LearnCubiByExamplesC7

Learn Cubi By Examples Chapter 7 - Fine Tuning

Updated Jan 19, 2012 by jack@openbiz.me

Learn Cubi By Examples Chapter 7 - Fine Tuning

At the previous chapters, we added change history and attachment for ticket, then linked them to a ticket in ticket detail view. The main logic and UI are finished. Now it is time to do some fine tuning work.

Change Ticket Form Layout

The ticket detail form and edit form look a little too long. A desired ticket detail form has layout of 4 sections

- · content section including summary and description
- general section including type, product, component, severity, priority, version, milestone, status, resolution, keywords
- contact section including owner, reporter and cc
- · misc section including creation time and update time.

The ticket edit form is same as detail form with an extra textarea to input user comments.

Also it is ideal to have ticket ID and summary on the form title area.

To achieve the new layout, we edit the TicketDetailForm.xml

```
<?xml version="1.0" encoding="UTF-8"?>
  <EasyForm Name="TicketbetailForm" Class="TicketForm" FormType="" jsClass="jbForm" Title="Ticket #{@:Elem[fld_Id].Value}. {</pre>
             <DataPanel>
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                       <Element Name="fld_type" ElementSet="General" Class="LabelText" FieldName="type" Label="Type"/>
                      <Element Name="fld_type" ElementSet="General" Class="LabelText" FieldName="type" Label="Type"/>
<Element Name="fld_product" ElementSet="General" Class="LabelText" FieldName="product" Label="Product"/>
<Element Name="fld_component" ElementSet="General" Class="LabelText" FieldName="component" Label="Component"/>
<Element Name="fld_severity" ElementSet="General" Class="LabelText" FieldName="severity" Label="Severity"/>
<Element Name="fld_priority" ElementSet="General" Class="LabelText" FieldName="priority" Label="Priority"/>
<Element Name="fld_version" ElementSet="General" Class="LabelText" FieldName="version" Label="Version Id"/>
<Element Name="fld_milestone" ElementSet="General" Class="LabelText" FieldName="milestone" Label="Wilestone"/>
<Element Name="fld_status" ElementSet="General" Class="LabelText" FieldName="status" Label="Status"/>
<Element Name="fld_resolution" ElementSet="General" Class="LabelText" FieldName="resolution" Label="Resolution" Class="LabelText" FieldName="keywords" Label="Keywords"/>
                                                                                                                                                                                                                                                                     Label="Resolution"/>
                      <Element Name="fld_owner" ElementSet="Contact" Class="LabelText" FieldName="owner" Label="Owner"/>
<Element Name="fld_reporter" ElementSet="Contact" Class="LabelText" FieldName="reporter" Label="Reporter"/>
<Element Name="fld_cc" ElementSet="Contact" Class="LabelText" FieldName="cc" Label="Cc"/>
                      <Element Name="fld_time" ElementSet="Misc" Class="LabelText" FieldName="time" Label="Time"/>
<Element Name="fld_changetime" ElementSet="Misc" Class="LabelText" FieldName="changetime" Label="Changetime"/>
            </DataPanel>
            <ActionPanel>
                      </Flement>
                       <Element Name="btn_cancel" Class="Button" Text="Back" CssClass="button_gray_m">
                                 <EventHandler Name="btn_cancel_onclick" Event="onclick" Function="SwitchForm()" ShortcutKey="Escape" Context
                       </Element:
            </ActionPanel>
            <NavPane1>
             </NavPanel>
            <SearchPanel>
             </searchPanel>
   </EasyForm>
Then create a new file ticket_detail.tpl under /trac/template/.
```

```
{/if}
{if $form.description}
                   <span>{$form.description}</span>
                  <div style="height:15px;"></div>
{/if}
          </div>
<div class="detail_form_panel_padding" >
{assign var=es_counter value=0}
{foreach item=setname name=elemsets from=$form.elementSets}
         {if $smarty.foreach.elemsets.first}
<div id="element_set_{$es_counter}" class="underline upline">
         <div id="element_set_{$es_counter}" class="underline">
{/if}
         {/ii}
<hr/>
class="element_set_title"><a id="element_set_btn_{$es_counter}" class="shrink" href="javascript:;" onclick="sw
<div id="element_set_panel_{$es_counter}" class="element_set_panel">
{if $setname=='General'}

                   ctd style="width:80px;"><label style="text-align:left;">{$dataPanel.fld_type.label}</label>

style="width:80px;"><label_text" style="line-height:100%;width:200px">{$dataPanel.fld_type.element}</span>

style="width:80px;"><label style="text-align:left;">{$dataPanel.fld_status.label}</label>

ctd><span class="label_text" style="line-height:100%;width:200px">{$dataPanel.fld_status.element}</span>

style="width:80px;"><label style="text-align:left;">{$dataPanel.fld_product.label}</label>

<tp><tp><tp><tp><tp><tp>< td td text to the component to the compone
                  >
                  style="width:80px;"><label style="text-align:left;">{$dataPanel.fld_version.label}</label><span class="label_text" style="line-height:100%;width:200px">{$dataPanel.fld_version.element}</span><label style="text-align:left;">{$dataPanel.fld_milestone.label}</label><span class="label_text" style="line-height:100%;width:200px">{$dataPanel.fld_milestone.element}</span>
                   <tt/>
style="width:80px;"><label style="text-align:left;">{$dataPanel.fld_priority.label}</label>

>

<span class="label_text" style="line-height:100%;width:200px">{$dataPanel.fld_priority.element}</span>

<label style="text-align:left;">{$dataPanel.fld_severity.label}</label>

<span class="label_text" style="line-height:100%;width:200px">{$dataPanel.fld_severity.element}</span>

                   style="width:80px;"><label style="text-align:left;">{$dataPanel.fld_resolution.label}</label><span class="label_text" style="line-height:100%;width:200px">{$dataPanel.fld_resolution.element}</span</td><label style="text-align:left;">{$dataPanel.fld_keywords.label}</label><span class="label_text" style="line-height:100%">{$dataPanel.fld_keywords.element}</span>
                   {else}
         {assign var=es_elem_counter value=0}
{foreach item=item key=itemName from=$dataPanel}
                  if $item.elementset eq $setname}
{if $item.elementset eq $setname}
{if $item.type eq 'CKEditor'
   or $item.type eq 'RichText'
   or $item.type eq 'Textarea'
   or $item.type eq 'RawData'
   or $item.type eq 'LabelImage'
   or $item.type eq 'IDCardReader'
}
                            <label style="text-align:left">{$item.label}</label>
                            {if $errors.$itemName}
<span class="input_error_msg" style="width:240px;">{$errors.$itemName}</span>
                                     <span class="input_desc" style="width:240px;">{$item.description}</span>
{/if}
                            {else}
    {if $item.type eq 'Hidden' }

                            {else}
                             {/if}
                            <label style="text-align:left;">{$item.label}</label>
                            <span>{$item.element}</span>
                            {else}
                                     <span class="label_text" style="{if $item.width}width:{$item.width+15}px;{/if}">{$item.element}</spar
{if $errors.$itemName}</pre>
                                      <span class="input_error_msg" style="width:240px;">{$errors.$itemName}</span>
```

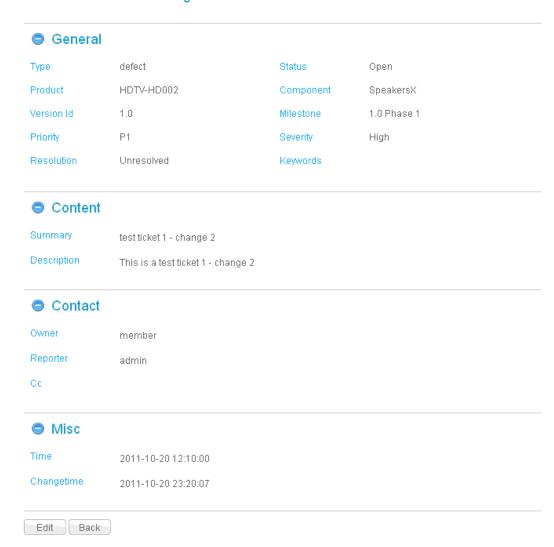
```
{elseif $item.description}
<span class="input_desc" style="width:240px;">{$item.description}</span>
                       {/if}
                  {/if}

{/if}
{assign var=es_elem_counter value=$es_elem_counter+1}
              {/if}
         {/II}
{/foreach}
{/if}
</div>
{if $es_elem_counter eq '0'}
              <script>$('element_set_{$es_counter}').hide();</script>
         {/if}
         </div>
         <script>
              init_elementset('{$form.name}','{$es_counter}');
         </script>
     {assign var=es_counter value=$es_counter+1}
     {/foreach}
         <div style="height:10px;"></div>
{if $actionPanel|@count > 0}
class="input_row">
              {foreach item=elem from=$actionPanel}
                  {$elem.element}
              {/foreach}

{/if}
     {if $errors}
         definits;
div id='errorsDiv' class='innerError errorBox'>
{foreach item=errMsg from=$errors}
div>{$errMsg}</div>
          {/foreach}
         {\literal}<script>try{setTimeout("$('errorsDiv').fade( \{from: 1, to: 0\});",3000);\}catch(e)\{\}</script>\{/literal\}
    //cera
</div>
{/if}
    </div>
     <div style="height:15px;">
<div id='{$form.name}.load_disp' style="display:none;">
<img src="{$image_url}/form_ajax_loader.gif"/>
</div>
     </div>
</div></form>
→
```

The new ticket detail form looks like

Ticket #1. test ticket 1 - change 2



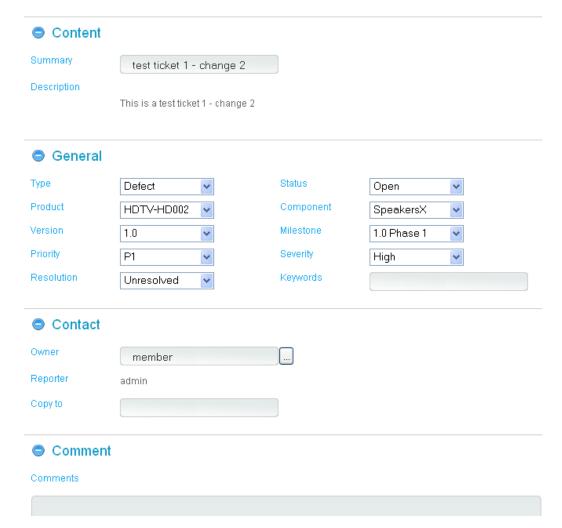
Now change the TicketEditForm.xml to

```
<?xml version="1.0" encoding="UTF-8"?>
<EasyForm Name="TicketEditForm" Class="TicketForm" FormType="Edit" jsClass="jbForm" Title="Edit Ticket #{@:Elem[fld_Id].Va</pre>
       <DataPanel>
             <<Element Name="fld_Id" Class="Hidden" FieldName="Id" Label="Id" AllowURLParam="Y"/>
<Element Name="fld_summary" Class="InputText" FieldName="summary" Label="Summary" ElementSet="Content"/>
<Element Name="fld_description" Class="LabelTextarea" FieldName="description" Label="Description" ElementSet="Content"/>
             <Element Name="fld_type" Class="Listbox" FieldName="type" Label="Type" SelectFrom="trac.enum.do.EnumDO[name], [typ
<Element Name="fld_product" Class="Listbox" FieldName="product_id" Label="Product" SelectFrom="trac.product.do.Pro
_<EventHandler Name="onchange" Event="onchange" Function="UpdateForm()"/>
              </Element>
             <Element Name="fld_owner_id" Class="Hidden" FieldName="owner_id" Label="Owner Id" ElementSet="Contact"/>
<Element Name="fld_owner" Class="InputPicker" FieldName="owner" Label="Owner" ValuePicker="system.form.UserPickFor
<Element Name="fld_reporter" Class="LabelText" FieldName="reporter" Label="Reporter" ElementSet="Contact"/>
<Element Name="fld_cc" Class="InputText" FieldName="cc" Label="Copy to" ElementSet="Contact"/>
             <Element Name="fld_time" Class="LabelText" FieldName="time" Label="Create Time" ElementSet="General"/>
<Element Name="fld_changetime" Class="LabelText" FieldName="changetime" Label="Change Time" ElementSet="General"/>
             <Element Name="fld_comments" Class="Textarea" FieldName="" Label="Comments" ElementSet="Comment"/>
       </DataPanel>
       <ActionPanel>
             Function="UpdateRecord()" RedirectPage="{@h
             </Element>

              </Element>
       </ActionPanel>
      <NavPanel>
</NavPanel>
       <SearchPanel>
       </searchPanel>
</EasyForm>
```

The new ticket edit form is changed to

Edit Ticket #1, test ticket 1 - change 2

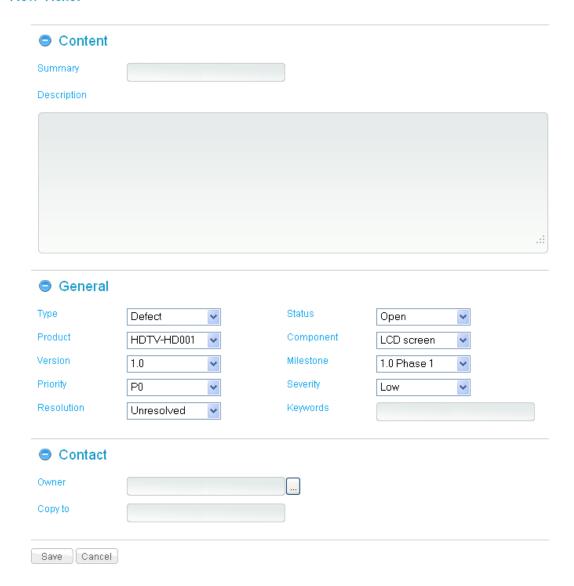


Apply the similar changes on ticket new form. Keep in mind, a New form should not have "Id" element, or reporter and create time elements. Reporter and create time have special default values defined in TicketDO.xml, so they are generated automatically by core Openbiz BizDataObj class.

```
<?xml version="1.0" encoding="UTF-8"?>
<EasyForm Name="TicketNewForm" Class="EasyForm" FormType="New" jsClass="jbForm" Title="New Ticket" Description="" BizData(</pre>
       <DataPanel>
              carallery

calement Name="fld_summary" Class="InputText" FieldName="summary" Label="Summary" ElementSet="Content"/>
<Element Name="fld_description" Class="Textarea" FieldName="description" Label="Description" ElementSet="Content"/</pre>
              </Element>
              </Element>
</Element Name="fld_component" Class="Listbox" FieldName="component_id" Label="Component" SelectFrom="trac.componen
<Element Name="fld_version" Class="Listbox" FieldName="version_id" Label="Version" SelectFrom="trac.version.do.Ver
<Element Name="fld_milestone" Class="Listbox" FieldName="milestone_id" Label="Milestone" SelectFrom="trac.mileston
<Element Name="fld_severity" Class="Listbox" FieldName="severity" Label="Severity" SelectFrom="trac.enum.do.EnumDC
<Element Name="fld_priority" Class="Listbox" FieldName="priority" Label="Priority" SelectFrom="trac.enum.do.EnumDC
<Element Name="fld_status" Class="Listbox" FieldName="status" Label="Status" SelectFrom="trac.enum.do.EnumDC]
<Element Name="fld_resolution" Class="Listbox" FieldName="resolution" Label="Resolution" SelectFrom="trac.enum.do.</pre>
<Element Name="fld_keywords" Class="InputText" FieldName="keywords" Label="Keywords" ElementSet="General"/>
              <Element Name="fld_owner_id" Class="Hidden" FieldName="owner_id" Label="Owner Id" ElementSet="Contact"/>
<Element Name="fld_owner" Class="InputPicker" FieldName="owner" Label="Owner" ValuePicker="system.form.UserPickFor
<Element Name="fld_cc" Class="InputText" FieldName="cc" Label="Copy to" ElementSet="Contact"/>
       </DataPanel>
       <ActionPanel>
              </Element>
              </Element> </ActionPanel>
       <NavPanel>
       </NavPanel>
       <SearchPanel>
       </searchPanel>
</EasyForm>
```

New Ticket



Add Search and Filter on Ticket List

On the ticket list form, it is convenient to allow users to filter by

- type
- status
- priority
- product
- component

And a quick search on ticket summary is very useful as well.

In Cubi, the filters and search box can be easily implemented by adding elements in Form SearchPanel.

And add a menu link in mod.xml and update version to 0.1.6 and reload trac module as all the search form or view interface

```
<MenuItem Name="Trac.Milestone.List" Title="Milestones" Description="" URL="/trac/milestc
<MenuItem Name="Trac.Version.List" Title="Versions" Description="" URL="/trac/version_lis
<MenuItem Name="Trac.Enum.List" Title="Enumerations" Description="" URL="/trac/enum_list"</pre>
                                                                               </MenuItem>
                                                     </MenuItem>
                            </Menu>
                <Dependency:
                           <Module Name="system"/>
                </Dependency>
  </Module>
→
               <SearchPanel>
                           "Tell and the second state of the second 
                            </Element>

<pre
                            </Element>
                                         <Element Name="priority_filter" BlankOption="Priorities" Class="Listbox" FieldName="priority" Label="" Se
<EventHandler Name="priority_filter_onchange" Event="onchange" Function="RunSearch()"/>
                           </Element>
                </searchPanel>
4
```

The ticket list form needs to have its own template, otherwise the search panel becomes too crowded. For that, we set TemplateFile="ticket_list.tpl" in TicketListForm.xml.

Create ticket_list.tpl under /trac/template/ by copying system_right_listform.tpl.html under default cubi theme folder and make the change as below

```
<form id='{$form.name}' name='{$form.name}'>
{literal}
#main #right_panel .content table.input_row td .label_text{
width:350px;
.action_panel{
width: 310px;
.search_pane1{
width:380px;
.search_panel select{
float: left;
margin-right:5px;
</style>
{/literal}
<div style="padding-left:25px;padding-right:40px;">
{include file="system_appbuilder_btn.tpl.html"}
<
   {if $form.icon !='' }
   <div class="form_icon"><img src="{$form.icon}" border="0" /></div>
   {/if}
   <div style="float:left; width:600px;">
   {\form.title}
   </h2>
   {$form.description}
   </div>
</div>
{if $actionPanel or $searchPanel }
{$elem.element}
   {/foreach}
   </div>
</div>
{foreach item=elem key=name from=$searchPanel}
      {if $elem.label} {$elem.label} {/if}
      {$elem.element}
   {/foreach}
   </div>
</div>
{/if}
<div class="from_table_container">
<!-- table start --> 
<thead>
{foreach item=cell key=elems_name from=$dataPanel.elems}
{if $cell.type=='ColumnStyle'}
```

```
{assign var=row_style_name value=$elems_name}
   {else}
{if $cell.type=='RowCheckbox'}
           {assign var=th_style value="text-align:left;padding-left:10px;"}
       {else}
           {assign var=th_style value=""}
       {/if}

<
                          style="{$th_style}"
       >{$cell.label}
   {/if}
 {/foreach}
</thead>
 {assign var=row_counter value=0}
{foreach item=row from=$dataPanel.data}
    {if $row.$row_style_name != ''}
       {assign var=col_style value=$dataPanel.data.$row_counter.$row_style_name}
    {else}
       {assign var=col_style value=''}
     {/if}
     {assign var=row_style value=''}
    {assign var=default_selected_id value=$dataPanel.ids[$row_counter]}
       {elseif $row_counter is odd}
      <tr id="{\form.name}-{\form.name}.ids[\form_counter]}"
               style="{$row_style}"
class="odd" normal="odd" select="selected"
onmouseover="if(this.className!='selected')this.className='dd'"
onmouseout="if(this.className!='selected')this.className='odd'"
               onclick="Openbiz.CallFunction('{$form.name}.SelectRecord({$dataPanel.ids[$row_counter]})');">
    {else}
       se{

    {/if}
     {assign var=col_counter value=0}
    {foreach item=cell key=cell_name from=$row}
{if $col_counter eq 0}
           {assign var=col_class value=' class="row_header" '}
       {else}
           [assign var=col_class value=' '}
       {if $cell_name != $row_style_name}
{if $cell_name == 'fld_type'}
{if $col_style != ''}
                   {assign var=row_bgcolor value=background-color:#$col_style;background-image:none;}
               {else}
                   {assign var=row_bgcolor value=background-color:#ffffff;background-image:none;}
               {/if}
           {assign var=row_bgcolor value=''}
           {$cell}
{else}
           {if $cell != ''}
            
       {/if}
       {assign var=col_counter value=$col_counter+1}
   {assign var=row_counter value=$row_counter+1}
    {/foreach}
</div>
<!-- status switch -->
<script>
{if $form.status eg 'Enabled'}
{elseif $form.status eq 'Disabled'} $('{$form.name}_data_table').fade({literal}{ duration: 0.5, from: 1, to: 0.35 }{/literal}); {/if}
</script>
</script>
<span id='{$form.name}_selected_id' style="display:none">{$default_selected_id}</span>
<!-- table end -->
```

```
<div class="form_footer_panel";</pre>
   <img src="{$image_url}/form_ajax_loader.gif"/>
       </div>
   </div>
    div class="navi_panel">
{if $navPanel}
{foreach item=elem from=$navPanel}
   {if $elem.label} <label style="width:68px;">{$elem.label}</label>{/if}
   {$elem.element}
{/foreach}
{/if}
   </div>
</div>
<div class="v_spacer"></div>
</div>
</form>
```

With the new template, the ticket list form is in good shape.

Ticket Management



Build Other Ticket Pages

Now let's find out the missing features by checking feature requirements in Chapter 1. Besides main ticket management page, the trac application needs to some supporting pages

- Search Tickets
- My Tickets
- · Tickets reported by me
- Saved Search

There is a common concept of the 4 pages, that is "search". My tickets are the search results on ticket owner. The ticket reported by me are the search results ticket reporter.

Search Tickets

It is quite easy to build a separate ticket search page after we have created ticket edit form and ticket list form. If basically create a new view that includes ticket search input form (like the edit form) and search result form (like the list form). While there is a couple of special logic to cover in the search form.

- · Run the query and render the query results in the search results form.
- · Save the query executed from the user inputs.

Thus, we need a custom class for the search input form as well as special form template.

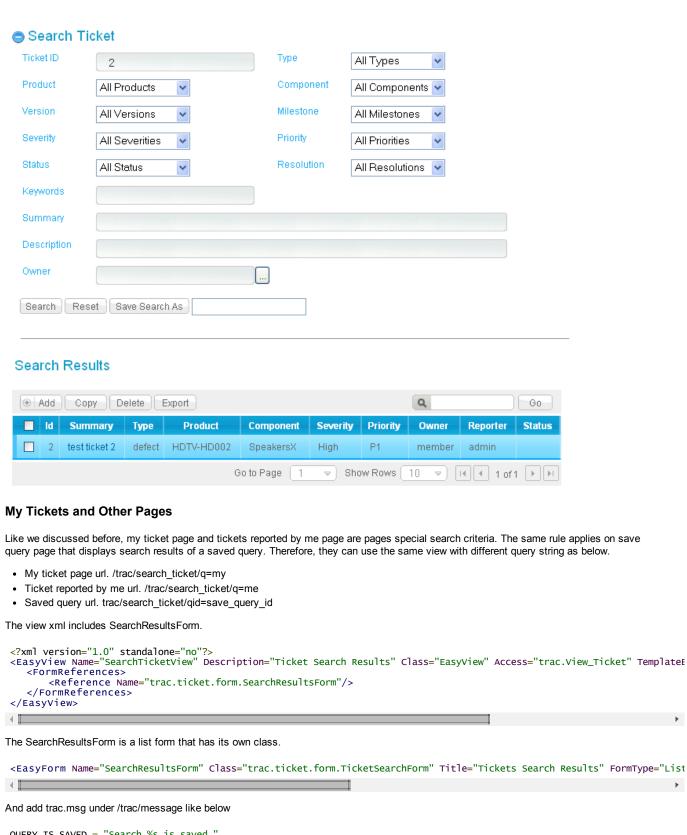
We only copy the first 2 line of the form xml here. The full xml file can be found in the trac download.

```
<?xml version="1.0" encoding="UTF-8"?>
<EasyForm Name="TicketSearchForm" Class="trac.ticket.form.TicketSearchForm" FormType="" jsClass="jbForm" Title="Search TicketSearchForm" FormType="" jsClass="jbForm" FormType=" jsClass="jbForm" FormType="" jsClass="jbForm" FormType="" jsClass="jbForm" FormType="" jsClass="jbForm" FormType="" jsClass="jbForm" FormType="" jsClass="jbForm" FormType="" jsClass="jbForm" FormType=" jsClass=" jsClas
```

The TicketSearchForm class. Here just lists two methods of the form class.

```
if ($value)
                 $searchStr = inputValToRule($element->m_FieldName, $value, $this);
if ($searchRule == "")
                       $searchRule .= $searchStr;
                       $searchRule .= " AND " . $searchStr;
           }
     }
     $searchRuleBindValues = QueryStringParam::getBindValues();
     // get the ticket search results form object, set the search rule and redraw that form
$listFormObj = BizSystem::getObject($this->ticketListForm);
$listFormObj->setSearchRule($searchRule, $searchRuleBindValues);
     $1istFormObj->rerender();
public function saveSearch()
     // get non-empty input field value pairs
$recArr = $this->readInputRecord();
foreach ($recArr as $k=>$v) { // ignore the empty inputs
   if (empty($v))
                unset($recArr[$k]);
     $saveAs = BizSystem::clientProxy()->getFormInputs("input_saveas");
     // serialize it
$data = serialize($recArr);
     $dataRec = new DataRecord($oldRec, $queryObj);
     else {
           $dataRec = new DataRecord(null, $queryObj);
     $dataRec['name'] = $saveAs;
$dataRec['search_rules'] = $data;
           $dataRec->save();
     catch (BDOException $e)
           $this->processBDOException($e);
           return;
     // get the message string from a key QUERY_IS_SAVED which is defined in message file trac/message/trac.msg
$message = $this--getMessage("QUERY_IS_SAVED", array($saveAs));
// display an alert dialog on browser with given message
BizSystem::clientProxy()->showClientAlert($message);
     return:
```

With the special template under /trac/template/ticket_search.tpl, the page is like



```
include_once(OPENBIZ_BIN."/easy/SearchHelper.php");
          $searchRule =
          foreach ($queryData as $fieldName=>$value)
                if ($value)
                     $searchStr = inputValToRule($fieldName, $value, $this);
if ($searchBule == "")
                     if ($searchRule == "")
    $searchRule .= $searchStr;
                          $searchRule .= " AND " . $searchStr;
               }
          }
          $this->setFixSearchRule($searchRule,false);
          $this->m_SearchRuleBindValues = QueryStringParam::getBindValues();
     /// handle search for my ticket or ticket reported by me
else if (isset($_GET['q']))
          $profile = BizSystem::getUserProfile();
if ($profile) {
    $userid = $profile['Id'];
    if ($_GET['q'] == 'my')
               $this->setFixSearchRule("[owner_id]=$userid");
else if ($_GET['q'] == 'me')
                     $this->setFixSearchRule("[reporter_id]=$userid");
     }
}
```

The Saved Query List Form

Last we need to a page to view saved queries. This view can be simply created by gen_meta command line. The steps of creating the metadata are skipped.

The metadata of SavedQueryForm is partially copied below.

Please note that the search rules column has a custom element class defined under /trac/ticket/form/ColumnSearchRule.php. This class helps to unserialize the string stored in search_rules column in trac_query table, and display the text with ";" as delimiter.

The saved query form looks like

My saved ticket searches



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