
D3 NT 7.5 Release Notes

July 2006

The D3 NT 7.5 Release Notes, ReadMe and Installation Guide ONLY address changes from D3 NT 7.4 to D3 NT 7.5.

These Release Notes contain the following topics:

- [What's New](#)
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What's New

This topic lists the significant new features and changes to existing features in D3 NT.

FlashBASIC

- D3 NT indexes and FlashBASIC runtime from Visual Basic now support date and time subconversion codes (for example, `A1(D2/)`).
- Allows individual dynamic array and substring queries from the BASIC debugger (for example, `*/Array<5>[6,1]`).
- Allows assigning error codes to `system(0)` in the case of a remote read/write failure.
- The FlashBASIC interface to Windows now supports inheriting currency, decimal, and thousands separators from the current user locale.
- Supports the `sort` statement from Visual Basic or the D3 File Manager.
- Supports printing from a rule module called from Visual Basic or the D3 File Manager. The FlashBASIC `print` and `printer` statements can direct output to one or more NT printers after issuing a `printer on` statement.
- String math is now utilized in FlashBASIC.

FSI

- The D3 NT installation migrates the `sql` and `sqldemo` accounts from the VME to the FSI. The VME backup accounts `sql.vmebak` and `sqldemo.vmebak` no longer exist.
- Increased the supported FSI file frame size to 1 MB at the dict level and 4 MB at the data level.
- Supports time-date stamps on items.
- Supports automatic file checks. When the system reboots after an abnormal shutdown, a file check occurs automatically to verify the integrity of all FSI files. All errors are logged. The file check process does not fix any errors.
- FSI indexes enhancements:
 - Numeric key.
 - Floating-point indexes can be created using the `create-index` command with the `f` option.
 - Supports time and date subconversion codes.
- Frames are now automatically compacted when they become full.

- Overflow space is automatically released when releasing all frames in the overflow stream.
- The creation of large files is significantly faster because group initialization is now deferred to the time when the group is actually used.
- Supports the `if`, `then`, and `else` clauses in A-correlatives.
- Attribute 9999 in A-correlatives now returns the size of items in bytes.
- The `root` statement is now allowed on attribute defining items.
- The `%` functions have been added to execute host commands.
- The `newac,nt` file has been renamed to `newac,winnt` due to the existence of an item named NT in the hosts file.
- The new `d6x` D-pointer file type has been added to the system with this release. Please note that this file type should never be changed or edited.

VME

- Supports a 4 KB frame size.
- Supports the use of FSI indexes in the Update processor. See the *D3 7.5 Reference Manual*.
- Allows the use of indexes when using logical operators (>, >=, <, <=, #) as selection criteria from AQL. See the *D3 7.5 Reference Manual*.
- Allows customizing of the master dictionary and master dictionary password prompts. See the *D3 7.5 Reference Manual*.
- The maximum number of spooler form queues has been increased to 2048. See the *D3 7.5 Reference Manual*.
- Allows resizing of the file-of-files. See the *D3 7.5 Reference Manual*.
- Supports inheriting the Windows locale settings for date and month translation. See the *D3 7.5 Reference Manual*.
- The newac,nt file has been renamed to newac,winnt due to the existence of an item named NT in the hosts file.

File Manager

- Supports longer server names (up to 20 characters).
- Supports displaying output conversion on the File Manager.
- Supports the ability to browse the network for D3 Servers.

Activation

Allows license activation of additional products (for example, FlashCONNECT, and so on).

Licensing

D3 uses these license pools:

1	Users
3	Features: FlashCONNECT, OpenDB, D3 MQSeries, and D3 Oracle
10	Windows Servers
13	FlashCONNECT
16	D3 ODBC

20	Phantom Processes
21	RPC Clients

Each Pool is activated independently, using its own activation key via the Activation program. Therefore, multiple activation keys may be required.

There are five types of user connections:

- Console (line 0)
- Serial
- Telnet
- ODBC
- RPC

Notes

- ODBC. There are n ODBC connections taken from pool 16 (contains the maximum number free) for each IP address. If the maximum connections is reached, additional connections consume a license from pool 1.
- RPC. There are n RPC connections taken from pool 21 (contains the maximum number free) for each IP address. If the maximum connections is reached, additional connections consume a license from pool 1.

License Consumption Commands and Programs

Use the commands and programs below to display license consumption information:

- The `maxusers` command displays information on User licenses only.
- The `where` (a command displays an approximation of the virtual processes that should be consuming licenses.
- The `D3FMgr.exe` program displays information on
 - all 6 license pools under the Servers node.
 - all processes under the Servers\...\Clients node.

VB Class Library

- Replaced the *RPC* class library with the D3 Class Library that includes the RPC and ODBC libraries.
- Implemented a more efficient VB-FSI layer.

Books Online

The D3 NT Books Online is no longer part of D3 NT. The content is integrated into the Reference Manual, System Administration Guide, and D3 User's Guide.

Class Library Help consists of RPC and ODBC Class Libraries, formerly referred to as the Merged Class Library.

Differences

Differences from D3 NT 7.4 to D3 NT 7.5 are discussed in these topics.

Activating D3

Activating D3 is now part of the installation process. Installation does not complete unless D3 is activated. The D3 License Activation window includes the display of flags for FlashCONNECT, OpenDB, D3 MQSeries and D3 Oracle. In the list view, double-clicking on a specific item displays Maximum and Ceiling values and the date and time of activation. For temporary activations, the number of weeks activated displays.

Creating Accounts

By default, `create-account` creates accounts in the FSI.

Documentation

The D3 documentation set has been updated and reorganized. Using D3 is renamed D3 User's Guide. D3 NT now has a System Administration Guide and Books Online is no longer available. The D3 NT Books Online is no longer part of D3 NT. The content is integrated into the Reference Manual, System Administration Guide, and the D3 User's Guide.

Class Library Help consists of RPC and ODBC Class Libraries, formerly referred to as the Merged Class Library.

Installation Path

The default installation path is now `C:\Program Files\RainingData\D3\`.

ODBC Server

In D3 NT 7.4, the D3 VME server (`d3vme.exe`) and the D3 ODBC server (`d3odbcsvr.exe`) were separate processes. Effective in D3 NT 7.5, the D3 ODBC server and the D3 VME server functionality are merged. The file name is `d3vme.exe`. Debugging is supported with the use of the ODBC Connections settings in the D3 Device Manager and the new TCL `nt_restart-odbc` command.

Start Menu

The Start menu path is different and also includes the version number. To start D3 from the Start menu, select Start > Programs > Raining Data > D3 7.5.

Third-Party Products Using Assembly Code

The assembler has changed. You must obtain a new copy of any third-party product that uses assembly code (for example, Accuplot, PowerComm, Jet, and so on). Third-party products that use assembly code must be updated with each new D3 release.

Known Issues

For a list of current known issues, refer to the Customer Service Discussion Forums at:

<http://forums.rainingdata.com>

Microsoft Updates

All servers on the network, whether D3 NT server or D3 NT client is installed, MUST be running identical Microsoft Service Packs and/or identical Microsoft patches. Certain Microsoft Service Packs/patches that fix security issues with RPC buffer overruns can interrupt communications from FSI to FSI if one system has a Service Pack/patch and the other system does not.

Logging to an Account

When logging to an account for the first time, if the file version number was changed, the system needs to upgrade all of the files in this account. This may take longer on larger accounts.

Performance Monitoring

Performance Monitoring does not work on Windows 2000, 2003, and XP (Issue 24417). The work around is in the perfmon.exe program which is provided in the D3Programs directory.

RPC Communication

This version is not able to communicate over RPC with releases of D3 NT prior to 7.2.0.

Linksys Network Adapter Cards

Early model Linksys network adapter cards on the client and server randomly cause the VME and/or Windows NT to shut down and reboot. To correct this problem, switch to another brand of network adapter card.

Shutting Down Windows While D3 NT is Still Running

Because shutting down Windows while D3 NT is running causes a loss of overflow, it is recommended that you ensure that D3 NT is shut down prior to shutting down Windows.

Windows Printers

In certain instances, printers may not be available to D3 until initialized by Windows, depending on the initialization string that is required by the printer driver.

ISQL

ISQL is not supported on D3 NT.

Accessing Mapped Drives from D3 NT

Mapped network drive resources may not be available to D3, even if the user that mapped the drive in Windows is the same user that is starting D3. If this is the case, map the drive directly from D3 using the `net use` command.

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- NOTE—**
- Ensure that these commands work from a MS-DOS prompt to verify that your command syntax is correct and that the drive can be successfully mapped.
 - Avoid any prompts requiring input as they will hang your D3 session when attempting to map the drive using `!net use` from TCL.
-

Syntax

```
net use {drive letter:} \\{machine name}\{share name}
      {password} /user:{domain\user name}
```

Example(s)

```
net use I: \\svr-sup\robert password /user:admin\rlb
```

Once the resource is mapped from a MS-DOS prompt (with no prompts for input), you can delete the resource from the MS-DOS prompt. For example:

```
net use I: /delete
```

Then map it from TCL by inserting a ! before the command. For example:

```
!net use I: \\svr-sup\robert password /user:admin\rlb
```

You can set up a user on the destination system with a generic name and password and add this command to the user-coldstart macro to ensure the resource is properly mapped and available to D3 every time D3 is started.

Installing D3 NT on Windows XP

If you are installing the D3 NT Server on Windows XP Service Pack 2, after activating the D3 NT Server, the following message may display:

```
Prc Locator has encountered a problem and needs to be closed. We
are sorry for the inconvenience. If you are in the middle of
something, the information you were working on might be lost.
```

If the message displays, see Microsoft Knowledge Base issue 904767 at the following URL and install the associated HotFix:

<http://support.microsoft.com/?kbid=904767>

Telnet Localhost

On 64 bit versions of Windows, the *telnet localhost* shortcut in the D3 7.5 program group may report a *problem with shortcut* error. If this occurs, select the Fix It option to correct the pathing.

Archive Enhancements and Resolutions

This list includes the archival list of D3 NT 7.5 Enhancements and Resolutions.

Enhancements

Access

Action ID	Description
26012	Enhanced ACCESS to utilize indexes when using the >, >=, <, <= and # operators.
26360	Enhanced ACCESS by adding MD entries hdr.user, hdr.pib, hdr.date and hdr.time for display with the hdr driver.
28908	Enhanced the output-macro d-pointer function to recognize the total modifier.
30737	Enhanced Access with checks to ensure multiple wildcards are not used.

BASIC Compiler

Action ID	Description
30697	Enhanced the BASIC compiler to require at least one space after the READ{V}{U} and FROM keywords for a file read, and the WRITE{X}{V}{U}, ON, and TO keywords for a file write.

BASIC Debugger

Action ID	Description
22143	Enhanced the BASIC debugger to allow dynamic array and substring references and changes (for example, /x(1,2)<3,4,5>[2,1] a=b).

BASIC Runtime

Action ID	Description
22261	<p>Added the ability to retrieve the Date and Time a program was last run and a count of the number of times a program has been run since the last re-compile. The information is available via the object pointer item in the dict of a program file (for example, CT DICT BP PROG). Also, added three new items to the MD: R/DATE, R/TIME and R/COUNT.</p> <p>NOTE: A program must be re-compiled in order to activate the run-time feature. This feature is only supported for programs in the VME.</p>
23301	<p>Enhanced the D3 NT FlashBASIC runtime to support printing from a rule module called from VB or the D3 File Manager. The print and printer FlashBASIC statements are used to direct output to one or more NT printers after issuing a printer on statement. In the MS-DOS environment the following variable must be set:</p> <p>D3FLASHPRT=PrinterName{,{boj}{,eoj}};__,__,__;...</p> <p>PrinterName: Specifies the name and location of a Printer (for example \\Server\Printer).</p> <p>boj (Begin of job page eject): Specifies whether or not an empty page is printed before a print job. Set boj to S to suppress the initial page eject, or set boj to null to have one page ejected before each job.</p> <p>eoj (End of job page eject): Specifies number of empty page(s) from 0-8 that printer will print after each job. By default is 0.</p> <p>Both boj and eoj are optional. Valid forms are:</p> <p>name 1 boj, 0 eoj name,S 0 boj, 0 eoj name,,n 1 boj, n eoj name,S,n 0 boj, n eoj</p> <p>The printer device is specified by a print on statement, where the device number, starting at 0, is the device listed in the D3FLASHPRT DOS variable. By default, the first printer (0) is used.</p>
26348	<p>Enhanced the D3 FlashBASIC runtime to support the following functions: n=%Shell(command) Execute the MS-DOS command 'command'. Returns the exit code of the command. n=%ShellCapture(command, buffer, size, &read) Execute the MS-DOS command 'command', and capture the result in the variable 'buffer', up to the maximum size. If the buffer is not large enough, the exceeding output is discarded.</p>
26424	<p>Enhanced the File System Interface trigger support to preserve UNICODE information in triggers. The access(50) function is set to 1 upon entry if the item was in UNICODE on disk.</p> <p>Note that FlashBASIC currently does not support UNICODE. The item is converted to ANSI and back to UNICODE after the trigger completes.</p>
27104	<p>Enhanced system(0) to return the lock owner when used in the locked clause of a filelock statement.</p>

BASIC Runtime

Action ID	Description
31202	Implemented BASIC function ACCESS(27), which returns the name of the account containing the D-pointer for the file from which the BASIC program was called via trigger or a call from a correlative.
31656	Added the ability to use a select list variable as the source on a basic SELECT statement.

Coldstart/Shutdown

Action ID	Description
26580	Enhanced the shutdown procedure to check critical files for consistency, prior to beginning the shutdown process.
30575	Enhanced the shutdown with a timed interactive prompt for the clearing of asserted spooler locks.
31073	Enhanced the coldstart routines so that in the event that the spooler cannot be started, the prompt to initialize the spooler will time out after 15 seconds and initialize, so as to not hang the coldstart procedure.

Conversions/Correlatives/Masks

Action ID	Description
15150	Enhanced by adding an MCI conversion to invert a string of characters.

D3 NT Tools

Action ID	Description
29326	Enhanced the D3 NT file manager to display the size of the actual data and allocated disk space for each file and a total for the selected account in the Check Overflow Files report window.
29327	Enhanced the D3 file manager to display the data size and the allocated disk space in the file properties window.
30229	Enhanced the D3 file manager by enabling the 'Refresh' and 'Clear' buttons in the 'Statistics' tab of the file properties window.
31706	Enhanced the D3 file manager so that hash/check overflow information is available for the md of an FSI account.

File Management

Action ID	Description
27971	Enhanced create-file with an f-option, which places a 'c' in attribute 17 of the file-of-files item to suppress the logging of clear-file information within the file-of-files item each time a file is cleared. Oversized file-of-file items can significantly degrade performance in operations where multiple clear-files are done on the same file.
31496	Added a 'z' option to delete-account to bypass the prompts for displaying files and confirmation. This option is useful when deleting accounts from a BASIC Execute.
31684	Enhanced D3 NT FSI so that TCL commands 'istat' and 'hash-test' work for FSI files.

FSI

Action ID	Description
20365	<p>Added a globally cataloged subroutine OnNetError that would be called in case on network errors during Flash file IO's. The user could substitute another OnNetError routine which would allow them to do anything they want.</p> <p>OnNetError(Environment, Operation, ErrorCode, Module, Filename, Item-ID, Action)</p> <p>where:</p> <p>Environment: 0 (Generic IO), 1 (From VME)</p> <p>Operation: read/write/open/clear-file/select/readnext/key</p> <p>ErrorCode: RPC error code</p> <p>Module: Flash module name</p> <p>Filename: file in error</p> <p>Item-ID: the item-ID if applicable</p> <p>Upon exit, the user routine can specify which action to be taken:</p> <p>0 -> Ignore error, take else clause if any</p> <p>1 -> Abort the program</p> <p>2 -> Drop in the Flash debugger</p>
23989	Enhanced the D3 NT File System Interface to release overflow space when the overflow stream is empty.
24266	Enhanced the D3 NT File System Interface to speed up large file creation by deferring group initialization until the time when the group is actually used. The FSI system slowly upgrades the entire database, which may cause minor performance degradation.

GUI

Action ID	Description
21549	<p>Enhanced the D3 NT File Manager to allow users to search all available servers on the network. When the user clicks on 'Record Locks' in the D3 File Manager, the Server field displays the default server. The default server is the server that the user currently belongs to.</p> <p>Users can select the 'Browse...' button to search for all available servers.</p> <p>When searching for available servers, users allow the system to search in all domains. Then, within a selected domain, users can search for all available servers. Moreover, users can also request searching only those servers that have D3 installed and are currently active. The same features have been implemented for the MDS Server Name (when users click on 'Servers MDS Server Name')</p>
22355	Enhanced the D3 File Manager to accept longer server names.
23115	Enhanced the D3 File Manager Edit Record editor to display the line number similar to the ed editor. Another Edit box had been added to the left hand side of the Edit Record editor to display the line number.
30345	Enhanced the D3 NT device manager by adding a text box that changes the number of available form queues.
30655	Enhanced the D3 Device manager by updating and adding all possible D3 settings options.

Indexes

Action ID	Description
22697	Enhanced the OSFI to support the use of FSI indexes in the Update Processor.

Indexes

Action ID	Description
23371	<p>Enhanced the D3 NT File System Interface to support decimal numeric indexes. Numeric indexes can be created in the D3 File Manager by checking the Numeric option in the Index dialog box or with the n option to the create-index command. Numeric indexes are sorted according to their numerical value, (for example, '10.5' is greater than '9.34'). The Windows locale settings are used when identifying the decimal and thousands separators.</p> <p>Notes:</p> <ol style="list-style-type: none">1. When a key is stored into the index, it is normalized to reduce its size. Leading and trailing spaces, zeroes, thousands delimiters, and the '+' sign are removed (for example, ' +01,234.10' is stored as '1234.1'; ' -00123.00' is stored as '-123'). Therefore, on a simple index such as 'A1', the data in the file may be different from the index.2. When searching for the first entry in the index, use the smallest expected negative number as the first search key. The empty string is considered to be 0. For example: s=-9999 i="" key('n',r,s,i) then... finds -9000, but does not find -10000.3. Inserting non numeric keys in the index can have unpredictable results.4. Once an index has been created as numeric, it cannot be changed. The index must be deleted and recreated. There is currently no way to show whether an index is numeric or not.5. Because the locale is used to determine the thousands and decimal separators, it is preferable to not use any delimiters and rely on a correlative to do the formatting, thus ensuring correct format when accessing the index from locations with different locales.
30077	Enhanced list-index to show the case-sensitivity of the indexes.
30545	Enhanced create-index to emit a warning if the case-sensitive option C is used with the * all indexes specifier. If the * index specifier is used, index case sensitivities all remain unchanged, whether the C option is present or not.
30585	Enhanced the 'list-index' command to support listing of indexes in an account or system.

Installation

Action ID	Description
29512	Enhanced the D3 NT installation by changing the default install directory to x:\Program Files\RainingData\D3 and the programs directory in the Start Menu will be Start > Programs > Raining Data > D3 8.0 >...
30675	Enhanced the D3 NT installation to write the version number of D3 server and D3 client to the registry. The new registry entry is called MonitorVersion in the registry key ..\RainingData\D3\CurrentVersion.

Logon/Logoff/Logto Routines

Action ID	Description
22337	Enhanced the logon process to allow custom MD and MD password prompts. The prompts are now read from the MDS items mdprompt and mdpassword.
30711	Enhanced the system to log an entry in the errors file when a logon fails due to insufficient user licenses.
31524	Enhanced reset-user to include the PIB# of the line issuing the logoff in the logoffs log.
31657	Enhanced wrapup routines to clear all system level locks held by a line when returning to level 0 TCL.

Monitor

Action ID	Description
21655	<p>Enhanced the D3 NT VME interface to Windows to inherit the locale settings for the months and dates translation.</p> <p>Notes:</p> <ol style="list-style-type: none">1. The *current user* settings are used, not the system settings. Make sure the D3 service is set to log on as an appropriately configured user.2. If the Windows settings are changed, the VME user must logoff and log back on for them to take effect. For a Windows application, the application must be restarted.
21880	<p>Enhanced the D3 FlashBASIC interface to Windows to inherit the currency, decimal, and thousand separators from the current user locale. The Windows settings are inherited and used as the system wide default. Individual processes in the VME can use the usual set-num-format to override the default. Windows applications cannot change the settings on the client side.</p> <p>Notes:</p> <ol style="list-style-type: none">1. Since D3 does not differentiate between numbers as 'numbers', and numbers as 'currency', the decimal and thousands separators are taken from the 'Number' settings in the windows 'Regional Settings Properties', not from the 'Currency' settings.2. In FlashBASIC, only the first character of the string is used. It is also truncated to an ANSI character.3. When changing the Windows settings, the client application has to be restarted. However, when changing the settings on the servers, it is not necessary to shut down the VME. Log off and log back on.
21929	Enhanced the D3 NT VME to free memory when not in use.

Monitor

Action ID	Description
25067	<p>Enhanced the D3 NT monitor debugger by adding 2 new options to the group commands.</p> <p>The /a (dump frame) command now has an optional FID field used to dump the specified frame.</p> <p>Syntax: /a {fid}</p> <p>If the fid is not specified, the current frame is dumped.</p> <p>The /l command enables checking the links in frames of overflow items. The forward and backward link of the first overflow frame displays first. At this point, link commands such as /p (previous) or /n (next) can be used to go through the frames. Links can be modified with the /m command, and frames can be dumped using the /a command.</p>
30679	<p>Enhanced D3 NT ODBC by enabling a timeout for ODBC connections using the registry settings.</p>

OSFI

Action ID	Description
22349	<p>Enhanced D3 NT OSFI to allow listing a shared directory.</p>
27707	<p>Enhanced D3 NT FSI so that users with non-admin permissions can access the D3 server (via file manager, visual basic applications, and so on).</p>
31153	<p>Added a new command "osfi-server-prot" to enable or disable OSFI Server Protection. In a setup where a D3 client opens a file on a remote server, which causes that server to open the file from a second remote server, OSFI Server Protection will hold the OSFI connection to that second server to ensure the integrity of internal tables, guaranteeing that the correct file will be retrieved. With OSFI Server Protection disabled, the connection will not be held in this case, which will free the network connection, but could result in the wrong file being accessed under a certain series of events.</p>
31216	<p>Added definitions in the 'hosts' file for NT drives E-J and W-Z.</p>

Overflow Handler

Action ID	Description
30980	<p>Enhanced reclaim-ovf to display how many lost frames were recovered.</p>

Phantom Processor

Action ID	Description
26376	Enhanced the phantom processor so that if the users p option is set, the phantom evaporates with an error status if the phantom hits an input prompt. Without the p option, the phantom generally stops at the input, where it can be accessed by another process using the tandem or poke commands.

Programs & Utilities

Action ID	Description
19598	Enhanced the D3 NT File Manager to display the database name in the message box for the 'delete-database' function.
20576	Enhanced the which program to display the SystemID for D3NT.
22170	Enhanced account-maint to better support the creation of q-pointers to FSI accounts.
23253	Enhanced the D3NT VME to support the list-tandems verb.
23439	Enhanced the D3 NT File Manager to apply output conversion to display on the File Manager. Moreover, the Multivalue option has been added to the View > Options of the File Manager. When users select the Multivalue option, each value of the output conversion displays in a separate row. However, when this feature is on, sorting values by clicking on the column header is disabled (for multiple values.) When the Multivalue is off, all values are displayed in the same row, separated by the] character. The sorting feature is active in this situation. It is also supported for empty item-IDs.
24023	Enhanced nt_verify-index to add the item body to the error log.
24467	Corrected the problem in D3 NT FSI where the 'account-maint' command did not delete an FSI account.
25484	Enhanced the chksum program so that the file can be specified using full pathing.
25959	Enhanced the BASIC runtime error logging to include the BASIC call stack in the list-runtime-errors report.
25988	Enhanced index-select to improve performance when working with large lists (> 10,000 items).
26206	Enhanced the end and tcl commands to return an error if the target process is in the debugger.
26354	Added the job-status command to return the status of a job item given its item-ID. Also, added several status bits to report input conditions such as 'waiting for next reel', 'parity error', and so on.
26617	Enhanced list-file-stats to support the W-option for scrolling capability.

Programs & Utilities

Action ID	Description
26669	Enhanced delete-account with a t-option to automatically delete any SQL tables associated with that account.
26687	Enhanced the dev-remov command by adding a dev-remove synonym.
26752	Enhanced file-sizer so that an entire account's contents can be removed from the List of Selected Files.
26771	Enhanced the dev-list program to allow up to 1000 devices.
27410	Enhanced dev-make so that more cases of invalid syntax are identified, preventing invalid assignments.
27744	Enhanced the check-dx utility to include FSI files.
27753	Added inputwait to dm,newac, so that the program is accessible from new accounts.
28168	Enhanced list-users to show users on remote machines using OSFI. Syntax: list-users host:
28306	Enhanced update-md to work properly from an account outside of DM.
28430	Enhanced the set-date-eur and set-date-std commands with an L-option, which will allow the setting of the date format locally for each PIB. The default local setting will be determined at logon by the global setting.
28548	Enhanced the paint command with an F-option to produce a form feed between items.
29085	Enhanced the set-compiler command to display the current setting if a setting is not specified, and the default compiler setting has been changed.
29463	Enhanced the @pib global variable query to return the pib number without opening the PIBs file, greatly reducing the potential of lock contention.
29611	Enhanced D3 NT FSI by providing a registry setting to enable or disable logging IAC (interpret as command) event messages. The new registry entry is LogIAC in the registry key, ..\RainingData\D3\CurrentVersion. A value of 1 enables logging IAC event messages. A value of 0 (which is the default) disables it.
29885	Added TCL command 'LFSB' to report the number of index frames used as of the last save.
30004	Enhanced the System Utilities to log the OS user-id, if it can be obtained, in the errors file of the user that booted the virtual machine and issued the shutdown command.
30341	Enhanced D3FSI to populate the d-pointer item with the default justification (attr 9) and default width (attr 10) when creating a FSI file.

Programs & Utilities

Action ID	Description
30841	Added the system setting log-clear-file-on and log-clear-file-off to control logging of the clear-file command in the FOF.
30846	Enhanced the maxusers Data Set Program to set the maximum number of users allowed to the maximum allowed by the pool when the "m" option is used without the supplemental numeric option.
31048	Enhanced the 'odbc-setup' utility to work properly when the path variable is not set up.
31093	Enhanced the Utilities with the ability to more easily create the toggle.coma verb.
31117	Enhanced check.pib to support multiple blocks of nailed telnets.
31118	Enhanced check.pib to show if a PIB is running a PDP connection.
31151	Modified the 'date' and 'time' dictionaries in backgrounds.output so that they can be used with selection criteria in an Access statement.
31235	Enhanced the pibstat utility to display a summary description for common status codes.
31251	Enhanced D3 NT FSI by changing the default for "create-account" to create the account in the FSI.
31701	Enhanced the Data Set Programs with a "coma" command to allow setting/clearing the coma status of a given line.
31725	Enhanced the clear-jobs utility to delete items in reverse-group order, improving performance.

Save/Restore

Action ID	Description
27068	Enhanced the save processor to log a Pointer Item-id Mismatch error if the item-id in the group does not match the item-id in the pointer item, and to log a Group Link error if the first frame of a pointer item has a backward link.
27472	Enhanced the file-save to prevent an incremental save if a full save has never been done.
28190	Enhanced account-restore to do nt_indexer at the end of the restore when restoring FSI accounts.
31393	Added "g" option to not generate indexes when doing an account-restore of a FSI account.

Spooler

Action ID	Description
r1634	Enhanced startspooler to kill all printers prior to reinitializing the Spooler.
23131	Enhanced the Spooler by increasing the maximum number of formqueues to 2048.
28013	Enhanced startptr on D3 NT to confirm that the target PIB has a thread-id and is associated with a NTPrinter type device before proceeding.
30706	Enhanced the peqs virtual file driver with an item-lock structure.

SQL/ODBC

Action ID	Description
28151	Enhanced D3 FSI so that a VB application using ODBC can run a rule module from a q-pointer account.
28186	Enhanced D3 VME by adding a registry setting that enables the ODBC server to trace information to a file for debugging purposes.
31606	Enhanced sql-create-table and sql-create-view to support full file pathing in the "using" clause.

System

Action ID	Description
20769	Enhanced the system debugger so that exit can be entered at the !.
24711	Enhanced D3 NT by making the execution of the g (go) command case insensitive when starting the VME in debug mode. Both the upper case 'G' and the lower case 'g' now execute the go command.
26263	Enhanced the VME to support the id processing code in FSI accounts.
26347	Enhanced D3 NT to support the poke verb.
30005	Enhanced D3 NT BASIC programs by adding a 'u' option to nt_pinfo to display the user name along with the other pib info.
30073	Enhanced the catalog verb with the 'F' option to place the full path (account,file, program) in the catalog pointer. In addition, options may now be placed on attribute 6 of the verb definition for the catalog verb, making those options the default behavior for the catalog command.

Tape Handler

Action ID	Description
27009	Enhanced the Tape Handler to inform the user when the device label size does not match the tape label size.

Update Processor

Action ID	Description
25981	Enhanced the Update Processor to support the "x" processing code on FSI files.

Upgrade Procedure

Action ID	Description
23277	Corrected a problem with the upgrade procedure, which logged the message 'Coldstart after system failure' erroneously.

Resolutions

Access

Action ID	Description
21355	Corrected a problem with the ACCESS r option so that if output is sent to the printer and an assignfq is not in effect, the bold-on and bold-off escape sequences will be suppressed.
23814	Corrected a problem in D3 NT to support the system(0) function call in non FlashBASIC.
25978	Corrected a problem with the sum command, which processed only the first correlative of an attribute definition.
28722	Corrected a problem with Access select, which failed to select items when using the # operator on an indexed attribute.
28731	Corrected a problem with Access select, which caused the process to take longer than necessary when using multiple clauses in conjunction with an index.
30723	Corrected a problem with sort that caused incorrect sort order when a sorted field containing a large number is followed by another sort field in a different direction, e.g. by att1 by-dsnd att2 or by-dsnd att1 by att2, where att1 and att2 are both right justified and att1 references a number longer than 14 digits.
30933	Corrected a problem with the Access break-on b-option, which displayed an incorrect header value when used with the break-on d-option.
31280	Corrected a problem with Access, which failed to display column headers when the process was initiated from a D3 menu.
31220	Corrected a problem with Access, which caused values to appear to be skipped when converting a single value to multi-values during a BASIC call in an Access listing.
31502	Corrected a problem which caused large numbers to not add properly when using a- or f-correlatives with an Access "total" statement.

Access

Action ID	Description
31620	Corrected the 'SUM' verb to compute very large numbers correctly.
31715	Corrected a problem in D3 NT FSI where a callx on a program in the account "fsidm" does not work.

BASIC Compiler

Action ID	Description
23025	Corrected a problem in D3 NT with loading a FlashBASIC module greater than 256K.
26817	Corrected a problem with the BASIC compiler, which interrupted the compilation of an entire file if a null item-id existed in the file.
28882	Corrected a FlashBasic compiling error when a reference to a dimensioned variable appeared before its definition in the program.
29000	Corrected an intermittent BASIC compiler error which would hang with the CPU at 100% when a program contained the tab character.
30496	Corrected a problem with Begin and Commit Transaction not setting a lock when running in FlashBASIC.

BASIC Debugger

Action ID	Description
30420	Corrected a problem with the BASIC Debugger, which could cause a Frame Out of Range error when using the /* debugger command.
30671	Corrected a problem with FlashBASIC aborting into a system exception when trying to display an unassigned variable.
31084	Corrected a problem with the FlashBASIC Debugger, which prevented breaking Flash compiled programs running in tight loops.
31096	Corrected a problem with the FlashBASIC Debugger not skipping break value changes if using the n# command.

BASIC Runtime

Action ID	Description
22203	Corrected a problem with the BASIC call @ function, which displayed the filepath of the program during a runtime error, instead of the program name, when inside a subroutine that was called with a filepath specification.
22860	Corrected the File System Interface to add a D-marker in the FileOfFiles item when deleting a file (attribute 8).

BASIC Runtime

Action ID	Description
23902	Corrected a problem with callx to prevent item updates if the subroutine exits with the abort statement.
23931	Corrected a problem that opened the MD if an empty string was given as the filename argument to a FlashBASIC open command that was run in an FSI account.
24252	Corrected a problem with the D3 NT File Manager where the date conversion does not spell out the months alphabetically. The month of the date is now spelled out when the proper option is chosen.
25563	Corrected a problem that caused non-Flash compiled matbuild statements that resulted in dynamic arrays of lengths greater than 32 KB to possibly fail to strip the trailing attribute marks.
25994	Corrected a problem with the BASIC input command, which failed to recognize stack data when using a length specification of 0.
26098	Corrected a problem that caused a subvalue not to be found when using dynamic array wildcards for the AMC and VMC, and an actual number for the SVMC if the value preceding the one containing the subvalue had fewer subvalues than the given SVMC.
26436	Corrected the File System Interface FlashBASIC support to convert UNICODE records to ANSI when reading them from a FlashBASIC program. If written back, the record is written in ANSI.
27816	Corrected the D3 NT FlashBASIC interface to C functions to abort with a runtime error when the file handle is not valid.
28757	Corrected a problem with %rdhex hanging D3.
29390	Corrected a problem with "EXECUTE aCmd RTNLIST aList" that caused variable aList to be corrupted by a subsequent "CLEARSELECT" statement.
29559	Corrected a problem with Basic, which caused processes like the Editor to limit user input after breaking out of a limited input command (input x,2_) in Basic.
30342	Corrected a problem with loading a subroutine to use the full pathname if one is specified.
30668	Corrected D3 FSI so that a q-pointer that specifies the full file name (account name included) successfully opens through a callx.
30738	Restored the ability to retrieve the errmsg code from the statement 'EXECUTE SET-DEVICE tapefile.name RETURNING ERRMSG'.
30795	Corrected a problem with FlashBASIC Runtime, which caused the group extract conversion to produce results that differed from non-Flash.
30987	Corrected a problem with FlashBASIC that would cause it to lose overflow space if sufficient overflow space was unavailable or if there was an error communicating with the native file system.

BASIC Runtime

Action ID	Description
31078	Corrected a problem in D3 NT FSI where a Flash program fails to take the else clause when trying to open an invalid file name.
31111	Corrected a problem with multiply, divide, and add functions not truncating large string operands to precision before doing the calculation, causing inconsistencies between string math and binary math near their boundaries.
31116	Corrected a problem with FlashBASIC string math add function occasionally putting a ' ' at the beginning of its result.
31119	Corrected a problem with FlashBASIC Runtime, which caused "write" statements to take the "on error" clause when the write was successful.
31168	Corrected a problem with FlashBASIC runtime, which caused a false file inconsistency to be reported when a "clearselect" was followed by another "execute select" and "readnext", under certain conditions.
31240	Corrected a problem in D3 NT FSI where a FlashBASIC program that allocates a large amount of virtual memory gets a system exception error.
31303	Corrected a problem with the PROC/BASIC interface that caused a Forward Link Zero abort @ r.initsr:EC in certain cases.
31452	Corrected a problem with the BASIC Execute command, which failed to execute all commands when several commands were specified in a single Execute and the first command itself did an Execute.
31460	Corrected a problem in D3 FlashBASIC where flash aborts with a system exception when running a program in which the common area in the subroutine mismatches with the main program.
31551	Corrected a problem with the BASIC runtime that caused a CHAIN to a complex SSELECT to sort items in incorrect order.
31569	Corrected a problem in D3 NT FSI where clearing a select list within a flashed BASIC subroutine program fails when used from Visual Basic.
31573	Corrected a problem with BASIC runtime, which could cause random errors when using the input @ function, chain or soundex commands.
31583	Corrected a problem with the Basic SORT function, which caused incorrect results when logically comparing one sort function to another, as in "sort(a) = sort(b)".
31599	Corrected a problem with the BASIC "occurs" function that would fail when used multiple times in an expression.
31618	Corrected a problem with executing BASIC conversions from dictionary items that caused 'Unable to "init" more frames' errors.
31643	Corrected a problem with FlashBASIC sometimes giving an incorrect result when adding 2 decimal numbers.

BASIC Runtime

Action ID	Description
31646	Corrected a problem in D3 NT FSI where the performance on processes attempting to update a file with a callx trigger is significantly slower if the single user mode is set.
r1647	Corrected a problem that would cause the * extract operator to reference the wrong element in a dimensioned array.

Class Library

Action ID	Description
31540	Corrected the default setting in the D3 file manager to clear the floating point option when doing Flash Compile.

Coldstart/Shutdown

Action ID	Description
26624	Corrected a problem with the coldstart routines, which did not set the logon-lock feature to 'off' by default.
29622	Corrected D3 NT coldstart so that the 'coldstart-accounts' program only runs if the machine is a mds server.
30626	Corrected a problem with shutdown that would lose overflow space for lines that happened to be in the system debugger and unable to log off.
30809	Corrected a problem with shutdown that caused it to lose two frames for each logged off process. That is, any line that had logged on, then logged off itself or was logged off by another process, including the shutdown process. The number of logon/logoffs per line did not matter; multiple logon/logoffs on one line would have lost two frames for that line at shutdown time.
31027	Corrected a problem with shutdown when the current line has a dependent callx RPC process.
31137	Corrected a problem with coldstart/shutdown, which caused the user-id specified in the configuration file to be logged to the errors file instead of the actual OS user-id when booting and shutting down.
31641	Corrected a problem with the Coldstart, which would hang if there were several pending BASIC transactions.

Conversions/Correlatives/Masks

Action ID	Description
21076	Corrected the D3 NT File System Interface indexes to handle an error when an index with an A-correlative that calls a translate correlative without an output attribute. In this case, attribute 0 will be returned.

Conversions/Correlatives/Masks

Action ID	Description
21554	Corrected problems with s-correlative and bridge interactions that caused aborts.
31510	Corrected a problem with "f" correlative comparison operators that caused incorrect results with very large numbers.
31512	Corrected a potential problem with 'f' and 'a' correlatives and 'or' and 'and' operators, which could cause an incorrect evaluation if an operand were a very large number that caused the internal accumulator to overflow under certain conditions.
31518	Corrected a problem with the "A" and "F" correlative "S" (summation) operator that caused it to return incorrect results when large numbers were involved.
31632	Corrected a problem with Conversions, which caused lengthy a-correlative "if" statements to abort when using det-supp.

D3 NT Tools

Action ID	Description
19582	Corrected a problem with the D3 File Manager when failing to create a file when it already exists which resulted in the data section name being left to the previous value.
22690	Corrected a problem with the D3 File Manager for consistency when users try to open the Tables directory. It requires double-clicking on Tables to open the directory.
23394	Corrected a problem with the D3 File Manager so that it avoids assert when users right-click on the empty left side of the window.
27694	Corrected the D3 NT file manager to not allow the user to select the server from the server list.
30588	Corrected the D3 File Manager to correctly copy all newac items when creating a new database.
31389	Corrected a problem with D3 FileManager aborting when running a simple "in ans" flash program.
31390	Corrected the problem in D3 NT FSI where removing the thread of a callx port can kill the VME if the file update was done from a program running from the file manager.
31585	Corrected D3 File Manager to not add an extra empty attribute at the end of the item each time the item is saved.
31721	Corrected D3 NT file manager by removing 'OpenMv Connection', 'Solaris FSI', 'AIX FSI', and 'Linux FSI' license types from the licenses display.

D3 NT Tools

Action ID	Description
31724	Corrected a problem with the File Manager (NT), which caused performance to progressively degrade as the number of items increased when sorting the "ItemID" column.

Editor

Action ID	Description
30905	Corrected an error that did not allow deletion of an FSI D-pointer by use of the editor.

File Management

Action ID	Description
21457	Corrected a problem with the Update Processor, which ignored locked items when using the * specifier to update all items.
22049	Corrected a problem with the group and item commands, which caused an erroneous File inconsistency message when executing group or item commands on an md whose file definition had a callx correlative.
23423	Corrected a problem with the D3 NT File System Interface to allow it to handle the protection of a read or a write while a file is being cleared.
23489	Corrected a problem with D3 NT where attempting to move a file using steal-file results in the creation of an invalid data file. The invalid data file is not created anymore and an error message is displayed for trying to steal a data level file.
24633	Corrected a problem with release all not properly releasing all item locks when accessing D3 NT through ODBC.
26616	Corrected a problem which caused an abort when executing the command item md md in an FSI account.
27297	Corrected a problem with the Lock Management Routines, which could cause an update lock to deadlock on a read-only lock when compiling a program with a file statement.
27335	Corrected D3 NT File manager to properly display the domains when browsing for servers in the Record Locks dialog.
30270	Corrected D3 NT FSI to show the pib number and the level for ODBC item locks.
30758	Corrected a problem with the File Open routines, which caused the contents of the default data level referenced by a q-pointer to be used when a reflexive q-pointer was set to point to a non-default data level in another file.
30934	Corrected a problem with File Management, which could leave the underlying OS files in the FSI open when the same file was created/deleted from multiple threads.

File Management

Action ID	Description
30951	Corrected a problem with logoff that caused it to leave the txlog fof and con locks set if they were held by the logged off line and the line's underlying process/thread had died before the logoff.
31224	Corrected D3 FSI so that the "move-file" command can rename FSI accounts.
31337	Changed the system to not allow a clear-file command on the jobs file.
31389	Corrected a problem with D3 FileManager aborting when running a simple "in ans" flash program.
31479	Enhanced the delete-account t-option so that sql, tables, items from q-pointer accounts are deleted in addition to tables in the actual account.
31597	Corrected a problem with delete-account, which deleted an FSI q-pointer after answering "N" to the deletion confirmation prompt.
31607	Corrected a problem with create-file (f prompting for a pathname. Changed the f-option in D3 NT to d-option to create a FSI file in another directory.

FSI

Action ID	Description
23490	Corrected the D3 NT File System Interface file resizing utility to delete the overflow space when resizing has brought all data back into the primary space. Note that *none* of the group may overflow for the deletion to occur.
23530	Corrected a problem in D3FSI where default values for attribute type and column width were not set in the D-pointer when creating a file. Item-IDs in a created file are now displayed left-justified with a column width of 10, as in the VME.
31109	Corrected a problem with the FSI, which caused system exceptions to occur when accessing items with corrupt item sizes. Also, the monitor debugger commands fsck and gr were modified to allow dealing with the corruption.
31218	Corrected a problem in D3 NT FSI where a BASIC program incorrectly converts characters when writing to a non-case sensitive file.
31319	Corrected a problem with FSI that will allow opening a Super Q-pointer file from a VB application or from File Manager.
31810	Corrected a problem in D3 NT FSI where stealing an FSI file, and immediately updating that file, produces a remote file error when the overflow file has to expand.

GUI

Action ID	Description
20918	Corrected a problem with the D3 Device Manager not displaying TCP/IP printers.

GUI

Action ID	Description
21168	Corrected a problem with assigning the same PIB to more than one resource and vice versa.
21322	Corrected a problem with the D3 File Manager to avoid Dr. Watson and a shutdown of the File Manager when users import a file using the Tools > Import function.
22032	Corrected the D-pointer in the D3 File Manager to avoid crashing when users update the missing account directory in the MDS.

Indexes

Action ID	Description
24609	Corrected a problem which caused indexes to fail with a large number of values for a given key. This problem was specific to VME indexes.
24838	Corrected a problem with the D3 NT File System Interface to handle an error when a subroutine in an index call does not have an argument.
24923	Corrected a problem with create-index where the incorrect A-correlative a;0:1 is valid in the FSI. This A-correlative syntax is now rejected and the proper error message displays.
24988	Corrected a problem with D3 NT where attempting to delete an index in a file on another account fails and reports 'Missing file'. The delete-index command now succeeds and the appropriate index on a different account is deleted.
25172	Corrected a problem with D3 NT where an index fails to delete. The delete-index command now successfully deletes the complex index in FSI accounts.
27711	Corrected a problem that allowed AQL to illegally access numeric indexes, which would then produce invalid results.
30498	Corrected many problems with transaction log save/restore of indexes. Index casing is now preserved.
30845	Corrected nt_create-index to correctly display the number of items processed for files that have over 9,999,999 items.
31092	Corrected a problem with Indexes, which caused corruption when using restore-accounts (r.
31650	Corrected a problem with Indexes, which caused AQL to incorrectly process statements with multiple "AND" clauses when indexes were present.
31746	Corrected a problem with Indexes, which prevented items from being selected when an index key string was shorter than the string to which it was being compared, but matched for the portion that was compared.
31747	Corrected the problem in D3 NT FSI where using an index on a multivalued attribute gave incorrect results.

Indexes

Action ID	Description
31762	Corrected a problem with create-index, which caused a d-pointer to overwrite a q-pointer when creating an index via a q-pointer.

Installation

Action ID	Description
31566	Corrected a problem with D3VME to allow user to increase the VME disk size up to 4GB.

Logon/Logoff/Logto Routines

Action ID	Description
23574	Corrected a problem that would display message [536] already logged off instead of [534] logoff successful under certain timing conditions.
30625	Corrected a problem with the Logoff Routines, which caused the spooler to be logged off more forcefully than necessary, possibly causing overflow to be lost.
30647	Corrected a problem with the Logon Routines, which prevented the remote client cache from being cleared when a line aborted.
30656	Corrected a problem with the Logon/Logoff/Logto Routines, which caused "fsi:" to be prefixed to the current account name when logged to an FSI account via a q-pointer and returning from a program in that account that did an execute logto.
31039	Corrected a problem with the Logon Routines, which caused a message to be repeatedly displayed when trying to show the md prompt under the Russian setting.
31396	Corrected a problem with the Logon/Logoff/Logto Routines, which could randomly cause overflow to be discarded when logging off a line.

Monitor

Action ID	Description
19563	Corrected a problem in D3 NT where executing esc-level would not enable the <esc> key to push a level. The esc-level command now works properly.
22650	Corrected a problem with print command where printing with no text (to print a CR/LF) was being ignored during a callx trigger from an FSI file.
24657	Corrected a problem with D3 NT string run times to avoid adding an extra AM when the string is initially empty.

Monitor

Action ID	Description
24702	Corrected a problem with the D3 NT VME to permit applications that run tight loops on system(14) to run without consuming an excessive amount of resources. Note: system(14) internally does an input with a timeout of 50 milliseconds. Therefore, this statement, which used to return immediately with the character count, now takes 50 milliseconds to execute if there is no pending character. This may change the behavior of some applications.
27018	Corrected the problem in D3 where the events logged to the event viewer displayed error messages about not having the necessary registry information.
31091	Corrected the D3 NT telnet server so that telnet emulator keep alive signals are ignored.
31219	Corrected D3 NT FSI so that resizing a file updates the modulo attribute in the d-pointer.
31391	Corrected a problem in with RPC communications between 7.4 and 7.5. Fixed "VME.IDL" to be backward compatible with 7.4.
31604	Corrected a problem that would cause phantoms to have a status of "error" instead of "queue" if there were no phantom licenses available.
31768	Corrected a problem in D3 FSI where running a Flash program that allocates 256 shared memory segments prevents all other client processes from running Flash.

OSFI

Action ID	Description
29016	Modified the OSFI server stop procedure to not leave any unnecessary items in the jobs file.
29128	Corrected network-setup to verify the validity of the local IP address before attempting to start OSFI servers.
30665	Corrected a problem with OSFI, which caused a Frame Out of Range abort under certain conditions if a null data level name was given when opening a previously opened remote file.
30725	Corrected a problem with OSFI, which prevented updates by a server from being enqueued when an index existed on the file.
30972	Corrected a problem with OSFI, which caused an account q-pointer to be read from the current MD instead of the MDS when a full filepath with a data level was specified without a trailing comma.
30994	Corrected a problem with OSFI, which caused the servers to go to rps.fatal.err if the client sent properly formatted data under certain conditions.
31197	Corrected a problem in D3 NT FSI where a character is dropped when writing to a DOS directory through nt_bin:c:.

OSFI

Action ID	Description
31328	Corrected a problem with 7.5 D3FSI not able to open 7.4 FSI files.
31368	Corrected a problem with the VAR file that caused 'ct var' to loop forever if there were no user-defined variables present.
31565	Corrected a problem with OSFI error logging, which caused the internal message number to appear in a list-errors report in some cases.
31570	Corrected a problem with OSFI, which caused an abort when multiple threads were simultaneously accessing the host OS.
31668	Corrected a problem with OSFI, which caused OSFI servers to abort in r.init, when called too many times with an invalid handle.

Overflow Handler

Action ID	Description
30090	Reinstated the reclaim-ovf command after fixing several bugs.
30564	Corrected a problem with the overflow handler that caused overflow errors to multiply in the event of multiple disk errors.
30677	Corrected a problem with shutdown/restart of D3 that caused overflow loss.
30754	Corrected a problem with the system that caused overflow signature errors when set-remote-close (nd executes, followed eventually by set-remote-close (fd.
30952	Modified the set-ovf-reserve command without arguments to simply display the current setting.
31066	Corrected a problem with Access, which caused an inordinate amount of overflow to be temporarily consumed if one of the attribute definitions used called a Basic subroutine.
31450	Corrected a problem with the Overflow Handler, which allocated frames without setting the overflow-id when the frames were above the highwater mark.
31730	Corrected a problem with the Overflow Handler, which caused overflow to be leaked when using the "logon" command.

Phantom Processor

Action ID	Description
25354	Corrected a problem that prevented phantoms with an error status from displaying that status in the jobs file.
28509	Corrected an erroneous report of "[3] The verb's not defined." when issuing a phantom z command under certain conditions.

Phantom Processor

Action ID	Description
30678	Corrected a problem with stopsched/startsched that caused it to lose overflow space.
30913	Corrected a problem with the scheduler, which would cause the scheduler to abort with a Forward Link Zero when a jobs item occupied more than one frame.
30975	Corrected a problem with the scheduler that caused it to abort if more phantom jobs were queued than could be immediately scheduled.
31041	Corrected a problem with the phantom scheduling system, which failed to spawn phantoms originated by users having a user-id with an asterisk *.
31046	Corrected a problem with D3VME where phantom ports are sometimes incorrectly sent to LG_ON_PROMPT.

Programs & Utilities

Action ID	Description
23676	Corrected the problem with D3 NT where the create-index command overwrites the existing index regardless of whether or not the o option is used. The index will not be overwritten anymore if the o option is not specified and an appropriate error message displays.
23759	Corrected a problem with D3 NT where an item does not unlock when using the unlock-item command. An item in an FSI account now properly unlocks and the correct message is displayed.
23845	Corrected a problem with running clear-file on a file that has a callx.
23943	Corrected a problem with the D3 NT NT_EVENTLOG to allow reporting the actual time.
24759	Corrected a problem with nt_file-info where a server name over 8 characters gets truncated when displaying the file info. Server names over 8 characters are now correctly displayed along with other file info.
25222	Corrected a problem in D3 NT where the addbi command does not work properly.
26386	Corrected a problem that caused network-setup to do a lengthy logoff when an OSFI server did not respond to a stop command.
27747	Corrected the check-ws command to verify the input is in the range from 0 - (pibs+phantoms).
27750	Changed the behavior when canceling a delete-account to exit to TCL rather than to return to the Update Processor.
27752	Corrected "inputwait" to accept extra space after the delay value.
28967	Modified delete-account to not allow deletion of the account the user is currently logged onto.

Programs & Utilities

Action ID	Description
28968	Corrected the filename displayed when attempting to delete a file via the Update Processor.
29065	Corrected a problem that caused hold entries to be created when an OSFI server failed to respond to the stop command.
29982	Added a 'shutdown' option to odbc-setup, to shutdown all ODBC processes connected to the same virtual machine.
30190	Corrected 'list-files' to behave correctly when dealing with q-pointers that reference a specific data level.
30264	Corrected a problem with the dev-remov System Utility, which caused the locks to be cleared for the line matching the number specified in the dev-remov command even when the command specified a device that was not associated with a PIB.
30275	Corrected a problem in D3 NT VME where an "exit" command from TCL on a serial port terminal caused that terminal to hang until D3 was rebooted.
30483	Corrected the results displayed by the compare-list verb for addition and subtraction operators.
30515	Corrected a subscript out-of-range error, which occurred with the FL command.
30561	Corrected a problem with the System Utilities, which prevented restoring an FSI account after having deleted an FSI account of the same name without first logging off and back on.
30594	Corrected a problem where the "dev-remov" command on a telnet port clears all item locks of all ports on the system.
30606	Corrected a problem with the System Utilities, which caused an attribute mark to be appended to the account name when it was obtained using @account.
30607	Corrected a problem with the Basic @ function, which caused an attribute mark to be appended to the value returned by @pib on line 0.
30704	Corrected a problem with dev-remov that displayed a device that has already been removed.
30716	Modified the pib attribute definition in DICT errors to display only the pib number.
30727	Corrected the 'background' utility to allow multiple TCL commands to be specified, separated by the pipe character.
30821	Corrected a problem which could cause the coldstart-accounts program to fail to run during system coldstart.
30914	Corrected a problem with the list-open-jobs command, which displayed all jobs when the TCL case was set to sensitive.

Programs & Utilities

Action ID	Description
30922	Removed the SET-DATE command from accounts other than DM. Also, deleted this command from the newac file to prevent the update-md command from adding it to new accounts.
30931	Corrected D3 NT VME so that the user is able to print to a shared printer that prints to a file on Win2003.
30963	Added support for the -t option in odbc-setup utility.
30977	Corrected the backgrounds.output AGE attribute to return the number of days since the background output was generated.
31011	Corrected a problem with set-dptr, which aborted when processing the file-of-files.
31019	Corrected 'odbc-setup' to suppress warning messages generated while stopping the ODBC server.
31035	Corrected a problem with the System Utilities, which caused the last tape device to be removed when a tape device number greater than the last tape device was specified in the dev-remov command.
31082	Corrected nt_getfsiaccount to return the correct FSI account name.
31095	Disabled the :converse verb on D3 Windows.
31100	Disabled the :mirror verb on D3 Windows.
31123	Corrected a problem on D3 NT FSI where the nt_pininfo command always shows 0.000 for User and Kernel CPU on ODBC/RPC threads.
31126	Corrected verify-index so that it will place the correct abs-fid in the errors item.
31127	Corrected the transaction utility to correctly populate the errors file with a valid abs-fid.
31128	Corrected a problem with the tape-socket utility, which could incorrectly identify that a process had a tape device attached when it did not.
31139	Corrected check.pib to correctly handle pibs running at level 10 or greater.
31142	Corrected a problem with the 'fuser' utility, which could incorrectly detect that a tape device was attached to a pib when it was not attached.
31143	Corrected the wheres utility to properly detect phantom processes, processes in the debugger and processes with tape devices attached.
31158	Corrected a problem in D3 NT ODBC where a dev-remov on an ODBC thread causes a system exception and kills the telnet session.
31169	Corrected dev-remov to display the 'p' type in the usage information.

Programs & Utilities

Action ID	Description
31238	Corrected the 'tape-socket' utility to display the listserver option in the usage information.
31272	Corrected a problem with the System Utilities, which caused tandem to disregard changes to the termination sequence when an alternate sequence was provided.
31278	Corrected a problem with some names of the attribute defining items in the fsidm fileoffiles file. Renamed 'data' to 'data-name' and 'dict' to 'dict-name'.
31283	Corrected D3 NT VME so that RPC connections show up in the dev-list output.
31294	Corrected the help text for the mds,, "type" attribute.
31296	Corrected set-compiler to display the default compiler option if no option has been specified.
31344	Corrected a problem with the "set" command, which caused a Frame Out Of Range abort when issuing multiple "set path=..." commands.
31360	Corrected the syschk utility to report minimum swap space on systems with greater than 128MB of memory.
31366	Corrected the search-system utility to better detect file pointers.
31501	Corrected the '&' operator in the compare-list utility to use string compare.
31707	Corrected a problem in D3 NT FSI where the system hangs when the md of an FSI account is resized using the file-sizer utility.
31728	Corrected a problem with the ovf-monitor utility, which displayed negative values for certain processes.
31749	Corrected set-compiler to display the default compiler options as EXT.
31753	Corrected a problem with the set-date-eur/std commands, which did not change the local setting when changing the global setting.
31764	Corrected the network-setup server status option to not generate a runtime error when processing keyboard input.

Save/Restore

Action ID	Description
23775	Corrected a problem that caused the save processor to not save the MD modulo and the restore processor to not restore the modulo even if it was saved.
27806	Corrected D3 NT FSI to insert a leading '*' in front of illegal or unsupported correlatives on file d-pointers.
30672	Corrected the early termination of a restore when an index was defined with a key using a file translate without full pathing. Also, changed the restore to continue restoring after an indexing error.

Save/Restore

Action ID	Description
30683	Modified the code to prevent a GFE being created during an account-restore in the dictionary of a file with a 'y' processing code.
30751	Corrected a problem with the save, which set incorrect bits in the FCB in some cases, which could lead to remote file errors when attempting to access the file through OSFI.
31201	Corrected a problem with sel-restore that created a binary item pointing to the tcl-stack when an explicit id was specified and a binary item preceded that id in the same file on the tape.
31355	Corrected a problem with incremental restores, which caused the process to hang under certain conditions.
31383	Corrected an error with the account-restore of a pre 7.4 account, which would cause a subsequent "t-verify (a" to report "[1556] Items mismatch" on object code.
31529	Corrected a problem which caused various errors after sel-restoring items into the dm,hosts, file.
31627	Corrected a problem where restoring an account with illegal file names (particularly with a ":" character) can create phony d-pointers.
31690	Corrected an abort that would occur during an account-restore index re-generation caused by a B-processing code referencing a missing program.
31692	Corrected a problem with the Restore Processor, which prevented items from being placed into the Transaction Logger queue when restoring an account with a DL d-code.

Spooler

Action ID	Description
25047	Corrected a problem that creates an entry into the Spooler when you break a level, and then press Enter when attaching to an off-line or invalid direct NT printer.
25992	Corrected a problem with startptr, which could release the spooler master queue lock without owning it.
26056	Corrected a problem that could cause the starting position of the assignment control block to be set incorrectly if multiple processes attempted to simultaneously create it.
26133	Corrected a problem that would allowed PEQ element 0 to be allocated.
30805	Corrected startshp to delete its temporary directory correctly during printer startup.

Spooler

Action ID	Description
30954	Corrected a problem with starting serial printers that could cause random frames to be overwritten with 40 bytes of char(0) starting at byte x2C2.
30979	Corrected a problem with startspooler that could cause startup problems if other spooler operations were running on other lines at the same time.
30981	Corrected a problem with processes aborting if the spooler had not been initialized.
30985	Corrected a problem with print job generation that caused an abort if the spooler had not been started.
31062	Corrected a problem with serial printers not being able to log errors.
31416	Corrected a problem with startspooler that caused the formqueue table to be improperly initialized, causing "sp-assign f1500" to abort.
31624	Modified the print-job creation process to include the 'charge-to' user information, if any.

SQL/ODBC

Action ID	Description
27980	Corrected D3ODBC server to recognize loss of TCP/IP KeepAlive and wrap up properly.
31166	Corrected a problem with the LEFT & RIGHT scalar functions not working because of the S8 patch.
31172	Corrected a problem with sql-create-table, which failed to acknowledge alternate table names when creating nested table names.
31248	Corrected a problem with ODBC which caused the underlying D3 process to remain at the master dictionary password prompt when an invalid password was provided.
31327	Corrected a problem with ODBC, which caused the wrong file to be accessed when opening a file in the given account after having opened a q-pointer in the same account that pointed to a file in a different account with the same file name.
31330	Corrected a problem with FSI indexes that caused a "Thread stack overflow" abort.
31351	Corrected the problem in D3 ODBC where an ODBC error message box pops up when connecting via WinSQL.
31352	Corrected a problem with ODBC and RPC licensing. Pool 16 (for ODBC) and pool 21 (RPC clients) now will denote the maximum of free connections per IP address. Additional ODBC or RPC will consume a license from pool 1 (user pool) to be compatible with 7.4 licensing scheme.
31353	Corrected the problem in D3 ODBC where ODBC connections are showing up with the server's IP address instead of the client's IP address in nt_pinfo.

SQL/ODBC

Action ID	Description
31445	Corrected D3 NT ODBC by adding a string value called "Port" in the registry key HKLM\Software\RainingData\D3\CurrentVersion\D3Odbc to allow specifying the ODBC server port manually.
31699	Corrected a problem with ODBC access that caused a Fid Range error in px.convx.
31714	Corrected D3 NT ODBC so that connections will close properly after the timeout value (specified in the registry entry 'InactivityTimeout' in the key '.\D3\CurrentVersion\D3ODBC') has been reached.

System

Action ID	Description
21177	Corrected a problem with brColumn() to properly return zero if the specified dictionary item does not exist.
21226	Corrected a problem that caused the recipient of a send-message to truncate the message if the last word of the message started with a (.
25048	Corrected a problem that could cause a FID Range abort when returning a level if another line issued an end on it at the right moment.
26147	Corrected a problem that on rare occasions prevented an error from being logged if an ABS Inconsistency occurred due to a stack format error.
30115	Corrected a problem in D3 NT FSI where a VB program that opens a rule module gets the error that d3fsi.exe or d3vme.exe cannot be found.
30553	Corrected a problem with the where a-option, which caused a + to be shown next to lines that were not truly consuming user licenses when the line in question was an RPC connection created by a callx trigger.
30613	Corrected a problem in D3 NT FSI where a VB program aborts while building a D3 file from a Windows file.
30622	Corrected a problem in D3 FSI where a virtual abort after a previous virtual abort will terminate the thread.
31082	Corrected nt_getfsiaccount to return the correct FSI account name.
31217	Corrected a problem with PDP hanging at input on a hyper-threaded system.
31283	Corrected D3 NT VME so that RPC connections show up in the dev-list output.
31313	Corrected a problem in D3 NT VME where you have to press the 'ESC' key twice to get it to work.
31397	Corrected a problem with the mload utility, which caused the process to loop endlessly under certain conditions.

System

Action ID	Description
31508	Corrected a problem which caused file corruption in cases of intense simultaneous frame updates, such as when restoring accounts on multiple pibs on a fast SMP system.
31605	Corrected the D3 device manager to not allow a new VME disk size of greater than 4000.
31640	Corrected a problem which caused the coldstart error log to report "Coldstart after normal shutdown" if the system was abnormally shutdown before a chance to flush certain system frames.

Tape Handler

Action ID	Description
25902	Corrected a problem with dev-make that caused any attached tapes to become detached when specifying a tape device.
30918	Corrected a problem with t-verify, which caused a '[1531] Premature end of file' error when issuing a t-rew running a program that pushed a level, followed by the t-verify command.
30944	Corrected a problem with the t-load r-option, which failed to acknowledge the frame size specification if it was not entered at the command line.
31490	Corrected a problem with t-verify, which erroneously displayed error 1552 when processing object code of a certain size.
31644	Modified t-verify to detect overflow runaway conditions.

TCL Stacker

Action ID	Description
15478	Corrected a problem with the Update Processor, which failed to move to the beginning of a line (or a tcl-stack entry) if it consisted only of spaces.

Transaction Logger

Action ID	Description
30816	Corrected a problem with the set-dptr command, which could create incomplete hot-backup/transaction logger records when issuing the command outside of the DM account.
31358	Corrected a problem with the Transaction Logger, which caused the performance of the producer and consumer to degrade significantly when they were simultaneously active.

Transaction Logger

Action ID	Description
30630	Corrected a txlog failure of index transactions that would occur when the txlog tape was applied at the end of a restore.

Unix Interface

Action ID	Description
31190	Corrected a problem with _CP_select selecting an empty file, not initializing an internal variable correctly so it would sometimes return erroneous results.

Update Processor

Action ID	Description
30620	Corrected a problem where a null attribute would be inserted at the beginning of the item when the access(3) statement was used in a program called by a Hotkey.
31194	Corrected a problem with Fileload to restore the d-pointer item of the users file. as well as other system files.

Upgrade Procedure

Action ID	Description
27669	Corrected a problem in D3 NT FSI where the d3fsi /mds command overwrites the DM users item, which goes back to the default state. The password and the options attribute are now copied to the new DM users item.
29384	Modified the upgrade procedure to preserve the catalog_map item in dict sql, tables, ..

Recent Enhancements and Resolutions

This list includes the most recent updates to the D3 NT 7.5 Enhancements and Resolutions.

Enhancements

GUI

Action ID	Description
31971	Enhanced the D3 device manager by adding the option to change the settings for tracing on ODBC connections.

Licensing

Action ID	Description
31782	Enhanced D3 Active to display the magic numbers as two 9-digit sets.
31862	Enhanced D3 NT installation to create a shortcut to display the licensing agreement.

Monitor

Action ID	Description
31742	Enhanced 'set-num-format' to propagate its changes into Flash.

OSFI

Action ID	Description
30731	Created a new hosts driver item 'win' to provide access to NT host binary data without character translations.

Programs & Utilities

Action ID	Description
31752	Added the "flip-list" command to invert a select list. Syntax: flip-list {filename} list.id
31928	Added the BASIC catalog pointer WATCH to newac.

System

Action ID	Description
31790	Enhanced D3 ODBC by adding the ability to stop and restart the ODBC server independently of the VME.

Resolutions

Access

Action ID	Description
30349	Corrected a problem with the tabbed output feature that caused null dependent attributes to be processed incorrectly. This could lead to problems with certain PickDP interactions.
31841	Corrected a problem with Access, which caused a 'basic subroutine "name of program" cannot be retrieved' error when a call was made from a multivalued a-processing code against a remote or FSI file.

BASIC Debugger

Action ID	Description
31003	Corrected D3 so that the basic debugger command Ctrl-J single-steps (displaying source) when debugging a callx subroutine.

BASIC Runtime

Action ID	Description
31700	Corrected a problem where subsequent commands of a multi-commanded execute would not be executed. Also, corrected problems where subsequent commands could run out of logical order. These changes define the command delimiter as AM and the data delimiter as VM within the Basic execute command. Also, added "exec-stacking-on" and "exec-stacking-off" commands to enable or disable these changes, respectively, allowing legacy applications to ignore these changes if required. The default exec-stacking setting is "off", and the setting status can be displayed using the "exec-stacking" command.
31835	Corrected the D3FSI to add support for access(27). Access(27) will return the current account name.
31855	Corrected a problem with the BASIC SORT function that caused it to place the value of zero incorrectly when right justified sort was specified.
31884	Corrected a frame leak that would occur when a list was 'select'ed but not exhausted.

D3 NT Tools

Action ID	Description
31813	Corrected the D3 file manager by adding a vertical scroll bar that scrolls the item body text in the "edit record" dialog box.
31851	Corrected the D3 File Manager to print error "Table name already exists" when trying to create a new table with a name that already exists.

FSI

Action ID	Description
31956	Corrected a problem in D3 NT FSI where hundreds of errors were written to the event log when testing connections using the PickDP Inetd service configuration utility.

GUI

Action ID	Description
31951	Corrected D3 Device Manager to allow increasing the number of pibs up to 9999.

Indexes

Action ID	Description
31885	Corrected selection issue with list-index when case-on has been issued.

Logon/Logoff/Logto Routines

Action ID	Description
31895	Corrected a problem with logoff, which caused usage info for "dev-remov" when doing a "logoff (x" or "reset-user (x".

Monitor

Action ID	Description
31463	Corrected a problem with the Monitor, which caused the MDS server to crash when shutting down a client VME.

Programs & Utilities

Action ID	Description
31784	Corrected a problem which caused maxusers to display "permanent" when using the "c" option on a system with a temporary activation. Also, enhanced the "c" option to display the number of weeks on a system with a temporary activation.
31886	Corrected list-index to report an FSI index as case insensitive.

Programs & Utilities

Action ID	Description
31948	Corrected a problem with the set-num-format verb that caused system table corruption when used with both D and numeric options, e.g. "SET-NUM-FORMAT (D20)".
31972	Corrected the detection of phantom processes on D3 7.5 releases in the check.pib utility.

Spooler

Action ID	Description
31826	Corrected the order in which shared printers processes are terminated to suppress glibc message on RedHat Enterprise Linux ES 4.
31942	Corrected a problem with D3VME when there are more than 16 form queues.

System

Action ID	Description
31918	Corrected D3 NT FSI so that "echo" statements in a subroutine properly turn the display of input characters on or off when the subroutine is called from a Visual Basic program using brCall.
31940	Corrected a problem in D3 NT Visual Basic class library where the telnet input screen fails to appear when doing a brCall to a FlashBASIC program that has an execute command to another program that has an "input" statement.
31959	Corrected a problem in the D3 NT FSI where a FlashBASIC program (called from a visual basic program) that calls a subroutine that has not been globally cataloged aborts with a misleading error message: [NE1590] Subroutine does not contain a return statement.
31996	Corrected D3 NT FSI so that the file-sizer correctly computes the % of fill on the md of an FSI account.