

VERSION DESCRIPTION DOCUMENT FOR THE NASA EQUIPMENT MANAGEMENT SYSTEM (NEMS)

Release 3.9.1

NASA-NEMS-VDD-13

PrISMS Contract

July 21, 1997



National Aeronautics and
Space Administration

George C. Marshall Space Flight Center
Huntsville, AL 35812

**VERSION DESCRIPTION DOCUMENT FOR THE
NASA EQUIPMENT MANAGEMENT SYSTEM (NEMS)
RELEASE 3.9.1**

Submitted by

Jim Crowell	Date
Functional Area Lead	

Reviewed by
CSC

Hector Garcia	Date	Richard Bishop	Date
Agencywide IRM		DBA	

Jim Cofer	Date
Configuration Management	

Prepared by

Computer Sciences Corporation, Contract NAS8-60000

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
GEORGE C. MARSHALL SPACE FLIGHT CENTER
HUNTSVILLE, ALABAMA

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1. INTRODUCTION

This Version Description Document (VDD) describes the changes and installation procedures for this release of the NASA Equipment Management System (NEMS). This section identifies the release, describes its purpose, defines its scope, and identifies its contact points.

1.1 IDENTIFICATION OF THE RELEASE

This software release is identified as NEMS, Release 3.9.1 and has an effective release date of July 21, 1997.

1.2 PURPOSE OF THE RELEASE

This release implements modifications for the following Change Control Requests (CCRs):

<u>CCR</u>	<u>Title</u>
159	Currently Release 3.9 allows inventory date recording with Transaction 46. Physical siting only occurs when the User has changed.
161	User receiving Missing Items report although the item is there and the inventory date falls within the realm of when the item was open.
163	Inventory by exception change in requirements. Update Room and Building when updating Date Inventoried on exception processing.

This release implements modifications necessitated by the following Discrepancy Reports (DRs):

<u>CCR</u>	<u>Title</u>
158	Upload inventory does not correctly store the discrepancy flag after a discrepancy "U" has been processed.
160	When the user entered transaction I34 process incorrectly and did not enter required data the system expects the program will not release the user.
162	Logic used in setting discrepancy flag and a find statement boolean logic require a parenthesis to be correct.

1.3 SCOPE

This VDD provides the functional and technical user of NEMS with information regarding the contents, status, and structure of Release 3.9.1, including the following:

- Changes implemented since Release 3.9.
- Validation procedures to ensure the reliability of release changes.
- References to other documentation affected by this release.
- Detailed software installation instructions.

No waivers are associated with this release.

1.4 CONTACT POINTS

Sustaining Engineering for NEMS is provided through the Consolidation Center (CC) located at Marshall Space Flight Center (MSFC). Questions regarding the function and/or the technical aspects as well as the installation of this release should be directed to:

The NACC Technical Services Center (Use following Key Words: SESAAS & NEMS)

Telephone: (205) 544-6673
Email: jim.crowell@msfc.nasa.gov
FAX: (205) 544-1836

2. FUNCTIONAL INFORMATION

This section includes details regarding functional changes, functional interfaces, critical issues, affected documents, and application system administration.

2.1 FUNCTIONAL CHANGES

Please refer to Appendix C, Functional Change Validation Procedures, for a description of all functional changes related to this release. Appendix D, Installation Instructions, describes all Software PREDICT and SYSERR changes related to this release.

2.2 FUNCTIONAL INTERFACES

This release has no functional impact on interfaces with any NASA application.

2.3 CRITICAL ISSUES

This section is not applicable for this release.

2.4 AFFECTED DOCUMENTS

The following documents are affected by this release:

- Inventory Operations Guide
- Inventory Users Guide
- PCM Users Operations Guide
- NEMS Users Guide
- NEMS Operations Guide

These documents in their entirety will be available on the SESAAS webpage by the end of the July 1997. They can be printed, read, and downloaded using Adobe Acrobat (see the web page for instructions).

2.5 APPLICATION SYSTEM ADMINISTRATION

There are no application system administration changes associated with this release.

3. TECHNICAL INFORMATION

This section includes details regarding technical system interfaces, data dictionary changes, software object changes, and database administration activities.

3.1 TECHNICAL SYSTEM INTERFACES

There are no technical systems interface issues with this release.

3.2 DATA DICTIONARY CHANGES

There are no data dictionary changes in this release.

3.3 SOFTWARE OBJECT CHANGES

Modules affected by this release are included in Appendix D, Section 2.2.

3.4 DATABASE ADMINISTRATION

This section describes the database administration activities for installation of this release.

3.4.1 Release Dataset Names

Refer to Appendix D, Introduction section, for the release dataset names.

3.4.2 Inventory of Objects

Refer to Appendix D, Paragraph 2.1, for an inventory of Natural object types.

3.4.3 Storage Considerations

The changes represented by this release should not affect storage requirements.

3.4.4 Installation Procedures

Refer to Appendix D, Installation Instructions for NEMS Software Release 3.9.1 for detailed software installation procedures.

3.5 OPERATIONAL PREPARATION

Refer to the procedure described in Appendix D for assistance in preparing for proper installation and operational use of this release.

4. KNOWN AND OPEN PROBLEMS

The are no known or open problems related to this release.

Appendix A - ABBREVIATIONS AND ACRONYMS

CC	Consolidation Center
CCR	Change Control Request
CSC	Computer Sciences Corporation
DBA	Database Administrator
DR	Discrepancy Report
FAX	Electronic Facsimile Transmission
IRM	Information Resources Management
JCL	Job Control Language
MSFC	Marshall Space Flight Center
NACC	NASA Automated Data Processing (ADP) Consolidation Center
NASA	National Aeronautics and Space Administration
NEMS	NASA Equipment Management System
NPDMS	NASA Property Disposal Management System
SESAAS	Sustaining Engineering Support for Agency wide Administrative Systems
VDD	Version Description Document

Appendix B - GLOSSARY

Database Administration

Responsibility for maintaining the physical database environment.

Implementation

The process by which a NASA site installs a NASA software release and places it into operational use.

Operational Preparation

Preparation by a NASA site for installation and use of a NASA application release.

System Administration

Responsibility for administrative functions such as application security and table data maintenance associated with a NASA application.

Appendix C - FUNCTIONAL CHANGE VALIDATION PROCEDURES

Index of validation procedures for changes in this release.

Section	CCR	Title
1.0	158	Upload inventory does not correctly store the discrepancy flag after a discrepancy "U" has been processed.
	159	Currently Release 3.9 allows inventory date recording with Transaction 46. Physical siting only occurs when the User has changed.
	161	User receiving Missing Items report although the item is there and the inventory date falls within the realm of when the item was open.
	162	Logic used in setting discrepancy flag and a find statement boolean logic require a parenthesis to be correct.
	163	Inventory by exception change in requirements. Update Room and Building when updating Date Inventoried on exception processing.
2.0	159	Currently Release 3.9 allows inventory date recording with Transaction 46. Physical siting only occurs when the User has changed.
3.0	160	When the user entered transaction I34 process incorrectly and did not enter required data the system expects the program will not release the user.
4.0	161	User receiving Missing Items report although the item is there and the inventory date falls within the realm of when the item was open.

Details for the validation procedures follow:

1.0 NEMS INVENTORY PROCESS (Multiple CCR's)

Description of Change

- 158 Upload inventory does not correctly store the discrepancy flag after a discrepancy "U" has been processed.
- 159 Currently Release 3.9 allows inventory date recording with Transaction 46. Physical siting only occurs when the User has changed. Process changed to only update inventory date when the user has been changed.
- 161 User receiving Missing Items report although the item is there and the inventory date falls within the realm of when the item was open. Change software to use Inventory Triannual Date instead of the date the account was opened.
- 162 Logic used in setting discrepancy flag and a find statement boolean logic require a parenthesis to be correct.
- 163 Inventory by exception change in requirements. Update Room and Building when updating Date Inventoried on exception processing.

Functional Impact

There is no functional impact as a result of this CCR.

Validation Procedures

Test NEMS Inventory by creating a set of scans that contain records:

- That belong to a different custodian account/location than the account/location being inventoried
Expected result the count of scanned held items displayed on status screen; the equipment file will have building room and date inventoried update, if the scan date is greater than date inventoried on the equipment file.
- That are missing scans on the items that are contained in the equipment file for that account/location
Expected result will be an underage from processing
- That belong to the account/location but have incorrect building and room information based on the information contained in the equipment file.
Expected result will be building or location discrepancy
- That are missing but contain an inventory date in the equipment file that is greater than the triannual inventory open date
Expected result will not create underage and ignore

- That contains records which will match the equipment file and process as a matched item
Expected result matched item counts and reports
- That contains items that are not on the equipment file which will create an overage when processed
Expected result is an overage in counts and reports
- That belong to a different sub-installation than the account/location being inventoried
Expected result is an overage in counts and reports
- That have missing items which have been received to the installation (added to the equipment file) since the account was opened.
Expected result matched item counts and reports
- That contains scans for items that have been excessed through NPDMS since the scans were taken.
Expected result matched item counts and reports
- That contains scans for items that are out coded in the equipment file
Expected result is an overage in counts and reports
- That have missing items which have an out code in the equipment file
Expected result matched item counts and reports

<u>MODULE ID</u>	<u>MODULE NAME</u>	<u>TYPE</u>	<u>CCR's #</u>
INVBBIP1	Bar Code Data Against Equipment File	Program	158,159,161,162,163
INVBBIP4	Location Bar Code Data Equipment File	Program	158,159,161,162,163
INVBBIS1	Bar Code Data Against Equipment File	Subprogram	158,159,161,162,163
INVBBIS4	Bar Code Data Against Equipment File	Subprogram	158,159,161,162,163

2.0 CCR159 Currently Release 3.9 allows inventory date recording with Transaction 46. Physical siting only occurs when the User has changed.

Description of Change

Process changed to only update inventory date when the user has been changed.

Functional Impact

There is no functional impact as a result of this CCR.

Validation Procedures

- Enter a user code change
Expected result date inventoried changed only when the user code is changed using transaction 046.

<u>MODULE ID</u>	<u>MODULE NAME</u>	<u>TYPE</u>	<u>CCR#</u>
TRN046P1	Change Transaction 46 (Cap/Sen Code & NSN Change)	Program	159

3.0 CCR160 When the user entered transaction I34 process incorrectly and did not enter required data the system expects the program will not release the user.

Description of Change

Screen attributes were changed to correct the problem.

Functional Impact

There is no functional impact as a result of this CCR.

Validation Procedures

- Enter transaction I34 to clear inventory discrepancy with local data
Expected result screen will now allow exit from local data without data entered.

<u>MODULE ID</u>	<u>MODULE NAME</u>	<u>TYPE</u>	<u>CCR#</u>
TRNILOP3	Local Data Change	Program	160

4.0 CCR161 User receiving Missing Items report although the item is there and the inventory date falls within the realm of when the item was open.

Description of Change

Change software to use Inventory Triannual Date instead of the date the account was opened.

Functional Impact

There is no functional impact as a result of this CCR.

Validation Procedures

- Process inventory scans for a location that contains items assigned to a different location on the equipment file
Expected results displays items that were scanned for a different location and as SCANNED, HELD on the current inventory status screen.

<u>MODULE ID</u>	<u>MODULE NAME</u>	<u>TYPE</u>	<u>CCR#</u>
SSTCISP2	Current Inventory Status	Program	161

Appendix D - INSTALLATION INSTRUCTIONS AND CHECKLIST FOR NEMS SOFTWARE RELEASE 3.9.1

Introduction

Release information:

System Name: NEMS
Release Number: 3.9.1
Release Date: July 21, 1997
Effective Date: Immediately

In case of installation problems, contact the NASA Automated Data Processing (ADP) Consolidation Center (NACC) Technical Services Center (Use following Key Words: SESAAS & NEMS)

Telephone: (205) 544-6673
Email: jim.crowell@msfc.nasa.gov
FAX: (205) 544-1836

The following datasets are located on the NASA Central Distribution Facility as NASA data sets.

- AIMS.NEMS.PROD.REL391.REL0797.SRC
- AIMS.NEMS.PROD.REL391.REL0797.SRCALT
- AIMS.NEMS.PROD.REL391.REL0797.DOC

Installation Sequence

The sequence in which the installation of this release should occur is provided in the following list. A checklist is provided in section 9.0 to assist in tracking the installation of this release.

- 1.0 Back Up Existing Data
- 2.0 Copy Source/Object Code
- 3.0 Pre-Predict Data Conversion
- 4.0 Install Predict
- 5.0 Catalog Source Code
- 6.0 Post-Predict Data Conversion
- 7.0 Perform Release-Specific Procedures
- 8.0 Local JCL Mods
- 9.0 Installation Checklist

1.0 Back Up Existing Data

It is advisable to back up all NEMS files as a precautionary measure prior to installation.

2.0 Copy Source/Object Code

2.1 Copy Source Code

The following data sets are supplied with this release version

AIMS.NEMS.PROD.REL391.REL0797.SRC - use sub sections A.

AIMS.NEMS.PROD.REL391.REL0797.SRCALT - use sub sections B.

Install either data set not both.

A. Source code is installed in three separate libraries. Source code for programs modified in this release version were unloaded in the NATUNLD format, these programs all have specific destination libraries as shown below. All the NEMS programs have a destination of NEMS; NEMSINV programs have a destination of NEMSINV and NEMSPCM have a destination of NEMSPCM.

1. Load the NEMS source library from dataset:

AIMS.NEMS.PROD.REL391.REL0797.SRC.

The source programs were unloaded using the Natural utility NATUNLD.

The NEMS programs:

INVBBIP1	Program
INVBBIP4	Program
INVBBIS1	Subprogram
INVBBIS4	Subprogram
NEMS	Program
TRN046P1	Program

will be loaded to the application library NEMS, replacing any existing programs of the same name.

2. Load the NEMSINV source library from dataset:

AIMS.NEMS.PROD.REL391.REL0797.SRC.

The source programs were unloaded using the Natural utility NATUNLD.

The programs:

INV	Program
SSTCISP2	Program
TRNILOP3	Program

will be loaded to the application library NEMSINV, replacing any existing programs of the same name.

3. Load the NEMSPCM source library from dataset:
 AIMS.NEMS.PROD.REL391.REL0797.SRC.
 The source programs were unloaded using the Natural utility NATUNLD.
 The Program:

PCMMAP Map
 will be loaded to the application library NEMSPCM, replacing any existing
 programs of the same name.

The source module counts included in this release are listed below:

Natural Source Modules by Type	Count
GLOBAL DATA AREA	0
LOCAL/PARAM DATA AREA	0
MAPS	1
HELP ROUTINES	0
SUBROUTINES	0
SUBPROGRAMS	2
PROGRAMS	7
COPYCODE	0
TEXT	0
PROCESS	0
MISCELLANEOUS OBJECTS	0
Total:	10

- B. Load the source programs from dataset:
 AIMS.NEMS.PROD.REL391.REL0797.SRCALT.
 The source programs were unloaded using the Natural utility NATUNLD.

The TESTNEMS programs:

INV Program
 INVBBIP1 Program
 INVBBIP4 Program
 INVBBIS1 Subprogram
 INVBBIS4 Subprogram
 NEMS Program
 PCMMAP Map
 SSTCISP2 Program
 TRNILOP3 Program
 TRN046P1 Program

will be loaded to the application library TESTNEMS, replacing any existing programs of the same name. (See sub-section A above for proper library distribution).

The source module counts included in this release are listed below:

Natural Source Modules by Type	Count
GLOBAL DATA AREA	0
LOCAL/PARAM DATA AREA	0
MAPS	1
HELP ROUTINES	0
SUBROUTINES	0
SUBPROGRAMS	2
PROGRAMS	7
COPYCODE	0
TEXT	0
PROCESS	0
MISCELLANEOUS OBJECTS	0
Total:	10

2.2 List of Source Code Modifications

The following are the modules added, and modified.

Added Modules:

None

Modified Modules:

1. INV Inventory Banner Page
2. INVBBIP1 Bar Code Data Against Equipment File
3. INVBBIP4 Location Bar Code Data Against Equipment File
4. INVBBIS1 Bar Code Data Against Equipment File
5. INVBBIS4 Bar Code Data Against Equipment File
6. NEMS NEMS Banner Page
7. PCMMAP PCM Banner Page
8. SSTCISP2 Current Inventory Status
9. TRNILOP3 Local Data Change
10. TRN046P1 Change Transaction 46 (Cap/Sen Code & NSN Change)

2.3 Copy Object Modules

Not applicable with this release.

3.0 Pre-Predict Data Conversion

Not applicable with this release.

4.0 Install Predict

Not applicable with this release.

5.0 Catalog Source Code

"Run a batch job to catalog (CATALL) all modules in the NEMSINV and NEMSPCM libraries using the NASA Batch standard parameters. It is not necessary to catalog the Global Data Area (GDA). There should be no errors received.

Run a batch job to catalog (CATALL) all modules in the NEMS library using the NASA Batch standard parameters replacing the existing PS and LS with the following values: PS=23 and LS=80. It is not necessary to catalog the Global Data Area (GDA). You should receive 31 NATURAL 0890 errors for modules beginning with ADH* or RPT* that concern trying to stow a dynamic program. These are valid. You should also receive 40 NATURAL 0303 errors for modules that begin with RPT* that concern page overflow. To compile these correctly, run another CATALL for the RPT* modules in the NEMS library using the NASA Batch standard parameters. Twelve RPT955* programs will produce NATURAL 0002 errors. These errors are to be **IGNORED** because these objects are dynamic.

After all objects are compiled, the NEMS application will run under the NASA On-line standard parameter.

6.0 Post-Predict Data Conversion

There is no post-Predict data conversion required.

7.0 Perform Release-Specific Procedures

There is no Perform Release Specific Procedures

8.0 Local JCL Mods

There are no Local JCL Mods with this release.

9.0 Installation Checklist

1.0 Back Up Existing Data

2.1 Copy Source Code

5.0 Catalog Source Code

Update the Password to the NEMS-PCM-AUTH file in PCM programs: MNUC01P1; TRNC26P1; TRNC52P1; TRNUPDP1. This step is optional if the Center chooses not to put a password on the NEMS-PCM-AUTH file.

A. Find out from your DBA the ADABAS Security password assigned to the NEMS-PCM-AUTH file at your Installation.

B. Logon to the NEMSPCM and use the Scan utility to search the NEMSPCM programs listed above for the word:

PASSWORD = 'NEMSPCM' and replace it with:

PASSWORD = 'Your site Password'. This scan and replace will change all references to the password, found in the newly released NEMS Release Version 3.9.1 modules, with your Installation's password.

7.0 Perform Release-Specific Procedures