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!

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References

NOVA BANKA

Aerodrom Ljubljana
Letališče Jožeta Pučnika Ljubljana

BANKA SLOVENIJE

BUTAN PLIN
hiša prijazne energije

METREL®
Measuring and Regulation Equipment Manufacturer

Mestna občina Ljubljana

MILENIJUM OSIGURANJE

NLB Vita
Življenjska zavarovalnica

MESTNA OBČINA KOPER
COMUNE CITTÀ DI CAPODISTRIA

gea

Mercator

MERKUR

LASERLINE

ZAVOD ZA ŠPORT RS PLANICA

TelekomSlovenije

RAM 2

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LJUBLJANA

ISKRATEL

iskra vzdrževanje strojegradnja

ISKRA ISD

SODO
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Iskra

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Hidria

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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

Shared Components | den01bpj.us.oracle.com:8080

localhost:38080/ords/f?p=4000:9:13619202017499::NO::FB_FLOW_ID,FB_FLOW_PAGE_ID:105,10

Apps | Local VM 5.1.2 | APEX 5.1.3 DEV | Local VM 5.2 | APEX 5.2 DEV | APEX Dev Wiki | Bugs CCZARSKI | Bugs HTMLDBRP | APEX OTN Forum | https://stbeehive.or...

- Lists
- Navigation Menu
- Breadcrumbs
- Navigation Bar List
- User Interface Attributes
- Themes
- Templates
- Static Application Files
- Static Workspace Files
- Edit Application Comment
- Developer Comments

Data References

- Data Load Definitions
- Web Source Modules
- ORDS Remote Databases
- Legacy Web Service References (SOAP)

Reports

- Report Queries
- Report Layouts

Globalization

- Globalization Attributes
- Text Messages
- Translate Application

admin | testit | de

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Application Express 5.2.0.00.08

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

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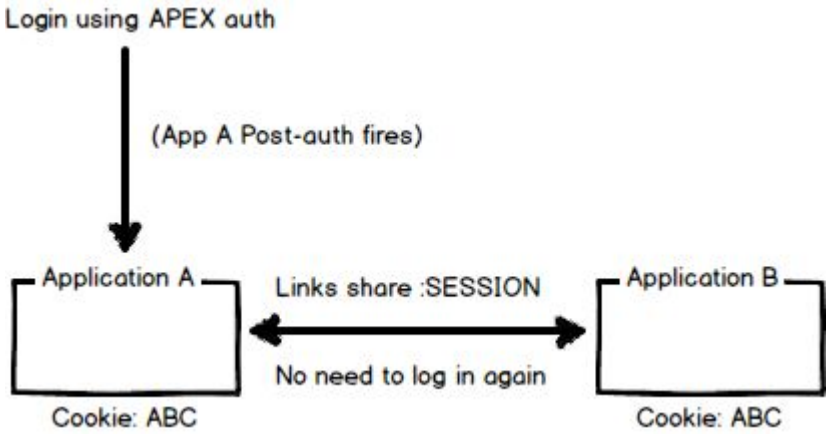
Application Items - Scope

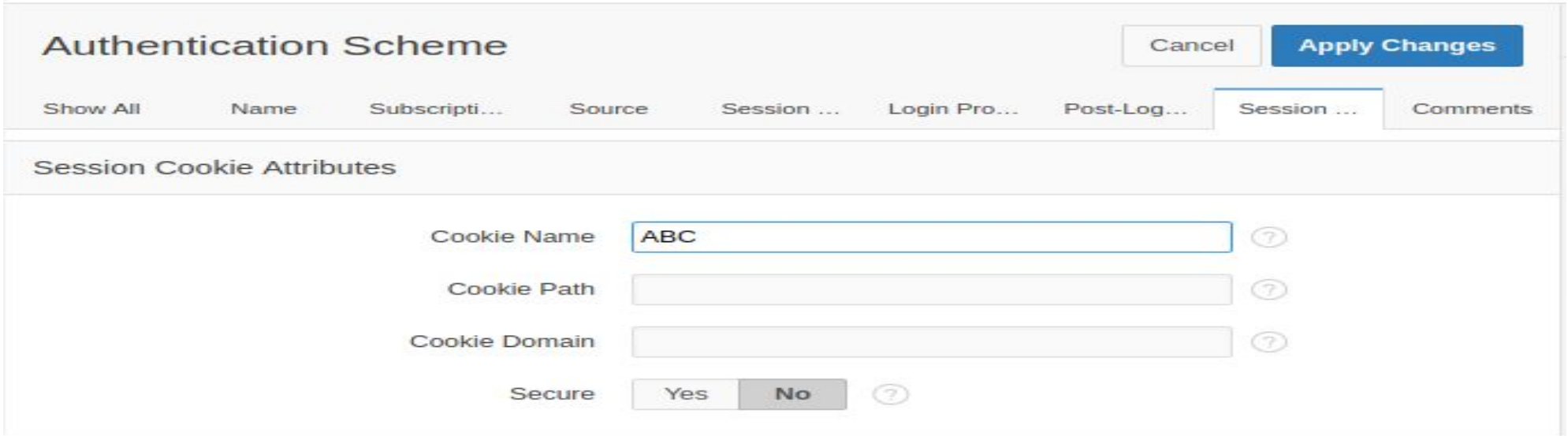
Specify ***Global*** if the Application Express session is shared by more than one application and the item's value should be the same for all applications. Specify ***Application*** otherwise (this is the default).

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

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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;
```

Build Options

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

```
SELECT upper(build_option_status)
  into l_build_option_status
  FROM apex_application_build_options
  WHERE application_id = p_app_id
    AND build_option_name = p_build_option_name;

  IF l_build_option_status = 'INCLUDE' THEN
    RETURN 'Y';
  ELSE
    RETURN 'N';
  END IF;
```

On Upgrade Keep Status

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#

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Shortcuts – example

Shared Components → Shortcuts

Type: HTML Text
Name: SC_HTML_1
Shortcut: This is shortcut

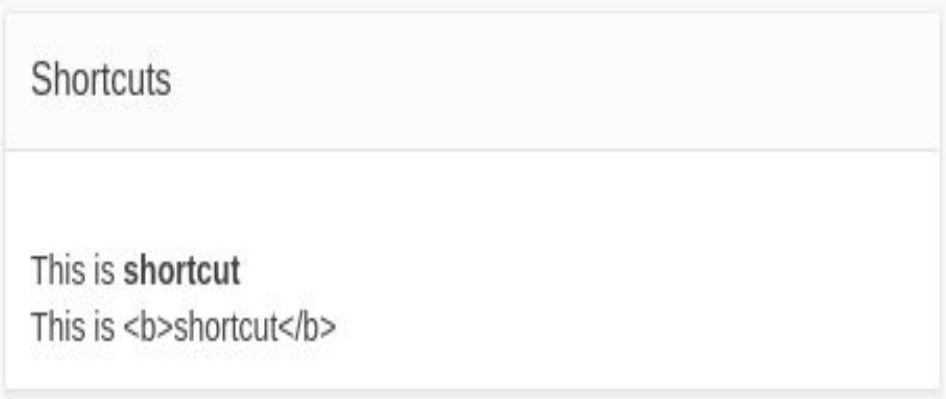
Type: HTML Text with Escaped Special Chars
Name: SC_HTML_2
Shortcut: This is shortcut

On Page: Add new Static Content Region

Source:
"SC_HTML_1“

"SC_HTML_2“

Attributes: Expand Shortcuts: YES



Shortcuts – 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 – 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

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translate-apex.com

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

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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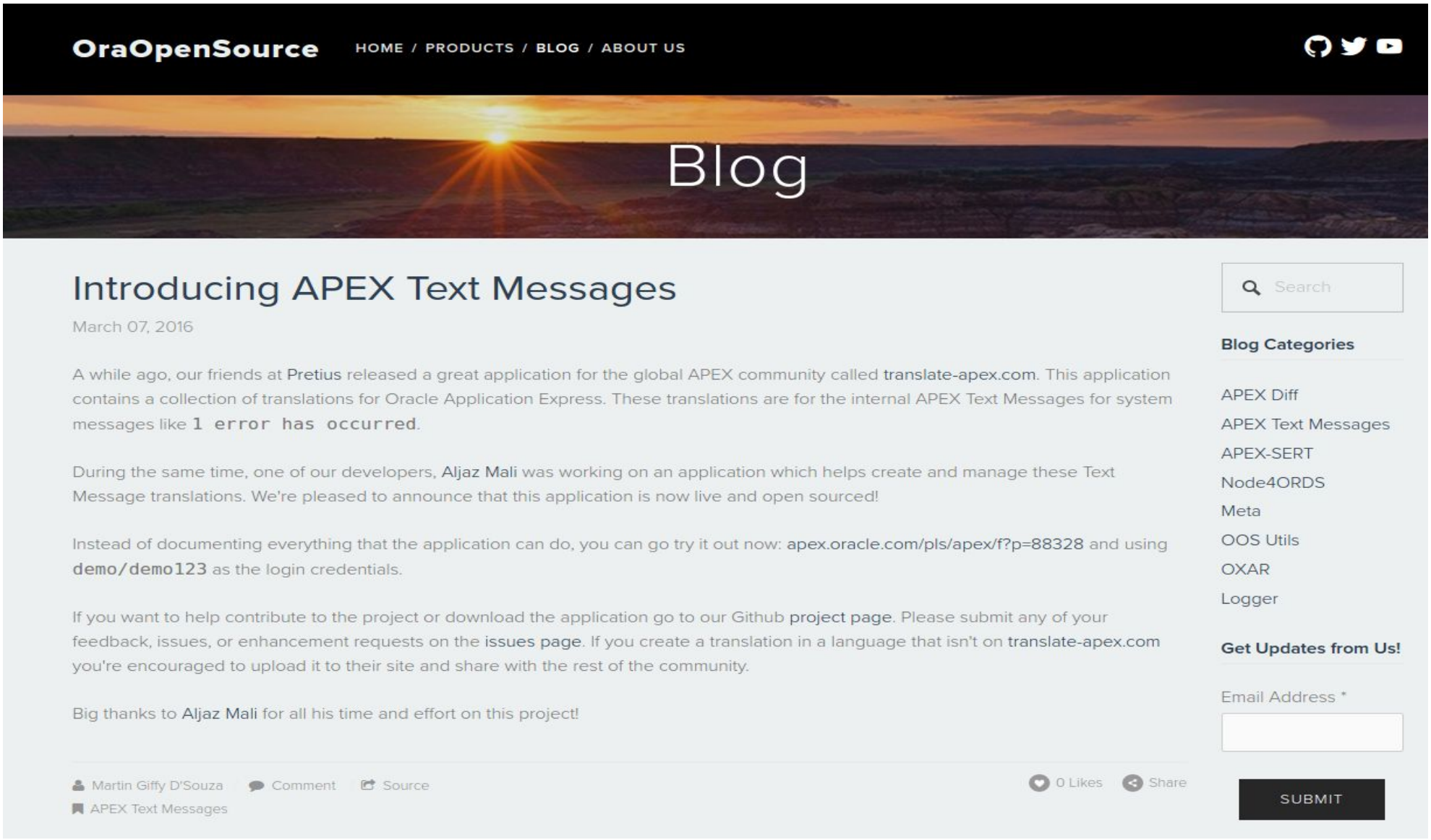
Get more information about localization issues.

APEX Text Messages

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



APEX Text Messages

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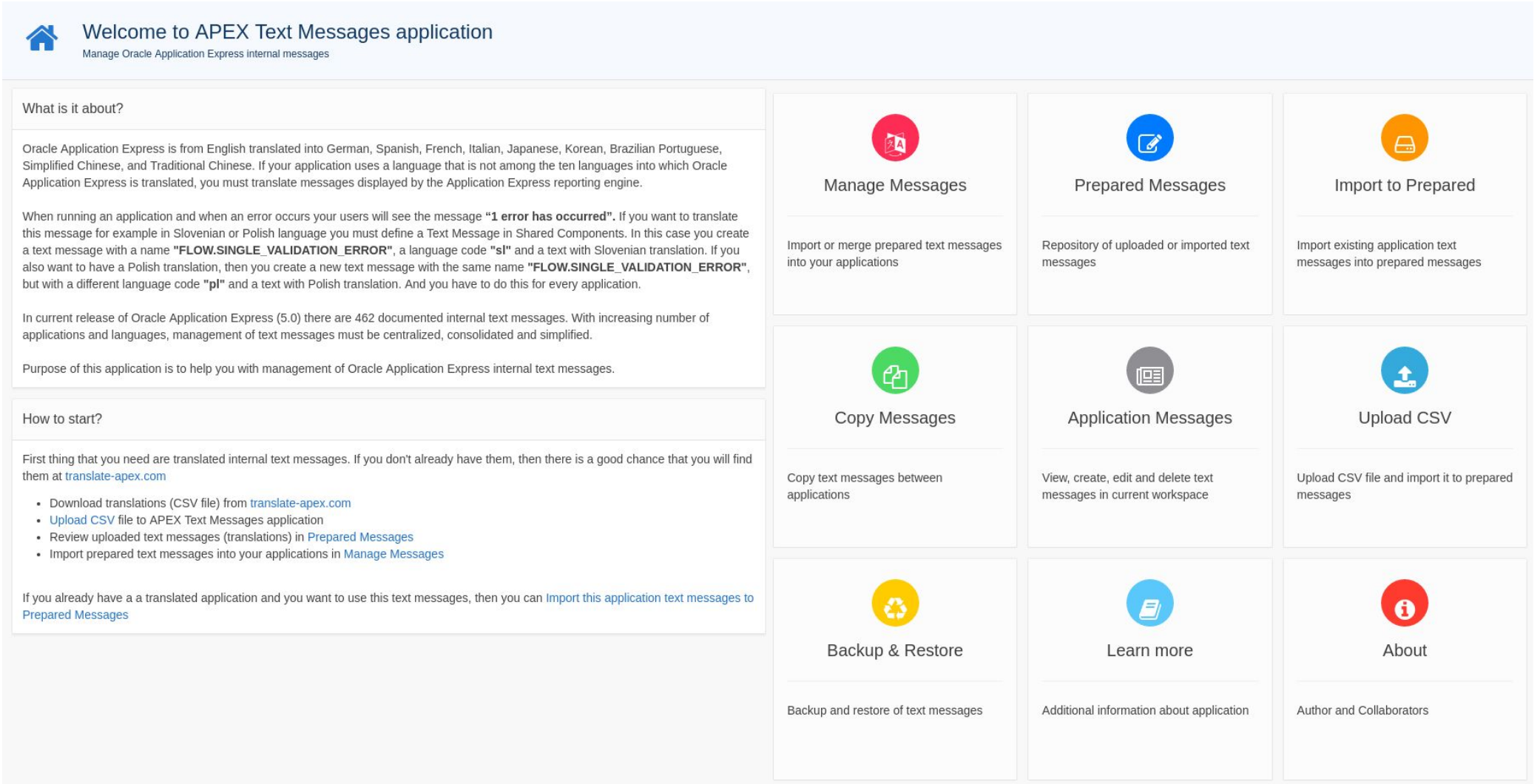

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