

This excel book is intended for use by Climate Warehouse - Simulation 3 participants. This workbook will provide you with step-by-step instructions on how to engage with the Climate Warehouse.

Each sheet within this workbook will focus on a specific activity to perform with the Climate Warehouse. The sheet name designates the activity to be performed, and the contents of the sheet explain how to do that activity. Every step in the form will have an **expected outcome** - what should happen when performing the step - and an empty cell reserved for **actual outcome** - what actually happened when you tried the step. During the process, if you find that the actual outcome was different than the expected outcome, please note it in the actual outcome column and add screenshots if possible.

While it is not entirely necessary to go in order, we recommend doing so to ensure you understand the foundational aspects of this application.

Finally - we are here to support you during this testing process. If you get stuck/frustrated, please reach out to c.cornick@chia.net or gtorrasvives@worldbank.org for assistance. We will host weekly office hours where you may join and ask any questions you'd like!

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Run the Climate Warehouse through a hosted instance

Scenario Description:

Worldbank/Chia will be providing hosted instances of the Climate Warehouse to participants who would rather not install the software onto a local computer. The below steps will guide users through accessing a work space instance.

Step Nurr Step Description	Step Actions	Expected Outcome	Actual Outcome	Comments/Feedback
	You have received an email from a Worldbank or			
	Chia team member indicating login instructions			
0 Assumptions	for accessing the Climate Warehouse	Email received.		
1 Download Amazon Workspaces app	Download Amazon workspaces app.	Amazon workspaces app downloaded.		
2 Launch Amazon Workspaces app	Double click the Amazon workspaces app	New window should appear		
	Enter the registration code given to you in the	Registration code brings a new screen asking		
3 Enter registration code	email.	for log in details		
4 Enter log in details	Enter log in details given to you in the email.	User successfully connects to the workspace		
	For windows computers, enter https://			
	download.chia.net/dev/ChiaSetup-1.3.4698-			
	b4e6064b.exe into a web browser to			
	application			
	For non-windows builds, go to https://			
	downloads.chia.net/builds/ and find the file			
	'ChiaSetup-1.3.4698' and download the file that			
5 Download Chia software	matches your operating system.			
6 Install Chia	Once donwloaded, click the Chia file and run the	chia installed and chia icon shows up in your		
7 Bun Chia	Double click the Chia icon to run the application	Chia application runs		
	Click the button 'Create a new private key'			
	Scroop will display 'Now Wallot' and will show 24			
	words listed in order. These words are your	Screen shows 24 words. User has written		
	recovery code for your wallet. Please write these	down 24 words as a backup measure.		
	down in a secure location to be able to access			
8 Create new key	your wallet in the future.	Application closed		
	On your device, launch Command Prompt			
	(windows) or Terminal (Mac).			
	Change directory (cd) to the Chia daemon folder			
	by enter the command into the Command			
	Prompt:			
	cd C:\Users\[username]\AppData\Local\chia-			
	blockchain\app-1.3.14698\resources\app.asar.un			
	packed\daemon			
	Ensure you enter your username into the above			
	command before running. Press enter once the	Command prompt shows user cd'd to Chia		
9 Launch CLI & cd to Chia app	command is written.	daemon folder		
	Run the following commands (assuming windows			
	machine) to start chia services:	Command prompt shows that Chia datalayor		
10 Start Chia datalaver service	chia start data	has been started.		
	Open the Chia GUI and locate the tab on the			
	lefthand menubar called 'Wallets'. Click the tab			
	and find the 'Receive Address' on the page.			
	Copy that receive address and send it to			
	c.cornick@chia.net requesting some XCH to be	Once you have sent the address to		
11 Cat Mallat address	sent to that wallet for Climate Warehouse	c.cornick@chia.net, Chia will send you a small		
	iesung.			
	Download the latest release of Climate			
	Warehouse by going to https://github.com/Chia-			
	Network/climate-warehouse/releases/ and			
	selecting the latest release.			
	Download the package that matches your system			
Download Climate Warehouse	(for windows, that will be the 'windows-x64' zip			
12 backend	file.	Climate Warehouse package downloaded.		
	Once the download has finished, unzip the			
	package and place them into a new folder you	3 files placed into the folder you created		
13 Install Climate Warehouse	create called 'app'.	called 'app'.		
		A new command prompt should automatically		
14 Launch the Climate Warehouse	Locate your 'app' folder you created, and double	open and it should run many commands. You		
	Download the Climate Warehouse Auxiliary app			
	by going to nups://gitnub.com/Chia-Network/ climate-warehouse-ui/releases/ and selecting the			
	latest release and selecting the file that matches			
Download the Climate Warehouse	your OS. Assuming a windows user, use the			
15 Auxiliary App	'Climate.Warehouse.Setup.[version].exe' file.	Auxiliary app downloaded.		
	Install the auxiliary app by double clicking the	Climate Warehouse Auxiliary App installed		
	uownioaded package. Unce installed, user should	and running. User should land on a screen		
16 Install the Auxiliary App	launch the UI.	and the option to create a new organization.		

Create an organization (UI)

Scenario Description:

Input information to create the foundational element for engaging with the Climate Warehouse, the organization. Organizations are able to create & manage projects, units, and transactions. Once you have built your organization, you can move on to other testing scenarios.

Step Nun	r Step Description	Step Actions	Expected Outcome	Actual Outcome	Comments/Feedback
0	Assumptions	User has properly installed Climate Warehouse and has opened the UI	Climate Warehouse UI is displayed		
1	Organization Pop-up	Click the button on the lefthand menu bar that says "+ Create Organization"	Pop-up displays with 2 fields		
2	Enter Organization details	Enter organization name (required) Enter organization icon (required) this must be a .png or .svg	Organization details are shown in the two fields based on user input		
3	Submit Org Details	Hit 'Create' button on pop-up window	Organization is created. You can see your Organization ID at the top of your Climate Warehouse screen, it should be a long string of numbers and letters.		

Create a project (UI)

Scenario Description:

Input project information to begin populating your organization with carbon mitigation projects. This is just focused on the manual entry through the UI, there is another script for uploading projects through XLSX. Repeat this test as many times as desired to bring in as many projects as you'd like to the Climate Warehouse.

Step Nurr Step Description	Step Actions	Expected Outcome	Actual Outcome	Comments/Feedback
0 Assumptions	User has already created their organization within the Climate Warehouse. There are no pending actions currently.	Org ID appears at the top of the Climate Warehouse UI screen. No pending actions - UI shows 'PENDING (0)'		
1 Show My Projects	Select 'My Projects' from left hand menu bar	Screen should display all project records and corresponding field names. If this is the first time the user is accessing this page, the field names should show but no records should be displayed.		
	Select the button '+Create' on the top righthand	Window displays a create project screen and		
2 Create New Project	side of the screen	starts on page 'Project'		
	Enter project details into the relevant fields within the project tab. Fields with an * are required fields. Use the "?" icon to understand what each field is used for.	Details populated on screen, and once 'Next'		
3 Enter project details	Once finished entering details, click the 'Next' button.	button is selected, user moves to 'Labels' screen.		
	If you'd like to attach any labels (certifications, qualifications, etc.) to your project, do so by clicking the '+ Click to add' button. If you have multiple labels, continue to click the '+ Click to add button' and add as many labels as you please.			
	Fill in required fields and once complete, hit the 'Next' button			
4 Enter label details (optional)	If you do NOT want any labels attached to the project, simply hit 'Next'.	Details on screen populated (if needed) and user advances to screen 'Issuances'.		
	If your project has any issuances associated with it add the issuances by clicking the '+ Click to add' button. If your project has multiple issuances, continue to click the '+Click to add' button.			
	'Next' button.			
5 Enter issuances details (optional)	attached to the project, simply hit 'Next'.	user advances to screen 'Cobenefits'.		
	If your project has cobenefits, enter them by clicking the '+Click to add' button. If your project has multiple cobenefits, continue to click the '+Click to add' button and add as many as you'd like.			
	Fill in required field and once complete, hit the 'Next' button.			
6 Enter cobenefit details (optional)	If your project does not have any cobenefits, hit the 'Next' button.	Details on screen populated (if needed) and user advances to screen 'Project Locations'.		
	Enter project location details (if necessary) by clicking the '+Click to add' button. If your project has multiple locations, continue to click the button and add as many locations as you'd like.			
	Fill in required fields and once complete, hit the 'Next' button.			
Etner project location details 7 (optional)	If your project does not wish to show the location, hit the 'Next' button.	Details on screen populated (if needed) and user advances to screen 'Related Projects'.		
	Enter related project details (if necessary) by clicking the '+Click to add' button. If your project has multiple related projects, continue to click the button and add as many related projects as you'd like.			
	Fill in required fields and once complete, hit the 'Next' button.			
Enter related project details 8 (optional)	If your project does not have any related projects, hit the 'Next' button.	Details on screen populated (if needed) and user advances to screen 'Estimations'.		
	Enter project estimation details (if necessary) by clicking the 'Click to add' button. If your project has multiple estimations, continue to click the button and add as many estimations as needed.			
	Fill in required fields and once complete, hit the 'Next' button.			
9 Enter estimation details (optional)	If your project does not have any estimations, hit the 'Next' button.	Details on screen populated (if needed) and user advances to screen 'Ratings'.		
	Enter project rating details (if necessary) by clicking the 'Click to add' button. If your project has multiple ratings, continue to click the button and add as many ratings as needed.			
10 Enter ratings details (optional)	Fill in required fields and once complete, hit the 'Create Project' button. If your project does not have any ratings, hit the 'Create Project' button.	User is shown a screen on the 'Staging' tab and it shows project details. Note, this will not show any optional table details (steps 4-9) and will only show step 3 details		
	Once you have reviewed the data for accuracy.	Data moves to pending tab, user should see a green confirmation text box. After some time, the data should disappear from pending tab and should be visible on the 'Committed' tab		
11 Commit data to chain	click the 'Commit' button to add the project to your registry.	This means the information has successfully made it to the blockchain.		
12 Optional - add more projects	If you'd like to add more projects, simply do so by repeating steps 2-11 as many times as necessary.	More projects are committed (optional)		

Create units (UI

Scenario Description:

Input unit information to begin populating your organization with carbon credits. This is just focused on the manual entry through the UI, there is another script for uploading units through XLSX. Repeat this test as many times as desired to bring in as many units as you'd like to the Climate Warehouse.

Stop Nur	Step Description	Sten Actions	Expected Outcome	Actual Outcome
Step Null				
		User has already created their organization	Org ID appears at the top of the Climate	
		There are no pending actions currently.	Warehouse UI screen.	
		User has created projects with issuances to	No pending actions - UI shows 'PENDING (0)'	
0	Assumptions	reference.	Projects exist with issuances.	
			Screen should display all unit records and	
			corresponding field names. If this is the first	
			names should show but no records should be	
1	Show My Units	Select 'My Units' from left hand menu bar	displayed.	
		Select the button '+Create' on the top righthand	Window displays a create project screen and	
2	Create New Unit	side of the screen	starts on page 'Unit'	
		Enter unit details into the relevant fields within		
		the project tab. Fields with an * are required		
		fields. Use the "?" icon to understand what each		
			Details populated on screen, and once 'Next'	
		Once finished entering details, click the 'Next'	button is selected, user moves to 'Labels'	
3	Enter unit details	button.	screen.	
		If you'd like to attach any labels (certifications		
		qualifications, etc.) to your unit, do so by clicking		
		the '+ Click to add' button. If you have multiple		
		labels, continue to click the '+ Click to add button'		
		and add as many labels as you please.		
		Fill in required fields and once complete, hit the		
		'Next' button		
		If you do NOT want any labels attached to the	Details on screen populated (if needed) and	
4	Enter label details (optional)	project, simply hit 'Next'.	user advances to screen 'Issuances'.	
		If your unit has any issuances associated with it add the issuances by clicking the '+ Click to add'		
		button. If your unit has multiple issuances,		
		continue to click the '+Click to add' button.		
		Fill in required fields and once complete, bit the		
		'Next' button.		
5	Enter issuances details	If your project does not have any issuances	Details on screen nonulated	
			green confirmation text hox. After some time	
			the data should disappear from pending tab	
		Once you have reviewed the data for accuracy,	and should be visible on the 'Committed' tab.	
6	Commit data to chain	click the 'Commit' button to add the unit to your	This means the information has successfully made it to the blockchain	
		If you'd like to add more units, simply do so by		
7	Optional - add more units	repeating steps 2-6 as many times as necessary.	More units are committed (optional)	

Comments/Feedback

Split a unit using the UI

Scenario Description:

Using the Climate Warehouse Auxiliary App, split a unit into smaller blocks so that a more precise amount of units can be traded. This scenario is part of a larger scenario - the unit lifecycle.



Step Nurr Step Description	Step Actions	Expected Outcome	Actual Outcome	Comments/Feedback
	User has already created their organization	OrdID present in API calls.		
	within the Climate Warehouse.	There are currently no pending actions in the		
0 Assumptions	There are no pending actions currently. Organization has created a project.	API. At least one project is available.		
	In the Climate Warehouse select 'My Projects'			
	from the left hand menu bar to display all the			
1 Show Projects list	projects currently listed within your registry.	All projects in the registry are shown.		
	Use the 3 dot menu next to the project record			
	you would like to add a new issuance to (if you cannot soo it, scroll all the way to the and of the	A new split window displays showing a similar		
2 Select project	table). Select the option 'Edit Project'.	fields already populated with information.		
	Use either the 'Next' button at the bottom of the			
	top of the screen to open the issuances page.			
	Add a new issuance by clicking '+ Click to add'			
	fields out.			
	Once the fields have been filled out, either select 8 'Batings' or click next until you see the button			
	'Update Project'. Click that 'Update Project'	New issuance has been added to the project		
3 Add new issuance	button.	and the data is currently in the 'Staging' table.		
		Data moves from 'Staging' to 'Pending'.		
4 Commit new issuance to blockchair	Select the blue 'Commit' button in the top right	Eventually, the data should be moved to the 'Committed' tab.		
	Coloct 'My projects' if not already there. Then			
	check the 'Committed' tab to see if the project			
	you updated does contain the Issuance record.			
5 Confirm new issuance	You can check the project by clicking on the	Issuance record exists for the correct project		
	Coloct 'N/y Unite' from the left hand many har			
	Select My Units from the left hand menu bar.			
	Click the '+ Create' button on the top right corner			
6 Create new unit against new issuar	ice of the table.	New unit creation menu appears.		
	Enter the required fields for creating the new	Required fields completed User lands on		
7 Enter new unit fields	you land on the issuances tab.	'Issuances' tab.		
	Click the '+ Click to add' button to create a new issuance.			
	Select the new issuance you created in steps 2-6 (details should auto-populate in fields once you			
	select the issuance).	Issuance selected and details populated. Once		
		user clicks create, record shows in 'Staging'		
8 Select Issuance				
Commit new unit issuance to	Select the blue 'Commit' button in the top right	Data moves from 'Staging' to 'Pending'. Eventually, the data should be moved to the		
9 blockchain	of the screen.	'Committed' tab.		
	Select the 'Committed' tab and ensure the new			
	unit you created is properly shown and has the			
	issuance listed. You can check the issuance by clicking the unit record and moving to the	New unit properly created and shows the		
10 Confirm new unit issuance	'Issuance' tab.	issuance.		

Split a unit using the UI

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Using the Climate Warehouse Auxiliary Ap	p, split a unit into smaller blocks so that a more precise amo	ount of units can be traded.		
Issuance Unit Split	Sell Unit Unit	Retire Unit		
	\bigcirc	\bigcirc		
ep Nur Step Description	Step Actions	Expected Outcome	Actual Outcome	Comments/Feedback
0 Assumptions	User has already created their organization within the Climate Warehouse. There are no pending actions currently. A unit exists and is not 'retired' status.	OrdID present in API calls. There are currently no pending actions in the API. Units exist.		
1 My Registry Units	In the Climate Warehouse, select 'My Units' from the left hand menu bar to display all the units currently listed within your registry.	All units in the registry are shown.		
2 Split Unit	Use the 3 dot menu next to the unit record you would like to split (if you cannot see it, scroll all the way to the end of the table). Select the option 'Split Unit'.	A new split window displays showing total amount of units to split and a few fields beneath it.		
	Enter the amount of units to split for record 1, followed by the owner and country jurisdiction for owner. Do the same for record 2. Make sure the units add up to the original amount of units.			
3 Enter split changes	Click 'Split' button.	Unit split shown on the 'Staging' tab		
4 Commit changes to blockchain	Click the blue 'Commit' button in the top right of your screen to commit the changes to the blockchain.	User is taken to the staging table which shows one record in red, and one record in green. This is showing the update being made.		
5 Commit changes to blockchain	Click the blue 'Commit' button in the top right of your screen to commit the changes to the blockchain.	Records move from 'Staging' tab to 'Pending' tab. They should eventually move into the committed tab.		
6 Verify changes	Once the records move out of 'Pending' tab, go to 'Committed' tab and verify that the unit record you updated correctly shows that it has been	Unit record shows the solit		

Designate a unit listed on an external marketplace using the UI

Scenario Description:



Step Nun	r Step Description	Step Actions	Expected Outcome	Actual Outcome	Comments/Feedback
0	Assumptions	User has already created their organization within the Climate Warehouse. There are no pending actions currently. A unit exists and could be listed on an external marketplace.	OrdID present in API calls. There are currently no pending actions in the API. Units exist.		
1	My Registry Units	In the Climate Warehouse, select 'My Units' from the left hand menu bar to display all the units currently listed within your registry.	All units in the registry are shown.		
2	Edit Unit	Use the 3 dot menu next to the unit record you would like to designate as listed on an external marketplace (if you cannot see it, scroll all the way to the end of the table). Select the option 'Edit Unit'.	A new window displays showing a similar screen to creating a unit, but this time all the details are populated with that specific unit details.		
3	Change unit status	Using the 'Unit Status' dropdown, select the option "For Sale". Optionally, enter the marketplace link and marketplace identifier into the corresponding fields so external viewers would know where to locate the unit that is for sale.	Unit status changed to For Sale and marketplace information has been updated.		
4	Update Unit	Click next at the bottom of the window, which should take you to 'Labels' and then 'Issuances' tab. If no further changes need to be made, click through the window and finally select 'Update Unit'.	User is taken to the staging table which shows one record in red, and one record in green. This is showing the update being made.		
5	Commit changes to blockchain	Click the blue 'Commit' button in the top right of your screen to commit the changes to the blockchain.	Records move from 'Staging' tab to 'Pending' tab. They should eventually move into the committed tab.		
6	Verify changes	Once the records move out of 'Pending' tab, go to 'Committed' tab and verify that the unit record you updated correctly shows that it is For Sale and has marketplace information attached.	Unit record shows For Sale and has marketplace information.		
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				<u> </u>	
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Transfer a Unit to another owner

Scenario Description:



Usin	ng the Climate Warehouse Auxiliary App	, transfer the ownership of a unit to a new owner.			
	New Issuance Unit Split	Transfer Sell Unit Unit	Retire Unit		
			\bigcirc		
Step Num	r Step Description	Step Actions	Expected Outcome	Actual Outcome	Comments/Feedback
		User has already created their organization	OrdID present in API calls.		
		There are no pending actions currently.	API.		
0	Assumptions	A unit exists and can be transferred	Units exist.		
		In the Climate Warehouse, select 'My Units' from			
		the left hand menu bar to display all the units			
1	My Registry Units	currently listed within your registry.	All units in the registry are shown.		
		Use the 3 dot menu next to the unit record you	A new window displays showing a similar		
		would like to transfer (if you cannot see it, scroll all the way to the end of the table). Select the	screen to creating a unit, but this time all the		
2	Edit Unit	option 'Edit Unit'.	details.		
		Using the 'Unit Status' dropdown, select the			
		option "Transferred". Enter the new unit owner	Unit status changed to Transferred and new		
3	Change unit status	name in the field 'Unit Owner'.	unit owner listed.		
		Click next at the bottom of the window, which			
		should take you to 'Labels' and then 'Issuances'			
		tab. If no further changes need to be made, click	User is taken to the staging table which shows one record in red, and one record in green		
4	Update Unit	Unit'.	This is showing the update being made.		
		Click the blue 'Commit' button in the top right of	Records move from 'Staging' tab to 'Pending'		
		your screen to commit the changes to the	tab. They should eventually move into the		
5	Commit changes to blockchain	blockchain.	committed tab.		
		Once the records move out of 'Pending' tab, go to			
		Committed tab and verify that the unit record	Unit record shows as Transferred and new		
6	Verify changes	and has the new unit owner listed.	unit owner is listed.		
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Step Nun	r Step Description	Step Actions	Expected Outcome	Actual Outcome	Comments/Feedback
0	Assumptions	User has already created their organization within the Climate Warehouse. There are no pending actions currently. A unit exists with a status other than 'retired'.	OrdID present in API calls. There are currently no pending actions in the API. Retire-able unit exists.		
1	My Registry Units	In the Climate Warehouse, select 'My Units' from the left hand menu bar to display all the units currently listed within your registry.	All units in the registry are shown.		
2	Edit Unit	Use the 3 dot menu next to the unit record you would like to retire (if you cannot see it, scroll all the way to the end of the table). Select the option 'Edit Unit'.	A new window displays showing a similar screen to creating a unit, but this time all the details are populated with that specific unit details.		
		Using the 'Unit Status' dropdown, select the option "Retired".			
3	Change unit status	is easy for external watchers to understand why the unit is being retired. You can write this reason in the 'Unit Status Reason' box.	Unit status changed to retired and a reason has been given.		
4	Update Unit	Click next at the bottom of the window, which should take you to 'Labels' and then 'Issuances' tab. If no further changes need to be made, click through the window and finally select 'Update Unit'.	User is taken to the staging table which shows one record in red, and one record in green. This is showing the update being made.		
5	Commit changes to blockchain	Click the blue 'Commit' button in the top right of your screen to commit the changes to the blockchain.	Records move from 'Staging' tab to 'Pending' tab. They should eventually move into the committed tab.		
6	Verify changes	Once the records move out of 'Pending' tab, go to 'Committed' tab and verify that the unit record you updated correctly shows that it has been retired.	Unit record shows retired.		