IBM

Program Directory for

NTuneMON

Version 2 Release 5

Program Number 5648-141

FMID HRA2502

for Use with
MVS/ESA
OS/390

Document Date: September 1998

GI10-0992-00

Note!

Before using this information and the product it supports, be sure to read the general information under "Notices" on page vii.

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APAR numbers are provided in this document to assist in locating PTFs that may be required. Ongoing problem reporting may result in additional APARs being created. Therefore, the APAR lists in this document may not be complete. To obtain current service recommendations and to identify current product service requirements, always contact the IBM Customer Support Center.

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1.0 Introduction

This program directory is intended for the system programmer responsible for program installation and maintenance. It contains information concerning the material and procedures associated with the installation of NTuneMON V2R5 MVS. You should read all of this program directory before installing the program, and then keep it for future reference.

This program directory contains the following sections:

- Section 2.0, "Program Materials" on page 3 identifies the basic and optional program materials and documentation for NTuneMON V2R5 MVS.

- Section 3.0, "Program Support" on page 7 describes the IBM support available for NTuneMON V2R5 MVS.

- Section 4.0, "Program and Service Level Information" on page 9 describes the program and service level information incorporated into NTuneMON V2R5 MVS.

- Section 5.0, "Installation Requirements and Considerations" on page 11 identifies the resources and considerations for installing and using NTuneMON V2R5 MVS.

- Section 6.0, "Installation Instructions" on page 21 provides detailed installation instructions for NTuneMON V2R5 MVS.

- Appendix A, "Installation Logic" on page 41 provides the installation logic for NTuneMON V2R5 MVS.

- Appendix B, "APARs Incorporated into This Program" on page 43 lists the APARs incorporated into NTuneMON V2R5 MVS.

NTuneNCP is an optional feature offered with NTuneMON V2R5 MVS. The NTuneNCP Tuning Feature can be used in conjunction with NTuneMON V2R5 MVS to provide enhanced online interactive tuning capabilities.

Before installing NTuneMON V2R5 MVS, read Section 3.2, "Preventive Service Planning" on page 7. This section tells you how to find any updates to the information and procedures in this program directory.

Before installing NTuneMON V2R5 MVS, read Section 5.4, "Special Considerations" on page 18 for information on using the ATUNELST CLIST.

Previous to NTuneMON V2R5, the NTuneNCP feature was packaged on separate media. The NTuneNCP feature of NTuneMON is now fully integrated into NTuneMON. There is no separate media to order and there is no separate installation process.

The NTuneNCP feature still remains a priced feature of NTuneMON. This feature must be licensed for every NCP image (1 for each 37xx) which will be tuned.

IBM recommends that you use an OS/390 ServerPac to install this level of NTuneMON. If you use a ServerPac, you get the service integrated in the product. ServerPac is available at no additional charge when you have an OS/390 license.

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Do not use this program directory if you are installing NTuneMON V2R5 MVS with an MVS Custom-Built Installation Process Offering (CBIPO), SystemPac, or ServerPac. When using these offerings, use the jobs and documentation supplied with the offering. This documentation may point you to specific sections of the program directory as required.

If you are installing NTuneMON V2R5 MVS using the MVS Custom-Built Product Delivery Offering (CBPDO) (5751-CS3), use the softcopy program directory provided on the CBPDO tape. Your CBPDO contains a softcopy preventive service planning (PSP) upgrade for this product. All service and HOLDDATA for NTuneMON V2R5 MVS are included on the CBPDO tape.

To facilitate the installation of NTuneMON V2R5 MVS, all JCL statements that appear in this program directory are also in machine-readable format on the product tape. The JCL is contained in Relative File 3, DLIB=AATUSAMP, MEMBER=ATUINJCL. The JCL to unload the installation JCL is in Figure 26 on page 22.

In the JCL examples shown in this program directory, all occurrences of lowercase variables must be changed to the appropriate uppercase values in order for the JCL to execute properly.

At the end of this program directory you will find a Reader's Comment Form. Please take the time to complete this form and return it to the address shown on the form. Your comments and suggestions help improve this program directory and make installation easier.

1.1 NTuneMON V2R5 MVS FMID

NTuneMON V2R5 MVS consists on FMID HRA2502.

2.0 Program Materials

An IBM program is identified by a program number and a feature number. The program number for NTuneMON V2R5 MVS is 5648-141. The feature numbers associated with this release are provided in the following sections.

Basic Machine-Readable Materials are materials that are supplied under the base license and feature code, and are required for the use of the product. Optional Machine-Readable Materials are orderable under separate feature codes, and are not required for the product to function.

The program announcement material describes the features supported by NTuneMON V2R5 MVS. Ask your IBM representative for this information if you have not already received a copy.

The following sections identify:

- Basic and optional program materials available with this program
- Basic and optional program publications
- Publications useful during installation

2.1 Basic Machine-Readable Material

This section describes the basic machine-readable material for NTuneMON V2R5 MVS.

The distribution medium is a 9-track magnetic tape (written at 6250 bpi), a 3480 cartridge, or a 4 mm cartridge. The tape or cartridge contains all the programs and data needed for installation. This program is installed using SMP/E and is in SMP/E RELFILE format. See section 6.0, "Installation Instructions" on page 21 for more information about how to install the program.

Figure 1 describes the tape or cartridge.

Note: If you are installing NTuneMON V2R5 MVS using the MVS Custom-Built Product Delivery Offering (CBPDO) (5751-CS3), some of the information in these figures may not be valid. Consult the CBPDO documentation for actual values.

Figure 1. NTuneMON Base Material: Program Tape

Medium	Feature Number	Physical Volume	External Label Identification	VOLSER
6250 tape	5801	1	MVSOBJ HRA2502	RA2502
3480 cart.	5802	1	MVSOBJ HRA2502	RA2502
4 mm cart.	6200	1	MVSOBJ HRA2502	RA2502

Figure 2 describes the file content of the program tape or cartridge.

Figure 2. Base Program Tape: File Content

VOLSER	File	Name	Dist. Library	RECFM	LRECL	Block Size
RA2502	1	SMPMCS				6400
RA2502	2	IBM.HRA2502.F1	AMACLIB (JCLIN)	FB	80	8800
RA2502	3	IBM.HRA2502.F2	AATFMOD1 ANCPMOD1	U	0	6144
RA2502	4	IBM.HRA2502.F3	AATUPNL1 AATFSAMP AATUSAMP AATULST1	FB	80	8800

2.2 Optional Machine-Readable Material

No optional machine-readable materials are provided for NTuneMON V2R5. NTuneNCP has been incorporated into the base code of NTuneMON V2R5 MVS. Please see 1.0, "Introduction" on page 1 for more information.

2.3 Program Publications

The following sections identify the basic, optional, and associated publications for NTuneMON V2R5.

2.3.1 Basic Program Publications

Figure 3 identifies the basic program publications for NTuneMON V2R5 MVS. One copy of each of these publications is included when you order the basic materials for NTuneMON V2R5 MVS. For additional copies, contact your IBM representative.

Figure 3. Basic Material: Licensed Publications

Publication Title	Form Number
NTuneMON Licensed Program Specifications	GC31-6267
NTuneMON User's Guide	SC31-6266

2.3.2 Optional Licensed Program Publications

Figure 4 identifies the NTuneNCP Tuning Feature licensed publication for this program. The first copy is available at no charge to licensees of the basic materials by ordering Feature Number 7001. Order additional copies using Feature Number 8008. A fee is charged for additional copies.

Figure 4. Optional Material: Licensed Publications

Title	Form Number	Feature Number First Copy	Feature Number Additional Copy
NTuneNCP Feature Reference	LY43-0039#	7001	8008

Note: A pound symbol (#) beside the Form Number indicates it contains "Restricted Material of IBM".

2.3.3 Optional Softcopy Program Publications

All NTuneMON V2R5 MVS manuals, licensed and unlicensed, except for *NTuneMON Licensed Program Specifications*, are offered in displayable softcopy form on the media listed in Figure 5.

Figure 5. Softcopy Publications

Title	Form Number	Feature Number First Copy	Feature Number Additional Copy
ACF/NCP, ACF/SSP, EP, NPSI, NTuneMON Softcopy Collection Kit (CD-ROM)	LK2T-0414#	7110	8110

Note: Order this collection kit under the NCP product. A pound symbol (#) beside the Form Number indicates it contains "Restricted Material of IBM".

2.4 Program Source Materials

No program source materials or viewable program listings are provided for NTuneMON V2R5 MVS.

2.5 Publications Useful During Installation

The publications listed in Figure 6 may be useful during installation of this program. To order copies, contact your IBM representative. A fee is charged for each publication.

Figure 6 (Page 1 of 2). Publications Useful During Installation

Publication Title	Form Number
MVS Software Manufacturing Offerings General Information	GC23-0351
MVS/ESA JCL Reference	GC28-1829
MVS/ESA JCL User's Guide	GC28-1830
MVS/ESA System Codes	GC28-1815
MVS/ESA System Messages, Volume 1	GC28-1812
MVS/ESA System Messages, Volume 2	GC28-1813
OS/390 MVS JCL Reference	GC28-1757
OS/390 MVS JCL User's Guide	GC28-1758

Figure 6 (Page 2 of 2). Publications Useful During Installation

Publication Title	Form Number
OS/390 MVS System Codes	GC28-1780
OS/390 MVS System Messages, Vol 1 (ABA-ASA)	GC28-1784
OS/390 MVS System Messages, Vol 2 (ASB-EWX)	GC28-1785
OS/390 MVS System Messages, Vol 3 (GDE-IEB)	GC28-1786
OS/390 MVS System Messages, Vol 4 (IEC-IFD)	GC28-1787
OS/390 MVS System Messages, Vol 5 (IGD-IZP)	GC28-1788
OS/390 SMP/E Commands	SC28-1805
OS/390 SMP/E Messages and Codes	SC28-1738
OS/390 SMP/E Reference	SC28-1806
OS/390 SMP/E User's guide	SC28-1740
SMP/E: Messages and Codes	SC28-1108
SMP/E: Reference	SC28-1107
SMP/E: User's Guide	SC28-1302

3.0 Program Support

This section describes the IBM support available for NTuneMON V2R5.

3.1 Program Services

Contact your IBM representative for specific information about available program services.

3.2 Preventive Service Planning

Before installing NTuneMON V2R5 MVS, you should review the current Preventive Service Planning (PSP) information. If you obtained NTuneMON V2R5 MVS as part of a CBPDO, there is HOLDDATA and PSP information included on the CBPDO tape.

If you obtained NTuneMON V2R5 MVS on a product tape, or if the CBPDO is more than two weeks old when you install it, you should contact the IBM Support Center or use S/390 SoftwareXcel to obtain the current "PSP Bucket".

PSP Buckets are identified by UPGRADEs, which specify product levels, and SUBSETs, which specify the FMIDs for a product level. The UPGRADE and SUBSET values for NTuneMON V2R5 MVS are:

Figure 7. PSP Upgrade and Subset ID

UPGRADE	SUBSET	Description
NTM250	HRA2502	NTuneMON V2R5

3.3 Statement of Support Procedures

For help with problem determination and problem source identification, refer to *NTuneMON User's Guide*. Report any difficulties you have using this program to your IBM Support Center.

Figure 8 identifies the component ID (COMPID) and RETAIN Release for NTuneMON V2R5 MVS.

Figure 8. Component IDs

FMID	COMPID	Component Name	REL
HRA2502	564814100	NTuneMON V2R5	502

4.0 Program and Service Level Information

This section identifies the program and service level of NTuneMON V2R5 MVS. The program level refers to the APAR fixes incorporated into the program. The service level refers to the PTFs integrated into the product. Information about the cumulative service tape is also provided.

4.1 Program Level Information

See Appendix B, "APARs Incorporated into This Program" on page 43 for a list of APAR fixes against previous releases of NTuneMON incorporated into this release.

4.2 Service Level Information

No PTFs against this release of NTuneMON have been incorporated into the product tape.

4.3 Cumulative Service Tape

A cumulative service tape, containing PTFs not incorporated into this release, may be included with this program. Installation instructions for cumulative service tapes can be found in the SMP/E publications.

If you received this product as part of a CBPDO or a ProductPac, PTFs not incorporated into this release are provided on the tape, and a separate cumulative service tape will not be provided.

5.0 Installation Requirements and Considerations

The following sections identify the system requirements for installing NTuneMON V2R5 MVS. The following terminology is used:

- *Driving system*: the system used to install the program.

- *Target system*: the system on which the program is installed.

In many cases, the same system can be used as both a driving system and a target system. However, you may want to set up a clone of your system to use as a target system by making a separate IPL-able copy of the running system. The clone should include copies of all system libraries that SMP/E updates, copies of the SMP/E CSI data sets that describe the system libraries, and your PARMLIB and PROCLIB.

Some cases where two systems should be used include the following:

- When installing a new level of a product that is already installed, the new product will delete the old one. By installing onto a separate target system, you can test the new product while still keeping the old one in production.

- When installing a product that shares libraries or load modules with other products, the installation can disrupt the other products. Installing onto a test system or clone will allow you to assess these impacts without disrupting your production system.

5.1 Driving System Requirements

This section describes the environment of the driving system required to install NTuneMON V2R5 MVS.

5.1.1 Operating System Requirements

NTuneMON V2R5 MVS operates in any of the system environments shown in Figure 9.

Figure 9. Operating System Software Requirements

5655-068 and 5655-069	MVS/ESA V5R1 and Later
5645-001	OS/390 Releases 1, 2, and 3
5647-A01	OS/390 Releases 4 and later

The SSPLIB data set for this program must be installed into an APF-authorized library.

5.1.2 Machine Requirements

The driving system can run in any hardware environment that supports the required software.

5.1.3 Programming Requirements

Figure 10. Driving System Software Requirements

Program Number	Product Name and Minimum VRM/Service Level
5668-949	System Modification Program/Extended (SMP/E) Release 8.1

A platform-dependent BookManager product is required to display softcopy publications on CD-ROM. Limited function DOS, Windows, and OS/2 versions of these products are available on your CD-ROM. For more information or to order full-function releases of these products, or MVS versions, refer to the IBM BookManager home page at **http://booksrv2.raleigh.ibm.com**.

5.2 Target System Requirements

This section describes the environment of the target system required to install and use NTuneMON V2R5.

5.2.1 Machine Requirements

This program operates with at least one IBM 3725, 3720, 3745, or 3745 with 3746 Model 900 Communication Controller.

5.2.2 Programming Requisites

5.2.2.1 Minimum Requisites: A minimum requisite is defined as one of the following:

1. *Installation Requisite:* A product that is required at installation time. i.e. this product **will not install** successfully unless this requisite is met. This includes products that are specified as REQs, PREs, or CALLLIBs.

2. *Run Time Requisite:* A product that is **not** required for the successful installation of this product, but **is** needed at run time in order for this product to work.

This program is supported with the following licensed MVS programs at the function level of the version and release for as long as program services are available for the particular version and release:

Figure 11. Minimum Requisites

Program Number	Product Name and Minimum VRM/Service Level	Install Req?
5685-111	NetView Version 2 Release 1 or later, with REXX support	No
5668-854	NCP Version 4 Release 3.1 or later	YES

Following are NetView system considerations for NTuneMON. Complete the following steps:

1. Customize NetView for NTuneMON by modifying the NetView PROC statement or by copying the NTuneMON libraries into existing NetView libraries.

   Perform Step 2 or Step 3:

2. Complete the following tasks to modify the NetView PROC to include the NTuneMON libraries:

   a. Add the NTuneMON CLIST library to the `DSICLD DD` concatenation stream.

   b. Add the NTuneMON panel library to the `CNMPNL1 DD` concatenation stream.

   OR

3. Copy the NTuneMON CLIST and panel libraries into the existing libraries referenced in the NetView PROC to avoid modifying the NetView PROC.

5.2.2.2 Functional Requisites:

A functional requisite is defined as a product that is *not* required for the successful installation of this product or for the base function of the product, but *is* needed at run time for a specific function of this product to work. This includes products that are specified as IF REQs.

VTAM V4R2 or later is required to use NTuneNCP.

Adding a peripheral SDLC line requires the following with their associated prereqs:

- NCP V7R3 or later
- NTuneNCP

5.2.2.3 Compatibility Requisites:

The following sections contain system considerations for NCP, SSP, VTAM, and NetView.

5.2.2.3.1 NCP and SSP:

The APARs listed in Figure 12 are required in order for NTuneMON to monitor 3746 Model 900 Connectivity Subsystem (CSS) token-ring lines.

Figure 12. APARs Required to Monitor 3746 Model 900 CSS Token-Ring Lines

Product Name	APAR
NCP V6R2	IR99864
SSP V3R8	IR22686

The APARs listed in Figure 13 are required in order for NTuneMON to display the time and date stamp for the last beaconing MAC address.

Figure 13. APARs Required to Display Information for the Last Beaconing MAC Address.

Product Name	APAR
NCP V7R6	IR36907
SSP V4R6 OS/390	IR37011

The APARs listed in Figure 14 are required in order for NTuneMON to display and tune the number of transmission head buffers allocated for 3745 frame-relay physical lines.

Figure 14. APARs Required to Display Information for Transmission Head Buffers

Product Name	APAR
NCP V7R6	IR36886
SSP V4R6 OS/390	IR36896
SSP V4R6 VM	IR36902
SSP V4R6 VSE	IR36903

5.2.2.3.2 VTAM:

The VTAM APARs listed in Figure 15 are required to operate NTuneMON in conjunction with NTuneNCP.

Figure 15. VTAM APARs Required to Operate NTuneMON with NTuneNCP

Product Name	APAR
VTAM V4R1 for MVS/ESA	OW06956
VTAM V3R4.2 for MVS/ESA	OW01987
VTAM V3R4.1 for MVS/ESA	OW06097

The VTAM APAR listed in Figure 16 is required if you use spare or redefinable SDLC peripheral lines and want to modify the VTAM USE parameter.

Figure 16. VTAM APAR Required for SDLC Lines to Modify VTAM USE Parameter

Product Name	APAR
VTAM V4R2 for MVS/ESA	OW06708

5.2.2.3.3 NetView:

The NetView APARs listed in Figure 17 are required for this program and NetView.

Figure 17. NetView APARs Required for this Program and NetView

Product Name	APAR
NetView V2R2 MVS/ESA	OY47564
NetView V2R1 MVS/ESA	OY56482

5.2.2.4 Toleration/Coexistence Requisites:

There are no toleration/coexistence requisites.

5.2.2.5 Incompatibility (Negative) Requisites:

No incompatible products are associated with this product.

5.2.3 DASD Storage Requirements

Space requirements for SMP/E libraries (data sets) must take into consideration other programs that must use these libraries. The following SMP/E library space requirements are designed to accommodate installation and initial maintenance of these products:

- NTuneMON V2R5 MVS
- NTuneNCP

Note: Abbreviations used for the data set type are:

U   Unique data set used by only the FMIDs listed. In order to determine the correct storage needed for this data set, this table provides all required information; no other tables (or program directories) need to be referenced for the data set size.

S   Shared data set used by more than the FMIDs listed. In order to determine the correct storage needed for this data set, the storage size given in this table needs to be added to other tables (perhaps in other program directories). If the data set already exists, it must have enough free space to accommodate the storage size given in this table.

If you currently have a previous release of this product installed in these libraries, the installation of this release will delete the old one and reclaim the space used by the old release and any service that had been installed. You can determine whether or not these libraries have enough space by deleting the old release with a dummy function, compressing the libraries, and comparing the space requirements with the

For more information on the setup of the target and distribution libraries needed for NTuneNCP, please refer to the NCP V7R7 MVS program directory. NCP, EP, NTO, NRF, and NTuneNCP share target and distribution libraries (data sets). If you install these products you must allocate additional space for these data sets. Refer to the appropriate program directories for the storage requirements for these products.

For more information on the names and sizes of the required data sets, please refer to 6.1.5, "Allocate SMP/E Target and Distribution Libraries" on page 23.

5.2.3.1 Storage Requirements for SMPCSI VSAM Cluster: Figure 18 provides the storage requirements for the SMPCSI VSAM cluster.

Figure 18. Storage Requirements for SMPCSI VSAM Cluster

DASD	Cylinders Required for SMPCSI DATA	Cylinders Required for SMPCSI INDEX
3380/3390	(16 1)	(3 3)

5.2.3.2 Storage Requirements for SMP/E Work Data Sets: Figure 19 provides the SMP/E work data set space required for installation.

Figure 19. Storage Requirements for SMP/E Work Data Sets

Library DDNAME	TYPE	DSORG	RECFM	LRECL	No. of Blks	BLK SIZE	No. of 3380/ 9345 Trks	No. of 3390 Trks	No. of DIR Blks
SMPWRK1	U	PO	FB	80	2	8800	1	1	5
SMPWRK2	U	PO	FB	80	2	8800	1	1	5
SMPWRK3	U	PO	FB	80	2	3200	1	1	20
SMPWRK4	U	PO	FB	80	2	3200	1	1	5
SMPWRK6	U	PO	FB	80	9	8800	2	2	500
SYSUT1	U	PS	--	--	1575	--	275	175	0
SYSUT2	U	PS	--	--	1575	--	275	175	0
SYSUT3	U	PS	--	--	1575	--	275	175	0
SYSUT4	U	PS	--	--	1575	--	275	175	0

The following table provides an estimate of the storage needed in the SMP/E data sets for NTuneMON V2R5 MVS. The estimates must be added to those of any other programs and service being installed to determine the total additional storage requirements.

Figure 20. Storage Requirements for SMP/E Data Sets

Library DDNAME	TYPE	DSORG	RECFM	LRECL	No. of Blks	BLK SIZE	No. of 3380/ 9345 Trks	No. of 3390 Trks	No. of DIR Blks
SMPHOLD	U	PS	FB	80	5	8800	1	2	0
SMPMTS	U	PO	FB	80	83	8800	17	17	1
SMPPTS	U	PO	FB	80	16	8800	9	9	1
SMPSCDS	U	PO	FB	80	16	8800	4	4	1
SMPSTS	U	PO	FB	80	16	8800	4	4	1
SMPLOG	U	PS	VB	80	200	8800	40	41	0

The following figures list the target and distribution libraries (data sets) and their attributes required to install NTuneMON V2R5 MVS. The storage requirements of NTuneMON V2R5 MVS must be added to the storage required by other programs having data in the same data set (library).

Figure 21. Storage Requirements for NTuneMON V2R5 MVS Target Libraries

Library DDNAME	TYPE	DSORG	RECFM	LRECL	No. of Blks	BLK SIZE	No. of 3380/ 9345 Trks	No. of 3390 Trks	No. of DIR Blks
SATULST1	U	PO	FB	80	171	8800	35	29	1
SATUPNL1	U	PO	FB	80	743	8800	149	124	94
SATFMOD1	U	PO	U	0	3	6144	1	1	1
SNCPMOD1	S	PO	U	0	10	6144	2	2	2

Figure 22 (Page 1 of 2). Storage Requirements for NTuneMON V2R5 MVS Distribution Libraries

Library DDNAME	TYPE	DSORG	RECFM	LRECL	No. of Blks	BLK SIZE	No. of 3380/ 9345 Trks	No. of 3390 Trks	No. of DIR Blks
AATULST1	U	PO	FB	80	171	8800	35	29	1
AATUPNL1	U	PO	FB	80	743	8800	149	124	94
AATUSAMP	U	PO	FB	80	5	8800	1	1	1

Library DDNAME	TYPE	DSORG	RECFM	LRECL	No. of Blks	BLK SIZE	No. of 3380/ 9345 Trks	No. of 3390 Trks	No. of DIR Blks
AATFMOD1	U	PO	U	0	6	6144	1	1	1
AATFSAMP	U	PO	FB	80	3	8800	1	1	1
ANCPMOD1	S	PO	U	0	10	6144	2	2	2

5.3 FMIDs Deleted

Please see the SMPMCS file in Appendix A for the FMIDs deleted by NTuneMON V2R5.

5.4 Special Considerations

Following are special considerations for this program:

- The **ATUNELST CLIST** file provided with NTuneMON must be installed. It contains the default values for various NTuneMON parameters and threshold values, as well as the correct format for authorizing NTuneNCP users. You should install this file in a protected data set so only designated users can access it.

  Note: Even if you are not using the NTuneNCP Tuning Feature, you must install the ATUNELST CLIST because it contains required NTuneMON default values.

  Make a working copy of the CLIST and save the original as backup before making your changes to the working copy. If a problem arises, you have the original CLIST to work from. IBM recommends testing everything before changing any values in ATUNELST.

  There is a section in ATUNELST that indicates that no changes should be made below a certain point. If you change anything below this point, you might affect the operation of NTuneMON.

  ATUNELST allows you to preset the NTuneMON threshold values and authorize users of NTuneNCP to change NCP parameters. For additional information, refer to the *NTuneMON User's Guide*.

- Because NTuneMON uses colors to highlight certain panel fields, you should use a color terminal to take full advantage of the information NTuneMON provides.

- MVS users can compile the ATUNEMON EXEC and execute it as a compiled REXX EXEC. To compile the ATUNEMON EXEC, delete the bottom five lines of the ATUNEMON EXEC, and compile it using the MVS REXX Compiler. For specific instructions about compiling a REXX EXEC, see *IBM REXX Compiler and Library/370: User's Guide and Reference* (SH19-8160).

  If you use the compiled form of this program, the REXX/370 Library is required.

  The REXX/370 Library APAR shown in Figure 23 is required for the REXX run-time library to run the compiled form of this program.

Figure 23. Required APAR for the Compiled Form of this Program

Product Name	APAR
REXX/370 Library V1R1	PN28685

6.0 Installation Instructions

This section describes the installation method and the step-by-step procedures to install NTuneMON V2R5 MVS.

6.1 Installing NTuneMON V2R5 MVS

6.1.1 SMP/E Considerations for Installing NTuneMON V2R5 MVS

This release of NTuneMON V2R5 MVS is installed using the SMP/E RECEIVE, APPLY, and ACCEPT commands. If you want to install NTuneMON V2R5 MVS into its own SMP/E environment, several optional sample jobs have been provided to create and initialize the SMPCSI and the SMP/E control data sets. The SMP/E dialogs may be used to accomplish the SMP/E installation steps.

6.1.2 SMP/E Environment

All SMP/E installation jobs provided assume that all necessary DD statements for the execution of SMP/E are defined using DDDEFs.

Sample jobs are provided to assist you in installing NTuneMON V2R5 MVS. The JCL samples in this section use lowercase character strings to represent items that must be changed to uppercase names for your specific environment. Figure 24 provides a description of each character string.

Figure 24. Character String Descriptions

Character String	Description
xxxxxx	Volume ID of the library pack
monzzzzz	High-level qualifier for data sets
montgt	SMP/E target zone used for NTuneMON
mondlib	SMP/E distribution zone used for NTuneMON
smpe	DSPREFIX for SMPTLIBs
catalog name	Catalog for VSAM CSI data set
tape	tape unit type

Note: The target and distribution libraries used for the NCP installation will be used for the installation of NTuneNCP.

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6.1.3 SMP/E Options Subentry Values

The recommended values for some SMP/E CSI subentries are shown in Figure 25 on page 22. Use of values lower than these may result in failures in the installation process. DSSPACE is a subentry in the GLOBAL options entry. PEMAX is a subentry of the GENERAL entry in the GLOBAL options entry. Refer to the SMP/E manuals for instructions on updating the global zone. Figure 25 on page 22 provides the SMP/E subentry space parameters required for installation.

Figure 25. Storage Requirements for SMP/E Subentries

SUBENTRY	Value
DSSPACE	(160,50,100)
PEMAX	8756

6.1.4 Unload the Sample JCL from the Product Tape

Sample installation jobs are provided on the distribution tape to help you install NTuneMON V2R5 MVS. The following sample JCL will copy the NTuneMON V2R5 MVS jobs from the tape. See Figure 26 for the JCL to unload the sample JCL from the tape.

```
//ATUINJCL JOB  (account info),'pgmrs name',MSGLEVEL=(1,1)
//*
//COPY     EXEC PGM=IEBCOPY
//SYSPRINT DD  SYSOUT=A
//TAPEIN   DD  DSN=IBM.HRA2502.F3,VOL=SER=RA2502,
//             UNIT=tape,DISP=OLD,LABEL=(4,SL)
//DISKOUT  DD  DSN=IBM.HRA2502.INSTALL.JCL,VOL=SER=xxxxxx,
//             UNIT=SYSDA,SPACE=(CYL,(1,1,5)),
//             DISP=(NEW,CATLG)
//SYSUT3   DD  UNIT=SYSDA,SPACE=(80,(15,1))
//SYSIN    DD  *
  COPY I=TAPEIN,O=DISKOUT
  SELECT MEMBER=ATUINJCL
//*
```

Figure 26. JCL to Unload the Installation JCL

Expected Return Codes and Messages:

ATUINJCL job ends with return code equal zero (RC=0).

The JCL is contained in Relative File 3, DLIB=AATUSAMP, MEMBER=ATUINJCL.

You can also access the sample installation jobs after performing an SMP/E RECEIVE for FMID HRA2502, and then copying the jobs from dataset **hlq.IBM.HRA2502.F3** to a work dataset for editing and submission.

6.1.5 Allocate SMP/E Target and Distribution Libraries

Edit and submit sample job LIBRARY to allocate the SMP/E target and distribution libraries for NTuneMON V2R5 MVS. See Figure 27 on page 23 for the JCL to allocate target and distribution libraries.

```
//LIBRARY  JOB  (account info),'pgmrs name',MSGLEVEL=(1,1)
//**
//*  Note that actual data set sizes have been increased
//*  slightly to allow for maintenance.
//**
//**********************************************************
//*
//ALLOCATE EXEC PGM=IEFBR14
//SYSPRINT DD  SYSOUT=A
//AATULST1 DD  DSN=monzzzzz.AATULST1,VOL=SER=xxxxxx,
//             DCB=(RECFM=FB,LRECL=80,BLKSIZE=8800),
//             UNIT=SYSDA,SPACE=(8800,(410,10,5)),
//             DISP=(NEW,CATLG)
//AATUPNL1 DD  DSN=monzzzzz.AATUPNL1,VOL=SER=xxxxxx,
//             DCB=(RECFM=FB,LRECL=80,BLKSIZE=8800),
//             UNIT=SYSDA,SPACE=(8800,(850,10,95)),
//             DISP=(NEW,CATLG)
//AATUSAMP DD  DSN=monzzzzz.AATUSAMP,VOL=SER=xxxxxx,
//             DCB=(RECFM=FB,LRECL=80,BLKSIZE=8800),
//             UNIT=SYSDA,SPACE=(8800,(20,5,2)),
//             DISP=(NEW,CATLG)
//AATFMOD1 DD  DSN=monzzzzz.AATFMOD1,VOL=SER=xxxxxx,
//             DCB=(RECFM=U,LRECL=0,BLKSIZE=6144),
//             UNIT=SYSDA,SPACE=(6144,(45,4,9)),
//             DISP=(NEW,CATLG)
//AATFSAMP DD  DSN=monzzzzz.AATFSAMP,VOL=SER=xxxxxx,
//             DCB=(RECFM=FB,LRECL=80,BLKSIZE=8800),
//             UNIT=SYSDA,SPACE=(8800,(30,3,2)),
//             DISP=(NEW,CATLG)
//SATULST1 DD  DSN=monzzzzz.SATULST1,VOL=SER=xxxxxx,
//             DCB=(RECFM=FB,LRECL=80,BLKSIZE=8800),
//             UNIT=SYSDA,SPACE=(8800,(410,10,5)),
//             DISP=(NEW,CATLG)
//SATUPNL1 DD  DSN=monzzzzz.SATUPNL1,VOL=SER=xxxxxx,
//             DCB=(RECFM=FB,LRECL=80,BLKSIZE=8800),
//             UNIT=SYSDA,SPACE=(8800,(850,10,95)),
//             DISP=(NEW,CATLG)
//SATFMOD1 DD  DSN=monzzzzz.SATFMOD1,VOL=SER=xxxxxx,
//             DCB=(RECFM=U,LRECL=0,BLKSIZE=6144),
//             UNIT=SYSDA,SPACE=(6144,(30,3,2)),
//             DISP=(NEW,CATLG)
//*
```

Figure 27. JCL to Allocate Target and Distribution Libraries

Expected Return Codes and Messages:

LIBRARY job ends with return code equal zero (RC=0).

6.1.6 Allocate Non-VSAM SMP/E Data Sets (Optional)

If you choose to create a new SMP/E environment, the following is an example of a job to allocate the non-VSAM SMP/E data sets. Sample job NONVSAM allocates the non-VSAM SMP/E data sets for NTuneMON V2R5 MVS. See Figure 28 for the JCL to allocate the SMP/E non-VSAM data sets.

```
//NONVSAM  JOB  (account info),'pgmrs name',MSGLEVEL=(1,1)
//*
//*        This job allocates all necessary non-VSAM
//*        SMP data sets.
//*
//ALLOCATE EXEC PGM=IEFBR14
//SMPHOLD  DD  DSN=monzzzzz.SMPHOLD,VOL=SER=xxxxxx,
//             DCB=(RECFM=FB,LRECL=80,BLKSIZE=8800,DSORG=PS),
//             UNIT=SYSDA,DISP=(NEW,CATLG),SPACE=(8800,(5))
//SMPMTS   DD  DSN=monzzzzz.SMPMTS,VOL=SER=xxxxxx,
//             DCB=(RECFM=FB,LRECL=80,BLKSIZE=8800),
//             UNIT=SYSDA,SPACE=(8800,(83,10,1)),
//             DISP=(NEW,CATLG)
//SMPPTS   DD  DSN=monzzzzz.SMPPTS,VOL=SER=xxxxxx,
//             DCB=(RECFM=FB,LRECL=80,BLKSIZE=8800),
//             UNIT=SYSDA,SPACE=(8800,(41,10,1)),
//             DISP=(NEW,CATLG)
//SMPSCDS  DD  DSN=monzzzzz.SMPSCDS,VOL=SER=xxxxxx,
//             DCB=(RECFM=FB,LRECL=80,BLKSIZE=8800),
//             UNIT=SYSDA,SPACE=(8800,(16,10,1)),
//             DISP=(NEW,CATLG)
//SMPSTS   DD  DSN=monzzzzz.SMPSTS,VOL=SER=xxxxxx,
//             DCB=(RECFM=FB,LRECL=80,BLKSIZE=8800),
//             UNIT=SYSDA,SPACE=(8800,(16,10,1)),
//             DISP=(NEW,CATLG)
//SMPLOG   DD  DSN=monzzzzz.SMPLOG,VOL=SER=xxxxxx,
//             DCB=(LRECL=80,RECFM=VB,BLKSIZE=8800),
//             UNIT=SYSDA,SPACE=(8800,(200,20)),
//             DISP=(NEW,CATLG)
//*
```

Figure 28. JCL to Allocate non-VSAM SMP/E Data Sets (Optional)

Expected Return Codes and Messages:

NONVSAM job ends with return code equal zero (RC=0).

6.1.7 Allocate the VSAM CSI Data Sets (Optional)

If you choose to create a new SMP/E environment, the following is an example of a job to allocate the VSAM CSI data sets. Sample job CSIALLOC allocates the SMP/E Consolidated Software Inventory (CSI) data set for NTuneMON V2R5 MVS.

See Figure 29 on page 26 for the JCL to allocate the CSI data set.

```
//CSIALLOC  JOB  (account info),'pgmrs name',MSGLEVEL=(1,1)
//**
//*     CREATE THE CONSOLIDATED SOFTWARE INVENTORY
//*     (CSI) DATA SETS FOR NTuneMON .
//**
//ALLOCATE EXEC PGM=IDCAMS
//ZPOOL   DD  DSN=SYS1.MACLIB(GIMZPOOL),DISP=SHR
//SYSPRINT DD  SYSOUT=A
//SYSIN    DD  *
  DEFINE CLUSTER(                             -
                NAME(monzzzzz.GLOBAL.CSI)     -
                FREESPACE(10,5)               -
                KEYS(24 0)                    -
                RECORDSIZE(24 143)            -
                SHAREOPTIONS(2,3)             -
                UNIQUE                        -
                VOLUMES(xxxxxx)               -
                )                             -
          DATA(                              -
               NAME(monzzzzz.GLOBAL.DATA)     -
               CONTROLINTERVALSIZE(4096)      -
               CYLINDERS(1 1)                 -
               )                             -
          INDEX(                            -
               NAME(monzzzzz.GLOBAL.INDEX) -
               CYLINDERS(1 1)                 -
               IMBED                          -
               )                             -
       CATALOG(catalog name)
  DEFINE CLUSTER(                             -
                NAME(monzzzzz.TZONE.CSI)      -
                FREESPACE(10,5)               -
                KEYS(24 0)                    -
                RECORDSIZE(24 143)            -
                SHAREOPTIONS(2,3)             -
                UNIQUE                        -
                VOLUMES(xxxxxx)               -
                )                             -
          DATA(                              -
               NAME(monzzzzz.TZONE.DATA) -
               CONTROLINTERVALSIZE(4096)      -
               CYLINDERS(10 1)                -
               )                             -
          INDEX(                            -
               NAME(monzzzzz.TZONE.INDEX) -
               CYLINDERS(1 1)                 -
               IMBED                          -
               )                             -
       CATALOG(catalog name)
```

Figure 29 (Part 1 of 2). JCL to Allocate CSI Data Set (Optional)

```
   DEFINE CLUSTER(                                      -
                 NAME(monzzzzz.DZONE.CSI)               -
                 FREESPACE(10,5)                        -
                 KEYS(24 0)                             -
                 RECORDSIZE(24 143)                     -
                 SHAREOPTIONS(2,3)                      -
                 UNIQUE                                 -
                 VOLUMES(xxxxxx)                        -
                 )                                      -
             DATA(                                      -
                  NAME(monzzzzz.DZONE.DATA)             -
                  CONTROLINTERVALSIZE(4096)             -
                  CYLINDERS(5 1)                        -
                  )                                     -
             INDEX(                                     -
                  NAME(monzzzzz.DZONE.INDEX)            -
                  CYLINDERS(1 1)                        -
                  IMBED                                 -
                  )                                     -
        CATALOG(catalog name)
      /*                                  */
      /*     INITIALIZE THE CSI DATASETS        */
      /*                                  */
  REPRO OUTDATASET(monzzzzz.GLOBAL.CSI) INFILE(ZPOOL)
  REPRO OUTDATASET(monzzzzz.TZONE.CSI) INFILE(ZPOOL)
  REPRO OUTDATASET(monzzzzz.DZONE.CSI) INFILE(ZPOOL)
//*
```

Figure 29 (Part 2 of 2). JCL to Allocate CSI Data Set (Optional)

Expected Return Codes and Messages:

CSIALLOC job ends with return code equal zero (RC=0).

6.1.8 Initialize the VSAM CSI Data Sets (Optional)

If you choose to create a new SMP/E environment, the following is an example of a job to initialize the
VSAM CSI data sets. Sample job CSIOPTS initializes the VSAM CSI dataset for NTuneMON V2R5 MVS.
See Figure 30 on page 28 for the JCL to add necessary entries and utilities to SMP/E CSI data sets.

```
//CSIOPTS JOB  (account info),'pgmrs name',MSGLEVEL=(1,1)
//**
//*   ADD THE NECESSARY ENTRIES AND UTILITIES TO THE
//*   THE SMP/E CSI DATA SETS TO BE USED FOR NTuneMON.
//**
//INIT    EXEC PGM=GIMSMP,PARM='DATE=U',REGION=4096K,
//            TIME=1440
//SMPCSI  DD  DSN=monzzzzz.GLOBAL.CSI,DISP=SHR
//SMPLOG  DD  DSN=monzzzzz.SMPLOG,DISP=SHR
//SMPPTS  DD  DSN=monzzzzz.SMPPTS,DISP=SHR
//SMPCNTL DD   *
 SET BDY(GLOBAL) /* --- SETTING CSI UTILITIES AND PARAMETERS
  *----------------------------------------------------------------*
  * FOR INFORMATION, SEE THE SMP/E REFERENCE "CSI GLOBALZONE    *
  * OPTIONS ENTRY".  ALSO SEE "SYS1.SAMPLIB(GIMSAMPU)".        *
  *----------------------------------------------------------------*/.
 UCLIN .
   ADD GLOBALZONE          /* SETUP ZONE DEF ENTRY - GLOBAL ZONE */
       SREL(P004)          /* SREL VALUE                        */
       OPTIONS(OPTNCP)     /* DEFAULT OPTIONS ENTRY FOR NCP     */
       ZONEINDEX(                      /* ZONE INDICES          */
        (montgt,monzzzzz.TZONE.CSI,TARGET)   /* NTuneMON TZONE */
        (mondlib,monzzzzz.DZONE.CSI,DLIB)) . /* NTuneMON DZONE */
   ADD OPTIONS(OPTNCP)     /* ADD AN OPTIONS ENTRY              */
       DSPREFIX(smpe)      /* DSN PREFIX FOR SMPTLIB DATA SETS  */
       DSSPACE(160,50,100) /* SPACE ALLOC FOR SMPTLIB DATA SETS */
       NUCID(1)            /* MVS ONLY OPERAND                  */
       PAGELEN(58)         /* SETUP SMPOUT PAGELENGTH           */
       PEMAX(8756)         /* SET LARGE PEMAX VALUE             */
       NOPURGE             /* RETAIN ALL SMP DATASETS           */
       RETRYDDN(ALL) .     /* RETRY ALL COMPRESSES              */
   ADD UTILITY(IEWL)       /* LINKAGE EDITOR UTILITY            */
       NAME(IEWL)          /* PROGRAM NAME                      */
       PARM(SIZE=(4096K,64K),LET,LIST,XREF,NCAL). /* PARAMETERS*/
   ADD OPTIONS(OPTNCP)
       LKED(IEWL).
   ADD UTILITY(IEBCOPY)    /* COMPRESS UTILITY ENTRY            */
       NAME(IEBCOPY).      /* PROGRAM NAME                      */
   ADD OPTIONS(OPTNCP)     /* CONNECT TO OPTIONS                */
       COMP(IEBCOPY).      /* COMPRESS INFO NOW HERE            */
 ENDUCL .
 SET BDY(montgt) .         /* INITIALIZE TARGET ZONE            */
```

Figure 30 (Part 1 of 2). JCL to Add Necessary Entries and Utilities to SMP/E CSI Data Sets (Optional)

```
 UCLIN .
   ADD TARGETZONE(montgt)  /* SETUP ZONE DEFINITION ENTRY    */
       SREL(P004)          /* SREL VALUE                     */
       RELATED(mondlib)    /* RELATED DLIB ZONE NAME         */
       OPTIONS(OPTNCP) .   /* ADD AN OPTIONS ENTRY           */
 ENDUCL .
 SET BDY(mondlib) .        /* INITIALIZE DLIB ZONE           */
 UCLIN .
   ADD DLIBZONE(mondlib)   /* SETUP ZONE DEFINITION ENTRY    */
       SREL(P004)          /* SREL VALUE                     */
       RELATED(montgt)     /* RELATED TARGET ZONE NAME       */
       OPTIONS(OPTNCP) .   /* ADD AN OPTIONS ENTRY           */
 ENDUCL .
 SET BDY(GLOBAL) .         /* GO BACK TO GLOBAL ZONE         */
 LIST ALLZONES .           /* VERIFY CSI INITIALIZATION      */
 //*
```

Figure 30 (Part 2 of 2). JCL to Add Necessary Entries and Utilities to SMP/E CSI Data Sets (Optional)

Expected Return Codes and Messages:

CSIOPTS job ends with return code equal zero (RC=0).

6.1.9 Create DDDEF Entries

Edit and submit sample job DDDEF to create DDDEF entries for all of the SMP/E libraries for NTuneMON V2R5 MVS. Note that the SMP/E control data sets are included in the sample DDDEF job. If you are using an existing SMP/E environment, all of the DDDEFs for SMP/E data sets will cause the job to end with a non-zero return code. If you install NTuneMON into the same CSI as NCP, the DDDEF for SNCPMOD1 and ANCPMOD1 will cause a non-zero return code. See Figure 31 on page 30 for the JCL to create DDDEF entries.

```
//DDDEF   JOB  (account info),'pgmrs name',MSGLEVEL=(1,1)
//**
//********************************************************/
//*   ADD THE SMP  LIBRARY  DD NAMES TO THE GLOBAL ZONE   */
//********************************************************/
//GZONE   EXEC PGM=GIMSMP,PARM='DATE=U',REGION=4096K,
//            TIME=1440
//SMPOUT   DD  SYSOUT=A
//SYSPRINT DD  SYSOUT=A
//SMPLOG   DD  DSN=monzzzzz.SMPLOG,DISP=SHR
//SMPPTS   DD  DSN=monzzzzz.SMPPTS,DISP=SHR
//SMPCSI   DD  DSN=monzzzzz.GLOBAL.CSI,DISP=SHR
//SMPCNTL  DD  *
  SET BDY(GLOBAL) .
  UCLIN .
  ADD DDDEF(SMPOUT)   SYSOUT(A).
  ADD DDDEF(SYSPRINT) SYSOUT(A).
  ADD DDDEF(SYSUT1)   UNIT(SYSDA) SPACE(15,5) CYL .
  ADD DDDEF(SYSUT2)   UNIT(SYSDA) SPACE(15,5) CYL .
  ADD DDDEF(SYSUT3)   UNIT(SYSDA) SPACE(15,5) CYL .
  ADD DDDEF(SYSUT4)   UNIT(SYSDA) SPACE(15,5) CYL .

  ADD DDDEF(SMPWRK1)  UNIT(SYSDA) SPACE(2,1) DIR(5) DELETE
              BLK(8800).
  ADD DDDEF(SMPWRK2)  UNIT(SYSDA) SPACE(2,1) DIR(5) DELETE
              BLK(8800).
  ADD DDDEF(SMPWRK3)  UNIT(SYSDA) SPACE(2,1) DIR(20) DELETE
              BLK(3200).
  ADD DDDEF(SMPWRK4)  UNIT(SYSDA) SPACE(2,1) DIR(5) DELETE
              BLK(3200).
  ADD DDDEF(SMPWRK6)  UNIT(SYSDA) SPACE(9,1) DIR(500) DELETE
              BLK(8800).
  ADD DDDEF(SMPLOG)   DATASET(monzzzzz.SMPLOG)  VOLUME(xxxxxx)
              UNIT(SYSDA) MOD .
  ADD DDDEF(SMPHOLD)  DATASET(monzzzzz.SMPHOLD) VOLUME(xxxxxx)
              UNIT(SYSDA) MOD .
  ADD DDDEF(SMPMTS)   DATASET(monzzzzz.SMPMTS)  VOLUME(xxxxxx)
              UNIT(SYSDA) SHR .
  ADD DDDEF(SMPPTS)   DATASET(monzzzzz.SMPPTS)  VOLUME(xxxxxx)
              UNIT(SYSDA) SHR .
  ADD DDDEF(SMPSCDS)  DATASET(monzzzzz.SMPSCDS) VOLUME(xxxxxx)
              UNIT(SYSDA) SHR .
  ADD DDDEF(SMPSTS)   DATASET(monzzzzz.SMPSTS) VOLUME(xxxxxx)
              UNIT(SYSDA) SHR .
  ENDUCL .
//**
```

Figure 31 (Part 1 of 5). JCL to Create DDDEF Entries

```
//********************************************************/
//*   ADD THE NEW 'DISTRIBUTION'  LIBRARY  DD NAMES TO    */
//*   THE DISTRIBUTION ZONE.                              */
//********************************************************/
//DZONE    EXEC PGM=GIMSMP,PARM='DATE=U',REGION=4096K,
//              TIME=1440
//SMPOUT   DD  SYSOUT=A
//SYSPRINT DD  SYSOUT=A
//SMPLOG   DD  DSN=monzzzzz.SMPLOG,DISP=SHR
//SMPPTS   DD  DSN=monzzzzz.SMPPTS,DISP=SHR
//SMPCSI   DD  DSN=monzzzzz.GLOBAL.CSI,DISP=SHR
//SMPCNTL  DD *
  SET BDY(mondlib) .
  UCLIN .
  ADD DDDEF(AATULST1) DATASET(monzzzzz.AATULST1)
                      VOLUME(xxxxxx) UNIT(SYSDA) SHR .
  ADD DDDEF(AATUPNL1) DATASET(monzzzzz.AATUPNL1)
                      VOLUME(xxxxxx) UNIT(SYSDA) SHR .
  ADD DDDEF(AATUSAMP) DATASET(monzzzzz.AATUSAMP)
                      VOLUME(xxxxxx) UNIT(SYSDA) SHR .
  ADD DDDEF(AATFMOD1) DATASET(monzzzzz.AATFMOD1)
                      VOLUME(xxxxxx) UNIT(SYSDA) SHR .
  ADD DDDEF(AATFSAMP) DATASET(monzzzzz.AATFSAMP)
                      VOLUME(xxxxxx) UNIT(SYSDA) SHR .
  ADD DDDEF(ANCPMOD1) DATASET(monzzzzz.ANCPMOD1)
                      VOLUME(xxxxxx) UNIT(SYSDA) SHR .
  ADD DDDEF(SMPOUT)   SYSOUT(A).
  ADD DDDEF(SYSPRINT) SYSOUT(A).
  ADD DDDEF(SYSUT1)   UNIT(SYSDA) SPACE(15,5) CYL .
  ADD DDDEF(SYSUT2)   UNIT(SYSDA) SPACE(15,5) CYL .
  ADD DDDEF(SYSUT3)   UNIT(SYSDA) SPACE(15,5) CYL .
  ADD DDDEF(SYSUT4)   UNIT(SYSDA) SPACE(15,5) CYL .
```

Figure 31 (Part 2 of 5). JCL to Create DDDEF Entries

```
   ADD DDDEF(SMPWRK1)  UNIT(SYSDA) SPACE(2,1) DIR(5) DELETE
               BLK(8800).
   ADD DDDEF(SMPWRK2)  UNIT(SYSDA) SPACE(2,1) DIR(5) DELETE
               BLK(8800).
   ADD DDDEF(SMPWRK3)  UNIT(SYSDA) SPACE(2,1) DIR(20) DELETE
               BLK(3200).
   ADD DDDEF(SMPWRK4)  UNIT(SYSDA) SPACE(2,1) DIR(5) DELETE
               BLK(3200).
   ADD DDDEF(SMPWRK6)  UNIT(SYSDA) SPACE(9,1) DIR(500) DELETE
               BLK(8800).
   ADD DDDEF(SMPLOG)   DATASET(monzzzzz.SMPLOG)  VOLUME(xxxxxx)
               UNIT(SYSDA) MOD .
   ADD DDDEF(SMPHOLD)  DATASET(monzzzzz.SMPHOLD) VOLUME(xxxxxx)
               UNIT(SYSDA) MOD .
   ADD DDDEF(SMPMTS)   DATASET(monzzzzz.SMPMTS) VOLUME(xxxxxx)
               UNIT(SYSDA) SHR .
   ADD DDDEF(SMPPTS)   DATASET(monzzzzz.SMPPTS) VOLUME(xxxxxx)
               UNIT(SYSDA) SHR .
   ADD DDDEF(SMPSCDS)  DATASET(monzzzzz.SMPSCDS) VOLUME(xxxxxx)
               UNIT(SYSDA) SHR .
   ADD DDDEF(SMPSTS)   DATASET(monzzzzz.SMPSTS) VOLUME(xxxxxx)
               UNIT(SYSDA) SHR .
   ADD DDDEF(SYSLIB)   CONCAT(SMPMTS).
   ENDUCL .
//**
```

Figure 31 (Part 3 of 5). JCL to Create DDDEF Entries

```
//*********************************************************/
//*   ADD THE NEW 'DISTRIBUTION' LIBRARY AND 'TARGET'    */
//*   LIBRARY DD NAMES TO THE TARGET ZONE.               */
//*********************************************************/
//TZONE   EXEC PGM=GIMSMP,PARM='DATE=U',REGION=4096K,
//             TIME=1440
//SMPOUT   DD  SYSOUT=A
//SYSPRINT DD  SYSOUT=A
//SMPLOG   DD  DSN=monzzzzz.SMPLOG,DISP=SHR
//SMPPTS   DD  DSN=monzzzzz.SMPPTS,DISP=SHR
//SMPCSI   DD  DSN=monzzzzz.GLOBAL.CSI,DISP=SHR
//SMPCNTL  DD  *
  SET BDY(montgt) .
  UCLIN .
  ADD DDDEF(AATULST1) DATASET(monzzzzz.AATULST1)
                      VOLUME(xxxxxx) UNIT(SYSDA) SHR .
  ADD DDDEF(AATUPNL1) DATASET(monzzzzz.AATUPNL1)
                      VOLUME(xxxxxx) UNIT(SYSDA) SHR .
  ADD DDDEF(AATUSAMP) DATASET(monzzzzz.AATUSAMP)
                      VOLUME(xxxxxx) UNIT(SYSDA) SHR .
  ADD DDDEF(AATFMOD1) DATASET(monzzzzz.AATFMOD1)
                      VOLUME(xxxxxx) UNIT(SYSDA) SHR .
  ADD DDDEF(AATFSAMP) DATASET(monzzzzz.AATFSAMP)
                      VOLUME(xxxxxx) UNIT(SYSDA) SHR .
  ADD DDDEF(ANCPMOD1) DATASET(monzzzzz.ANCPMOD1)
                      VOLUME(xxxxxx) UNIT(SYSDA) SHR .
  ADD DDDEF(SATULST1) DATASET(monzzzzz.SATULST1)
                      VOLUME(xxxxxx) UNIT(SYSDA) SHR .
  ADD DDDEF(SATUPNL1) DATASET(monzzzzz.SATUPNL1)
                      VOLUME(xxxxxx) UNIT(SYSDA) SHR .
  ADD DDDEF(SATFMOD1) DATASET(monzzzzz.SATFMOD1)
                      VOLUME(xxxxxx) UNIT(SYSDA) SHR .
  ADD DDDEF(SNCPMOD1) DATASET(monzzzzz.SNCPMOD1)
                      VOLUME(xxxxxx) UNIT(SYSDA) SHR .
  ADD DDDEF(SMPOUT)   SYSOUT(A).
  ADD DDDEF(SYSPRINT) SYSOUT(A).
  ADD DDDEF(SYSUT1)   UNIT(SYSDA) SPACE(15,5) CYL .
  ADD DDDEF(SYSUT2)   UNIT(SYSDA) SPACE(15,5) CYL .
  ADD DDDEF(SYSUT3)   UNIT(SYSDA) SPACE(15,5) CYL .
  ADD DDDEF(SYSUT4)   UNIT(SYSDA) SPACE(15,5) CYL .
```

Figure 31 (Part 4 of 5). JCL to Create DDDEF Entries

```
   ADD DDDEF(SMPWRK1)  UNIT(SYSDA) SPACE(2,1) DIR(5) DELETE
              BLK(8800).
 ADD DDDEF(SMPWRK2)  UNIT(SYSDA) SPACE(2,1) DIR(5) DELETE
              BLK(8800).
 ADD DDDEF(SMPWRK3)  UNIT(SYSDA) SPACE(2,1) DIR(20) DELETE
              BLK(3200).
 ADD DDDEF(SMPWRK4)  UNIT(SYSDA) SPACE(2,1) DIR(5) DELETE
              BLK(3200).
 ADD DDDEF(SMPWRK6)  UNIT(SYSDA) SPACE(9,1) DIR(500) DELETE
              BLK(8800).
 ADD DDDEF(SMPLOG)   DATASET(monzzzzz.SMPLOG)  VOLUME(xxxxxx)
              UNIT(SYSDA) MOD .
 ADD DDDEF(SMPHOLD)  DATASET(monzzzzz.SMPHOLD) VOLUME(xxxxxx)
              UNIT(SYSDA) MOD .
 ADD DDDEF(SMPMTS)   DATASET(monzzzzz.SMPMTS) VOLUME(xxxxxx)
              UNIT(SYSDA) SHR .
 ADD DDDEF(SMPPTS)   DATASET(monzzzzz.SMPPTS) VOLUME(xxxxxx)
              UNIT(SYSDA) SHR .
 ADD DDDEF(SMPSCDS)  DATASET(monzzzzz.SMPSCDS) VOLUME(xxxxxx)
              UNIT(SYSDA) SHR .
 ADD DDDEF(SMPSTS)   DATASET(monzzzzz.SMPSTS) VOLUME(xxxxxx)
              UNIT(SYSDA) SHR .
 ADD DDDEF(SYSLIB)   CONCAT(SMPMTS).
 ENDUCL .
//*
```

Figure 31 (Part 5 of 5). JCL to Create DDDEF Entries

Expected Return Codes and Messages:

DDDEF job ends with return code equal zero (RC=0). If any of the DDDEF entries already exist, the DDDEF job will end with a return code of 8 (RC=8). Check the output to determine the cause of the non-zero return code.

6.1.10 Perform SMP/E RECEIVE

Edit and submit sample job MONREC to perform the SMP/E RECEIVE for NTuneMON V2R5 MVS. See Figure 32 for the JCL to receive the data from the product tape.

```
//MONREC   JOB  (account info),'pgmrs name',MSGLEVEL=(1,1)
//**
//*   RECEIVE THE DATA FROM THE PRODUCT TAPE
//**
//RECV    EXEC PGM=GIMSMP,PARM='DATE=U',REGION=4096K,
//           TIME=1440
//SMPOUT   DD  SYSOUT=A
//SYSPRINT DD  SYSOUT=A
//SMPCSI   DD  DSN=monzzzzz.GLOBAL.CSI,DISP=SHR
//SMPTLIB  DD  UNIT=SYSDA,DISP=OLD,VOL=SER=xxxxxx
//SMPPTFIN DD  UNIT=tape,DISP=OLD,VOL=SER=RA2502,
//           LABEL=(,SL),DSN=SMPMCS
//SMPCNTL  DD  *
  SET  BDY(GLOBAL) .
  RECEIVE SELECT(HRA2502) SYSMODS LIST .
//*
```

Figure 32. JCL to Perform SMP/E RECEIVE

Note: If you obtained NTuneMON V2R5 MVS as part of a CBPDO, you can use the RCVPDO job found in the CBPDO RIMLIB data set to RECEIVE the NTuneMON V2R5 MVS FMIDs as well as any service, HOLDDATA, or preventive service planning (PSP) information included on the CBPDO tape. For more information, refer to the documentation included with the CBPDO.

Expected Return Codes and Messages:

MONREC job ends with return code equal zero (RC=0).

6.1.11 Perform SMP/E APPLY CHECK

Edit and submit sample job MONAPCK to perform an SMP/E APPLY CHECK for NTuneMON V2R5 MVS. See Figure 33 for the JCL to perform SMP/E APPLY CHECK.

```
//MONAPCK  JOB  (account info),'pgmrs name',MSGLEVEL=(1,1)
//**
//* BEFORE ACTUALLY UPDATING THE TARGET LIBRARIES CHECK FOR
//* ERRORS, THE LIBRARIES AFFECTED, AND ANY SYSMODS THAT WOULD
//* BE REGRESSED
//**
//APPCK    EXEC PGM=GIMSMP,PARM='DATE=U',REGION=4096K,
//             TIME=1440
//SMPCSI   DD  DSN=monzzzzz.GLOBAL.CSI,DISP=SHR
//SMPCNTL  DD  *
  SET  BDY(montgt) .
  APPLY SELECT(HRA2502) CHECK .
//*
```

Figure 33. JCL to Perform SMP/E APPLY CHECK

Expected Return Codes and Messages:

MONAPCK job ends with return code equal zero (RC=0).

6.1.12 Perform SMP/E APPLY

Edit and submit sample job MONAPP to perform an SMP/E APPLY for NTuneMON V2R5 MVS. See Figure 34 for the JCL to perform SMP/E APPLY.

```
//MONAPP   JOB  (account info),'pgmrs name',MSGLEVEL=(1,1)
//**
//* UPDATE THE TARGET LIBRARIES
//**
//APPLY  EXEC PGM=GIMSMP,PARM='DATE=U',REGION=4096K,
//           TIME=1440
//SMPCSI   DD  DSN=monzzzzz.GLOBAL.CSI,DISP=SHR
//SMPCNTL  DD  *
  SET  BDY(montgt) .
  APPLY SELECT(HRA2502)  .
//*
```

Figure 34. JCL to Perform SMP/E APPLY

Expected Return Codes and Messages:

MONAPP job ends with return code equal zero (RC=0).

6.1.13 Perform SMP/E ACCEPT CHECK

Edit and submit sample job MONACCK to perform an SMP/E ACCEPT CHECK for NTuneMON V2R5 MVS. See Figure 35 for the JCL to perform ACCEPT CHECK.

```
//MONACCK   JOB  (account info),'pgmrs name',MSGLEVEL=(1,1)
//**
//* BEFORE ACTUALLY UPDATING THE DISTRIBUTION LIBRARIES CHECK FOR
//* ERRORS, THE LIBRARIES AFFECTED, AND ANY SYSMODS THAT WOULD
//* BE REGRESSED
//**
//ACCCK    EXEC PGM=GIMSMP,PARM='DATE=U',REGION=4096K,
//          TIME=1440
//SMPCSI    DD  DSN=monzzzzz.GLOBAL.CSI,DISP=SHR
//SMPCNTL  DD  *
  SET BDY(mondlib) .
  ACCEPT SELECT(HRA2502) CHECK .
//*
```

Figure 35. JCL to Perform SMP/E ACCEPT CHECK

Expected Return Codes and Messages:

MONACCK job ends with return code equal zero (RC=0).

6.1.14 Perform SMP/E ACCEPT

Edit and submit sample job MONACC to perform an SMP/E ACCEPT for NTuneMON V2R5 MVS. See Figure 36 for the JCL to update the distribution library.

Before using SMP/E to load new distribution libraries, it is recommended that you set the ACCJCLIN indicator in the distribution zone. This will cause entries produced from JCLIN to be saved in the distribution zone whenever a SYSMOD containing inline JCLIN is ACCEPTed. For more information on the ACCJCLIN indicator, see the description of inline JCLIN in the SMP/E manuals.

```
//MONACC    JOB  (account info),'pgmrs name',MSGLEVEL=(1,1)
//**
//* UPDATE THE DISTRIBUTION LIBRARIES
//**
//ACCEPT   EXEC PGM=GIMSMP,PARM='DATE=U',REGION=4096K,
//         TIME=1440
//SMPCSI   DD  DSN=monzzzzz.GLOBAL.CSI,DISP=SHR
//SMPCNTL  DD  *
  SET BDY(mondlib) .
  ACCEPT SELECT(HRA2502)  .
//*
```

Figure 36. JCL to Perform SMP/E ACCEPT

Expected Return Codes and Messages:

MONACC job ends with return code equal zero (RC=0).

6.1.15 Rejecting SMPTLIBs (Optional)

If you kept the NOPURGE option in the sample CSIOPTS JCL (shown in Figure 30 on page 28), you can reject the SMPTLIBs using the JCL shown in Figure 37 on page 39.

```
//MONREJ   JOB  (account info),'pgmrs name',MSGLEVEL=(1,1)
//**
//*********************************************************
//*                                            **
//*  THE SMP/E REJECT JOB WILL DELETE SOME OF THE    **
//*  CSI ENTRIES FROM THE SMPTLIB DATA SETS. IT DOES **
//*  NOT DELETE NTuneMON V2R4 FROM THE CSI.          **
//*                                            **
//*  THIS JOB WILL DELETE:                      **
//*      GLOBAL ZONE SYSMOD ENTRIES             **
//*      HOLDDATA ENTRIES                       **
//*      SMPPTS MCS ENTRIES                     **
//*      ANY ASSOCIATED SMPTLIB ENTRIES         **
//*                                            **
//*  THIS JOB WILL GENERATE A NONZERO RETURN CODE **
//*  IF THE SMPTLIBS HAVE BEEN PURGED FOR HRA2502 **
//*  OR ANY ASSOCIATED FEATURE.                  **
//*********************************************************
//       EXEC PGM=GIMSMP,PARM='DATE=U',REGION=4096K,
//             TIME=1440
//SMPOUT   DD  SYSOUT=A
//SYSPRINT DD  SYSOUT=A
//SMPCSI   DD  DSN=monzzzzz.GLOBAL.CSI,DISP=SHR
//SMPCNTL  DD  *
  SET BDY(GLOBAL) .
  REJECT S(HRA2502)
        BYPASS(APPLYCHECK,ACCEPTCHECK) .
//*
```

Figure 37. JCL to Reject SMP/E Entries and SMPTLIBs (Optional)

Expected Return Codes and Messages:

MONREJ job ends with return code equal zero (RC=0), unless SMPTLIB data sets have been purged.

6.2 Post-Installation Information

If a PTF cumulative service tape is included with the order, install the maintenance now.

If PTFs containing replacement modules are being ACCEPTed, SMP/E ACCEPT processing will linkedit/bind the modules into the distribution libraries. During this processing, the Linkage Editor or Binder might issue messages documenting unresolved external references, resulting in a return code of 4 from the ACCEPT step. These messages can be ignored because the distribution libraries are not executable and the unresolved external references will not affect the executable system libraries.

Appendix A. Installation Logic

A.1 SMP/E Modification Control Statements

The SMP/E Modification Control Statements (SMPMCS) for NTuneMON V2R5 MVS are contained in the SMPMCS file on the installation tape. The SMPMCS for each FMID in the product will be loaded to the SMPPTS dataset, with a member name matching the FMID, when the FMID is SMP/E RECEIVEd. You can browse or print these members using TSO/E, ISPF, or IEBGENER (or IEBPTPCH).

This appendix contains a portion of the installation logic for this program.

If you ordered this program as an individual product (not in a CBIPO or CBPDO), the entire set of SMP/E modification control statements (MCS) for the installation can be obtained by printing the first file of the product tape.

Figure 38 provides a portion of the SMP installation logic for NTuneMON V2R5 MVS.

```
++FUNCTION(HRA2502) FESN(0502391) REWORK(1998210)
 RFDSNPFX(IBM)                   /* TIME=14.22.04   DATE=07/29/98 */
 FILES(3)
/*****************************************************/
/* COPYRIGHT = LICENSED MATERIALS -  PROPERTY OF IBM   */
/* 5648-141 (C) COPYRIGHT IBM CORP. 1994,  1998.       */
/* ALL RIGHTS RESERVED.                                */
/* U.S. GOVERNMENT USERS RESTRICTED RIGHTS -           */
/* USE, DUPLICATION OR DISCLOSURE RESTRICTED BY        */
/* GSA ADP SCHEDULE CONTRACT WITH IBM CORP.            */
/*****************************************************/
 .
++VER(P004)
   DELETE(HRA1102,HRA1202,HRA2102,HRA2202,HRA2302,HRA2402)
   .
++JCLIN                    RELFILE(1)  .
```

Figure 38. Installation Logic for NTuneMON V2R5 MVS

You can browse these members using TSO/E or ISPF, or Figure 39 provides a sample job to print the
SMPMCS.

```
//MONLOGIC JOB  (account info),'pgmrs name',MSGLEVEL=(1,1)
//**
//*  PRINT THE SMPMCS FILE FROM THE PRODUCT TAPE
//**
//GENER    EXEC PGM=IEBGENER
//SYSPRINT DD  SYSOUT=A
//SYSUT1   DD  UNIT=tape,DISP=OLD,VOL=SER=RA2502,
//             LABEL=(1,SL),DSN=SMPMCS
//SYSUT2   DD  SYSOUT=A
//SYSIN    DD  DUMMY
//*
```

Figure 39. Job to Print the SMP/E Modification Control Statements

Expected Return Codes and Messages:

MONLOGIC job ends with return code equal zero (RC=0).

Appendix B. APARs Incorporated into This Program

Following is a list of APARs incorporated into NTuneMON V2R5.

IR37016
IR37042
IR37135
IR37206
IR37340
IR37389
IR37600
IR37622
IR37932
IR37999
IR38060
IR38263

Reader's Comments

Program Directory for NTuneMON V2R5 for MVS

You may use this form to comment about this document, its organization, or subject matter with the understanding that IBM may use or distribute whatever information you supply in any way it believes appropriate without incurring any obligation to you.

For each of the topics below please indicate your satisfaction level by circling your choice from the rating scale. If a statement does not apply, please circle N.

```
┌─── RATING SCALE ──────────────────────────────────────────
│   very                              very        not
│ satisfied  <====================>  dissatisfied  applicable
│    1       2       3       4          5             N
│
└─────────────────────────────────────────────────────────
```

	Satisfaction					
Ease of product installation	1	2	3	4	5	N
Contents of program directory	1	2	3	4	5	N
Installation Verification Programs	1	2	3	4	5	N
Time to install the product	1	2	3	4	5	N
Readability and organization of program directory tasks	1	2	3	4	5	N
Necessity of all installation tasks	1	2	3	4	5	N
Accuracy of the definition of the installation tasks	1	2	3	4	5	N
Technical level of the installation tasks	1	2	3	4	5	N
Ease of getting the system into production after installation	1	2	3	4	5	N

In what order media was this product received?

___   CBIPO
___   CBPDO
___   CustomPAC
___   ServerPAC
___   Independent
___   Other

Is this the first time your organization has installed this product?

___   Yes
___   No

Were the people who did the installation experienced with the installation of MVS products?

___ Yes
___ No

If yes, how many years? __

If you have any comments to make about your ratings above, or any other aspect of the product installation, please list them below:

_____

_____

_____

_____

_____

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_____

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Please provide the following contact information:

_____
Name and Job Title

_____
Organization

_____

_____
Address

_____
Telephone

Thank you for your participation.

Please give the completed form to your IBM representative (who will forward it to the NTuneMON Development group) or send it to:

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