MAINTENANCE TECHNICAL SUPPORT CENTER
HEADQUARTERS MAINTENANCE OPERATIONS
UNITED STATES POSTAL SERVICE

Software Modification Order

SUBJECT: Mail Processing Equipment Watch (MPEwatch) v2.70 Software Release

DATE: June 1, 2012

NO: SMO-021-12

TO: Sites with MPEwatch v.2.70 Software

FILE CODE: M mlot:sm12021ad

The purpose of this Software Modification Order (SMO) is to provide information for the Mail Processing Equipment Watch (MPEwatch) version 2.70 release on the National MPEwatch Server and on all Data Collection Servers (DCS) and National Remote Personal Computer (NRPC) servers. This bulletin **supersedes SMO-034-11**. This bulletin applies to Acronym ADMIN File Code AA.

The USPS Engineering IDS Support Group will remotely install MPEwatch v2.70 onto the DCS and NRPC servers at mail processing centers. Site personnel will not be involved with installation or post-installation activities for this release.

Software will be installed by June 18, 2012.

Direct any questions or comments concerning this bulletin to the HelpDesk, Maintenance Technical Support Center, P.O. Box 1600, Norman OK 73070-1600; telephone (405) 573-2123 or toll free (800) 366-4123.

for

Robert E. Albert
Manager
Maintenance Technical Support Center
HQ Maintenance Operations

Attachments:
1. MPEwatch v2.70 Software Version Description and Installation Procedure
2. Release Evaluation Form (REF)

ATTACHMENT 1

MPEWATCH V. 2.70 SOFTWARE VERSION DESCRIPTION AND INSTALLATION PROCEDURE

Table of Contents

1. SCOPE

This Software Modification Order (SMO) document provides information for the Mail Processing Equipment Watch (MPEwatch) version 2.70 release on the National MPEwatch Server and on all Data Collection Servers (DCS) and National Remote Personal Computer (NRPC) servers.

1.1. IDENTIFICATION

Project Name:	Mail Processing Equipment Watch
Acronym:	MPEwatch
Version:	2.70
Release Date:	June 18, 2012
Recipients:	United States Postal Service (USPS) Engineering Systems, Maintenance Technical Support Center (MTSC), and all mail processing centers with installed DCS or NRPC systems
Operating Sites	All mail processing centers with installed DCS or NRPC systems

1.2. SYSTEM OVERVIEW

The MPEwatch system is a database and web-based application installed on the Data Collection Server (DCS) and National Remote Personal Computer (NRPC) at mail processing centers that provides near real time reporting of mail processing equipment (MPE) performance. National MPEwatch is installed on the National MPEwatch Server and collects local MPEwatch data and local Distributed Management System (DMS) data. DMS is a local MPEwatch subsystem that is hosted on the Integrated Data System (IDS) and accessed through the local MPEwatch web site. DMS provides performance reports specifically for the Advanced Facer Canceller System 200 (AFCS 200) MPEs at applicable sites.

Project Sponsor:	USPS Engineering Systems
User:	All USPS Processing and Distribution Centers (P&DC) with DCS or NRPC systems
Developer:	Silent Solutions, Inc. (SSI)
Maintenance Organization:	MTSC

1.3. DISTRIBUTION

Table 1-1. MPEwatch v2.70. Test Sites

Engineering Test Site	**Area**	**Site Contract (name, title, phone)**
Denver CO P&DC	Western	John Stein – Manager Maintenance Operations, (303) 853-6350
Curseen Morris DC P&DC	Capital Metro	Damone Williams – Manager Maintenance, (202) 636-1202
Alpha Test Sites	**Area**	**Site Contract (name, title, phone)**
Raleigh NC P&DC	Capital Metro	Paul Allen – Manager Maintenance, (910) 486-2445 Ricky Reynolds, Manager Maintenance Operations, (919) 420-5219
Rochester NY P&DC	Eastern	Vincent Catapano – Manager Maintenance, (585) 272-5642
Pre-Beta Test Sites	**Area**	**Site Contract (name, title, phone)**
Dallas TX P&DC	Southwest	Joel Fitzgibbon – Manager Maintenance Operations, (214) 760-4994
Harrisburg PA P&DC	Eastern	Albert Markham – Manager Maintenance (Lead), (717) 257-2136
Beta Test Sites	**Area**	**Site Contract**
Buffalo NY P&DC	Eastern	John Bahun – Manager Maintenance Operations, (716) 846-2380
Kansas City MO P&DC	Western	Barry Burlingame – Manager Maintenance Engineering Support, (816) 504-3409
Nashville TN P&DC	Eastern	Robert Widelock – Manager Maintenance Operations, (615) 885-9140
South Suburban (Bedford Park) P&DC	Great Lakes	Isidro Murillo – Maintenance Engineering Specialist, (708) 563-7272

Distribution Process:

MPEwatch will be upgraded on all DCS and NRPC servers using a completely automated scheduling and installation process. The USPS Engineering Systems Integrated Data System (IDS) support group will distribute the MPEwatch software electronically to the DCS and NRPC systems from the USPS Engineering Systems facility. The DCS and NRPC systems will remain operational during this automated procedure.

Also, the National MPEwatch software will be installed on the National MPEwatch server. The DMS software will be installed on the site IDS by the USPS Engineering Systems IDS group; and on the site NDSS by the NDSS group.

1.4. SYSTEM IMPACT

The operational and maintenance impacts of the MPEwatch v2.70 release are summarized in sections 1.4.1 and 1.4.2, respectively, below. Details of the operational benefits of MPEwatch v2.70 are provided in Section 2.2, Summary of Changes, and its subsections.

1.4.1. MPEwatch v2.70 Operational Impacts

The MPEwatch v2.70 software release does not impact mail processing at sites. Installation is handled remotely; site personnel are not required.

Updated or new MPEwatch reporting displays may provide Operational benefits with new or improved visibility into MPE systems including ATU, FSS, LCREM, and PSS. Updates are included for AFCS 200 reporting and KPI monitoring as well.

1.4.2. MPEwatch v2.70 Maintenance Issues

The MPEwatch v2.70 software release does not impact mail processing or maintenance capabilities at sites. Site personnel are not required for installation. New or updated MPEwatch reporting displays may provide maintenance benefits via improved visibility into a site's performance. See Section 13 for the list of new or improved MPEwatch displays and updated MPEwatch reporting and monitoring capabilities.

1.5. SYSTEM DEPENDENCIES/INTERFACES

1.5.1. System Dependencies

MPEwatch v2.70 software is dependent upon the following systems:

1. IDS/DCS

MPEwatch is hosted on the IDS server running DCS software at the local site. MPEwatch software requires all the IDS systems to be running v3.0 or higher prior to the software installation.

2. NDSS

MPEwatch software is dependent on the NDSS to provide users with web-based access to MPEwatch. The NDSS must have Oracle Hyper-Text Transfer Protocol (HTTP) Server version 10g or higher installed and configured.

3. NRPC

MPEwatch software is dependent on the NRPC. The NRPC IDS system software must be at v3.0 or higher.

1.5.2. Interfaces

The MPEwatch v2.70 software interfaces to the following systems:

IDS/DCS	MPEwatch will be hosted by the IDS/DCS. Also, MPEwatch derives its input data from the DCS.
National MPEwatch Server	MPEwatch will be hosted by the National MPEwatch Server.
NDSS	Users will access MPEwatch through the use of a web server hosted on the NDSS.
NRPC	MPEwatch will be hosted by the IDS/NRPC. Also, MPEwatch derives its input data from the NRPC.
USPS National BDS Server	MPEwatch uses the USPS National Bio-Detection System (BDS) Server to derive some of its input data.
USPS SMTP Email Server	MPEwatch uses the USPS Simple Mail Transfer Protocol (SMTP) Email Server to optionally send reports to users.
USPS WebEOR Databases	MPEwatch uses the USPS Web End Of Run (WebEOR) Databases to derive some of its input data.
USPS Postal Network	All MPEwatch traffic occurs on the postal network.

2. VERSION DESCRIPTION

2.1. MATERIALS RELEASED

Materials released for MPEwatch v2.70 include only the MPEwatch v2.70 SMO/SVD. Since this is a remote distribution, there is no installation kit distributed.

2.2. SUMMARY OF CHANGES

For Local MPEwatch, updates include:

- Addition of FSS maintenance email alerts
- Addition of operational and maintenance monitoring for LCREM systems to local MPEwatch
- Addition of ATU real-time performance statistics to local MPEwatch
- Addition of PSS performance charts and reports by site and by machine to local MPEwatch

The details of the changes to the MPEwatch software are described below.

2.2.1. Local MPEwatch FSS Maintenance Email Alerts

With the v2.70 release, local MPEwatch provides FSS maintenance email alerts on a per site basis. Email alerts are triggered based upon parameters set on the FSS system. Please note that this functionality is dependent on FSS v3.0 software and IDS v3.1 software, which are currently scheduled for release.

Effect of Change: FSS maintenance email alerts on a per site basis

Origin: SCR 9803

Requestor: Engineering Software Management (ESM), Software Development

2.2.2. Local MPEwatch LCREM Monitoring

With the v2.70 release, local MPEwatch provides the following LCREM charts on a per site basis: Performance, Throughput, Maintenance/Operations Counts, Performance Rates, Stacker Counts, and Time. With the v2.70 release, local MPEwatch also provides daily LCREM Operations and Maintenance reports.

Effect of Change Added visibility into LCREM performance via local MPEwatch

Origin: SCR 9035

Requestor: Engineering Software Management (ESM), Software Development

2.2.3. Local MPEwatch ATU Performance Reports

With the v2.70 release, local MPEwatch provides ATU near real time performance statistics.

Effect of Change: Added visibility into ATU performance via local MPEwatch

Origin: SCR 9830

Requestor: Engineering Software Management (ESM), Software Development

2.2.4. Local MPEwatch PSS Performance Monitoring

With the v2.70 release, local MPEwatch provides the following PSS performance charts on a per plant basis: Total Scans per Week, Daily Scans (stacked bar by machine), Average Scans per Hour (daily, per machine), and Real-Time Scans per Hour (per machine). With the v2.70 release, local MPEwatch also provides the same PSS performance charts previously listed on a per machine basis:

Effect of Change: Added visibility into PSS performance via local MPEwatch

Origin: SCR 10672

Requestor: Engineering Software Management (ESM), Software Development

2.3. ADAPTATION DATA

After installation, MPEwatch v2.70 will be configured with site-specific information. This will only be necessary after a full install and not after an upgrade from the previous version. The USPS Engineering Systems MPEwatch support group will update this site-specific information as part of the post-installation process. Site personnel will not be involved with installation or post-installation verification.

Note: Access to this site-specific information is restricted to the USPS Engineering Systems MPEwatch support group. Users of MPEwatch will not have access to this information.

3. INSTALLATION OVERVIEW

The MPEwatch v2.70 release represents a complete baseline software release. An upgrade from MPEwatch v2.69 will be required at DCS and NRPC systems.

As sections 10, 11, and 12 indicate, the detailed installation instructions are located in a separate installation document. The USPS Engineering Systems IDS support group, using a remote procedure, will install MPEwatch onto the DCS and NRPC servers at mail processing centers. Site personnel will not be involved with installation or post-installation activities for this release.

The National MPEwatch software will be installed on the National MPEwatch server. Site personnel will not be involved with installation or post-installation activities for this release.

4. OPERATIONAL PROCEDURES

This section identifies those changes that affect operational procedures. No mail processing operational procedures will be impacted by this release. There are no operational procedure changes required for this release.

5. POSSIBLE PROBLEMS AND KNOWN ERRORS

5.1. SOME MPE ARE MISSING FROM THE DISPLAYS AND REPORTS

Description: MPE can only be included in MPEwatch displays and reports if the MPE is successfully sending near real-time performance and machine event data to the site DCS or NRPC. If some MPE is missing from the displays and reports, there is a communication problem between the MPE and the site DCS.

Correction: Check communication connections between the MPE and the site DCS and/or contact MTSC.

5.2. JAMS AND ABNORMAL STOPS ARE NOT BEING REPORTED FOR SOME MPE

Description: MPEwatch can only display and report on jams for MPE if the MPE are successfully sending near real-time machine event data to the site DCS. There is a known problem (corrupted spool file) within the protocol between the MPE and DCS that can lead to an interruption in the sending of machine event data by the MPE.

Correction: MTSC distributes a patch/utility (DCS Resync) that corrects this problem on delivery barcode machines running Postal Automated Redirection System (PARS) software. The USPS Engineering Systems MPEwatch support group provides manual procedures for correcting this problem on delivery barcode machines not running PARS software and on the Advanced Flats Sorting Machine 100 (AFSM100) machines. There is no known procedure that corrects this problem on the AFCS/Data Collection Computer (DCC) machines.

5.3. INCONSISTENCY BETWEEN AFCS/DCC DISPLAYS/REPORTS AND MPEWATCH

Description: There is a known problem with the AFCS/DCC. The AFCS/DCC is not consistent with the data it includes in its displays/reports and the data it sends to the site DCS or NRPC systems. Since MPEwatch uses this data (as it is stored by the DCS and NRPC), MPEwatch displays and reports can be inconsistent with the AFCS/DCC displays/reports.

Correction: There is no known correction for this problem.

5.4. RENAMING GROUPS ON THE UNPLANNED GROUP CONFIGURATION PAGE

Description: There is a known issue on the Unplanned Group Configuration page that causes the Rename Group button to not execute the rename function.

Correction: This issue is currently under investigation. Personnel can work around the issue using the Create Group and Delete Group functions if renaming a group is necessary.

5.5. AFCS MACHINE STATUS DATA

Description: There is a known issue on the IDS 3.0 software for AFCS MPEs. The AFCS Machine Status data is not consistently stored in the IDS database. The result is that MPEwatch cannot report machine events such as jams.

Correction: This issue is currently under investigation by the IDS group. There is no known correction for this problem.

5.6. CONNECTION STATUS FOR ATU, HSTS AND CFPS

Description: There is a known issue for some ATU, HSTS, and Change of Address Forms Processing System (CFPS) systems. Due to inconsistent configuration transmission to the IDS on these systems, they may not maintain a consistent connection across the IOS protocol. The result is that MPEwatch reports these machines as disconnected.

Correction: An SPR has been submitted for an update to the system software for these systems.

5.7. FSS EMAIL ALERT NOT GENERATING

Description: FSS Email Alerts will not be generated with IDS v3.0 or FSS v2.5.3.

Correction: The release of both IDS v3.1 software and the FSS v3.0+ software will correct this issue.

6. DOCUMENTATION AND REFERENCES

The documents listed in Table 1-2 below may provide supporting information to this SMO.

Table 1-2. Referenced Documents

Title	Version	Revision	Date	Doc ID	Source
Software Install Document for Local MPEwatch Version 2.70 Software Full Install for the IDS	2.70	0.1	3/15/2012	Not Applicable (N/A)	SSI Software Configuration Management (SCM) Repository
Software Install Document for Local MPEwatch Version 2.70 Upgrade	2.70	0.1	3/29/2012	N/A	SSI SCM Repository

7. CHANGE REQUEST PROCEDURES

Requests for changes to MPEwatch should be submitted as a SCR or Software Problem Report (SPR). A SCR/SPR may be submitted via the USPS Engineering Systems web server at http://web.eng.usps.gov by selecting “Forms” in the left most column, then “Software Change Request / Software Problem Report (SCR/SPR)”. Click on the MPEwatch link under the Support Systems PCB category, fill out the form, and click the OK button.

The project leader is responsible for reviewing the request and notifying the developer of required changes and setting a deployment date to allow time for implementation of the changes and then providing resolution to the requestor.

8. PROBLEM REPORTING PROCEDURES

Report any problems with the installation or with this documentation to the HelpDesk, MTSC, P.O. Box 1600, Norman OK 73070-1600; telephone FTS 2000 (405) 573-2123 or toll free (800) 366-4123. MTSC will take the appropriate information regarding the problem or question and attempt to resolve it. If unable to provide resolution, MTSC will contact the appropriate parties. Resolution information will be provided back to the requestor by MTSC.

9. NOTES

Table 1-3 below lists the acronyms and abbreviations used in this document.

Table 1-3. Acronyms and Abbreviations

Acronym/Abbreviation	Description
AFCS	Advanced Facer Canceller System
AFCS 200	Advanced Facer Canceller System 200
AFSM100	Advanced Flats Sorting Machine 100
ATU	Automatic Tray Unsleever
BDS	Bio-Detection System
CFPS	Change of Address Forms Processing System
DB	Delivery Barcode
DBOSS	Delivery Barcode Sorter with Output Subsystem
DCC	Data Collection Computer
DCS	Data Collection Server
DMS	Distributed Management System
eMARS	Electronic Maintenance Activity Reporting System
ESM	Engineering Software Management
FSS	Flats Sequencing System
FTS	Federal Telecommunications System
HSTS	High Speed Tray Sorter
HTTP	Hyper-Text Transfer Protocol
ID	Identification
IDS	Integrated Data System
KPI	Key Performance Indicators
MHE	Material Handling Equipment
MPE	Mail Processing Equipment

Acronym/Abbreviation	Description
MPEW	Mail Processing Equipment Watch
MPEwatch	Mail Processing Equipment Watch
MQN	An eMARS action code, exact definition unknown
MTSC	Maintenance Technical Support Center
N/A	Not Applicable
NDSS	National Directory Support System
NRPC	National Remote Personal Computer Server
OK	Oklahoma
P&DC	Processing and Distribution Center
P/N	Part Number
P.O.	Post Office
PARS	Postal Automated Redirection System
PCB	Project Change Board
PNOT	POSTNET - No ID Tag Found
PS	Postal Service
QNOT	Qualified -No ID Tag Found
REF	Release Evaluation Form
Rev.	Revision
SCM	Software Configuration Management
SCR	Software Change Request
SMO	Software Modification Order
SMTP	Simple Mail Transfer Protocol
SPR	Software Problem Report
SSI	Silent Solutions, Inc.
TBD	To Be Determined
URL	Uniform Resource Locator
USPS	United States Postal Service
V or v	Version
WebEOR	Web End Of Run

10. INSTALLATION INSTRUCTIONS

Site personnel will not be involved with installation or post-installation activities for this release, therefore the installation procedures for MPEwatch v2.70 are located in a separate document.

The installation procedures for MPEwatch are located in two separate documents:

- *Software Install Document for Local MPEwatch Version 2.70 Software Full Install for the IDS*
  - File name: MPEWATCH_v2.70_Install_Full
  - Contains instructions for a full installation
- *Software Install Document for Local MPEwatch Version 2.70 Upgrade*
  - File name: MPEWATCH_v2.70_Install_Upgrade
  - Contains instructions for installation to upgrade a site currently running MPEwatch software from a previous release

Since installation will be performed remotely by the USPS Engineering Systems IDS group, site personnel involvement will not be required for the installation.

11. POST-INSTALLATION AND VERIFICATION PROCEDURES

The post-installation procedures for MPEwatch v2.70 are located in separate documentation identified in Section 10. Since post-installation verification will be performed remotely by the USPS Engineering Systems MPEwatch group, site personnel will not be required to be involved in post-installation testing.

Users can verify that the installation has been completed by accessing MPEwatch using the following procedure:

1. From any browser, type in the following Uniform Resource Locator (URL): **http://mpewatch**.
2. When the Welcome screen appears, click on the **MPEwatch Site List** link.
3. Click on the link for your site from the MPEwatch Site List.
4. The home page for the selected site displays.
5. Click on the **about** link under the MPEwatch logo. The installation was completed successfully if the correct version number of MPEwatch is identified in the pop-up window displayed after clicking the about link.

12. CATASTROPHIC RECOVERY PROCEDURES

The catastrophic recovery procedures for MPEwatch v2.70 are located in separate documentation identified in Section 10. Since catastrophic recovery testing will be performed remotely by the USPS Engineering Systems IDS group, site personnel will not be required to be involved with catastrophic recovery testing.

13. RELEASE NOTES

13.1. NATIONAL MPEWATCH FSS MAINTENANCE EMAIL ALERTS

MPEwatch distributes maintenance email alerts generated from the FSS MPE (Figure 1-1). These email alerts are triggered based on parameters set on the FSS system. Please note that this functionality is dependent on FSS v3.0 software and IDS v3.1 software, which are currently scheduled for release.

Sent: Friday, January 27, 2012 1:04 PM
To: Sample Recipient
Subject: AMC: Maintenance action manually created.

MaintenanceAction
  Timestamp: 01/18/2012 15:28:11.120
  site id: 25
  machine acronym: FSS
  class code: AA
  machine no: 1
  machine sn: 1084
  software version: 3.0.5
  create date: 01/18/2012 15:28:11
  create user: ENG
  mod date: 01/18/2012 15:28:11
  mod user: ENG
  noun code: LU
  fss ma id: 000067-12
  fss ma title: test003
  ma status: O
  ma charge type: 1
  ma descr: [ENG:01/18/2012 15:28]test003
  num employees needed: 1
  min skill level: PHASE2
  est time to complete: 5
  pm tasks actual time: 0
  ma subsystem: ELECTRICAL CABINET ASSEMBLY, ATMS MAIN
  ma section: ELECTRICAL PANEL ASSEMBLY, LEFT, ATMS MAIN
  ma fru: AUXILIARY CONTACT
  ma unit:true
  work code: 02
  date due: 01/19/2012
  dept code: 100
  desc events before: [ENG:01/18/2012 15:28]test003
  intermittent: 0
  failure location subsystem: true
  failure location section: true
  failure location fru: true

Figure 1-1. Sample FSS Maintenance Email Alert Content

13.2. LOCAL MPEWATCH LCREM MONITORING

With the v2.70 release, Local MPEwatch enables users to monitor LCREM performance (Figure 1-2), operations (Figure 1-2), and maintenance (Figure 1-4).

Figure 1-2. Local MPEwatch LCREM Monitoring

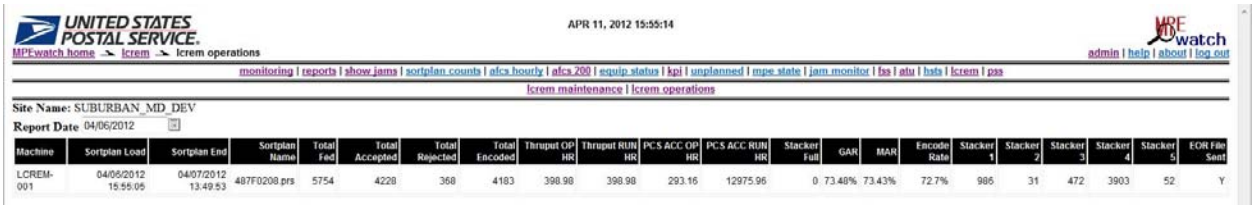

Figure 1-3. Local MPEwatch LCREM Operations

Figure 1-4. Local MPEwatch LCREM Maintenance

13.3. LOCAL MPEWATCH ATU PERFORMANCE SCREEN

Local MPEwatch enables users to create ATU tray volume reports by both tour and MODS day (Figure 1-5).

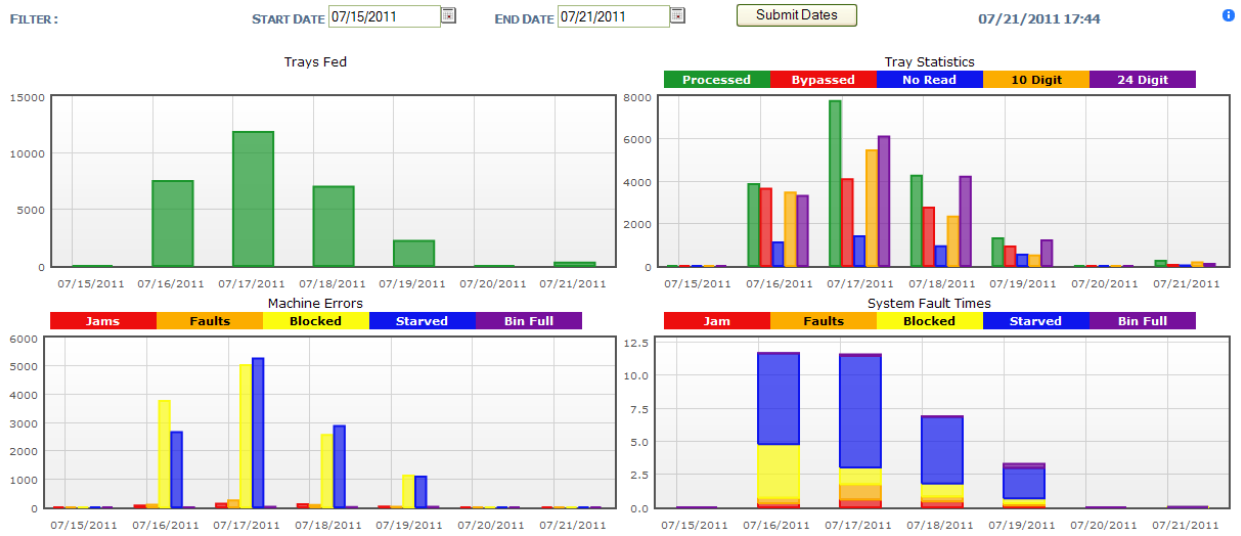

Figure 1-5. Local MPEwatch Performance Screen

13.4. LOCAL MPEWATCH PSS PERFORMANCE MONITORING

Local MPEwatch enables users to monitor PSS performance at both the plant (Figure 1-6) and machine (Figure 1-7) levels.

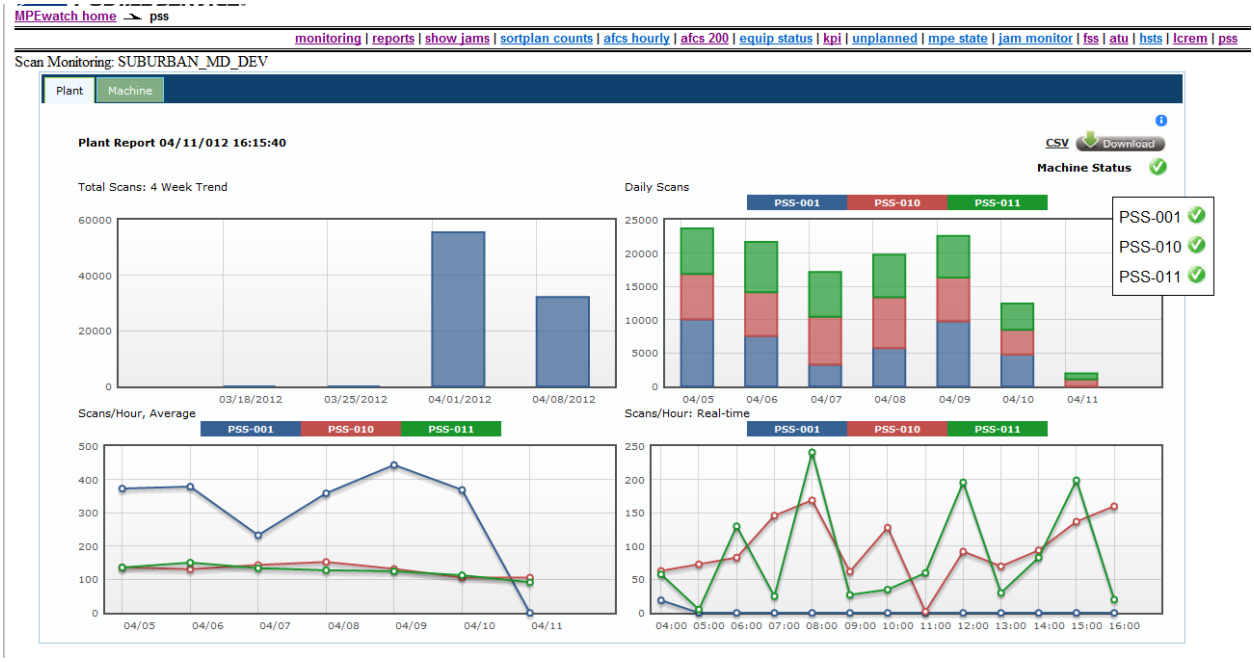

Figure 1-6. Local MPEwatch PSS Performance Monitoring – Plant

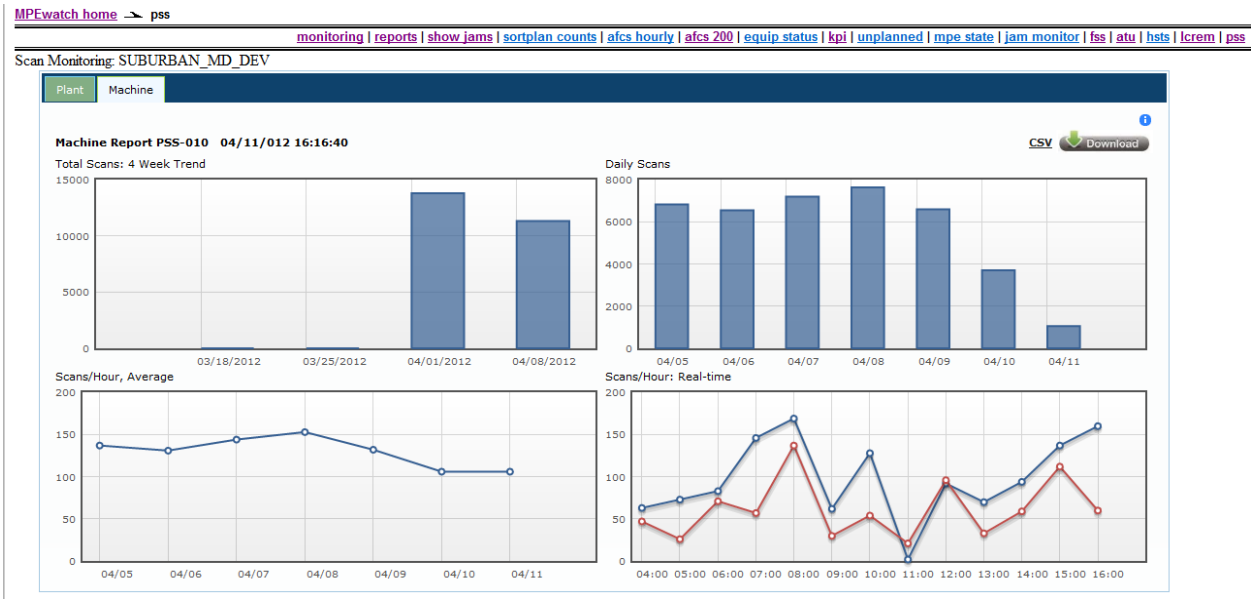

Figure 1-7. Local MPEwatch PSS Performance Monitoring – Machine

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ATTACHMENT 2

RELEASE EVALUATION FORM

INSTRUCTIONS FOR USING ON-LINE EVALUATION FORM

USPS Engineering Customers:

After completing the installation of a new USPS Engineering software release, fill out the online Engineering Release Evaluation form. Evaluation of the software, documentation, and release activities determines whether the release process satisfies the needs of our customers. Access the Engineering Release Evaluation form at:

http://web.eng.usps.gov/fed/forms/interim/REF/ref.cfm

or go to the Engineering web page at
http://web.eng.usps.gov
and choose Forms. Select Release Evaluation Form (REF).

Efforts by Field Personnel to help Engineering improve its software development processes and products, and better serve our customers are appreciated.