

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

Release 5.1.2

NASA-NEMS-VDD-13

PrISMS Contract

November 8, 2002



National Aeronautics and
Space Administration

George C. Marshall Space Flight Center
Huntsville, AL 35812

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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 5.1.2 and has an effective release date of November 8, 2002.

1.2 PURPOSE OF THE RELEASE

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

<u>CCR</u>	<u>Title</u>
338	Building Number table conversion

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

<u>CCR</u>	<u>Title</u>
None	

1.3 SCOPE

This VDD provides the functional and technical user of NEMS with information regarding the content, status, and structure of Release 5.1.2, including the following:

- Changes implemented since Release 5.1.1;
- 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 functional 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: (256) 544-6673
Email: neal.cantrell@msfc.nasa.gov
FAX: (256) 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 changes related to this release.

2.2 FUNCTIONAL INTERFACES

This section is not applicable for this release.

2.3 CRITICAL ISSUES

This section is not applicable for this release.

2.4 AFFECTED DOCUMENTS

The following documents were changed for this release:

NEMS Web Front End User Guide

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

This section is not applicable with this release.

3.2 DATA DICTIONARY CHANGES

Refer to Appendix D, Section 4.0, for the 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, Section 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 5.1.2 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

There 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 Agencywide 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	338	Building Number table conversion

Details for the validation procedures follow:

1.0 CCR 338 – Building Number table conversion

With the centralization of the NEMS system and the consolidation of files, duplicates will exist on the NEMS Building Number table (102) if the data is not converted.

Description of Change

Conversion programs were created to change the building numbers to include a 2-position center identifier followed by a dash before the 7 position building number.

Functional Impact

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

Validation Procedures

- Execute step 7.1 Run BLDUPDT1.
Expected Results: The building numbers will be unloaded so they can be modified as desired.
- Execute step 7.2 Run BLDUPDT2
Expected Results: The building numbers on table 102 will be converted as specified in the input file.
- Execute step 7.3 Run BLDEQUIP
Expected Results: The building numbers on the NEMS-EQUIPMENT file will be converted as specified in the input file.
- Execute step 7.4 Run BLDHIST
Expected Results: The building numbers on the NEMS-HISTORY file will be converted as specified in the input file.
- Execute step 7.5 Run BLDTXNS
Expected Results: The building numbers on the NEMS-DAILY-TRANS, NEMS-MONTH-TRANS, and NEMS-YEARLY-TRANS files will be converted as specified in the input file.
- Execute step 7.6 Run BLDINV
Expected Results: The building numbers on the NEMS-INVENTORY, NEMS-BAR-CODE, and NEMS-INV-STATUS files will be converted as specified in the input file.
- Execute step 7.7 Run BLDPCM
Expected Results: The building number on the NEMS-PCM-PENDING and NEMS-WEB-PENDING files will be converted as specified in the input file.

<u>MODULE ID</u>	<u>MODULE NAME</u>	<u>TYPE</u>
BLDEQUIP	Convert Building Number on Equipment file	Program
BLDHIST	Convert Building Number on History file	Program
BLDINV	Convert Building Number on Inventory, Bar Code and Inventory Status files	Program
BLDPCM	Convert Building Number on PCM Pending and Web Pending files	Program

BLDTXNS	Convert Building Number on Transaction files (daily, monthly, and yearly)	Program
BLDUPDT1	Building Number table unload	Program
BLDUPDT2	Convert Building Number table	Program

APPENDIX D - APPENDIX D - INSTALLATION INSTRUCTIONS AND CHECKLIST FOR NEMS SOFTWARE RELEASE 5.1.2

Introduction

Release information:

System Name: NEMS
Release Number: 5.1.2
Release Date: November 8, 2002
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: (256) 544-6673
Email: neal.cantrell@msfc.nasa.gov
FAX: (256) 544-1836

*** IMPORTANT NOTE ***

All release datasets must be deleted from the transient storage DASD volumes within 1 month of the release date. Failure to delete release datasets could negatively impact NPPS production.

The following datasets are located on the transient storage DASD volumes under the following data sets names:

xxMOV.NEMS.PROD.R512.R1102.SRC

Where "xx" is replaced by the appropriate NASA Center designation.

AR - ARC
DF - DFRC
GS - GSFC
HQ - HQ
J5 - JSC
KS - KSC
LA - LaRC
LE - GRC (Glenn)
MS - MSFC
SS - SSC

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
- 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

2.1 Copy Source Code

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 programs have a destination of NEMSPCM.

1. Load the NEMS source library from the dataset
xxMOV.NEMS.PROD.R512.R1102.SRC.

The source programs were unloaded using the Natural utility NATUNLD. The NEMS programs:

- | | |
|-------------|---|
| 1. BLDEQUIP | Convert Building Number on Equipment file |
| 2. BLDHIST | Convert Building Number on History file |
| 3. BLDINV | Convert Building Number on Inventory, Bar Code and Inventory Status files |
| 4. BLDPCM | Convert Building Number on PCM Pending and Web Pending files |
| 5. BLDTXNS | Convert Building Number on Transaction files (daily, monthly, and yearly) |
| 6. BLDUPDT1 | Building Number table unload |
| 7. BLDUPDT2 | Convert Building Number table |

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

2. Load the NEMSINV source library from the dataset:
xxMOV.NEMS.PROD.R512.R1102.SRC.

The source programs were unloaded using the Natural utility NATUNLD. The NEMSINV programs:

None

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

3. Load NEMSPCM source library from the dataset:
xxMOV.NEMS.PROD.R512.R1102.SRC.

The source programs were unloaded using the Natural utility NATUNLD. The NEMSPCM Programs:

None

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	0
HELP ROUTINES	0
SUBROUTINES	0
SUBPROGRAMS	0
PROGRAMS	7
COPYCODE	0
TEXT	0
PROCESS	0
MISCELLANEOUS OBJECTS	0
Total:	7

2.2 List of Source Code Modifications

The following are the modules added, modified, and deleted.

Added Modules:

1. BLDEQUIP Program
2. BLDHIST Program
3. BLDINV Program
4. BLDPCM Program
5. BLDTXNS Program
6. BLDUPDT1 Program
7. BLDUPDT2 Program

Modified Modules:

1. None

Deleted Modules:

1. None

3.0 Pre-Predict Data Conversion

Not applicable with this release.

4.0 Install Predict

4.1 Data Dictionary Changes

Not applicable with this release.

5.0 Catalog Source Code

Run a batch job to catalog (CATALL) modules that start with BLD 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. You should not receive any errors.

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

6.0 Post-Predict Data Conversion

Not applicable with this release.

7.0 Perform Release-Specific Procedures

7.1 Run BLDUPDT1

Must be run first. Provides a file to be edited of the old building numbers and the new building numbers as created by the program. This module will list the old and new codes that will be truncated. These may be left as they are, truncated or edited to provide a more user-friendly code. This file to be edited may be downloaded or edited on the mainframe. Semicolons are provided between the fields to help provide alignment when editing. This file will be used to do the actual conversions in later steps. It will be read as a fixed format file.

7.2 Run BLDUPDT2

This module uses the edited file from BLDUPDT1 to update table 102 in the NEMS Table file. This module contains edits to validate the alignment of the input from any editing errors out of step one.

7.3 Run BLDEQUIP

This module uses the edited file from BLDUPDT1 to update the NEMS Equipment File

7.4 Run BLDHIST

This module uses the edited file from BLDUPDT1 to update the NEMS History File

7.5 Run BLDTXNS

This module uses the edited file from BLDUPDT1 to update the NEMS Daily Transaction, NEMS Monthly Transaction, and NEMS Yearly Transaction files.

7.6 Run BLDINV

This module uses the edited file from BLDUPDT1 to update the NEMS Inventory, NEMS Bar Code, and NEMS Inventory Status files.

7.7 Run BLDPCM

This module uses the edited file from BLDUPDT1 to update the NEMS PCM Pending and NEMS Web Pending files.

8.0 Local JCL Mods

None

9.0 Installation Checklist

- 1.0 Back Up Existing Data
- 2.0 Copy Source
 - 2.1 Copy Source Code
 - 2.2 List of Source Code Modifications
- 3.0 Pre-Predict Data Conversion
- 4.0 Install Predict
 - 4.1 Data Dictionary Change
 - 4.1.1 Inventory of Objects
 - 4.1.2 Storage Considerations
 - 4.1.3 Physical File Changes
- 5.0 Catalog Source Code
- 6.0 Post-Predict Data Conversion

7.0 Perform Release-Specific Procedures

7.1 Run BLDUPDT1

7.2 Run BLDUPDT2

7.3 Run BLDEQUIP

7.4 Run BLDHIST

7.5 Run BLDTXNS

7.6 Run BLDINV

7.7 Run BLDPCM

8.0 Local JCL Mods

APPENDIX E - SAMPLE JCL FOR BUILDING CONVERSION

Sample JCL for step 7.1 (BLDUPDT1)

```
000001 //IRNEMS JOB (AGAOHNEMS002,4485),'BLD UPDT',CLASS=D,
000002 //      NOTIFY=USERID,MSGCLASS=A
000003 //*
000004 //NATURAL EXEC N01Z
000005 //CMWKF05 DD DSN=LOCAL.DATASET.NAME,
000006 //      DISP=(NEW,CATLG,DELETE),
000007 //      DCB=(RECFM=FB),
000008 //      SPACE=(TRK,(5,3),RLSE),
000009 //      UNIT=SYSDA
000010 //CMPRINT DD SYSOUT=(I,PSBOK1C),DEST=PRINTER
000011 //CMSYNIN DD *
000012 LIBRARY,USERID
000013 %*
000014 PASSWORD
000015 BLDUPDT1 CENTER
000016 FIN
000017 /*
000018 //
```

On line 15 the CENTER is the 2-position abbreviation for the center:

- AR = Ames
- DR = Dryden
- GR = Glenn
- GS = Goddard
- JS = Johnson
- KS = Kennedy
- LA = Langley
- MS = Marshal
- SS = Stennis
- WS = White Sands sub of JS
- HQ = Headquarters sub of GS
- JP = JPL
- WF = Wallops sub of GS

Sample JCL for steps 7.2 - 7.7. It is recommended that the modules be run one at a time

```
000001 //IRNEMS JOB (AGAOHNEMS002,4485),'BLD UPDT',CLASS=D,  
000002 //      NOTIFY=USERID,MSGCLASS=A  
000003 /*  
000004 //NATURAL EXEC N01Z  
000005 //CMWKF05 DD DSN=LOCAL.DATASET.NAME,DISP=OLD  
000006 //CMPRINT DD SYSOUT=(I,PSBOK1C),DEST=U0088  
000007 //CMSYNIN DD *  
000008 LIBRARY,USERID  
000009 %*  
000010 PASSWORD  
000011 MODULE  
000012  
000013 FIN  
000014 /*
```

On line 5 change LOCAL.DATASET.NAME to the dataset created in Step 7.1.

On line 11 substitute the modules names from steps 7.2 – 7.7 for MODULE.

```
BLDUPDT2  
BLDEQUIP  
BLDHIST  
BLDTXNS  
BLDINV  
BLDPCM
```