

# All the Things That Pop Up

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[#orclapex](#)



# John Snyders

At Oracle since 2008 (WebLogic)  
Joined APEX Team in 2012

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**Focus Area:** JavaScript

**Projects:** Faceted Search, New Popup  
LOV, Interactive Grid, Page Designer,  
JavaScript Widgets

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# When all the data won't fit the screen

## What do you do?

- Multiple screens/pages
- Scrolling
- Hide/Show in place
  - tabs, collapsibles, trees
- Overlay on top
  - menus, dialogs, popups

# Menus Dialogs Popups

Custom CSS rules may be needed. Normal menus are more robust in the face of many list items or items

Home  
Application home page.

About Menus  
General information and overview of menu support in APEX.

Departments  
ACCOUNTING  
NEW YORK  
RESEARCH  
DALLAS  
SALES  
CHICAGO  
OPERATIONS  
BOSTON

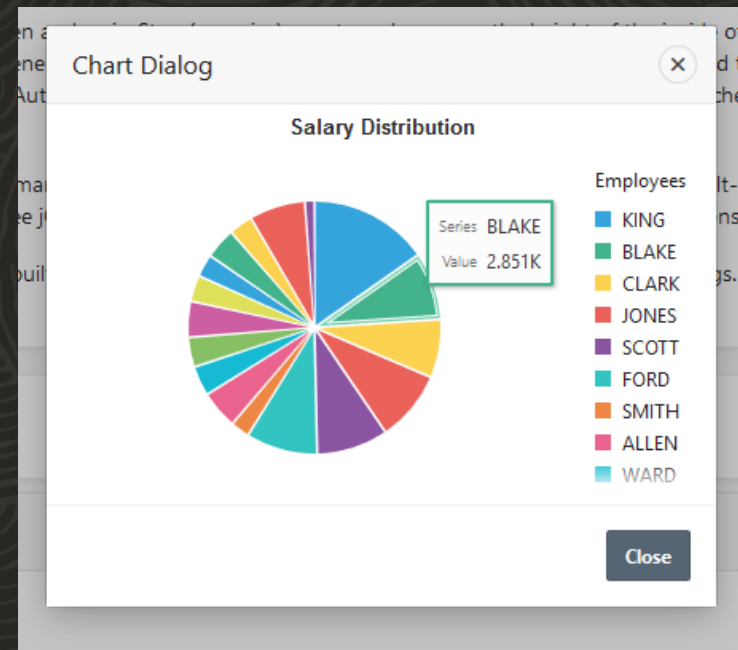
Simple Popup Menu  
Fully declarative list based menu including menu button.

Fancy Popup Menu  
Fully declarative popup showing more menu features.

Custom Menu

Sal	Comm	Columns...
1000	50	<input checked="" type="checkbox"/> Manager <input checked="" type="checkbox"/> Hiredate <input checked="" type="checkbox"/> Sal <input checked="" type="checkbox"/> Comm <input type="checkbox"/> Onleave <input type="checkbox"/> Notes <input type="checkbox"/> Deptno <input checked="" type="checkbox"/> Rating
928	83	
1000	110	
3191		
1000		

Create Region  
Create Sub Region  
Create Page Item  
Create Button  
**Create Dynamic Action**  
Duplicate  
Delete Del  
Copy to other Page...  
Expand All Below  
Collapse All Below



# Agenda

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- Definitions, Overview
- Demonstration
- Show Examples
- Q&A

## Objective:

- You will be able to add menus, dialogs, and popups to your apps

# Background

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- Menus and Dialogs have a long history
  - Developed in the '70s and early '80s with GUI R&D
  - Formalized in '87 IBM's CUA spec
- Popups (a.k.a popovers) newer, mobile/touch friendly
- Users know how to interact with them
- Consistency in look and behavior is key
- Efficient use of space – overlay
- Browsers have no built-in support for these things

# Menus

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A popup overlay list of actions/links

- Purpose: Navigation, Commands, Configuration
- Types
  - Menu bar drop down
  - Popup
  - Context menu (right click)
  - Mega menu (custom content)

# About APEX Menu



- Introduced in 5.0
  - Started with page designer, now used everywhere
- Implementation: menu widget
- Benefits:
  - Familiar
  - Consistent
  - Flexible
  - Robust
  - Accessible/Usable



# APEX Menu Features 1

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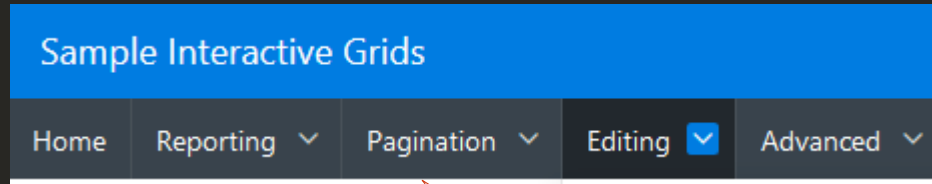
- Desktop style menu bars +
  - show current "tab", split button, overflow
- Popup Menus from a menu button or context menu (right click)
- Mega menus, custom content
- Nested sub menus

# APEX Menu Features 2

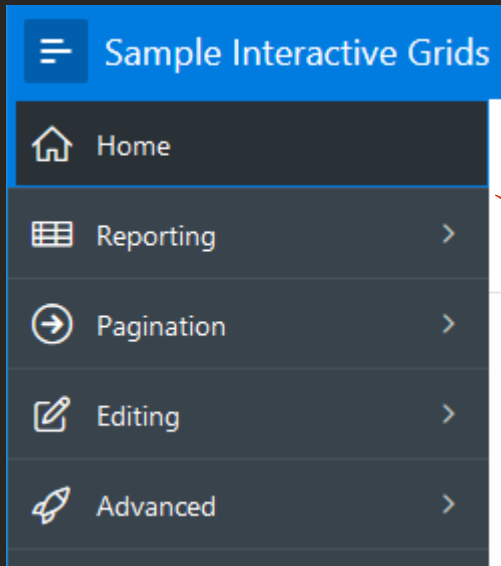
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- Scrolling long menus
- Optional Asynchronous loading of content
- Items: Navigation or actions, stateful toggle or radio group items
- UI: callout, icons, responsive
- Accessibility: WAI-ARIA menu, keyboard, type to select, keyboard accelerators

# Navigation Menus



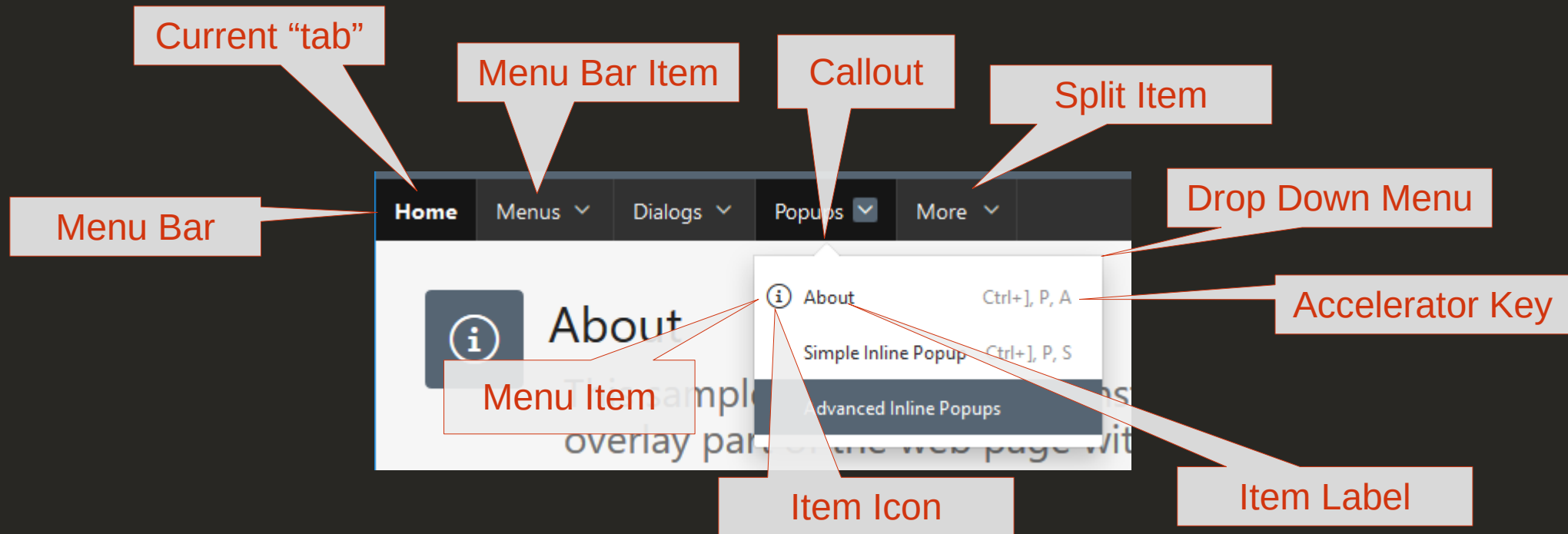
Menu Control



Tree Control



# Menu Terminology



# Menu Terminology

Menu Button

Popup Menu

Toggle (checkbox) Item

Separator

Item Icon

Item Label

The screenshot shows a software interface with a menu system. The main menu is open, showing items like 'Columns', 'Filter', 'Data', 'Format', 'Selection', 'Chart', 'Report', 'Download', and 'Help'. The 'Format' menu is expanded, showing 'Control Break', 'Highlight', 'Stretch Column Widths', and 'Rows Per Page'. The 'Rows Per Page' sub-menu is also expanded, showing radio button options for 'Auto', '5', '10', '15', and '20'. The '10' option is selected. A table with columns 'Died', 'Age', and 'Category' is visible in the background.

Died	Age	Category
1519		
-44	56	Politics
	75	Science & Technology
	72	Politics
	89	Arts
879	1955	
451	1506	
685	1750	
1770	1827	

Sub Menu Item

Sub Menu (pull right)

Radio Group Item

Accelerator Key

A close-up of a menu item 'Row Selection' with the accelerator key 'F8'.

A close-up of a menu item 'Cell Selection' with the accelerator key 'F8'.

Toggle (dynamic antonym) Item

# Dialogs

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Floating “window” with title bar, close button, content area

- Purpose
  - Drill down
  - Access to secondary information
  - Temporary, infrequent change of attention
  - Doesn't affect current context
- Types
  - Modal
  - Non-modal (modeless)

# About APEX Dialogs



- Introduced in 5.0
  - APEX Modal Pages, Inline Dialog Regions, now everywhere
- Implementation: jQuery UI dialog widget +
- Benefits:
  - Familiar
  - Consistent
  - Flexible
  - Robust
  - Accessible/Usable

# APEX Dialogs: Two Kinds

- Modal Dialog Page
  - APEX page with Page Mode = Modal Dialog
  - Full participation in the APEX page life cycle
  - Modal only
- Inline Dialog Region
  - Region using the Inline Dialog region template.
  - Part of the page, can use ajax to refresh its content or save data.
  - Modal or Non-Modal



# When to use

## Modal Dialog Page

- Need Submit Processing, Validations
- For convenience of open with URL
- Open from multiple pages
- With region that doesn't refresh

## Inline Dialog Region

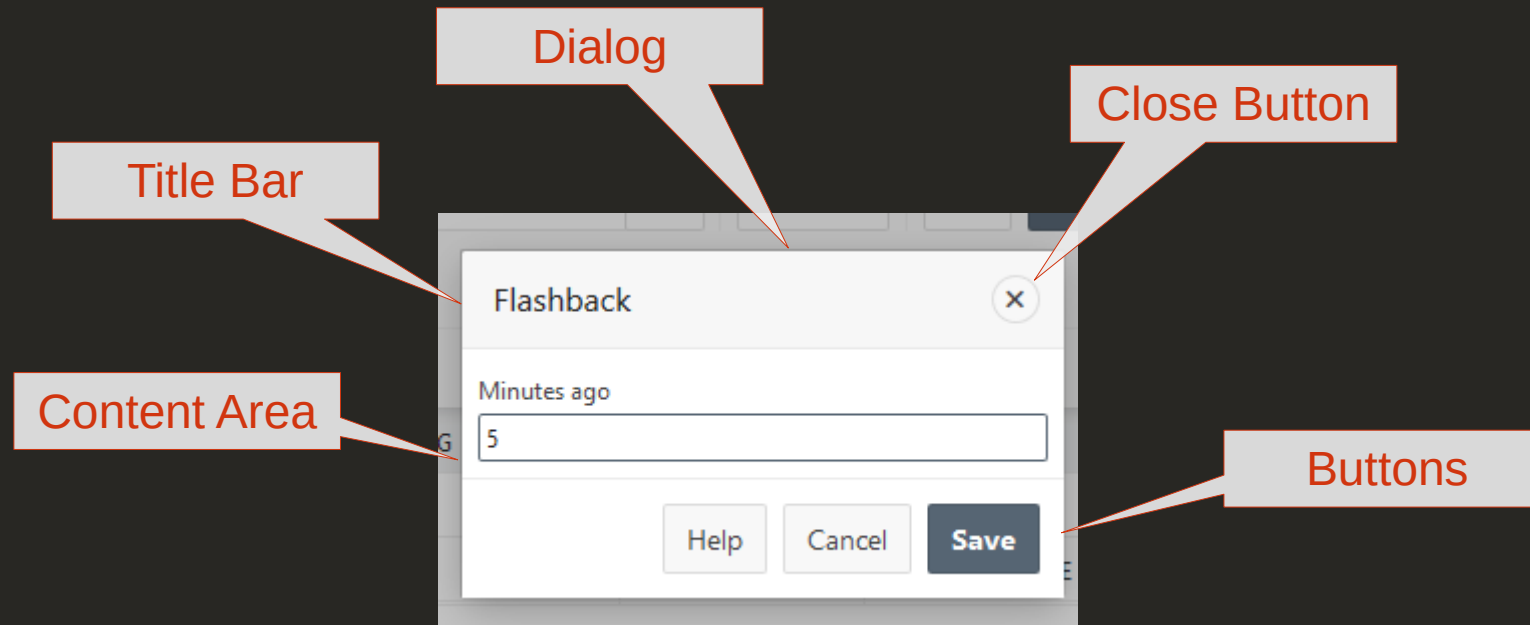
- Speed is critical, frequent use
- Maintain context between opens
- Small amount of data to fetch or save
- Want non-modal

# APEX Dialogs Features

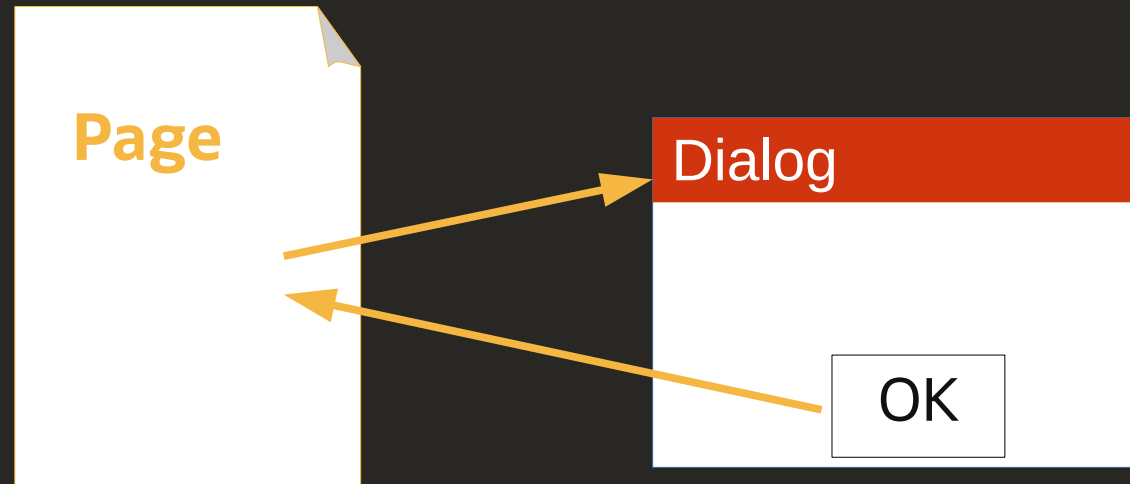
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- Keyboard accessible:
  - Escape key closes dialog
  - Tab key keeps focus in the dialog
- Optionally Resisable – change size
- Optionally Draggable – move
- Stackable

# Dialog Terminology



# A dialog is the UI equivalent of a function



```
var num;  
num = addFun(7,9);
```

```
function addFun(a, b) {  
    return a + b;  
}
```

# Popups

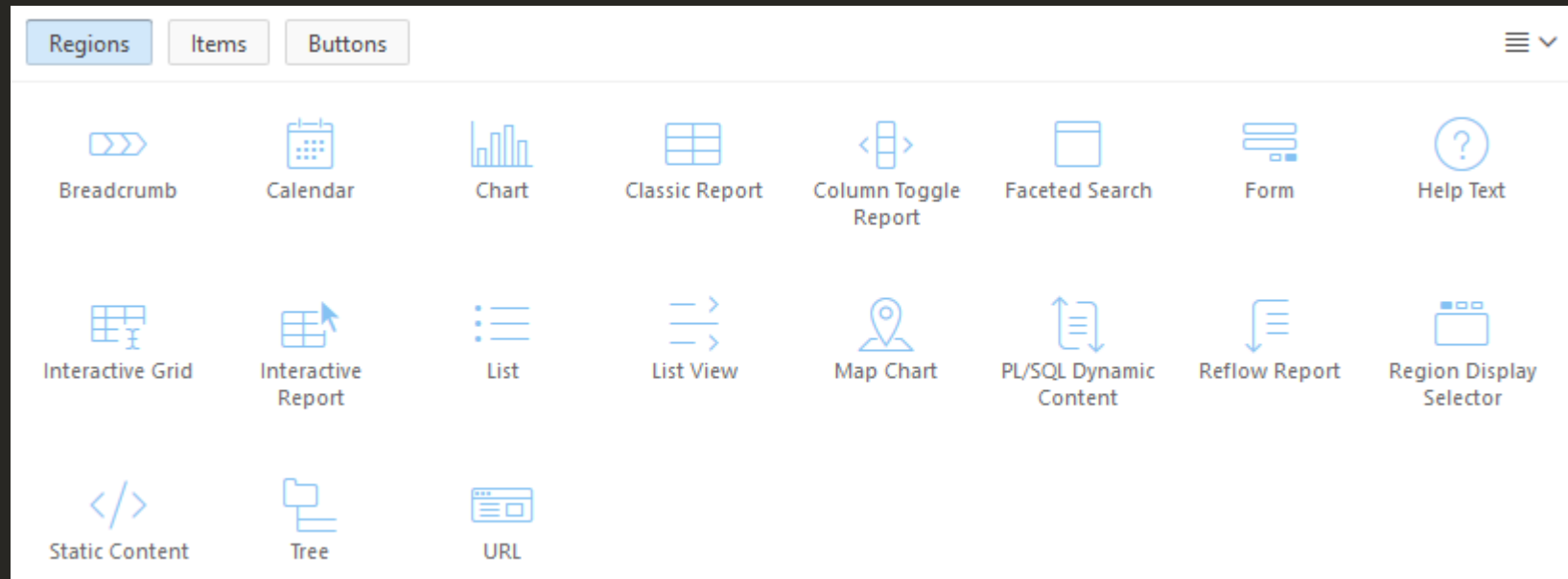
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- Very similar to dialogs
  - No title bar, no drag or resize
  - Always modal, click/touch outside to close
- Purpose: Quick access to
  - Supplemental information
  - Settings or selection
- Not a tooltip, not a menu

# About APEX Inline Popup Region

- Introduced in 19.1 (widget in 18.1)
  - Motivated by column toggle report,
  - Use expanding: Ex: new Popup LOV
- Implementation: popup widget extends jQuery UI dialog widget
- New in 19.2 declarative callout and no overlay options

# Discoverability



Where's the Menu?  
Where's the Dialog or Popup?

# A region is made up of 2 parts

- Region Type
  - Typically high level UI functionality like a calendar, chart, or grid
- Template
  - Surrounding markup with placeholders for buttons, items, sub regions
  - But can also have its own behavior: tabs, carousel, collapsible
- Menu = List Region + Menu Popup List Template
- Dialog = Any Region + Inline Dialog Region Template
- Popup = Any Region + Inline Popup Region Template



# Demo

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# Examples

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# Questions?



# Resources: Menu

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- Custom Menus <http://hardlikesoftware.com/weblog/2015/07/13/apex-5-0-custom-menus/>
- Media List Mega Menu <http://hardlikesoftware.com/weblog/2018/05/03/apex-media-list-mega-menu/>
- More Menu Fun <http://hardlikesoftware.com/weblog/2019/03/02/more-apex-menu-fun/>
- Keyboard Shortcuts <http://hardlikesoftware.com/weblog/2015/04/19/apex-5-0-and-keyboard-shortcuts/>
- Menu Widget API <https://docs.oracle.com/en/database/oracle/application-express/19.2/aexjs/menu.html>

# Resources: Dialog & Popup

- Dialogs <http://hardlikesoftware.com/weblog/2015/05/22/apex-5-0-dialogs/>
- 3 Reasons to use Inline Dialogs <https://explorer.co.uk/3-reasons-to-use-inline-dialogs/>
- Passing Data in & out of Dialogs <http://hardlikesoftware.com/weblog/2017/01/05/passing-data-in-and-out-of-apex-dialogs/>
- Inline Popups and Dialogs <http://hardlikesoftware.com/weblog/2019/02/11/apex-inline-popups-and-dialogs/>
- Persist Dialog Position <http://hardlikesoftware.com/weblog/2015/06/25/how-to-persist-apex-dialog-size-and-position/>
- Inline Popup Region <http://hardlikesoftware.com/weblog/2018/04/20/apex-inline-popup-region/>
- Dialog Widget API <https://api.jqueryui.com/dialog/>

# Thank You

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