APEX Shared Components

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Quick introduction

- IT Solutions Architect at Abakus plus, d.o.o

- SIOUG - Vice President

- 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 at apex.world, March 2016

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,
Development (MediaWiki, APEX, Java, Forms / Reports)
Networks (services, VPN, QoS, security),
Open Source, Monitoring (Nagios, OCS, Wiki)

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

Infrastructure:
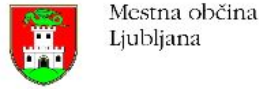from 1995 GNU/Linux *(20 years of experience!)*
Oracle on GNU/Linux: since RDBMS 7.1.5 & Forms 3.0 *(before Oracle!)*
>20 years of experience with High-Availability!

AS
Abakus
As na disku.

References

Shared Components

Shared components can display or be applied on any page within an application. Developers can use the tools and wizards on the Shared Components page either at the application-level or on specific pages.

https://docs.oracle.com/database/apex-5.1/HTMDB/managing-shared-components.htm#HTMDB29851

Shared Components - 5.1.3

Application Logic

- Application Definition Attributes
- Application Items
- Application Processes
- Application Computations

Security

- Security Attributes
- Authentication Schemes
- Authorization Schemes
- Session State Protection
- Build Options

Other Components

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

Navigation

- Lists
- Navigation Menu
- Breadcrumbs
- Navigation Bar List

User Interface

- User Interface Attributes
- Themes
- Templates

Files

- Static Application Files
- Static Workspace Files

Data References

- Data Load Definitions
- Web Service References

Reports

- Report Queries
- Report Layouts

Globalization

- Globalization Attributes
- Text Messages
- Translate Application

Shared Components - 5.2

Agenda

- (Global) Application Items

- Data Load Definitions

- Build Options

- Shortcuts

- Text Messages

Application Items

- Application level items are used to maintain session state

- Application items can be set using computations, processes, or by passing values on a URL

- Use "On New Instance" computations to set the value of items once for a session

- Use application items to maintain session state that is not displayed and is not specific to any one page

Application Items - Scope

Specify **Global** if the Application Express session is shared by more than one application and the item's value should be the same for all applications. Specify **Application** otherwise (this is the default).
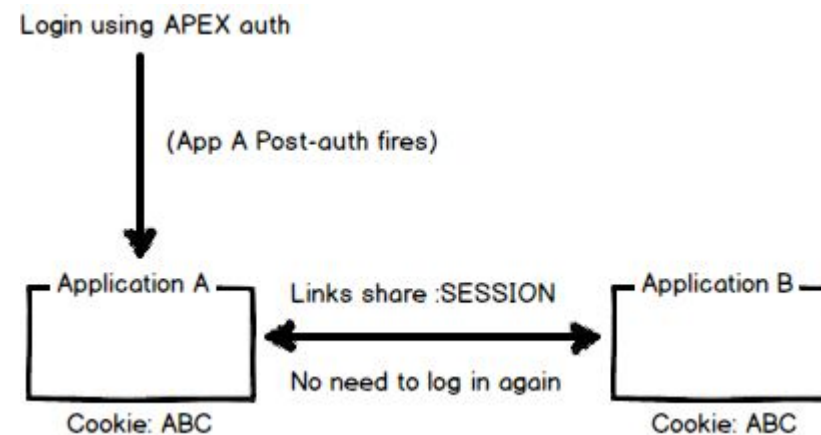
Applications can share the same session if their authentications have **the same Session Cookie Attributes**. The Scope attribute of application items has to be the same across these applications.

Shared authentication

- http://www.grassroots-oracle.com/2014/04/shared-authentication-across-multiple-apex-apps.html

Data Load Definitions

- A Data Load Definition is comprised of a Data Load Table, Table Rules and Lookup Tables, used by the Data Loading wizard in your application.

- The Data Loading wizard creates a new data loading wizard

- Four pages will be created within the new wizard

- All of the pages can be customized after they are created to meet the needs of your application

- Roel Hartman, Pump up the volume - The APEX Data Loader inside out

  - https://www.slideshare.net/roelhartman/pump-up-the-volume-the-apex-dataloader-inside-out

Data Load Definitions

- Transformation Rules

- Table Lookups

- Column Name Aliases

- Multiple Spreadsheet Columns into one Table Column

- Manage Concurrency

Build Options

- Build Options allow application components and functionality to be conditionally enabled or disabled when the application is installed

- Set Build Option in runtime via

    APEX_UTIL. SET_BUILD_OPTION_STATUS

- Build Options can be applied to the majority of components, such as Pages, Regions, Items, Validations, **Report Columns (5.1)**,...

- **Included** - Enabled and are part of the application

- **Excluded** - Disabled and are not a part of the application

- Value can be different on export

- Don't use "Condition = Never", use Build Option!

- https://jackiemcilroy.blogspot.si/2017/09/build-options-agile-development.html

Build Options

- Runtime API Usage in APEX for:
    - APEX_UTIL.SET_BUILD_OPTION_STATUS
    - APEX_UTIL.GET_BUILD_OPTION_STATUS (also for GET)

- Usage in PL/SQL

```
declare
  l_my_option varchar2(1000);
begin
  apex_util.set_security_group_id(apex_util.find_security_group_id('HROUG2017'));

  select apex_util.get_build_option_status(
                    p_application_id => 134, p_build_option_name => 'MY_BUILD_OPTION')
  into l_my_option from dual;
end;
```

- http://www.talkapex.com/2012/08/integrating-build-options-in-your-plsql/

Select whether the build option status in the deployed application should be
kept, or overwritten with the specified status when the application is upgraded.
Selecting Yes to keep the deployed status is useful if the application supports
build option configuration (via the APEX_UTIL.SET_BUILD_OPTION_STATUS
API) to enable or disable the build option in the deployed application, and
where you want to respect those settings upon upgrade.

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"

- Subscriptions

- We are all using shortcuts :

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

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 - 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 – 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

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: Croatian
Text: Some text in Croatian 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

APEX Text Messages

- http://www.oraopensource.com/blog/?category=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 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

APEX Shared Components

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