KERNEL TOOLKIT
INSTALLATION GUIDE

Version 7.3
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Information Systems Center
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Introduction

The purpose of this guide is to provide instructions for installing Kernel Toolkit (also referred to as "Toolkit") Version 7.3.

The following minimum software versions are required to install this package:

- Kernel V. 7.1
- VA FileMan V. 20.0
- MailMan V. 7.0
- DSM for OpenVMS V. 6.2
- MSM-PC V.4.0.n

Instructions are provided for three operating systems (OS):

- DSM for OpenVMS
- MSM-PC V.4.0.n
- M/SQL

Toolkit Version 7.3 also supports MSM-UNIX and DataTree MUMPS (Massachusetts General Hospital Utility Multi-Programming System).

The installation steps provided in this guide apply to all the supported operating systems. (Global protection does not apply for DataTree systems.}

NOTE:

- for M11+, operating system version 3.6 or above is required
- for M/VX, version 5B or above is required (the Kernel Toolkit init will not run if previous OS versions are present).

When using this manual, it is recommended that you highlight the commands corresponding to your operating system for easy summary viewing (e.g., highlight the box labeled DSM for OpenVMS, MSM, etc.). Also note that in these instructions, "VAH" refers to the Production account and "MGR" refers to the Library or Manager account. You may use different names at your site and should pencil them in to avoid confusion later on. Also note that for M/SQL systems, a volume set is a directory set. For MSM, a volume set is called a volume group.
New Globals

The following global is new with Toolkit V. 7.3:

\[^XUCS\] The \[^XUCS\] global houses the files for the MSM-PC Performance Monitor (MPM). This new global will not exist in non-MSM sites. Automatic purging can be enabled for this file.

The following globals were new with Toolkit V. 7.2 and must be in place for Toolkit V. 7.3:

\[^XT\] The \[^XT\] is the location for all files related to Multi-Term Look-Up (MTLU). This global should reside in the Production account (VAH).

\[^XUCM\] The \[^XUCM\] contains the files for the VAX/Alpha Performance Monitor (VPM) and can be expected to grow at approximately 80 kb/day/node until you purge. Automatic purging can be enabled for this file. This global should reside in the Production account (VAH) in a cluster-mounted volume set.

NOTE 1: During this installation, a VPM pre-init converts the first subscript of \[^XUCM\] to match the file number.

NOTE 2: With Toolkit V. 7.3 the \[^XUCP\] global is no longer used for storage of Resource Usage data. DSM for OpenVMS sites can remove \[^XUCP\] from their system. Data from the Resource Usage module now stores raw data in \[^XTMP\("XUCP")\}. Global growth is dependent on the amount of activity on your system and could be substantial. If running this module for the first time, we recommend running for brief periods (1-2 hour sessions) until you are more familiar with its behavior.
Installing Toolkit V. 7.3

Preliminary Considerations

1. Kernel V. 7.1 must be in place before installing Toolkit V. 7.3.

2. Your distribution media contains the following files:
   
   KTK7_3.RTN (Kernel Toolkit, version 7.3){XE "KTK7_3.RTN file"}
   
   K71PAT40.RTN (Kernel 7.1 patch #40){XE "K71PAT40.RTN file"}

3. This document assumes you have not yet installed Kernel V. 8. However, for Kernel V. 8 sites the following information is important:
   
   a. Do not apply the Kernel 7.1 patch (#40). These are the routines contained in the file K71PAT40.RTN{XE "K71PAT40.RTN file"}{XE "Kernel 7.1 patch 40"}.
   
   b. Verify that you have cleaned up your Production account of the unused Kernel Manager Routines{XE "Unused Routines"}. In particular, remove ZTMGRSET{XE "ZTMGRSET"}, ZOSV*{XE "%ZOSV"} and ZOSF*{XE "%^ZOSF"}.
   
   c. When instructed to move the Z* routines from VAH to MGR, some routines will no longer exist. This is okay.
   
   d. When instructed to run TOOLKIT^ZTMGRSET{XE "ZTMGRSET"}{XE "TOOLKIT^ZTMGRSET"}, the version for Kernel V. 8 will not ask you for input. This entry point only renames Toolkit routines to their "%" names.
4. For all Kernel V. 7.1/Toolkit V. 7.2 sites, excluding Kernel V. 8 sites: Apply Kernel 7.1 patch #40 {XE "Kernel 7.1 patch 40"} to your Production account of the appropriate CPUs.

```
NXT,KDE>D ^%RR
Routine Restore
Input Device ? > K71PAT40.RTN

Restoring routines from USER$:KERNEL.TK73BLD/K71PAT40.RTN;2
Saved by %RS from [NXT,KDE] on 22-FEB-1995 16:31:34.25
Header: Kernel 7.1 Patch #40
Restore All (A), Selected (S), or Confirm on overwrite (C) ? <A> <RET>

XGF  XGFDEMO  XGFDEMO1  XGKB  XGS  XGSA  XGSBOX  XGSETUP
XGSW  XFDMENU  XPDUTL  ZOSV1DTM  ZOSV1GTM  ZOSV1VXD  ZOSV2MSM  ZOSV2VXD
ZOSVDTM  ZOSVGTM  ZOSVM11P  ZOSVMSM  ZOSVMVX  ZOSVVXD  ZTBKC  ZTBKCDTM
ZTBKCMP  ZTBKCMSM  ZTBKCMVX  ZTBKCVXD  ZTMMGRSET

29 routines saved
```

Copy the following routines to your corresponding Manager account(s):

- ZOSV* {XE "ZOSV"}
- ZTBK* {XE "ZTBK"}
- ZTMMGRSET {XE "ZTMMGRSET"}

These routines and others will be renamed to "%" routines later in the installation. Review and complete all other "preliminary" steps that apply to your platform, then begin the installation.

5. Skills required to perform the installation are listed below. Instructions for performing these functions are provided in Vendor-supplied operating system manuals as well as Decentralized Hospital Computer Program (DHCP) publications.

6. DSM for OpenVMS instruction is provided in the VAX DSM Systems Guide (Cookbook).

7. MSM-PC instruction is provided in the 486 Cookbook and MSM System Managers Guide.

8. You need to know how to:
   - Log onto the system console.
• Shutdown and bring up (boot) the system.
• Load a magtape/diskpack and use the tape drive/disk drive.
• Enable/disable routine mapping and translate/implicit/replicate globals.
• Run a system status and restore a job.
• Copy routines using: diskettes, tapes, SDP space (PDP) or VMS files (VAX).
• Backup the system.
• Global management: enable/disable journaling, global placement, protection.
• Switch User Class Identification (UCI) from Manager (MGR) to Production (VAH).
MSM Sites

Your MUMPS implementation includes a %INDEX utility{ XE "%INDEX" }. This utility is similar to the one by the same name that is distributed with the Kernel Toolkit. It is important to note that:

- When loading Kernel Toolkit onto an MSM system, you overwrite the MSM %INDEX utility with the Kernel Toolkit's %INDEX{ XE "%INDEX" } utility.

- Consequently, whenever you update your copy of MSM you overwrite the Kernel Toolkit's %INDEX utility with the MSM %INDEX{ XE "%INDEX" } utility.

If you prefer using the Kernel Toolkit's version of %INDEX{ XE "%INDEX" }, remember to reload it whenever you update your copy of MSM.

The Kernel Toolkit %INDEX{ XE "%INDEX" } utility is exported in the ZINDEX* routines{ XE "ZINDEX* Routines" } and can be restored as follows:

- **In MGR: Restore %INDEX{ XE "%INDEX" }**.

  After loading a new version of MSM, restore the Kernel Toolkit's like-named utility if its functionality is preferred.

**NOTE:** The Kernel Toolkit's %INDEX{ XE "%INDEX" } utility accommodates VA standards as well as the 1990 ANSI MUMPS Standard.

The XIND* routines have been supplied to perform %INDEX{ XE "%INDEX" } on applications requiring the Type A extension to the 1990 ANSI MUMPS Standard.

These routines can be run directly (D ^XINDEX){ XE "^XINDEX" } and should not be placed in your Manager's account.
Advance Preparation

- **Back up your system as a safeguard before the installation.** Optionally, for future reference, you may also want to save a list of your Kernel routines by running a routine directory (D ^%RD{ XE "%^RD" }) for the Kernel namespaces (X*, Z* subtracting out ZZ*).

- **Load the routines into a test account** and run the NTEG routine{ XE "NTEG Routine" }{ XE "Integrity Checking" } listed below. If you have received a patched routine set, those patched routines are identified as being off by the number of bits that correspond to the patch and the affected routine(s) should have been noted in a cover letter. Exceptions to this should be reported to your ISC.

  >D ^XTNTEG{ XE "XTNTEG" }

- **Global Placement{ XE "Global Placement" }:**

  ^XT

  The ^XT global{ XE "%^XT" } was new with Toolkit V. 7.2 and is the location for all files related to Multi-Term Look-Up (MTLU) { XE "Multi-Term Look-Up (MTLU)" }.

  **In VAH:** If ^XT{ XE "%^XT" } is not already placed, it should be placed in the appropriate volume set. Translate ^XT across all CPUs.

  ^XUCM

  For Alpha sites only, the ^XUCM global{ XE "%^XUCM" } was new with Toolkit V. 7.2 and contains the files for the VAX/Alpha Performance Monitor (VPM) { XE "VAX/Alpha Performance Monitor (VPM)" }. It can be expected to grow at approximately 80 kb/day/node until you purge.

  **In VAH:** If ^XUCM{ XE "%^XUCM" } is not already placed, it should be placed in the appropriate volume set. Translate ^XUCM across all CPUs.

  ^XUCS

  For MSM sites only, Toolkit V. 7.3 brings in a **new** global, ^XUCS{ XE "New Global:%^XUCS" }{ XE "%^XUCS" }. This global houses the files for the MSM-PC Performance Monitor (MPM) { XE "MSM Performance Monitor (MPM)" }.
In VAH: MSM sites should place the ^XUCS{XE "New Global:^XUCS"} global in an appropriate volume set. If your site has more than one volume set, translate ^XUCS across all CPUs.

Automatic purging can be enabled for the ^XUCM{XE "^XUCM"} and ^XUCS{XE "New Global:^XUCS"} files.
• **Global Protection**{ XE "Global Protection" }:

The global ^XUCS{ XE "^XUCS" }{ XE "New Global:^XUCS" } is used only by the MSM performance monitor{ XE "MSM Performance Monitor (MPM)" } and is new with Toolkit V. 7.3.

For MSM, verify that protection on the globals{ XE "Global Protection" } ^XT{ XE "^XT" } and ^XUCS{ XE "^XUCS" }{ XE "New Global:^XUCS" } is:

- System: RWD
- World: RWD
- Group: RWD
- User: RWD

For Alpha systems, the recommended protection for the ^XT{ XE "^XT" } and ^XUCM{ XE "^XUCM" } globals is{ XE "Global Protection" }:

- System: RWP
- World: RW
- Group: RW
- UCI: RWP
VAX/ALPHA Installations

NOTE: 486 sites may skip this topic and continue with the "MSM-PC Installations" topic that follows.

The following steps are required to support the VAX/Alpha Performance Monitor (VPM)

• TaskMan{XE "TaskMan" \r "bk5" } must be set up to run from a DCL context{XE "DCL Context" }. When run from a DCL context TaskMan runs as a privileged VMS user. The manager runs in DSM as a job that originated in a node-specific VMS batch queue and, by default, submits new submanagers to the same queue as needed. When a program calls ^ZTLOAD{XE "^ZTLOAD" } it is possible to request that the job be run on a specific CPU/Node in your cluster. The manager "submits" the job as a new submanager to that node-specific batch queue. This allows the programmer to control which CPU is to run a given job even though TaskMan is not running on that node. These principals are applied by VPM{XE "VAX/Alpha Performance Monitor (VPM)" } to control the collection of performance data and manage the underlying DCL files{XE "DCL files" }.

To run from DCL, TaskMan requires the following:

a. VMS Username: TASKMAN

b. VMS Batch queues for each node in cluster named "TM$<nodename>"

c. A VMS directory to hold a LOGIN.COM, ZTMWDCL.COM, and ZTMSWDCL.COM along with TaskMan-related log files and a system-wide logical name, "DHCP$TASKMAN," defined on all nodes pointing to this directory.

d. Box:Volume pairs and a DSM Environment Manager defined for all nodes in the cluster (TASKMAN SITE PARAMETERS file {XE "TASKMAN SITE PARAMETERS file" }). Defining the DSM Environment, stopping and restarting TaskMan causes him to run from a DCL context{XE "DCL Context" }. Deleting this entry, stopping and restarting TaskMan causes him to run in "normal" mode.

This task can be accomplished at any point prior to configuring and enabling VPM{XE "VAX/Alpha Performance Monitor (VPM)" }.

Alternatively, to assist with setting up the components needed by TaskMan after installing Toolkit V. 7.3, we have included the routine ^XUCMTM{XE "^XUCMTM" }. To execute the routine, you should be logged in with the VMS privileges OPER{XE "OPER:VMS Privileges" } and SYSPRV{XE "SYSPRV:VMS Privileges" }{XE "VMS Privileges:OPER" }{XE "VMS Privileges:SYSPRV" }. Log into your DSM Production account and execute the routine from programmer mode. Again, this step must be completed prior to configuring and enabling VPM{XE "VAX/Alpha Performance Monitor (VPM)" }. 
NOTE: For complete information on configuring TaskMan to run in a DCL context, see the topic entitled "Running TaskMan with a VMS DCL Context" under the "Task Manager" chapter in the Kernel Systems Manual V. 7.1 (pp. 294-298).

Sample Dialogue of Running ^XUCMTM

{XE "^XUCMTM:Example"}

```
>D ^XUCMTM
This routine will assist you in configuring TASKMAN to run from a
DCL CONTEXT{XE "DCL Context" }. This procedure begins on page 294 of the Kernel 7.1 SYSTEMS MANUAL.

First, select an HFS device for writing to Taskman's home directory. Select a HOST FILE SERVER device: HFS DISK FILE
HOST FILE NAME: TMP.TMP// <RET> INPUT/OUTPUT OPERATION: N

Now, let's create Taskman's home directory. Enter the drive/path: USER$:[TASKMAN] (this entry is site specific)
This step creates a new entry in UAF called TASKMAN. You will need to provide the UIC code in the format '[:#,#].'
Taskman will require at LEAST the following privileges: CMKRNL, TMMPMBX, OPER, NETMBX
Would you like to see a brief listing of UAF records? YES// NO
Assign TASKMAN to what UIC: [50,20] (this entry is site specific)
Would you like to copy an existing user over to TASKMAN? Y// NO

%UAF-I-ADDMGS, user record successfully added
%UAF-I-RDBADDMGSU, identifier TASKMAN value: [000050,000020] added to rights data base
%CREATE-I-EXISTS, USER$:[TASKMAN] already exists

...WRITING OUT 'LOGIN.COM'
...WRITING OUT 'ZTMWDCL.COM'
...WRITING OUT 'ZTMSWDCL.COM'
The final step will be to define the TASKMAN batch queues for each node in your cluster. Enter the name of each node in your DHCP cluster. Press RETURN when finished.
Enter NODENAME: 612K01 (enter the nodenames at your site)
Enter NODENAME: 612K02
Enter NODENAME: <RET> (at this point, your queues have been created)
FINAL CHECKS:
1. Verify that you can log in as the user TASKMAN.
2. For each node that has the TM$ batch queue, define the system logical DHCP$TASKMAN=taskman's home directory. Be sure to place the command in your system startup procedure. (see page 295)
3. If you have implemented ACL security for your DSM environments, log into your manager account and D ^ACL. Provide MANAGER access for the new user TASKMAN.
4. Using the option SITE PARAMETER EDIT, define a box-volume pair for each node containing the TM$NODENAME batch queue. Be sure to fill the field VAX/ALPHA DSM ENVIRONMENT FOR DCL.
5. STOP/RESTART TASKMAN TO ACTIVATE THE NEW SETTINGS.
```
Review the New VMS User, TASKMAN

```
612K01: MC AUTHORIZE
UAF> SHO TASKMAN

Username: TASKMAN                         Owner:                          
Account:                                   UIC: [50,20] ([DEV,TASKMAN])
Default: USER$:[TASKMAN]                  Tables: DCLTABLES
Flags: DisCtlY Restricted DisWelcome DisReport Captive
Primary days:    Mon Tue Wed Thu Fri
Secondary days:  Sat Sun
No access restrictions
Expiration:      (none)    Pwdminimum: 6   Login Fails: 0
Pwdlifetime:    180 00:00   Pwdchange: (pre-expired)
Last Login:     (none) (interactive), (none) (non-interactive)
Max jobs:       0        Fillm: 100         Bytlm: 40960
Max acctjobs:   0        Shrfillm: 0        Pbytlm: 0
Maxdetach:      0        BIO1m: 18         JTquota: 1024
Prc1m:          2        DI01m: 18         WSdef: 300
Prio:           4        AST1m: 24         WSquo: 500
Queprio:        0        TQE1m: 10         WSextent: 2048
CPU:            (none)    Enqlm: 300        Pgflquo: 10240
Authorized Privileges:  
CMKRNL TMPMBX OPER NETMBX
Default Privileges:  
CMKRNL TMPMBX OPER NETMBX
UAF> EXIT
```

NOTE: Password protect your new user and log in to test the password protection.
If you do not use ACL protection{XE "ACL:Environment Access Utilities"
} on your MUMPS accounts, TaskMan may need to have SYSPRV{XE
"SYSPRV:VMS Privileges"}{XE "VMS Privileges:SYSPRV"} privilege as well.
Grant the New User TASKMAN Manager Access to DSM

MGR,KDE>D ^ACL

Environment Access Utilities

1. ADD/MODIFY USER                 (ADD^ACL)
2. DELETE USER                     (DELETE^ACL)
3. MODIFY ACTIVE AUTHORIZATIONS    (^ACLSET)
4. PRINT AUTHORIZED USERS         (PRINT^ACL)

Select Option > 1. <RET> ADD/MODIFY USER

OpenVMS User Name:   > TASKMAN

ACCESS MODE    VOL       UCI       ROUTINE
-----------    ---       ---       -------

No access rights for this user.


USER           ACCESS MODE    VOL       UCI       ROUTINE
----           -----------    ---       ---       -------

TASKMAN        MANAGER

OK to file?   <Y>  

Identifier DSM$MANAGER_KDAMGR granted to user TASKMAN.
Modifications have been made to the OpenVMS rights database.
These changes will take effect the next time TASKMAN logs in to
the OpenVMS system.

OpenVMS User Name:   > <RET>

OK to activate changes now?   <Y>  

Creating access authorization file:  DSA0:[KDAMGR]DSM$ACCESS.DAT.
Press RETURN to continue
Installing Toolkit V. 7.3

Verify that your Batch Queues were Created

{ XE "Batch Queues, verify created" }{ XE "Verify Created Batch Queues" }

612K01: SHO QUE/FULL TM$*

Batch queue TM$612K01, idle, on 612K01::
/BASE PRIORITY=4 /JOB LIMIT=50 /OWNER=[DEV,TASKMAN]
/PROTECTION=(S:E,O:D,G:R,W:W)

Batch queue TM$612K02, idle, on 612K02::
/BASE PRIORITY=4 /JOB LIMIT=50 /OWNER=[DEV,TASKMAN]
/PROTECTION=(S:E,O:D,G:R,W:W)

- Set up two new mail groups{ XE "New Mail Groups:G.CMP@ISC-SF.VA.GOV" }{ XE "Mail Groups:G.CMP@ISC-SF.VA.GOV" }. The first should contain only local recipients for VAX/ALPHA Performance Monitor (VPM) messages and alerts{ XE "VAX/Alpha Performance Monitor (VPM)" }. The second should contain the remote recipient, G.CMP@ISC-SF.VA.GOV{ XE "G.CMP@ISC-SF.VA.GOV:Mail Group" }. If your local ISC wishes to collect and file site data, enter an appropriate recipient for your local ISC as well. You are asked to enter these new mail groups in the CM SITE PARAMETERS file{ XE "CM SITE PARAMETERS file" } (#8986.095) at the conclusion of the Toolkit init.

- ISCs wishing to collect performance data from a site may request server routines from ISC-SF to file the data.
Verify an Entry Exists in the DEVICE file (#3.5) for the Following Devices:

NOTE: Some entries are site-specific.

```
NAME: HFS (name optional) $I: TMP.TMP
ASK DEVICE: YES ASK PARAMETERS: NO
VOLUME SET(CPU): ISC LOCATION OF TERMINAL: HOST DISK FILE
ASK HOST FILE: YES ASK HFS I/O OPERATION: YES
MARGIN WIDTH: 132 FORM FEED: #
PAGE LENGTH: 64 BACK SPACE: $C(8)
SUBTYPE: P-OTHER TYPE: HOST FILE SERVER
```

```
NAME: SYS$INPUT (name optional) $I: SYS$INPUT.
ASK DEVICE: NO ASK PARAMETERS: NO
LOCATION OF TERMINAL: DISK FILE MARGIN WIDTH: 80
FORM FEED: # PAGE LENGTH: 64
BACK SPACE: $C(8) SUBTYPE: P-OTHER80
TYPE: TERMINAL
```
MSM-PC Installations

MSM SITES should complete the following preliminary steps to enable performance monitoring:

1. Review the "Advance Preparation" topic in this manual for important information on Global Placement/Protection of the ^XT, ^XUCM, and ^XUCS globals.

2. If the ^RTHIST global was established prior to installing version 4.0 of MSM, it should be deleted and re-established. To do this, on the Compute/Print Servers in the Manager UCI, use ^%GDEL and delete the ^RTHIST global and reset it to ^RTHIST="".

   NOTE: The NOKILL flag may have been set for all globals. This should be removed to avoid an ACCESS DENIED error.

3. Prepare your other CPUs for support of TaskMan jobs. Move the following Kernel V. 7.1 and FileMan V. 20 routines to the Manager UCI of both the File and Shadow Servers:

   - DIDT*
   - ZI*
   - DIRCR
   - XUCIMSM
   - ZISLVR
   - ZUA
   - ZISLDIS
   - ZT*
   - ZISLSIT
   - ZOS*
   - ZISLPC


   >D ^SYSGEN
   MSM - System Generation Utility
   Select SYSGEN Option: 3 - Edit Configuration Parameters
   Select Configuration <FSA>: FSA
   Select SYSGEN Option: 13 - Translation/Replication Table Maintenance
   Available Functions:
   1 - Edit Translation Table
   2 - Enable Translation
   3 - Disable Translation
   4 - Edit Replication Table
   5 - Translation Table List
   6 - Replication Table List
   Select Option: 1 - Edit Translation Table
   Translation table is empty.
   Enter Translation Table Index: 1
   Global name: ^%ZOSF{ XE "%^ZOSF" }
   Collating sequence <NUMERIC>: NUMERIC
   Global encoding [7=7-bit/8=8-bit] <8>: 8
| UCI to translate from: | MGR, FSA |
4. Setup the Global Translation\{ XE "Global Translation" \} on the File Server (continued):

<table>
<thead>
<tr>
<th>UCI to translate to:</th>
<th>MGR,FSA</th>
</tr>
</thead>
<tbody>
<tr>
<td>UCI for maintenance of locks &lt;MGR,FSA&gt;:</td>
<td>MGR,FSA</td>
</tr>
</tbody>
</table>

Replication table index:
- Enable translation <YES>: YES
- Enable lock table translation <YES>: YES
- Enter Translation Table Index: 2
- Global name: %Z*
- Collating sequence <NUMERIC>: NUMERIC
- Global encoding [7=7-bit/8=8-bit] <8>: 8

UCI to translate from: MGR,FSA
UCI to translate to: MGR,PSA
UCI for maintenance of locks <MGR,PSA>: MGR,PSA

Replication table index:
- Enable translation <YES>: YES
- Enable lock table translation <YES>: YES
- Enter Translation Table Index: ^L

Current Translation Table:

<table>
<thead>
<tr>
<th>#</th>
<th>Name(s)</th>
<th>From UCI</th>
<th>To UCI</th>
<th>Master</th>
<th>Ind</th>
<th>Enabled</th>
<th>Coll</th>
<th>Seq</th>
<th>Global</th>
<th>encode</th>
</tr>
</thead>
<tbody>
<tr>
<td>1*</td>
<td>%ZOSF{ XE  &quot;%^ZOSF&quot; }</td>
<td>MGR,FSA</td>
<td>MGR,FSA</td>
<td>MGR,FSA</td>
<td>TRANSLATION</td>
<td>NUM</td>
<td>8-bit</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2*</td>
<td>%Z*</td>
<td>MGR,FSA</td>
<td>MGR,PSA</td>
<td>MGR,PSA</td>
<td>TRANSLATION</td>
<td>LOCK MASTER</td>
<td>NUM</td>
<td>8-bit</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Entries with a '*' have been modified since Translation was enabled.
The Translation Table in memory does not reflect these changes.
Translation is not enabled
Enter Translation Table Index:
Press <RETURN> to continue

Available Functions:
1. Edit Translation Table
2. Enable Translation
3. Disable Translation
4. Edit Replication Table
5. Translation Table List
6. Replication Table List
Select Option: 2 - Enable Translation

Enabling translation...
Press <RETURN> to continue

Available Functions:
1. Edit Translation Table
2. Enable Translation
3. Disable Translation
4. Edit Replication Table
5. Translation Table List
6. Replication Table List
Select Option: <RET>

5. Run ZTMGRSET\{ XE "ZTMGRSET" \} in the Manager's UCI of the File server.
6. In MGR, rename the following FileMan routines:

> ZL DIDT
> ZS %DT
> ZL DIDTC
> ZS %DTC
> ZL DIRCR
> ZS %RCR

7. Edit the File Servers for TASKMAN SITE PARAMETERS (#14.7), VOLUME SET (#14.5), and UCI ASSOCIATION (#14.6) files:

```
{XE "TASKMAN SITE PARAMETERS file" \r "bk6" }
{XE "VOLUME SET file" \r "bk7" }
{XE "UCI ASSOCIATION file" \r "bk8" }
```

NOTE: For additional information on this, please refer to page 246 of the Kernel Systems Manual V. 7.1.
7. Edit the File Servers for TASKMAN SITE PARAMETERS, VOLUME SET, and UCI ASSOCIATION files (continued):

Select UCI ASSOCIATION FROM UCI: VAH

1  VAH  PSA
2  VAH  CSA
3  VAH  CSB
4  VAH  FSA

CHOOSE 1-4:

ARE YOU ADDING 'VAH' AS A NEW UCI ASSOCIATION (THE 9TH)? Y (YES)

UCI ASSOCIATION NUMBER: 9//<RET>
UCI ASSOCIATION FROM VOLUME SET: FSB
UCI ASSOCIATION TO VOLUME SET: <RET>
UCI ASSOCIATION TO UCI: <RET>

FROM UCI: VAH//<RET>
FROM VOLUME SET: FSB//<RET>
TO VOLUME SET: <RET>
TO UCI:

Select UCI ASSOCIATION FROM UCI: MGR

1  MGR  PSA
2  MGR  CSA
3  MGR  CSB
4  MGR  FSA

CHOOSE 1-4:

ARE YOU ADDING 'MGR' AS A NEW UCI ASSOCIATION (THE 10TH)? Y (YES)

UCI ASSOCIATION NUMBER: 10//<RET>
UCI ASSOCIATION FROM VOLUME SET: FSB
UCI ASSOCIATION TO VOLUME SET: <RET>
UCI ASSOCIATION TO UCI: <RET>

FROM UCI: MGR//<RET>
FROM VOLUME SET: FSB//<RET>
TO VOLUME SET: <RET>
TO UCI: <RET>

Select UCI ASSOCIATION FROM UCI:
Begin the Installation

For VAX/ALPHA sites: Copy the contents of the media into a VMS file if you have not already done so. Later on in the installation process, the routines may then be read into production from disk which, for most configurations, is faster than reading from tape or floppy media. Also, create a large symbol table \( \{ \text{XE "Symbol Table Size"} \} \) at sign-on, \( (\$ \text{DSM/SYM}=100000) \) so there is enough space to work.

For MSM sites: Be sure to run the inits on the Print Server (e.g., Production account, not Manager account), where TaskMan \( \{ \text{XE "TaskMan"} \} \) resides, so that tasked post-inits run. Also, when logging on, increase the symbol table size \( \{ \text{XE "Symbol Table Size"} \} \) to 40K so that there is enough space to work:

\[ \text{UC1,VOL:ROU:40} \]

For other sites: Be sure to run the inits with as large a partition as you can.

- Logon using the console.
  
  VAX/ALPHA sites: To maneuver without access restrictions, use a privileged VMS account.

  MSM sites: log onto the print server.
Begin the installation in the Production account (e.g., VAH)

It is assumed that you have the capability to move back and forth from the Manager and Production accounts. After moving to another UCI, it is useful to verify your location as a safeguard (e.g., >W $ZU(0) or use another technique).

- **In VAH: Logons are not inhibited.** Users may remain on the system during installation provided they are not running any options in the following menus:
  
  [XUPROG]{XE "XUPROG" } Programmer Options
  
  [XUSITEMGR]{XE "XUSITEMGR" } Operations Management
  
  - VMS sites should unschedule the options, XUCM TASK VPM and XUCM TASK NIT{XE "XUCM TASK VPM" }{XE "XUCM TASK NIT" } for the duration of the installation.
  
  - If files have been configured for version 7.2 of Multi-Term Look-Up, users of MTLU{XE "Multi-Term Look-Up (MTLU)" } may experience errors while new ^XTLK* routines are being installed. Since installation time is brief and MTLU look-ups are infrequent, any inconvenience to users may be minimal. They should simply repeat their look-up at a later time.
Move over to the Manager (Library) account (e.g., MGR)

- **In MGR:** Disable routine mapping{XE "Mapping Routines" }
  (if applicable) for Library and Production accounts.

<table>
<thead>
<tr>
<th>DSM for OpenVMS</th>
<th>MSM and M/SQL</th>
</tr>
</thead>
<tbody>
<tr>
<td><code>&gt;D ^RMAP</code></td>
<td>Not Applicable</td>
</tr>
</tbody>
</table>
Move back to the Production account (e.g., VAH)

Read the Routines into Production

- **In VAH: Read Routines into Production.** Load routines from the tape or, for VAX/ALPHA sites, from the VMS file created earlier from the tape.

  *(It is assumed that you are familiar with your operating system utilities for loading, saving, and restoring routines.)*

- **In VAH:** Optionally run the NTEG routines{ XE "NTEG Routine" }{ XE "Integrity Checking" } in the Production account if you have not already done so in a test account. Report any "off-by" results to your local ISC. Discrepancies may simply indicate that your tape includes patched routines.

  ```
  M/SQL
  >D ^%RI
  
  ALL OTHER SYSTEMS
  >D ^%RR
  ```

  ```
  >D ^XTNTEG{ XE "XTNTEG" }
  ```
Example of Routine Restore done at the San Francisco ISC. {XE "Routine Restore:Example done at the San Francisco ISC" \r "bk9" }
Installing Toolkit V. 7.3

Example of Routine Restore done at the San Francisco ISC (continued) {XE
"Routine Restore:Example done at the San Francisco ISC" }:

<table>
<thead>
<tr>
<th>XUCS4RB</th>
<th>XUCS5E</th>
<th>XUCS5EA</th>
<th>XUCS6E</th>
<th>XUCS6R</th>
<th>XUCS8E</th>
<th>XUCS8R</th>
<th>XUCS8RB</th>
</tr>
</thead>
<tbody>
<tr>
<td>XUCS8RG</td>
<td>XUCS8RGA</td>
<td>XUCSCDE</td>
<td>XUCSCDG</td>
<td>XUCSCDGA</td>
<td>XUCSCDR</td>
<td>XUCSCDRB</td>
<td>XUCSI001</td>
</tr>
<tr>
<td>XUCSI002</td>
<td>XUCSI003</td>
<td>XUCSI004</td>
<td>XUCSI005</td>
<td>XUCSI006</td>
<td>XUCSI007</td>
<td>XUCSI008</td>
<td>XUCSI009</td>
</tr>
<tr>
<td>XUCSI00A</td>
<td>XUCSI00B</td>
<td>XUCSI00C</td>
<td>XUCSI00D</td>
<td>XUCSI00E</td>
<td>XUCSI00F</td>
<td>XUCSI00G</td>
<td>XUCSI00H</td>
</tr>
<tr>
<td>XUCSI00I</td>
<td>XUCSI00J</td>
<td>XUCSI00K</td>
<td>XUCSI00L</td>
<td>XUCSINI1</td>
<td>XUCSINI2</td>
<td>XUCSINI3</td>
<td>XUCSINI4</td>
</tr>
<tr>
<td>XUCSINI5</td>
<td>XUCSINIS</td>
<td>XUCSINIT</td>
<td>XUCSLOAD</td>
<td>XUCSPRG</td>
<td>XUCSRV</td>
<td>XUCSTM</td>
<td>XUCSTME</td>
</tr>
<tr>
<td>XUCSUTL</td>
<td>XUCSUTL2</td>
<td>XUCSUTL3</td>
<td>XURT</td>
<td>XURT1</td>
<td>XURT2</td>
<td>XURT3</td>
<td>XURT4</td>
</tr>
<tr>
<td>XURTLC</td>
<td>XURTALK</td>
<td>ZINDEX</td>
<td>ZINDEX1</td>
<td>ZINDEX10</td>
<td>ZINDEX11</td>
<td>ZINDEX2</td>
<td>ZINDEX3</td>
</tr>
<tr>
<td>ZINDEX4</td>
<td>ZINDEX5</td>
<td>ZINDEX51</td>
<td>ZINDEX52</td>
<td>ZINDEX53</td>
<td>ZINDEX6</td>
<td>ZINDEX8</td>
<td>ZINDEX9</td>
</tr>
<tr>
<td>ZINDEXH</td>
<td>ZTEDIT</td>
<td>ZTEDIT1</td>
<td>ZTEDIT2</td>
<td>ZTEDIT3</td>
<td>ZTEDIT4</td>
<td>ZTGS</td>
<td>ZTP1</td>
</tr>
<tr>
<td>ZTPP</td>
<td>ZTRDEL</td>
<td>ZTRTHV</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

363 routines restored
Continue working in the Production account
(e.g., VAH)

Move Routines to the Manager Account

- In VAH: Move routines out to a host file.

**M/SQL**

```
> D ^%RO
```

**ALL OTHER SYSTEMS**

```
> D ^%RS  (or use ^RCOPY)
```
Example of Routine Save done at the San Francisco ISC{XE "Routine Save:Example done at the San Francisco ISC"}

```
NXT,KDE>D ^^RS

Routine Save
Output Device ? > TMGR.RTN
Header comment...
routine(s) ? > ZT*
searching directory ...
routine(s) ? > -ZTM*
routine(s) ? > -ZTL*
routine(s) ? > -ZTER*
routine(s) ? > ZOS*
searching directory ...
routine(s) ? > ZIND*
searching directory ...
routine(s) ? > ZTMGRSET{XE "ZTMGRSET" }
routine(s) ? > <RET>

Saving routines on USER$:[BETA]TMGR.RTN;3
ZINDEX  ZINDEX1  ZINDEX10  ZINDEX11  ZINDEX2  ZINDEX3  ZINDEX4  ZINDEX5
ZINDEX51 ZINDEX52 ZINDEX53 ZINDEX6  ZINDEX8  ZINDEX9  ZINDEXH  ZOSFDTM
ZOSFGTM  ZOSFM11P  ZOSFMSM  ZOSFMVX  ZOSFVXD  ZOSV1DTM  ZOSV1GTM  ZOSV1VXD
ZOSV2MSM  ZOSV2VXD  ZOSVDTM  ZOSVGM  ZOSVM11P  ZOSVMMS  ZOSVMVX  ZOSVVXD
ZTBKC  ZTBKCDSM  ZTBKCDTM  ZTBKCM  ZTBKCM11  ZTBKCMVX  ZTBKCVXD  ZTEDIT
ZTEDIT1  ZTEDIT2  ZTEDIT3  ZTEDIT4  ZTG5  ZTMGRSET  ZTP1  ZTPP
ZTRDEL  ZTRTHV

50 routines saved
```
Move over to the Manager (Library) account (e.g., MGR)

- In MGR: Restore routines from the host file to your MGR account.

```
M/SQL
> D ^%RI

ALL OTHER SYSTEMS
> D ^%RR
```
Installing Toolkit V. 7.3

Run the Manager Setup Routine
• **In MGR:** Run the Manager Setup Routine.

Run this routine so that operating system-specific routines can be identified and renamed as "%" routines for proper functioning in the Manager account. After responding to the prompts as illustrated on the following page, ZTMGRSET{ XE "ZTMGRSET" } loads the routines which are common to all systems and saves them as percent routines (e.g., ZINDEX is saved as %INDEX{ XE "%INDEX" }). It then installs the ^%Z editor{ XE "^%Z editor" } and checks that ^%ZIS("C") only holds a call to the ^%ZISC routine. Finally, it sets up two files stored in ^%ZUA{ XE "%^ZUA" }, the FAILED ACCESS ATTEMPT LOG (#3.05) and the PROGRAMMER MODE LOG (#3.07) files{ XE "FAILED ACCESS ATTEMPT LOG file" }{ XE "PROGRAMMER MODE LOG file" }.

Enter the name of the MUMPS implementation you are running. This sets the first piece of ^%ZOSF("OS"),{ XE "%^ZOSF" }

Indicate the name of your Manager account.

Indicate the name of your sign-on Production account.

Enter the name of the current volume or directory set. Notice that ZTMGRSET{ XE "ZTMGRSET" } no longer asks you about the location of the ^XMB global{ XE "^XMB Global" }. Instead, it deletes the obsolete ^%ZOSF("MASTER") and ^%ZOSF("SIGNOFF") nodes{ XE "%^ZOSF" }.

---

```
&D TOOLKIT^ZTMGRSET{ XE "ZTMGRSET" }{ XE "TOOLKIT^ZTMGRSET" }
```

**DSM for OpenVMS**

- **SYSTEM:** VAX DSM(V6)
- **NAME OF MANAGER’S UCI:** MGR,ROU
- **PRODUCTION (SIGN-ON) UCI:** VAH,ROU
- **NAME OF VOLUME SET:** ROU

**MSM**

- **SYSTEM:** MSM
- **NAME OF MANAGER’S UCI:** MGR,PSA
- **PRODUCTION (SIGN-ON) UCI:** VAH,PSA
- **NAME OF VOLUME SET:** PSA

*If you haven’t already done so, then at this point you may load the Toolkit Manager account routines (Z*) from disk to all other CPU/volume groups for performance monitoring. Be sure to run TOOLKIT^ZTMGRSET in the MGR UCI of each CPU.*

**M/SQL**

- **SYSTEM:** M/SQL
- **NAME OF MANAGER’S UCI:** MG,BLUE
- **PRODUCTION (SIGN-ON) UCI:** VA,BLUE
- **NAME OF VOLUME SET:** BLUE
Continue working in the Manager (Library) account (e.g., MGR)

Example of Manager Setup Routine done at the San Francisco ISC

{ XE "Manager Setup Routine:Example done at the San Francisco ISC" \r "bk4" }  

>D TOOLKIT^ZTMGRSET{ XE "ZTMGRSET" }{ XE "TOOLKIT^ZTMGRSET" }

ZTMGRSET Version 7.3
HELLO! I exist to assist you in correctly initializing the MGR account or to update the current account.
I think you are using VAX DSM(V6)
Which MUMPS system should I install?
1 = NOT SUPPORTED
2 = M/SQL-PDP
3 = M/SQL-VAX
4 = DSM V4.1
5 = VAX DSM(V6)
6 = MSM
7 = Datatree
System: 5// <RET>

Removing obsolete ^%ZOSF{ XE "^%ZOSF" } nodes...

I will now rename a group of routines specific to your operating system.
Loading ZOSVVXD   Saved as %ZOSV{ XE "%ZOSV" }
Loading ZTBKC     Saved as %ZTBKC
Loading ZTBKCVXD  Saved as %ZTBKC1
Loading ZOSV1VXD  Saved as %ZOSV1
Loading ZOSV2VXD  Saved as %ZOSV2
NAME OF MANAGER’S UCI,VOLUME SET: MGR,KDE// <RET>
PRODUCTION (SIGN-ON) UCI,VOLUME SET: KRN,KDE// <RET>
NAME OF VOLUME SET: KDE// <RET>
Example of Manager Setup Routine done at the San Francisco ISC (continued) {XE
"Manager Setup Routine:Example done at the San Francisco ISC"}:

Now to load routines common to all systems.
Loaded ZINDEX       Saved as %INDEX{ XE "%INDEX" }
Loaded ZINDX1       Saved as %INDX1
Loaded ZINDX10      Saved as %INDX10
Loaded ZINDX11      Saved as %INDX11
Loaded ZINDX2       Saved as %INDX2
Loaded ZINDX3       Saved as %INDX3
Loaded ZINDX4       Saved as %INDX4
Loaded ZINDX5       Saved as %INDX5
Loaded ZINDX51      Saved as %INDX51
Loaded ZINDX52      Saved as %INDX52
Loaded ZINDX53      Saved as %INDX53
Loaded ZINDX6       Saved as %INDX6
Loaded ZINDX8       Saved as %INDX8
Loaded ZINDX9       Saved as %INDX9
Loading ZTPP        Saved as %ZTPP
Loading ZTP1        Saved as %ZTP1
Loading ZTRDEL      Saved as %ZTRDEL
Installing ^^%Z editor{ XE "^^%Z editor" }
ALL DONE
**Review Global Protection for ^%ZRTL**

\{ XE "Global Protection" \}

- **In MGR:** Confirm that the ^%ZRTL global\{ XE "^%ZRTL" \} is defined in the Manager account and set with appropriate protections. (The ^%ZRTL global holds response time monitors.)

^%ZRTL is common to all processors.

---

### DSM for OpenVMS

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><code>&gt; D ^%GLOMAN</code></td>
<td>(Manage globals in which UCI?: MGR)</td>
</tr>
</tbody>
</table>

| ^%ZRTL | System) RWP World) RW Group) RW UCI) RWP |

### MSM

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><code>&gt; D ^%GCH</code></td>
<td>(Set protection)</td>
</tr>
</tbody>
</table>

| ^%ZRTL | System) RWD World) RWD Group) RWD USER) RWD |

### M/SQL

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><code>&gt; D ^%PROTECT</code></td>
<td>(Manage globals in which UCI?: MGR)</td>
</tr>
</tbody>
</table>

| ^%ZRTL | Network) RWD World) RW Group) RW Owner) RWD |
Establish Global Translation

- **In MGR:** Review translation for ^XT and ^XUCM on DSM systems, ^XT and ^XUCS on MSM systems{ XE "^XUCM" }{ XE "^XUCS" }{ XE "New Global:^XUCS" }{ XE "^XT" }.

### DSM for OpenVMS

```
>D ^TRANTAB  (for DSM V4.0 or later)
(Be sure that ^XT and ^XUCM are translated to a cluster mounted volume set.)
```

### MSM

```
>D ^TRANSLAT
(Be sure that ^XT and ^XUCS are translated across VAH UCIs.)
```

### M/SQL

Not Applicable
Move back to the Production account 
(e.g., VAH)

Do the First Part of the Installation

- **In VAH**: Run the Toolkit inits.

  **For DSM for OpenVMS**: Create a large symbol table at sign-on, 
  ($ DSM/UCI=VAH/SYM=100000){XE "Symbol Table Size"}

  **For MSM**: Increase the symbol table size to 40K by responding to the UCI prompt as follows 
  {XE "Symbol Table Size"}: UCI,VOL:ROU:40. Otherwise, type D ^%PARTSIZ {XE "^%PARTSIZ"} to set the partition size 
  {XE "Partition Size"}.

  **For M/SQL**: Be sure you have at least a 16K partition. W $S to see the current size.

  XTINITs take approximately 7-15 minutes.

  If you have multiple CPUs, turn to the topic "On the Other Toolkit V. 7.2 CPUs (MSM and M/SQL)".

  **NOTE**: The text of the init dialogue may not be an exact match of what you see when running the installation. It is provided as a best approximation of a typical install. Explanatory notes are provided along with the dialogue that should give some indication why your experience may differ from the example presented here.
Installing Toolkit V. 7.3

From the Production account
(e.g., VAH)

Example of an Init done at the San Francisco ISC

NOTE: This is an example of an installation from the San Francisco development account. The messages at your site may look slightly different.

{ XE "Init:Example done at the San Francisco ISC" \r "bk3" }

VAH,MTL>D 'XTINIT

This version (#7.3) of 'XTINIT' was created on 03-APR-1995
(at NXT, by VA FileMan V.20.0)

I HAVE TO RUN AN ENVIRONMENT CHECK ROUTINE.
I'm checking to see if it is OK to install Toolkit v7.3
in this account.

Everything looks OK, Lets continue.

I AM GOING TO SET UP THE FOLLOWING FILES:

3.091 RESPONSE TIME
Note: You already have the 'RESPONSE TIME' File.
Shall I write over the existing Data Definition? YES// <RET>

3.092 RT DATE UCI,VOL
Note: You already have the 'RT DATE_UCI,VOL' File.
Shall I write over the existing Data Definition? YES// <RET>

3.094 RT RAWDATA
Note: You already have the 'RT RAWDATA' File.
Shall I write over the existing Data Definition? YES// <RET>

15 DUPLICATE RECORD
Note: You already have the 'DUPLICATE RECORD' File.

15.1 DUPLICATE RESOLUTION
Note: You already have the 'DUPLICATE RESOLUTION' File.

8980 KERMIT HOLDING
Note: You already have the 'KERMIT HOLDING' File.
Shall I write over the existing Data Definition? YES// <RET>

8984.1 LOCAL KEYWORD
Note: You already have the 'LOCAL KEYWORD' File.
Shall I write over the existing Data Definition? YES// <RET>
Example of an Init done at the San Francisco ISC (continued):

```
8984.2  LOCAL SHORTCUT
Note: You already have the 'LOCAL SHORTCUT' File.
Shall I write over the existing Data Definition? YES// <RET>

8984.3  LOCAL SYNONYM
Note: You already have the 'LOCAL SYNONYM' File.
Shall I write over the existing Data Definition? YES// <RET>

8984.4  LOCAL LOOKUP
Note: You already have the 'LOCAL LOOKUP' File.
Shall I write over the existing Data Definition? YES// <RET>

8991    XTV ROUTINE CHANGES
Note: You already have the 'XTV ROUTINE CHANGES' File.
Shall I write over the existing Data Definition? YES// <RET>

8991.19 XTV VERIFICATION PACKAGE
Note: You already have the 'XTV VERIFICATION PACKAGE' File.
Shall I write over the existing Data Definition? YES// <RET>

8991.2  XTV GLOBAL CHANGES
Note: You already have the 'XTV GLOBAL CHANGES' File.
Shall I write over the existing Data Definition? YES// <RET>

SHALL I WRITE OVER FILE SECURITY CODES? NO// Y <RET> (YES)
NOTE: This package also contains BULLETINS
      SHALL I WRITE OVER EXISTING BULLETINS OF THE SAME NAME? YES// <RET> (YES)
      NOTE: This package also contains SORT TEMPLATES
      SHALL I WRITE OVER EXISTING SORT TEMPLATES OF THE SAME NAME? YES// <RET> (YES)
      NOTE: This package also contains INPUT TEMPLATES
      SHALL I WRITE OVER EXISTING INPUT TEMPLATES OF THE SAME NAME? YES// <RET> (YES)
      NOTE: This package also contains PRINT TEMPLATES
      SHALL I WRITE OVER EXISTING PRINT TEMPLATES OF THE SAME NAME? YES// <RET> (YES)
      NOTE: This package also contains FUNCTIONS
      SHALL I WRITE OVER EXISTING FUNCTIONS OF THE SAME NAME? YES// <RET> (YES)
      NOTE: This package also contains HELP FRAMES
      SHALL I WRITE OVER EXISTING HELP FRAMES OF THE SAME NAME? YES// <RET> (YES)
      NOTE: This package also contains SECURITY KEYS
      SHALL I WRITE OVER EXISTING SECURITY KEYS OF THE SAME NAME? YES// <RET> (YES)
      NOTE: This package also contains OPTIONS
      SHALL I WRITE OVER EXISTING OPTIONS OF THE SAME NAME? YES// <RET> (YES)

ARE YOU SURE EVERYTHING'S OK? NO// Y <RET> (YES)
```
Example of an Init done at the San Francisco ISC (continued):

...HMMMM, LET ME THINK ABOUT THAT A MOMENT.................................

..............................................................................

..............................................................................

XDR ADD VERIFIED' Help Frame filed.
XDR AUTO MERGE' Help Frame filed.
XDR CHECK PAIR' Help Frame filed.
XDR DUP ALGORITHM' Help Frame filed.
XDR DUP RESOLUTION FILE CONT' Help Frame filed.
XDR DUPLICATE RECORD LISTINGS' Help Frame filed.
XDR DUPLICATE RESOLUTION FILE' Help Frame filed.
XDR EDIT DUP RESOLUTION FILE' Help Frame filed.
XDR IDENTIFY' Help Frame filed.
XDR IDENTIFY CONTINUE' Help Frame filed.
XDR IDENTIFY METHODS' Help Frame filed.
XDR MERGE PROCESS' Help Frame filed.
XDR MERGE SELECTED PAIR' Help Frame filed.
XDR MERGE VERIFIED DUPLICATES' Help Frame filed.
XDR PRINTLIST' Help Frame filed.
XDR PURGE' Help Frame filed.
XDR VERIFY ALL' Help Frame filed.
XDR VERIFY SELECTED PAIR' Help Frame filed.
XURTL RESPONSE TIME LOG' Help Frame filed....
XDR ERROR' BULLETIN FILED -- Remember to add mail groups for new bulletins.
XDR MERGED' BULLETIN FILED -- Remember to add mail groups for new bulletins.
XDR VERIFIED' BULLETIN FILED -- Remember to add mail groups for new bulletins.

..............................................................................

..............................................................................

XDR ADD VERIFIED DUPS' Option Filed
XDR AUTO MERGE' Option Filed
XDR CHECK PAIR' Option Filed
XDR DISPLAY SEARCH STATUS' Option Filed
XDR EDIT DUP RECORD STATUS' Option Filed
XDR EDIT DUP RESOLUTION FILE' Option Filed
XDR FIND POTENTIAL DUPLICATES' Option Filed
XDR MAIN MENU' Option Filed
XDR MANAGER UTILITIES' Option Filed
XDR MERGE READY DUPLICATES' Option Filed
XDR MERGE SELECTED PAIR' Option Filed
XDR OPERATIONS MENU' Option Filed
XDR PRINT LIST' Option Filed
XDR PURGE' Option Filed
XDR SEARCH ALL' Option Filed
XDR TALLY STATUS FIELDS' Option Filed
Example of an Init done at the San Francisco ISC (continued):

'XDR UTILITIES MENU' Option Filed
'XDR VERIFY ALL' Option Filed
'XDR VERIFY SELECTED PAIR' Option Filed
'XDR VIEW DUPLICATE RECORD' Option Filed
'XT-KERMIT EDIT' Option Filed
'XT-KERMIT MENU' Option Filed
'XT-KERMIT RECEIVE' Option Filed
'XT-KERMIT SEND' Option Filed
'XT-NUMBER BASE CHANGER' Option Filed
'XT-OPTION TEST' Option Filed
'XT-Routine COMPARE' Option Filed
'XT-VARIABLE CHANGER' Option Filed
'XT-VERSION NUMBER' Option Filed
'XTCM DISK2MAIL' Option Filed
'XTCM MAIN' Option Filed
'XTCM USER2' Option Filed
'XTKUTILITIES' Option Filed
'XTMENU' Option Filed
'XTMOVE' Option Filed
'XTMOVE-INV' Option Filed
'XTTOOLS' Option Filed
'XTQUEUABLE OPTIONS' Option Filed
'XTREDALE' Option Filed
'XTRGRPBE' Option Filed
'XTSUMBDL' Option Filed
'XTSUMBDL-CHECK' Option Filed
'XTV EDIT VERIFY PACKAGE' Option Filed
'XTV MENU' Option Filed
'XTVG COMPARE' Option Filed
'XTVG UPDATE' Option Filed
'XTVR COMPARE' Option Filed
'XTVR MENU' Option Filed
'XTVR MOST RECENT CHANGE DATE' Option Filed
'XTVR RESTORE PREVIOUS ROUTINE' Option Filed
'XTVR UPDATE' Option Filed
'XU FIRST LINE PRINT' Option Filed
'XUINDEX' Option Filed
'XUINDEX2' Option Filed
'XUPR RTN EDIT' Option Filed
'XUPR-Routine-TOOLS' Option Filed
'XUPR-RTN-TAPE-CMP' Option Filed
Example of an Init done at the San Francisco ISC (continued):

```
'XUPRGL' Option Filed
'XUPRROU' Option Filed
'XUROUTINE IN' Option Filed
'XUROUTINE OUT' Option Filed
'XUROUTINES' Option Filed
'XURT' Option Filed
'XURTLC' Option Filed
'XURTLCK' Option Filed
'XURTLK' Option Filed
'XURTLI' Option Filed
'XURTLMA' Option Filed
'XURTL' Option Filed
'XURTLP' Option Filed
'XURTLPG' Option Filed
'XURTLPL' Option Filed

NOTE THAT FILE SECURITY-CODE PROTECTION HAS BEEN MADE
```
Installing/Configuring the VAX/Alpha Performance Monitor (VPM)

NOTE: At this point, VAX/Alpha Sites only see the following (MSM sites may skip this portion of the dialogue): 
{ XE "VAX/Alpha Performance Monitor (VPM)" \r "bk2" }

This version (#7.3) of 'XUCINIT' was created on 03-APR-1995 (at NXT, by VA FileMan V.20.0)
I AM GOING TO SET UP THE FOLLOWING FILES:

8986.095 CM SITE PARAMETERS
Note: You already have the 'CM SITE PARAMETERS' File.

8986.098 CM BERNSTEIN DATA
Note: You already have the 'CM BERNSTEIN DATA' File.

8986.3 CM SITE NODENAMES
Note: You already have the 'CM SITE NODENAMES' File.

8986.35 CM SITE DISKDRIVES
Note: You already have the 'CM SITE DISKDRIVES' File.

8986.4 CM METRICS (including data)
Note: You already have the 'CM METRICS' File.
I will OVERWRITE your data with mine.

8986.5 CM DISK DRIVE RAW DATA
Note: You already have the 'CM DISK DRIVE RAW DATA' File.

8986.51 CM NODENAME RAW DATA
Note: You already have the 'CM NODENAME RAW DATA' File.

8986.6 CM DAILY STATISTICS
Note: You already have the 'CM DAILY STATISTICS' File.

SHALL I WRITE OVER FILE SECURITY CODES? NO//Y <RET> (YES)
NOTE: This package also contains BULLETINS
SHALL I WRITE OVER EXISTING BULLETINS OF THE SAME NAME? YES// <RET> (YES)
NOTE: This package also contains SORT TEMPLATES
SHALL I WRITE OVER EXISTING SORT TEMPLATES OF THE SAME NAME? YES// <RET> (YES)
NOTE: This package also contains INPUT TEMPLATES
SHALL I WRITE OVER EXISTING INPUT TEMPLATES OF THE SAME NAME? YES// <RET> (YES)
NOTE: This package also contains PRINT TEMPLATES
SHALL I WRITE OVER EXISTING PRINT TEMPLATES OF THE SAME NAME? YES// <RET> (YES)
Installing/Configuring the VPM (continued):

NOTE: This package also contains OPTIONS
SHALL I WRITE OVER EXISTING OPTIONS OF THE SAME NAME? YES// <RET> (YES)

ARE YOU SURE EVERYTHING'S OK? NO// Y <RET> (YES)
Starting pre-init...
The "XUCM global will now be synchronized with VPM file numbers

8986.095...DONE
8986.098...DONE
8986.3...DONE
8986.35...DONE
8986.4...DONE
8986.5...DONE
8986.51...DONE
8986.6...DONE

...HMMM, LET ME THINK ABOUT THAT A
MOMENT..................................

..............
'XUCMBRTL' BULLETIN FILED -- Remember to add mail groups for new
bulletins.....

..............
'XUCM COMPUTE LOCAL REFERENCES' Option Filed
'XUCM DISK' Option Filed
'XUCM DISK RAW' Option Filed
'XUCM DSK IO' Option Filed
'XUCM DSK QUE' Option Filed
'XUCM EDIT DISK THRESHOLD' Option Filed
'XUCM EDIT REF THRESH' Option Filed
'XUCM EDIT VOL SET THRESH' Option Filed
'XUCM GRAF DSK IO' Option Filed
'XUCM GRAF DSK QUE' Option Filed
'XUCM GRAF MET AVE' Option Filed
'XUCM LIST DAILY STATS' Option Filed
'XUCM LIST RAW' Option Filed
'XUCM LIST VOL SET INFO' Option Filed
'XUCM LOCKS' Option Filed
'XUCM MAIN' Option Filed
'XUCM MODES' Option Filed
'XUCM ON/OFF' Option Filed
'XUCM PA' Option Filed
'XUCM PAGE' Option Filed
'XUCM PERFORMANCE MONITOR' Option Filed
'XUCM PURGE' Option Filed
'XUCM RAW RTHIST DATA' Option Filed
'XUCM REPORTS' Option Filed
Installing/Configuring the VPM (continued):

[XUCM SERVER' Option Filed
'XUCM SET ALERTS' Option Filed
'XUCM SETUP' Option Filed
'XUCM TASK MAIN' Option Filed
'XUCM TASK NIT' Option Filed
'XUCM TASK VPM' Option Filed
'XUCMBR MENU' Option Filed
'XUCMBR2' Option Filed
'XUCMBR2A' Option Filed
'XUCMBR2B' Option Filed
'XUCMBR2C' Option Filed
'XUCPFORMATTED' Option Filed
'XUCPKILL' Option Filed
'XUCPMENU' Option Filed
'XUCPRAWPRINT' Option Filed
'XUCPSORT' Option Filed
'XUCPTOGGLE' Option Filed.................................

NOTE THAT FILE SECURITY-CODE PROTECTION HAS BEEN MADE

The CM METRICS file (#8986.4) is shipped with data. The metric names should not be modified.

The post-init allows you to configure the performance monitor for alpha systems.

Do not attempt to configure VPM at this point if you have not yet set up TaskMan to run in DCL mode. The option, Setup Performance Monitor allows you to configure VPM later.

<<BEGINNING VPM POST-INIT>>
This post-init will allow you to review and update your VPM site file entries. Taskman will also install new VMS com files in your VPM host directory.

TASKMAN MUST BE RUNNING FROM A DCL CONTEXT TO COMPLETE THIS STEP. YOU CAN '^' OUT NOW IF THIS IS NOT THE CASE.

Note that VPM also requires a HFS device, SYS$INPUT, and XUCM RESOURCE. IF YOU EXIT NOW, RUN THE OPTION, 'SETUP PERFORMANCE MONITOR' LATER.

The routine ^XUCMTM was written to assist with setting up Taskman to run from DCL. Make sure you have SYSPRV and OPER before attempting to run this routine.

This routine allows you to define the site file parameters needed to run VPM, then instructs taskman to create the host system directories for data files and system-specific command procedures.
Installing/Configuring the VPM (continued):

Select CM SITE PARAMETERS:
ANSWER WITH CM SITE PARAMETERS:
ISC SAN FRANCISCO

YOU MAY ENTER A NEW CM SITE PARAMETERS, IF YOU WISH

ANSWER WITH INSTITUTION NAME
Select CM SITE PARAMETERS: ISC SAN FRANCISCO CALIFORNIA 16000
...OK? YES// <RET>  (YES)
SITE: ISC SAN FRANCISCO// <RET>
CMP HOST FILE PATH: USER$:[CMP]// <RET>
MONITOR ENABLED/DISABLED: ENABLED// <RET>
HFS DEVICE: HFS// <RET>
DAYS TO KEEP RAW DATA: 90// <RET>
DAYS FOR COMPUTING REFERENCES: ??

This field is used to control your local reference mean and standard deviation. For example, if 90 is entered, then each evening your reference range will be re-computed based on the previous 90 days. This 90-day moving average is maintained by hardware-type in the CM METRICS file{ XE "CM METRICS file" }. In this scenario, current data will always be compared with the last 90 days, regardless of how well the system performed during that period. If this field is blank, no updating will occur. If you enter '999', ALL data will be used. Suggested usage: If your system appears to be functioning normally, enter 999 to include all data until the standard deviation appears to be stable and you are within 2 standard deviations of the VA reference mean. After a reasonable period of monitoring, set this field to null to 'fix' your reference ranges on a period that you consider 'normal' for that hardware. Your local standard deviation should be considerably smaller than those published by the VA and should be particularly useful for monitoring the affect of tuning or capacity changes.

DAYS FOR COMPUTING REFERENCES: 999
MAILGROUP FOR REPORTS/ALERTS: VPM// <RET>
MAILGROUP FOR REMOTE XMITS: VPM// <RET>
DAYS TO KEEP DAILY AVERAGES: 999// <RET>
DAYS TO KEEP BRTL DATA: 365// <RET>
THRESHOLD (%) DSM BLOCKS FREE: 5// ??

This field will be referenced each evening to determine if there is sufficient space remaining in your volume sets. If the PERCENTAGE of DSM blocks free drops below this threshold for a VOLUME SET an alert will be fired.

THRESHOLD (%) DSM BLOCKS FREE: 5// <RET>
CONFIGURATION: LAVC// <RET>
CRT's IN SERVICE: 3// <RET>
PRINTERS IN SERVICE: 15// <RET>
NETWORKED WORKSTATIONS: 38// <RET>
STANDALONE WORKSTATIONS: 20// <RET>
HSC NAME(S): <RET>
Installing/Configuring the VPM (continued):

<table>
<thead>
<tr>
<th>NETWORK TOPOLOGY:</th>
<th>&lt;RET&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Edit? NO/ &lt;RET&gt;</td>
<td></td>
</tr>
<tr>
<td>Select CM SITE NODENAMES: ISC</td>
<td></td>
</tr>
<tr>
<td>1 ISC6V0</td>
<td></td>
</tr>
<tr>
<td>2 ISC6V2</td>
<td></td>
</tr>
<tr>
<td>3 ISC6V4</td>
<td></td>
</tr>
<tr>
<td>CHOOSE 1-3: 1</td>
<td></td>
</tr>
<tr>
<td>NODENAME: ISC6V0/ &lt;RET&gt;</td>
<td></td>
</tr>
</tbody>
</table>

**NOTE:** If you have already defined all nodes in version 7.2, be sure to update the new fields under this multiple for each node. The following information is required:

**NODE-SPECIFIC BATCH QUEUE: ISC6V0$BATCH// ??**

Enter a node-specific batch queue for each node in this configuration. You must be running the 'SETUP...' option when defining this entry. If batch queues are defined for all nodes, com files will be built that submit jobs to these queues rather than using SYSMAN. An example of such a queue would be DSM$BATCH_<nodename>. For example:

```
ISC6V0: sho que/full dsm$batch isc6v0
Batch queue DSM$BATCH ISC6V0, Idle, on ISC6V0::
  /BASE_PRIORITY=4 /JOB_LIMIT=1 /OWNER=[SYSTEM]
  /PROTECTION=(S:E,O:D,G:F,W:W)
```

or

```
ISC6V0: sho que/full sys$batch
Batch queue ISC6V0$BATCH, available, on ISC6V0::
  /BASE_PRIORITY=4 /JOB_LIMIT=15 /OWNER=[SYSTEM]
  /PROTECTION=(S:E,O:D,G:F,W:RW)
```

If Taskman is configured to run from a dcl context, you may enter the queue TM$nodename.

**NODE-SPECIFIC BATCH QUEUE: ISC6V0$BATCH// <RET>**

**USERNAME: TASKMAN// ??**

Enter the name of a VMS user, such as TASKMAN, which has been previously added to UAF with sufficient privileges.

**USERNAME: TASKMAN// <RET>**
Installing/Configuring the VPM (continued):

DSM ENVIRONMENT MANAGER: ISCMGR// ??

The DSM ENVIRONMENT name will be that which is entered when
logging into DSM. The name itself follows 'DSM/ENVIRONMENT=', ie,

$ dsm/environment=ABCMGR

If running taskman from a DCL context{ XE "DCL Context" }, this
was defined in the
TASKMAN SITE PARAMETERS as well. This field will be used by taskman when
starting new RTHIST sessions.

DSM ENVIRONMENT MANAGER: ISCMGR// <RET>
Select CM SITE NODENAMES: <RET>

Requested Start Time: NOW// <RET>

One moment while I check/clean up MTLU variable pointers.
Done...

TO PROTECT THE SECURITY OF DHCP SYSTEMS, DISTRIBUTION OF THIS
SOFTWARE FOR USE ON ANY OTHER COMPUTER SYSTEM IS PROHIBITED.
ALL REQUESTS FOR COPIES OF THE KERNEL FOR NON-DHCP USE SHOULD
BE REFERRED TO YOUR LOCAL ISC.

VAH,MTL>

If the VPM global conversion fails for any reason, it can be re-started by executing
the routine, ^XUCINIT{ XE "^XUCINIT" }.

Using the TaskMan{ XE "TaskMan" } option, Schedule/Unschedule Options
[ZTMSCHEDULE]{ XE "ZTMSCHEDULE" }, queue XUCM TASK VPM{ XE
"XUCM TASK VPM" } to run hourly{ XE "Schedule/Unschedule options" }{ XE
"VAX/Alpha Performance Monitor (VPM)" }. This option is the data collection driver
for the VMS monitor and checks for and loads new data into the CM DISK DRIVE
RAW DATA (#8986.5) and CM NODENAME RAW DATA (#8986.51) files.{ XE "CM
DISK DRIVE RAW DATA file" }{ XE "CM NODENAME RAW DATA file" }. Each
data collection runs for 15 minutes. Queue the option XUCM TASK NIT{ XE
"XUCM TASK NIT" } to run in the early AM, (e.g., 0001 hours). This option
compiles workday averages, mail server messages, and collects "static" information
such as node and hardware types. Finally, this option files selected RTHIST{ XE
"RTHIST" } data and restarts RTHIST data collections for the next 24 hours.
Installing/Configuring the MSM Performance Monitor (MPM)

NOTE: MSM Sites see the following dialogue as the MSM Performance Monitor is installed: 
{ XE "MSM Performance Monitor (MPM):Sample Install" \r "bk10" }
'XUCSTASK FILE UPDATE AUTO' Option Filed
'XUCSTASK PM RTHIST' Option Filed
'XUCSTASK PURGE CM DATA' Option Filed...
OK, I'M DONE.
NO SECURITY-CODE PROTECTION HAS BEEN MADE

One moment while I check/clean up MTLU variable pointers{XE "Multi-Term Look-Up (MTLU)"}. Done...

TO PROTECT THE SECURITY OF DHCP SYSTEMS, DISTRIBUTION OF THIS SOFTWARE FOR USE ON ANY OTHER COMPUTER SYSTEM IS PROHIBITED. ALL REQUESTS FOR COPIES OF THE KERNEL FOR NON-DHCP USE SHOULD BE REFERRED TO YOUR LOCAL ISC.

NXT,KDE>
Configuration of the MSM Performance Monitor

The following steps are needed to complete configuration of the MSM performance monitor:

1. Distribute the following routines to the remaining COMPUTE and PRINT SERVERS:
   
   XUCS*
   -XUCSI*
   ZOSV2MSM
   Rename ZOSV2MSM to %ZOSV2

2. Move ZOSV2MSM to the MGR UCI of the **File** Server(s) and rename it to %ZOSV2.

3. Edit the MSM Site Parameters using the MSM Site Parameters Enter/Edit Menu option:

   a. **Edit MSM CM Site Parameters**

   ```
   Select MSM Capacity Management Manager's Menu Option: ?
   CM Reports Menu ...
   Manually Purge CM Data
   MSM Site Parameters Enter/Edit Menu ...
   
   Select MSM Capacity Management Manager's Menu Option: MSM Site Parameters Enter/Edit Menu
   
   Select MSM Site Parameters Enter/Edit Menu Option: ?
   1 Edit MSM CM Site Parameters
   2 Enter/Edit Volume Group (Node)
   3 Print/Display System Configuration Parameters
   
   Select MSM Site Parameters Enter/Edit Menu Option: 1 Edit MSM CM Site Parameters
   
   Select MSM RTHIST SITE SITE NAME: ???
   
   This is the name of your site. For example: SAN FRANCISCO VAMC
   Select MSM RTHIST SITE SITE NAME: CLARKSBURG VAMC
   ARE YOU ADDING 'CLARKSBURG VAMC' AS A NEW MSM RTHIST SITE (THE 1ST)? Y
   <RET> (YES)
   SITE NAME: CLARKSBURG VAMC// <RET>
   SITE NUMBER: 540 ???
   This is your station number. For example, 662
   SITE NUMBER: 540 <RET>
   ```
MSM Site Parameters Enter/Edit Menu (continued):

DFLT ROU NAME LENGTH: ???
This is a required field that is used by the Routine Report so that routines can be grouped by name. For example, if you enter a "3", then routine commands and routine global accesses will be grouped together by the first 3 characters of their name.

DFLT ROU NAME LENGTH: 4

DFLT GBL NAME LENGTH: ???
This is a required field that is used by the Global Report so that global accesses can be grouped. For example, if you enter a "3", then the global names will be grouped together by the first 3 characters of their name.

DFLT GBL NAME LENGTH: 4

<thresh ROU CMDS/SEC: ???
Some DHCP routines are executed very briefly. Therefore, the number of commands they execute are relativity very small for a RTHIST session. A "bucket" called '<thresh' in the Routine command report is where all command counts for these types of routine(s) will be collected. For example, if routine ABC executes 976 commands for a RTHIST session and you specify 1000 as the thresh hold value, then ABC's command count will be placed in the '<thresh' bucket.

<thresh ROU CMDS/SEC: 100

<thresh GBL GREFS/SEC: ???
Some DHCP routines reference global(s) very little. Therefore, the number of global references are relativity very small for a RTHIST session. A "bucket" called '<thresh' in the Global Access report is where all these type of global(s) will get placed. For example, if global ABC is referenced 109 times for a RTHIST session and you specify 300 as the threshold, the ABC's reference count will be placed in the '<thresh' bucket.

<thresh GBL GREFS/SEC: 100

Type a Number between 0 and 999999, 0 Decimal Digits

<thresh GBL GREFS/SEC: 100

DAYS TO KEEP DATA: ???
This field represents the number of days data will be kept in File #8987.2. If NULL, then 45 days is the used for the default.

DAYS TO KEEP DATA: <RET>

Select LOCAL CMP RECIPIENTS: DOE, JOHN

Select LOCAL CMP RECIPIENTS: <RET>

Select REMOTE CMP RECIPIENTS: (NOTE: Optional. You may be requested to send data to your ISC. If so, enter a mail group containing at least your ISC as a remote recipient.)

Select MSM RTHIST SITE SITE NAME: <RET>
b. **Enter/Edit Volume Group (Node)**
{
XE "Enter/Edit Volume Group (Node)"
}

Select MSM Site Parameters Enter/Edit Menu Option: 2 Enter/Edit Volume Group (Node)

Select MSM RTHIST SITE SITE NAME: `1 CLARKSBURG VAMC
Select VOL GROUP (NODE): PSA
ARE YOU ADDING 'PSA' AS A NEW VOL GROUP (NODE) (THE 1ST FOR THIS MSM RTHIST SITE)? Y <RET> (YES)
SERVER TYPE: Print
NAME OF MANAGER UCI: MGR
NAME OF PRODUCTION UCI: VAH
AUTO ADJUST RTHIST TABLE SIZE: ???
Leave this field blank to AUTOMATICALLY ADJUST THE RTHIST TABLE SIZE. When the RTHIST job is started, it requires the number of table entries to be specified. If the entry for table size is too small, then a ~TABLE,FULL~ condition will occur. If you define this field (i.e. Not Null), then I will use this value for the MAXIMUM RTHIST table size. On the other hand, if you leave this field Null, then I will use the MAX AM TABLE SIZE field (#6) to adjust the AM RTHIST table size for the morning RTHIST session, or the MAX PM TABLE SIZE field (#7) to adjust the PM RTHIST table size for the afternoon RTHIST session.

AUTO ADJUST RTHIST TABLE SIZE: <RET>
Select MSM RTHIST SITE SITE NAME: `1 CLARKSBURG VAMC <RET>
Select VOL GROUP (NODE): PSA// CSA
ARE YOU ADDING 'CSA' AS A NEW VOL GROUP (NODE) (THE 2ND FOR THIS MSM RTHIST SITE)? Y <RET> (YES)
SERVER TYPE: Compute
NAME OF MANAGER UCI: MGR
NAME OF PRODUCTION UCI: VAH
AUTO ADJUST RTHIST TABLE SIZE: <RET>

NOTE: Repeat this procedure for all other CPUs except the shadow servers.

4. Using the TaskMan{ XE "TaskMan" } option, Schedule/Unschedule Options [ZTMSCHEDULE]{ XE "Schedule/Unschedule options" }{ XE "MSM Performance Monitor (MPM)" } schedule the following options:

**XUCSTASK AM RTHIST**

**XUCSTASK PM RTHIST**

**XUCSTASK FILE UPDATE AUTO**

**XUCSTASK PURGE CM DATA**
AM MSM RTHIST Task Option

NAME: XUCSTASK AM RTHIST
TYPE: run routine
PACKAGE: MSM CAPACITY MANAGEMENT
DESCRIPTION: This option is scheduled thru TaskMan's [ZTMSCHEDULE] for the morning RTHIST data capture. It should be setup for a 1D rescheduling frequency. NO output device is necessary.
ROUTINE: XUCSTM
QUEUED TO RUN AT WHAT TIME: MAY 3, 1994@08:30
RESCHEDULING FREQUENCY: 1D
SCHEDULING RECOMMENDED: YES
UPPERCASE MENU TEXT: AM MSM RTHIST TASK OPTION

PM MSM RTHIST Task Option

NAME: XUCSTASK PM RTHIST
TYPE: run routine
PACKAGE: MSM CAPACITY MANAGEMENT
DESCRIPTION: This option is scheduled thru TaskMan's [ZTMSCHEDULE] for the afternoon RTHIST data capture. It should be setup as 1D rescheduling frequency. No output device is necessary.
ROUTINE: XUCSTM
QUEUED TO RUN AT WHAT TIME: MAY 2, 1994@14:30
RESCHEDULING FREQUENCY: 1D
SCHEDULING RECOMMENDED: YES
UPPERCASE MENU TEXT: PM MSM RTHIST TASK OPTION
Tasked CM File Update{ XE "TaskMan" }{ XE "Tasked CM File Update Option" }

NAME: XUCSTASK FILE UPDATE AUTO{ XE "XUCSTASK FILE UPDATE AUTO" }
MENU TEXT: Tasked CM File Update
TYPE: run routine                     CREATOR: POSTMASTER
PACKAGE: MSM CAPACITY MANAGEMENT
DESCRIPTION: This option is scheduled thru TaskMan's [ZTMSCHEDULE].
It gathers the data from each Vol. Group defined in the MSM Site Parameters file. It first transfers the PREVIOUS day's "RTHIST data to the %ZRTL("XUCS", nodes{ XE "%^%ZRTL" }). It then formats the data into FileMan compatible data, moving the data into the MSM RTHIST Data file. Finally, it creates a server message to transmit a summary of the PREVIOUS day's data to the National Data Base. It should be setup with a 1 DAY rescheduling frequency. No output device is necessary, but you might want to consider using a RESOURCE device, so that option XUCSTASK PURGE CM DATA falls after this option.
ROUTINE: XUCSTME
QUEUED TO RUN AT WHAT TIME: MAY 3, 1994@01:00
DEVICE FOR QUEUED JOB OUTPUT: ZZRES;;132;66
RESCHEDULING FREQUENCY: 1D            SCHEDULING RECOMMENDED: YES
UPPERCASE MENU TEXT: TASKED CM FILE UPDATE

Auto Purge of CM Data:{ XE "TaskMan" }{ XE "Auto Purge of CM Data Option" }

NAME: XUCSTASK PURGE CM DATA{ XE "XUCSTASK PURGE CM DATA" }
MENU TEXT: Auto Purge of CM Data
TYPE: run routine                     CREATOR: POSTMASTER
PACKAGE: MSM CAPACITY MANAGEMENT
DESCRIPTION:
This is the schedulable TaskMan option to purge data from the MSM RTHIST Data file. A selectable range of days to keep old data is in the SITE file. If this is not filled in 45 days is the default. It is recommended to schedule this option so that it is run AFTER the option XUCSTASK FILE UPDATE AUTO. No output device is necessary, but might want to consider using a RESOURCE device for ease of scheduling.
ROUTINE: DEQUE^XUCSPRG
QUEUED TO RUN AT WHAT TIME: MAY 3, 1994@03:00
DEVICE FOR QUEUED JOB OUTPUT: ZZRES;;132;66
RESCHEDULING FREQUENCY: 1D            SCHEDULING RECOMMENDED: YES
UPPERCASE MENU TEXT: AUTO PURGE OF CM DATA

NOTE: Any RTHIST that is running when either the AM or PM RTHIST is started will be stopped, as if it were stopped using the RTHIST - TERMINATE (SAVE){ XE "RTHIST" }.

Any RTHIST that is scheduled during the time period (1 hour) that is a scheduled AM or PM RTHIST will be unscheduled.
• **In MGR: Map routines in the Manager account** { XE "Mapping Routines" }.

The recommended set is listed below:

```
%ZOSV{ XE "%ZOSV" }
%ZOSV1
%ZOSV2
```

The following advisory is recommended:

• At a future time, you should review RTHIST data { XE "RTHIST" } to identify the set of routines that are used most frequently at your site. The set provided here is only a "best guess" of which routines might be worth mapping { XE "Mapping Routines" }.

• To avoid potential problems, do not map %ZOSV { XE "%ZOSV" } if you are running a version of VAX DSM less than V6.
Installing Toolkit V. 7.3

## Shutdown DSM and Restart to Activate Mapped Sets

- **Shutdown and restart DSM**

  Restart the configuration to activate the new set of mapped routines\{ XE "Mapping Routines" \}.

<table>
<thead>
<tr>
<th><strong>DSM for OpenVMS</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Shut down and restart the configuration:</strong></td>
</tr>
<tr>
<td>$ DSM/MAN ^SHUTDWN</td>
</tr>
<tr>
<td>and then</td>
</tr>
<tr>
<td>$ DSM/MAN ^STU</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>MSM and M/SQL</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>(Routine mapping is not applicable)</td>
</tr>
</tbody>
</table>
On the Other Toolkit V. 7.2 CPUs (MSM and M/SQL)

Steps that can be taken while inits run on the first CPU

- **Review the steps taken on the first CPU** and repeat those that apply.

- **In VAH**: Load all Toolkit V. 7.3 routines on this CPU, as you did on the first CPU. Save the ZU routine corresponding to the current operating system. Move the relevant (Z*) routines to the Manager’s account as on the first CPU. **Recall that** MANAGER (%) **routines for Kernel and FileMan were moved to all MSM CPUs in preparation for the MSM Performance Monitor**.

- **In MGR**: Run TOOLKIT^ZTMGRSET{ XE "ZTMGRSET" } as on the first CPU.

- **In VAH**: If the CPU runs a different MUMPS operating system, use the **Reinitialize option** on the VA FileMan Management Menu to identify the CPU’s operating system, and thus, set the second piece of ^%ZOSF("OS"){ XE "^%ZOSF" } correctly. (NOTE: This menu is locked with the XUMGR key{ XE "XUMGR key" }. This step is necessary since, if ^DD is translated, ^DD("OS", a pointer to the MUMPS OPERATING SYSTEM file (#.7){ XE "MUMPS OPERATING SYSTEM file" }, indicates the operating system of the CPU where the DINIT was run.

After the inits have finished (VAX/Alpha)

- **Map routines**: For DSM for OpenVMS systems, rebuild the mapped routine set. Map routines in the Manager and Production accounts as on the first CPU. Remember to activate the new mapped routine sets.
Delete Inits

- **In VAH:** Optionally, delete the Toolkit init routines XUCIN*, XUCSI*, XTIN* using the ^%ZTRDEL utility `{XE "^%ZTRDEL"}` to delete groups of routines.
Clear Obsolete Routines

The following routines have been identified as obsolete{ XE "Obsolete Routines" } (no longer exported by the Toolkit). Please review against your own records and confirm that they are obsolete at your site before deleting them:

- ZOSFM11
- ZOSVM11
- ZTBKCM11
- ZTCPU{ XE "ZTMGRSET" }
- ZTRTHM
- ZTRTHT
Clear Unused Routines from the Production Account

After running the Toolkit installation, the following routines may be deleted from the Production account where they were initially loaded (or any other Production account where they may have been loaded in the past) {XE "Unused Routines" }:

ZO* ZTMGRSET{XE ZTSYINIT
ZTBK*{XE "ZTMGRSET" }
"ZTBK" } ZTP1
ZTEDIT* ZTPP
ZTGBL ZTRDEL

These routines may be deleted since, during the initialization process, they were saved to the Manager account where they become operative.
Install the VAX/ALPHA VMS EDT or TPU Text Editor (Optional)

Sites running DSM for OpenVMS may choose to install the VMS EDT and/or TPU text editors. This is accomplished by making an entry in the ALTERNATE EDITOR file (#1.2) as shown here.

```
> D Q^DI  This entry point may be used to maintain device handler variables.
VA FileMan 20
Select OPTION: ENTER OR EDIT FILE ENTRIES

INPUT TO WHAT FILE: 1.2 ALTERNATE EDITOR (2 entries)
EDIT WHICH FIELD: ALL// <RET>

Select ALTERNATE EDITOR: VMSEDT
ARE YOU ADDING 'VMSEDT' AS A NEW ALTERNATE EDITOR (THE 3RD)? Y (YES)
ACTIVATION CODE FROM DIWE: G ^XTEDTVXD (for the EDT editor)
ACTIVATION CODE FROM DIWE: G TPU^XTEDTVXD (for the TPU editor)
OK TO RUN TEST: I ^%ZOSF("OS")["VAX"{ XE "^%ZOSF" }]
RETURN TO CALLING EDITOR: <RET>
DESCRIPTION:
1> Call to VAX/ALPHA VMS EDT editor to process VA FileMan word-processing fields.<RET>
2> Creates a temporary VMS file in the default directory with a name of 'DIWE$_$JOB_.TMP'. This version will remove the two copies of the file that EDT leaves behind. <RET>
3> <RET>
EDIT Option: <RET>
```

Select ALTERNATE EDITOR: <RET>
Install the Kermit Protocol (Optional)

Kermit may be added to the ALTERNATE EDITOR file (#1.2) as shown. This allows the transfer of files from a PC, or other system, into a mail message or other VA FileMan word-processing field. Be sure that the file to be sent is in text-only format. Be sure that if a DEC server is involved, its break character is not a printable character, like ~, since Kermit uses all the printable characters when processing.

The benefit of using the Kermit file transfer protocol is that large files can be sent faster and more easily due to the efficient Kermit error checking mechanism.

```
>D Q^DI This entry point may be used to maintain device handler variables.

VA FileMan 20

Select OPTION: ENTER OR EDIT FILE ENTRIES

INPUT TO WHAT FILE: 1.2 <RET> ALTERNATE EDITOR (3 entries)
EDIT WHICH FIELD: ALL// <RET>

Select ALTERNATE EDITOR: KERMIT LOAD
ARE YOU ADDING 'KERMIT LOAD' AS A NEW ALTERNATE EDITOR (THE 4TH)? Y (YES)
ACTIVATION CODE FROM DIWE: S XTKDIC=DIC D RECEIVE^XTKERMIT
OK TO RUN TEST: <RET>
RETURN TO CALLING EDITOR: K XTKDIC
DESCRIPTION:
  1> This option uses the KERMIT protocol to load the word-processing field
     <RET>
  2> from another system. <RET>
```
Bulletins Exported with Toolkit V. 7.3 (Not Associated with Mail Groups)

The following three Bulletins are a part of the Duplicate Resolution Utilities exported with Toolkit V. 7.3. They do not come with a mail group. You may associate them with any mail group you like. They are listed as follows:

**XDR ERROR**

This bulletin is sent to a mail group of your choice when something in the merge process errors out, is missing, or simply did not complete. The following is a list of all reasons that can trigger the sending of XDR ERROR bulletins:

- The Candidate Collection Routine is undefined.
- The Candidate Collection Routine is not present.
- The Potential Duplicate Threshold is undefined.
- There are no Duplicate Tests entered for this Duplicate Resolution entry.
- The Global root node in DIC is undefined.
- No entry in DUPLICATE RESOLUTION (#15.1) file for this file.
- The From and To Record are undefined.
- The test routine is not present.
- The routine defined as the Pre-Merge routine is not present.
- The routine defined as the Post-Merge routine is not present.
- The routine defined as the Verified Msg routine is not present.
- The routine defined as the Merged Msg routine is not present.
- You cannot have a "Non-Interactive" merge style with entries in the DINUM files multiple.
- The file for checking duplicates is not defined (XDRFL).
- The entry for checking duplicates is not defined (XDRCD).
• The routine defined as the Merge Direction Input Transform routine is not present.

• The new cross-reference has not been entered for this Duplicate Resolution entry.

XDR MERGED

This bulletin is a notification that all verified duplicate record pairs have been merged{ XE "XDR MERGED bulletins" }.

XDR VERIFIED

This bulletin is a notification that a pair of records have been verified as duplicates and are ready to be merged{ XE "XDR VERIFIED bulletins" }.
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