

Arvados - Story #9043

[Crunch2] [Workbench] Render CWL input selection forms

04/25/2016 03:34 PM - Brett Smith

Status:	Resolved	Start date:	07/26/2016
Priority:	Normal	Due date:	
Assigned To:	Peter Amstutz	% Done:	67%
Category:	Workbench	Estimated time:	0.00 hour
Target version:	2016-08-31 sprint		
Description			
<p>CWL input form offer significantly more options than the existing Arvados pipeline template forms. Major points include arrays and union types (where more than one type of value is acceptable), which are characterized by the user needed to edit a list or select among different types which may offer different editing controls.</p> <p>For now, we will adapt (or, if needed, copy) the existing Rails-based pipeline form so it can operate on a container request that has an embedded CWL workflow (as provided by #9766).</p> <p>The first version must support:</p> <ul style="list-style-type: none">• text entry• number entry• file selection• directory selection (where the desired directory is an entire collection) <p>The first version might not support:</p> <ul style="list-style-type: none">• checkbox• control that wraps list of individual controls to add/reorder/remove items in arrays• control that wraps above controls to enable/disable optional parameters• directory selection (where the desired directory is not an entire collection)			
Subtasks:			
Task # 9806: Review branch 9043-edit-container-request			Resolved
Task # 9805: [Workbench] Add a Run button to "show container request" page when state=U...			Resolved
Task # 9860: Review branch 9043-test-edit-container-request			Resolved
Related issues:			
Related to Arvados - Story #9044: [Crunch2] [Workbench] Browse and show tools...		New	
Has duplicate Arvados - Feature #4605: [Workbench] Workbench support for gene...		Resolved	03/07/2017

Associated revisions

Revision 7497b21c - 08/29/2016 07:15 PM - Peter Amstutz

Merge branch 'origin-9043-test-edit-container-request' closes #9043

History

#1 - 06/29/2016 01:51 PM - Peter Amstutz

- Description updated

#2 - 06/29/2016 01:52 PM - Peter Amstutz

- Description updated

#3 - 06/29/2016 01:53 PM - Peter Amstutz

- Description updated

#4 - 06/29/2016 04:01 PM - Radhika Chippada

Checked with Peter and one of the inputs can be a file from within an arvados collection and hence we need to be able to support this.

#5 - 07/12/2016 06:44 PM - Tom Morris

Possible starting points from SevenBridges:

<https://github.com/rabix/cwl-ts>

<https://github.com/rabix/cottontail>

#6 - 07/12/2016 07:02 PM - Brett Smith

Stories:

- Just render the workflow, no editing
- Support editing non-compound input types
- Support editing compound input types (this could be broken out into even more sub-stories, one per type, if need be)

#7 - 07/13/2016 07:21 PM - Peter Amstutz

- File `exampleinputs.yml` added

- File `inputs-post.json` added

See attached `exampleinputs.yml` for something a user might write.

Normalize this file and get JSON by using `cwltool --print-pre`

```
cwltool --print-pre exampleinputs.yml > inputs-post.json
```

The attached `inputs-post.json` is an example of the normalized form. For UI it will be more robust to run the `--print-pre` normalization and load the resulting JSON.

We need the following editing controls:

- text entry
- number entry
- checkbox
- file selection
- directory selection
- control that wraps list of individual controls to add/reorder/remove items in arrays
- control that wraps above controls to enable/disable optional parameters

#8 - 07/26/2016 06:32 PM - Tom Clegg

- Category set to *Workbench*

- Assigned To set to *Tom Clegg*

#9 - 07/26/2016 06:41 PM - Ward Vandewege

Perhaps relevant: <https://github.com/mrsweaters/mithril-rails>

#10 - 07/26/2016 07:05 PM - Tom Morris

- Target version set to *Arvados Future Sprints*

#11 - 08/16/2016 06:39 PM - Tom Clegg

- Description updated

#12 - 08/16/2016 06:50 PM - Tom Morris

- Story points set to *4.0*

#13 - 08/16/2016 07:26 PM - Peter Amstutz

- Story points deleted (*4.0*)

Relevant bits of existing field component rendering:

`workbench/app/views/pipeline_instances/_show_components_editable.rb`

Render the pipeline template form entry by going through each element in the script parameter of the pipeline template and calling `render_pipeline_component_attribute`

```
<% component[:script_parameters].andand.each do |p, tv| %>
  <tr>
    <td style="border-top: none"></td>
    <td style="border-top: none"></td>
```

```

      <td class="property-edit-row"><%= p %></td>
      <td class="property-edit-row"><%=
render_pipeline_component_attribute (editable && @object),
      :components, [k, :script_parameters, p.to_sym], tv %></td>
    </tr>
  <% end %>

```

workbench/app/helpers/application_helper.rb
 Renders HTML for a single editable field (with AJAX update).
 May need to be tweaked/updated for CWL fields.

```
def render_pipeline_component_attribute(object, attr, subattr, value_info, htmloptions={})
```

workbench/app/controllers/pipeline_instances_controller.rb
 Accepts AJAX PUT from browser to update a field (the corresponding server side for above code).
 Will need to be copied in some form to container_requests:

```

def update
  @updates ||= params[@object.class.to_s.underscore.singularize.to_sym]
  if (components = @updates[:components])
    components.each do |cname, component|
      if component[:script_parameters]
        component[:script_parameters].each do |param, value_info|
        ...
      end
    end
  end

```

#14 - 08/16/2016 07:26 PM - Peter Amstutz

- Story points set to 4.0

#15 - 08/17/2016 07:26 PM - Tom Morris

- Assigned To changed from Tom Clegg to Peter Amstutz
 - Target version changed from Arvados Future Sprints to 2016-08-31 sprint

#16 - 08/23/2016 08:19 PM - Radhika Chippada

- Status changed from New to In Progress

#17 - 08/25/2016 12:45 AM - Radhika Chippada

Comments regarding [7700e66](#)

- container_requests_controller.rb => show_pane_list

- This “if @object and @object.state 'Uncommitted'” can be “if @object.andand.state 'Uncommitted'”
- Should the “Graph” tab also be hidden when Log is hidden?
- Fiddlesticks when I visit the Graph tab

- container_requests_controller.rb => update

- Since most of the code is in “if input_obj” block, it might be better if you unpyramid the code and return earlier if input_obj is not found?
- same with “if input_obj.include? input_schema[:id]” - use a continue if not?
- In “c = display_value = Collection.find(re¹)” : it appears that display_value is unused?
- Would you be able to define “/^[0-9a-z]{5}-([0-9a-z]{5})-[0-9a-z]{15})(V.*)?\$/” once and reuse than repeat it?

- application_helper

- Instead of “null” can we use “optional” here to indicate an optional parameter? — required = !(input_schema[:type].include? "null")
- It appears that “id” in “inputs” is what distinguishes one from the other. If I had something as below for my inputs definition in the workflow, it still is allowed and rendered but it appears that populating it may be problematic. Do we need to some kind of validation that an id is not repeated in the workflow?

```

"inputs": [
  {
    "type": "double",

```

```

      "id": "ex_double",
      "inputBinding": {"position": 1}
    },
    {
      "type": "double",
      "id": "ex_double",
      "inputBinding": {"position": 1}
    }
  }

```

- When I select “false” for a boolean input field, it’s being shown in UI as “#”

- container_requests_test

- Does “INPUT_SELECTOR” need to be all uppercase?
- The test of course is not passing, but I think you are aware of it already.

#18 - 08/25/2016 03:31 PM - Peter Amstutz

Radhika Chippada wrote:

Comments regarding [7700e66](#)

- container_requests_controller.rb => show_pane_list

- This “if @object and @object.state 'Uncommitted'” can be “if @object.andand.state 'Uncommitted'”

Done.

- Should the “Graph” tab also be hidden when Log is hidden?
- Fiddlesticks when I visit the Graph tab

The Graph tab doesn't exist, I got rid of it.

- container_requests_controller.rb => update

- Since most of the code is in “if input_obj” block, it might be better if you unpyramid the code and return earlier if input_obj is not found?

It calls “super” at the end so I prefer not to change the flow.

- same with “if input_obj.include? input_schema[:id]” - use a continue if not?

Done.

- In “c = display_value = Collection.find(re¹)” : it appears that display_value is unused?

Fixed.

- Would you be able to define “/^[0-9a-z]{5}-([0-9a-z]{5})-[0-9a-z]{15})(V.*)?\$/” once and reuse than repeat it?

You're right, there's already a helper function for this, I changed it to use the helper.

- application_helper

- Instead of “null” can we use “optional” here to indicate an optional parameter? — required = !(input_schema[:type].include? "null")

No, “null” is how CWL represents optional inputs (an optional input is defined as one where “null” is a permitted value).

- It appears that “id” in “inputs” is what distinguishes one from the other. If I had something as below for my inputs definition in the workflow, it still is allowed and rendered but it appears that populating it may be problematic. Do we need to some kind of validation that an id is not repeated in the workflow?
[...]

That's an error in the workflow, I'm not sure where the validation should happen.

- When I select “false” for a boolean input field, it’s being shown in UI as “#”

Ok, I think I fixed it. I keep having trouble because both Ruby and Javascript have notions about "false == null".

- container_requests_test

- Does "INPUT_SELECTOR" need to be all uppercase?

I copied that from the pipeline_instances test.

- The test of course is not passing, but I think you are aware of it already.

Yes, for some reason it's not able to find the "ok" button to submit the value, I haven't looked into it.

#19 - 08/25/2016 04:17 PM - Radhika Chippada

Thanks for addressing those.

- There is still one more occurrence of `/^[0-9a-z]{5}-([0-9a-z]{5})-[0-9a-z]{15})(V.*)?$/` in `application_helper`
- Regarding "That's an error in the workflow, I'm not sure where the validation should happen" : I think it would be desirable that we add this validation to workflow objects. In any case, would you please add ticket about this for future consideration? Thanks.

#20 - 08/25/2016 05:24 PM - Peter Amstutz

Radhika Chippada wrote:

Thanks for addressing those.

- There is still one more occurrence of `/^[0-9a-z]{5}-([0-9a-z]{5})-[0-9a-z]{15})(V.*)?$/` in `application_helper`

Fixed, thanks.

- Regarding "That's an error in the workflow, I'm not sure where the validation should happen" : I think it would be desirable that we add this validation to workflow objects. In any case, would you please add ticket about this for future consideration? Thanks.

This validation should really happen as part of CWL document loading & validation, I filed [#9853](#) which has a link to a schema salad issue.

#21 - 08/26/2016 02:38 AM - Radhika Chippada

Branch 9043-test-edit-container-request at commit [e93aaa7](#)

- Updated `application_helper` to address the issue where "number" was not allowing decimal numbers to be entered for floats and doubles. Set to text in these cases
- added tests to add and verify input for double, float, int, int_opt, long, string, string_opt, boolean, enum, directory, file typed inputs
- added test to verify that the Run button is enabled and works as expected when all required inputs are provided

#22 - 08/29/2016 05:35 PM - Radhika Chippada

Couple more comments / questions about `containers_request.yml` updates at [3bdb80d](#)

- Both `uncommitted` and `uncommitted_ready_to_run` have `ex_opt_string` and `ex_string_opt`. Can we remove the second one in these fixtures?
- Since we do not yet support array types, do we want to remove `ex_opt_file_array` from the fixtures?

#23 - 08/29/2016 06:37 PM - Peter Amstutz

Radhika Chippada wrote:

Couple more comments / questions about `containers_request.yml` updates at [3bdb80d](#)

- Both `uncommitted` and `uncommitted_ready_to_run` have `ex_opt_string` and `ex_string_opt`. Can we remove the second one in these fixtures?

Yes, that was a mistake, I think I added the 2nd optional string not realizing the first one was already there.

- Since we do not yet support array types, do we want to remove `ex_opt_file_array` from the fixtures?

Yes.

#24 - 08/29/2016 07:20 PM - Peter Amstutz

- Status changed from *In Progress* to *Resolved*

- % Done changed from 0 to 100

Applied in changeset arvados|commit:7497b21c937bb6e8451f16047945b7cfc9081a53.

Files

exampleinputs.yml	899 Bytes	07/13/2016	Peter Amstutz
inputs-post.json	2.39 KB	07/13/2016	Peter Amstutz