

1



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Interactive Grid

The "basics"

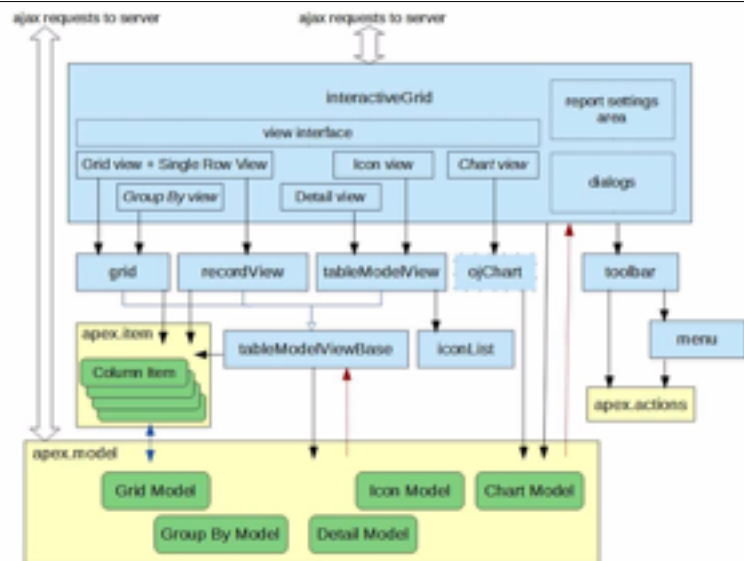


Basic IG

ID	Empno	Empname	Job	Mgr	Hiredate	Sal	Comm	Deptno
<input type="checkbox"/>	7638	KING	PRESIDENT	-	17-NOV-81	5000	-	10
<input type="checkbox"/>	7698	BLAKE	MANAGER	7638	01-MAY-81	2850	-	30
<input type="checkbox"/>	7702	CLARK	MANAGER	7638	09-JUN-81	2450	-	10
<input type="checkbox"/>	7696	JONES	MANAGER	7638	02-APR-81	2975	-	30
<input checked="" type="checkbox"/>	7788	SCOTT	ANALYST	7566	04-DEC-82	3000	-	30
<input type="checkbox"/>	7566	FORD	ANALYST	7566	03-DEC-81	3000	-	30
<input type="checkbox"/>	7569	SMITH	CLERK	7562	17-DEC-80	800	-	30
<input type="checkbox"/>	7499	ALLEN	SALESMAN	7568	26-FEB-81	1600	300	30
<input type="checkbox"/>	7501	WARD	SALESMAN	7568	23-FEB-81	1250	500	30
<input type="checkbox"/>	7604	MARTIN	SALESMAN	7568	28-SEP-81	1200	1400	30
<input type="checkbox"/>	7644	TURNER	SALESMAN	7568	08-SEP-81	1500	0	30
<input type="checkbox"/>	7676	ADAMS	CLERK	7566	12-JAN-83	1100	-	30
<input type="checkbox"/>	7688	JAMES	CLERK	7568	03-DEC-81	950	-	30
<input type="checkbox"/>	7654	MILLER	CLERK	7562	23-JAN-82	1300	-	10

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1. Tweak the Toolbar

Remove "Finder Drop Down"



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Declarative settings for an IR

Search Bar

Include Search Bar Yes No

Search Field Yes No

Finder Drop Down Yes No

Reports Select List Yes No

Rows Per Page Selector Yes No

Search Button Label

Maximum Rows Per Page

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Declarative settings for an IG

Search Bar

Include Search Bar Yes No

Search Field Yes No

Finder Drop Down Yes No

Reports Select List Yes No

Rows Per Page Selector Yes No

Search Button Label

Maximum Rows Per Page

Toolbar

Show Yes No

Buttons Reset Save

Add Button Label

Enable Users To

Save Public Report Yes No

Download Yes No

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JavaScript Configuration

Advanced

Oracle Column **JavaScript Code**

Enter a JavaScript function that takes a configuration object for the Interactive Grid, modifies the object, and returns it. This allows advanced customization of the Interactive Grid appearance, features, and behavior including toolbar, menus, and actions.

Examples

```
function( options ) {
  options.toolbar = false;
  return options;
}
```

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JavaScript Configuration

Search Bar

Go Actions Edit Save Add Row Reset

Empno	Ename	Job	Mgr	Hiredate	Sal	Comm

```
function( options ) {
  options.toolbar = false;
  return options;
}
```

Empno	Ename	Job	Mgr	Hiredate	Sal	Comm

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Add a button on the Search Bar - IR

Page 8: Employees IR

- Pre-Rendering
- Regions
 - Content Body
 - Employees IR
 - Columns
 - Attributes
 - Region Buttons
 - BarButton**
- Post-Rendering

Filter Properties

Identification

Button Name: BarButton

Label: Button on the bar

Layout

Sequence: 10

Region: Employees IR

Button Position: Right of Interactive Report Search Bar

Q v Go Actions v Button on the bar

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Add a button on the Search Bar - IG

```
function( options ) {
    var $ = apex.jQuery,
        toolbarData = $.apex.interactiveGrid.copyDefaultToolbar(),
        toolbarGroup = toolbarData.toolbarFind("actions3");
    // toolbarGroup is "actions3" object, with the "Add Row" button
    // add an element to that array
    toolbarGroup.controls.push({ type : "BUTTON"
                                , action : "my-custom-action"
                                , label : "My Button"
                                , icon : "fa fa-user-secret"
                                , iconBeforeLabel : true
                                });
    // pass back the modified object
    options.toolbarData = toolbarData;
    return options;
}
```

Q v Go Actions v Edit Save Add Row My Button Reset

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Add a button on the Search Bar - IG (alt.)

```
function( options ) {
    var $ = apex.jQuery,
        toolbarData = $.apex.interactiveGrid.copyDefaultToolbar(),
        toolbarGroup = { id : "myToolBarGroup"
                        , controls : [{ type : "BUTTON"
                                        , action : "my-custom-action"
                                        , label : "My Button"
                                        , icon : "fa fa-user-secret"
                                        , iconBeforeLabel : true
                                        }
                                    ]
                        };
    // toolbarGroup is my new created object
    toolbarData.push( toolbarGroup );
    // pass back the modified object
    options.toolbarData = toolbarData;
}
```

Q v Go Actions v Edit Save Add Row My Button Reset

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3. Tweak the Action Menu

Remove default functions



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Declarative settings for an IR

The screenshot shows the 'Actions' menu in an Interactive Report. The menu is open, displaying several options: Columns, Filter, Data (highlighted), Format, Chart, Report, Download, and Help. The 'Data' option is selected, and a sub-menu is visible with options like Sort, Aggregate, Refresh, and Flashback (highlighted).

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Declarative settings for an IG

The screenshot shows the 'Actions' menu in an Interactive Grid. The menu is open, displaying options like Columns, Filter, Data, Format, Chart, Report, Download, and Help. The 'Data' option is selected, and a 'Toolbar' dialog box is open. The dialog box has sections for 'Show' (Yes/No), 'Buttons' (Reset, Save), 'Add Button Label', and 'Enable Users To' (Save Public Report, Download).

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Remove default Actions

```
function( options ) {
  options.initActions = function( actions ) {
    actions.hide("show-columns-dialog");
    actions.hide("show-control-break-dialog");
    actions.hide("show-aggregate-dialog");
    actions.hide("show-help-dialog");
    actions.hide("show-sort-dialog");
    actions.hide("refresh");
    // actions.hide("show-filter-dialog");
    // actions.hide("show-flashback-dialog");
    // actions.hide("show-highlight-dialog");
    actions.disable("chart-view");
  }
  return options;
}
```

The screenshot shows the 'Actions' menu in an Interactive Report. The menu is open, displaying options like Filter, Data, Format, Chart, Report, and Download. The 'Flashback' option is visible next to the 'Data' option.

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Remove default Actions (features)

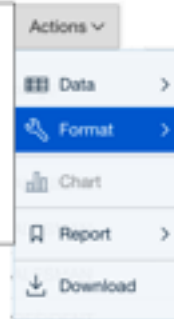
```
function( options ) {
  // Disable Filter / Flashback as "features"
  options.features = options.features || {};
  options.features.filter = false;
  options.features.flashback = false;
  return options;
}
```

The screenshot shows the 'Actions' menu in an Interactive Report. The menu is open, displaying options like Data, Format, Chart, Report, and Download. The 'Data' option is highlighted.

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Remove default Actions (Grid View features)

```
function( options ) {  
  // Disable Highlight "feature" of the Grid View  
  options.views = options.views || {};  
  options.views.grid = options.views.grid || {};  
  options.views.grid.features =  
    options.views.grid.features || {};  
  options.views.grid.features.highlight = false;  
  return options;  
}
```



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4. Tweak the Action Menu

Add an Action to a Toolbar Button



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Add a button on the Search Bar - IG

```
function( options ) {  
  var $ = apex.jQuery,  
      toolbarData = $.apex.interactiveGrid.copyDefaultToolbar(),  
      toolbarGroup = { id : "myToolBarGroup"  
        , controls : [{ type : "BUTTON"  
          , action : "my-custom-action"  
          , label : "My Button"  
          , icon : "fa fa-user-secret"  
          , iconBeforeLabel : true  
          } ]  
      };  
  // toolbarGroup is my new created object  
  toolbarData.push( toolbarGroup );  
  // pass back the modified object  
  options.toolbarData = toolbarData;  
}
```



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Link Action to Button

```
function( options ) {  
  ...  
  options.initActions = function( actions ) {  
    actions.add(  
      { name : "my-custom-action"  
        , action : function( event, element ) {  
            apex.event.trigger( element, "my-custom-action" );  
          }  
      }  
    );  
  };  
  return options;  
}
```

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5. Modify Column Headings

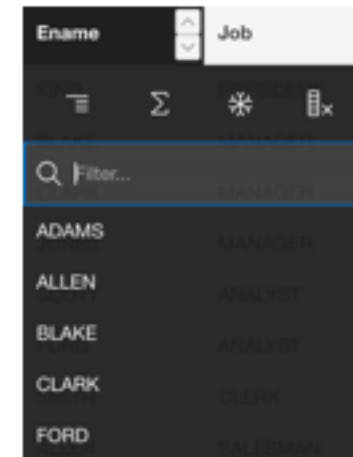
Remove sorting, hiding, aggregate etc.



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Remove column header features



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Remove column header features - region level

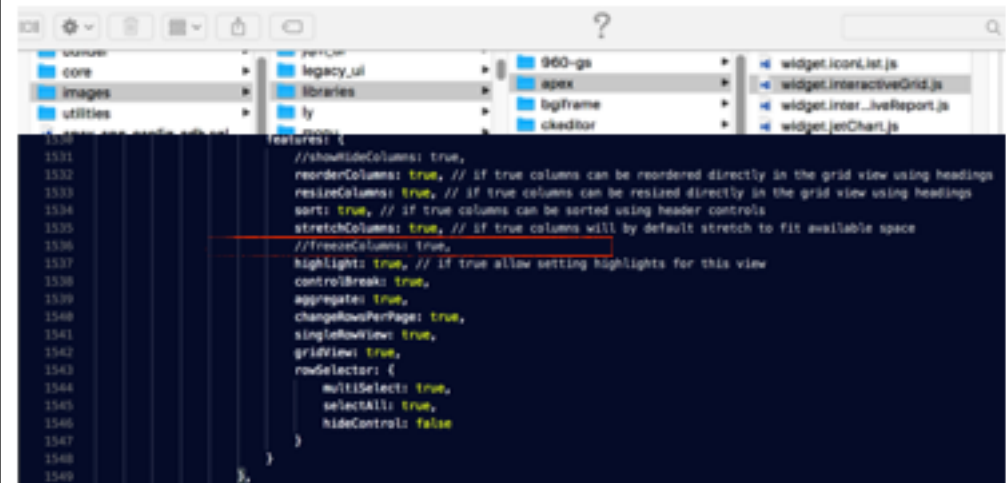
```
function( options ){
  options.views = options.views || {};
  options.views.grid = options.views.grid || {};
  options.views.grid.features = options.views.grid.features || {};

  options.views.grid.features.reorderColumns = false;
  options.views.grid.features.resizeColumns = false;
  options.views.grid.features.sort = false;
  return options;
}
```

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Where to find all these options?

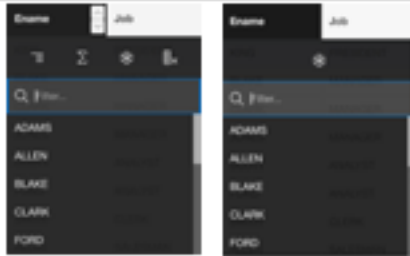


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32

Remove column header features - column level

```
function( options ){
  options.features = options.features || {};
  options.features.canHide      = false;
  options.features.controlBreak = false;
  options.features.aggregate    = false;
  //options.features.freeze     = false;
  return options;
}
```



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Reuse settings

- Create JavaScript function (in a - static - file)

```
function myColumnSettings( options ){
  options.features = options.features || {};
  options.features.canHide      = false;
  options.features.controlBreak = false;
  options.features.aggregate    = false;
  return options;
}
```

- Call the function

```
myColumnSettings
```

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Reuse settings and override

- Call the function

```
function( options ){
  options = myColumnSettings( options );
  options.features.aggregate = true;
  return options;
}
```

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6. Modify Column Headings

Rotate column heading



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Rotate column headings

Rotate heading

Q v Go Actions v Edit Save Add Row Reset

<input checked="" type="checkbox"/>	<input type="checkbox"/>	7839	KING	PRESIDENT	-	17-NOV-81	-	5000	10
<input type="checkbox"/>	<input type="checkbox"/>	7698	BLAKE	MANAGER	7839	01-MAY-81	-	2860	30

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Rotate column headings

Rotate heading

Q v Go Actions v Edit Save Add Row Reset

<input checked="" type="checkbox"/>	<input type="checkbox"/>	7839	KING	PRESIDENT	-	17-NOV-81	-	5000	10
<input type="checkbox"/>	<input type="checkbox"/>	7698	BLAKE	MANAGER	7839	01-MAY-81	-	2860	30

```
.a-GV-header {
  height: 120px;
}

.a-GV-w-hdr .a-GV-headerLabel {
  transform: translateX(25%) rotate(45deg);
  display: inline-block;
}
```

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7. Customise tooltips

Show "hidden" columns as a tooltip



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Customise tooltip

Customise tooltip

Q v Go Actions v Edit Save Add Row

		Empno	Ename	Job	Mgr	Hiredate	Sal
<input checked="" type="checkbox"/>	<input type="checkbox"/>	7839	KING	PRESIDENT	-	17-NOV-81	5000
<input type="checkbox"/>	<input type="checkbox"/>	7698	BLAKE	MANAGER	7839	01-MAY-81	2860
<input type="checkbox"/>	<input type="checkbox"/>	7782	PRESIDENT 5000	MANAGER	7839	09-JUN-81	2450

40

40

Customise tooltip

Customise tooltip

Empno	Empno	Job	Mgr	MinDate	Sal
7839	7839	MANAGER		17-NOV-07	5000
7698	7698	MANAGER	7839	21-NOV-07	5000
7782	7782	MANAGER	7839	08-APR-07	5000

```
function( options ){
  options.defaultGridViewOptions =
  { tooltip:
    { content: function( callback, model, recordMeta, colMeta, columnDef ) {
      return model.getValue( recordMeta.record, "JOB" ) +
        "<br/>$" + model.getValue( recordMeta.record, "SAL" );
    }
    }
  }
  return options;
}
```

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8. Modify row menu

Delete and add entries



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Modify row menu

Empno	Empno
7839	7839
7698	7698
7782	7782
7566	7566
7788	7788
7902	7902
7369	7369
7499	7499

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Modify row menu

Empno	Empno
7839	7839
7698	7698
7782	7782
7566	7566
7788	7788
7902	7902

```
function( options ) {
  options.initActions = function( actions ) {
    actions.remove( "single-row-view" );
    actions.remove( "row-add-row" );
    actions.remove( "row-duplicate" );
    actions.remove( "row-delete" );
    actions.remove( "row-refresh" );
    actions.remove( "row-revert" );

    actions.remove( "selection-duplicate" );
    actions.remove( "selection-delete" );
    actions.remove( "selection-refresh" );
    actions.remove( "selection-revert" );
  }
  return options;
}
```

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Modify row menu



```

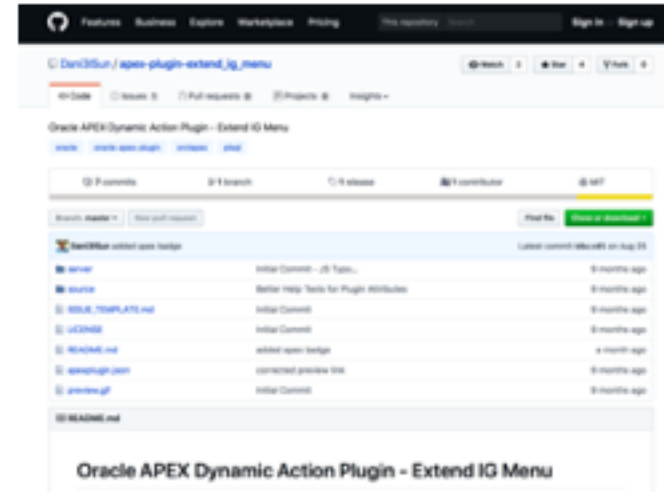
apex.region("emp").widget()
  .interactiveGrid("getViews").grid
  .rowActionMenu$.menu("option")
  .items.push({type:"action", label:"Hi", icon : "fa fa-hand-paper-o", action:
function(){alert("Hi y'all")}});

apex.region("emp").widget()
  .interactiveGrid("getViews").grid
  .selActionMenu$.menu("option")
  .items.push({type:"action", label:"Hi", icon : "fa fa-thumbs-up", action:
function(){alert("Good work by all selected employees")}});
    
```

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45

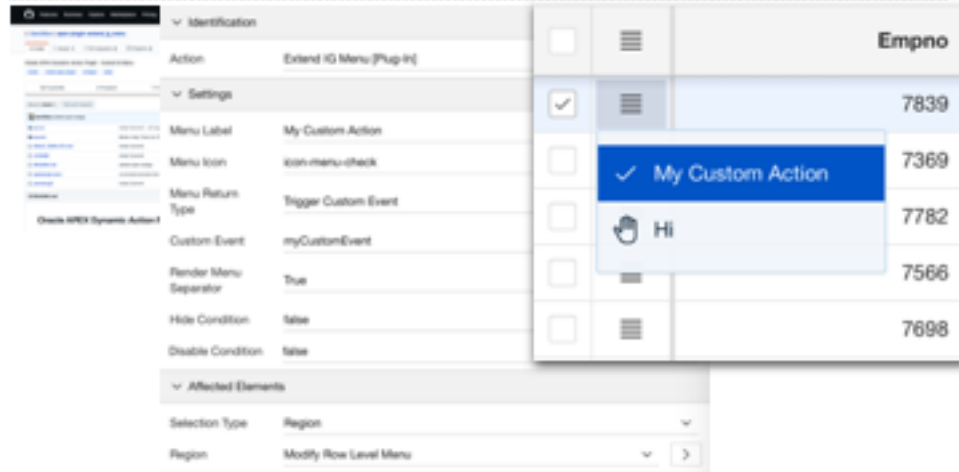
Modify row menu



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Modify row menu



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9. Refresh row on change

without a full region refresh



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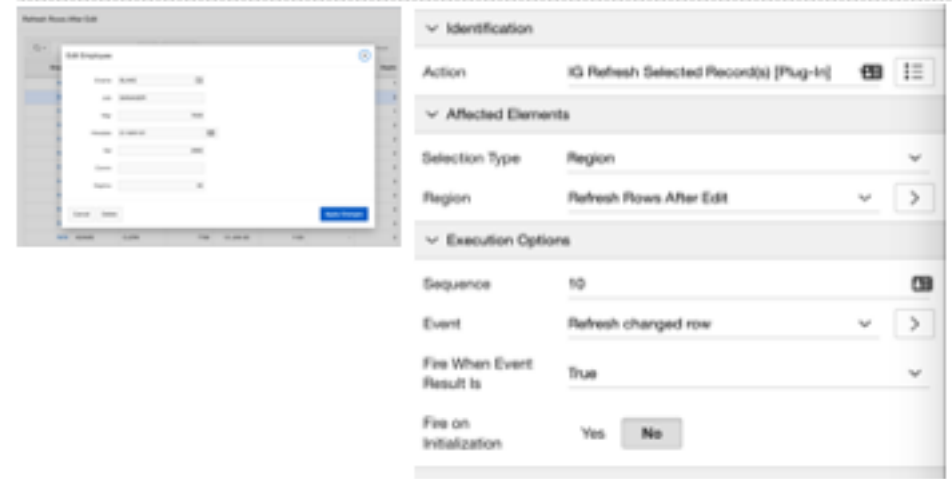
Refresh (just the) row on change



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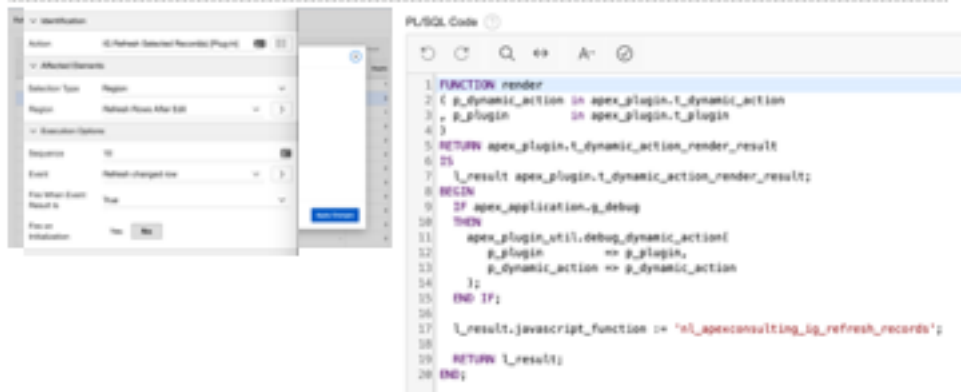
Refresh (just the) row on change



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50

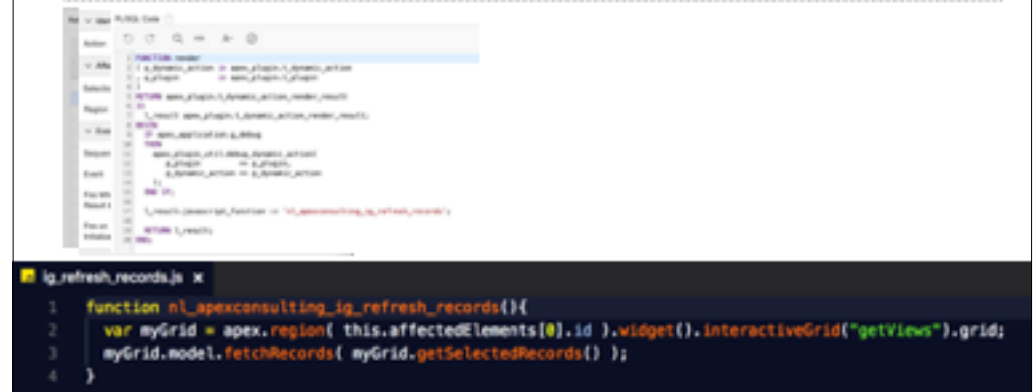
Refresh (just the) row on change



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Refresh (just the) row on change



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10. Refresh upon delete

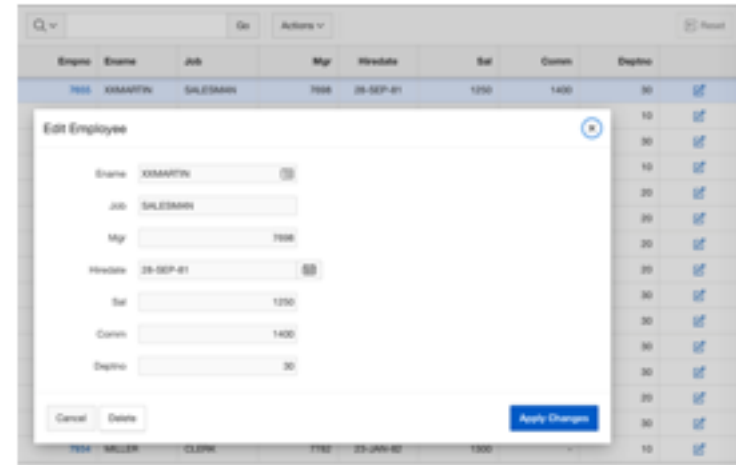
without a full region refresh



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53

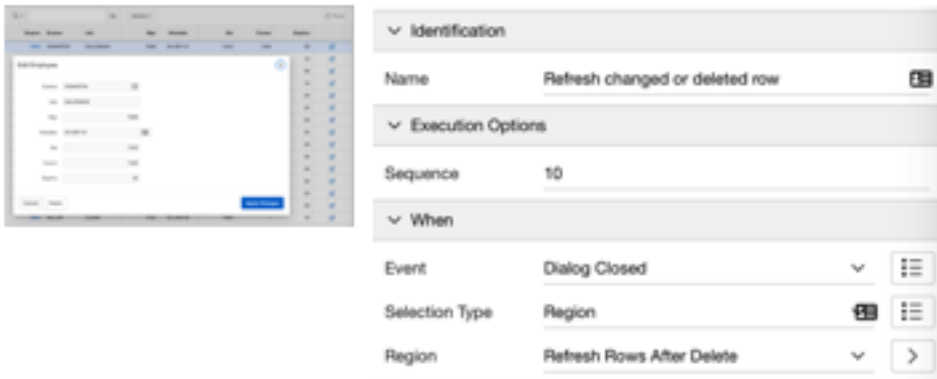
Refresh upon delete



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Refresh upon delete



55

55

Refresh upon delete

```
ig_refresh_records.js x
1 function nL_apexconsulting_ig_refresh_records(){
2   var myGrid = apex.region( this.affectedElements[0].id ).widget().interactiveGrid("getViews").grid;
3   myGrid.model.fetchRecords( myGrid.getSelectedRecords() );
4 }

var records, recordId, iNode,
currentViewImpl = apex.region("emp").widget().interactiveGrid("getViews", "grid");
records = currentViewImpl.getSelectedRecords();

currentViewImpl.model.fetchRecords(records, function(err) {
  if (err) {
    apex.message.clearErrors();
    recordId = currentViewImpl.model.getRecordId(records[0]);
    iNode = currentViewImpl.model.getRecordMetadata(recordId);
    iNode.canDelete = true;
    currentViewImpl.model.setOption("editable", true);
    currentViewImpl.model.deleteRecords(records);
    currentViewImpl.model.clearChanges();
  }
});
```

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Top ten

1. Remove objects from the standard Toolbar
2. Add objects to the standard Toolbar
3. Remove / disable standard Actions
4. Add your own Actions
5. Modify column functions
6. Modify column headings
7. Customise tooltips
8. Modify row level menu
9. Refresh (just the) row on change
10. Remove (just the) row on delete



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Links to resources

- <http://hardlikesoftware.com/weblog/2016/06/08/interactive-grid-under-the-hood/>
- <http://hardlikesoftware.com/weblog/2017/01/06/interactive-grid-column-widths/>
- <http://hardlikesoftware.com/weblog/2017/01/18/how-to-hack-apex-interactive-grid-part-1/>
- <http://hardlikesoftware.com/weblog/2017/01/24/how-to-hack-apex-interactive-grid-part-2/>
- <http://hardlikesoftware.com/weblog/2017/02/20/how-to-hack-apex-interactive-grid-part-3/>
- <http://hardlikesoftware.com/weblog/2017/03/31/how-to-hack-apex-interactive-grid-part-4/>
- <http://hardlikesoftware.com/weblog/2017/07/10/apex-interactive-grid-cookbook/>
- <https://github.com/mgoricki/orclapex-ig-cheat-sheet>
- https://github.com/Dani31Sun/apex-plugin-extend_ig_menu

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Q & A

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