

Emmaus Development Group, LLC.

- Emerald Server
- Emerald Client
- Tape Manager (TM)
- Disk Manager (DM)
- File Independence (FI)
- Console Manager (CM)

Emmaus Development Group, LLC

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Emerald Server Features

- Runs in Dynamic or Static partition
- Multiple CPU support via TCP/IP or VSE Lock file
- Uses VSAM for database which allows easier expansion as database usage increases
- Internal security feature through a defined user list

Emerald Server Features

- Optional Journaling capability records all updates made to database
- Recovery program to process journal records and recover database
- Full online access to Emserver database and information
- Uses IBM vendor exits - no hooks into operating system

Emerald Server Features

- Partition by Partition control for DM/TM functions
- Control parameters are maintained online
- Supplied \$JOBEXIT emulates other Tape/Disk systems job control - allowing replacement without re-coding JCL

Emerald Server Features

- Program check/abend recovery in Server
- Easy to install - all products installed on single distribution file - activated by product code

Emerald Server JCL Emulation

- Space Manager
- Epic (under development)
- Dynam (under development)

Emerald Server System Requirements

- Use of IBM vendor exits
- SVA usage 24 bit - 3K -- 31 bit 154K + 2/3K per open file under Emserver control

Emerald Server Online

- Traditional 3270 access through the use of CICS/ICCF/CMS/TN3270
- CMS/TN3270 allows users to access Emserver when CICS is down
- EmClient allows PC savvy users Windows based graphical user interface (GUI) access to Emserver database information

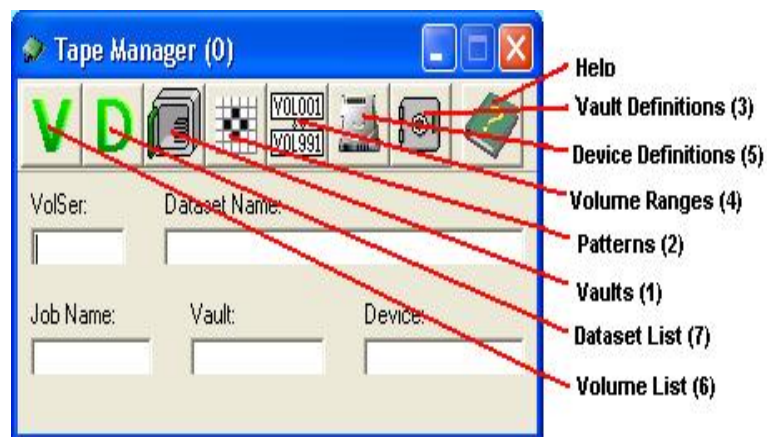
EmClient

- Uses MDI (multiple document interface) Windows programming interface
- Multiple Link Technology allows multiple server connections simultaneously
- User interface administration allows tailoring specific to each user

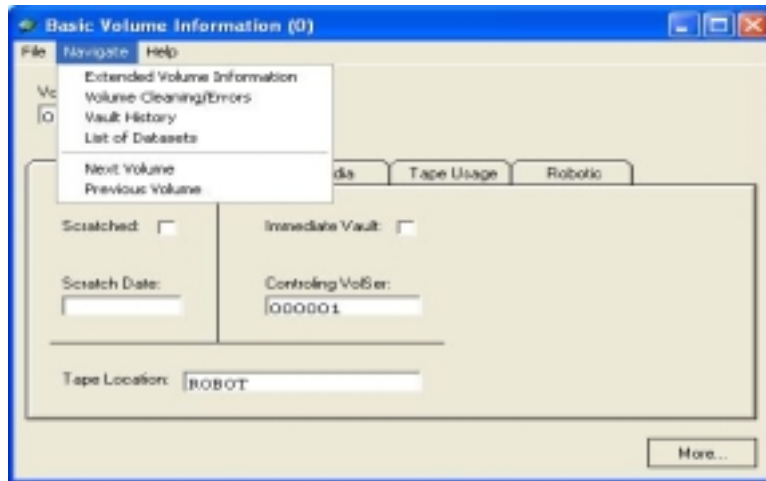
EmClient

- Integrated help facility allows users to find answers quickly

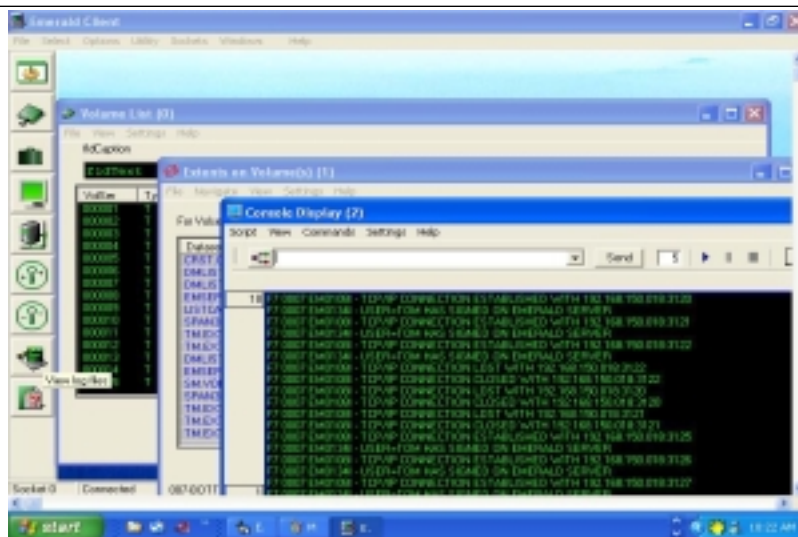
EmClient TM Main Menu



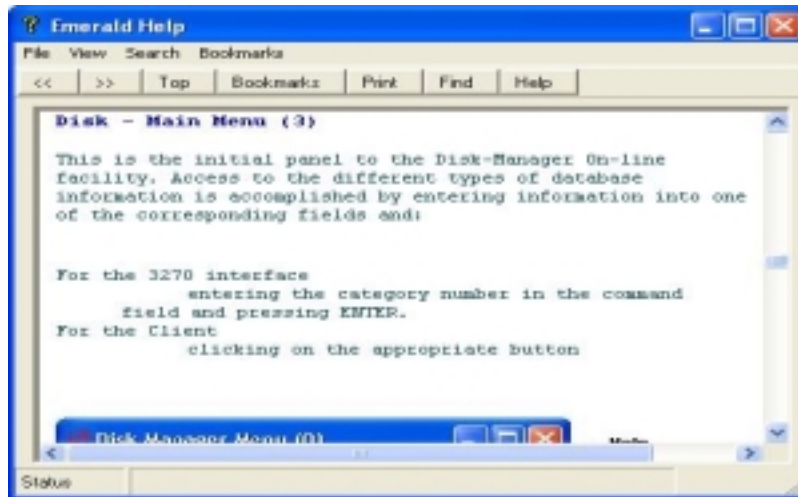
EmClient TM Volume Display



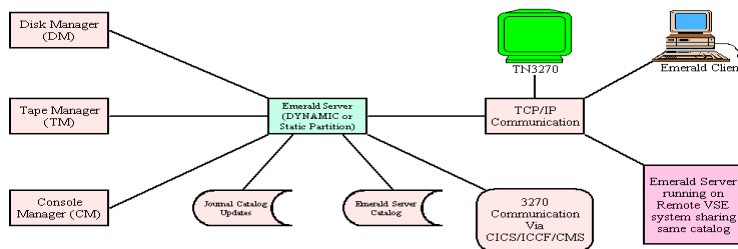
EmClient Sample Display



EmClient Sample Display



Emerald Server System Flow



Tape Manager Features

- Parallel processing - can co-exist with existing Tape Management systems for parallel testing/comparison (with restrictions)
- Scratch volume verification and overwrite protection
- Full support and tracking of multi-file volumes and multi-volume datasets

Tape Manager Features

- Support for robotic systems (including OPTITAPE)
- Dynamic Tape Assignment
- Centralized multi-host processing with Emservers multiple CPU option
- TM control of both dataset and volumes
- Tape Pooling

Tape Manager Features

- Control Unit pooling
- Tape Vaulting
- Scratch processing/Tape Pull Reports
- Retention information can be specified online at the dataset and/or job level
- Special JCL commands to interface with TM (// EMPARM)

Tape Manager Features

- No JCL changes are required when converting from another system
- Utilities are supplied to assist in the conversion process
- Full online access via EmClient or one of the 3270 interfaces allow real-time inquiry/update to TM information.

Tape Manager Features

- Full database reporting (Scratch pull, Vault movement, Dataset, Volume, etc).
- No JCL changes required if you are a new user of Tape Management.
- NL tape support
- Standard IBM exits used for OPEN/CLOSE/EOV/EOT -- no hooks used

Tape Manager Features

- Tape Initialization utility (includes scratch protection)
- Tape families (multi-dataset and multi-volume) can be loaded into TM database by use of utility programs
- User Information fields allow datasets to be updated with site specific info

Creating an output Tape

```
// JOB CREATE - TEST TAPE CREATION
// TLBL OFS,'JEFF.TEST.FILE1',5
// EMPARM OFS='UNLOAD=Y'
// EXEC TPMDOSTP,SIZE=AUTO,PARM='OFS'
/*
/ &
```

Sample Console output

```
EG 0000 // JOB CREATE - TEST TAPE CREATION
          DATE 04/07/2003, CLOCK 15/21/06
EG 0000 1T20I  SYS015 HAS BEEN ASSIGNED TO X'FEE' (TEMP)
EG 0000 TM0001I - DTF=OFS MOUNT SCRATCH ON DEVICE(JEFF )
EG-0000          VOLSERDEF(N/A ) VAULTDEF(VDEF001 ) LABEL(SL)
*** tape loaded here ***
EG 0000 TM0006I - DTF=OFS VOLSER=JDM007 LU=SYS010 FS=0001 CUU=0580
EG 0000          OPENED VAULTDEF=VDEF001
EG 0000          LABEL(SL)
EG 0000 TM0006I - DTF=OFS VOLSER=JDM007 LU=SYS010 FS=0001 CUU=0580
EG 0000          CLOSED NOREWIND NOHOLD VAULTDEF=VDEF001
EG 0000          LABEL(SL) UNLOADED
EG 0000          MAX.RETURN CODE=0000
EOJ CREATE
```

Reading an Input Tape

```
// JOB READ - TEST TAPE CREATION
// TLBL IFS, 'JEFF.TEST.FILE1'
// EXEC TPMDOSTP, SIZE=AUTO, PARM='IFS'
/*
/ &
```

Sample Console output

```
BG 0000 // JOB READ - TEST TAPE CREATION
          DATE 04/07/2003, CLOCK 15/43/39
BG 0000 TM0001I - DTF=IFS MOUNT JDM007 ON DEVICE(JEFF )
BG-0000          VOLSERDEF(N/A ) VAULTDEF(VDEF001 ) LABEL(SL)
*** tape loaded here ***
BG 0000 TM0006I - DTF=IFS VOLSER=JDM007 LU=SYS010 FS=0001 CUU=0580
BG 0000          OPENED VAULTDEF=VDEF001
BG 0000          LABEL(SL)
BG 0000 TM0006I - DTF=IFS VOLSER=JDM007 LU=SYS010 FS=0001 CUU=0580
BG 0000          CLOSED NOREWIND NOHOLD VAULTDEF=VDEF001
BG 0000          LABEL(SL) NOUNLOAD
EOJ READ          MAX.RETURN CODE=0000
```

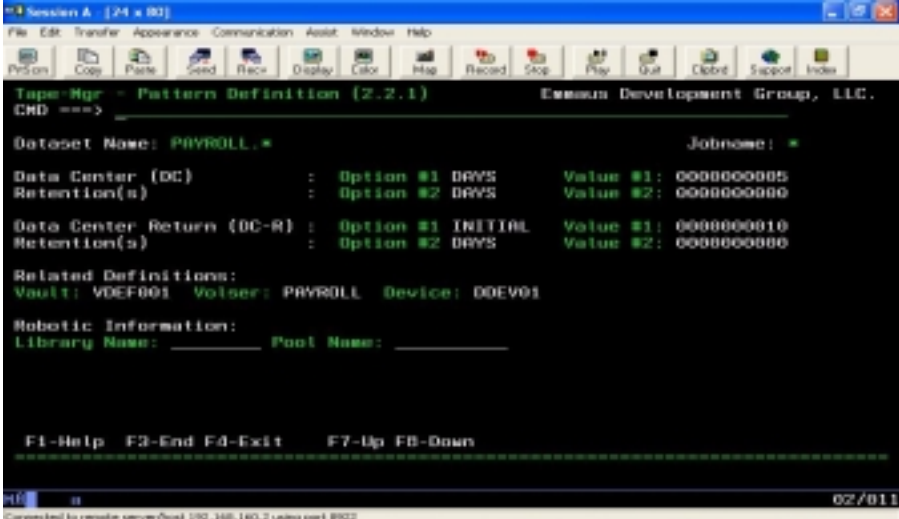
Tape Retention types (controlling output datasets)

- Days
- Expdt
- Last Used
- Permanent
- Versions
- Initial
- Skip

Tape Manager Online Displays

- Vaults
- Patterns
- Vault definitions
- Volser definitions
- Device definitions
- Volume
- Dataset

Tape Patterns



```
Session A [24 x 83]
File Edit Transfer Appearance Communication Assist Window Help
Person Copy Paste Send Recv Display Color Map Record Stop Play Quit Clabort Support Index

Tape Mgr - Pattern Definition (2.2.1)           Emmaus Development Group, LLC.
CMD ==>

Dataset Name: PAYROLL.*                       Jobname: *

Data Center (DC) : Option #1 DRYS             Value #1: 0000000005
Retention(s)    : Option #2 DRYS             Value #2: 0000000000

Data Center Return (DC-R) : Option #1 INITIAL Value #1: 0000000010
Retention(s)    : Option #2 DRYS             Value #2: 0000000000

Related Definitions:
Vault: VDEF001  Volser: PAYROLL  Device: DDEV01

Robotic Information:
Library Name: _____ Pool Name: _____

F1-Help  F2-End  F4-Exit  F7-Up  FB-Down

02/011
Comments to ressource server\oad 570.348.183.2 using port 8902
```

Tape Vaulting

- Unlimited number of user vaults can be defined
- A vaulting path of up to 10 vaults can be defined (with dual retentions at each vault)
- 1st dataset on volume controls vaulting for all subsequent datasets

Tape Vault Definition

```
Session A [24 x 80]
File Edit Transfer Appearance Communication Assist Window Help
Person Copy Paste Send Recv Duple Cook Map Record Stop Play Quit Copy Support Index
Tape Mgr - Vault Definitions (2.3.1) Emmaus Development Group, LLC.
CMD ==> Vault Definition Name: VDEF001

Vault ID Option (1) Value (1) Option (2) Value (2)
-----
V01... VLT1 DAYS 0000000005 VERSIONS 0000000002
V02... VLT2 VERSIONS 0000000004 0000000000
V03... VLT3 INITIAL 0000000010 0000000000
V04... 0000000000 0000000000
V05... 0000000000 0000000000
V06... 0000000000 0000000000
V07... 0000000000 0000000000
V08... 0000000000 0000000000
V09... 0000000000 0000000000
V10... 0000000000 0000000000

Description: TEST PATTERN

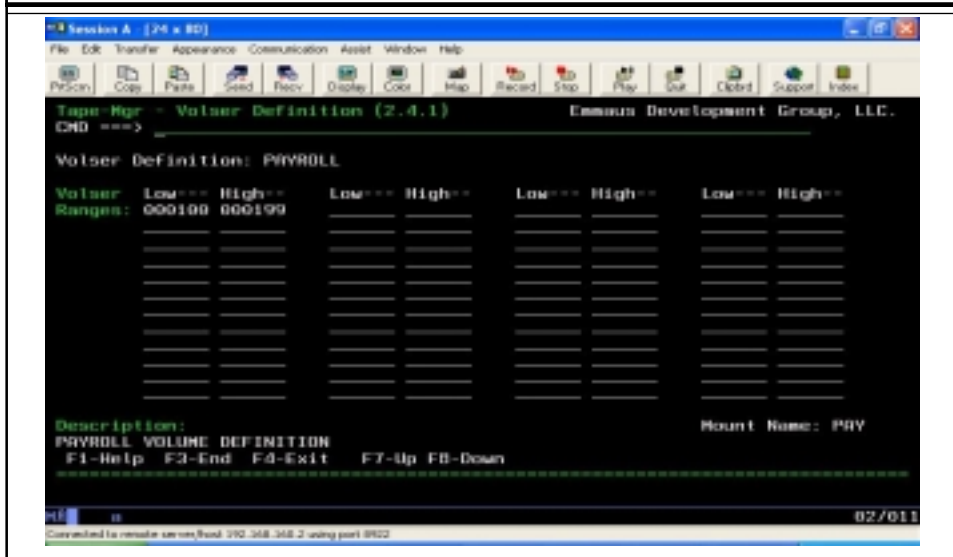
F1-Help F2-End F4-Exit F7-Up F8-Down
11/02/11
Connected to remote server/host: 192.168.162.2 using port: 8922
```

Tape Vault Definition

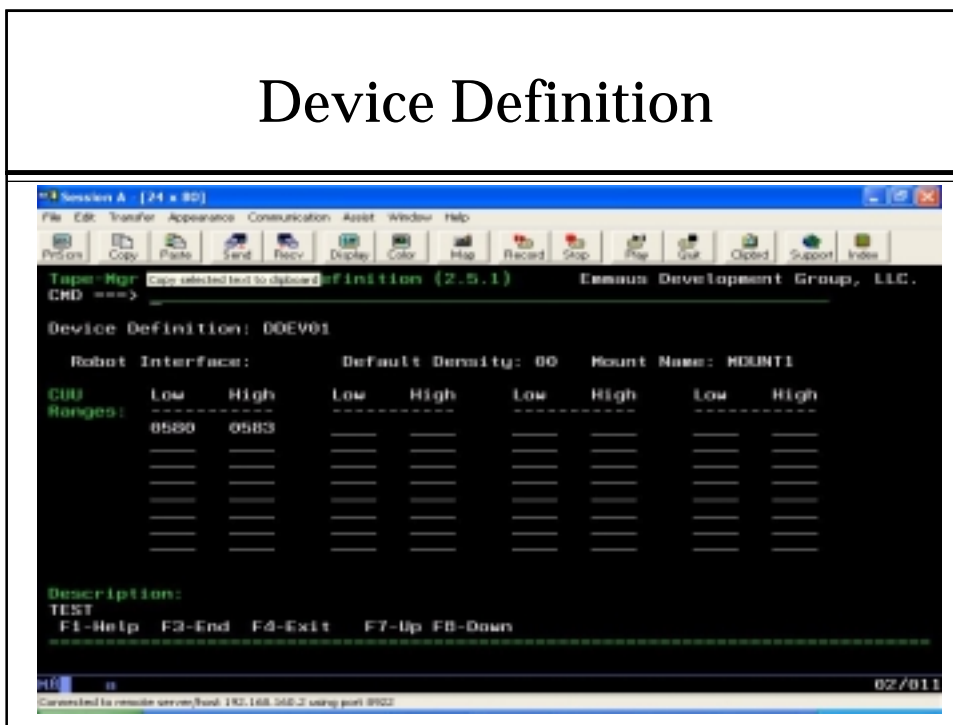
```
Session A [24 x 80]
File Edit Transfer Appearance Communication Assist Window Help
Person Copy Paste Send Recv Duple Cook Map Record Stop Play Quit Copy Support Index
Tape Mgr - Vault Definitions (2.3.1) Emmaus Development Group, LLC.
CMD ==> Vault Definition Name: VDEF001

Vault ID Option (1) Value (1) Option (2) Value (2)
-----
V01... VLT1 DAYS 0000000005 VERSIONS 0000000002
V02... VLT2 ??????????????????????????????????????????????????????????????0000
V03... VLT3 ? Option 7000
V04... ? Represents the Retention category for this Vault: 7000
V05... ? Full Name Abbrev 7000
V06... ? DAYS D 7000
V07... ? EXPIRY E 7000
V08... ? LAST USED L 7000
V09... ? PERMANENT P 7000
V10... ? VERSIONS V ?
? INITIAL I ?
Description: T ? SKIP S ?
? ? ?
? ? ?
F1-Help F2-En ??????????????????????????????????????????????????????????????
11/02/11
Connected to remote server/host: 192.168.162.2 using port: 8922
```


Volser Definitions



Device Definition



Tape Dataset Inquiry

```
Session A [24 x 80]
File Edit Transfer Appearance Communication Assist Window Help
Print Copy Paste Send Recv Display Color Map Record Stop Play Quit Delete Support Index

Tape-Mgr - Dataset Inquiry (2.7)          Emmaus Development Group, LLC.
CMD ==>
-----Create-----
S      Dataset Name                               Date       Time       Volser Scr
-----
- A/R-BKUP ARTRIC FILE                          11/21/2002 15.24.10 001794 YES
- A/R-BKUP ARTRIC FILE                          11/02/2002 15.23.07 001794 NO
- A/R-BKUP ARTRIC FILE                          11/18/2002 15.15.39 000606 NO
- A/R-CLSD ITEM HIST-ARMNTGZ-1                 08/27/2002 15.12.26 000236 NO
- A/R-CLSD ITEM HIST-ARMNTGZ-1                 10/01/2002 15.26.17 002315 NO
- A/R-CLSD ITEM HIST-ARMNTGZ-1                 10/29/2002 15.27.08 002473 NO
- A/R-DELETED REC-ARB001                       10/01/2002 15.22.25 001712 NO
- A/R-DELETED RECS-ARB001                      10/29/2002 15.16.30 000810 NO
- A/R-DISTRIBUTION HIST -AK852                  10/01/2002 15.23.33 001860 NO
- A/R-DISTRIBUTION HIST -AK852                  10/29/2002 15.16.29 000808 NO
- A/R-DISTRIBUTION HIST -AK852                  08/27/2002 15.15.29 000660 NO
- A/R-FILES AFTER RPCASH                       11/14/2002 15.21.52 001605 NO
- A/R-FILES AFTER RPCASH                       11/17/2002 15.24.09 001958 NO
- A/R-FILES AFTER RPCASH                       11/18/2002 15.13.06 000315 NO
- A/R-FILES AFTER RPCASH                       11/19/2002 15.15.59 000739 NO

F1-Help F2-End F4-Exit F7-Up FB-Down

02/011
Connected to remote server/host 192.168.180.2 using port 6922
```

Tape Dataset Display (1)

```
Session A [24 x 80]
File Edit Transfer Appearance Communication Assist Window Help
Print Copy Paste Send Recv Display Color Map Record Stop Play Quit Delete Support Index

Tape-Mgr - Dataset Information (2.7.1)    Emmaus Development Group, LLC.
Cmd ==>
Dataset: A/R-BKUP ARTRIC FILE              Create Date: 11/02/2002
                                           Create Time: 15.23.07

Current Information:
Scratch(Y/N)....: N                      Scratch Date: 00/00/0000   Scratch Time: 00.00.00
Scratched By....:                        1st Volser..: 001794      Ctl-Volser..: 001794
Logical File Nbr: 00001                   Physical Seq: 00001       Abs-Gen-Nbr.: 0001

Creation Information:
Job Name....: CONVERT                     Step Name:                Program: CONVERT
File Name....: 7777777                    Programmer Name:
User/Don: COMP RM
Dataset Information..:
Recfs.....: 0                               Lrcl.....: 00000        Block size/count: 00000 00000

Last Used Information:
Job Name....: CONVERT                     Program..: CONVERT        Compl Code.: S0000
Date.....: 11/02/2002                     Time.....: 15.23.07      Usage Count: 000001

F1-Help F2-End F4-Exit F7-Up FB-Down F10-Left F11-Right

02/011
Connected to remote server/host 192.168.180.2 using port 6922
```

Tape Dataset Display (2)

The screenshot shows the 'Tape-Mgr - Dataset Information (2.7.2)' window. The dataset name is 'A/R-BKUP ARTRIG FILE'. The retention policy is 'DC'. The create date and time are '11/02/2002 15.23.07'. The retention information table is as follows:

Retention Information (DC):		(DC-R):	
#1: EXPIRT	11/25/2002	11/25/2002	#1:
#2:	0000000000	11/02/2002	#2:

Additional information includes: Pattern Information (Dataset Name, Job Name), SMS Information (MVS) (Data Class, Storage Group, Management Class, Storage Class), and Accounting Info. The window also displays a toolbar with icons for various functions and a status bar at the bottom indicating the connection to the remote server.

Tape Dataset Display (3)

The screenshot shows the 'Tape-Mgr - Dataset Information (2.7.3)' window, displaying a table of dataset files. The dataset name is 'A/R-BKUP ARTRIG FILE'. The create date and time are '11/02/2002 15.23.07'. The table below shows the details for a single file:

S	Volser	T	Status	Scatched Date	Files Total	Files Active	Current Vault	Unit Type	Addr	lbl
..	001794	T	RETAINED		00001	000001	DC	3489		SL

The window also displays a toolbar and a status bar at the bottom indicating the connection to the remote server. The message '007-BOTTOM OF DATA REACHED' is visible at the bottom of the data area.

Volume Inquiry

```

Session A [24 x 80]
File Edit Transfer Appearance Communication Assist Window Help
Print Copy Paste Send Recv Display Color Map Record Stop Play Quit Opened Support Index

Tape-Mgr - Volume Inquiry (2.6)
Emmaus Development Group, LLC.
Cmd ==>

S Volser T Status Scratched *---Files---* Current *---Unit---*
Date Total Active Vault Type Addr Lbl
-----
- 000107 T RETAINED 00001 00001 DC 3488 SL
- 000108 T RETAINED 00001 00001 DC 3488 SL
- 000109 T RETAINED 00001 00001 DC 3488 SL
- 000110 T RETAINED 00001 00001 DC 3488 SL
- 000111 T RETAINED 00001 00001 DC 3488 SL
- 000112 T RETAINED 00001 00001 DC 3488 SL
- 000113 T RETAINED 00001 00001 DC 3488 SL
- 000114 T RETAINED 00001 00001 DC 3488 SL
- 000115 T RETAINED 00001 00001 DC 3488 SL
- 000116 T RETAINED 00001 00001 DC 3488 SL
- 000117 T RETAINED 00001 00001 DC 3488 SL
- 000118 T RETAINED 00001 00001 DC 3488 SL
- 000119 T RETAINED 00001 00001 DC 3488 SL
- 000120 T RETAINED 00001 00001 DC 3488 SL
- 000121 T RETAINED 00001 00001 DC 3488 SL

F1-Help F3-End F4-Exit F7-Up FB-Down

02/011
    
```

Volume Display (1)

```

Session A [24 x 80]
File Edit Transfer Appearance Communication Assist Window Help
Print Copy Paste Send Recv Display Color Map Record Stop Play Quit Opened Support Index

Tape-Mgr - Volume Information (2.6.1)
Emmaus Development Group, LLC.
Volume: 000107
Cmd ==>

Current Information:
Scratch(Y/N)...: N      Scratch Date:          Ctl-Volser...: 000107
Immediate Vault.: N      Tape Location: MANUAL
Int Dataset....: DL ARCHIVE - 10/91

Robotic Information:
Library Name:          Pool Name:          System:          Slot:

File Counts/Tape Usage:
Total Files: 00001 Active Files: 00001 / Usage in KB - Percent: 000000 000

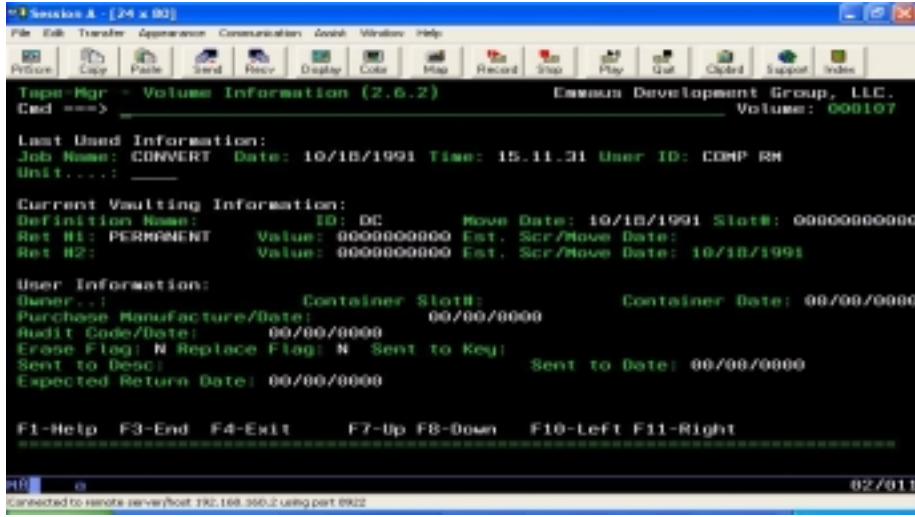
Media Information:
Label Type: SL      Media Type: TAPE      Recording Method: EBCDIC W Tracks: 00010
Device Type: 3488 Density...: 10T

Creation Information:
Node Name: SYSB      Operating System: VSE      Cpu ID: 000174 Unit Address: 0000

F1-Help F3-End F4-Exit F7-Up FB-Down F10-Left F11-Right

02/011
    
```

Volume Display (2)



```
Session A - [24 x 80]
File Edit Transfer Appearance Communication Assist Window Help
Print Copy Paste Send Recv Display Color Map Record Stop Play Quit Cloud Support Index
Tape-Mgr - Volume Information (2.6.2)          Emulex Development Group, LLC.
Cmd ----->                               Volume: 000107

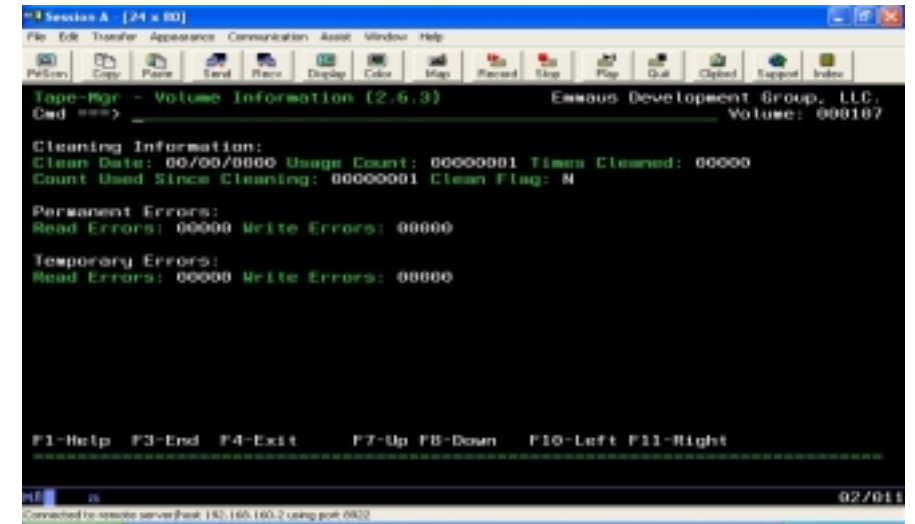
Last Used Information:
Job Name: CONVERT Date: 10/18/1991 Time: 15.11.31 User ID: COMF RM
Unit.....:

Current Vaulting Information:
Definition Name: ID: DC Move Date: 10/18/1991 Slot#: 00000000000
Ret #1: PERMMENT Value: 0000000000 Est. Scr/Move Date:
Ret #2: Value: 0000000000 Est. Scr/Move Date: 10/18/1991

User Information:
Owner...: Container Slot#: Container Date: 00/00/0000
Purchase Manufacture/Date: 00/00/0000
Audit Code/Date: 00/00/0000
Erase Flag: N Replace Flag: N Sent to Key:
Sent to Desc: Sent to Date: 00/00/0000
Expected Return Date: 00/00/0000

F1-Help F3-End F4-Exit F7-Up F8-Down F10-Left F11-Right
-----
02/011
Connected to remote server/port 192.168.350.2 using port 8922
```

Volume Display (3)



```
Session A - [24 x 80]
File Edit Transfer Appearance Communication Assist Window Help
Print Copy Paste Send Recv Display Color Map Record Stop Play Quit Cloud Support Index
Tape-Mgr - Volume Information (2.6.3)          Emulex Development Group, LLC.
Cmd ----->                               Volume: 000107

Cleaning Information:
Clean Date: 00/00/0000 Usage Count: 00000001 Times Cleaned: 00000
Count Used Since Cleaning: 00000001 Clean Flag: N

Permanent Errors:
Read Errors: 00000 Write Errors: 00000

Temporary Errors:
Read Errors: 00000 Write Errors: 00000

F1-Help F3-End F4-Exit F7-Up F8-Down F10-Left F11-Right
-----
02/011
Connected to remote server/port 192.168.350.2 using port 8922
```

Volume Display (4)

The screenshot shows the 'Volume Information (2.6.4)' window in a terminal environment. The window title is 'Tape Mgr - Volume Information (2.6.4)' and it is from 'Emmaus Development Group, LLC.'. The volume ID is '000107'. The main content is a 'Vault History' section listing six vaults (Vault1 to Vault6). Each vault entry includes 'Move Date', 'Slot#', 'Ret #1', and 'Value'. Vault1 is the only one with a non-zero 'Move Date' (11/27/2002) and 'Ret #1' (PERMANENT). All other vaults have '00/00/0000' for move dates and '0000000000' for values. At the bottom, there are function key shortcuts: F1-Help, F3-End, F4-Exit, F7-Up, F8-Down, F10-Left, F11-Right. The status bar at the bottom indicates '02/011' and 'Connected to remote server host 192.168.160.2 using port 8922'.

```
Tape Mgr - Volume Information (2.6.4) Emmaus Development Group, LLC.
Cad ==> Volume: 000107

Vault History:
Vault1: DC Move Date: 11/27/2002 Slot#: 0000000000
Ret #1: PERMANENT Value: 0000000000 Ret #2: Value: 0000000000
Vault2: Move Date: 00/00/0000 Slot#: 0000000000
Ret #1: Value: 0000000000 Ret #2: Value: 0000000000
Vault3: Move Date: 00/00/0000 Slot#: 0000000000
Ret #1: Value: 0000000000 Ret #2: Value: 0000000000
Vault4: Move Date: 00/00/0000 Slot#: 0000000000
Ret #1: Value: 0000000000 Ret #2: Value: 0000000000
Vault5: Move Date: 00/00/0000 Slot#: 0000000000
Ret #1: Value: 0000000000 Ret #2: Value: 0000000000
Vault6: Move Date: 00/00/0000 Slot#: 0000000000
Ret #1: Value: 0000000000 Ret #2: Value: 0000000000
F1-Help F3-End F4-Exit F7-Up F8-Down F10-Left F11-Right

02/011
Connected to remote server host 192.168.160.2 using port 8922
```

Volume Display (5)

The screenshot shows the 'Volume Information (2.6.5)' window in a terminal environment. The window title is 'Tape Mgr - Volume Information (2.6.5)' and it is from 'Emmaus Development Group, LLC.'. The volume ID is '000107'. The main content is a table of dataset information. The table has columns for 'Dataset Name', 'Date', 'Time', 'Scr', and 'Seq'. There is one entry: 'DL ARCHIVE - 10/91' with 'Date' '10/18/1991', 'Time' '15.11.31', 'Scr' 'N', and 'Seq' '00001'. At the bottom, there are function key shortcuts: F1-Help, F3-End, F4-Exit, F7-Up, F8-Down, F10-Left, F11-Right. The status bar at the bottom indicates '007-BOTTOM OF DATA REACHED', '02/011', and 'Connected to remote server host 192.168.160.2 using port 8922'.

```
Tape Mgr - Volume Information (2.6.5) Emmaus Development Group, LLC.
Cad ==> Volume: 000107

-----Create-----
S Dataset Name Date Time Scr Seq
-----
DL ARCHIVE - 10/91 10/18/1991 15.11.31 N 00001
-----

F1-Help F3-End F4-Exit F7-Up F8-Down F10-Left F11-Right

007-BOTTOM OF DATA REACHED

02/011
Connected to remote server host 192.168.160.2 using port 8922
```

Optitape Interface

- Change/Add to BSOTMAIN
- MANAGER EMERALD
- TAPEOPEN DISABLED
- Define a VOLSERDEF with the RESERVED name of "OPTITAPE"
- use an // ASSGN SYSxxx,OPTITAPE

TM Reports

- 01 TMBRDV01 - FAMILY REPORT
- 02 TMBRDV02 - VOLSER REPORT
- 03 TMBRDV03 - DATASET REPORT
- 04 TMBRDV04 - SCRATCH VOLUMES REPORT
- 05 TMBRDV05 - RETAINED VOLSERS REPORT

TM Reports

- 06 TMBRDV06 - VAULTED VOLUMES REPORT
- 07 TMBRDV07 - CLEANING REPORT
- 52 TMBSCR05 - SCRATCH PULL REPORT
- 55 TMBVLT05 - VAULT MOVEMENT REPORT

Disk Manager Features

- Parallel processing - can co-exist with existing Tape Management systems for parallel testing/comparison (with restrictions)
- Centralized multi-host processing with Emsservers multiple CPU option
- Scratch verification for Datasets

Disk Manager Features

- Tracks both Datasets and Volumes under its control
- Disk Pooling
- Automatic Scratching of Expired Datasets
- Online Dataset Retention information
- New Datasets can be created via JCL

Disk Manager Features

- Special JCL commands to interface with TM (// EMPARM)
- No JCL changes are required when converting from another system
- Utilities can load entire volumes or selected datasets from VTOC's

Disk Manager Features

- Utilities for Vtoc Manipulation (such as Delete/Add)
- Standard IBM exits used for operating system interface points -- no hooks used
- Online access allows full control of dataset information
- Browse function allows browsing of Datasets

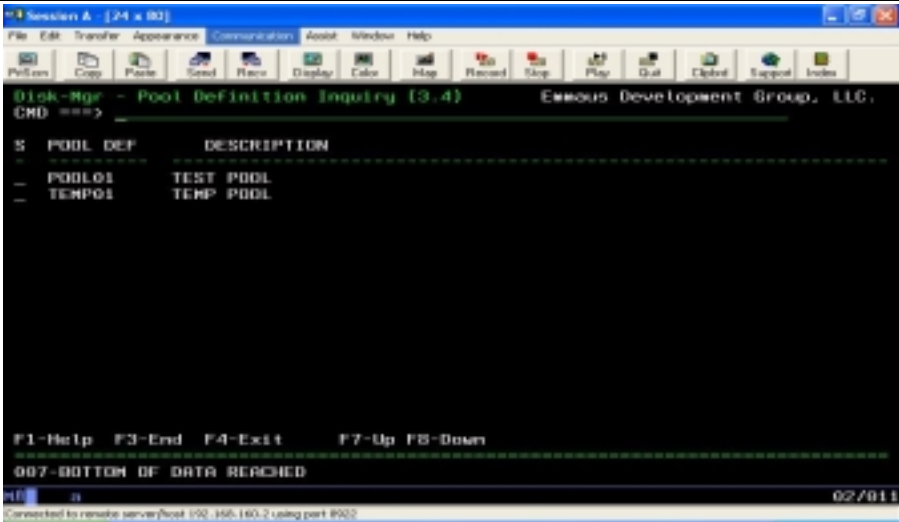
Disk Retention types

- Days
- EXPDT
- Last Used
- Permanent
- Versions

Disk Manager Online Displays

- Pool Definition
- Patterns
- Dataset
- Volume
- Device Display

Pool Definition Inquiry

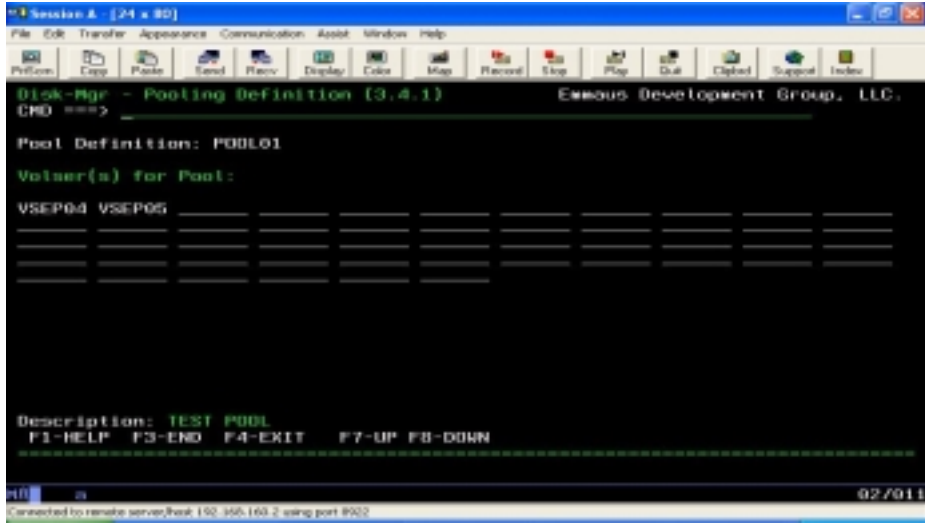


The screenshot shows a terminal window titled "Disk-Mgr - Pool Definition Inquiry [3.4]" with a menu bar (File, Edit, Transfer, Appearance, Configuration, Assist, Window, Help) and a toolbar. The main display area shows a table of pool definitions:

S	POOL DEF	DESCRIPTION
—	POOL01	TEST POOL
—	TEMP01	TEMP POOL

At the bottom of the screen, there are instructions: "F1-Help F3-End F4-Exit F7-Up F8-Down" and "007-BOTTOM OF DATA REACHED". The status bar at the very bottom indicates "Connected to remote server/foost 192.168.160.2 using port 8022" and the date "02/01/11".

Pool Display



```
Session A - [24 x 80]
File Edit Transfer Appearance Communication Assist Window Help
Disk-Mgr - Pooling Definition (3.4.1) Emsius Development Group, LLC.
CMD ==>
Pool Definition: POBL01
Volume(s) for Pool:
VSEF04 VSEF05
-----
-----
-----
-----
-----
-----
Description: TEST POOL
F1-HELP F2-END F4-EXIT F7-UP F8-DOWN
02/011
Connected to remote server/Host: 192.168.163.2 using port 8022
```

Pattern Inquiry



```
Session A - [24 x 80]
File Edit Transfer Appearance Communication Assist Window Help
Disk-Mgr - Pattern Inquiry by DSN (3.3) Emsius Development Group, LLC.
CMD ==>
      * Retention #1 * Pool-Def
      Option      Value      Vsom-Cat
-----
- JEFF.*          DRYS      0000000000 POBL01
- MF000          N/A       0000000000 POBL01
- TOM.*          DRYS      0000000000 POBL01

F1-Help F2-End F4-Exit F7-Up F8-Down
007-BOTTOM OF DATA REACHED
02/011
Connected to remote server/Host: 192.168.163.2 using port 8022
```

Pattern Display

Disk-Mgr - Pattern Definition (3.3.1) Emrus Development Group, LLC.

CMD ==>

Dataset Name: JEFF.* Jobname: *

Location....: SRM

Dataset Retention(s): Option #1: DAYS Value #1: 0000000000
Option #2: Value #2: 0000000000

General Information:
PoolID/Volcat: POOL01 G0G Dataset(Y/N): N Reseq G0G(Y/N): N
Open Disp.....: Close Disp.....: KEEP #bend Disp.....: KEEP
Read Password.: Write Password...: #is Unused Spc: N
New Block Size: 000000 Cylinder Aligned: N

Backup Dsn(Y/N): N Dsn on TLBL...:

Allocation Information:
Primary Allocation: 00000010 Secondary Allocation: 00000000 Record Size: 00000
Allocation Type : TRK Secondary Percent...: 000 Sec Vol Switch: N
Maximum Extents : 255 Primary Volser : RFF DName: _____

F1-Help F3-End F4-Exit F7-Up FB-Down

02/011

Connected to remote server/host 192.168.160.2 using port 9922

Dataset Inquiry

Disk-Mgr - Dataset Inquiry (3.1) Emrus Development Group, LLC.

CMD ==>

S	Dataset Name	*****Create*****	Volser	Scr
		Date	Time	
-	DMLIST.CVTDSNTH.SORTED	11/21/2002	01.46.38	VSEP05 NO
-	DMLIST.OUTPUT.CV1.SORTED	11/21/2002	01.29.25	VSEP04 NO
-	DMLIST.OUTPUT.CV2	11/14/2002	16.00.19	VSEP04 NO
-	ENCHFILE	02/10/2003	09.15.12	VSEP05 NO
-	EMSERVER.EXTRACT.FILE	11/19/2002	18.23.06	VSEP04 NO
-	EMSERVER.EXTRACT.SORTED	11/19/2002	20.54.35	VSEP05 NO
-	JEFF.MULTIEXT	02/03/2003	10.14.26	VSEP04 NO
-	LISTCAT.OUTPUT	10/04/2002	21.49.40	VSEP04 NO
-	SM.VOLINFO	11/21/2002	01.34.05	VSEP05 NO
-	SPRAC7.CONVERT.INPUT	11/19/2002	09.42.41	VSEP05 NO
-	SPRAC7.CONVERT.INPUTX	11/20/2002	16.03.54	VSEP04 NO
-	TK.EXTRACT.SCRATCH.STEP01.SORTED	11/25/2002	08.57.14	VSEP04 NO
-	TK.EXTRACT.SCRATCH.STEP02	11/25/2002	10.16.10	VSEP05 NO
-	TK.EXTRACT.SCRATCH.STEP03	11/25/2002	10.17.40	VSEP04 NO
-	TK.EXTRACT.SCRATCH.STEP04	11/25/2002	10.18.19	VSEP05 NO

F1-Help F3-End F4-Exit F7-Up FB-Down

02/011

Connected to remote server/host 192.168.160.2 using port 9922

Dataset Display (1)

```
Session A [24 x 80]
File Edit Transfer Appearance Communication Assist Window Help
Disk-Mgr - Dataset Information (3.1.1) Emms Development Group, LLC.
Cmd ==>
Dataset: TH_EXTRACT_SCRATCH_STEP02                               Tie Breaker: 0001
                                                                Create Date: 11/25/2002
                                                                Create Time: 10.16.10

Current Information:
Scratch[Y/N]... N          Vname-Cat.....:                               BW Controlled[Y/N]: Y
Pool Id.....: POOL01      First Volume...: VSEF05                       Backup Required...: _
Backup Complete: N        Backup Dsn:

Creation Information:
Job Name....: TMBSOR       Step Name: _____ Program: TMBSOR02
File Name...: EXTOUT       Programmer Name:
User/Dsn:
Dataset Information...:
RecFw.....: FB           Lrecl.....: 00093      Blksize...: 01060

Last Used Information:
Job Name....: TMBSOR       Program...: TMBSOR03  Compl Code.: S0000
Date.....: 11/25/2002     Time.....: 10.17.39  Usage Count: 000002

F1-Help F3-End F4-Exit F7-Up F8-Down F10-Left F11-Right
02/011
Connected to remote server/foot: 192.168.166.2 using port 9902
```

Dataset Display (2)

```
Session A [24 x 80]
File Edit Transfer Appearance Communication Assist Window Help
Disk-Mgr - Dataset Information (3.1.2) Emms Development Group, LLC.
Cmd ==>
Dataset: TH_EXTRACT_SCRATCH_STEP02                               Create Date: 11/25/2002
                                                                Create Time: 10.16.10

Retention Information:
Option #1: DAYS           Value #1: 0000000000
Option #2:                 Value #2: 0000000000

Pattern Information:
Dataset Name:
Job Name:

Allocation Information:
Total Trk/Blk Requested: 000050 Total Trk/Blks Used: 000050
Max Trk/Blks Used.....: 000050

Accounting Info:

F1-Help F3-End F4-Exit F5-Retention F7-Up F8-Down F10-Left F11-Right
02/011
Connected to remote server/foot: 192.168.166.2 using port 9902
```

Dataset Display (3)

The screenshot shows a terminal window titled "Session A [24 x 80]" with a menu bar (File, Edit, Transfer, Appearance, Communication, Assist, Window, Help) and a toolbar. The main content is "Disk-Mgr - Dataset Information [3.1.3]" from "Emuleus Development Group, LLC.". It displays dataset details for "TH_EXTRACT_SCRATCH_STEP62", including "Create Date: 11/25/2002" and "Create Time: 10.16.10". A table lists volume information:

% Volume	Vol	Nbr. of Seq	Extents	Ext Lower Seq	Upper Limit	Extent Length
---	VSEPO5	001	0000001	001	000050	000050

At the bottom, it shows "007 BOTTOM OF DATA REACHED" and "02/011".

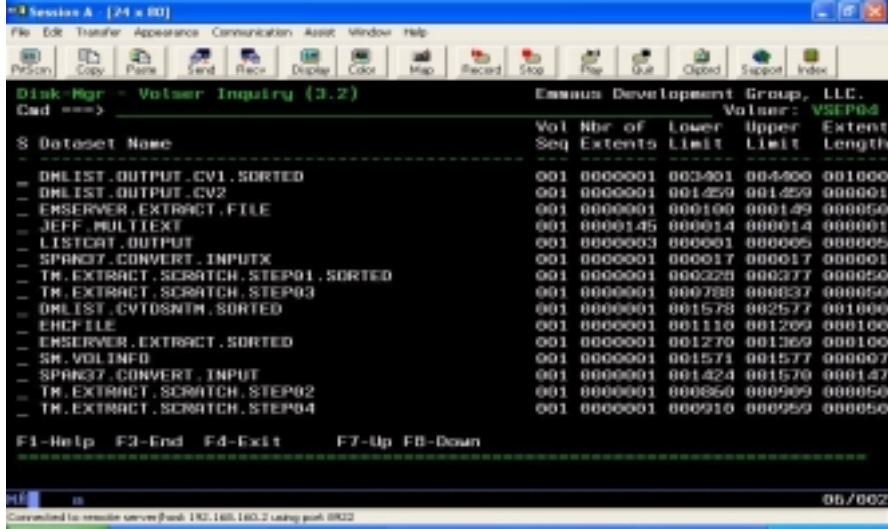
Dataset Browse

The screenshot shows a terminal window titled "Session A [24 x 80]" with a menu bar and toolbar. The main content is "Disk-Mgr - Dataset Browser" from "Emuleus Development Group, LLC.". It displays a list of dataset entries with columns for volume, sequence number, extent, and description:

Vol	Seq	Ext	Description
T10001567	001567	...	T100/R-Backup ARTIG FILES
T10000686	000686	...	T100/R-Backup ARTIG FILE
T10001794	001794	...	T100/R-Backup ARTIG FILE
T10001958	001958	...	T100/R-FILES AFTER APCASH
T10001695	001695	...	T100/R-FILES AFTER APCASH
T10000895	000895	...	T100/R-FILES Backup
T10001781	001781	...	T100/R-FILES Backup AFTER
T10001659	001659	...	T100/R-FILES Backup AFTER
T10000224	000224	...	T100/R-FILES Backup B-d
T10001796	001796	...	T100/R-FILES Backup B-d
T10000154	000154	...	T100/R-UMI 000 FILES [ARRFDRG]
T10001782	001782	...	T100/R-UMI 000 FILES [ARRFDRG]
T10000351	000351	...	T100KUP 04 20030
T10001936	001936	...	T100KUP 04 20030
T10001319	001319	...	T100KUP 04 20030
T10001993	001993	...	T100KUP208
T10002005	002005	...	T100KUP208 04 EDM 1 OF 2
T10000762	000762	...	T100KUP208 04 EDM 2 OF 2
T10002316	002316	...	T100KUP208 1 OF 2
T10001864	001864	...	T100KUP208 2 OF 2

At the bottom, it shows "02/011" and "Connected to remote server/host 192.168.180.2 using port 8922".

Volume Inquiry



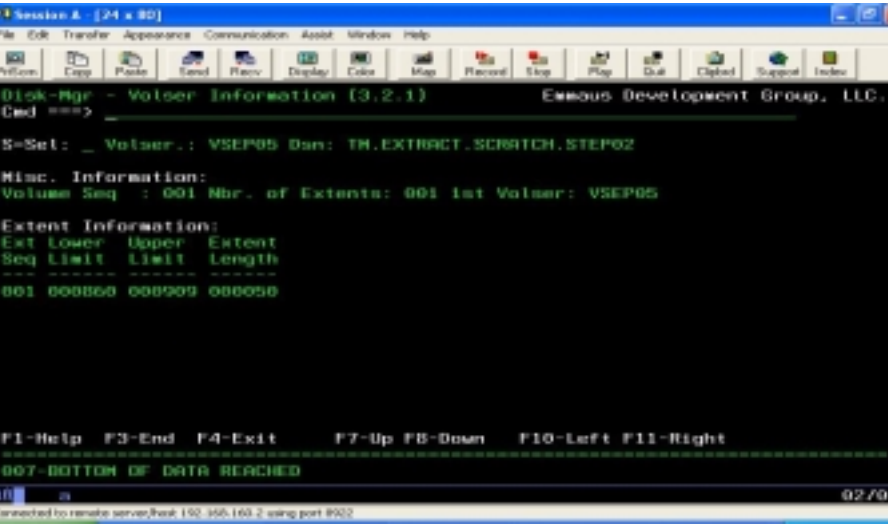
```
Emmaus Development Group, LLC.
Volume: VSEP04

S Dataset Name
-----
- DMLIST.OUTPUT.CV1.SORTED
- DMLIST.OUTPUT.CV2
- EMSEVER.EXTRACT.FILE
- JEFF.MULTIEXT
- LISTCAT.OUTPUT
- SPARC7.CONVERT.INPUTX
- TM.EXTRACT.SCRATCH.STEP01.SORTED
- TM.EXTRACT.SCRATCH.STEP03
- DMLIST.CVTDSNTH.SORTED
- ENCFILE
- EMSEVER.EXTRACT.SORTED
- SM.VOLINFB
- SPARC7.CONVERT.INPUT
- TM.EXTRACT.SCRATCH.STEP02
- TM.EXTRACT.SCRATCH.STEP04

Vol Nbr of Lower Upper Extent
Seq Extents Limit Limit Length
-----
001 0000001 003901 004900 001000
001 0000001 001259 001259 000001
001 0000001 000100 000149 000050
001 0000145 000014 000014 000001
001 0000003 000001 000005 000005
001 0000001 000017 000017 000001
001 0000001 000320 000377 000056
001 0000001 000700 000037 000056
001 0000001 001578 002577 001000
001 0000001 001110 001209 000100
001 0000001 001270 001369 000100
001 0000001 001571 001577 000007
001 0000001 001424 001570 000147
001 0000001 000850 000909 000050
001 0000001 000910 000959 000050

F1-Help F3-End F4-Exit F7-Up FB-Down
-----
06/002
Connected to remote server (host: 192.168.160.2 using port: 9922)
```

Volume Display (1)



```
Emmaus Development Group, LLC.
Volume: VSEP05

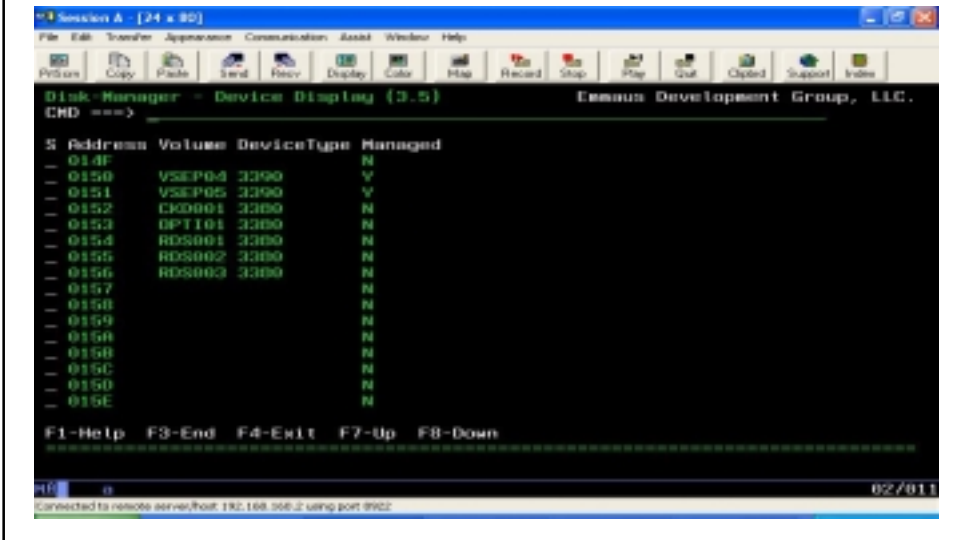
S=Sel: _ Volume.: VSEP05 Dan: TM.EXTRACT.SCRATCH.STEP02

Misc. Information:
Volume Seq : 001 Nbr. of Extents: 001 1st Volume: VSEP05

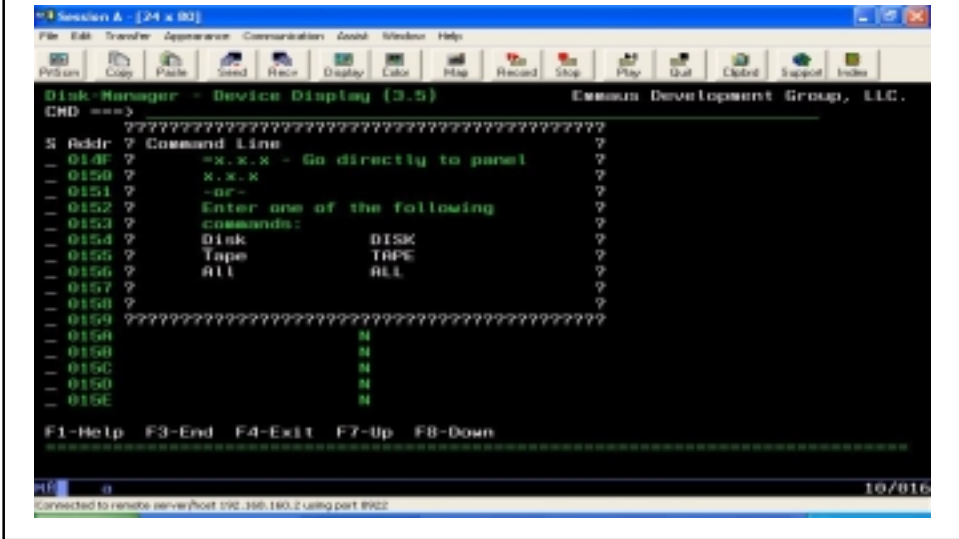
Extent Information:
Ext Lower Upper Extent
Seq Limit Limit Length
-----
001 000850 000909 000050

F1-Help F3-End F4-Exit F7-Up FB-Down F10-Left F11-Right
-----
007-BOTTOM OF DATA REACHED
-----
02/011
Connected to remote server (host: 192.168.160.2 using port: 9922)
```


Device Display Inquiry



Device Display Inquiry



Device Display (1)

Disk Manager - Vtoc Display (3.5.1) Emaus Development Group, LLC. Volume: VSEPD4

TRACKS: Total: 7,500 Free: 5,133 FULL-2 32 CCUB: 0150 TYPE: 3390

DATA SET NAME	Seq	Start	End	Length
LISTCAT.OUTPUT	0	1	5	5
LISTCAT.OUTPUT	1	6	9	4
LISTCAT.OUTPUT	2	10	13	4
JEFF.MULTIEXT	0	14	14	1
JEFF.MULTIEXT	1	15	15	1
CONVERT.PATTERNS	0	16	16	1
SPARCCT.CONVERT.INPUTX	0	17	17	1
JEFF.MULTIEXT	2	18	18	1
JEFF.MULTIEXT	3	19	19	1
JEFF.MULTIEXT	4	20	20	1
JEFF.MULTIEXT	5	21	21	1
JEFF.MULTIEXT	6	22	22	1
JEFF.MULTIEXT	7	23	23	1
JEFF.MULTIEXT	8	24	24	1

F1-Help F3-End F4-Exit F7-Up F8-Down

006-TOP OF DATA REACHED

02/011

Device Display (1)

Disk Manager - Vtoc Display (3.5.1) Emaus Development Group, LLC. Volume: VSEPD4

TRACKS: 7 CHD 7L-2 32 CCUB: 0150 TYPE: 3390

??

*x.x.x - Go directly to panel
x.x.x - Enter one of the following commands:

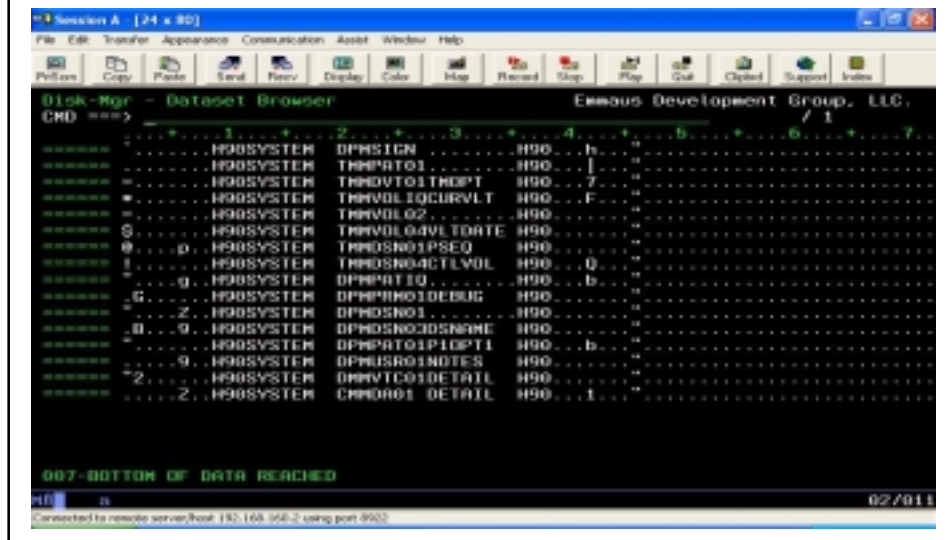
Command	Sort by	Start	End	Length
LIST	Dataset Name	1	5	5
LIST	SDRT NAME	6	9	4
LIST	Dataset Name	10	13	4
JEFF	SDRT SEQ	14	14	1
JEFF	Sequence	15	15	1
COMV	SDRT START	16	16	1
SPARC	Starting Ext.	17	17	1
JEFF	SDRT END	18	18	1
JEFF	Ext.	19	19	1
JEFF	SDRT LENGTH	20	20	1
JEFF		21	21	1
JEFF		22	22	1
JEFF	??	23	23	1
JEFF	MULTIEXT	24	24	1

F1-Help F3-End F4-Exit F7-Up F8-Down

006-TOP OF DATA REACHED

08/016

Browse Display



Console Manager Features

- Realtime display/update capability
- Autorefresh capability
- Security limits users access based on profile
- Full online display capability of VSE/POWER Queues

Console Manager Features

- System Activity Displays
- Storage viewing by partition (update capability for authorized users)
- Displays for system control blocks (COMREG/SYSCOM/PUB/PCB)

Console Manager Online Displays

- VSE Console
- System Activity
- Vse/Power Queue Display
- Storage Display

VSE Console Display

Console Manager - Console Display (4.1) Emax Development Group, LLC.

```

CMD ==>
RR 0015 1 F1 V 788K 4844K 700000 OK PDMSTART
RR 0015 2 F2 V 2048K 54272K 700000 OK CICSICCF
RR 0015 3 F3 V 600K 5544K 700000 OK VTAMSTRT
RR 0015 4 F4 V 2048K 18412K 700000 OK EMSSERVER
RR 0015 5 F5 V 768K 256K 700000 OK
RR 0015 6 F6 V 256K 256K 700000 OK
RR 0015 7 F7 V 1024K 29696K 700000 OK BSTTINET
RR 0015 8 F8 V 2048K 49012K 700000 OK OPTITAPE
RR 0015 9 F9 V 256K 256K 700000 OK
RR 0015 A F8 V 256K 256K 700000 OK
RR 0015 B F8 V 256K 256K 700000 OK SECSERV
RR 0015 S SVR-31 7096K 8264K 3E00000
RR 0015 DYN-PB 0K
RR 0015 DSPACE 9728K
RR 0015 SYSTEM 1024K
RR 0015 RMAIL 48256K
RR 0015 TOTAL 256000K <----
RR 0015 11401 READY
Direction: CURRENT Lines: 00001-00018 Time: 000
1=HLP 3=END 7=BMD 8=FMD 9=EXPL 12=INFO Enter=Current Image
02/011
Connected to remote server/Host: 192.168.160.2 using port 8902
    
```

System Activity Display

Console Manager - System Activity Display (4.2) Emax Development Group, LLC.

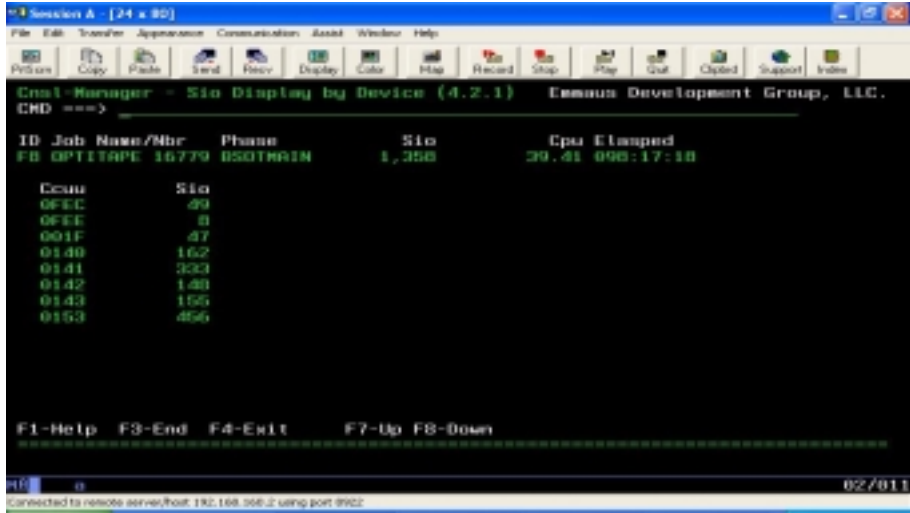
```

CMD ==>
S ID Job Name/Nbr Phase Ssa Cpu Elapsed
- F8 SECSERV *N/A* BSTPSTS 1,46 1.38 090:19:08
- F1 PDMSTART *N/A* ISMPPOWER 9,860 72.63 090:18:58
- F2 CICSICCF 28825 DFHSIP 29,555 1,484.07 090:18:18
- F3 VTAMSTRT 00000 ISTINCVT 1,930 268.01 090:18:42
- F4 EMSSERVER 32040 EMSSERVER 120,912 2,132.64 090:19:26
- F7 BSTTINET 29022 BSTTINET 27,980 3,796.34 090:17:48
- F8 OPTITAPE 16779 BSTMAIN 1,268 39.41 090:17:06
    
```

F1=Help F3=End F4=Exit F7-Up F8=Down

02/011
Connected to remote server/Host: 192.168.160.2 using port 8902

Device SIO Counts



```
Ensl-Manager - SIO Display by Device (4.2.1)  Emsas Development Group, LLC.
CMD ==>

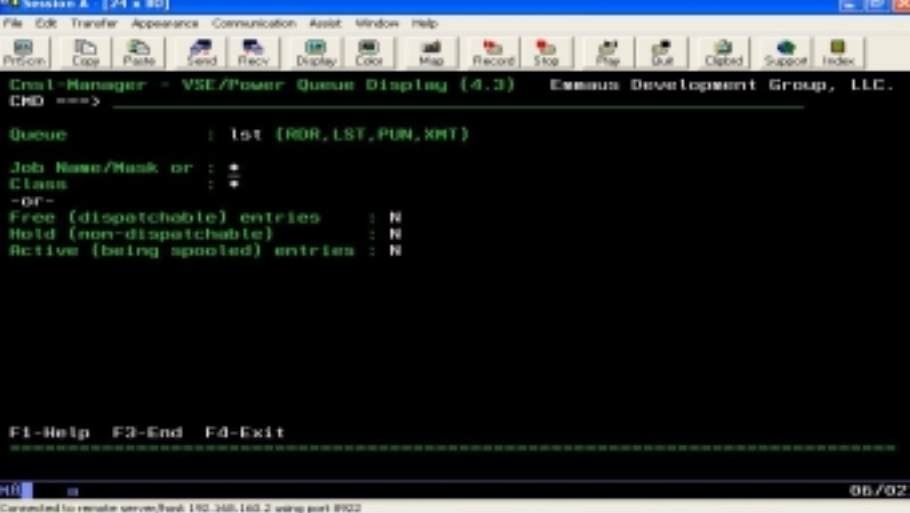
ID Job Name/Blk  Phase      Sio      Cpu Elapsed
FB OPT1TAPE 16779  BSOTRAIN  1,358    39.41 096:17:18

Ccuu      Sio
0FEE      09
0FEE      8
001F      27
0140      162
0141      323
0142      148
0143      155
0153      456

F1-Help  F3-End  F4-Exit  F7-Up  F8-Down

06/011
Connected to remote server/Host: 192.168.368.2 using port 8922
```

Vse/Power Queue Display



```
Ensl-Manager - VSE/Power Queue Display (4.3)  Emsas Development Group, LLC.
CMD ==>

Queue      : 1st (RDR, LST, PUN, XMT)

Job Name/Mask or : *
Class      : *
-OR-
Free (dispatchable) entries : N
Hold (non-dispatchable)    : N
Active (being spooled) entries : N

F1-Help  F3-End  F4-Exit

06/021
Connected to remote server/Host: 192.168.163.2 using port 8922
```

Vse/Power Queue Display

```

Session A - [24 x 80]
File Edit Transfer Appearance Communication Assist Window Help
Print Copy Paste Send Recv Display Color Map Record Stop Play Quit Ctrl Support Index
Cros1-Manager - VSE/Power Display (4.1.2) Emulex Development Group, LLC.
CMD ==>
S LIST
  QUEUE P D C S      PAGES  CC  FORM  USER
- YTRANSRT 00003 3 * R      4      1
- CICSUSER 00006 3 L R      4      1
- CICSUSER 00008 3 L R      4      1
- ALPHA    00009 4 D Z      3      1      JOM
- DITTO    00013 4 D Z      4      1
- DITTO    00014 3 D Z      4      1
- DITTO    00015 4 D Z      4      1
- DITTO    00016 3 D Z      4      1
- DITTO    00017 4 D Z      4      1
- DITTO    00018 3 D Z      4      1
- DITTO    00019 3 D Z      4      1
- DITTO    00020 3 D Z      4      1
- DITTO    00021 3 D Z      4      1
- DITTO    00022 3 D Z      4      1
- DITTO    00023 3 D Z      4      1
- DITTO    00024 3 D Z      4      1

F1-Help F2-End F4-Exit F7-Up FB-Down F10-Left F11-Right F12-Refresh Toggle
Refresh Off
TO-NODE
02/011
Connected to remote server/foot: 192.168.360.2 using port 8922

```

Vse/Power Queue Display

```

Session A - [24 x 80]
File Edit Transfer Appearance Communication Assist Window Help
Print Copy Paste Send Recv Display Color Map Record Stop Play Quit Ctrl Support Index
BROWSENG: DITTO 00013 LST Emulex Development Group, LLC.
CMD ==>
.....1.....2.....3.....4.....5.....6.....7.....
DITTO/ESA for VSE

DATA INTERFILE TRANSFER, TESTING, AND
0000000000 I I I I I I I I I I T T T T T T T T T T 0000000000
0000000000 I I I I I I I I I I T T T T T T T T T T 000000000000
00 00 I I T T T T 00 00
00 00 I I T T T T 00 00
00 00 I I T T T T 00 00
00 00 I I T T T T 00 00
00 00 I I T T T T 00 00
00 00 I I T T T T 00 00
00 00 I I T T T T 00 00
00 00 I I T T T T 00 00
00 00 I I T T T T 00 00
0000000000 I I I I I I I I I I T T 000000000000 *
0000000000 I I I I I I I I I I T T 00000000000 *

5648-099 DITTO/ESA FOR
(C) COPYRIGHT IBM CORPORATION
02/011
Connected to remote server/foot: 192.168.360.2 using port 8922

```

Storage Display

```
Session A - [24 x 80]
File Edit Transfer Appearance Communication Assist Window Help
PC Icon Copy Paste Send Print Display Color Help Refresh Stop Plug Out Copy Support Home

Cast-Manager - Storage Dump Display (4.4) Emuio Development Group, LLC.
CMD ***> Addr: 00070005 Virtual Low/High: 00700000 010FFFFFFF

Virt-Addr Storage Location Displayable Data
00700000 C5D4E2C5 D9E5C5D9 07003000 0071A00C * EMSERVER.....*
00700010 00A050E1 007E100A 007E154C 009C3718 * ..5..-...<...*
00700020 009E5110 007E1110 00000000 00000000 * .....*
00700030 00000030 009C802C 00000000 0090566F * .....*
00700040 00719E00 00700040 00773168 00905018 * .....8...*
00700050 0000093C 02098303 40404040 40404040 * ...bzct...*
00700060 40404040 40404040 40404040 40404040 * .....*
00700070 40404040 40404040 00001041 5810011E * .....*
00700080 58C10004 45100034 00260000 C5D4E5D9 * ..R.....EMER*
00700090 C1D3C440 E2C509E5 C5D940E2 E3E7C9E3 * RD SERVER STKIT*
007000A0 40C1C240 C9D540C3 06D5E3D9 06D35BF0 * RD IN CONTROL.0*
007000B0 001091AB F07447E0 00464700 00000000 * ..340..V.....*
007000C0 47000000 00230700 45100056 00000000 * .....*
007000D0 58101000 50F00010 9100F074 47E0006C * .....0..340..V..*
007000E0 47000000 00034700 0000006B 5810011E * .....0.....*
007000F0 58110000 947F1000 45100006 00000020 * .....m.....f....*

F1-Help F3-End F4-Exit F7-Up F8-Down
02/011
Connected to remote server/host: 192.168.166-2 using port 9902
```