspace



Upload CSV

Upload CSV file and import it to prepared messages



Backup & Restore

Backup and restore of text messages



Learn more

Additional information about application



About

Author and Collaborators



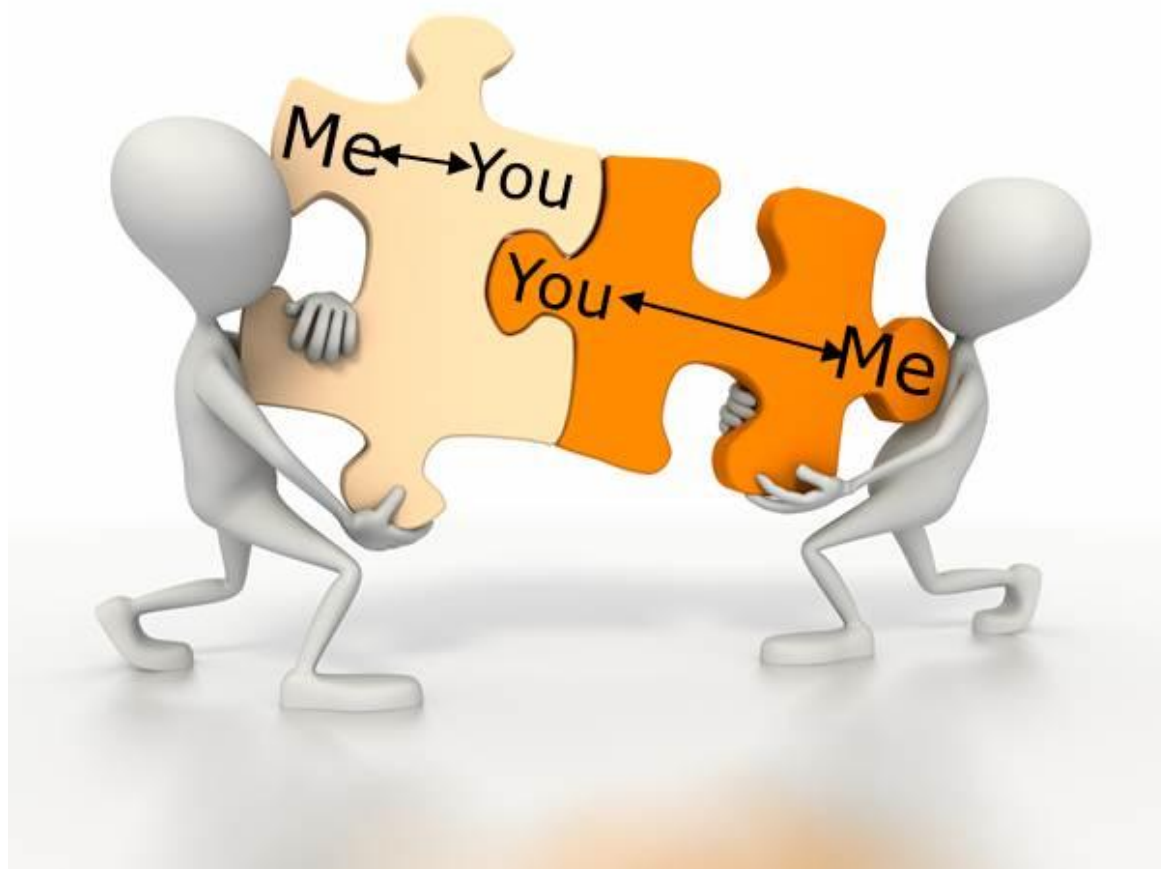
What component did we miss?

- What can we also share?





Knowledge!



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