

# **BACPAC** Data Portal User Guide

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Prepared by the BACPAC Data Integration, Algorithm Development, and Operations Management Center (DAC)

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## **1. BACPAC Data Portal Overview**

To access the BACPAC Data Portal, navigate to: https://www.bacpacresearch.org/.

The following page will be displayed. Follow the steps below to log into the BACPAC Data Portal.



- a. Click the login button.
- b. On the Microsoft login screen (see image below), choose the account you use to login to the BACPAC Research Consortium MS Teams site:



c. You will be re-directed to your organization's login page. Once you complete the login process, the Home page of the BACPAC Data Portal will display.

#### 1.1. Home

The Home page presents a summary of resources that you have access to. We will examine each of these resources using options on the left-hand menu.



a. To access information about your account, click your name in the top right-hand corner of the screen.



b. Select "Profile" to display a screen similar to this:

My Account						
Name	Bryan, Hope E					
E-mail	@ad.ur	nc.edu				
Site	UNC					
Member Since	2020-09-18					
Computing Console Login Credentials						
Username	hopeb	@bacpacresearch.or	Ľ			
Password	•••••		Ľ			

## 1.2. Browse Assets

The Browse Assets page lists datasets and program code which are available for use in the portal. All datasets are read-only. These datasets are sometimes referred to as "canonical data". These datasets cannot be modified by users in the portal.

Browse	Assets				
-test01			Any Asset Type		~
Any Access		~	Any Site		~
Any Request	State	~			
	Reset Search				
	20210317-1124-test01 ID: 20210317-1124-test01 Description: 20210317-1124-test01			2021-03-17	
	20210317-1058-test01			by UNC	
	Description: 20210317-1058-test01			10110011	
	20240247 4057 tost04			by UNC	
	ID: 20210317-1057-test01 Description: 20210317-1057-test01			2021-03-17	

This page shows identifying information about the asset (Note: the icon indicates whether the

asset is data  $\blacksquare$  or code  $\checkmark$ ; the dataset name and description, the site which owns the asset and the access you have.

Your access to the asset is shown. It can be:

- None meaning you do not have access to the asset and cannot use the asset for analysis.
- Site meaning you have access to use the asset because it was produced by your research site.
- Submission meaning you have access to use the asset because you submitted the asset to the BACPAC Data Portal for your research site.
- Project meaning you have access to use the asset because you were granted access via the request process.

The asset request state or status is also shown to the right. It can be:

- Awaiting Submission A new "Large File" asset submission was initiated, but the submission has not been marked as "Complete" by the submitter.
- Pending Approval A new asset has been submitted to the BACPAC Data Portal and is under DAC review.
- Accepted The asset and any new versions of the asset have been fully reviewed and approved by the DAC for use on the BACPAC Data Portal. Accepted assets are available to approved users from within their virtual machines.
- Awaiting Version Submission The submission of a new version for an existing asset was initiated via the "Large File" submission mechanism, but the new version submission has not been marked as "Complete" by the submitter. Previously approved

versions of the asset are still available for use by approved users from within their virtual machines.

 Pending Version Approval – A new version of an existing asset has been submitted to the BACPAC Data Portal and is under DAC review. Previously approved versions of the asset are still available for use by approved users from within their virtual machines.

Any datasets to which you have access will be included in drives mapped on the virtual machines you create in the portal.

Note the search boxes at the top of the page. You can filter the display of assets on the page by asset type, your access status, the [research] site who owns the asset, asset status/request state, or by an ad-hoc search string.

You can request access to data through the data access and publication request process in the BACPAC Research Consortium General channel on Microsoft Teams. At the top of the General channel, the tab called "BACPAC Data Access and Publication Request Submission" includes instructions on how to submit a request and a link to download the request form.

From the "Browse Assets" page, users can click on a specific asset to view more details about the asset, including initial date created, the user who submitted the initial asset, the asset description, associated projects, and the asset version history.

Browse -	Browse -> Simulated BACPAC Minimum Dataset 🥃							
You have access	ss to this asset							
Name	Simulated BACPAC Minimum Dataset							
Identifier	min-data-sim							
Status	Accepted							
Site	UNC							
Туре	Data							
Created	2021-02-12							
Submitter	McCumber, Micah < unc.edu	l>						
Description	BACPAC Minimum Dataset documentation	n and datasets.						
My Projects W	My Projects With Access							
Name Clinician Treatment Pr	eference Questionnaire	Role Collaborator						
Versions	)							
Version	Rationale	Date of Snapshot	Windows Mount Path	Linux Mount Path				
1	Testing PRO folder upload.	2021-02-12	c:\mnt\containers\canonical\UNC\min-data-sim.	/mnt/containers/canonical/UNC/min-data-sim				

#### **Advanced Search**

Advanced Search criteria can be specified by clicking the "Advanced Criteria" Button. This allows users to search "meta-data" associated with each data set. Although this meta-data varies from set to set, typically searchable are things like the columns in the data set and their unique values and ranges.

Condition Set 1	×	
	greater 🗸	>
+ Criteria		
		+ Condition Set

Click the "+ Condition Set" link to add more conditions. All conditions must be true for a data set to match.

Selecting a predicate will bring up documentation as to the behavior of the predicate.

#### Submitting a New Version of an Approved Asset

New versions of an approved asset are submitted via the detailed asset page, NOT from the "Submit Asset" page. More details are provided in section 2.2.

## 1.3. My Workspace

The BACPAC Data Portal allocates a workspace for each user.

Browse User Workspace							
My Personal Workspace							
Moun	Mount Info						
This wor	This workspace will be mounted in Windows VMs at C:\mnt and in Linux VMs at /mnt/.						
Contents							
4	Reminder: Users are expressly prohibited from downloading study data from the BACPAC Data Portal. This includes any and all patient-level data regardless of whether the data has been deidentified by the user. Users are permitted to download program code and summary results (e.g., summary tables, graphical displays, etc.) from the BACPAC Data Portal. By requesting access to the BACPAC Data Portal, users agree to adhere to this policy. Any violations of this policy may result in permanent revocation of a user's access.						
Loc	ation: (root)						
E							
	Name	Size	Last Modified				
	nnnn	-	9/28/2020 3:29:18 PM UTC				
	project 1	-	9/29/2020 12:29:24 PM UTC				
۵	DacClient.java	3.2 KB	9/29/2020 12:28:48 PM UTC	download			

The User Workspace comprises read / write file space accessible only to the user.

The workspace can be used for analysis output, logs, code, documents, or other files a user requires.

However, **it is forbidden to download study data from the BACPAC Data Portal**. This warning is prominently displayed on the User Workspace page. While the portal cannot prevent the download of study data, all file downloads are logged. The logs are scanned and the portal administrators are notified of any suspicious or prohibited activity.

From the user workspace page, you can create new directories and upload or download files.

- Click the 🕒 icon to add a new folder.
- Click the icon to upload a file.
- Click the download icon to download a file. The download icon is displayed only for files, not for directories.
- To go into a directory to display its files, click the directory name.
- To navigate up the directory structure, click the "Location" links:

## 1.4. Computing Console

The "Computing Console" page allows you to create, manage and access virtual machines (VMs) for data analysis.

Computing Console						
Active Sessions						
Windows / 2 Core / 8 GB TST-WIN-26 is Running micam @10.x.x.x Status Last Updated: 2/1/2021 3:59:21 PM UTC (update now)	Stop	Restart	Delete			
New Sessions						
Linux	Create					

Virtual machines will be in one of several states:

- Not yet created
- Creating
- Running
- Stopping
- Stopped

To create a new VM, click the "Create" button. **The creation process may take several minutes.** Refresh the page; when it is created its status will be "Running".

Active (running) sessions can be stopped, restarted or deleted.

- Stopping a VM keeps the VM instance but stops it from consuming resources.
- Restarting the VM starts a stopped VM and prepares it for your use.
- Deleting a VM stops the running VM and removes it from your account. To use it again you will have to create it again.

In the example screenshot above, a Windows VM has been created and is running and ready to be used for analysis. A Linux VM is not yet created.

It is good practice to **stop a VM once analysis programs are finished and you have logged out of the session**. This saves resources and reduces cost.

#### The VMs you create are accessible to you only. Once created, they exist until you delete

**them.** Click the box describing the Windows VM. A detailed view of the running Windows VM is shown.

Computing Console -> Windows VM						
Status: Running 🥥						
Windows / 2 Core / 8 GB TST-WIN-26 is Running micam @10.x.x.x		Stop	Restart	Delete		
Status Last Updated: 2/1/2021 3:59:21 PM	UTC (update now)					
Virtual Machine Connection Instructions						
Windows Virtual Desktop	Connect					
	Instructions					
IP Address	10.x.x.x					
Remote Desktop	micam			<b>نل</b>		
			0			
Workspace Instructions						
Your personal workspace and project work	spaces will be available (fo	or read and writ	te) at C:\mnt in yo	ur VM.		

The "Workspace Instructions" at the bottom of the detailed VM page provides the mount location of your personal and project workspaces to which you have access. In addition to these, you will have read access to any canonical data you have been granted.

- You have access to any data from your research site.
- You also have access to any canonical data used for projects on which you collaborate.

To run data analyses, connect to the VM, open a remote desktop or command line session and you will have access to the software installed on the VM.

- If you have problems accessing a running VM, stop the VM and restart it.
- If that does not solve the problem, delete the VM and recreate it.

Step-by-step instructions for logging into Windows and Linux VMs are provided in section 2.

Instructions for using the Linux and Windows VMs, including accessing data, using provided software, and writing and sharing output results and code are provided in section 4.

## 1.5. Projects

The Projects page lists all the projects you are working on, both your own and those on which you are collaborating with other researchers.

Projects			
My Projects			
Name	Sites		
Cleveland Clinic Covid Clinical Trial (CCCC)	UNC	workspace	
Collaborating Pro	jects		
Name	Owner	Sites	
BACPAC Test Project-1	Chowdary, Sunchu at UNC	UNC	workspace
UNC Asthma Study	Carl Smalley at UNC	UNC	workspace
African Swallow Project	Carl Smalley at UNC	UNC, 3Cloud	workspace

Each project has an associated workspace where files related to the project can be written.

Click on "Project Name" to display the project details.

Projects ->	> UNC Astl	nma	Study	
UNC Asthma Study M Psioda 2020-09-29				
Owner Carl Smalley (	@ad.unc.edu)			
Description New study on 200 ast	hma drugs.			
Collaborators				
Name Bryan, Hope		E-ma	il Address @ad.unc.edu	Site
Assets				
Name		Site		Identifier
test_data		UNC		test_data

Click on the "Workspace" button associated with a project to display the project details.



From the Project Workspace page, you can view, upload and download files associated with the project. Unlike User Workspaces, which are restricted to the single user, Project Workspaces can be used by all researchers collaborating on a project. This is the mechanism by which you share results, code and other project artifacts.

Note the warning on this page: You are prohibited from downloading study data from the **BACPAC Data Portal.** While it is possible to output an entire canonical dataset to a project or user workspace where it can be downloaded, that violates the portal user agreement. Such downloads will be recorded in the system logs so any violation will be detected.

#### 1.6. Submit Asset (New Assets Only)

Some users have the ability to submit assets to the BACPAC Data Portal. Assets comprise study (canonical) data and code useful in BACPAC study data analysis.

To submit a **NEW** asset, complete the form displayed below. The fields have short explanations that describe the information needed.

Standard uploads are limited to small, single files (e.g., an R program or single datafile with no documentation). Most asset submissions will be "Large File" uploads, which include all submissions with a single file greater than 1 GB or submissions with two or more files.

Once the form is complete, click the "Submit" button. For "Large File" submissions, additional instructions will appear at the top of the screen with a unique link to submit your file(s) using Microsoft Azure Storage Explorer (see section 2).

Submit Asset		
Upload Type Choose 'Large File' if your asset is greater in size than 1 GB or your asset contains multiple files to upload.	<ul> <li>Standard</li> <li>Large File</li> </ul>	
Asset Type	<ul><li>○ Data</li><li>○ Code</li></ul>	
Archive File A single file containing the asset data.	Choose file	Browse
Asset Name A human readable name. Spaces and punctuation are allowed.		
Asset Identifier A concise identifier used to refer to the asset within file paths. Uppercase, spaces, and punctuation are NOT allowed except for – (e.g., if the asset name is "UNC Survey Results 1" a good asset identifier may be "unc-survey-results-1).		
Description Visible by all data portal users. Include what's here, why it exists, and links to more information.		
Rationale Description of why the asset is being submitted to the data portal.		
		1/2
		Submit

Once an asset is submitted and approved it will appear on the "Browse Assets" page as "Accepted". New versions of an approved asset can be submitted from the detailed asset page accessed via the "Browse Assets" page (see more details in section 2.2).

# 2. Submitting Assets

#### 2.1. General Instructions for Submitting Data to the BACPAC Data Portal

All new asset submissions are initiated from the "Submit Asset" page that is accessed using the menu on the left side of the BACPAC Data Portal pages (see section 1.6). Most data submissions should utilize the "Large File" upload type (see section 2.3). This ensures that the submission is associated with one asset identified AND all related files are stored within a single subdirectory within the portal.

If you are submitting an updated version of an existing data submission, then you should NOT use the "Submit Asset" page. Instead, you will use the "Browse Assets" page to find and click on your previously accepted submissions to access the detailed asset page. From this page you will be able to upload a new version of the data you previously submitted (see section 2.2).

Submitting data as a new version is very important. This will ensure that all versions of these data are associated with the same asset identifier, and it will ensure your old submission is properly archived so users know updated data are available.

#### 2.2. Submitting a New Version of an Existing Asset

New versions of an approved asset are submitted via the detailed asset page, NOT from the "Submit Asset" page. To submit a new version, the submitter will click the 🕒 next to "Versions" and complete the displayed form.

Browse ->	Simulated BACPAC Mi	nimum Data	set 🛢						
Vou bave access	Vou have screes to this asset								
Tou have access	to this asset								
Name	Simulated BACPAC Minimum Dataset								
Identifier	min-data-sim								
Status	Accepted								
Site	UNC								
Туре	Data								
Created	2021-02-12								
Submitter	McCumber, Micah < @ad.unc.edu>								
Description	BACPAC Minimum Dataset documentation and	i datasets.							
My Projects Wit	h Access								
inty i rojecta wit	an Access								
Name Clinician Treatment Broft		Role							
		00100010101							
Versions Upload Type Choose 'Large File' if you	ir asset is greater in size than 1 GB or your asset contain	ns multiple files to upload.	● Standard ○ Large File						
Archive File A single file containing th	e asset data.		Choose file	Browse					
Date of Snapshot			mm/dd/vvvv	F					
Date the asset was extra database).	cted from source (e.g., date the submitted data were ext	tracted from the study							
Rationale Description of why a new	version of the asset is being submitted to the data porta	al.		h					
				Submit					
Version	Rationale	Date of Snapshot	Windows Mount Path	Linux Mount Path					
1	Testing PRO folder upload.	2021-02-12	c:\mnt\containers\canonical\UNC\min-data-sim.	/mnt/containers/canonical/UNC/min-data-sim					

The form and process are similar to submitting a new asset (section 1.6), but the asset name and description are not required as those were assigned at the time of the initial submission. Standard uploads are submitted by completing the fields in the form shown above. The Large File uploads of a new version of an asset are initiated by completing this form. Once the form is complete, click the "Submit" button. For "Large File" submissions, additional instructions will appear at the top of the screen with a unique link to submit your file(s) using Microsoft Azure Storage Explorer (see section 2.3).

## 2.3. Submitting Assets using Large File Upload

In order to upload large files (e.g., any file which are larger than 1GB or any collection of files), BACPAC users should utilize the "Large File" upload feature of the BACPAC Data Portal.

New assets are submitted from the "Submit Asset" page (see section 1.6) and new versions of an existing asset are submitted from the "Browse Assets" > detailed asset page (see section 2.2). From both of these pages, users can select "Large File" as the upload type.

**Note**: Prior to utilizing Microsoft Azure Explore ~ the large asset upload feature, please download "Azure Storage Explorer". From this link, click Azure Storage Explorer "Download" to navigate to the "Download now" ted with Azure link and select your operating system. Do NOT click "Get started with Azure" that link is used to access Next Sterr Azure directly.



a. Select the "Large File" radio button and fill out the remainder of the submission form.

Submit Asset	
Upload Type Choose Targe File' if your asset is greater in size than 1 GB or your asset contains multiple files to upload.	<ul> <li>Standard</li> <li>Large File</li> </ul>
Asset Type	Data Code
Archive File A single file containing the asset data.	Please use Stora
Asset Name A human readable name. Spaces and punctuation are allowed.	Large Asset Up
Asset Identifier A concise identifier used to refer to the asset within file paths. Uppercase, spaces, and punctuation are NOT allowed except for – (e.g., if the asset name is "UNC Survey Results 1" a good asset identifier may be "unc-survey-results-1).	large-asset-upl
Description Visible by all data portal users. Include what's here, why it exists, and links to more information.	Collection of di
Rationale Description of why the asset is being submitted to the data portal.	Testing large u

b. After clicking on "<u>Submit</u>", you will be presented with a link (i.e., SAS URI) at the top of the page, copy the entire SAS URI (e.g., from "https://..." onward) by clicking <sup>●</sup>, the copy icon.

Submit Asset
Asset form has been successfully submitted.
In order to complete the submission of the asset, please complete the following:
1. Open Storage Explorer and connect to the location: https://bplargefileuploadtst.blob.core.windows.net/202103231414-lu001?sv=2020-04-08&spr=https&se=2021-03-
24T18%3A14%3A
2. Upload the files or folders that you wish to submit as a part of this asset
<ol><li>Confirm all submitted files and folders were successfully uploaded via Storage Explorer</li></ol>
4. Return to the BACPAC Data Portal > Browse Assets Page, select the asset and click 'Complete' to send the asset for final submission

c. Open Azure Storage Explorer, click 💛, the "Open Connect Dialog" icon, on the left-hand side.

File E	dit View Help		
:-	ACCOUNT MANAGEME	INT	
~	Show resources from t	hese subscription	ons:
R	Add an account		
Ϋ́		Apply	Cancel
ŝ			

d. In the resulting pop-up select "Blob container" as shown below.



e. In the resulting pop-up ("Select Authentication Method") select the "Shared access signature (SAS)" radio button.

Select Authentication Method
Select Resource > Select Authentication Method > Enter
How will you authenticate requests to the blo
Shared access signature (SAS)
<ul> <li>Anonymously (my blob container allows public access)</li> </ul>

f. Paste the SAS URI copied from the BACPAC Data Portal page in step b in the "Blob container SAS URL" box in the resulting pop up and click "<u>Next</u>".

Enter Connection Info		
Select Resource > Select Authentication Method		
Display name:		
202103231414-lu001		
Blob container SAS URL:		
https://bplargefileuploadtst.blob.core.windows.net/202		

g. Click the "<u>Upload</u>" icon.

202103231414-lu001 ×					
T • Upload	⊥ Download	⊖ Open		ि - Select All	Copy
$\leftarrow  ightarrow \checkmark$ 202103231414-lu001					
Name Access Tier		Access Tier Last Modified			
No data available in this blob container					

h. Select the folder or file that you would like to upload.



i. Select "<u>Upload</u>" at the bottom of the dialog box (do <u>NOT</u> adjust any other fields after selecting the folder to upload).

Destination directory:		
1		
	Upload	Cancel

j. Once the transfer has completed you must return to the BACPAC Data Portal and mark your asset upload as "Complete". *Note: This step is necessary in order to notify BACPAC staff that your asset is ready for review and approval; you may continue to upload related files or folders for this asset until you have marked the upload as completed* 

To complete the asset upload, you must navigate to the detailed asset page for your asset. This can be done by (1) clicking the "asset" hyperlink in step 4 of the Large File upload instructions or (2) returning to the BACPAC Data Portal "Browse Asset" page, searching for your asset, and clicking on your asset to get to the detailed page.

## Option (1):

	Submit Asset
	Asset form has been successfully submitted.
&se=2021-03-	In order to complete the submission of the asset, please complete the following: 1. Open Storage Explorer and connect to the location:https://bplargefileuploadtst.bjob.core.windows.net/202103231414-lu001?sv=2020-04-08&spr=http://doi.org/10.00000000000000000000000000000000000
	2. Opload the lines of folders that you wish to submit as a part of this asset     3. Confirm all submitted files and folders were successfully uploaded via Storage Explorer
&se=2	In order to complete the submission of the asset, please complete the following: 1. Open Storage Explorer and connect to the location:https://bplargefileuploadtst.blob.core.windows.net/202103231414-ju001?sv=2020-04-08&spr=http 24T18%3A14%3A 2. Upload the files or folders that you wish to submit as a part of this asset 3. Confirm all submitted files and folders were successfully uploaded via Storage Explorer 4. Return to the BACPAC Data Portal > Browse Assets Page, select the asset and click 'Complete' to send the asset for final submission

#### Option (2):

Large Asset Upload ID: large-asset-upload Description: Collection of directories and files
--

k. Click on "Mark Complete":

Complete Submission	
The latest version of the asset is currently aw the button 'Mark Complete' to send your subr Link'.	vaiting final submission. Once you have uploaded all f mission for review. If you need a new submission link
Mark Complete	Request New Link

Note: In the event that your SAS URI expires prior to your upload completing, you may click on the "**<u>Request New Link</u>**" button in order to generate a new SAS URI which will allow you to continue your upload.

## 3. Creating and Logging into Windows and Linux VMs

It is helpful to understand user accounts in the BACPAC Data Portal. <u>Each user has two</u> <u>accounts</u>; the first to log in to the BACPAC Data Portal and the second to access and log in to the virtual machines (VMs).

- 1. <u>BACPAC Data Portal Account</u>: The account used to log in to the portal is the account to which the invitation to access the BACPAC Data Portal was sent. Most often, this will be the account you use to access MS Teams.
- 2. <u>BACPAC VM Account</u>: The account to access and log in to the VMs is provided when you create a VM within the BACPAC Data Portal. This second account is only used when accessing VMs from the portal. The account has the format:

user first name + last initial + 5 digits @ bacpacresearch.org

You will login to the VM using your assigned user name, which is the first part of the *bacpacresearch.org* account (user first name + last initial + 5 digits).

#### 3.1. Creating Virtual Machines

Users have the option of creating Linux or Windows virtual machines in three sizes and may run up to 3 machines simultaneously. Initially, the user will have no machines when they visit their Computing Console page:

BACPAC Back Pain Consortium	
	Computing Console 🕞
Home	Active Sessions
Computing Console	
Projects	No virtual machine instances found that are assigned to you.
Browse Assets	
My Workspace	
Submit Asset	

To create a virtual machine, click the "+" icon next to the text Computing Console. This will open a menu from which you can select your virtual machine type and size:

		(?) Support Re	quest
0	Create VM		×
	Select Image 🔻		
	Search		
n	4	Small (Processor: 2-vCPU; Memory: 8 GB) Good for basic data crunching	
	۵	Small (Processor: 2-vCPU; Memory: 8 GB) Good for basic data crunching	
		Medium (Processor: 8-vCPU; Memory: 32 GB)	
	۵	Medium (Processor: 8-vCPU; Memory: 32 GB)	
		Large (Processor: 16-vCPU; Memory: 64 GB)	
	$\Delta$	Large (Processor: 16-vCPU; Memory: 64 GB)	

After selecting a machine and confirming, you will be directed to a page reporting the machine's status. After a few minutes it should (upon refresh) show something like this (for a Linux virtual machine).

## Computing Console -> Windows VM

Status: Run	ning 🥑					
Wi TS Fn	indows / 2 Core / 8 GB ST-WIN-45-S is Running nameLinitial-12345@10.X.XX	xx	Stop	Restart	Delete	
Status Lost Linds	atad: 2/20/2024 5-50-20					
(update now)	aleu. 3/26/2024 5.59.25	PMOTO				
Virtual Mach	Virtual Machine Connection Instructions					
Virtual Machine	[	Connect				
IP Address		10.X.XXX.X				
VM username		FnameLinitial-12345		l	Ì	
VM password		•••••		0	Ì	
Workspace	Instructions					

Your personal workspace and project workspaces will be available (for read and write) at C:\mnt in your VM.

Virtual machines have a running cost. After you are finished with one, you can return to this page and press the "Stop" button to shut the machine down until it is needed. <u>The "Delete"</u> button will permanently delete the machine along with all your locally stored data and settings.

#### 3.2. Accessing a VM

All VMs must be accessed by first logging into the BACPAC Data Portal. Once in the portal, users will need to connect to a VM and enter their *bacpacresearch.org* credentials to successfully access their VM.

Step A. Navigate to the Computing Console page to connect to a VM.

BACPAC Back Pain Consortium	3	@ad.unc.edu 💌
	Home	
Home Computing Console Projects Browse Assets My Workspace Submit Asset	Windows / 2 Core / 8 GB     Start     Delete       Status Last Updated: 2/1/2021     4:19:38 PM UTC (update now)	
	Linux / 2 Core / 8 GB TST-LIN-26 is Running micam @ 10.y.y.y Status Last Updated: 2/1/2021 4:38:42 PM UTC (update now)	

Once on the Computing Console page, you will need to confirm you have an active and running VM.

- (a) If you do not currently have an active session for your VM, then you need to click "Create" to start a new session as shown in section 0.
- (b) If you have an active session for your VM that is stopped, then you need to click "Start" as shown for the Windows VM below.



**Step B.** When you have an active VM that is running, then you will click the VM box to go to the detailed VM page as shown for the Windows VM below.



**Step C.** To access a VM click "Connect" from the Computing Console -> Windows VM or Computing Console -> Linux VM pages.

#### Computing Console -> Windows VM

Status: Running 🥥					
Windows / 2 Core / 8 G TST-WIN-45-S is Runni FnameLinitial-12345@10	B ing IXXXXXX	Stop	Restart	Delete	
Status Last Updated: 3/28/2024 5:5 (update now)	9:29 PM UTC				
Virtual Machine Connection Instructions					
Virtual Machine	Connect				
IP Address	10.X.XXX.X				
VM username	FnameLinitial-12345		Ľ		
VM password	••••••		0		

#### Workspace Instructions

Your personal workspace and project workspaces will be available (for read and write) at C:\mnt in your VM.

A new browser tab will open. In the new browser tab, you will see the AZURE BASTION login screen.

Note: If you do <u>NOT</u> see the above page after clicking "Connect," then close the browser tab and wait a few more minutes before clicking "Connect" again. The link may require more time to generate properly.

11	X
AZURE BASTION	AZURE BASTION
Protocol	Protocol
RDP 🗸	SSH
Port	Port
3389	22
Jsername	Authentication Type
	Password
Password	Username
éyboard Language	Password
English (US) 🗸 🗸	

Step D. Log in using your VM using your assigned VM username and password.

On the Computing Console VM page where you clicked the "Connect" button, there are two fields labeled "VM username" and "VM password". You will use these to log in to your VM(s).

- a. Copy and paste your "VM username" into the "Username" field in the AZURE BASTION dialogue shown below. "Username" will have the format FirstNameLastInitial-12345.
- b. Return to the BACPAC Data Portal tab in the browser to copy and paste the "VM password" into the "Password" field in the AZURE BASTION dialogue box.
- c. For Linux VMs, the default "Protocol" in the AZURE BASTION dialogue box is "SSH". If you would like a remote desktop (i.e., a GUI interface/desktop and not just command line), then you need to select "RDP" for the "Protocol". Note: Windows VMs should always have "RDP" selected.
- d. Click "Login". You should now see your VM start-up screen. It may take a few minutes for all your storage folders and data folders to mount after your VM starts up.

If you encounter problems, please restart or recreate your VM from the BACPAC Data Portal Compute Console page.

If you still have problems, please complete a Help Request form or contact <u>bacpac\_dac@unc.edu</u>.

# 4. Using the Windows and Linux VMs

#### 4.1. General VM Usage Guidelines and Etiquette

Always stop VMs when not in use.

You may delete a VM when it is no longer needed or when a security update requires a new VM be utilized. When a VM is deleted, all work not saved in the personal or project storage locations will be lost.

#### 4.2. Software

VM's are pre-populated with statistical software including SAS, R, and Python. Other software is available by request. While most of the internet is blocked on the VMs, cran and pypi should be accessible so you can install R and Python libraries. It is also possible to upload software and libraries directly to the VM via your personal or project space.

# IMPORTANT: The BACPAC Data Portal will not provide STATA after September 2024 and will not provide SAS after October 2024.

#### 4.3. Accessing Canonical Data

All data is located under the /mnt hierarchy on Linux and C:/mnt on windows.

#### 4.4. Output and Code Storage

#### Personal Storage Space

The BACPAC Data Portal allocates a workspace for each user. The User Workspace comprises read / write file space accessible only to the user. No other users have access to the User's personal workspace. The workspace can be used for analysis output, logs, code, documents, or other files a user requires.

It is forbidden to download study data from the BACPAC Data Portal. This warning is prominently displayed on the User Workspace page. While the BACPAC Data Portal cannot prevent the download of study data, all file downloads are logged. The logs are scanned, and the portal administrators are notified of any suspicious or prohibited activity.

#### **Project Storage Space**

Unlike User's Personal Workspaces, which are restricted to the single user, Project Workspaces can be used by all researchers collaborating on a project. This is the mechanism by which you share results, code and other project artifacts. A project is created based on approved BACPAC Data Access and Publications requests.

Note the warning on this page: You are prohibited from downloading study data from the BACPAC Data Portal. While it is possible to output an entire canonical dataset to a project or user workspace where it can be downloaded, that violates the portal user agreement. Such downloads will be recorded in the system logs so any violation will be detected.

# 5. Resetting your Password for the BACPAC Compute Account

## 5.1. General Information

Remember, <u>each user has two accounts</u>; the first to log in to the BACPAC Data Portal and the second to access and log in to the virtual machines (VMs). The password reset instructions in this section are only relevant to the BACPAC VM (i.e., bacpacresearch.org) account.

## 5.2. How to Reset your BACPAC Compute Credentials Password

To access information about your account and change your VM password, click your name in the top right-hand corner of the screen and select "Profile" to access your account page containing your VM login credentials.



Read the instructions for changing your password, copy your current password using the copy feature to the right of the eye, and click "Change Password."

BACPAC Back Pain Consortium					
	My Account				
	Name	McCumber, Micah			
Home	E-mail	@ad.unc.edu			
	Site	BEST_Trial			
Admin •	Member Since	2021-02-11			
Computing Console	Computing Console Login Credentials				
Projects	Username	@bacpacresearch.org			
Browse Assets	Password				
Browse Studies	Change Password				
My Workspace	This will allow you to change the password for the user <b>contracts</b> @bacpacresearch.org. You will be asked to login as this user to make the				
Submit Asset	change. To change you password, copy the password above and click on the 'Change Password' button. Once you submit your change password request you will				
	be asked to log back into the syste	m as your portal user.			
	Note: Please make sure all of your compute instances are currently running before changing your password in order to complete the password change on the local account of that machine.				
	Change Password				

The login screen will appear with your "@bacpacresearch.org" username displayed. Paste your current password and click "Sign in."

Microsoft	
@bacpacre	esearch.org
Enter password	
Password	
Forgot my password	
Sign in with another account	
	Sign in

On the next screen, paste your current password in the first box, type your new password in the next two boxes, and click "Change Password." If you click "Return to Portal" then you will go back to the main BACPAC Data Portal page without changing your password.

BACPAC Back Pain Consortium			i	User Guide	Support Request Form
	Change Password -	>	@b	oacpacre	search.org
	Current Password				
	New Password				
	Confirm Password				
	Ch	ange Password	Return to Portal		
	_				

If your password is changed successfully, then you will see the green bar at the top with "Password successfully changed." Once you see this screen, then click "Return to Portal."

BACPAC Back Pain Consortium	🚺 User Guide 🛛 🧿 Support Request Form
	Password successfully changed.
	Change Password -> micahm-t-85922@bacpacresearch.org
	Current Password
	New Password
	Change Password Return to Portal

After clicking "Return to Portal" you will see this screen. You must select your Microsoft associated account to have access to the BACPAC Data Portal pages (i.e., the account you use for accessing the BACPAC Research Consortium Microsoft Teams site) and log in with your Microsoft Teams credentials.

Microsoft
Pick an account
Micah McCumber @bacpacresearch.org Signed in
McCumber, Micah @ad.unc.edu Connected to Windows
Use another account

Examples of password reset failures and errors:

BACPAC Back Pain Consortium	(i) User Guide (i) Support Request Form
	Current password entered was not valid for this user.
	Change Password -> @bacpacresearch.org
	Current Password
	New Password
	Change Password Return to Portal
Change Pas	sword -> @bacpacresearch.org
Querra Deserved	
Current Password	••••••
New Password	•••••
Confirm Password	
	'Confirm Password' and 'New Password' do not match.
	Change Password Return to Portal
Change Das	eword -> @bacpacresearch org
change ras	word ->@bacpacresearch.org
Current Password	
New Password	
	The new password must be between 8 and 16
	uppercase letter, 1 number, and 1 symbol
	'!@#\$%^*'.
Confirm Password	•••••
	Change Password Return to Portal

# 6. FAQs and Troubleshooting Solutions

## 6.1. I am receiving the "Access denied" message on the BACPAC Data Portal

If you do not select the correct account when accessing the BACPAC Data Portal website, then you will receive an "Access denied" message after you log in. If this happens, then click on your email at the top right and click "Logout."

BACPAC Back Pain Consortium		(i) User Guide	O Support Request Form	@bacpacresearch.org -
	Access denied			Logout
	You do not have access to this resource.			

This "Pick an account" to <u>sign out of</u> page will appear and you can select the "@bacpacresearch.org" account.



Once the "Signed out" page appears to confirm you were successfully signed out, then you can click "Sign in" in the top right corner, select your appropriate account (i.e., your MS Teams account), and log in.

BACPAC Back Pain Consortium		User Guide	O Support Request Form	Sign in
	Signed out			
	You have successfully signed out.			



NIH HEAL Initiative and Helping to End Addiction Long-term are service marks of the U.S. Department of Health and Human Services.