Arvados - Feature #17415

Create Mountainduck Bookmark files

02/19/2021 04:52 PM - Daniel Kutyła

Status:	Resolved		**Start date:**	04/12/2021
Priority:	Normal		**Due date:**	
Assigned To:	Daniel Kutyła		**% Done:**	100%
Category:	Workbench2		**Estimated time:**	0.00 hour
Target version:				

Description

We use a tool called MountainDuck to mount Arvados Collections to the local computers of users. Doing the mounting is for non-technical users a bit tedious and therefore we are looking to optimise this with a convenient functionality inside the workbench.

Workbench2 supports custom file viewers, however these work with urls. What we would need somehow is a custom action for collections (and later also for projects) to generate a XML file with the extension '.duck' and download them. The user would be able to open them which creates the bookmark to the collection (or project.

The basic structure of this file is outlined here:

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE plist PUBLIC "-//Apple//DTD PLIST 1.0//EN" "http://www.apple.com/DTDs/PropertyList-1.0.dtd">
<plist version="1.0">
<dict>
<key>Protocol</key>
<string>davs</string>
<key>Provider</key>
<string></string>
<key>UUID</key>
<string></string>
<key>Hostname</key>
<string></string>
<key>Port</key>
<string></string>
<key>Username</key>
<string></string>
<key>Path</key>
<string></string>
<key>Access Timestamp</key>
<string></string>
</dict>
</plist>
```

Subtasks:

Task # 17524: Review 17415-Mountainduck-Bookmark-files	**Closed**

Associated revisions

Revision 409e53a9 - 04/26/2021 08:48 AM - Daniel Kutyła

Merge branch '17415-Mountainduck-Bookmark-files'
closes #17415

Arvados-DCO-1.1-Signed-off-by: Daniel Kutyła <daniel.kutyla@contractors.roche.com>

History

#1 - 03/26/2021 03:45 PM - Daniel Kutyła

- Status changed from New to In Progress

#2 - 04/12/2021 08:20 AM - Daniel Kutyła

New version first commit: https://dev.arvados.org/projects/arvados-workbench-2/repository/revisions/37f3a8d7a7ce05a15fbb9219763b46ba1c250976
Test run: developer-tests-workbench2: #366 icon?job=developer-tests-workbench2&build=366

Created mountainduck bookmark files generator

#3 - 04/12/2021 03:20 PM - Lucas Di Pentima

Reviewing arvados-workbench2|37f3a8d

- As you can see on developer-tests-workbench2: #366 icon?job=developer-tests-workbench2&build=366/console -- there're some problems with the cypress test environment.
- On the Cypress test, could we check that the downloaded .duck file's contents is correct instead of just checking that its size is greater than 50?
- At file src/store/collections/collection-info-actions.ts
  - Line 38, the collection's name that seems to be retrieved is the one that's being displayed on the collection panel. The problem I'm seeing with this approach is that the "webdav/S3 dialog" can be called from within a context menu inside a project listing, so in that case it will be retrieving an incorrect name if the user selected another collection previously. You can reproduce the issue doing:
    - Create a 'Collection A' collection inside the home project.
    - Create a 'Collection B' collection inside the home project.
    - From within the home project, click on the 'Collection A' collection.
    - Go back to the home project.
    - Right-click on the 'Collection B' collection, ask for the WebDav/S3 dialog and download the mountain duck file.
    - The downloaded file will have the 'Collection A' name.
  - Also line 38: I don't think overriding the typing system by casting to any is convenient.
- At file src/views-components/webdav-s3-dialog/webdav-s3-dialog.tsx
  - Line 72: Can you explain why you split and re-join the the returned string? If you're providing the template's string on the code, it shouldn't be necessary to do that kind of "cleaning".
  - Line 201: The button's label is not very clear what it downloads. Do you agree that changing it to 'Download Cyber/Mountain Duck bookmark' would be better?
- Also, have you tried the generated bookmark file? It doesn't work for me on arvbox and ce8i5. I believe it should also work using Cyberduck (free tool from the same team) because I get the same error message when trying both: DNS lookup for davs://user@IP_or_hostname failed.... Some possible problems are:
  - Username, protocol and port number get included on the 'hostname' field.
  - Port number is hardcoded to 443 (it can be different, for example arvbox uses a different one)
  - Password (token) doesn't get included on the file.

#4 - 04/12/2021 03:49 PM - Lucas Di Pentima

This is the .duck file that I got generated with CyberDuck Mac version 8.7.5:

```xml
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE plist PUBLIC "-//Apple//DTD PLIST 1.0//EN" "http://www.apple.com/DTDs/PropertyList-1.0.dtd">
<plist version="1.0">
<dict>
    <key>Protocol</key>
    <string>davs</string>
    <key>Provider</key>
    <string>iterate GmbH</string>
    <key>UUID</key>
    <string>ef96de3e-1bf7-4204-9f60-e2c035a338c1</string>
    <key>Hostname</key>
    <string>ce8i5-4zz18-mx9loldsvg238gk.collections.ce8i5.arvadosapi.com</string>
    <key>Port</key>
    <string>443</string>
    <key>Username</key>
    <string>ldipenti</string>
    <key>Path</key>
    <string>/</string>
    <key>Access Timestamp</key>
    <string>1618242186076</string>
</dict>
</plist>
```

Note that the Hostname key is populated with just the collection's hostname, and not the entire davs://ldipenti...@ URL.
The password isn't included (although somehow it gets saved and isn't requested), so I'm not sure if we could avoid the user having to enter the password (token) manually. Maybe Cyberduck's docs have some information about that.

#5 - 04/13/2021 07:51 PM - Lucas Di Pentima

Reviewing changes made on arvados-workbench2|c26242a

Although changes in .duck files made the bookmark work for clusters like ce8i5, it still has the issue of having the 443 port hardcoded and not supporting keep-web collection urls with non-standard ports: for example, if the collection's url is something like https://collection-uuid.hostname:9004, the .duck file's hostname field will be filled with "collection-uuid.hostname:9004" as a hostname, producing a DNS resolution error.

#6 - 04/15/2021 09:57 PM - Daniel Kutyła

New version first commit:
https://dev.arvados.org/projects/arvados-workbench-2/repository/revisions/645ea9356ef315154681d093cd6a42c1a8984e12
Test run: developer-tests-workbench2: #371 icon?job=developer-tests-workbench2&build=371

Fixed duck file added better tests

#7 - 04/16/2021 02:39 PM - Lucas Di Pentima

Tests are failing the same way as described on #note-3: developer-tests-workbench2: #371   icon?job=developer-tests-workbench2&build=371
/console

#8 - 04/20/2021 07:16 PM - Daniel Kutyła

New version first commit: https://dev.arvados.org/projects/arvados-workbench-2/repository/revisions/eaf76a93400029d3d788264b829bf878aad1f661
Test run: developer-tests-workbench2: #381   icon?job=developer-tests-workbench2&build=381

Cypress upgrade to 3.6 in order to fix electron download issue

#9 - 04/20/2021 07:27 PM - Lucas Di Pentima

Please remove the it.only() call and re-run tests.

#10 - 04/20/2021 07:31 PM - Daniel Kutyła

New version first commit:
https://dev.arvados.org/projects/arvados-workbench-2/repository/revisions/0569677b7c4d4a907950b6dfc6218eabaa2aad59
Test run: developer-tests-workbench2: #384   icon?job=developer-tests-workbench2&build=384

Removed only

#11 - 04/20/2021 09:32 PM - Lucas Di Pentima

Reviewing arvados-workbench2|0569677b

Lucas Di Pentima wrote:

> Reviewing arvados-workbench2|37f3a8d
>
> - At file src/store/collections/collection-info-actions.ts
>   - Line 38, the collection's name that seems to be retrieved is the one that's being displayed on the collection panel. The problem I'm
>   seeing with this approach is that the "webdav/S3 dialog" can be called from within a context menu inside a project listing, so in that
>   case it will be retrieving an incorrect name if the user selected another collection previously. You can reproduce the issue doing:
>   - Create a 'Collection A' collection inside the home project.
>   - Create a 'Collection B' collection inside the home project.
>   - From within the home project, click on the 'Collection A' collection.
>   - Go back to the home project.
>   - Right-click on the 'Collection B' collection, ask for the WebDav/S3 dialog and download the mountain duck file.
>   - The downloaded file will have the 'Collection A' name.

The above issue keeps happening.

> - Also line 38: I don't think overriding the typing system by casting to any is convenient.

This wasn't addressed, is there a reason why?

> - At file src/views-components/webdav-s3-dialog/webdav-s3-dialog.tsx
>   - Line 72: Can you explain why you split and re-join the the returned string? If you're providing the template's string on the code, it
>   shouldn't be necessary to do that kind of "cleaning".

This wasn't addressed also, why do you split and then join a string by newline characters if the string is already provided in the code?

> - Line 201: The button's label is not very clear what it downloads. Do you agree that changing it to 'Download Cyber/Mountain Duck
>   bookmark' would be better?

The button still states 'download config' on its label, do you think that's a clear enough name?

- The cypress test looks good. The XML file decoding code seems a little convoluted to me, it would be nice to have at least a comment explaining
  what is doing, for future readers.
- I think you should commit the updated yarn.lock file.
- The non-default port fix seems to be correct, but there's also a related issue with hostnames: When wildcard hostnames aren't set and only IPs
  are used (for example, the arvbox use case), the bookmark file should include a Path key with the value /c=<collection uuid or pdh> as described
  on https://doc.arvados.org/v2.1/api/keep-webdav.html

Here's an example that works on my arvbox instance:

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE plist PUBLIC "-//Apple//DTD PLIST 1.0//EN" "http://www.apple.com/DTDs/PropertyList-1.0.dtd">
<plist version="1.0">
```

```
<dict>
    <key>Protocol</key>
    <string>davs</string>
    <key>Provider</key>
    <string>iterate GmbH</string>
    <key>UUID</key>
    <string>x240b-4zz18-cx9p60347rmsyoi</string>
    <key>Hostname</key>
    <string>10.1.1.32</string>
    <key>Port</key>
    <string>9004</string>
    <key>Username</key>
    <string>user</string>
    <key>Path</key>
    <string>/c=x240b-4zz18-cx9p60347rmsyoi</string>
    <key>Access Timestamp</key>
    <string>1618953853339</string>
    <key>Labels</key>
    <array>
    </array>
</dict>
</plist>
```

#12 - 04/23/2021 11:06 AM - Daniel Kutyła

New version first commit: https://dev.arvados.org/projects/arvados-workbench-2/repository/revisions/ef925b80e9d4cb8d0c7e86c7bc0e642533eaf7b2
New version first commit: https://dev.arvados.org/projects/arvados-workbench-2/repository/revisions/aa6c77cc30b4762db93f2458aeaf3e2e41f17d2c
Test run: developer-tests-workbench2: #393 icon?job=developer-tests-workbench2&build=393
Test run: developer-tests-workbench2: #394 icon?job=developer-tests-workbench2&build=394

Added path for ip based hostnames

#13 - 04/23/2021 11:07 AM - Daniel Kutyła

This wasn't addressed, is there a reason why?

At file src/views-components/webdav-s3-dialog/webdav-s3-dialog.tsx
Line 72: Can you explain why you split and re-join the the returned string? If you're providing the template's string on the code, it shouldn't be necessary to do that kind of "cleaning".

It is used to remove windows endlines which cause file not being parsed properly

#14 - 04/23/2021 01:50 PM - Daniel Kutyła

Test run: developer-tests-workbench2: #395 icon?job=developer-tests-workbench2&build=395

#15 - 04/23/2021 06:24 PM - Lucas Di Pentima

Daniel Kutyła wrote:

> This wasn't addressed, is there a reason why?
>
> At file src/views-components/webdav-s3-dialog/webdav-s3-dialog.tsx
> Line 72: Can you explain why you split and re-join the the returned string? If you're providing the template's string on the code, it shouldn't be necessary to do that kind of "cleaning".
>
> It is used to remove windows endlines which cause file not being parsed properly

I'm not sure what you mean by this. I've tried removing the splitting+re-joining calls from the code and the generated file worked just fine.

Just a couple more comments:

- At file src/views-components/webdav-s3-dialog/webdav-s3-dialog.tsx Line 48 there's some console logging that I think you didn't meant to leave.
- At file cypress/integration/collection.spec.js Line 43 there's a cy.doSearch(collectionUUID) call that can be replaced with the recently merged cy.goToPath('/collections/collectionUUID'), it will be faster because it uses the app's router instead of doing a wb2 search.

The rest LGTM.

#16 - 04/26/2021 01:41 PM - Daniel Kutyła

- % Done changed from 0 to 100

- Status changed from In Progress to Resolved

Applied in changeset [arvados-workbench2|409e53a945f68678eb37dd09c8dc2ad6343d236a](#).

#17 - 05/13/2021 03:24 PM - Peter Amstutz

- Release set to 38