



Navy Cash Training System Operational Procedures Unit 2

Objectives

At the end of this training unit you will be able to:

- Describe the cluster server and node management
- Describe the servers and Overland Storage device
- State the reasons why weekly maintenance is performed on the Navy Cash system

Node Management

Node Management

- Each node is attached to the *Overland Storage* device.
- Each *Overland Storage* device can be controlled by only one node at any point in time. Ownership of the nodes can be transferred back and forth using the Microsoft *Failover Cluster Manager* Application.

Using KVM to Switch Between Nodes

- You will need to verify which node you are viewing before sending commands to the server.
- You can switch viewing of Nodes by pressing the “1” button on the KVM (below the keyboard) for Node 1, or the “2” button for Node 2.



Failover Cluster Manager

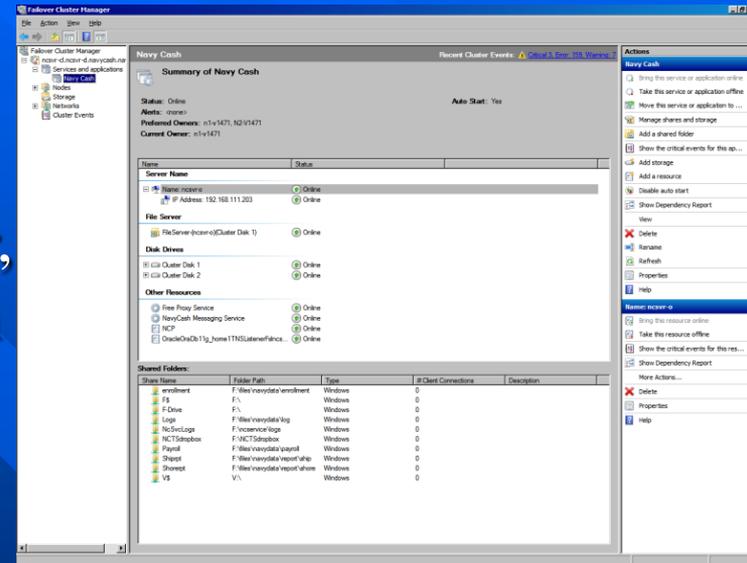
- *Failover Cluster Manager* is a Windows application used to control and manage all Navy Cash resources.
- All Navy Cash resources are controlled by one node at a time.
- Note: The shared files and drives cannot be viewed if you are not on the controlling node.

Failover Cluster Manager (cont)

- *Failover Cluster Manager* allows you to monitor the status of the cluster and check for fail-over or loss of ownership activities.
- Fail-over can occur either as an entire node failure or a resource on a node fails. Node failure is easily identified in *Failover Cluster Manager*.

Verifying Ownership of Cluster

- **Step 1:** Open *Failover Cluster Manager*
Start → Programs → Administrative Tools → Failover Cluster Manager.
- **Step 2:** Under *Failover Cluster Manager*, expand *ncsvr-d.navycash.navy.mil*. Then expand *Services and Applications*.
- **Step 3:** Click on *Navy Cash*. In the middle window you will see which node is in control next to 'Current Owner'.



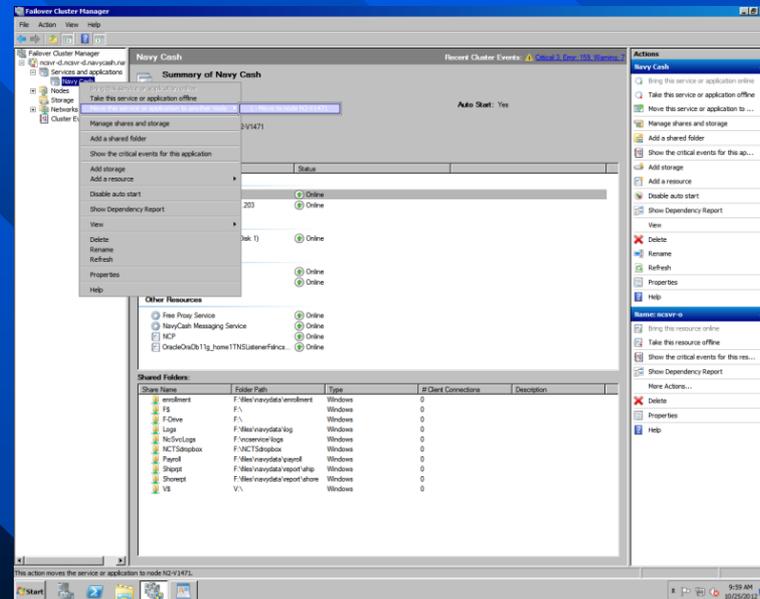
Moving Ownership of Cluster

- **Step 1:** Open *Failover Cluster Manager*

Start → Programs → Administrative Tools → Failover Cluster Manager

- **Step 2:** Right-click on *Navy Cash*, select ‘*Move this service or application to another node*’.

- **Step 3:** Select ‘*Move to node.....*’



File System Management

- The F:\, V:\, and Z:\ drives are clustered share drives.
- Remember: the controlling Node is the only node that can access the share drives and files on the *Overland Storage* device.

- The information contained on each drive is:

F:\ navy.cfg file

F:\ Oracle\NCP

F:\ Data base and Live Update

V:\ Backup Files and Logs

Z:\ Microsoft Clustering Service

Log File Verification

- Utilize one of the following FTP server addresses to allow communications between the shipboard Navy Cash server and the shore Navy Cash FTP server:
 - PACFLT ships use 205.56.145.20 and 205.56.145.73
 - LANTFLT ships use 205.56.129.35 and 205.56.129.36
- Then, on either Node, using the Command prompt type: ftp 205.56.145.20 (or any of the IPs above) to establish and confirm communications between the ship's NC server and the shore Navy Cash FTP server.
 - If prompted for a *user ID*, you have good off-ship comms but if it 'times out' or displays an error, you have not established off-ship comms.

Daily Backups

Daily Backups

- Backups are done on hard drives on the servers and *Overland Storage* device.
- Backup Logs can be found at V:\logs.
- The backup job is called *Daily Backup* (Scheduled Tasks) and runs at 0400 GMT. This backup includes the *Windows File System Backup*, *Oracle Backup* (former expncp.dmp)
- Daily backups are CRITICAL:
 - If a backup fails, it must be addressed and corrected, or logfiles may fill the drive, and eventually crash the server.
 - Completed backups will purge these logfiles.

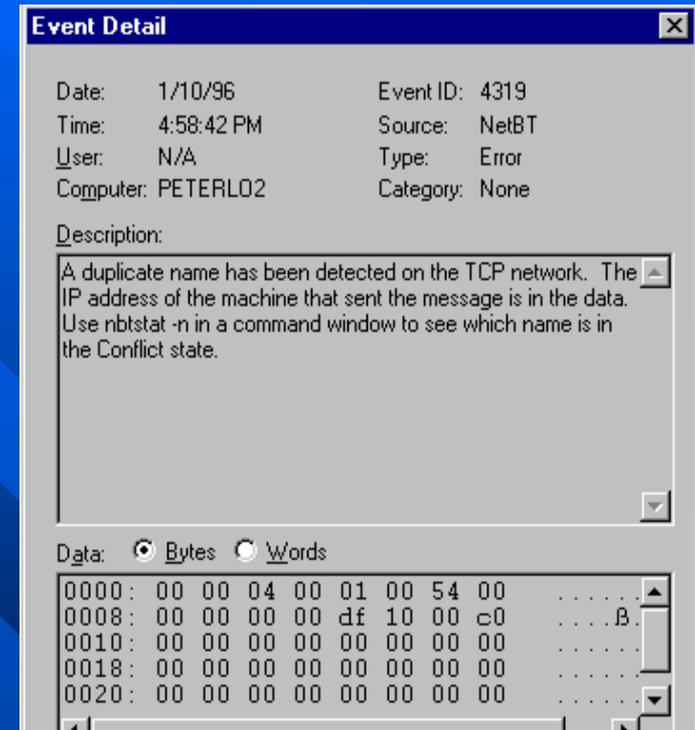
Weekly Maintenance

Weekly Maintenance Tasks

- Weekly maintenance tasks are performed to maintain system resources at optimal level:
 - Ensure that drives F:\ and V\ have at minimum 1GB free space
 - » If these drives do not have free space, this is an indication that backups may not have been successfully completed.

Verify Event Viewer

- Access *Event Viewer* through the Start Menu
 - **Step 1:** Search all *Event Viewer* logs for events displaying an error or warning icon.
 - **Step 2:** Double-click message to open, receiving more detail on errors or warnings (detail window will display).
 - **Step 3:** Report all errors or warnings to technical support personnel via daily reporting methods.



Verify Batch Processing

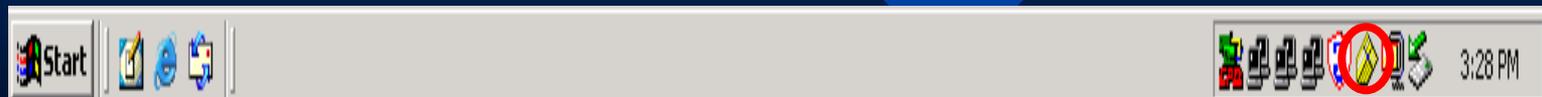
- Perform the following steps in order to ensure the End of Day (EOD) processed correctly on shore:
 - **Step 1:** On the controlling node, ensure there are no files in F:\files\navydata\error\UIC_batchID.yyyymmdd directory.
 - **Step 2:** Check the “F:\files\navydata\log: directory for presence of new “process_ship2shorepost.yyyymmdd.hhmiss.log” files.
 - » The summary file indicates whether the round trip was successful or not.

Verify Batch Processing (cont)

- **Step 3:** ‘Step 6’ of the summary file may fail several times until the file info has been processed on the shore side and the database has been updated.
 - A failure at any other step might be an indication of an issue. Troubleshoot those various other steps and if you are unable to find the cause of the failure then fill out a Navy Cash Trouble Call worksheet and contact the Navy Cash Call Center immediately.

Live Update

- Updates are automated, but can be done manually.
- The *Live Update* utility provides antivirus definition updates. These updates protect the system from the most current web security threats. Updates are done automatically to the servers and laptop, provided that a user is logged on.
- *Live Update* is a part of the software loaded on the server.
- To run *Live Update*, press the *Live Update* button in the lower right corner



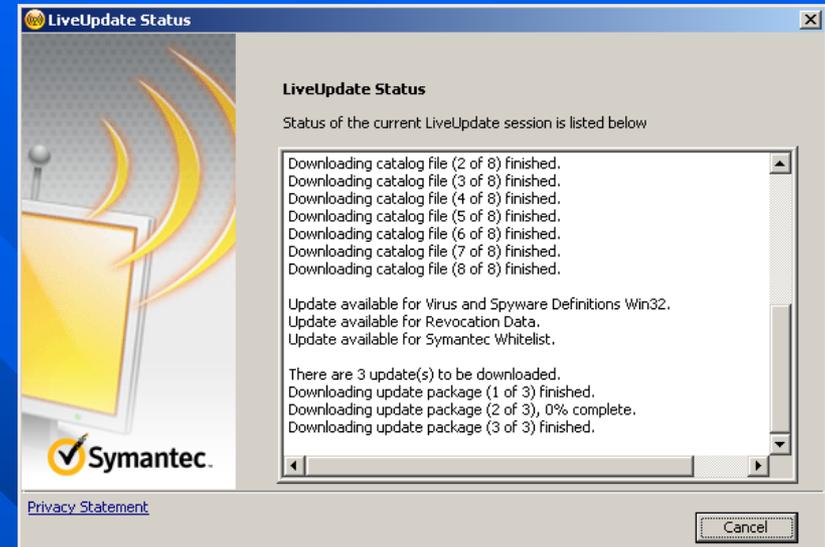
Live Update (cont)

- Once the icon on the task bar is clicked on the following screen will appear.



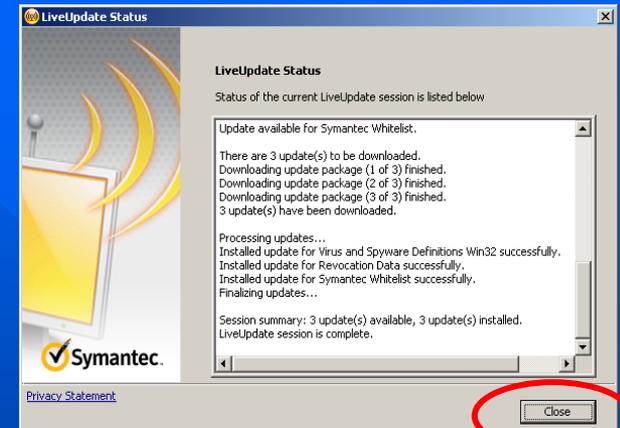
Live Update (cont)

- After pressing the *Live Update* button, the following screen will appear.
- It will automatically begin downloading and the most current virus definitions will be loaded into the system.



Live Update (cont)

- Click Close button when prompted.



- Notice new date.



Update Laptop

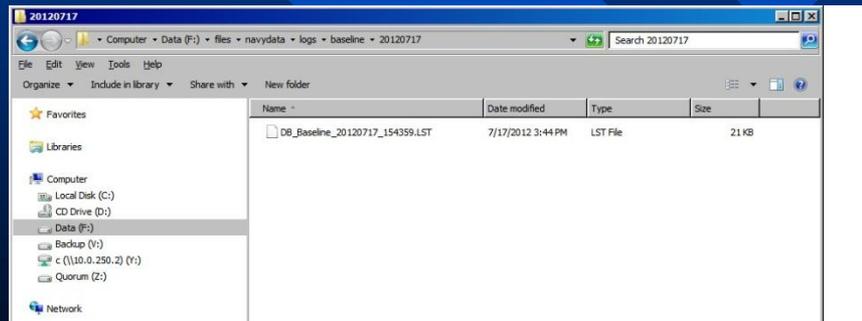
- Laptop software and virus definitions need to be kept relatively current.
- If the laptop is not used on a daily basis, then at least once a month (but preferably once a week) someone must turn it on, connect it to the LAN, and log on and *manually* activate the *Live Update* utility.
- Additionally, the laptop should be left plugged in to the LAN and left logged on for a minimum of 48 hours (less if done weekly) to allow all security updates to be downloaded and installed.

INFOCON III Requirement ST3-5

- Infocon III Reporting software is installed automatically as part of the image.
- Verify that the "Sys Baseline" task is Enabled in the *Scheduled Tasks* window.
- Initial baseline dump is located in F:\files\navydata\logs\baseline\

Steps to Process INFOCON III Requirement ST3-5

- The following steps must be performed from the *active* node.
- Using *Windows Explorer*, proceed to the folder where the Infocon III dumps reside: F:\files\navydata\logs\baseline\
 - Dumps are named as "Baseline-Report_ddd-mm-dd-yyyy_hh-mm" where the file's suffix is a timestamp. For example:
"Baseline-Report_Fri-04-02-2010_15-00"
- Dumps are created as TXT files, then compressed into ZIP files. For each unique dump, the TXT and ZIP filenames will be identical, with exception of the file's extension TXT / ZIP.



Steps to Process INFOCON III Requirement ST3-5

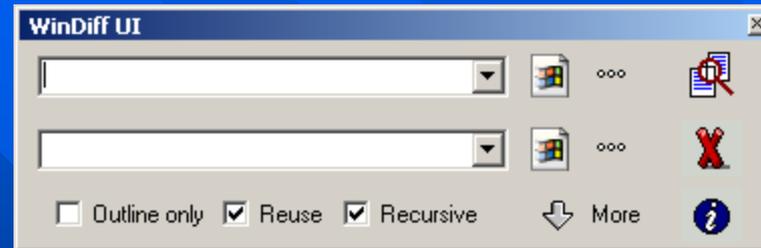
- Locate the two Infocon III dumps (ZIP files) that you wish to compare. The suggested approach is to compare the most recent dump with the last dump compared.
- Right-click the first dump file you chose to compare and select *WinZip > Extract to here*.

Steps to Process INFOCON III Requirement ST3-5

- Repeat previous step for the second dump file you chose to compare.
- On the active node, navigate to F:\files\navydata\bin\windiff and then double-click *RunWinDiff.exe*
- Note that *Windiff* is a tool that simplifies comparing differences between two files.

Steps to Process INFOCON III Requirement ST3-5

- The following window will appear on the screen:

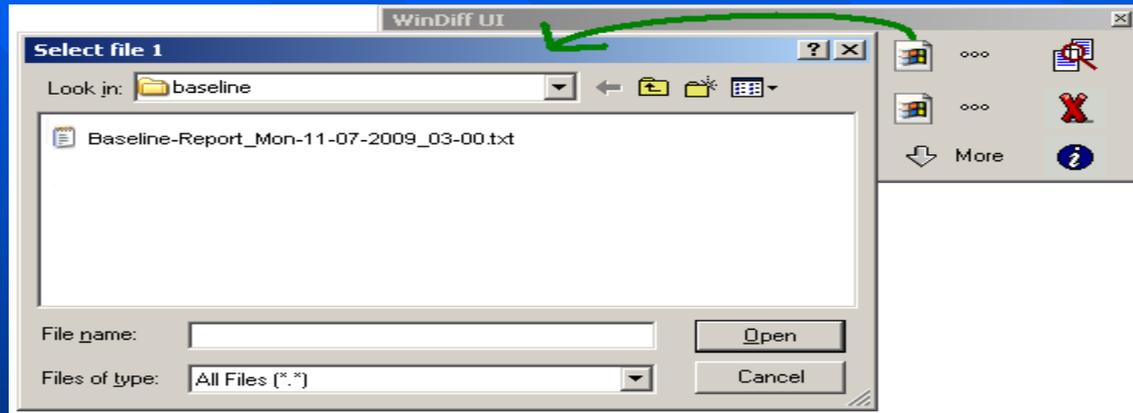


The first two fields are the only selections you need to change.

Ensure the other settings remain as shown in the above screenshot.

Steps to Process INFOCON III Requirement ST3-5

- Select the first dump file to compare, by clicking the upper white button as shown here:

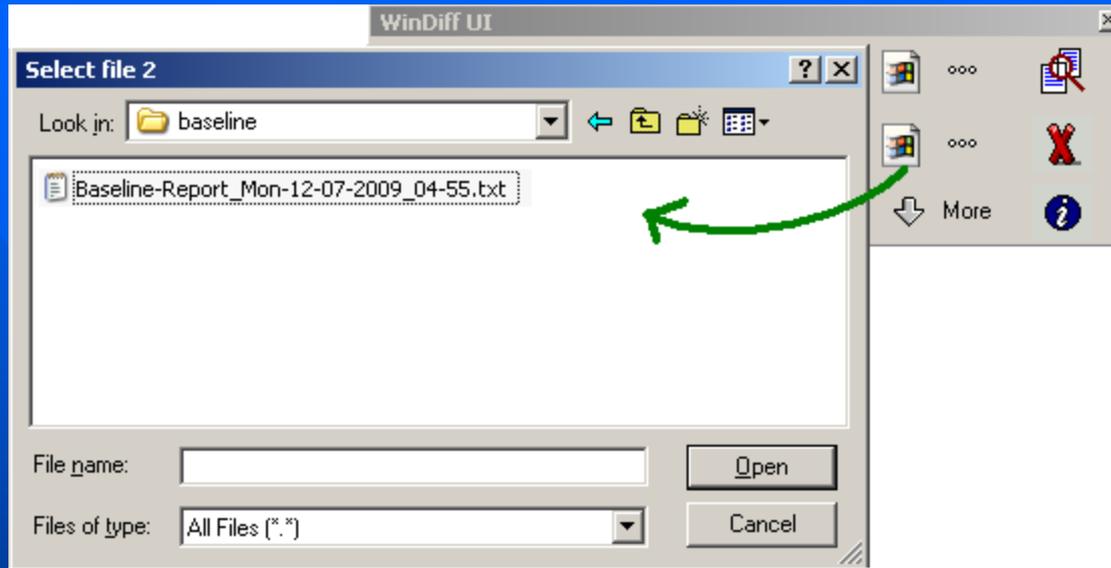


Note: This file should be the dump TXT that was generated *previous to* the latest dump.

Steps to Process INFOCON III Requirement ST3-5

- Single-click the identified dump TXT file to compare and click *Open*.
- This will place the file's name into the *WinDiff* screen
- Select the second dump file to compare, by clicking the lower white button as shown on next slide:

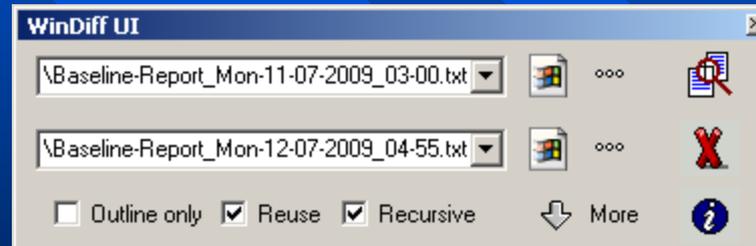
Steps to Process INFOCON III Requirement ST3-5



Note: This file should be the dump TXT that was generated more recently.

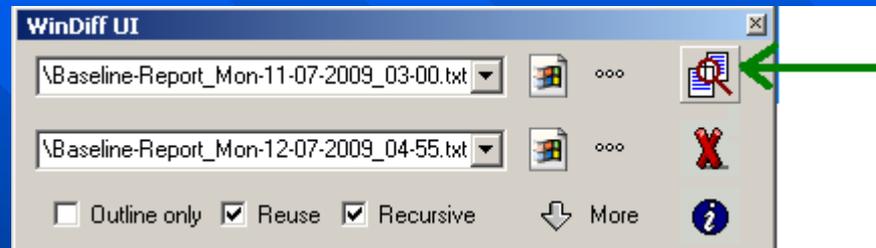
Steps to Process INFOCON III Requirement ST3-5

- Single-click the identified dump TXT file to compare and click *Open*.
 - This will place the file's name into the *WinDiff* screen.
- Once both files have been selected, the window should look as follows:



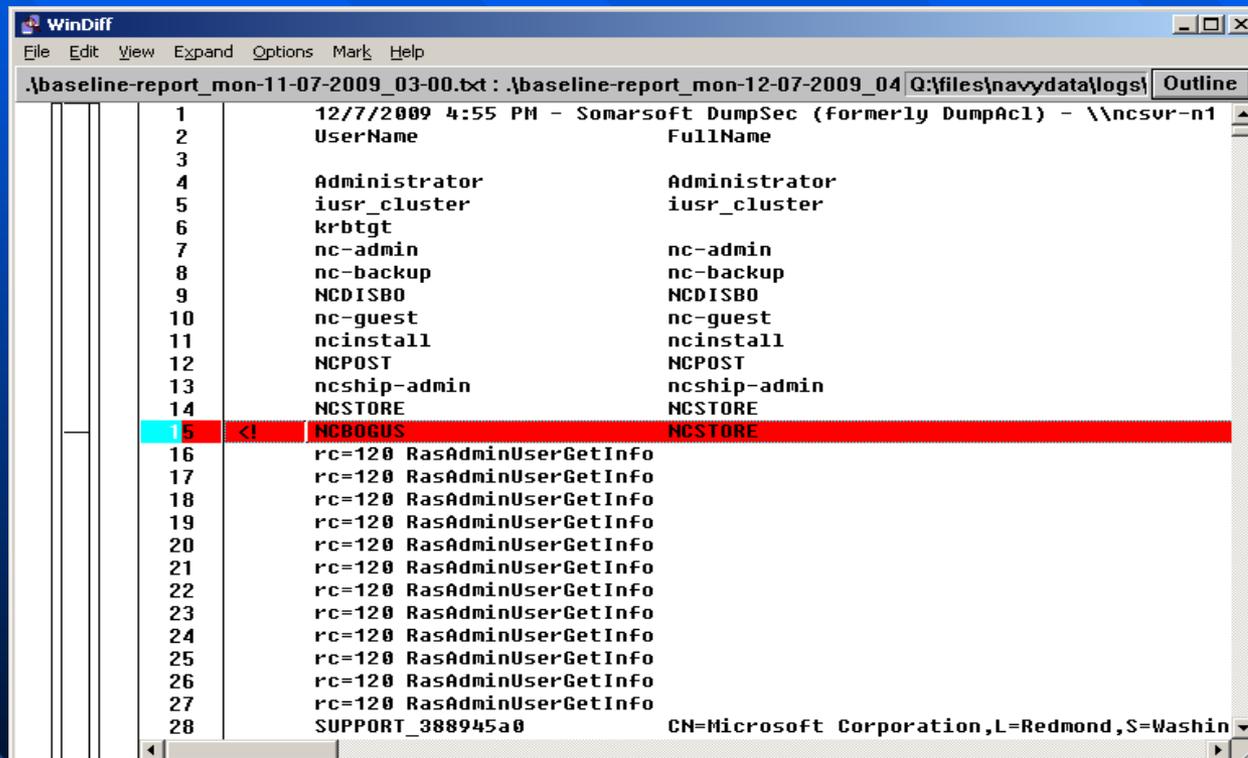
Steps to Process INFOCON III Requirement ST3-5

- Click the magnifying-glass icon to begin the comparison:



Steps to Process INFOCON III Requirement ST3-5

- Once *WinDiff* completes the comparison between the two dump files you chose, the *WinDiff* screen will highlight any differences found, as shown in this example:



```
WinDiff
File Edit View Expand Options Mark Help
.\baseline-report_mon-11-07-2009_03-00.txt : .\baseline-report_mon-12-07-2009_04 Q:\files\navydata\logs\ Outline
1 12/7/2009 4:55 PM - Somarsoft DumpSec (formerly DumpAcl) - \\ncsvr-n1
2  UserName                      FullName
3
4 Administrator                  Administrator
5 iusr_cluster                    iusr_cluster
6 krbtgt
7 nc-admin                        nc-admin
8 nc-backup                       nc-backup
9 NCDISBO                         NCDISBO
10 nc-guest                         nc-guest
11 ncinstall                       ncinstall
12 NCPOST                          NCPOST
13 ncship-admin                    ncship-admin
14 NCSTORE                         NCSTORE
15 <| NCBOGUS                      NCSTORE
16 rc=120 RasAdminUserGetInfo
17 rc=120 RasAdminUserGetInfo
18 rc=120 RasAdminUserGetInfo
19 rc=120 RasAdminUserGetInfo
20 rc=120 RasAdminUserGetInfo
21 rc=120 RasAdminUserGetInfo
22 rc=120 RasAdminUserGetInfo
23 rc=120 RasAdminUserGetInfo
24 rc=120 RasAdminUserGetInfo
25 rc=120 RasAdminUserGetInfo
26 rc=120 RasAdminUserGetInfo
27 rc=120 RasAdminUserGetInfo
28 SUPPORT_388945a0                CN=Microsoft Corporation,L=Redmond,S=Washin
```

Steps to Process INFOCON III Requirement ST3-5

■ Some helpful tips:

- Click *Options* from the menu bar and locate "*Show Identical Lines*". When unchecked, it will only show the differences found by omitting identical data.
- Lines found only in the **top** file are shown on a red background.
- Lines found only in the **bottom** file are shown on a yellow background.
- Lines common to both files are shown on a white background.
- To skip from one difference to the next, press F8 (move forward) or F7 (move reverse).

Steps to Process INFOCON III Requirement ST3-5

- If differences are present which have been previously outlined by the IAO as unacceptable:
 - Provide to the IAO the INFOCON III Report for further analysis and the ZIP files of the two dumps that you compared.
- To keep the Infocon III dump folder clean, please delete the TXT files that you previously extracted using *winzip*.
 - **Make certain NOT to delete any .ZIP files** from this folder.

Monthly Tasks

- (Preferably weekly) Connect laptop, if not being used daily, to the LAN drop in the office for 48 hours (less if weekly) to perform the a “*Live Update*’ for the Virus definitions and to install security updates.
- Verify that Virus definitions on the Navy Cash servers, workstation(s), and laptop(s) are up to date. If they are not, update them.

Summary

- *Daily and weekly* tasks mainly consist of verification of EOD and ship to shore files processing. View the *Event Viewer* for any errors that may have occurred on the server.
- Do NOT change the computer name of the servers, workstation(s) or the laptop(s).
- Do NOT change the computer time from GMT.

Summary (cont)

- Do NOT re-assign the drive letters of the system disks on the server or laptop.
- DO check all Event logs on the servers for any error messages.
- DO verify monthly the Navy Cash server, workstation, and laptop(s) virus definitions are up to date.

Questions

