

BACKUP/RESTORING AN ALREADY REGISTERED NIAGARA CONTAINER

Using Workbench 4.14+

February 04, 2025

Docker Console

Up and running docker container under ubuntu

tridium@tridium-virtual-machine: ~/niagara

```
tridium@tridium-virtual-machine:~$ cd niagara
```

```
tridium@tridium-virtual-machine:~/niagara$ docker compose up
```

```
[+] Running 1/0
```

```
✓ Container niagara-niagara-1 Created
```

0.0s

```
Attaching to niagara-niagara-1
```

```
niagara-niagara-1 | INFO | init.sh | Initializing Niagara container
```

```
niagara-niagara-1 | INFO | init.sh | Container is starting with root-level commands
```

```
niagara-niagara-1 | INFO | init.sh | Setting timezone to America/New_York
```

```
niagara-niagara-1 | INFO | copy_modules.sh | Checking for removed modules
```

```
niagara-niagara-1 | INFO | copy_modules.sh | Copying core Niagara modules to /home/niagara/modules
```

```
niagara-niagara-1 | INFO | init.sh | niagarad.sh running as PID 1480
```

```
niagara-niagara-1 | INFO | niagarad.sh | Container version is 1.4.70
```

```
niagara-niagara-1 | INFO | niagarad.sh | Hard open file limit is 1048576
```

```
niagara-niagara-1 | INFO | niagarad.sh | Starting niagarad.
```

```
niagara-niagara-1 | INFO | niagarad.sh | niagarad running as PID 1483
```

```
niagara-niagara-1 | INFO [12:20:52 08-Nov-23 EST][crypto] loading module signature registry...
```

```
niagara-niagara-1 | INFO [12:20:52 08-Nov-23 EST][crypto] module signature registry up-to-date
```

```
niagara-niagara-1 | INFO [12:20:52 08-Nov-23 EST][crypto] module signature registry loading complete (86 ms)
```

```
niagara-niagara-1 | INFO [12:20:52 08-Nov-23 EST][niagarad] starting, niagara_user_home=/home/niagara
```

```
niagara-niagara-1 | WARNING [12:20:52 08-Nov-23 EST][webserver] using default TLS server certificate 'default' is not recommended
```

```
niagara-niagara-1 | INFO [12:20:53 08-Nov-23 EST][webserver] web server threads started [threadCount = 5]
```

```
niagara-niagara-1 | INFO [12:20:53 08-Nov-23 EST][stationRegistry] station registry starting
```

```
niagara-niagara-1 | INFO [12:20:53 08-Nov-23 EST][stationRegistry] station Docker watchdog thread started [tid = 32]
```

```
niagara-niagara-1 | INFO [12:20:53 08-Nov-23 EST][stationRegistry] station Docker starting
```

```
niagara-niagara-1 | INFO [12:20:53 08-Nov-23 EST][niagarad] startup complete (2518ms)
```

```
niagara-niagara-1 | INFO [12:21:05 08-Nov-23 EST][stationRegistry] station Docker startup complete
```

Niagara Workbench

Backing up the Docker Container

Nav

192.168.206.129 (Docker)

Platform

Station (Docker)

After connecting to the container's platform, use the Platform Administration to initiate a backup

Platform Administration

View Details

Update Authentication

System Passphrase

Change HTTP Port

Change TLS Settings

Change Date/Time

Advanced Options

Change Output Settings

Syslog Configuration

View Daemon Output

View System Log

Configure Runtime Profiles

Backup

Commissioning

Reboot

Baja Version	Tridium 4.13.0.186																				
Daemon Version	4.13.0.186																				
System Home	/opt/niagara																				
User Home	/home/niagara																				
Host	192.168.206.129 (Docker)																				
Daemon HTTP Port	3011 (disabled in TLS settings)																				
Daemon HTTPS Port	5011																				
Host ID	Nre-0E04-47DB-FD90-4D05-912F-86D1-74A4-7AE9																				
Host ID Status	Registered																				
Model	n4container (1.4.70)																				
Product	n4container																				
Serial Number	None																				
Local Date	08-Nov-23																				
Local Time	12:21 Eastern Standard Time																				
Local Time Zone	America/New_York (-5/-4)																				
Operating System	Niagara Container (1.4.70)																				
Niagara Runtime	tridium-linux-amd64-nre-core-fda (4.13.0.186)																				
Architecture	x64																				
Enabled Runtime Profiles	rt,ux,wb																				
Java Virtual Machine	azul-jre-linux-headless-amd64 (Azul Systems, Inc. 1.8.0.372.24)																				
Niagara Stations Enabled	enabled																				
Number of CPUs	2																				
Current CPU Usage	10%																				
Overall CPU Usage	1%																				
Filesystem	<table><tr><td></td><td>Total</td><td>Free</td><td>Files</td><td>Max Files</td></tr><tr><td>/tmp</td><td>40,453,376 KB</td><td>18,191,424 KB</td><td>240241</td><td>2588672</td></tr><tr><td>/opt/niagara</td><td>40,453,376 KB</td><td>18,191,424 KB</td><td>240241</td><td>2588672</td></tr><tr><td>/home/niagara</td><td>40,453,376 KB</td><td>18,191,424 KB</td><td>240241</td><td>2588672</td></tr></table>		Total	Free	Files	Max Files	/tmp	40,453,376 KB	18,191,424 KB	240241	2588672	/opt/niagara	40,453,376 KB	18,191,424 KB	240241	2588672	/home/niagara	40,453,376 KB	18,191,424 KB	240241	2588672
	Total	Free	Files	Max Files																	
/tmp	40,453,376 KB	18,191,424 KB	240241	2588672																	
/opt/niagara	40,453,376 KB	18,191,424 KB	240241	2588672																	
/home/niagara	40,453,376 KB	18,191,424 KB	240241	2588672																	
Physical RAM	<table><tr><td>Total</td><td>Free</td></tr><tr><td>3,964,456 KB</td><td>1,339,608 KB</td></tr></table>	Total	Free	3,964,456 KB	1,339,608 KB																
Total	Free																				
3,964,456 KB	1,339,608 KB																				
Other Parts	None																				

Template

Nav

192.168.206.129 (Docker)

Platform

Station (Docker)

You will be prompted to allow workbench to authenticate and connect to the station to back it up.

Platform Administration

View Details

Update Authentication

System Passphrase

Change HTTP Port

Change TLS Settings

Change Date/Time

Advanced Options

Change Output Settings

Syslog Config

View Daemon

View System

Configure Runtime

Backup

Commissioning

Reboot

Baja Version Tridium 4.13.0.186
Daemon Version 4.13.0.186
System Home /opt/niagara
User Home /home/niagara
Host 192.168.206.129 (Docker)
Daemon HTTP Port 3011 (disabled in TLS settings)
Daemon HTTPS Port 5011
Host ID Nre-0E04-47DB-FD90-4D05-912F-86D1-74A4-7AE9
Host ID Status Registered
Model n4container (1.4.70)
Product n4container

Connect to Station?

Station "Docker" is currently running. Do you want to connect to the station to back it up?

Yes No

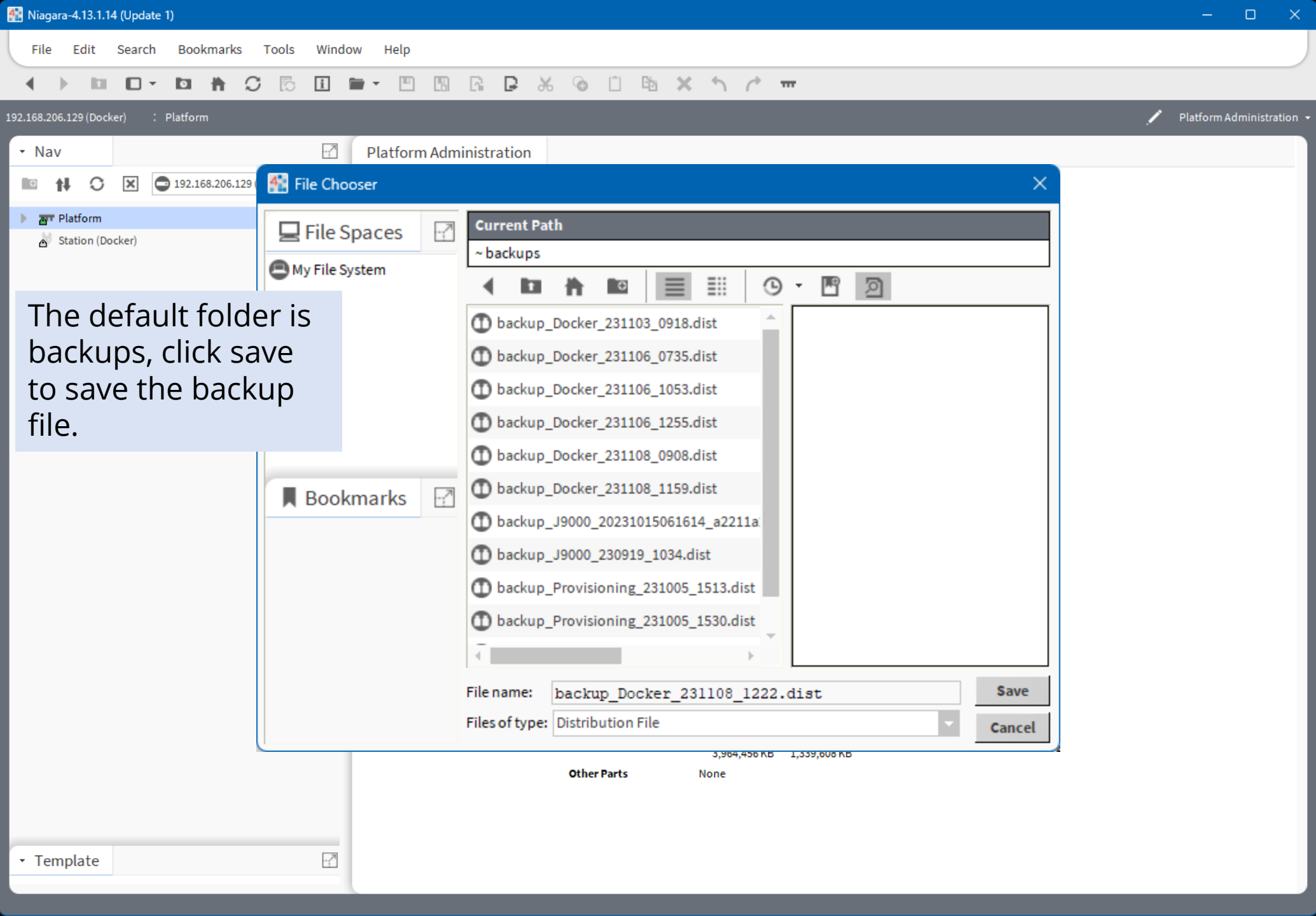
Enabled Runtime Profiles rt,ux,wb**Java Virtual Machine** azul-jre-linux-headless-amd64 (Azul Systems, Inc. 1.8.0.372.24)**Niagara Stations Enabled** enabled**Number of CPUs** 2**Current CPU Usage** 10%**Overall CPU Usage** 1%

Filesystem	Total	Free	Files	Max Files
/tmp	40,453,376 KB	18,191,424 KB	240241	2588672
/opt/niagara	40,453,376 KB	18,191,424 KB	240241	2588672
/home/niagara	40,453,376 KB	18,191,424 KB	240241	2588672

Physical RAM	Total	Free
	3,964,456 KB	1,339,608 KB

Other Parts None

Template



Default Platform backup settings

This is configured inside the Niagara Station under the BackupService

The screenshot shows the Niagara Station configuration interface. On the left is a navigation pane with a tree view under 'Services'. 'BackupService' is selected and highlighted in blue. Below the tree are 'Palette' and 'Template' sections. The main area is titled 'Property Sheet' and shows the configuration for 'BackupService (Backup Service)'. The properties are:

- Status: {ok}
- Fault Cause: (empty text box)
- Enabled: true (with a green circle icon)
- Exclude Files: *.hdb;*.adb;*.lock;*backup*;console.*;co
- Exclude Directories: file:^history, file:^alarm, file:^webFileCache
- Offline Exclude Files: *.lock;*backup*;console.*;config.bog.b*;
- Offline Exclude Directories: (empty text box)

At the bottom right of the interface are 'Refresh' and 'Save' buttons.

.hdb;.adb;*.lock;*backup*;co
nsole.*;config.bog.b*;
config_backup*

History folder, alarm folder,
webFileCache folder

*.lock;*backup*;console.*;conf
ig.bog.b*;config_backup*

Platform Backup use Stations BackupService

The screenshot displays the Workbench interface. On the left, the 'Nav' pane shows a tree structure under 'Platform' > 'Station (Docker)' > 'Config' > 'Services'. The 'BackupService' is highlighted. Below it, a 'Palette' pane shows 'bacnet' and 'BacnetNetwork'. The main area shows a 'Backups' table with 5 objects. A text box explains that this is an audit of backup initiations and filenames stored via Workbench. A 'Backup' button is visible at the bottom right.

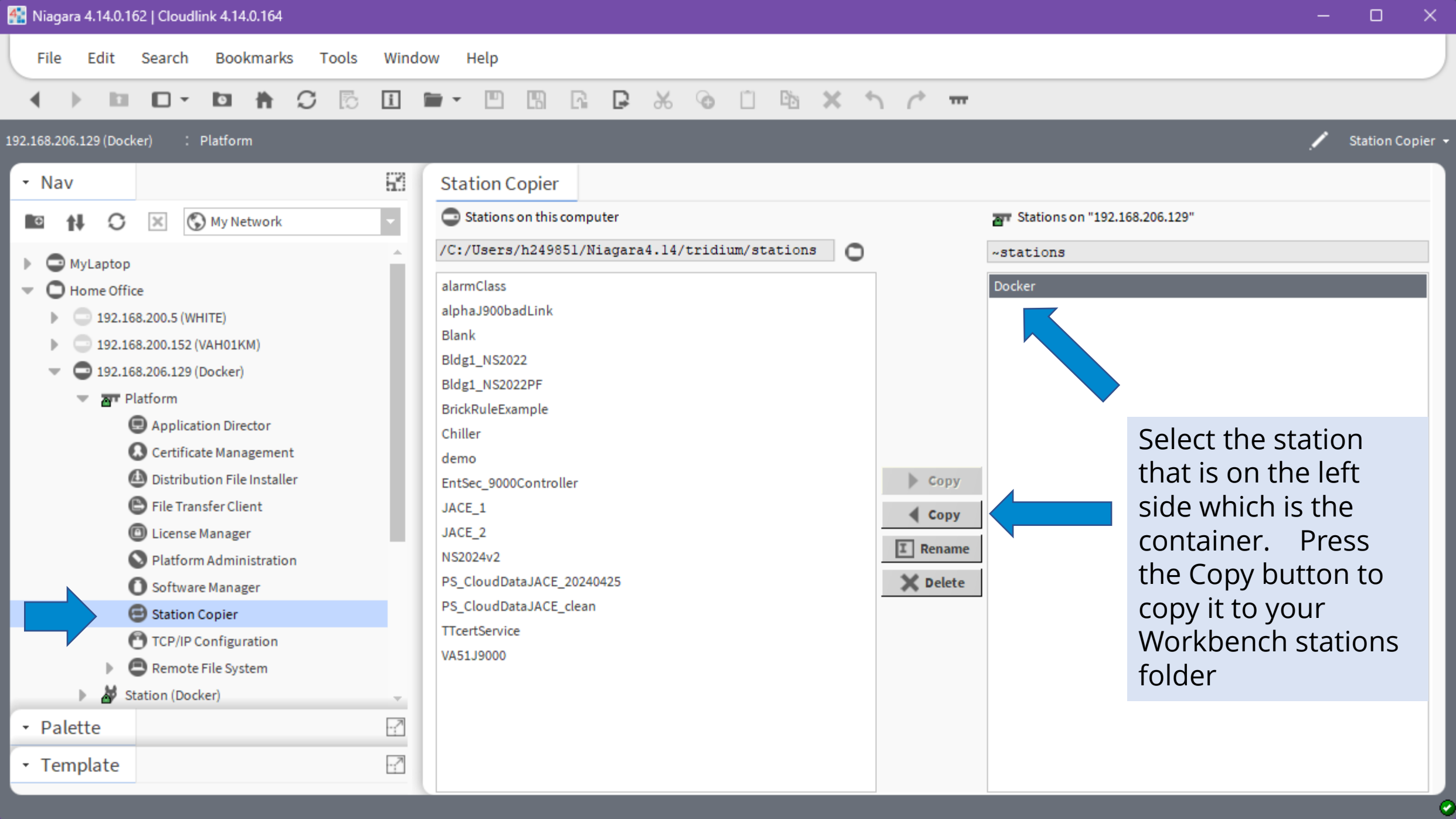
Timestamp	Host	Path	User
03-Nov-23 9:18 AM EDT	192.168.206.1	file:~backups/backup_Docker_231103_0918.dist	admin
06-Nov-23 12:55 PM EST	192.168.206.1	file:~backups/backup_Docker_231106_1255.dist	admin
08-Nov-23 1:16 PM EST	192.168.206.1	file:~backups/backup_Docker_231108_1316.dist	admin
20-Nov-23 10:40 AM EST	192.168.206.1	file:~backups/backup_Docker_231120_1040.dist	admin
20-Nov-24 1:05 PM EST	192.168.206.1	file:~backups/NEW_NREID_backup_Docker_241120_1304.dist	admin

This is an audit on when backups were initiated, and their filenames stored via Workbench

Backup

Niagara Workbench

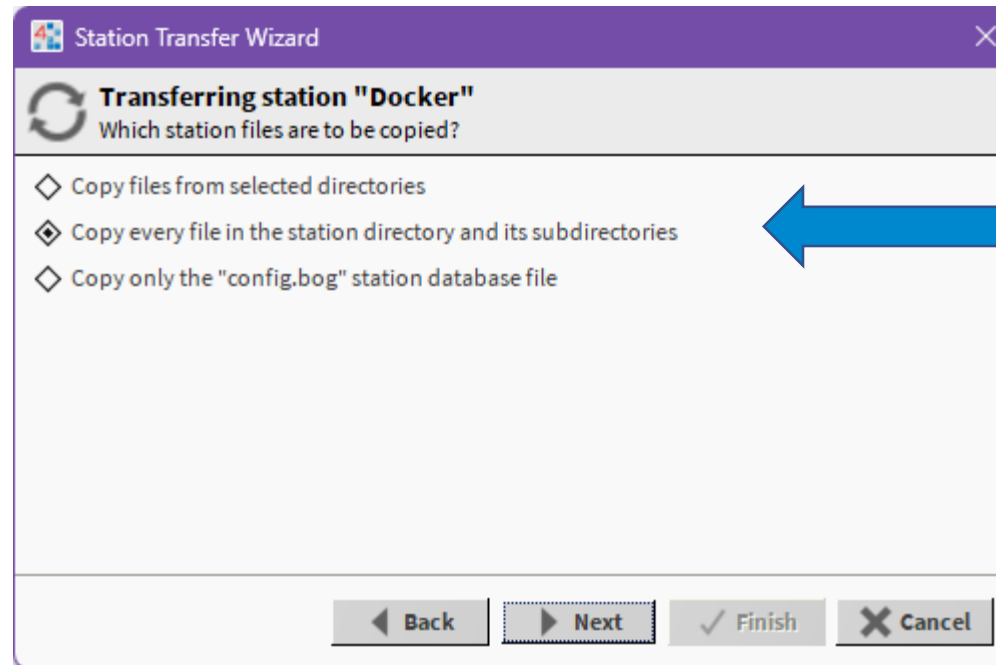
Backing up the Station with Station Copier



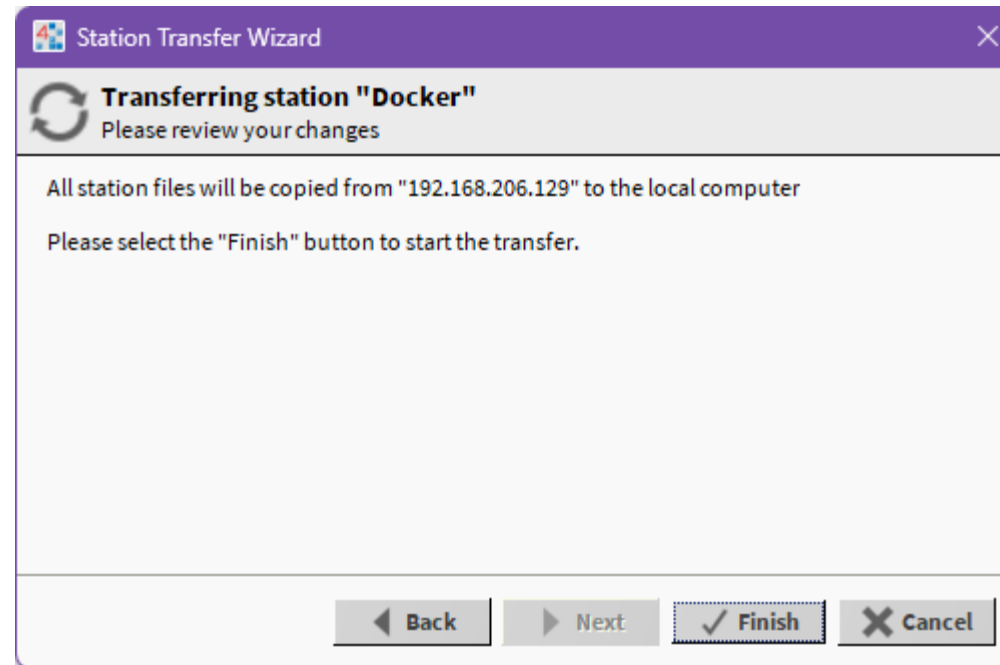
The screenshot shows a Windows-style dialog box titled "Station Transfer Wizard" with a close button (X) in the top right corner. Below the title bar, there is a header section with a circular arrow icon, the text "Transferring station 'Docker'", and the question "What name would you like the new station to have?". Below this header is a text input field labeled "Station name" containing the text "Docker". At the bottom of the dialog, there are four buttons: "Back" (disabled), "Next" (active/highlighted with a dotted border), "Finish" (disabled), and "Cancel" (disabled). Two blue arrows are overlaid on the image: one points from the right towards the "Station name" input field, and another points from below towards the "Next" button.

Name the station as
it should be stored.
You can copy
multiple versions.

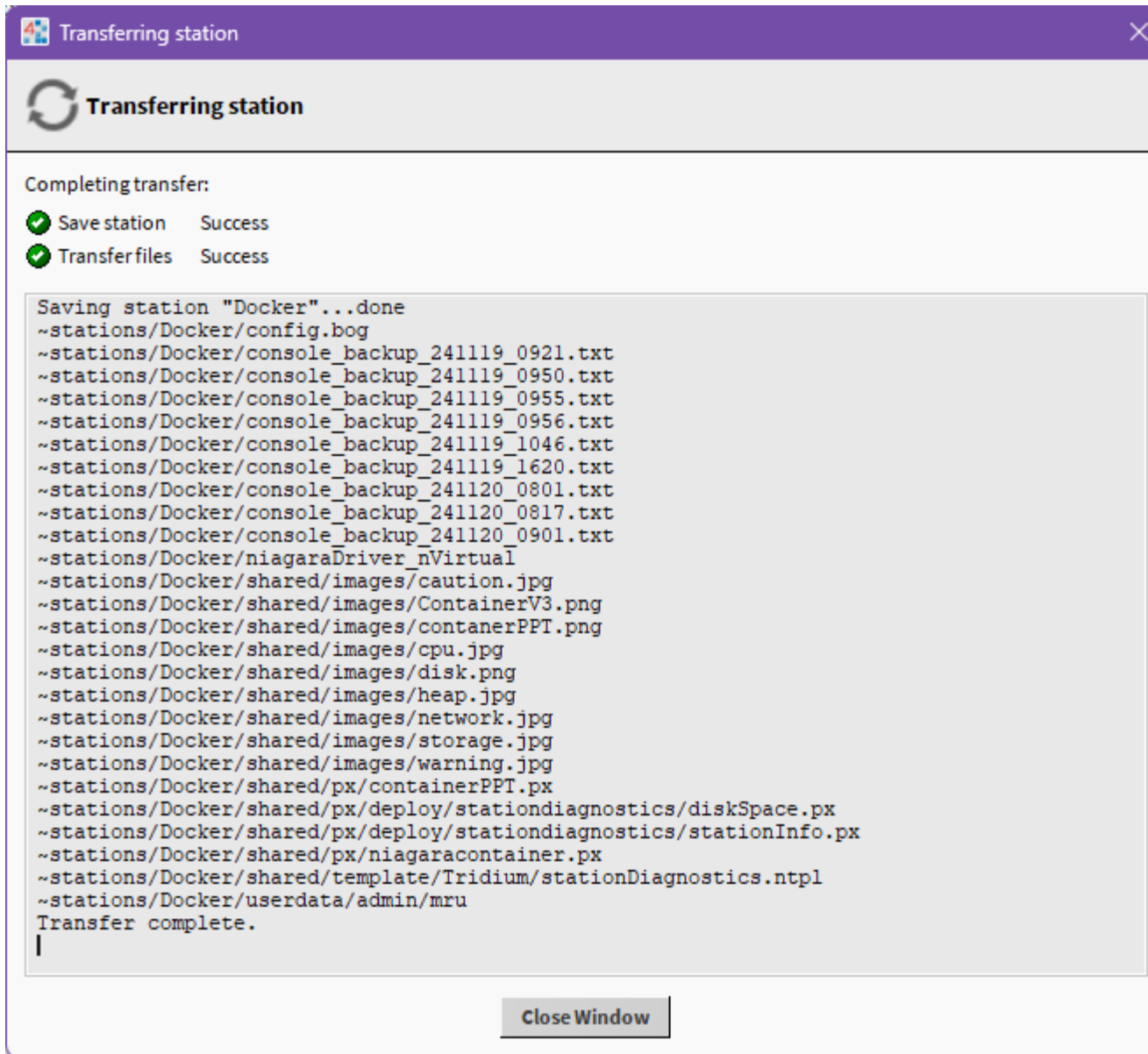
Next



Copy everything



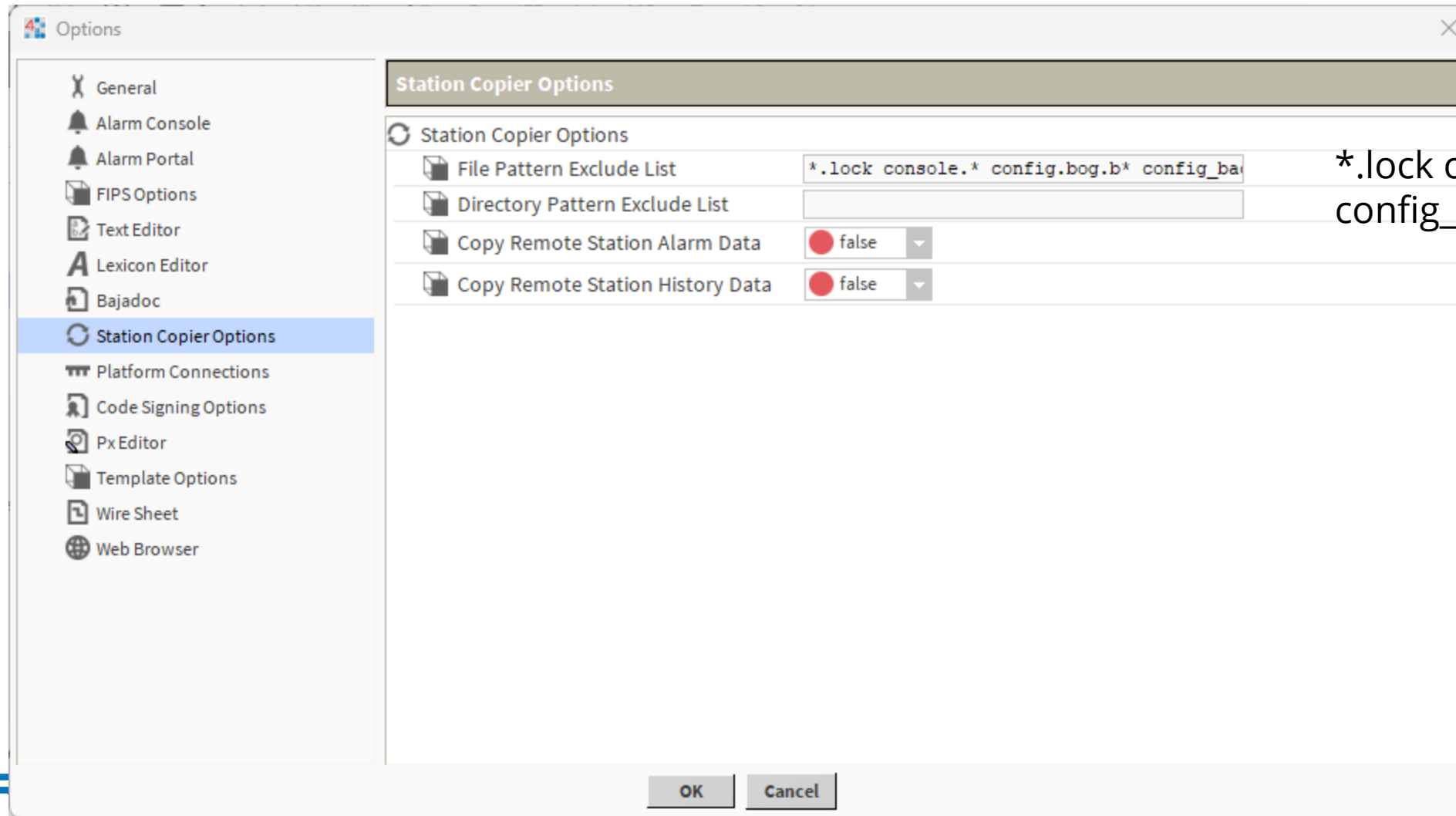
Finish the Wizard,
and begin copying
station



Verify the Transfer of
the Copy

Default Station Copy Options

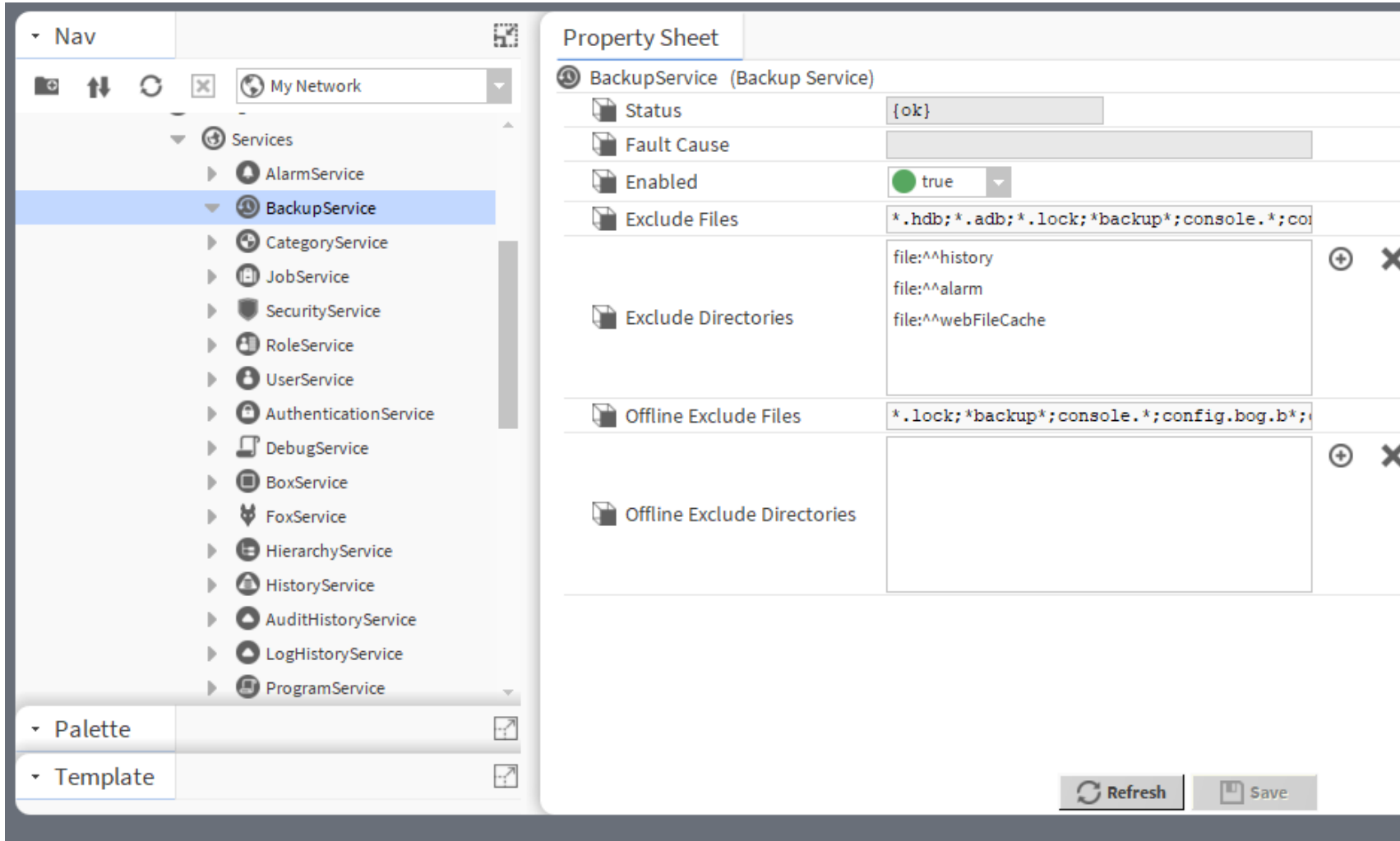
This is configured within Workbench under the Tools:Options menu



.lock console. config.bog.b*
config_backup*

What is in a default platform backup

This is configured inside the Niagara Station under the BackupService



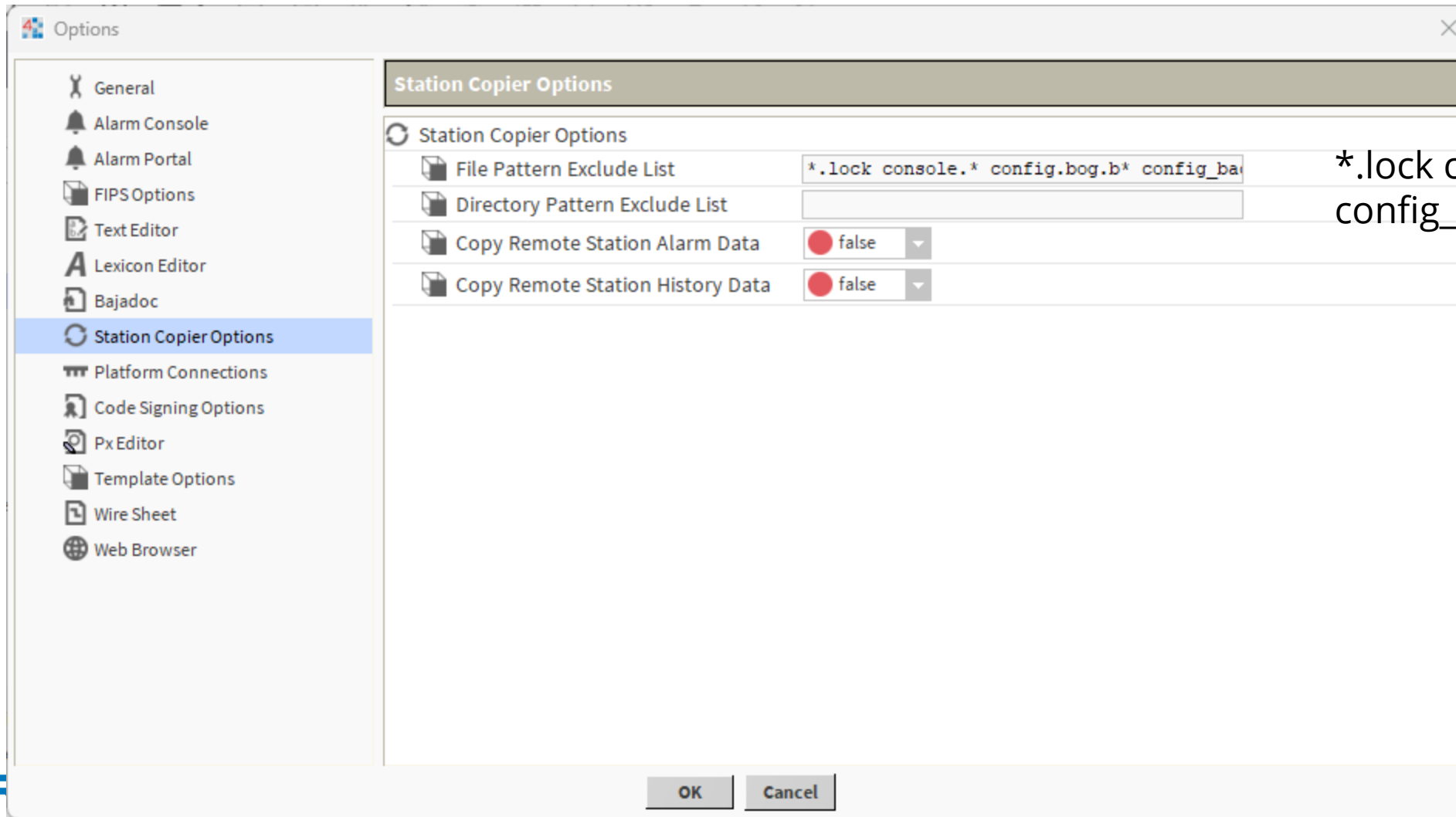
.hdb;.adb;*.lock;*backup*;console.*;config.bog.b*;config_backup*

History folder, alarm folder, webFileCache folder

*.lock;*backup*;console.*;config.bog.b*;config_backup*

What is in a default Station Copy

This is configured within Workbench under the Tools Options menu



`*.lock console.* config.bog.b* config_backup*`

Niagara Workbench

Restoring the backup .dist to the ***SAME*** Docker Container

Nav

192.168.206.129 (Docker)

Platform

Application Director

Certificate Management

Distribution File Installer

File Transfer Client

Lexicon Installer

License Manager

Platform Administrator

Software Manager

Station Copier

TCP/IP Configuration

Remote File System

Station (Docker)

/C:/Users/h249851/Niagara4.13/tridium/backups

12 distribution files were found in directory "/C:/Users/h249851/Niagara4.13/tridium/backups"

File	Version	Status	Description
backup_Docker_231103_0918.dist	Tridium 0	Modified	Online backup of station "Docker" on "e0ddd68d5026"
backup_Docker_231106_0735.dist	Tridium 0	Modified	Online backup of station "Docker" on "e0ddd68d5026"
backup_Docker_231106_1053.dist	Tridium 0	Modified	Online backup of station "Docker" on "e0ddd68d5026"
backup_Docker_231106_1255.dist	Tridium 0	Modified	Online backup of station "Docker" on "e0ddd68d5026"
backup_Docker_231108_0908.dist	Tridium 0	Modified	Online backup of station "Docker" on "e0ddd68d5026"
backup_Docker_231108_1159.dist	Tridium 0	Modified	Online backup of station "Docker" on "e0ddd68d5026"
backup_Docker_231108_1222.dist	Tridium 0	Modified	Online backup of station "Docker" on "e0ddd68d5026"
backup_J9000_20231015061614_a2211a21-5d84-4e6e-8163-3083af9b9348.dist	Tridium 0	Different target platform	Online backup of station "J9000" on "ubuntu"
backup_J9000_230919_1034.dist	Tridium 0	Different target platform	Online backup of station "J9000" on "ubuntu"
backup_Provisioning_231005_1513.dist	Tridium 0	Different target platform	Online backup of station "Provisioning" on "VA51LT39GPYD3.globe"
backup_Provisioning_231005_1530.dist	Tridium 0	Different target platform	Online backup of station "Provisioning" on "VA51LT39GPYD3.globe"
backup_test2_231106_1312.dist	Tridium 0	Modified	Online backup of station "test2" on "6719d2b1d10b"

Use the Distribution File Installer within the Platform to select and install the backup

Template

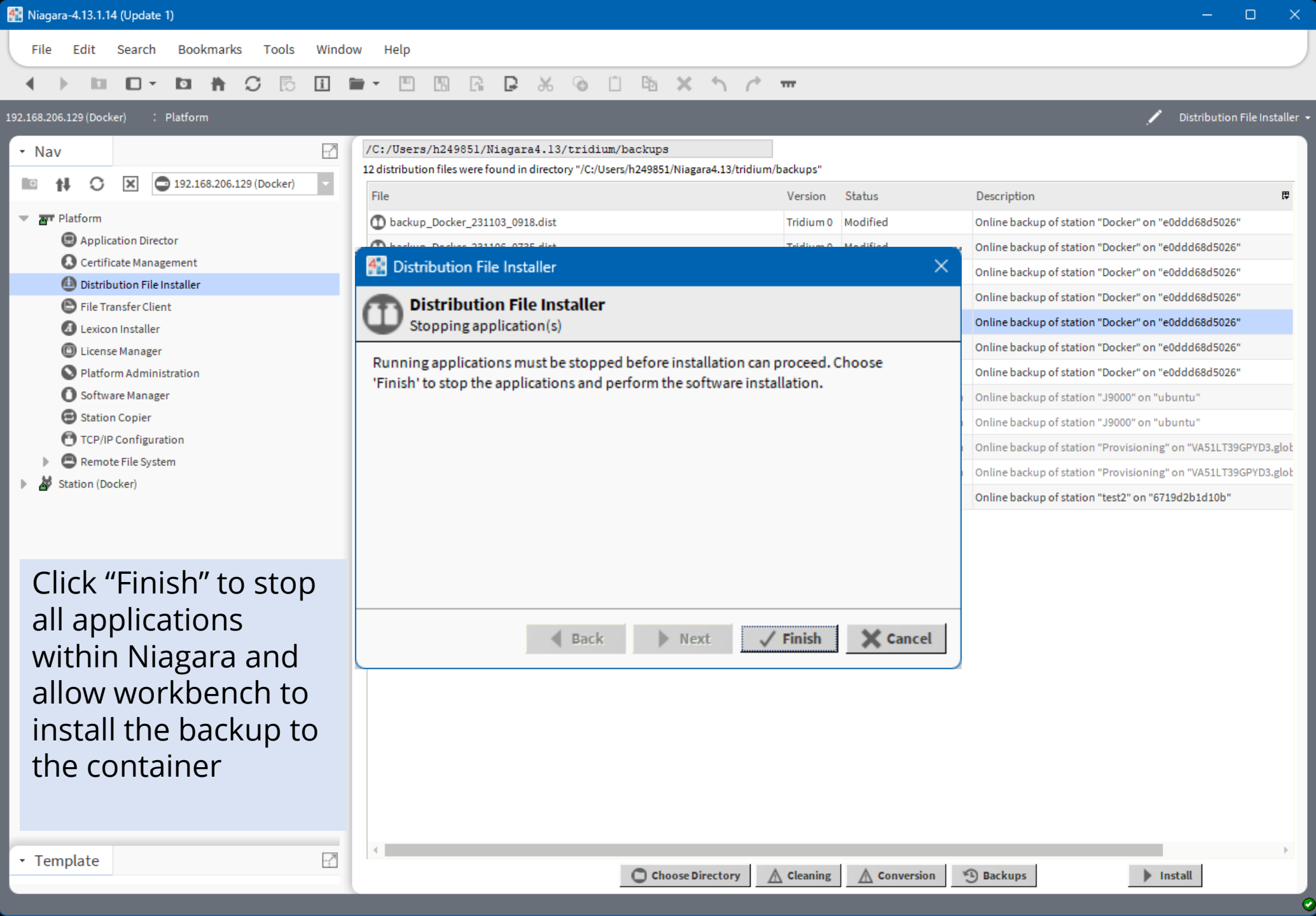
Choose Directory

Cleaning

Conversion

Backups

Install



192.168.206.129 (Docker) Platform

Nav

192.168.206.129

Platform

- Application Director
- Certificate Management
- Distribution File Installer**
- File Transfer Client
- Lexicon Installer
- License Manager
- Platform Administration
- Software Manager
- Station Copier
- TCP/IP Configuration
- Remote File System
- Station (Docker)

Installing Distribution



Installing Distribution

Installing:

- ✓ Stop running application(s) Success
- ✓ Install software Success
- ✓ Restart application(s) Success

Installation complete.

```
DeleteFileStoreElement::deleteFile /home/niagara/etc/platform_backup_231108_1222.bog del
DeleteFileStoreElement::deleteFile /home/niagara/stations/Docker/alarm/alarm.adb deleted
DeleteFileStoreElement::deleteDirectory '/home/niagara/stations/Docker/alarm' deleted
DeleteFileStoreElement::deleteFile /home/niagara/stations/Docker/history/station/seg0/Se
DeleteFileStoreElement::deleteDirectory '/home/niagara/stations/Docker/history/station/s
DeleteFileStoreElement::deleteFile /home/niagara/stations/Docker/history/station/seg4/Lc
DeleteFileStoreElement::deleteFile /home/niagara/stations/Docker/history/station/seg4/De
DeleteFileStoreElement::deleteDirectory '/home/niagara/stations/Docker/history/station/s
DeleteFileStoreElement::deleteFile /home/niagara/stations/Docker/history/station/seg7/Au
DeleteFileStoreElement::deleteDirectory '/home/niagara/stations/Docker/history/station/s
DeleteFileStoreElement::deleteFile /home/niagara/stations/Docker/history/station/seg1/De
DeleteFileStoreElement::deleteFile /home/niagara/stations/Docker/history/station/seg1/Ne
DeleteFileStoreElement::deleteDirectory '/home/niagara/stations/Docker/history/station/s
DeleteFileStoreElement::deleteDirectory '/home/niagara/stations/Docker/history/station'
DeleteFileStoreElement::deleteDirectory '/home/niagara/stations/Docker/history' deleted
DeleteFileStoreElement::deleteDirectory '/home/niagara/stations/Docker/niagaraDriver_nVi
FileStoreElement::commit file written /home/niagara/stations/Docker/config.bog
FileStoreElement::commit file written /home/niagara/etc/platform.bog
FileStoreElement::commit imported data to keyring in /home/niagara/security
FileStoreElement::commit file written /home/niagara/daemon/daemon.properties
FileStoreElement::commit file written /home/niagara/etc/license.properties
FileStore::commitInstance commit complete
Resetting subscription parameters
Starting "station Docker"
Installation complete.
```

Close Window

Observe the
installing status, and
when complete close
the window

Template

Choose Directory

Cleaning

Conversion

Backups

Install

This is the docker console showing the install of the backup

```
niagara-niagara-1 | INFO [12:24:25 08-Nov-23 EST][stationRegistry] station Docker stopping
niagara-niagara-1 | INFO [12:24:28 08-Nov-23 EST][stationRegistry] station Docker exited with status 0
niagara-niagara-1 | INFO [12:24:30 08-Nov-23 EST][file] DeleteFileStoreElement::deleteFile /home/niagara/stations/Docker/console.txt deleted
niagara-niagara-1 | INFO [12:24:30 08-Nov-23 EST][file] DeleteFileStoreElement::deleteFile /home/niagara/stations/Docker/console_backup_231108_1218.txt deleted
niagara-niagara-1 | INFO [12:24:30 08-Nov-23 EST][file] DeleteFileStoreElement::deleteFile /home/niagara/stations/Docker/console_backup_231108_1202.txt deleted
niagara-niagara-1 | INFO [12:24:30 08-Nov-23 EST][file] DeleteFileStoreElement::deleteFile /home/niagara/etc/platform.bog deleted
niagara-niagara-1 | INFO [12:24:30 08-Nov-23 EST][file] DeleteFileStoreElement::deleteFile /home/niagara/etc/platform_backup_231108_1222.bog deleted
niagara-niagara-1 | INFO [12:24:30 08-Nov-23 EST][file] DeleteFileStoreElement::deleteFile /home/niagara/stations/Docker/alarm/alarm.adb deleted
niagara-niagara-1 | INFO [12:24:30 08-Nov-23 EST][file] DeleteFileStoreElement::deleteDirectory '/home/niagara/stations/Docker/alarm' deleted
niagara-niagara-1 | INFO [12:24:30 08-Nov-23 EST][file] DeleteFileStoreElement::deleteFile /home/niagara/stations/Docker/history/station/seg0/SecurityHistory.hdb deleted
niagara-niagara-1 | INFO [12:24:30 08-Nov-23 EST][file] DeleteFileStoreElement::deleteDirectory '/home/niagara/stations/Docker/history/station/seg0' deleted
niagara-niagara-1 | INFO [12:24:30 08-Nov-23 EST][file] DeleteFileStoreElement::deleteFile /home/niagara/stations/Docker/history/station/seg4/LogHistory.hdb deleted
niagara-niagara-1 | INFO [12:24:30 08-Nov-23 EST][file] DeleteFileStoreElement::deleteFile /home/niagara/stations/Docker/history/station/seg4/DeviceNetworkJobHistoryRecord.hdb deleted
niagara-niagara-1 | INFO [12:24:30 08-Nov-23 EST][file] DeleteFileStoreElement::deleteDirectory '/home/niagara/stations/Docker/history/station/seg4' deleted
niagara-niagara-1 | INFO [12:24:30 08-Nov-23 EST][file] DeleteFileStoreElement::deleteFile /home/niagara/stations/Docker/history/station/seg7/AuditHistory.hdb deleted
niagara-niagara-1 | INFO [12:24:30 08-Nov-23 EST][file] DeleteFileStoreElement::deleteDirectory '/home/niagara/stations/Docker/history/station/seg7' deleted
niagara-niagara-1 | INFO [12:24:30 08-Nov-23 EST][file] DeleteFileStoreElement::deleteFile /home/niagara/stations/Docker/history/station/seg1/DeviceStepHistoryRecord.hdb deleted
niagara-niagara-1 | INFO [12:24:30 08-Nov-23 EST][file] DeleteFileStoreElement::deleteFile /home/niagara/stations/Docker/history/station/seg1/NetworkStepHistoryRecord.hdb deleted
niagara-niagara-1 | INFO [12:24:30 08-Nov-23 EST][file] DeleteFileStoreElement::deleteDirectory '/home/niagara/stations/Docker/history/station/seg1' deleted
Trash -niagara-1 | INFO [12:24:30 08-Nov-23 EST][file] DeleteFileStoreElement::deleteDirectory '/home/niagara/stations/Docker/history/station' deleted
niagara-niagara-1 | INFO [12:24:30 08-Nov-23 EST][file] DeleteFileStoreElement::deleteDirectory '/home/niagara/stations/Docker/history' deleted
niagara-niagara-1 | INFO [12:24:30 08-Nov-23 EST][file] DeleteFileStoreElement::deleteDirectory '/home/niagara/stations/Docker/niagaraDriver_nVirtual' deleted
niagara-niagara-1 | INFO [12:24:30 08-Nov-23 EST][file] FileCachedFileStoreElement::commit file written /home/niagara/stations/Docker/config.bog
niagara-niagara-1 | INFO [12:24:30 08-Nov-23 EST][file] FileCachedFileStoreElement::commit file written /home/niagara/etc/platform.bog
niagara-niagara-1 | INFO [12:24:30 08-Nov-23 EST][file] KeyRingImportFileStoreElement::commit imported data to keyring in /home/niagara/security/.kr
niagara-niagara-1 | INFO [12:24:30 08-Nov-23 EST][file] FileCachedFileStoreElement::commit file written /home/niagara/daemon/daemon.properties
niagara-niagara-1 | INFO [12:24:30 08-Nov-23 EST][file] FileCachedFileStoreElement::commit file written /home/niagara/etc/license.properties
```

NOTE: You can only RESTORE to a container with the same NRE ID that was originally backed-up

IF the docker console shows the following “station Docker failed” after the restore has completed. It’s because NRE ID’s of the backup did not match the container during the restore. You will need to Re-Register after a “Clean Install”

```
niagara-niagara-1 | INFO [12:24:31 08-Nov-23 EST][stationRegistry] station Docker starting
niagara-niagara-1 | INFO [12:24:35 08-Nov-23 EST][stationRegistry] station Docker exited with status -3
niagara-niagara-1 | SEVERE [12:24:35 08-Nov-23 EST][stationRegistry] station Docker failed, rc = -3
```

192.168.206.129 (Docker) : Platform

Application Director

Connected to 192.168.206.129

Name	Type	Status	Details	Auto-Start	Restart on Failure
Docker	station	Failed	fox=n/a,foxs=4911,http=n/a,https=8443	true	true

INFO [nre] Launching Niagara Runtime Environment

INFO [12:24:32 08-Nov-23 EST][nre] Booting

INFO [12:24:32 08-Nov-23 EST][org.bouncycastle.jsse.provider.PropertyUtils] Found string security property [jdk.tls.disabledAlgorithms=

WARNING [12:24:32 08-Nov-23 EST][org.bouncycastle.jsse.provider.DisabledAlgorithmConstraints] Ignoring unsupported entry

INFO [12:24:32 08-Nov-23 EST][org.bouncycastle.jsse.provider.PropertyUtils] Found string security property [jdk.certpath.disabledAlgorithms=

WARNING [12:24:32 08-Nov-23 EST][org.bouncycastle.jsse.provider.DisabledAlgorithmConstraints] Ignoring unsupported entry

WARNING [12:24:32 08-Nov-23 EST][org.bouncycastle.jsse.provider.DisabledAlgorithmConstraints] Ignoring unsupported entry

WARNING [12:24:32 08-Nov-23 EST][org.bouncycastle.jsse.provider.DisabledAlgorithmConstraints] Ignoring unsupported entry

INFO [12:24:32 08-Nov-23 EST][org.bouncycastle.jsse.provider.PropertyUtils] Found boolean security property [keystore.type=

INFO [12:24:32 08-Nov-23 EST][org.bouncycastle.jsse.provider.PropertyUtils] Found string system property [java.home]= /opt/

INFO [12:24:32 08-Nov-23 EST][org.bouncycastle.jsse.provider.PropertyUtils] Found string system property [java.home]= /opt/

INFO [12:24:32 08-Nov-23 EST][org.bouncycastle.jsse.provider.PropertyUtils] Found string system property [java.home]= /opt/

INFO [12:24:32 08-Nov-23 EST][sys] Logging initialized

INFO [12:24:34 08-Nov-23 EST][sys.registry] Up-to-date [39ms]

INFO [12:24:34 08-Nov-23 EST][sys.registry] Loaded [48ms]

INFO [12:24:35 08-Nov-23 EST][crypto] loading module signature registry...

INFO [12:24:35 08-Nov-23 EST][crypto] module signature registry up-to-date

INFO [12:24:35 08-Nov-23 EST][crypto] module signature registry loading complete (87 ms)

**** This is an unregistered subscription instance!

**** Register your station instance using the

**** License Manager

INFO [12:24:35 08-Nov-23 EST][sys] Niagara runtime booted ("/opt/niagara") on Nre-0E04-47DB-FD90-4D05-912F-86D1-74A4-7AE

SEVERE [12:24:35 08-Nov-23 EST][sys] Cannot boot

javax.baja.license.FeatureNotLicensedException: tridium:nre

at com.tridium.sys.license.NLicenseManager.checkFeature(NLicenseManager.java:95)

at com.tridium.sys.Nre.runClass(Nre.java:516)

at com.tridium.sys.Nre.main(Nre.java:354)

at com.tridium.sys.Nre.bootstrap(Nre.java:175)

at sun.reflect.NativeMethodAccessorImpl.invoke0(Native Method)

at sun.reflect.NativeMethodAccessorImpl.invoke(NativeMethodAccessorImpl.java:62)

at sun.reflect.DelegatingMethodAccessorImpl.invoke(DelegatingMethodAccessorImpl.java:43)

at java.lang.reflect.Method.invoke(Method.java:498)

at com.tridium.nre.bootstrap.Bootstrap.Main(Bootstrap.java:146)

App Failed

☒ Auto-Start

☒ Restart on Failure

Start

Stop

Restart

Reboot

Kill

Dump Threads

Save Log

Verify Software

Clear Output

Pause Output

Output Dialog

Stream To File

Output Settings

At this point, you must have workbench re-register the subscription into backup

The application will also show that station startup failed. The console shows FeatureNotLicensedException

TRID

Niagara Workbench

Re-registering the docker image with the licensing server

192.168.206.129 (Docker) : Platform

License Manager

Host Address 192.168.206.129

Host ID Nre-0E04-47DB-FD90-4D05-912F-86D1-74A4-7AE9 [Register](#) [Regenerate](#)

Brand ID

Licenses

Certificates

Import Export View Delete

Import

Unregistered Host ID. Please register.

The Platform License Manager will allow you to re-register the backup and link it back to the subscription. Click Register

Visual Que, that you must re-register

192.168.206.129 (Docker) Platform License Manager

Nav

- Application Director
- Certificate Management
- Distribution File Installer
- File Transfer Client
- Lexicon Installer
- License Manager**
- Platform Administration
- Software Manager
- Station Copier
- TCP/IP Configuration
- Remote File System
- Station (Docker)

License Manager

Host Address 192.168.206.129

Device Registration

Licensing
Register the device for subscription license

Subscription Key

Verification URL <https://www.niagara-community.com/setup/connect>

Code 24GPV5KA

Follow these steps to complete subscription licensing:

- 1) Enter your Subscription Key above.
- 2) Go to the Verification URL with a browser.
- 3) Enter the Code at the website.
- 4) Login to your account.
- 5) Approve the device you are registering.

OK Cancel

Subscription key was delivered via email or contact the SI who sold the subscription.

Unregistered Host ID. Please register.

Import Export View Delete

You will need to provide the original Subscription Key used for that container's Nre host ID. Copy that into the Subscription Key field."

Using the same method you used to activate the container the first time.

Click the URL and enter the temp code it requests.



192.168.206.129 (Docker) Platform

License Manager

Nav

License Manager

Host Address 192.168.206.129

192.168.206.129 (Docker)

Platform

- Application Director
- Certificate Management
- Distribution File Installer
- File Transfer Client
- Lexicon Installer
- License Manager**
- Platform Administration
- Software Manager
- Station Copier
- TCP/IP Configuration
- Remote File System
- Station (Docker)

Device Registration

**Licensing**

Register the device for subscription license

Subscription Key

Verification URL

<https://www.niagara-community.com/setup/connect>

Code

24G



Licensing Complete

The licenses and certificates for the remote host have been successfully updated.

Added

NTEST.license (Tridium 4.13 - expires 2024-10-17)

OK

Follow these steps to c

- 1) Enter your Subscription Key above.
- 2) Go to the Verification URL with a browser.
- 3) Enter the Code at the website.
- 4) Login to your account.
- 5) Approve the device you are registering.

OK

Cancel

Template

Import

Export

View

Delete

Import



Unregistered Host ID. Please register.

Navigation menu: File, Edit, Search, Bookmarks, Tools, Window, Help

Address bar: 192.168.206.129 (Docker) Platform License Manager

Left sidebar (Nav):

- Platform
 - Application Director
 - Certificate Management
 - Distribution File Installer
 - File Transfer Client
 - Lexicon Installer
 - License Manager**
 - Platform Administration
 - Software Manager
 - Station Copier
 - TCP/IP Configuration
 - Remote File System
- Station (Docker)

Main content area (License Manager):

Host Address: 192.168.206.129

Host ID: Nre-0E04-47DB-FD90-4D05-912F-86D1-74A4-7AE9 [Register] [Regenerate]

Brand ID: NTEST

Licenses:

NTEST.license (Tridium 4.13 - expires 2024-10-17)

Certificates:

Tridium.certificate (Tridium - never expires)

Buttons: Import, Export, View, Delete

Your container is now restored from the backup and the Subscription has been re-attached and will now start up

This has now re-registered the backup with the Licensing server

Now restart the station through the Application Director

This is the docker console showing the station and subscription completed successfully

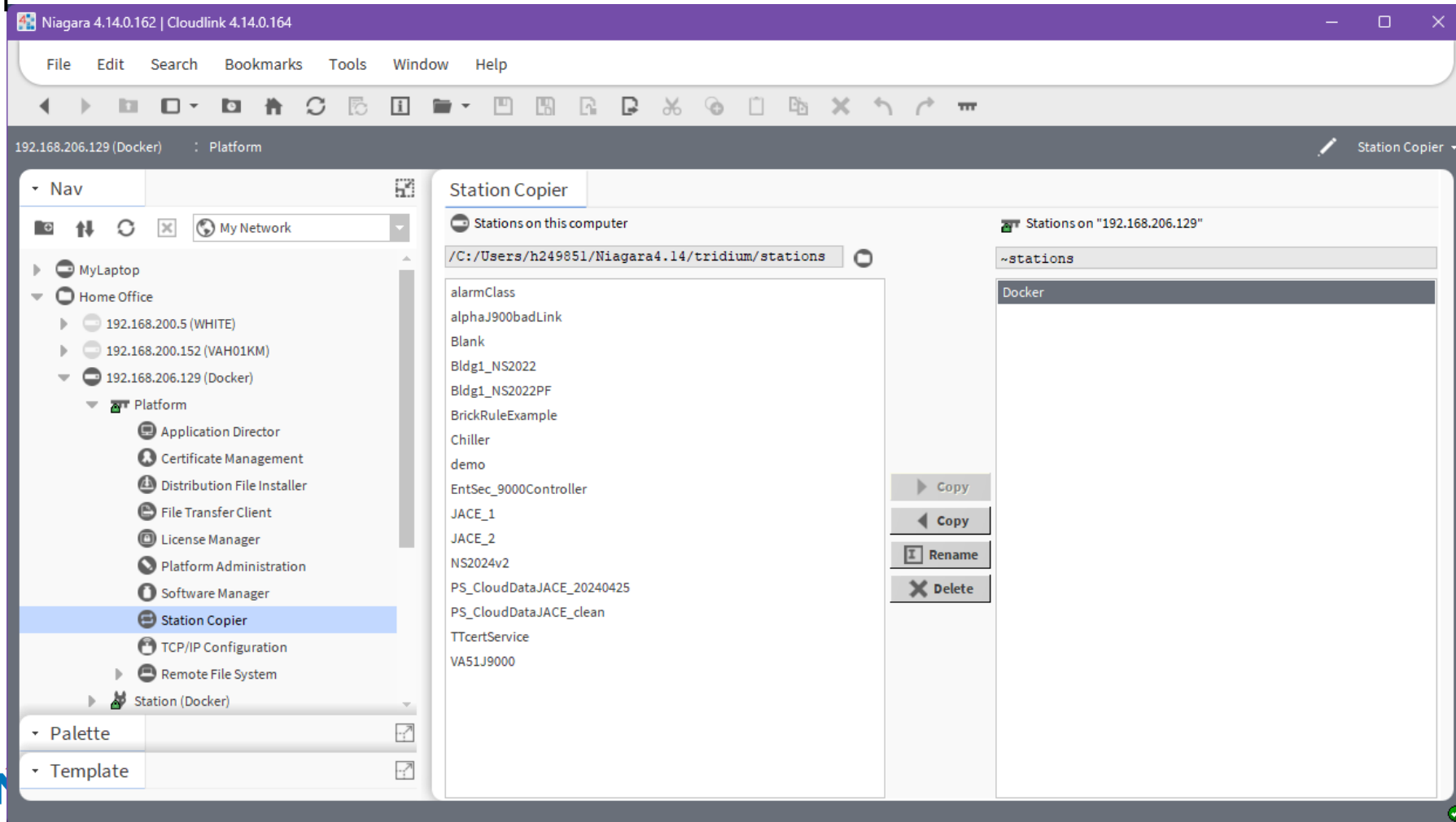
```
niagara-niagara-1 | INFO [12:26:11 08-Nov-23 EST][licensing.subscription] Polling for registration status (will poll for 5 minutes)
niagara-niagara-1 | INFO [12:26:11 08-Nov-23 EST][updatedaemon] access token poll started, poll interval 5 seconds
niagara-niagara-1 | INFO [12:27:00 08-Nov-23 EST][licensing.subscription] Access token retrieval successful.
niagara-niagara-1 | INFO [12:27:17 08-Nov-23 EST][licensing.subscription] This device is registered with the subscription licensing system.
niagara-niagara-1 | INFO [12:27:18 08-Nov-23 EST][licensing.subscription] Certificate request completed successfully.
niagara-niagara-1 | INFO [12:27:18 08-Nov-23 EST][updatedaemon] license request successful
niagara-niagara-1 | INFO [12:27:18 08-Nov-23 EST][file] FileCachedFileStoreElement::commit file written /home/niagara/security/subscription/licenses/NTEST.license
niagara-niagara-1 | INFO [12:27:46 08-Nov-23 EST][stationRegistry] station Docker watchdog thread started [tid = 63]
niagara-niagara-1 | INFO [12:27:46 08-Nov-23 EST][stationRegistry] station Docker starting
niagara-niagara-1 | INFO [12:27:58 08-Nov-23 EST][stationRegistry] station Docker startup complete
```

Clean Install

When burning down the house

Copy the Station with Station Copier

If you need the station from the container, the platform will allow for you to copy off using Workbench



Removing the persistent

```
tridium@tridium-virtual-machine:~/niagara$ docker compose down
```

```
[+] Running 2/2
```

```
✓ Container niagara-niagara-1 Removed
```

```
0.0s
```

```
✓ Network niagara_default Removed
```

```
0.2s
```

```
tridium@tridium-virtual-machine:~/niagara$ docker volume rm niagara_niagara-user-home  
niagara_niagara-user-home
```

tridium@tridium-virtual-machine:~/niagara\$ **docker compose up**

[+] Running 3/3

✓ Network niagara_default	Created	0.2s
✓ Volume "niagara_niagara-user-home"	Created	0.0s
✓ Container niagara-niagara-1	Created	0.1s

Attaching to niagara-1

```
niagara-1 | INFO | init.sh | Initializing Niagara container
niagara-1 | INFO | init.sh | Container is starting with root-level commands
niagara-1 | INFO | init.sh | Setting timezone to America/New_York
niagara-1 | INFO | copy_modules.sh | Copying core Niagara modules to /home/niagara/modules
niagara-1 | INFO | init.sh | niagarad.sh running as PID 2022
niagara-1 | INFO | niagarad.sh | Container version is 1.4.89
niagara-1 | INFO | niagarad.sh | Hard open file limit is 1048576
niagara-1 | INFO | niagarad.sh | Starting niagarad.
niagara-1 | INFO | niagarad.sh | niagarad running as PID 2025
niagara-1 | INFO [12:25:23 20-Nov-24 EST][crypto] loading module signature registry...
niagara-1 | INFO [12:25:28 20-Nov-24 EST][crypto] module signature registry out-of-date
niagara-1 | INFO [12:25:28 20-Nov-24 EST][crypto] module signature registry rebuild complete (5522 ms)
niagara-1 | INFO [12:25:28 20-Nov-24 EST][niagarad] starting, niagara_user_home=/home/niagara
niagara-1 | WARNING [12:25:28 20-Nov-24 EST][niagarad] platform file authenticator is using factory default credentials
niagara-1 | INFO [12:25:28 20-Nov-24 EST][webserver] legacy alias 'tridium' not found, switching to use 'default'
niagara-1 | WARNING [12:25:29 20-Nov-24 EST][webserver] using default TLS server certificate 'default' is not recommended
niagara-1 | INFO [12:25:29 20-Nov-24 EST][webserver] web server threads started [threadCount = 5]
niagara-1 | INFO [12:25:29 20-Nov-24 EST][stationRegistry] station registry starting
niagara-1 | INFO [12:25:29 20-Nov-24 EST][niagarad] startup complete (8426ms)
niagara-1 | INFO [12:26:45 20-Nov-24 EST][webserver] Opened: 385db250c43e8295e351912f60856617f17dfe26812965e6c755580449b52422 @ 192.168.206.1
niagara-1 | INFO [12:27:16 20-Nov-24 EST][webserver] Opened: 08b284133661bdf2af25e46e7b124ca57d147876411784494427ed846bb5ee5 @ 192.168.206.1
niagara-1 | INFO [12:27:16 20-Nov-24 EST][webserver] Opened: 5edfc33b7f26030feaf624b8c6b37f451c268fac92bcd55b070168cc0e61a836 @ 192.168.206.1
niagara-1 | INFO [12:28:53 20-Nov-24 EST][licensing.subscription] Polling for registration status (will poll for 5 minutes)
niagara-1 | INFO [12:28:53 20-Nov-24 EST][updatedaemon] access token poll started, poll interval 5 seconds
niagara-1 | INFO [12:29:04 20-Nov-24 EST][licensing.subscription] Access token retrieval successful.
niagara-1 | INFO [12:29:15 20-Nov-24 EST][licensing.subscription] This device is registered with the subscription licensing system.
niagara-1 | INFO [12:29:19 20-Nov-24 EST][licensing.subscription] Certificate request completed successfully.
niagara-1 | INFO [12:29:19 20-Nov-24 EST][updatedaemon] license request successful
niagara-1 | INFO [12:29:19 20-Nov-24 EST][file] FileCachedFileStoreElement::commit file written /home/niagara/security/subscription/licenses/NTEST.license
```

Common Docker Console Commands

You might need these commands handy for troubleshooting

List docker volumes

Using the command: **docker volume ls**

Notice it's using `niagara_niagara-user-home` that is mapped in the `docker-compose.yml`

volumes:

- `niagara-user-home:/home/niagara`

```
tridium@tridium-virtual-machine:~/niagara$ docker volume ls
DRIVER      VOLUME NAME
local       niagara_niagara-user-home
tridium@tridium-virtual-machine:~/niagara$
```

List all Docker images loaded

Use the `docker images` command to list all images

```
tridium@tridium-virtual-machine:~/niagara$ docker images
```

REPOSITORY	TAG	IMAGE ID	CREATED	SIZE
niagara/fda/amd64/base	4.15.0.122_1.5.105-e9ae5bce1696	fdf95fdb9c59	4 days ago	410MB
niagara/fda/arm64/base	4.15.0.106_1.5.102-4e9d366f6890	b80da4934890	3 weeks ago	381MB
vykon-fda-amd64	4.14.0.162	bb51a5298092	6 months ago	402MB
vykon-fda-amd64	4.13.2.18	456e91cb8f27	14 months ago	410MB
vykon-fda-amd64	4.13.1.14	9736cce5525a	15 months ago	391MB
vykon-fda-amd64	4.13.0.186	2c2b7bfa6a15	16 months ago	405MB
hello-world	latest	9c7a54a9a43c	21 months ago	13.3kB

```
tridium@tridium-virtual-machine:~/niagara$
```

Removing an image

Removing a single image

Use the `docker images` command to list all images

Find the *image ID* of the image you want to remove

For example, to remove the image with the ID `a2a15febcd3`, use the command `docker rmi a2a15febcd3`

Use the `docker rmi` command with the image ID

```
tridium@tridium-virtual-machine:~/niagara$ docker images
REPOSITORY          TAG                 IMAGE ID            CREATED             SIZE
niagara/fda/amd64/base  4.15.0.122_1.5.105-e9ae5bce1696  fdf95fdb9c59       4 days ago         410MB
niagara/fda/arm64/base  4.15.0.106_1.5.102-4e9d366f6890  b80da4934890       3 weeks ago        381MB
vykon-fda-amd64        4.14.0.162          bb51a5298092       6 months ago       402MB
vykon-fda-amd64        4.13.2.18           456e91cb8f27       14 months ago      410MB
vykon-fda-amd64        4.13.1.14           9736cce5525a       15 months ago      391MB
vykon-fda-amd64        4.13.0.186          2c2b7bfa6a15       16 months ago      405MB
hello-world            latest              9c7a54a9a43c       21 months ago      13.3kB
tridium@tridium-virtual-machine:~/niagara$
```

Load new docker image from Tridium

Using the command: **docker load <**
Load the .tar file provided by the systems integrator
In this example **vykon-fda-amd64-4.14.0.162.tar** file
Another example **niagara-fda-amd64:4.14.0.162.tar** file

```
tridium@tridium-virtual-machine:~/NiagaraContainerImages$ docker load<vykon-fda-amd64-4.14.0.162.tar
4a1518ebc26e: Loading layer [=====] 75.19MB/75.19MB
0da75023adea: Loading layer [=====] 67.86MB/67.86MB
f12d5ea90c4f: Loading layer [=====] 1.659MB/1.659MB
e27f25c4915f: Loading layer [=====] 4.096kB/4.096kB
06e94a0cabe4: Loading layer [=====] 3.072kB/3.072kB
0f7d796aee40: Loading layer [=====] 3.072kB/3.072kB
ef54f5a60d74: Loading layer [=====] 136.5MB/136.5MB
5f604a116c7f: Loading layer [=====] 123.8MB/123.8MB
86f184d8f1ef: Loading layer [=====] 2.56kB/2.56kB
39513d1309b7: Loading layer [=====] 46.59kB/46.59kB
77e3d6e8463e: Loading layer [=====] 15.87kB/15.87kB
03fc19d57226: Loading layer [=====] 21.5kB/21.5kB
a6de71766449: Loading layer [=====] 39.94kB/39.94kB
15a61fb92d87: Loading layer [=====] 34.3kB/34.3kB
21e61d50c794: Loading layer [=====] 34.3kB/34.3kB
d04d6f0fd5b3: Loading layer [=====] 1.226MB/1.226MB
Loaded image: vykon-fda-amd64:4.14.0.162
```

Show Hidden Files

To show hidden files in Ubuntu, you can press **Ctrl + H** or select Show Hidden Files from the menu button in the sidebar.

Steps

1. Go to the folder where you want to see hidden files
2. Press **Ctrl + H** on your keyboard
3. All hidden files will be visible, along with any regular files

To hide the files again, you can press Ctrl + H again or select Show Hidden Files from the menu button and switch it off.

You can also use the ls command in the terminal to list all files, including hidden files. To do this, you can:

1. Open the terminal
2. Type **ls -a**
3. Press Enter

