

**Using jQuery in
Identity Manager Roles Based Provisioning Module
Workflow Forms**

by

Joe Craddock

Bess Siegal

Steve Williams

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Introduction

For increased styling, layout, and functionality flexibility, jQuery can be employed to greatly enhance your workflow request and approval forms. Two examples are outlined in this document. A Simple Example shows and hides blocks of fields using CSS and injects labels to the right of some fields. An Advanced Example creates tabs, places controls / fields on the tabs, and inserts a Google Map for obtaining latitude and longitude coordinates.

A. Simple Example

The screenshot shows a web interface for Novell Identity Manager. At the top, there is a blue header with the Novell logo and the text 'Novell Identity Manager'. Below the header, there is a navigation bar with 'Welcome Allison', 'Identity Self-Service', and 'Work Dashboard'. The main content area is titled 'Simple jQuery' and contains a form with the following details:

- Recipient:** Allison Blake
- Description:** SimplejQuery
- Process Request Category:** Accounts

The form is titled 'Form Detail' and includes a note: '* - indicates required.' Below this, there is a section titled 'Simple jQuery Example' with a checkbox for 'Include Job Information' (set to 'False'). The form is divided into two main sections:

- Personal Information:**
 - First Name:** [text input] *Vorname*
 - Last Name:** [text input] *Zuname*
 - Address:** [text input]
 - Home Phone:** [text input] *Haus Telefonnummer*
- Work Information:**
 - Job Title:** [text input] *Job-Titel*
 - Office Address:** [text input]
 - Work Phone:** [text input] *Arbeit Telefonnummer*
 - Email:** [text input]
 - Password:** [text input]

At the bottom of the form, there are two buttons: 'Submit' and 'Cancel'.

Figure A1.

This is a sample workflow request form, comprised of two (2) sections, “Personal Information” and

“Work Information.” A true/false Radio Button control toggles the appearance of the “Work Information” section. It addresses some customers' specific needs, namely:

1. Include an image logo in the first column, such as a PeopleSoft icon when the workflow request is for access to PeopleSoft. In this example the Novell logo appears (does not require jQuery).
2. Include two (2) labels for a single control, such as English to the left of the field and Hebrew to the right of the field. In this example German labels are included for certain fields.
3. Hide and show blocks of fields using CSS.

Fields

The fields of the workflow form are shown in Figure A2.

The screenshot shows a software interface with two main panels: 'Form Selection' and 'Form Controls'. The 'Form Selection' panel on the left shows a list of form IDs, with 'request_form' selected. The 'Form Controls' panel on the right displays a table of form fields and their properties.

Form Field Name	Data Type	Control Type	Linebreaks
title	string	Title	1
radio	boolean	TrueFalseRadiobuttons	1
headingpersonal	string	Title	1
FirstName	string	Text	1
LastName	string	Text	1
Address	string	TextArea	1
HomePhone	string	Text	1
headingjob	string	Title	1
JobTitle	string	Text	1
OfficeAddress	string	TextArea	1
WorkPhone	string	Text	1
Email	string	Text	1
Password	string	Password	1

At the bottom of the interface, there are navigation tabs: 'Request', 'Approval', 'Fields', 'Actions', 'Events', 'Scripts', 'Overview', 'Workflow', 'Forms', and 'Signature Declarations'.

Figure A2.

Custom CSS class names have been applied to each control and label in the following manner:

Radio Button elements	CSS class names
Field CCS class name(s)	cust-radio
Label CCS class name(s)	cust-radio-label

Personal Information elements	CSS class names
Field CCS class name(s)	cust-personal cust-field
Label CCS class name(s)	cust-label

Work Information elements	CSS class names
Field CCS class name(s)	cust-job cust-field
Label CCS class name(s)	cust-label

The following lines of CSS can be added to theme.css of the custom theme, or you may add them as internal CSS using the “counter-wrapping” technique outlined in the Advanced Example (see Inclusion of jQuery UI CSS Framework).

```
.cust-personal{
}
.cust-field{
    font-size: 10px;
}
.cust-label{
    font-weight: bold;
    font-size: 12px;
    white-space: nowrap;
}
.cust-deLabel {
    font-size: 12px;
    font-style: italic;
    padding-left: 5px;
}
.cust-job{
}
.cust-radio-label {
    font-weight: bold;
    font-size: 12px;
    white-space: nowrap;
    background-image: url(images/N_logo_22.png);
    background-position: 0px 0px;
    background-repeat: no-repeat;
    height:30px;
    padding-left:20px;
    padding-top:3px;
}

.cust-radio {
    font-size: 12px;
}
.cust-radio input {
    width: 1em;
    margin-left: 3em;
    text-align: left;
}
```

Note: If the inline script option is used then the following line needs to be changed

from: background-image: url(images/N_logo_22.png);

to: background-image: url(resource/themes/Neptune/images/N_logo_22.png);

Scripts

All the jQuery injection is done from the Scripts tab of the Forms tab (see Figure A3) in Designer.

The screenshot shows the Designer interface with the 'Forms' tab selected. The 'Form Selection' panel on the left shows a list of forms with 'request_form' selected. The 'Form Controls' panel on the right shows the 'Scripts' tab, which contains a table of scripts. Below this, the 'Data Item Mapping' table is visible, showing source expressions and target form fields.

Id	Type	URL/Inline Script
Script	external	http://ajax.googleapis.com/ajax/libs/jquery/1.3.2/jquery.min.js
Script1	inline	//Show/Hide 'job' related fields
Script2	inline	// insert right labels

Source Expression	Target Form Field	Data Type
'false'	radio	boolean
	headingpersonal	string
	FirstName	string
	LastName	string
	Address	string
	HomePhone	string
	headingjob	string
	JobTitle	string
	OfficeAddress	string
	WorkPhone	string
	Email	string
	Password	string

Figure A3.

Logo

The Novell logo appears next to the radio button label by specifying the `cust-radio-label` class name as described above.

jQuery

External script with Id of "Script" is the google library to load jQuery. It's value is:
<http://ajax.googleapis.com/ajax/libs/jquery/1.3.2/jquery.min.js>

Hide/Show “Work Information”

Inline Script

Inline script with Id of “Script1” is the simple jQuery to hide or show fields and labels that have the “cust-job” class or the “headingcust” ID. “Script1” is below:

```
//Show/Hide 'job' related fields
function showWork(show)
{
    $(".cust-job").each(function() {
        var td = $(this).parent();
        var tr = td.parent();
        if (show) {
            tr.show();
            $("#_headingjob").show();
        } else {
            tr.hide();
            $("#_headingjob").hide();
        }
    });
    //show/hide tr holding field with class-name "cust-job"
    //since whole tr gets hidden with display:none anyway
    //title cannot have custom class, so get it by ID
}
```

onchange event

The onchange event of the radio button has the following code:

```
if (field.getValue() == 'true')
{
    showWork(true);
}
else if (field.getValue() == 'false')
{
    showWork(false);
}
```

Pre-Activity

The Pre-Activity of the Start activity on the Data Item Mapping tab has “false” specified for the Source Expression of radio.

Add Labels to the Right

Inline script with Id of “Script2” is script using jQuery to insert the German labels to the right of some fields by adding an extra table column where needed. “Script2” is below:

```
// insert right labels
$(document).ready(function() {

    var fld = ["FirstName", "LastName", "HomePhone", "JobTitle", "WorkPhone"];
    var de = ["Vorname", "Zuname", "Haus Telefonnummer", "Job-Titel", "Arbeit
```

```

Telefonnummer"];

for (var i = 0; i < 5; i++) {
    var td = $("#_" + fld[i]).parent();
    var tr = td.parent();
    tr.append("<td class=\"cust-deLabel\">" + de[i] + "</td>");
}
});

```

B. Advanced Example – Tabs and Google Map

Novell Identity Manager

Welcome Application Administrator Identity Self-Service Work Dashboard Administration Logout Help

Advanced JQuery

Recipient: Application Administrator Of Sample Data
Description: Advanced JQuery
Process Request Category: Accounts

Form Detail

* - indicates required.

Advanced JQuery Example

Location Elevation Home and Work Information

Map Satellite Hybrid Terrain Click on map to obtain latitude and longitude.

Latitude:
Longitude:

Submit Cancel

Figure B1.

Building on the Simple Example, the Advanced Example adds a Google Map to determine latitude and longitude coordinates. In addition, tabs are added putting the Home and Work Information of the Simple Example into the last tab.

Fields

Additional fields need to be inserted (see Figure B2). The naming convention of the tabs is used in the Scripts section.

Form Selection

Form ID

request_form

Request / Approval

Form Controls

Form Field Na	Data Type	Control Type	Linebreaks
title	string	Title	1
tab1title	string	Title	1
instructions	string	Title	1
locationLatitud	string	Text	1
locationLongitu	string	Text	1
tab2title	string	Title	1
altitude	string	Text	1
tab3title	string	Title	1
radio	boolean	TrueFalseRad	1
headingperson:	string	Title	1
FirstName	string	Text	1
LastName	string	Text	1
Address	string	TextArea	1
HomePhone	string	Text	1
headingjob	string	Title	1
JobTitle	string	Text	1
OfficeAddress	string	TextArea	1
WorkPhone	string	Text	1
Email	string	Text	1
Password	string	Password	1

Fields / Actions / Events / Scripts

Overview / Workflow / Forms / Signature Declarations

Figure B2.

Scripts

All the jQuery injection is done from the Scripts tab of the Forms tab (see Figure B3) in Designer.

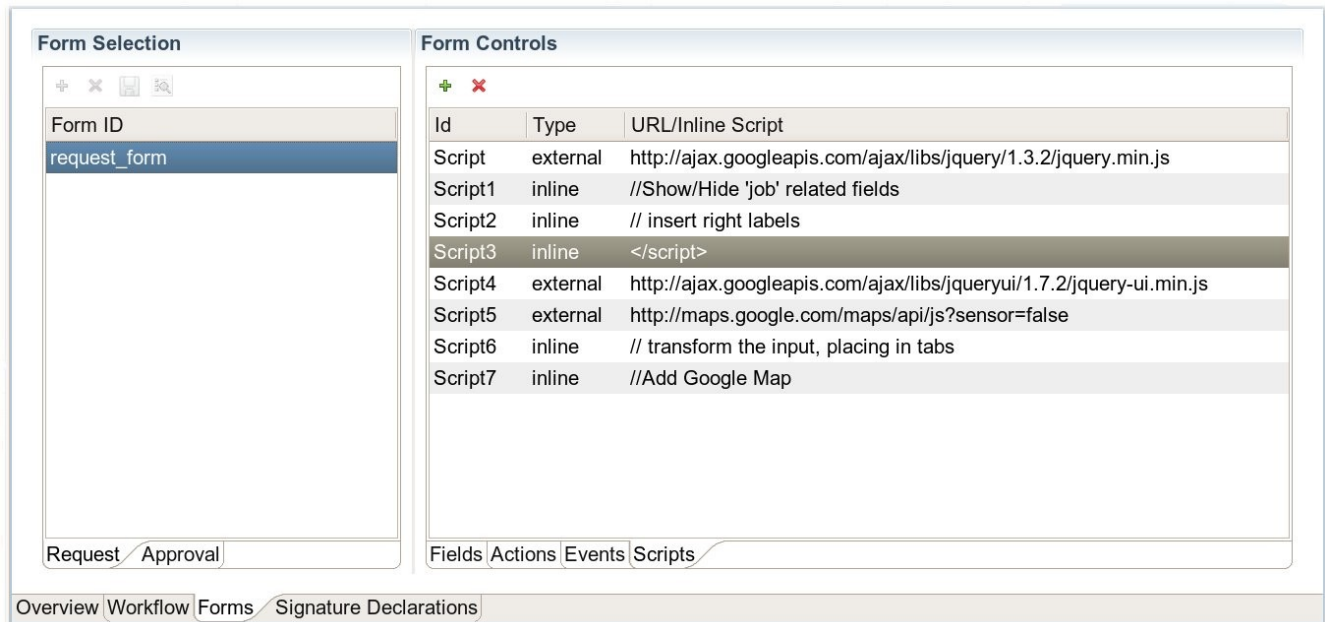


Figure B3

Inclusion of jQuery UI CSS Framework

The value of script with Id of “Script3” above is used to inject jQuery UI CSS framework into the workflow form. This will allow tabs to be created. It is slightly modified so that input fields will remain consistent with the rest of the application with font-size: 11px instead of 1em. “Script3” is shown below:

```

</script>
<style type="text/css">
/*
 * jQuery UI CSS Framework
 * Copyright (c) 2009 AUTHORS.txt (http://jqueryui.com/about)
 * Dual licensed under the MIT (MIT-LICENSE.txt) and GPL (GPL-LICENSE.txt) licenses.
 */

/* Layout helpers
-----*/
.ui-helper-hidden { display: none; }
.ui-helper-hidden-accessible { position: absolute; left: -99999999px; }
.ui-helper-reset { margin: 0; padding: 0; border: 0; outline: 0; line-height: 1.3;
text-decoration: none; font-size: 100%; list-style: none; }
.ui-helper-clearfix:after { content: "."; display: block; height: 0; clear: both;
visibility: hidden; }
.ui-helper-clearfix { display: inline-block; }
/* required comment for clearfix to work in Opera */
* html .ui-helper-clearfix { height:1%; }
.ui-helper-clearfix { display:block; }
/* end clearfix */
.ui-helper-zfix { width: 100%; height: 100%; top: 0; left: 0; position: absolute;
opacity: 0; filter:Alpha(Opacity=0); }

```

```

/* Interaction Cues
-----*/
.ui-state-disabled { cursor: default !important; }

/* Icons
-----*/

/* states and images */
.ui-icon { display: block; text-indent: -9999px; overflow: hidden; background-
repeat: no-repeat; }

/* Misc visuals
-----*/

/* Overlays */
.ui-widget-overlay { position: absolute; top: 0; left: 0; width: 100%; height:
100%; }

/*
 * jQuery UI CSS Framework
 * Copyright (c) 2009 AUTHORS.txt (http://jqueryui.com/about)
 * Dual licensed under the MIT (MIT-LICENSE.txt) and GPL (GPL-LICENSE.txt) licenses.
 * To view and modify this theme, visit http://jqueryui.com/themeroller/?
ffDefault=Verdana,Arial,sans-
serif&fwDefault=normal&fsDefault=1.1em&cornerRadius=4px&bgColorHeader=cccccc&bgText
ureHeader=03_highlight_soft.png&bgImgOpacityHeader=75&borderColorHeader=aaaaaa&fcHe
ader=222222&iconColorHeader=222222&bgColorContent=ffffff&bgTextureContent=01_flat.p
ng&bgImgOpacityContent=75&borderColorContent=aaaaaa&fcContent=222222&iconColorConte
nt=222222&bgColorDefault=e6e6e6&bgTextureDefault=02_glass.png&bgImgOpacityDefault=7
5&borderColorDefault=d3d3d3&fcDefault=555555&iconColorDefault=888888&bgColorHover=d
adada&bgTextureHover=02_glass.png&bgImgOpacityHover=75&borderColorHover=999999&fcHo
ver=212121&iconColorHover=454545&bgColorActive=ffffff&bgTextureActive=02_glass.png&
bgImgOpacityActive=65&borderColorActive=aaaaaa&fcActive=212121&iconColorActive=4545
45&bgColorHighlight=fbf9ee&bgTextureHighlight=02_glass.png&bgImgOpacityHighlight=55
&borderColorHighlight=fcefal&fcHighlight=363636&iconColorHighlight=2e83ff&bgColorEr
ror=feflec&bgTextureError=02_glass.png&bgImgOpacityError=95&borderColorError=cd0a0a
&fcError=cd0a0a&iconColorError=cd0a0a&bgColorOverlay=aaaaaa&bgTextureOverlay=01 fla
t.png&bgImgOpacityOverlay=0&opacityOverlay=30&bgColorShadow=aaaaaa&bgTextureShadow=
01_flat.png&bgImgOpacityShadow=0&opacityShadow=30&thicknessShadow=8px&offsetTopShad
ow=-8px&offsetLeftShadow=-8px&cornerRadiusShadow=8px
 */

/* Component containers
-----*/
.ui-widget { font-family: Verdana,Arial,sans-serif; font-size: 1.1em; }
.ui-widget input, .ui-widget select, .ui-widget textarea, .ui-widget button { font-
family: Verdana,Arial,sans-serif; font-size: 11px; }
.ui-widget-content { border: 1px solid #aaaaaa; background: #ffffff url(images/ui-
bg_flat_75_ffffff_40x100.png) 50% 50% repeat-x; color: #222222; }
.ui-widget-content a { color: #222222; }
.ui-widget-header { border: 1px solid #aaaaaa; background: #cccccc url(images/ui-
bg_highlight-soft_75_cccccc_1x100.png) 50% 50% repeat-x; color: #222222; font-
weight: bold; }
.ui-widget-header a { color: #222222; }

```

```

/* Interaction states
-----*/
.ui-state-default, .ui-widget-content .ui-state-default { border: 1px solid
#d3d3d3; background: #e6e6e6 url(images/ui-bg_glass_75_e6e6e6_1x400.png) 50% 50%
repeat-x; font-weight: normal; color: #555555; outline: none; }
.ui-state-default a, .ui-state-default a:link, .ui-state-default a:visited { color:
#555555; text-decoration: none; outline: none; }
.ui-state-hover, .ui-widget-content .ui-state-hover, .ui-state-focus, .ui-widget-
content .ui-state-focus { border: 1px solid #999999; background: #dadada
url(images/ui-bg_glass_75_dadada_1x400.png) 50% 50% repeat-x; font-weight: normal;
color: #212121; outline: none; }
.ui-state-hover a, .ui-state-hover a:hover { color: #212121; text-decoration: none;
outline: none; }
.ui-state-active, .ui-widget-content .ui-state-active { border: 1px solid #aaaaaa;
background: #ffffff url(images/ui-bg_glass_65_ffffff_1x400.png) 50% 50% repeat-x;
font-weight: normal; color: #212121; outline: none; }
.ui-state-active a, .ui-state-active a:link, .ui-state-active a:visited { color:
#212121; outline: none; text-decoration: none; }

/* Interaction Cues
-----*/
.ui-state-highlight, .ui-widget-content .ui-state-highlight {border: 1px solid
#fcefa1; background: #fbf9ee url(images/ui-bg_glass_55_fbf9ee_1x400.png) 50% 50%
repeat-x; color: #363636; }
.ui-state-highlight a, .ui-widget-content .ui-state-highlight a { color: #363636; }
.ui-state-error, .ui-widget-content .ui-state-error {border: 1px solid #cd0a0a;
background: #feflec url(images/ui-bg_glass_95_feflec_1x400.png) 50% 50% repeat-x;
color: #cd0a0a; }
.ui-state-error a, .ui-widget-content .ui-state-error a { color: #cd0a0a; }
.ui-state-error-text, .ui-widget-content .ui-state-error-text { color: #cd0a0a; }
.ui-state-disabled, .ui-widget-content .ui-state-disabled { opacity: .35;
filter:Alpha(Opacity=35); background-image: none; }
.ui-priority-primary, .ui-widget-content .ui-priority-primary { font-weight: bold;
}
.ui-priority-secondary, .ui-widget-content .ui-priority-secondary { opacity: .7;
filter:Alpha(Opacity=70); font-weight: normal; }

/* Icons
-----*/

/* states and images */
.ui-icon { width: 16px; height: 16px; background-image: url(images/ui-
icons_222222_256x240.png); }
.ui-widget-content .ui-icon {background-image: url(images/ui-
icons_222222_256x240.png); }
.ui-widget-header .ui-icon {background-image: url(images/ui-
icons_222222_256x240.png); }
.ui-state-default .ui-icon { background-image: url(images/ui-
icons_888888_256x240.png); }
.ui-state-hover .ui-icon, .ui-state-focus .ui-icon {background-image:
url(images/ui-icons_454545_256x240.png); }
.ui-state-active .ui-icon {background-image: url(images/ui-
icons_454545_256x240.png); }
.ui-state-highlight .ui-icon {background-image: url(images/ui-
icons_2e83ff_256x240.png); }
.ui-state-error .ui-icon, .ui-state-error-text .ui-icon {background-image:
url(images/ui-icons_cd0a0a_256x240.png); }

```

```
/* positioning */
.ui-icon-carat-1-n { background-position: 0 0; }
.ui-icon-carat-1-ne { background-position: -16px 0; }
.ui-icon-carat-1-e { background-position: -32px 0; }
.ui-icon-carat-1-se { background-position: -48px 0; }
.ui-icon-carat-1-s { background-position: -64px 0; }
.ui-icon-carat-1-sw { background-position: -80px 0; }
.ui-icon-carat-1-w { background-position: -96px 0; }
.ui-icon-carat-1-nw { background-position: -112px 0; }
.ui-icon-carat-2-n-s { background-position: -128px 0; }
.ui-icon-carat-2-e-w { background-position: -144px 0; }
.ui-icon-triangle-1-n { background-position: 0 -16px; }
.ui-icon-triangle-1-ne { background-position: -16px -16px; }
.ui-icon-triangle-1-e { background-position: -32px -16px; }
.ui-icon-triangle-1-se { background-position: -48px -16px; }
.ui-icon-triangle-1-s { background-position: -64px -16px; }
.ui-icon-triangle-1-sw { background-position: -80px -16px; }
.ui-icon-triangle-1-w { background-position: -96px -16px; }
.ui-icon-triangle-1-nw { background-position: -112px -16px; }
.ui-icon-triangle-2-n-s { background-position: -128px -16px; }
.ui-icon-triangle-2-e-w { background-position: -144px -16px; }
.ui-icon-arrow-1-n { background-position: 0 -32px; }
.ui-icon-arrow-1-ne { background-position: -16px -32px; }
.ui-icon-arrow-1-e { background-position: -32px -32px; }
.ui-icon-arrow-1-se { background-position: -48px -32px; }
.ui-icon-arrow-1-s { background-position: -64px -32px; }
.ui-icon-arrow-1-sw { background-position: -80px -32px; }
.ui-icon-arrow-1-w { background-position: -96px -32px; }
.ui-icon-arrow-1-nw { background-position: -112px -32px; }
.ui-icon-arrow-2-n-s { background-position: -128px -32px; }
.ui-icon-arrow-2-ne-sw { background-position: -144px -32px; }
.ui-icon-arrow-2-e-w { background-position: -160px -32px; }
.ui-icon-arrow-2-se-nw { background-position: -176px -32px; }
.ui-icon-arrowstop-1-n { background-position: -192px -32px; }
.ui-icon-arrowstop-1-e { background-position: -208px -32px; }
.ui-icon-arrowstop-1-s { background-position: -224px -32px; }
.ui-icon-arrowstop-1-w { background-position: -240px -32px; }
.ui-icon-arrowthick-1-n { background-position: 0 -48px; }
.ui-icon-arrowthick-1-ne { background-position: -16px -48px; }
.ui-icon-arrowthick-1-e { background-position: -32px -48px; }
.ui-icon-arrowthick-1-se { background-position: -48px -48px; }
.ui-icon-arrowthick-1-s { background-position: -64px -48px; }
.ui-icon-arrowthick-1-sw { background-position: -80px -48px; }
.ui-icon-arrowthick-1-w { background-position: -96px -48px; }
.ui-icon-arrowthick-1-nw { background-position: -112px -48px; }
.ui-icon-arrowthick-2-n-s { background-position: -128px -48px; }
.ui-icon-arrowthick-2-ne-sw { background-position: -144px -48px; }
.ui-icon-arrowthick-2-e-w { background-position: -160px -48px; }
.ui-icon-arrowthick-2-se-nw { background-position: -176px -48px; }
.ui-icon-arrowthickstop-1-n { background-position: -192px -48px; }
.ui-icon-arrowthickstop-1-e { background-position: -208px -48px; }
.ui-icon-arrowthickstop-1-s { background-position: -224px -48px; }
.ui-icon-arrowthickstop-1-w { background-position: -240px -48px; }
.ui-icon-arrowreturnthick-1-w { background-position: 0 -64px; }
.ui-icon-arrowreturnthick-1-n { background-position: -16px -64px; }
.ui-icon-arrowreturnthick-1-e { background-position: -32px -64px; }
.ui-icon-arrowreturnthick-1-s { background-position: -48px -64px; }
.ui-icon-arrowreturn-1-w { background-position: -64px -64px; }
.ui-icon-arrowreturn-1-n { background-position: -80px -64px; }
```

```
.ui-icon-arrowreturn-1-e { background-position: -96px -64px; }
.ui-icon-arrowreturn-1-s { background-position: -112px -64px; }
.ui-icon-arrowrefresh-1-w { background-position: -128px -64px; }
.ui-icon-arrowrefresh-1-n { background-position: -144px -64px; }
.ui-icon-arrowrefresh-1-e { background-position: -160px -64px; }
.ui-icon-arrowrefresh-1-s { background-position: -176px -64px; }
.ui-icon-arrow-4 { background-position: 0 -80px; }
.ui-icon-arrow-4-diag { background-position: -16px -80px; }
.ui-icon-extlink { background-position: -32px -80px; }
.ui-icon-newwin { background-position: -48px -80px; }
.ui-icon-refresh { background-position: -64px -80px; }
.ui-icon-shuffle { background-position: -80px -80px; }
.ui-icon-transfer-e-w { background-position: -96px -80px; }
.ui-icon-transferthick-e-w { background-position: -112px -80px; }
.ui-icon-folder-collapsed { background-position: 0 -96px; }
.ui-icon-folder-open { background-position: -16px -96px; }
.ui-icon-document { background-position: -32px -96px; }
.ui-icon-document-b { background-position: -48px -96px; }
.ui-icon-note { background-position: -64px -96px; }
.ui-icon-mail-closed { background-position: -80px -96px; }
.ui-icon-mail-open { background-position: -96px -96px; }
.ui-icon-suitcase { background-position: -112px -96px; }
.ui-icon-comment { background-position: -128px -96px; }
.ui-icon-person { background-position: -144px -96px; }
.ui-icon-print { background-position: -160px -96px; }
.ui-icon-trash { background-position: -176px -96px; }
.ui-icon-locked { background-position: -192px -96px; }
.ui-icon-unlocked { background-position: -208px -96px; }
.ui-icon-bookmark { background-position: -224px -96px; }
.ui-icon-tag { background-position: -240px -96px; }
.ui-icon-home { background-position: 0 -112px; }
.ui-icon-flag { background-position: -16px -112px; }
.ui-icon-calendar { background-position: -32px -112px; }
.ui-icon-cart { background-position: -48px -112px; }
.ui-icon-pencil { background-position: -64px -112px; }
.ui-icon-clock { background-position: -80px -112px; }
.ui-icon-disk { background-position: -96px -112px; }
.ui-icon-calculator { background-position: -112px -112px; }
.ui-icon-zoomin { background-position: -128px -112px; }
.ui-icon-zoomout { background-position: -144px -112px; }
.ui-icon-search { background-position: -160px -112px; }
.ui-icon-wrench { background-position: -176px -112px; }
.ui-icon-gear { background-position: -192px -112px; }
.ui-icon-heart { background-position: -208px -112px; }
.ui-icon-star { background-position: -224px -112px; }
.ui-icon-link { background-position: -240px -112px; }
.ui-icon-cancel { background-position: 0 -128px; }
.ui-icon-plus { background-position: -16px -128px; }
.ui-icon-plusthick { background-position: -32px -128px; }
.ui-icon-minus { background-position: -48px -128px; }
.ui-icon-minusthick { background-position: -64px -128px; }
.ui-icon-close { background-position: -80px -128px; }
.ui-icon-closethick { background-position: -96px -128px; }
.ui-icon-key { background-position: -112px -128px; }
.ui-icon-lightbulb { background-position: -128px -128px; }
.ui-icon-scissors { background-position: -144px -128px; }
.ui-icon-clipboard { background-position: -160px -128px; }
.ui-icon-copy { background-position: -176px -128px; }
.ui-icon-contact { background-position: -192px -128px; }
```

```
.ui-icon-image { background-position: -208px -128px; }
.ui-icon-video { background-position: -224px -128px; }
.ui-icon-script { background-position: -240px -128px; }
.ui-icon-alert { background-position: 0 -144px; }
.ui-icon-info { background-position: -16px -144px; }
.ui-icon-notice { background-position: -32px -144px; }
.ui-icon-help { background-position: -48px -144px; }
.ui-icon-check { background-position: -64px -144px; }
.ui-icon-bullet { background-position: -80px -144px; }
.ui-icon-radio-off { background-position: -96px -144px; }
.ui-icon-radio-on { background-position: -112px -144px; }
.ui-icon-pin-w { background-position: -128px -144px; }
.ui-icon-pin-s { background-position: -144px -144px; }
.ui-icon-play { background-position: 0 -160px; }
.ui-icon-pause { background-position: -16px -160px; }
.ui-icon-seek-next { background-position: -32px -160px; }
.ui-icon-seek-prev { background-position: -48px -160px; }
.ui-icon-seek-end { background-position: -64px -160px; }
.ui-icon-seek-first { background-position: -80px -160px; }
.ui-icon-stop { background-position: -96px -160px; }
.ui-icon-eject { background-position: -112px -160px; }
.ui-icon-volume-off { background-position: -128px -160px; }
.ui-icon-volume-on { background-position: -144px -160px; }
.ui-icon-power { background-position: 0 -176px; }
.ui-icon-signal-diag { background-position: -16px -176px; }
.ui-icon-signal { background-position: -32px -176px; }
.ui-icon-battery-0 { background-position: -48px -176px; }
.ui-icon-battery-1 { background-position: -64px -176px; }
.ui-icon-battery-2 { background-position: -80px -176px; }
.ui-icon-battery-3 { background-position: -96px -176px; }
.ui-icon-circle-plus { background-position: 0 -192px; }
.ui-icon-circle-minus { background-position: -16px -192px; }
.ui-icon-circle-close { background-position: -32px -192px; }
.ui-icon-circle-triangle-e { background-position: -48px -192px; }
.ui-icon-circle-triangle-s { background-position: -64px -192px; }
.ui-icon-circle-triangle-w { background-position: -80px -192px; }
.ui-icon-circle-triangle-n { background-position: -96px -192px; }
.ui-icon-circle-arrow-e { background-position: -112px -192px; }
.ui-icon-circle-arrow-s { background-position: -128px -192px; }
.ui-icon-circle-arrow-w { background-position: -144px -192px; }
.ui-icon-circle-arrow-n { background-position: -160px -192px; }
.ui-icon-circle-zoomin { background-position: -176px -192px; }
.ui-icon-circle-zoomout { background-position: -192px -192px; }
.ui-icon-circle-check { background-position: -208px -192px; }
.ui-icon-circlesmall-plus { background-position: 0 -208px; }
.ui-icon-circlesmall-minus { background-position: -16px -208px; }
.ui-icon-circlesmall-close { background-position: -32px -208px; }
.ui-icon-squaresmall-plus { background-position: -48px -208px; }
.ui-icon-squaresmall-minus { background-position: -64px -208px; }
.ui-icon-squaresmall-close { background-position: -80px -208px; }
.ui-icon-grip-dotted-vertical { background-position: 0 -224px; }
.ui-icon-grip-dotted-horizontal { background-position: -16px -224px; }
.ui-icon-grip-solid-vertical { background-position: -32px -224px; }
.ui-icon-grip-solid-horizontal { background-position: -48px -224px; }
.ui-icon-gripsmall-diagonal-se { background-position: -64px -224px; }
.ui-icon-grip-diagonal-se { background-position: -80px -224px; }
```

```
/* Misc visuals
```

```

-----*/

/* Corner radius */
.ui-corner-tl { -moz-border-radius-topleft: 4px; -webkit-border-top-left-radius:
4px; }
.ui-corner-tr { -moz-border-radius-topright: 4px; -webkit-border-top-right-radius:
4px; }
.ui-corner-bl { -moz-border-radius-bottomleft: 4px; -webkit-border-bottom-left-
radius: 4px; }
.ui-corner-br { -moz-border-radius-bottomright: 4px; -webkit-border-bottom-right-
radius: 4px; }
.ui-corner-top { -moz-border-radius-topleft: 4px; -webkit-border-top-left-radius:
4px; -moz-border-radius-topright: 4px; -webkit-border-top-right-radius: 4px; }
.ui-corner-bottom { -moz-border-radius-bottomleft: 4px; -webkit-border-bottom-left-
radius: 4px; -moz-border-radius-bottomright: 4px; -webkit-border-bottom-right-
radius: 4px; }
.ui-corner-right { -moz-border-radius-topright: 4px; -webkit-border-top-right-
radius: 4px; -moz-border-radius-bottomright: 4px; -webkit-border-bottom-right-
radius: 4px; }
.ui-corner-left { -moz-border-radius-topleft: 4px; -webkit-border-top-left-radius:
4px; -moz-border-radius-bottomleft: 4px; -webkit-border-bottom-left-radius: 4px; }
.ui-corner-all { -moz-border-radius: 4px; -webkit-border-radius: 4px; }

/* Overlays */
.ui-widget-overlay { background: #aaaaaa url(images/ui-bg_flat_0_aaaaaa_40x100.png)
50% 50% repeat-x; opacity: .30;filter:Alpha(Opacity=30); }
.ui-widget-shadow { margin: -8px 0 0 -8px; padding: 8px; background: #aaaaaa
url(images/ui-bg_flat_0_aaaaaa_40x100.png) 50% 50% repeat-x; opacity: .
30;filter:Alpha(Opacity=30); -moz-border-radius: 8px; -webkit-border-radius: 8px;
}/* Accordion
-----*/
.ui-accordion .ui-accordion-header { cursor: pointer; position: relative; margin-
top: 1px; zoom: 1; }
.ui-accordion .ui-accordion-li-fix { display: inline; }
.ui-accordion .ui-accordion-header-active { border-bottom: 0 !important; }
.ui-accordion .ui-accordion-header a { display: block; font-size: 1em; padding: .
5em .5em .5em 2.2em; }
.ui-accordion .ui-accordion-header .ui-icon { position: absolute; left: .5em; top:
50%; margin-top: -8px; }
.ui-accordion .ui-accordion-content { padding: 1em 2.2em; border-top: 0; margin-
top: -2px; position: relative; top: 1px; margin-bottom: 2px; overflow: auto;
display: none; }
.ui-accordion .ui-accordion-content-active { display: block; }/* Datepicker
-----*/
.ui-datepicker { width: 17em; padding: .2em .2em 0; }
.ui-datepicker .ui-datepicker-header { position: relative; padding: .2em 0; }
.ui-datepicker .ui-datepicker-prev, .ui-datepicker .ui-datepicker-next {
position: absolute; top: 2px; width: 1.8em; height: 1.8em; }
.ui-datepicker .ui-datepicker-prev-hover, .ui-datepicker .ui-datepicker-next-hover
{ top: 1px; }
.ui-datepicker .ui-datepicker-prev { left: 2px; }
.ui-datepicker .ui-datepicker-next { right: 2px; }
.ui-datepicker .ui-datepicker-prev-hover { left: 1px; }
.ui-datepicker .ui-datepicker-next-hover { right: 1px; }
.ui-datepicker .ui-datepicker-prev span, .ui-datepicker .ui-datepicker-next span {
display: block; position: absolute; left: 50%; margin-left: -8px; top: 50%; margin-
top: -8px; }
.ui-datepicker .ui-datepicker-title { margin: 0 2.3em; line-height: 1.8em; text-
align: center; }

```

```

.ui-datepicker .ui-datepicker-title select { float:left; font-size:1em; margin:1px
0; }
.ui-datepicker select.ui-datepicker-month-year {width: 100%;}
.ui-datepicker select.ui-datepicker-month,
.ui-datepicker select.ui-datepicker-year { width: 49%;}
.ui-datepicker .ui-datepicker-title select.ui-datepicker-year { float: right; }
.ui-datepicker table {width: 100%; font-size: .9em; border-collapse: collapse;
margin:0 0 .4em; }
.ui-datepicker th { padding: .7em .3em; text-align: center; font-weight: bold;
border: 0; }
.ui-datepicker td { border: 0; padding: 1px; }
.ui-datepicker td span, .ui-datepicker td a { display: block; padding: .2em; text-
align: right; text-decoration: none; }
.ui-datepicker .ui-datepicker-buttonpane { background-image: none; margin: .7em 0 0
0; padding:0 .2em; border-left: 0; border-right: 0; border-bottom: 0; }
.ui-datepicker .ui-datepicker-buttonpane button { float: right; margin: .5em .
2em .4em; cursor: pointer; padding: .2em .6em .3em .6em; width:auto;
overflow:visible; }
.ui-datepicker .ui-datepicker-buttonpane button.ui-datepicker-current { float:left;
}

/* with multiple calendars */
.ui-datepicker.ui-datepicker-multi { width:auto; }
.ui-datepicker-multi .ui-datepicker-group { float:left; }
.ui-datepicker-multi .ui-datepicker-group table { width:95%; margin:0 auto .4em; }
.ui-datepicker-multi-2 .ui-datepicker-group { width:50%; }
.ui-datepicker-multi-3 .ui-datepicker-group { width:33.3%; }
.ui-datepicker-multi-4 .ui-datepicker-group { width:25%; }
.ui-datepicker-multi .ui-datepicker-group-last .ui-datepicker-header { border-left-
width:0; }
.ui-datepicker-multi .ui-datepicker-group-middle .ui-datepicker-header { border-
left-width:0; }
.ui-datepicker-multi .ui-datepicker-buttonpane { clear:left; }
.ui-datepicker-row-break { clear:both; width:100%; }

/* RTL support */
.ui-datepicker-rtl { direction: rtl; }
.ui-datepicker-rtl .ui-datepicker-prev { right: 2px; left: auto; }
.ui-datepicker-rtl .ui-datepicker-next { left: 2px; right: auto; }
.ui-datepicker-rtl .ui-datepicker-prev:hover { right: 1px; left: auto; }
.ui-datepicker-rtl .ui-datepicker-next:hover { left: 1px; right: auto; }
.ui-datepicker-rtl .ui-datepicker-buttonpane { clear:right; }
.ui-datepicker-rtl .ui-datepicker-buttonpane button { float: left; }
.ui-datepicker-rtl .ui-datepicker-buttonpane button.ui-datepicker-current {
float:right; }
.ui-datepicker-rtl .ui-datepicker-group { float:right; }
.ui-datepicker-rtl .ui-datepicker-group-last .ui-datepicker-header { border-right-
width:0; border-left-width:1px; }
.ui-datepicker-rtl .ui-datepicker-group-middle .ui-datepicker-header { border-
right-width:0; border-left-width:1px; }

/* IE6 IFRAME FIX (taken from datepicker 1.5.3 */
.ui-datepicker-cover {
display: none; /*sorry for IE5*/
display/**/: block; /*sorry for IE5*/
position: absolute; /*must have*/
z-index: -1; /*must have*/
filter: mask(); /*must have*/
top: -4px; /*must have*/

```



```

    left: -4px; /*must have*/
    width: 200px; /*must have*/
    height: 200px; /*must have*/
}/* Dialog
-----*/
.ui-dialog { position: relative; padding: .2em; width: 300px; }
.ui-dialog .ui-dialog-titlebar { padding: .5em .3em .3em 1em; position: relative;
}
.ui-dialog .ui-dialog-title { float: left; margin: .1em 0 .2em; }
.ui-dialog .ui-dialog-titlebar-close { position: absolute; right: .3em; top: 50%;
width: 19px; margin: -10px 0 0 0; padding: 1px; height: 18px; }
.ui-dialog .ui-dialog-titlebar-close span { display: block; margin: 1px; }
.ui-dialog .ui-dialog-titlebar-close:hover, .ui-dialog .ui-dialog-titlebar-
close:focus { padding: 0; }
.ui-dialog .ui-dialog-content { border: 0; padding: .5em 1em; background: none;
overflow: auto; zoom: 1; }
.ui-dialog .ui-dialog-buttonpane { text-align: left; border-width: 1px 0 0 0;
background-image: none; margin: .5em 0 0 0; padding: .3em 1em .5em .4em; }
.ui-dialog .ui-dialog-buttonpane button { float: right; margin: .5em .4em .5em 0;
cursor: pointer; padding: .2em .6em .3em .6em; line-height: 1.4em; width:auto;
overflow:visible; }
.ui-dialog .ui-resizable-se { width: 14px; height: 14px; right: 3px; bottom: 3px; }
.ui-draggable .ui-dialog-titlebar { cursor: move; }
/* Progressbar
-----*/
.ui-progressbar { height:2em; text-align: left; }
.ui-progressbar .ui-progressbar-value {margin: -1px; height:100%; }/* Resizable
-----*/
.ui-resizable { position: relative;}
.ui-resizable-handle { position: absolute;font-size: 0.1px;z-index: 99999; display:
block;}
.ui-resizable-disabled .ui-resizable-handle, .ui-resizable-autohide .ui-resizable-
handle { display: none; }
.ui-resizable-n { cursor: n-resize; height: 7px; width: 100%; top: -5px; left: 0px;
}
.ui-resizable-s { cursor: s-resize; height: 7px; width: 100%; bottom: -5px; left:
0px; }
.ui-resizable-e { cursor: e-resize; width: 7px; right: -5px; top: 0px; height:
100%; }
.ui-resizable-w { cursor: w-resize; width: 7px; left: -5px; top: 0px; height: 100%;
}
.ui-resizable-se { cursor: se-resize; width: 12px; height: 12px; right: 1px;
bottom: 1px; }
.ui-resizable-sw { cursor: sw-resize; width: 9px; height: 9px; left: -5px; bottom:
-5px; }
.ui-resizable-nw { cursor: nw-resize; width: 9px; height: 9px; left: -5px; top:
-5px; }
.ui-resizable-ne { cursor: ne-resize; width: 9px; height: 9px; right: -5px; top:
-5px;}/* Slider
-----*/
.ui-slider { position: relative; text-align: left; }
.ui-slider .ui-slider-handle { position: absolute; z-index: 2; width: 1.2em;
height: 1.2em; cursor: default; }
.ui-slider .ui-slider-range { position: absolute; z-index: 1; font-size: .7em;
display: block; border: 0; }

.ui-slider-horizontal { height: .8em; }
.ui-slider-horizontal .ui-slider-handle { top: -.3em; margin-left: -.6em; }
.ui-slider-horizontal .ui-slider-range { top: 0; height: 100%; }

```

```

.ui-slider-horizontal .ui-slider-range-min { left: 0; }
.ui-slider-horizontal .ui-slider-range-max { right: 0; }

.ui-slider-vertical { width: .8em; height: 100px; }
.ui-slider-vertical .ui-slider-handle { left: -.3em; margin-left: 0; margin-bottom:
-.6em; }
.ui-slider-vertical .ui-slider-range { left: 0; width: 100%; }
.ui-slider-vertical .ui-slider-range-min { bottom: 0; }
.ui-slider-vertical .ui-slider-range-max { top: 0; }/* Tabs
-----*/
.ui-tabs { padding: .2em; zoom: 1; }
.ui-tabs .ui-tabs-nav { list-style: none; position: relative; padding: .2em .2em 0;
}
.ui-tabs .ui-tabs-nav li { position: relative; float: left; border-bottom-width:
0 !important; margin: 0 .2em -1px 0; padding: 0; }
.ui-tabs .ui-tabs-nav li a { float: left; text-decoration: none; padding: .5em 1em;
}
.ui-tabs .ui-tabs-nav li.ui-tabs-selected { padding-bottom: 1px; border-bottom-
width: 0; }
.ui-tabs .ui-tabs-nav li.ui-tabs-selected a, .ui-tabs .ui-tabs-nav li.ui-state-
disabled a, .ui-tabs .ui-tabs-nav li.ui-state-processing a { cursor: text; }
.ui-tabs .ui-tabs-nav li a, .ui-tabs.ui-tabs-collapsible .ui-tabs-nav li.ui-tabs-
selected a { cursor: pointer; } /* first selector in group seems obsolete, but
required to overcome bug in Opera applying cursor: text overall if defined
elsewhere... */
.ui-tabs .ui-tabs-panel { padding: 1em 1.4em; display: block; border-width: 0;
background: none; }
.ui-tabs .ui-tabs-hide { display: none !important; }

    nv_hidden {visibility:hidden}
</style>
<script>

```

Note that the value yields syntax and invalid XML errors in Designer, which you may ignore. This is because the form renderer is expecting valid ECMA Script, so it wraps all its contents within `<script>` and `</script>` tags. To get around that, the internal CSS is “counter-wrapped” to begin with `</script>` and end with `<script>`.

jQuery UI

External script with Id of “Script4” is the google library to load jQuery UI. It's value is:
<http://ajax.googleapis.com/ajax/libs/jqueryui/1.7.2/jquery-ui.min.js>

Google Maps API

External script with Id of “Script5” is the Google Maps API. It's value is:
<http://maps.google.com/maps/api/js?sensor=false>

Create Tabs

Inline script with Id of “Script6” converts each Title control with Form Field Name of tabNtitle to a tab using jQuery with each of the controls under the tab-title on its respective tab (see Figure B2). Script6 is below:

```

// transform the input, placing in tabs
$(document).ready(function() {

```

```

// obtain all rows in table
var trGuys = $("form table tr");
try {

    var tabNumber = 0;
    var foundFirst = false;

    for (index=0; index < trGuys.size(); index++) {
        var currentRow = trGuys.get(index);

        var tabTitle = $("#_tab" + (tabNumber+1) + "title", currentRow);
        if (tabTitle.size() > 0) {

            tabNumber = tabNumber + 1;
            foundFirst = true;

            // if this is our first tab, start to build the structure
            if (tabNumber == 1) {
                $('<div id="tabs"><ul id="tabTitlebar"></ul>').insertAfter("#uniform
input[name='uasess']");
            }

            var tabLi = $("<li></li>");
            var anchor = $("<a id='tab" + tabNumber + "anchor' href='#tabs-" + tabNumber
+ "'>" + "</a>");
            tabLi.append(anchor);
            tabLi.appendTo("#tabTitlebar");
            //as of jQuery 1.3.2 (currently working in FF but not IE)
            //$("#_tab" + currentTab + "title", currentRow).appendTo("[href=#tabs-"
+ currentTab + "]");

            //so instead append and remove
            $(currentRow).remove();
            anchor.append(tabTitle);

            //Add the div wrapper for jquery tabs
            //and the table wrapper for the tab contents (ie, the table rows of form
controls)
            $("<div id='tabs-" + tabNumber + "'><table cellpadding='0' cellspacing='2' border='0' id='tab" + tabNumber + "-content"></table></div>").appendTo("#tabs");
        } else {
            //place the buttons in a table by themselves
            if ($(":has(':button')", trGuys.get(index)).size() > 0) {
                $("<table id='jquery-action-buttons' align='center'
width='180px"></table>").insertAfter("#tabs");
                trGuys.slice(index, index+1).appendTo("#jquery-action-buttons");
            } else if (foundFirst == true) {
                trGuys.slice(index, index+1).appendTo("#tab" + tabNumber + "-content");
            }
        }
    }
} catch (e) {
    alert(e);
}

function init() {
    $('#tabs').tabs();
}

```

```

// transform the input, placing in tabs
init();
});

```

Add Google Map

Inline script with Id of “Script7” inserts a Google Map onto the first tab. The regular form controls are repositioned to be to the right of the map. A Click listener is added to the map so that the latitude and longitude are put into the form's locationLatitude and locationLongitude fields, respectively. “Script7” is below:

```

//Add Google Map
$(document).ready(function() {
    var map;
    var marker;

    // place the google maps control to be used as a tower location chooser
    // on the first tab on left side of page, move existing juice controls
    // to right side of page
    function addLatLongHelper() {
        $('<table cellpadding="2" cellspacing="0" border="0"><thead><tr
        valign="top"><td><div id="map_canvas" style="width: 400px; height:
        400px"></div></td><td><div
        id="insertControlsHere"></td></tr></thead></table>').insertBefore("#tabs-1
        table");
        var removedElement = $("#tabs-1 table:nth-child(2)").remove();
        $('#insertControlsHere').append(removedElement);

        var myLatLng = new google.maps.LatLng(39.034271,-77.174936);
        var myOptions = {
            zoom: 16,
            center: myLatLng,
            mapTypeId: google.maps.MapTypeId.SATELLITE
        }
        map = new google.maps.Map(document.getElementById("map_canvas"), myOptions);

        google.maps.event.addListener(map, 'click', function(event) {
            placeMarker(event.latLng);
        });
    }

    // function to add lat/long to page
    function placeMarker(location) {
        var clickedLocation = new google.maps.LatLng(location);
        if (marker == null ) {
            marker = new google.maps.Marker({
                position: location,
                map: map});
            marker.set_draggable({flag:true});
        } else {
            marker.set_position(location);
        }
    }

    try {
        // get lat/long from the click
        var lat = Math.round(location.lat()*Math.pow(10,4))/Math.pow(10,4);
        var lng = Math.round(location.lng()*Math.pow(10,4))/Math.pow(10,4);

        // set lat/long on form
        $('#_locationLatitude').val(lat);
    }

```

```
    $('#_locationLongitude').val(lng);  
  
    } catch (ex) {  
        alert(ex);  
    }  
}  
  
// functions have been defined, call them  
addLatLngHelper();  
});
```

Conclusion

With the ability to import external JavaScript libraries, you can utilize jQuery to manipulate your form's look and layout. In addition, you can also capitalize on other libraries such as Google's Map API.