

Capacity Management Tools 3.0

User Manual



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Enterprise Systems Engineering (ESE)
Capacity and Performance Engineering (CPE)

Revision History

Documentation Revisions

[Table 1](#) displays the revision history for this document. Revisions to the documentation are based on patches and new versions released to the field.

Table 1. Documentation revision history

Date	Revision	Description	Author
12/30/2015	1.2	Updated document based on Capacity Management Tools Patch KMPD*3.0*3. Software: CM Tools 3.0 .	REDACTED (CPE): St. Petersburg Field Office Technical Writer: REDACTED
10/--/2015	1.1	Corrected reports to reflect both foreground and background CPRS coversheet load timings. Software: CM Tools 3.0 .	REDACTED (CPE): St. Petersburg Field Office
09/20/2012	1.0	Initial Capacity Management (CM) Tools software and documentation release. Software: CM Tools 3.0	Capacity Planning Development Team <ul style="list-style-type: none">• Development Manager—REDACTED• Developer—REDACTED• Software Quality Assurance (SQA)—REDACTED• Technical Writer—REDACTED

Patch Revisions

For the current patch history related to this software, see the Patch Module on FORUM.

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Orientation

How to Use this Manual

Throughout this manual, advice and instructions are offered regarding the use of Capacity Management (CM) Tools software and the functionality it provides for Veterans Health Information Systems and Technology Architecture (VistA) software products.

Intended Audience

The intended audience of this manual is all key stakeholders. The stakeholders include the following:

- Information Resource Management (IRM)—System administrators and Capacity Management personnel at Department of Veterans Affairs (VA) sites who are responsible for computer management and system security on the VistA M Servers.
- Product Development (PD)—VistA legacy development teams.
- Product Support (PS).

Disclaimers

Software Disclaimer

This software was developed at the Department of Veterans Affairs (VA) by employees of the Federal Government in the course of their official duties. Pursuant to title 17 Section 105 of the United States Code this software is *not* subject to copyright protection and is in the public domain. VA assumes no responsibility whatsoever for its use by other parties, and makes no guarantees, expressed or implied, about its quality, reliability, or any other characteristic. We would appreciate acknowledgement if the software is used. This software can be redistributed and/or modified freely provided that any derivative works bear some notice that they are derived from it, and any modified versions bear some notice that they have been modified.

Documentation Disclaimer

This manual provides an overall explanation of using the VistA System Monitor (VSM) 1.0 software; however, no attempt is made to explain how the overall VistA programming system is integrated and maintained. Such methods and procedures are documented elsewhere. We suggest you look at the various VA Internet and Intranet SharePoint sites and websites for a general orientation to VistA. For example, visit the Office of Information and Technology (OI&T) Product Development (PD) Intranet Website.





DISCLAIMER: The appearance of any external hyperlink references in this manual does *not* constitute endorsement by the Department of Veterans Affairs (VA) of this Website or the information, products, or services contained therein. The VA does *not* exercise any editorial control over the information you find at these locations. Such links are provided and are consistent with the stated purpose of this VA Intranet Service.

Documentation Conventions

This manual uses several methods to highlight different aspects of the material:

- Various symbols are used throughout the documentation to alert the reader to special information. [Table 2](#) gives a description of each of these symbols:

Table 2. Documentation symbol/term descriptions

Symbol	Description
	NOTE/REF: Used to inform the reader of general information including references to additional reading material.
	CAUTION or DISCLAIMER: Used to caution the reader to take special notice of critical information.

- Descriptive text is presented in a proportional font (as represented by this font).
- Conventions for displaying TEST data in this document are as follows:
 - The first three digits (prefix) of any Social Security Numbers (SSN) begin with either “000” or “666”.
 - Patient and user names are formatted as follows:
 - *<APPLICATION NAME/ABBREVIATION/NAMESPACE>PATIENT,<N>*
 - *<APPLICATION NAME/ABBREVIATION/NAMESPACE>USER,<N>*

Where “*<APPLICATION NAME/ABBREVIATION/NAMESPACE>*” is defined in the Approved Application Abbreviations document and “*<N>*” represents the first name as a number spelled out or as a number value and incremented with each new entry.

For example, in Capacity Planning (KMPD) test patient and user names would be documented as follows:

- KMPDPATIENT,ONE or KMPDUSER,ONE
- KMPDPATIENT,TWO or KMPDUSER,TWO
- KMPDPATIENT,THREE or KMPDUSER,THREE
- KMPDPATIENT,14 or KMPDUSER,14
- Etc.

- “Snapshots” of computer online displays (i.e., screen captures/dialogues) and computer source code is shown in a *non*-proportional font and can be enclosed within a box.
 - User’s responses to online prompts are **bold** typeface and highlighted in yellow (e.g., **<Enter>**). The following example is a screen capture of computer dialogue, and indicates that the user should enter two question marks:

Select Primary Menu option: **??**

- Emphasis within a dialogue box is **bold** typeface and highlighted in blue (e.g., **STANDARD LISTENER: RUNNING**).
- Some software code reserved/key words are **bold** typeface with alternate color font.
- References to “**<Enter>**” within these snapshots indicate that the user should press the **Enter** key on the keyboard. Other special keys are represented within < > angle brackets. For example, pressing the **PF1** key can be represented as pressing **<PF1>**.
- Author’s comments are displayed in italics or as “callout” boxes.



NOTE: Callout boxes refer to labels or descriptions usually enclosed within a box, which point to specific areas of a displayed image.

- This manual refers to the M programming language. Under the 1995 American National Standards Institute (ANSI) standard, M is the primary name of the MUMPS programming language, and MUMPS is considered an alternate name. This manual uses the name M.
- All uppercase is reserved for the representation of M code, variable names, or the formal name of options, field/file names, and security keys (e.g., the XUPROGMODE security key).



NOTE: Other software code (e.g., Delphi/Pascal and Java) variable names and file/folder names can be written in lower or mixed case (e.g., CamelCase).

Documentation Navigation

This document uses Microsoft® Word’s built-in navigation for internal hyperlinks. To add **Back** and **Forward** navigation buttons to the toolbar, do the following:

1. Right-click anywhere on the customizable Toolbar in Word (*not* the Ribbon section).
2. Select **Customize Quick Access Toolbar** from the secondary menu.
3. Select the drop-down arrow in the “**Choose commands from:**” box.
4. Select **All Commands** from the displayed list.
5. Scroll through the command list in the left column until you see the **Back** command (green circle with arrow pointing left).
6. Select/Highlight the **Back** command and select **Add** to add it to your customized toolbar.
7. Scroll through the command list in the left column until you see the **Forward** command (green circle with arrow pointing right).
8. Select/Highlight the **Forward** command and select **Add** to add it to the customized toolbar.
9. Select **OK**.

You can now use these **Back** and **Forward** command buttons in your Toolbar to navigate back and forth in your Word document when clicking on hyperlinks within the document.



NOTE: This is a one-time setup and is automatically available in any other Word document once you install it on the Toolbar.

How to Obtain Technical Information Online

Exported VistA M Server-based software file, routine, and global documentation can be generated using Kernel, MailMan, and VA FileMan utilities.



NOTE: Methods of obtaining specific technical information online is indicated where applicable under the appropriate section.

Help at Prompts

VistA M Server-based software provides online help and commonly used system default prompts. Users are encouraged to enter question marks at any response prompt. At the end of the help display, you are immediately returned to the point from which you started. This is an easy way to learn about any aspect of VistA M Server-based software.

Obtaining Data Dictionary Listings

Technical information about VistA M Server-based files and the fields in files is stored in data dictionaries (DD). You can use the List File Attributes option on the Data Dictionary Utilities menu in VA FileMan to print formatted data dictionaries.



REF: For details about obtaining data dictionaries and about the formats available, see the “List File Attributes” section in the “File Management” section in the *VA FileMan Advanced User Manual*.

Assumptions

This manual is written with the assumption that the reader is familiar with the following:

- VistA computing environment:
 - Kernel—VistA M Server software
 - VA FileMan data structures and terminology—VistA M Server software
- Microsoft® Windows environment
- M programming language

Reference Materials

Readers who wish to learn more about the Capacity Management Tools software should consult the following:

- *Capacity Management Tools Installation Guide*
- *Capacity Management Tools User Manual* (this manual)
- *Capacity Management Tools Technical Manual*
- Capacity Management (CM) Tools Online Help file (i.e., CM_Tools_3_0.chm)
- Capacity and Performance Engineering (CPE) website (for more information on CPE services).

This site contains other information and provides links to additional documentation.

VistA documentation is made available online in Microsoft® Word format and in Adobe® Acrobat Portable Document Format (PDF). The PDF documents *must* be read using the Adobe® Acrobat Reader, which is freely distributed by [Adobe® Systems Incorporated](#).

VistA documentation can be downloaded from the [VA Software Document Library \(VDL\)](#).



REF: See the [Capacity Management Tools manuals on the VDL](#).

VistA documentation and software can also be downloaded from the Product Support (PS) Anonymous Directories.

1 Introduction

The Capacity Management (CM) Tools software is a fully automated support tool developed by Capacity Planning (CP) Service. CM Tools are designed for Information Resource Management (IRM) and system administrators responsible for the capacity planning functions at their site, as well as Veterans Health Information Systems and Technology Architecture (VistA) software developers.

The CM Tools are used to measure system performance, data growth, Computerized Patient Record System (CPRS) coversheet load times, option and protocol execution, and provide various data reports. There are also tools for developers: global lister, error lister, routine search, and evaluate M code.

The CM Tools software allows a site to collect Veterans Health Information Systems and Technology Architecture (VistA) Health Level Seven (HL7) workload information.

The CM Tools software is strongly dependent on the site to schedule and run the background tasks on a regular basis. Menus and options are provided locally at the site to allow IRM staff to accomplish and monitor these tasks.

The background tasks obtain VistA HL7 information from the site and automatically transfers this data via network mail (i.e., VistA MailMan) to the Capacity Planning National Database.

The Department of Veterans Affairs (VA) developed the CM Tools software in order to obtain more accurate information regarding the current and future system and VistA HL7 workload at VA sites (e.g., VA Medical Centers [VAMCs]).

The purpose of this manual is to provide information about the Capacity Management Tools software. This manual defines the use of this software as a resource to IRM staff responsible for capacity planning functions at the site. It also highlights the use of the options that are available at the site.

2 CM Tools: Software Overview and Use

2.1 Functional Description

The Capacity Management Tools software application provides fully automated support tools developed by Capacity Planning Service. It entails the daily capture of the following data from participating sites:

- **VistA Health Level Seven (HL7) Workload Information**—VistA HL7 workload data is summarized and transmitted on a weekly basis.
- **VistA Timing Data**—Timing data is summarized and transmitted on a daily and weekly basis.

Data collected is automatically transferred via network mail (i.e., VistA MailMan) to the Capacity Planning National Database. The data is displayed graphically on the Capacity Planning Statistics Intranet website.



REF: For more information on the Capacity Planning National Database and data display, see the [“Statistics and Projections”](#) section.

The IRM staff utilizes the options that are available at the site to manage the CM Tools software. IRM staff responsible for capacity planning tasks at the site can use these options to review VistA HL7 workload trends.



REF: For more information on the CM Tools options, see Chapter [3](#), [“CM Tools: Options.”](#)

The current version of the software is compatible with all current operating system platforms at VA sites and has minimal impact on IRM support staff.

2.2 Data Collection Process

Installing the CM Tools software creates the collection process mechanism and other necessary components of the software. The fully automated data collection mechanism entails capturing the following data:

- **VistA HL7 workload specifics at the site**—This data is gathered into a temporary ^TMP(“KMPDH”, \$J) collection global.
- **Timing data at the site**—This data is gathered into the temporary ^KMPTMP(“KMPDT”) collection global.

The collection mechanism is continuously monitoring each process on the system while trapping system timing and VistA HL7 workload data.

On a nightly basis, the CM Tools Background Driver option [KMPD BACKGROUND DRIVER] does the following:

- Moves the data within the ^TMP(“KMPDH”, \$J) collection global to the CM HL7 DATA file (#8973.1).
- Moves the data within the ^KMPTMP(“KMPDT”) collection global. to the CP TIMING file (#8973.2)

Upon completion, the data within both the ^TMP(“KMPDH”, \$J) and ^KMPTMP(“KMPDT”) temporary collection globals is purged.



REF: For more information on the CM Tools Background Driver option [KMPD BACKGROUND DRIVER], see the “[CM Tools Background Driver](#)” section in Chapter 3, “[CM Tools: Options](#).”

2.3 Statistics and Projections

Every Sunday night, the CM Tools Background Driver option [KMPD BACKGROUND DRIVER] monitors and deletes records from the following files to ensure that the correct maximum number of day’s data is maintained as determined by the appropriate CP parameters:

- CM HL7 DATA file (#8973.1)—The maximum amount of data collected is determined by the Purge HL7 Data After CP parameter.
- CP TIMING file (#8973.2)—The maximum amount of data collected is determined by the Purge Timing Data After CP parameter.



REF: For more information on the CP parameters, see the “[Edit CP Parameters File](#)” section in Chapter 3, “[CM Tools: Options](#).”

On a nightly basis, the CM Tools Background Driver option automatically compresses the information contained within the CP TIMING file (#8973.2) into daily statistics. These daily statistics are converted into an electronic mail message that is automatically transferred via network mail (i.e., VistA MailMan) and merged into a Capacity Planning National Database where this data is used for evaluation purposes.

Also, each Sunday night, the CM Tools Background Driver option automatically compresses the information contained within both the CM HL7 DATA (#8973.1) and CP TIMING (#8973.2) files into weekly statistics. These weekly statistics are converted into an electronic mail message that is automatically transferred via network mail (i.e., VistA MailMan) and merged into a Capacity Planning National Database where this data is used for evaluation purposes.

The data is also available on the following Capacity Planning Intranet websites:

- Statistics—Provides statistics for each listed site.
- Projections—Provides data trends for each listed site.

2.4 Software Management

The Capacity Management Tools software is managed by IRM staff through the CP Tools Manager Menu [KMPD CM TOOLS MANAGER MENU], which is located under the Capacity Planning menu [XTCM MAIN]. The XTCM MAIN menu is found under the Eve menu and should be assigned to IRM staff members who support this software and other capacity management tasks.



REF: For more information on CM Tools software management and maintenance, see the *Capacity Management (CM) Tools Technical Manual*.

3 CM Tools: Options

This chapter discusses the Capacity Management Tools software options.

3.1 Capacity Planning Menu

The Capacity Planning menu [XTCM MAIN; Synonym: **CM**] is located under the Operations Management menu [XUSITEMGR], which is located under Kernel's Systems Manager Menu [Eve], as shown in [Figure 1](#):

Figure 1. Accessing the Capacity Planning menu—User prompts

```
Select Systems Manager Menu Option: OPERATIONS MANAGEMENT

System Status
Introductory text edit
CPU/Service/User/Device Stats
CM Capacity Planning ... [XTCM MAIN]

The Capacity Planning menu is accessed via the Operations Management menu.

Alert Management ...
Alpha/Beta Test Option Usage Menu ...
Clean old Job Nodes in XUTL
Delete Old (>14 d) Alerts
Kernel Management Menu ...
Post sign-in Text Edit
RPC Broker Management Menu ...
User Management Menu ...

Select Operations Management Option: CAPACITY PLANNING
```

The Capacity Planning menu holds all the currently available capacity planning options. The XTCM MAIN menu can be assigned to the IRM staff members who support this software and other capacity planning tasks.

The Capacity Planning menu contains the following options:

Figure 2. Capacity Planning—Menu option

```
Select Operations Management Option: CAPACITY PLANNING

CPG Capacity Planning Mail Group Edit [KMP MAIL GROUP EDIT]
TLS CP Tools Manager Menu ... [KMPD CM TOOLS MANAGER MENU]

Select Capacity Planning Option:
```

These Capacity Planning menu-related options are discussed in greater detail in the sections that follow.

3.1.1 Capacity Planning Mail Group Edit Option

The Capacity Planning Mail Group Edit option [KMP MAIL GROUP EDIT; Synonym: **CPG**] is located on the Capacity Planning menu [XTCM MAIN] ([Figure 2](#)). It is used to edit the KMP-CAPMAN mail group. The KMP-CAPMAN mail group is defined with the installation of the CM Tools software.

Figure 3 shows the prompts and user responses for the Capacity Planning Mail Group Edit option:

Figure 3. Capacity Planning Mail Group Edit option—Sample user prompts

Select Capacity Planning Option: **CAPACITY PLANNING MAIL GROUP EDIT**

Edit Capacity Planning Mail Group

NAME: KMP-CAPMAN
Select MEMBER: KMPDUSER,ONE// **?**

Enter users to the KMP-CAPMAN mail group. These mail group members (e.g., IRM personnel) receive messages from Capacity Planning-related software (e.g., CM Tools).

Answer with MEMBER
Choose from:
KMPDUSER,ONE
KMPDUSER,TWO

You may enter a new MEMBER, if you wish
Enter a local user who should receive mail addressed to this group.
User must have an access code and a mailbox.

Answer with NEW PERSON NAME, or INITIAL, or SSN, or VERIFY CODE, or
NICK NAME, or SERVICE/SECTION, or DEA#, or ALIAS
Do you want the entire NEW PERSON List? **N <Enter>** (No)
Select MEMBER: KMPDUSER,ONE// **<Enter>**
TYPE: CC// **??**
This field indicates what type of recipient this is.

If this field has nothing in it, it indicates that this recipient is
a primary recipient, and may reply.

CC: indicates that the recipient is being sent a copy, but is not the
primary recipient. The recipient may reply.

INFO: indicates that the recipient may not reply to the message; the
message is being transmitted to the recipient for information purposes
only.

Choose from:
C CC
I INFO
TYPE: CC// **<Enter>**

Indicate whether or not the mail group member is a primary recipient.

Select MEMBER: **<Enter>**
DESCRIPTION:
This mail group will receive messages for all Capacity Planning software
(i.e., CM Tools, SAGG, RUM).

Edit? NO// **<Enter>**
TYPE: public// **??**
The type of mail group determines who can send mail to it.
Provided there are no AUTHORIZED SENDERS specified, anyone can send mail
to a public group and only its members can send mail to a private group.

If there are AUTHORIZED SENDERS specified, only those users can address the group.

Choose from:
PU public
PR private
TYPE: public// <Enter>

Choose whether or not the mail group is public or private.

ORGANIZER: KMPDUSER,TWO// <Enter>
COORDINATOR: KMPDUSER,TWO// <Enter>

Choose the mail group organizer and coordinator. The coordinator is responsible for maintaining the membership of the mail group. Also, enter any authorized senders.

Select AUTHORIZED SENDER: <Enter>

ALLOW SELF ENROLLMENT?: NO// ?
If users may join this group by themselves, say "YES"
Choose from:
y YES
n NO

ALLOW SELF ENROLLMENT?: NO// <Enter>

Select MEMBER GROUP NAME: ?
You may enter a new MEMBER GROUPS, if you wish
If you would like another mail group to be a member of this one enter a partial match to its name.
A mail group may not be a member of itself.

Answer with MAIL GROUP NAME

Do you want the entire MAIL GROUP List? n <Enter> (No)

Select MEMBER GROUP NAME: <Enter>

Select REMOTE MEMBER: ?
You may enter a new MEMBERS - REMOTE, if you wish
Enter a remote address (name@domain) or local device (D.device or H.device) or local server (S.server).

This series of prompts is used to enter any additional remote users, mail groups, distribution lists, or FAX recipients/groups as members to the KMP-CAPMAN mail group.

Select REMOTE MEMBER: <Enter>

Select DISTRIBUTION LIST: ?
You may enter a new DISTRIBUTION LIST, if you wish

Answer with DISTRIBUTION LIST NAME
Choose from:
486 TEAM
G.IMG@RD4.VA.GOV
GUESS
IRM
IRM

```
K7 TESTING
K7.1 DISTRIBUTION
SHARED
```

You may enter a new DISTRIBUTION LIST, if you wish
NAME MUST BE 3-30 CHARACTERS, NOT NUMERIC OR STARTING WITH
PUNCTUATION

Select DISTRIBUTION LIST: **<Enter>**

Select FAX RECIPIENT: **?**

You may enter a new FAX RECIPIENT, if you wish
Enter the fax recipient who should receive faxes sent to this mail
group.

Pointed-to File does not exist!

Select FAX RECIPIENT: **<Enter>**

Select FAX GROUP: **?**

You may enter a new FAX GROUP, if you wish
Enter the fax group which should receive faxes sent to this mail
group.
Group must be public or user must be (surrogate of) creator of group.

Select FAX GROUP: **<Enter>**

3.1.2 CP Tools Manager Menu

The CP Tools Manager Menu [KMPD CM TOOLS MANAGER MENU; Synonym: **TLS**] is located on the Capacity Planning menu [XTCM MAIN] ([Figure 2](#)). It contains the following options:

Figure 4. CP Tools Manager Menu—Menu option

Select Capacity Planning Option: **CP TOOLS MANAGER MENU**

STA	CP Environment Check	[KMPD STATUS]
SST	Start/Stop Timing Collection	[KMPD TMG START/STOP]
PRM	Edit CP Parameters File	[KMPD PARAM EDIT]
TMT	Timing Monitor	[KMPD TMG MONITOR]
RPT	CP Tools Reports ...	[KMPD CM TOOLS REPORTS]

Each of these options is discussed in greater detail in the sections that follow.

3.1.2.1 CP Environment Check Option

The CP Environment Check option [KMPD STATUS; Synonym: **STA**] is located on the CP Tools Manager Menu [KMPD CM TOOLS MANAGER MENU] ([Figure 4](#)). It allows users to check the capacity planning environment at their site. It displays data from the following areas (see [Figure 5](#)):

- Health Level Seven (HL7)
- Resource Usage Monitor (RUM)
- Statistical Analysis of Global Growth (SAGG)
- Timing

Figure 5. CP Environment Check option—User prompts

```
Select CP Tools Manager Menu Option: STA <Enter> CP Environment Check

      Check Capacity Planning Environment

Select one of the following:

      H      HL7
      R      RUM
      S      SAGG
      T      Timing

Enter response:
```

3.1.2.1.1 HL7 Data

Users can use the CP Environment Check option [KMPD STATUS] to display the current Health Level Seven (HL7)-related statistics by choosing **HL7** or **H** from the option list, as shown in [Figure 6](#):

Figure 6. CP Environment Check option: HL7—User prompts

```
      Check Capacity Planning Environment



Select one of the following:

      H      HL7
      R      RUM
      S      SAGG
      T      Timing

Enter response: HL7
```

For both the HL7 and Timing options (see [Figure 7](#) and [Figure 19](#)), the CP Environment Check option [KMPD STATUS] displays the following information regarding the scheduled CM Tools Background Driver option [KMPD BACKGROUND DRIVER]:

Table 3. CP Environment Check option—CM Tools Background Driver option statistics

Field	Description
CM Tools Background Driver	Indicates the name of the CM Tools Background Driver option [KMPD BACKGROUND DRIVER].
QUEUED TO RUN AT WHAT TIME	Indicates the date and time that the CM Tools Background Driver option [KMPD BACKGROUND DRIVER] is scheduled to first run at the site. The job runs at this scheduled time depending on the Rescheduling Frequency indicated.  NOTE: The installation of the CM Tools software creates and sets this field automatically. It does the same thing as TaskMan's Schedule/Unschedule Option, which saves the installer the job of having to set up the CM Tools Background Driver job later.
RESCHEDULING FREQUENCY	Indicates the frequency at which the CM Tools Background Driver option [KMPD BACKGROUND DRIVER] is run (e.g., 1 day).
TASK ID	This is the TaskMan task ID scheduled to run the CM Tools Background Driver option [KMPD BACKGROUND DRIVER].
QUEUED BY	This is the person who schedules the CM Tools Background Driver option [KMPD BACKGROUND DRIVER] to run via TaskMan.  NOTE: The installation of the CM Tools software creates and sets this field automatically. It sets it to the name of the person doing the installation of the CM Tools software.

If the CP Environment Check option [KMPD STATUS] detects that the CM Tools Background Driver option [KMPD BACKGROUND DRIVER] has *not* been scheduled, it only displays the following statement:

The CM Tools Background Driver [KMPD BACKGROUND DRIVER] is *not* scheduled

This alerts users to schedule the CM Tools Background Driver option [KMPD BACKGROUND DRIVER] to run daily at 1:30 a.m. To schedule this option, use TaskMan's Schedule/Unschedule Options option [XUTM SCHEDULE], which is located under the Taskman Management menu [XUTM MGR].



CAUTION: Capacity Planning Service *strongly* recommends that the CM Tools Background Driver option [KMPD BACKGROUND DRIVER] be scheduled to run daily at 1:30 a.m., because this background driver is the main mechanism by which the following sub-globals are purged nightly:


- ^KMPD(8973.1)—CM HL7 DATA file (#8973.1): Records are purged as prescribed by the Purge HL7 Data After CP parameter, which is stored in the HL7 WEEKS TO KEEP DATA field (#3.11) in the CP PARAMETERS file (#8973). This parameter is edited via the Edit CP Parameters File option [KMPD PARAM EDIT].
- ^KMPD(8973.2)—CP TIMING file (#8973.2): Records are purged as prescribed by the Purge Timing Data After CP parameter, which is stored in the TIMING WEEKS TO KEEP DATA field (#4.11) in the CP PARAMETERS file (#8973). This parameter is edited via the Edit CP Parameters File option [KMPD PARAM EDIT].

Modification of the frequency and time may have adverse effects on the size of the temporary ^KMPD(8973.1) and ^KMPD(8973.2) sub-globals and on the number of entries within the CM HL7 DATA file (#8973.1) and CP TIMING (#8973.2) files.

In addition to the information regarding the CM Tools Background Driver option [KMPD BACKGROUND DRIVER] (see Section [3.2](#)), the CP Environment Check option—HL7 [KMPD STATUS] displays the following HL7-specific and other general CM Tools report information (see [Table 4](#), [Figure 7](#), and [Figure 8](#)):

Table 4. CP Environment Check option: HL7—Report data fields

Field	Description
HL7 Dly Bckgrnd Last Start	Indicates the most recent date and time at which the CM Tools Background Driver option [KMPD BACKGROUND DRIVER] last daily run started HL7 data collection.
HL7 Dly Bckgrnd Last Stop	Indicates the most recent date and time at which the CM Tools Background Driver option [KMPD BACKGROUND DRIVER] last daily run stopped HL7 data collection.
HL7 Dly Bckgrnd Total Time	Indicates the total time at which the CM Tools Background Driver option [KMPD BACKGROUND DRIVER] took in its most recent daily run of HL7 data collection.
HL7 Wkly Bckgrnd Last Start	Indicates the most recent date and time at which the CM Tools Background Driver option [KMPD BACKGROUND DRIVER] last weekly run started HL7 data collection.
HL7 Wkly Bckgrnd Last Stop	Indicates the most recent date and time at which the CM Tools Background Driver option [KMPD BACKGROUND DRIVER] last weekly run stopped HL7 data collection.

Field	Description
HL7 Wkly Bckgrnd Total Time	Indicates the total time at which the CM Tools Background Driver option [KMPD BACKGROUND DRIVER] took in its most recent weekly run of HL7 data collection.
HL7 Purge Data After	Indicates the total time at which the CM Tools Background Driver option [KMPD BACKGROUND DRIVER] should purge HL7 data in the CM HL7 DATA file (#8973.1) (e.g., 2 weeks).
HL7 Transmit Data to	Indicates the mail groups to which the CM Tools Background Driver option [KMPD BACKGROUND DRIVER] transmits HL7 data.
File Entries	<p>Number of entries within the CM HL7 DATA file (#8973.1). This file is populated when the data collection is started. The report also includes the date range of data in this file from the oldest date to the most recent date.</p> <p> REF: For more information on this file, see the Chapter 3, “Files,” in the <i>Capacity Management Tools Technical Manual</i>.</p>
CM Tools Routines	Number of CM TOOLS routines and problems, if any.
Node/CPU Data	List of nodes and CPU data. If sites believe this information is incorrect they should contact the Capacity Planning Team.
KMP-CAPMAN Mail Group Members	List of KMP-CAPMAN mail group members. Sites should review this list and adjust membership in this mail group as necessary.

```

KMPD STATUS                               Apr 07, 2005@06:55:23           Page:      1 of      3
                                     Environment Check for HL7
                                     CAPACITY MANAGEMENT TOOLS v3.0 **1,2,3**

CM Tools Background Driver.. KMPD BACKGROUND DRIVER
QUEUED TO RUN AT..... APR 08, 2005@01:30 (Friday)
RESCHEDULING FREQUENCY..... 1 day
TASK ID..... 3334287
QUEUED BY..... CAPMANUSER,ONE A   (Active)

HL7 Dly Bckgrnd Last Start.. Apr 07, 2005@01:30:03
HL7 Dly Bckgrnd Last Stop... Apr 07, 2005@01:49:16
HL7 Dly Bkgrnd Total Time... 00:19:13

HL7 Wkly Backgrnd Last Start Apr 03, 2005@01:33:03
HL7 Wkly Bckgrnd Last Stop.. Apr 03, 2005@01:33:18
HL7 Wkly Bckgrnd Total Time. 00:00:15
HL7 Purge Data After..... 2 weeks
HL7 Transmit Data to..... CAPACITY,MANAGEMENT@REDACTED
                                     S.KMP4-CM-SERVER@REDACTED

Select Action:Next Screen// <Enter>

```

```

KMPD STATUS                               Apr 07, 2005@06:56:23           Page:      2 of      3
                                     Environment Check for HL7
                                     CAPACITY MANAGEMENT TOOLS v3.0 **1,2,3**
+
-----+-----+-----+-----+
File                                     # of      Oldest      Recent
                                     Entries     Date        Date
-----+-----+-----+-----+
8973.1 - CM HL7 DATA                   4,560      3/20/05      4/6/05

CM TOOLS routines..... 50 Routines - No Problems

Node/CPU Data..... 573A01  hp AlphaServer ES80 7/1000 (6)
                                     573A02  hp AlphaServer ES80 7/1000 (6)
                                     573A03  hp AlphaServer ES80 7/1000 (6)
                                     573A04  hp AlphaServer ES80 7/1000 (6)

KMP-CAPMAN Mail Group..... CAPMANUSER,TWO
                                     CAPMANUSER,THREE R
                                     CAPMANUSER,FOUR A
                                     CAPMANUSER,FIVE E

```


Figure 9. CP Environment Check option: HL7—Report (3 of 3)

KMPD STATUS	Apr 07, 2005@06:56:43	Page: 3 of 3
Environment Check for HL7		
CAPACITY MANAGEMENT TOOLS v3.0 **1,2,3**		
+		
HL7 = Health Level Seven		
Select Action:Quit//		

3.1.2.1.2 RUM Data


Users can use the CP Environment Check option [KMPD STATUS] to display the current Resource Usage Monitor (RUM)-related statistics by choosing **RUM** or **R** from the option list, as shown below:


Figure 10. CP Environment Check option: RUM—User prompts

Check Capacity Planning Environment	
Select one of the following:	
H	HL7
R	RUM
S	SAGG
T	Timing
Enter response: R <Enter> RUM	

The CP Environment Check option—RUM [KMPD STATUS] displays the following information regarding the RUM Background Driver option [KMPR BACKGROUND DRIVER]:

Table 5. CP Environment Check option—RUM Background Driver option statistics

Field	Description
RUM Background Driver	Indicates the name of the RUM Background Driver option [KMPR BACKGROUND DRIVER].
QUEUED TO RUN AT WHAT TIME	Indicates the date and time that the RUM Background Driver option [KMPR BACKGROUND DRIVER] is scheduled to first run at the site. The job runs at this scheduled time depending on the Rescheduling Frequency indicated. <div>  NOTE: The installation of the RUM software creates and sets this field automatically. It does the same thing as TaskMan's Schedule/Unschedule Option, which saves the installer the job of having to set up the RUM Background Driver job later. </div>

Field	Description
RESCHEDULING FREQUENCY	Indicates the frequency at which the RUM Background Driver option [KMPR BACKGROUND DRIVER] is run (e.g., 1 day).
TASK ID	This is the TaskMan task ID scheduled to run the RUM Background Driver option [KMPR BACKGROUND DRIVER].
QUEUED BY	<p>This is the person who schedules the RUM Background Driver option [KMPR BACKGROUND DRIVER] to run via TaskMan.</p> <p> NOTE: The installation of the RUM software creates and sets this field automatically. It sets it to the name of the person doing the installation of the RUM software.</p>

If the CP Environment Check option—RUM [KMPD STATUS] detects that the RUM Background Driver option [KMPR BACKGROUND DRIVER] has *not* been scheduled, it only displays the following statement:

The RUM Background Driver [KMPD BACKGROUND DRIVER] is *not* scheduled

This alerts users to schedule the RUM Background Driver option [KMPR BACKGROUND DRIVER] to run daily at 1:00 a.m. To schedule this option, use TaskMan’s Schedule/Unschedule Options option [XUTM SCHEDULE], which is located under the Taskman Management menu [XUTM MGR].



CAUTION: Capacity Planning (CP) Service *strongly* recommends that the RUM Background Driver option [KMPR BACKGROUND DRIVER] be scheduled to run daily at 1 a.m., because this background driver is the main mechanism by which the ^KMPTMP(“KMPR”) temporary collection global is purged nightly and the RESOURCE USAGE MONITOR file (#8971.1) is trimmed (records deleted) to contain a maximum of 21 days of data every Sunday night.


Modification of the frequency and time may have adverse effects on the size of the ^KMPTMP(“KMPR”) temporary collection global and on the number of entries within the RESOURCE USAGE MONITOR file (#8971.1).



REF: For more information on the RUM software, see the [RUM documentation on the VA Software Document Library \(VDL\)](#).

In addition to the information regarding the RUM Background Driver option [KMPR BACKGROUND DRIVER] ([Table 5](#)), the CP Environment Check option—RUM [KMPD STATUS] also displays the following additional RUM and general information (see [Figure 12](#) and [Figure 13](#)):

Table 6. CP Environment Check option: RUM—Report data fields

Field	Description
RUM Dly Bckgrnd Last Start	Indicates the most recent date and time at which the RUM Background Driver option [KMPR BACKGROUND DRIVER] last daily run started RUM data collection.
RUM Dly Bckgrnd Last Stop	Indicates the most recent date and time at which the RUM Background Driver option [KMPR BACKGROUND DRIVER] last daily run stopped RUM data collection.
RUM Dly Bckgrnd Total Time	Indicates the total time at which the RUM Background Driver option [KMPR BACKGROUND DRIVER] took in its most recent daily run of RUM data collection.
RUM Wkly Bckgrnd Last Start	Indicates the most recent date and time at which the RUM Background Driver option [KMPR BACKGROUND DRIVER] last weekly run started RUM data collection.
RUM Wkly Bckgrnd Last Stop	Indicates the most recent date and time at which the RUM Background Driver option [KMPR BACKGROUND DRIVER] last weekly run stopped RUM data collection.
RUM Wkly Bckgrnd Total Time	Indicates the total time at which the RUM Background Driver option [KMPR BACKGROUND DRIVER] took in its most recent weekly run of RUM data collection.
RUM Purge Data After	Indicates the total time at which the RUM Background Driver option [KMPR BACKGROUND DRIVER] should purge RUM data in the RESOURCE USAGE MONITOR file (#8971.1) (e.g., 2 weeks).
RUM Transmit Data to	Indicates the mail groups to which the RUM Background Driver option [KMPR BACKGROUND DRIVER] transmits RUM data.
RUM Routines	Number of RUM routines and any problems, if any.
File Entries	<p>Number of entries within the RESOURCE USAGE MONITOR file (#8971.1). This file is populated when the data collection is started. The report also includes the date range of data in this file from the oldest date to the most recent date.</p> <p> REF: For more information on this file, see the Chapter 3, “Files,” in the <i>Capacity Management Tools Technical Manual</i>.</p>
Node/CPU Data	List of nodes and CPU data. If sites believe this information is incorrect they should contact the Capacity Planning Team.

Field	Description
KMP-CAPMAN Mail Group Members	List of KMP-CAPMAN mail group members. Sites should review this list and adjust membership in this mail group as necessary.

Figure 11. CP Environment Check option: RUM—Report (1 of 3)

KMPD STATUS	Apr 07, 2005@06:57:06	Page: 1 of 3
Environment Check for RUM CAPACITY MANAGEMENT - RUM v3.0 **1**		
RUM Background Driver..... KMPR BACKGROUND DRIVER QUEUED TO RUN AT..... APR 08, 2005@01:31 (Friday) RESCHEDULING FREQUENCY..... 1 day TASK ID..... 3334332 QUEUED BY..... CAPMANUSER,TWO (Active) Temporary collection global.. ^KMPTMP("KMPR")..... Present RUM Dly Bckgrnd Last Start... Apr 07, 2005@01:31 RUM Dly Bckgrnd Last Stop.... Apr 07, 2005@01:42:57 RUM Dly Bkgrnd Total Time.... 00:11:57 RUM Wkly Backgrnd Last Start. Apr 03, 2005@01:33:56 RUM Wkly Bckgrnd Last Stop... Apr 03, 2005@01:42:04 RUM Wkly Bckgrnd Total Time.. 00:08:08		
Select Action:Next Screen// <Enter>		

Figure 12. CP Environment Check option: RUM—Report (2 of 3)

KMPD STATUS	Apr 07, 2005@06:57:25	Page: 2 of 3
Environment Check for RUM		
CAPACITY MANAGEMENT - RUM v3.0 **1**		
+		
RUM Purge Data After..... 2 weeks		
RUM Transmit Data to..... CAPACITY,MANAGEMENT@REDACTED		
S.KMP2-RUM-SERVER@REDACTED		
File	# of Entries	Oldest Date Recent Date
-----	-----	-----
8971.1-RESOURCE USAGE MONITOR	231,257	3/20/05 4/6/05
RUM routines..... 17 Routines - No Problems		
Node/CPU Data.....	573A01	hp AlphaServer ES80 7/1000 (6)
	573A02	hp AlphaServer ES80 7/1000 (6)
	573A03	hp AlphaServer ES80 7/1000 (6)
	573A04	hp AlphaServer ES80 7/1000 (6)
Select Action:Next Screen// <Enter>		

Figure 13. CP Environment Check option: RUM—Report (3 of 3)

KMPD STATUS	Apr 07, 2005@06:57:41	Page: 3 of 3
Environment Check for RUM		
CAPACITY MANAGEMENT - RUM v3.0 **1**		
+		
KMP-CAPMAN Mail Group.....	CAPMANUSER,TWO	
	CAPMANUSER,THREE R	
	CAPMANUSER,FOUR A	
	CAPMANUSER,FIVE E	
RUM = Resource Usage Monitor		
Select Action:Quit//		

3.1.2.1.3 SAGG Data

Users can use the CP Environment Check option [KMPD STATUS] to display the current Statistical Analysis of Global Growth (SAGG)-related statistics by choosing **SAGG** or **S** from the option list, as shown below:

Figure 14. CP Environment Check option: SAGG—User prompts

```
Check Capacity Planning Environment


Select one of the following:


      H      HL7
      R      RUM
      S      SAGG
      T      Timing

Enter response: S <Enter> SAGG
```

The CP Environment Check option—SAGG [KMPD STATUS] displays the following information regarding the SAGG Master Background Task option [KMPS SAGG REPORT]:

Table 7. CP Environment Check option—SAGG Master Background Task option statistics

Field	Description
Current Status	Indicates the scheduling status of the SAGG Master Background Task option [KMPS SAGG REPORT]. Values are: <ul style="list-style-type: none">• Scheduled• Unscheduled
SAGG Master Background Task	Indicates the name of the SAGG Master Background Task option [KMPS SAGG REPORT].
QUEUED TO RUN AT	Indicates the date and time that the SAGG Master Background Task option [KMPS SAGG REPORT] is scheduled to first run at the site. The job runs at this scheduled time depending on the Rescheduling Frequency indicated.  NOTE: The installation of the SAGG software creates and sets this field automatically. It does the same thing as TaskMan's Schedule/Unschedule Option, which saves the installer the job of having to set up the SAGG Master Background Task job later.
RESCHEDULING FREQUENCY	Indicates the frequency at which the SAGG Master Background Task option [KMPS SAGG REPORT] is run (e.g., 28 days).
TASK ID	This is the TaskMan task ID scheduled to run the SAGG Master Background Task option [KMPS SAGG REPORT].

Field	Description
QUEUED BY	<p>This is the person who schedules the SAGG Master Background Task option [KMPS SAGG REPORT] to run via TaskMan.</p> <p> NOTE: The installation of the SAGG software creates and sets this field automatically. It sets it to the name of the person doing the installation of the SAGG software.</p>

If the CP Environment Check option—SAGG [KMPD STATUS] detects that the SAGG Master Background Task option [KMPS SAGG REPORT] has *not* been scheduled, it only displays the following statement:

The SAGG Master Background Task [KMPS SAGG REPORT] is *not* scheduled

This alerts users to schedule the SAGG Master Background Task option [KMPS SAGG REPORT] to run every 28 days on Friday, Saturday, or Sunday. The specific time to run is left up to the site. To schedule this option, use TaskMan's Schedule/Unschedule Options option [XUTM SCHEDULE], which is located under the Taskman Management menu [XUTM MGR].



REF: For more information on the SAGG software, see the [SAGG documentation on the VA Software Document Library \(VDL\)](#).

In addition to the information regarding the SAGG Master Background Task option [KMPS SAGG REPORT] ([Table 7](#)), the CP Environment Check option—SAGG [KMPD STATUS] also displays the following additional SAGG and general information (see [Figure 15](#) and [Figure 16](#)):

Table 8. CP Environment Check option: SAGG—Report data fields


Field	Description
Temporary Collection Global	^XTMP("KMPS") temporary global status (i.e., Present or NOT Present).
VMS Disk Drives	List of VMS disk drives and directories that the SAGG Project collection routines are monitoring.
File Entries	<p>Number of entries within the SAGG PROJECT file (#8970.1). This file is populated when the data collection is started.</p> <p> REF: For more information on this file, see the Chapter 3, "Files," in the <i>Capacity Management Tools Technical Manual</i>.</p>
SAGG Routines	Number of SAGG routines and any problems, if any.
Node/CPU Data	List of nodes and CPU data. If sites believe this information is incorrect they should contact the Capacity Planning Team.
KMP-CAPMAN Mail Group Members	List of KMP-CAPMAN mail group members. Sites should review this list and adjust membership in this mail group as necessary.

Figure 15. CP Environment Check option: SAGG—Report (1 of 3)

KMPD STATUS	Apr 07, 2005@06:57:59	Page: 1 of 3
Environment Check for SAGG SAGG PROJECT v1.8 **1,2,3**		
Current Status..... SCHEDULED		
SAGG Master Background Task. KMPS SAGG REPORT		
QUEUED TO RUN AT.....	APR 15, 2005@21:00 (Friday)	
RESCHEDULING FREQUENCY.....	28 days	
TASK ID.....	9201441	
QUEUED BY.....	CAPMANUSER,TWO (Active)	
Temporary collection global.		
^XTMP("KMPS")..... NOT Present		
SAGG Project will collect metrics on ALL volumes		
Select Action:Next Screen// <Enter>		

Figure 16. CP Environment Check option: SAGG—Report (2 of 3)

KMPD STATUS	Apr 07, 2005@06:58:15	Page: 2 of 3
Environment Check for SAGG SAGG PROJECT v1.8 **1,2,3**		
+		
File	# of	Entries
-----	-----	-----
8970.1-SAGG PROJECT	1	
SAGG routines..... 7 Routines - No Problems		
Node/CPU Data.....	573A01	hp AlphaServer ES80 7/1000 (6)
	573A02	hp AlphaServer ES80 7/1000 (6)
	573A03	hp AlphaServer ES80 7/1000 (6)
	573A04	hp AlphaServer ES80 7/1000 (6)
KMP-CAPMAN Mail Group..... CAPMANUSER,TWO		
Select Action: Next Screen// <Enter>		

Figure 17. CP Environment Check option: SAGG—Report (3 of 3)

KMPD STATUS	Apr 07, 2005@06:58:29	Page: 3 of 3
Environment Check for SAGG		
SAGG PROJECT v1.8 **1,2,3**		
+		
CAPMANUSER,THREE R		
CAPMANUSER,FOUR A		
CAPMANUSER,FIVE E		
SAGG = Statistical Analysis of Global Growth		
Select Action:Quit//		

3.1.2.1.4 Timing Data

Users can use the CP Environment Check option [KMPD STATUS] to display the current Timing-related statistics by choosing **Timing** or **T** from the option list, as shown in [Figure 18](#):

Figure 18. CP Environment Check option: Timing—User prompts

Check Capacity Planning Environment	
Select one of the following:	
H	HL7
R	RUM
S	SAGG
T	Timing
Enter response: TIMING	

For both the HL7 and Timing options (see [Figure 7](#) and [Figure 19](#)), the CP Environment Check option [KMPD STATUS] displays statistical information regarding the CM Tools Background Driver option [KMPD BACKGROUND DRIVER] (see Section [3.2](#)).

In addition to the information regarding the CM Tools Background Driver option [KMPD BACKGROUND DRIVER] (see Section [3.2](#)), the CP Environment Check option—Timing [KMPD STATUS] displays the following Timing-specific and general report information (see [Table 9](#), [Figure 19](#), and [Figure 20](#)):

Table 9. CP Environment Check option: Timing—Report data fields

Field	Description
TMG Collection Status	Indicates whether or not the Timing data is being collected (e.g., Running or Stopped).
TMG Dly Bckgrnd Last Start	Indicates the most recent date and time at which the CM Tools Background Driver option [KMPD BACKGROUND DRIVER] last daily run started Timing data collection.


Field	Description
TIMING Dly Bckgrnd Last Stop	Indicates the most recent date and time at which the CM Tools Background Driver option [KMPD BACKGROUND DRIVER] last daily run stopped Timing data collection.
TMG Dly Bkgrnd Total Time	Indicates the total time at which the CM Tools Background Driver option [KMPD BACKGROUND DRIVER] took in its most recent daily run of Timing data collection.
TMG Purge Data After	Indicates the total time at which the CM Tools Background Driver option [KMPD BACKGROUND DRIVER] should purge Timing data in the CP TIMING file (#8973.2) (e.g., 4 weeks).
TMG Transmit Data to	Indicates the mail groups to which the CM Tools Background Driver option [KMPD BACKGROUND DRIVER] transmits Timing data.
File Entries	<p>Number of entries within the CP TIMING file (#8973.2). This file is populated when the data collection is started. The report also includes the date range of data in this file from the oldest date to the most recent date.</p> <p> REF: For more information on this file, see the Chapter 3, “Files,” in the <i>Capacity Management Tools Technical Manual</i>.</p>
CM Tools Routines	Number of CM Tools routines and any problems, if any.
Node/CPU Data	List of nodes and CPU data. If sites believe this information is incorrect they should contact the Capacity Planning Team.
KMP-CAPMAN Mail Group Members	List of KMP-CAPMAN mail group members. Sites should review this list and adjust membership in this mail group as necessary.

Figure 19. CP Environment Check option: Timing—User prompts and report (1 of 2)

```

Check Capacity Planning Environment

Select one of the following:

H          HL7
R          RUM
S          SAGG
T          Timing

Enter response: TIMING

KMPD STATUS          Apr 07, 2005@06:58:46          Page: 1 of 2
          Environment Check for Timing
          CAPACITY MANAGEMENT TOOLS v3.0 **1,2,3**

CM Tools Background Driver.. KMPD BACKGROUND DRIVER
QUEUED TO RUN AT..... APR 08, 2005@01:30 (Friday)
RESCHEDULING FREQUENCY..... 1 day
TASK ID..... 3334287
QUEUED BY..... CAPMANUSER,ONE A (Active)

TMG Collection Status..... Running
TMG Dly Bckgrnd Last Start.. Apr 07, 2005@01:49:16
TMG Dly Bckgrnd Last Stop... Apr 07, 2005@01:52:57
TMG Dly Bkgrnd Total Time... 00:03:41
TMG Purge Data After..... 4 weeks
TMG Transmit Data to..... CAPACITY,MANAGEMENT@REDACTED
                          S.KMP6-TIMING-SERVER@REDACTED

File                      # of      Oldest      Recent
                          Entries     Date        Date
-----
Select Action:Next Screen// <Enter>

```

Figure 20. CP Environment Check option: Timing—Report (2 of 2)

KMPD STATUS	Apr 07, 2005@06:59:06	Page:	2 of	2
Environment Check for Timing				
CAPACITY MANAGEMENT TOOLS v3.0 **1,2,3**				
+				
8973.2 - CP TIMING	686,245	3/6/05	4/6/05	
CM TOOLS routines..... 50 Routines - No Problems				
Node/CPU Data.....	573A01	hp AlphaServer ES80	7/1000	(6)
	573A02	hp AlphaServer ES80	7/1000	(6)
	573A03	hp AlphaServer ES80	7/1000	(6)
	573A04	hp AlphaServer ES80	7/1000	(6)
KMP-CAPMAN Mail Group.....	CAPMANUSER,TWO			
	CAPMANUSER,THREE R			
	CAPMANUSER,FOUR A			
	CAPMANUSER,FIVE E			
TMG = Timing Data				
Select Action:Quit//				

3.1.2.2 Start/Stop Timing Collection Option

The Start/Stop Timing Collection option [KMPD TMG START/STOP; Synonym: **SST**] is located under the CP Tools Manager Menu [KMPD CM TOOLS MANAGER MENU]. It is used to start/stop the CM Tools collection routines to start/stop collecting VistA HL7 workload data.



NOTE: This option requires that Patch OR*3.0*209 be installed in order to start collecting timing data and enable the data collection and report-related CM Tools software options..

Users should first invoke the CP Environment Check option [KMPD STATUS] to ensure that the CM Tools Background Driver option [KMPD BACKGROUND DRIVER] is scheduled to run daily at 1:30 a.m.



REF: For more information on the CP Environment Check option, see the “[CP Environment Check](#)” section.

If the CM Tools Background Driver option [KMPD BACKGROUND DRIVER] is *not* shown as being scheduled to run in the future, use TaskMan's Schedule/Unschedule Options option [XUTM SCHEDULE], located under the Taskman Management menu [XUTM MGR], to schedule the KMPD BACKGROUND DRIVER option to run daily at 1:30 a.m.



CAUTION: Capacity Planning Service *strongly* recommends that the CM Tools Background Driver option [KMPD BACKGROUND DRIVER] be scheduled to run daily at 1:30 a.m., because this background driver is the main mechanism by which the following sub-globals are purged nightly:

- ^KMPD(8973.1)—CM HL7 DATA file (#8973.1): Records are purged as prescribed by the Purge HL7 Data After CP parameter, which is stored in the HL7 WEEKS TO KEEP DATA field (#3.11) in the CP PARAMETERS file (#8973). This parameter is edited via the Edit CP Parameters File option [KMPD PARAM EDIT].
- ^KMPD(8973.2)—CP TIMING file (#8973.2): Records are purged as prescribed by the Purge Timing Data After CP parameter, which is stored in the TIMING WEEKS TO KEEP DATA field (#4.11) in the CP PARAMETERS file (#8973). This parameter is edited via the Edit CP Parameters File option [KMPD PARAM EDIT].

Modification of the frequency and time may have adverse effects on the size of the temporary ^KMPD(8973.1) and ^KMPD(8973.2) sub-globals and on the number of entries within the CM HL7 DATA file (#8973.1) and CP TIMING (#8973.2) files.

3.1.2.2.1 Starting CM Tools Collection

To start the CM Tools collection, do the following:

Figure 21. Starting timing collection—User prompts

```
Select CP Tools Manager Menu Option: START/STOP TIMING COLLECTION

Timing Collection is currently [ STOPPED ]

Data collection is stopped.
Do you want to 'Start' the collection? N// Y <Enter> YES

Timing Collection has been [ Started ]

Data collection is now started.

STA    CP Environment Check
SST    Start/Stop Timing Collection
PRM    Edit CP Parameters File
TMT    Timing Monitor
RPT    CP Tools Reports ...

Select CP Tools Manager Menu Option:
```

3.1.2.2.2 Stopping CM Tools Collection

To stop the CM Tools collection, do the following:

Figure 22. Stopping timing collection—User prompts

```
Select CP Tools Manager Menu Option: START/STOP TIMING COLLECTION

Timing Collection is currently [ Running ]

Data collection is running.

Do you want to 'Stop' the collection? N// Y <Enter> YES

Timing Collection has been [ Stopped ]

Data collection is now stopped.

STA    CP Environment Check
SST    Start/Stop Timing Collection
PRM    Edit CP Parameters File
TMT    Timing Monitor
RPT    CP Tools Reports ...

Select CP Tools Manager Menu Option:
```

3.1.2.2.3 TIMING^KMPDTU11 API

As of Patch KMPD*2.0*6, the TIMING^KMPDTU11() API is used to start/stop gathering CM Tools Timing data, allowing application developers to put hooks directly into a VistA software routine.

- **Reference Type:** Supported
- **Category:** Capacity Management Tools
- **Integration Agreement (IA) #:** 5003
- **Description:** This API is designed to allow packages to put hooks into a routine to gather timing data (how long it takes to run).
- **Format:** TIMING^KMPDTU11 ("ORWCV", "673AAA", 1, \$H, \$G(DUZ))
- **Input Parameters:**
 - KMPDSS: (Required) Subscript (free text) used to identify timing data.
 - KMPDNODE: (Required) Node name (free text).
 - KMPDST: (Required) Start/Stop - 1 = start timing, 2 = stop timing.
 - KMPDHTM: (Optional) Current time in \$H format.
 - KMPDUZ: (Optional) Current DUZ of user.
 - KMPDCL: (Optional) Client name (free text). If *not* defined the current IO("CLNM") is used.

3.1.2.2.4 Examples

3.1.2.2.4.1 Example to Start TIMING:

```
>D TIMING^KMPDTU11 ("ORWCV", "673AAA", 1, $H, $G (DUZ) )
```

3.1.2.2.4.2 Example to Stop TIMING:

```
>D TIMING^KMPDTU11 ("ORWCV", "673AAA", 2)
```

3.1.2.3 Edit CP Parameters File Option

The Edit CP Parameters File option [KMPD PARAM EDIT; Synonym: **PRM**] is located on the CP Tools Manager Menu [KMPD CM TOOLS MANAGER MENU] ([Figure 4](#)). It allows editing of the Capacity Planning (CP) parameters in the CP PARAMETERS file (#8973).



REF: For more information on the CP Environment Check option, see the “[CP Environment Check](#)” section.

This option allows users to edit the following parameters:

Table 10. CP parameters/fields, stored in the CP PARAMETERS file (#8973)

Parameter	Field Name (Number) (in File #8973)	Description
Purge HL7 Data After	HL7 WEEKS TO KEEP DATA field (#3.11)	HL7 Monitor Program—This is the number of weeks that HL7 data is retained in the CM HL7 DATA file (#8973.1) before purging. Enter a whole number between 2 and 19 (i.e., 2 weeks minimum and 19 weeks maximum). However, it is recommended that 2 weeks of data be retained.
Purge RUM Data After	RUM WEEKS TO KEEP DATA field (#2.11)	RUM Monitor Program—This is the number of weeks that RUM data is retained in the RESOURCE USAGE MONITOR file (#8971.1) before purging. Enter a whole number between 2 and 20 (i.e., 2 weeks minimum and 20 weeks maximum). However, it is recommended that 2 weeks of data be retained.
Purge Timing Data After	TIMING WEEKS TO KEEP DATA field (#4.11)	Timing Monitor Program—This is the number of weeks that Timing data is retained in the CP TIMING file (#8973.2) before purging. Enter a whole number between 2 and 40 (i.e., 2 weeks minimum and 40 weeks maximum). However, it is recommended that 4 weeks of data be retained.
Timing Monitor Alert - Seconds	MONITOR ALERT - SECONDS field (#19.02)	Timing Monitor Program—When the Timing Monitor is running, if the average time-to-load (TTL) a CPRS Coversheet exceeds this value, an alert appears on the Timing Monitor screen. Enter a whole number between 10 and 999.

Parameter	Field Name (Number) (in File #8973)	Description
Timing Monitor Update Rate - Min	MONITOR UPDATE RATE - MINUTES field (#19.01)	Timing Monitor Program—When the Timing Monitor is running, this is the number of minutes between automatic updates. Enter a whole number between 5 and 60.
Scheduled Down Time Start	SCHEDULED DOWN TIME START (#5.01)	VistA Monitor Program—It is the date and time that the system scheduled down time is to begin. You <i>cannot</i> enter a value in the Scheduled Down Time Stop field unless this field has an entry.
Scheduled Down Time Stop	SCHEDULED DOWN TIME STOP (#5.02)	VistA Monitor Program—It is the date and time that the system scheduled down time is to end. You <i>cannot</i> enter a value in this field unless the Scheduled Down Time Start field has an entry.
Reason for Down Time	REASON FOR DOWN TIME (#5.03)	VistA Monitor Program—It is the reason for the scheduled down time. The text in this field <i>must</i> be from 1 to 65 characters in length.

[Figure 23](#), [Figure 24](#), and [Figure 25](#) show the prompts and user responses for the Edit CP Parameters File option:

Figure 23. Running the Edit CP Parameters option—User prompts

```

CPG      Capacity Planning Mail Group Edit
RUM      RUM Manager Menu ...
TLS      CP Tools Manager Menu ...
VPM      VAX/ALPHA Capacity Management ...
          Move Host File to Mailman
          Response Time Log Menu ...

Select Capacity Planning Option: CP TOOLS MANAGER MENU

STA      CP Environment Check
SST      Start/Stop Timing Collection
PRM      Edit CP Parameters File
TMT      Timing Monitor
RPT      CP Tools Reports ...

Select CP Tools Manager Menu Option: EDIT CP PARAMETERS FILE

```

After selecting the option and pressing the Enter key, the user is automatically placed into a ScreenMan form, (see [Figure 24](#) and [Figure 25](#)).

After selecting the Edit CP Parameters File option, the user is automatically placed into the following ScreenMan form:

Figure 24. Edit CP Parameters File option (ScreenMan)—User Prompts (*default values*)

CM Tools Parameters Edit
N. FLORIDA/S. GEORGIA HCS

Page 1

Site name from INSTITUTION file (#4)

Current Version: 3.0 Version Installed: MAR 11,2004@10:55
Current Patch: **1,2,3,4,5** Patch Installed: MAY 11,2006@15:08

Purge HL7 Data After: 2 Weeks Timing Monitor Update Rate - Min:
Purge Timing Data after: 4 Weeks Timing Monitor Alert - Seconds:
Purge RUM Data After: Weeks

CP parameters default values.

Scheduled Down Time Start:
Scheduled Down Time Stop:
Reason for Down Time:

Exit Save Refresh

Enter a command or '^' followed by a caption to jump to a specific field.

COMMAND: Press <PF1>H for help

This screen ([Figure 24](#)) allows users to edit the parameter values that are stored in the CP PARAMETERS file (#8973), see [Table 10](#).

3.1.2.3.1 Data Purges and Timing Monitor

[Figure 25](#) shows the parameters *after* the user has entered new values for data purges and the Timing Monitor:

Figure 25. Edit CP Parameters File option (ScreenMan)—User Prompts when scheduling data purges and Timing Monitor (*updated values*)

CM Tools Parameters Edit
N. FLORIDA/S. GEORGIA HCS

Page 1

Site name from INSTITUTION file (#4)

Current Version: 3.0 Version Installed: MAR 11,2004@10:55
Current Patch: **1,2,3,4,5** Patch Installed: MAY 11,2006@15:08

Purge HL7 Data After: **2 Weeks** Timing Monitor Update Rate - Min: **30**
Purge Timing Data after: **4 Weeks** Timing Monitor Alert - Seconds: **10**
Purge RUM Data After: **2 Weeks**

CP parameters after new values entered.

Scheduled Down Time Start:
Scheduled Down Time Stop:
Reason for Down Time:

Exit Save Refresh

Enter a command or '^' followed by a caption to jump to a specific field.

COMMAND: Press <PF1>H for help

In this example ([Figure 25](#)), the user has made entries for the data purge and Timing Monitor parameters only. In most cases, the recommended value was entered (see [Table 10](#)). Specifically, the user made the following entries:

- Purge HL7 Data After: **2 weeks** (default)
- Purge Timing Data after: **4 weeks** (default)
- Purge RUM Data After: **2 weeks** (recommended)
- Timing Monitor Update Rate - Min: **30**
- Timing Monitor Alert - Seconds: **10**

After making the entries, the user saved and exited the screen.

3.1.2.3.2 Vista Monitor

The Vista Monitor allows Health Systems Implementation Training and Enterprise Support (HSITES) to determine if a site is down (*not* operating). The process is as follows:

1. A message is sent from the Capacity Planning National Database to each site every 20 minutes, regardless of whether or not a reply is received back from the site.



NOTE: The current 20 minute time frame for polling a site was determined by the Capacity Planning (CP) Service. It is subject to change at the discretion of the CP Service or Office of Information & Technology (OI&T).

2. The message is received at the site via the CP Echo Server server-type option [KMPD ECHO].

[Figure 26](#) is a sample message that is sent from the Capacity Planning National Database to the KMPD ECHO server option at a site:

Figure 26. Sample message sent by the Capacity Planning National Database to the KMPD ECHO server option at the site

```
Subj: CP ECHO~5/15/06-30~REDACTED.VA.GOV  [#8198307] 05/15/06@10:02  1 line
From: MASTER CP ECHO SERVER  In 'IN' basket.    Page 1
-----
ECHO FROM REDACTED TO REDACTED.VA.GOV

Enter message action (in IN basket): Ignore//
```

3. The KMPD ECHO server option at the site then triggers a bulletin that sends an e-mail message back to the Capacity Planning National Database.

[Figure 27](#) is a sample bulletin returned from a site to the Capacity Planning National Database:

Figure 27. Sample bulletin sent by the KMPD ECHO server option at the site to the Capacity Planning National Database

```
Subj: CP ECHO~5/15/06-31~REDACTED VHS (573)~  [#63014754]
05/15/06@10:03  2 lines
From: ECHO BACK FROM REDACTED VHS  In 'IN' basket.    Page 1  *New*
-----
START=
STOP=
```

Here, the START and STOP fields are blank, so no scheduled down time is indicated.

```
Enter message action (in IN basket): Ignore//
```

The START and STOP entries in the message body represent the values stored in the SCHEDULED DOWN TIME START (#5.01) and SCHEDULED DOWN TIME STOP (#5.02) fields in the CP PARAMETERS file (#8973). In this example ([Figure 27](#)), both fields are blank.

4. If the Capacity Planning National Database has *not* received a return message from the site after a certain period of time (e.g., one hour) and there are no entries in the SCHEDULED DOWN TIME START (#5.01) and SCHEDULED DOWN TIME STOP (#5.02) fields (see [Figure 27](#)), then a routine on the Capacity Planning National Database runs in the background and determines that the site is down or late reporting. When the site is considered to be in an unscheduled down

time state, the Capacity Planning National Database automatically sends a message (alert) to a mail group notifying members of the situation and to take appropriate action.



NOTE: The current time frame used to determine when a site is considered in an unscheduled down time state is set by the Capacity Planning (CP) Service. It is subject to change at the discretion of the CP Service or Office of Information & Technology (OI&T).

[Figure 28](#) shows the parameters *after* the user has entered new values for scheduled down time:

Figure 28. Edit CP Parameters File option (ScreenMan)—User Prompts when scheduling system down time (*updated values*)

```
CM Tools Parameters Edit                                     Page 1
N. FLORIDA/S. GEORGIA HCS

Site name from INSTITUTION file (#4)

Current Version: 3.0                      Version Installed: MAR 11,2004@10:55
Current Patch:  **1,2,3,4,5**             Patch Installed: MAY 11,2006@15:08

Purge HL7 Data After: 2    Weeks    Timing Monitor Update Rate - Min: 30
Purge Timing Data after: 4    Weeks    Timing Monitor Alert - Seconds: 10
Purge RUM Data After: 2    Weeks

Scheduled Down Time Start: MAY 15,2006@17:00
Scheduled Down Time Stop:  MAY 15,2006@17:30
Reason for Down Time:    Test Schedule

CP parameters after new values entered.

Exit      Save      Refresh

Enter a command or '^' followed by a caption to jump to a specific field.

COMMAND: [REDACTED]                                Press <PF1>H for help [REDACTED]
```

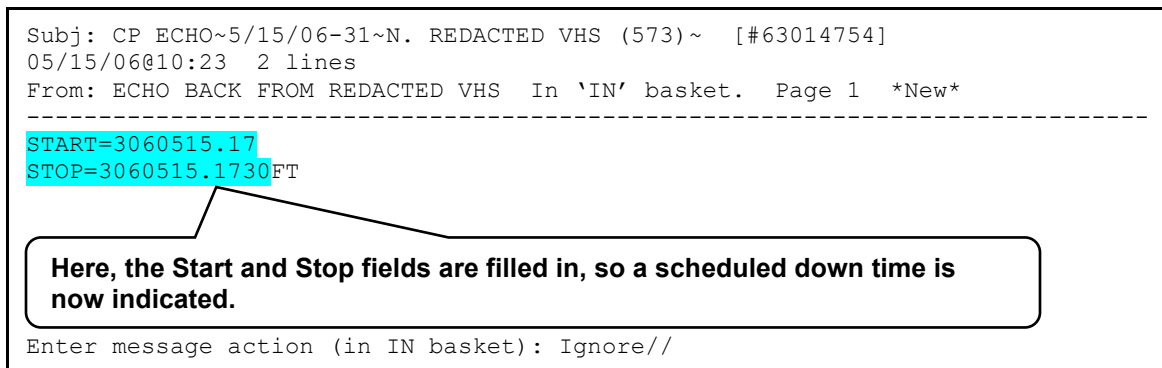
In this example ([Figure 28](#)), the user has made entries for the scheduled down time parameters only. Specifically, the user made the following entries:

- Scheduled Down Time Start: **MAY 15,2006@17:00**
- Scheduled Down Time Stop: **MAY 15,2006@17:30**
- Reason for Down Time : **Test Schedule**

After making the entries, the user saved and exited the screen.

The next bulletin returned from a site to the Capacity Planning National Database would show the following:

Figure 29. Sample bulletin sent by the KMPD ECHO server option at the site to the Capacity Planning National Database



Since this is a scheduled down time for the site, no other additional alert message needs to be sent out.

3.1.2.4 Timing Monitor Option

The Timing Monitor option [KMPD TMG MONITOR; Synonym: **TMT**] is located on the CP Tools Manager Menu [KMPD CM TOOLS MANAGER MENU] ([Figure 4](#)). This option updates itself automatically and displays the average number of seconds it takes Computerized Patient record System (CPRS) coversheets to load in a period of time. Data is displayed in a bar graph. The x-axis of the bar graph indicates the hours of the day (from 0 up to 23) and the y-axis indicates the average number of seconds it takes to load CPRS coversheets. This option can be left running on a terminal continuously collecting data.

The Timing Monitor displays data for each hour of the day and each new hour as it comes up (i.e., 0 – 23 hours). It updates the data according to the value in the MONITOR UPDATE RATE - MINUTES field (#19.01) in the CP PARAMETERS file (#8973). If there is no entry in Field #19.01, the default is every 10 minutes. The CPRS coversheet load data is displayed in a bar graph for each hour the Timing Monitor is running. If the Timing Monitor is run continuously, the cycle repeats every 24 hours overlaying/replacing previous data and adjusting the bar graph accordingly. The bar graph is also adjusted for the latest information gathered based on the value in the MONITOR UPDATE RATE - MINUTES field (#19.01) in the CP PARAMETERS file (#8973).

The Timing Monitor also displays an Alert Message near the bottom of the screen if the average number of seconds to load a CPRS coversheet exceeds the value of the MONITOR ALERT - SECONDS field (#19.02) in the CP PARAMETERS file (#8973). If there is no entry in Field #19.02, the default is 30 seconds. Both of these parameters can be edited using the Edit CP Parameters File option [KMPD PARAM EDIT].

Figure 30. Running the Timing Monitor option—User prompts and report, *no data*

```
STA    CP Environment Check
SST    Start/Stop Timing Collection
PRM    Edit CP Parameters File
TMT    Timing Monitor
RPT    CP Tools Reports ...
```

Select CP Tools Manager Menu Option: **TMT <Enter>** Timing Monitor

*** There is currently no data in global ^KMPKMPUTMP("KMPDT","ORWCV") ***

Figure 31. Running the Timing Monitor option—User prompts, *with data*

This option displays CPRS Coversheet time-to-load data, as a bar graph, for the current day. This option can be left running on a terminal (if desired). The monitor is updated every 10 minutes (site configurable through the [KMPD PARAM EDIT] Edit CP Parameters File option), and displays current average time-to-load data starting at midnight. An alarm message is displayed if the average time-to-load exceeds 30 seconds (site configurable through the [KMPD PARAM EDIT] Edit

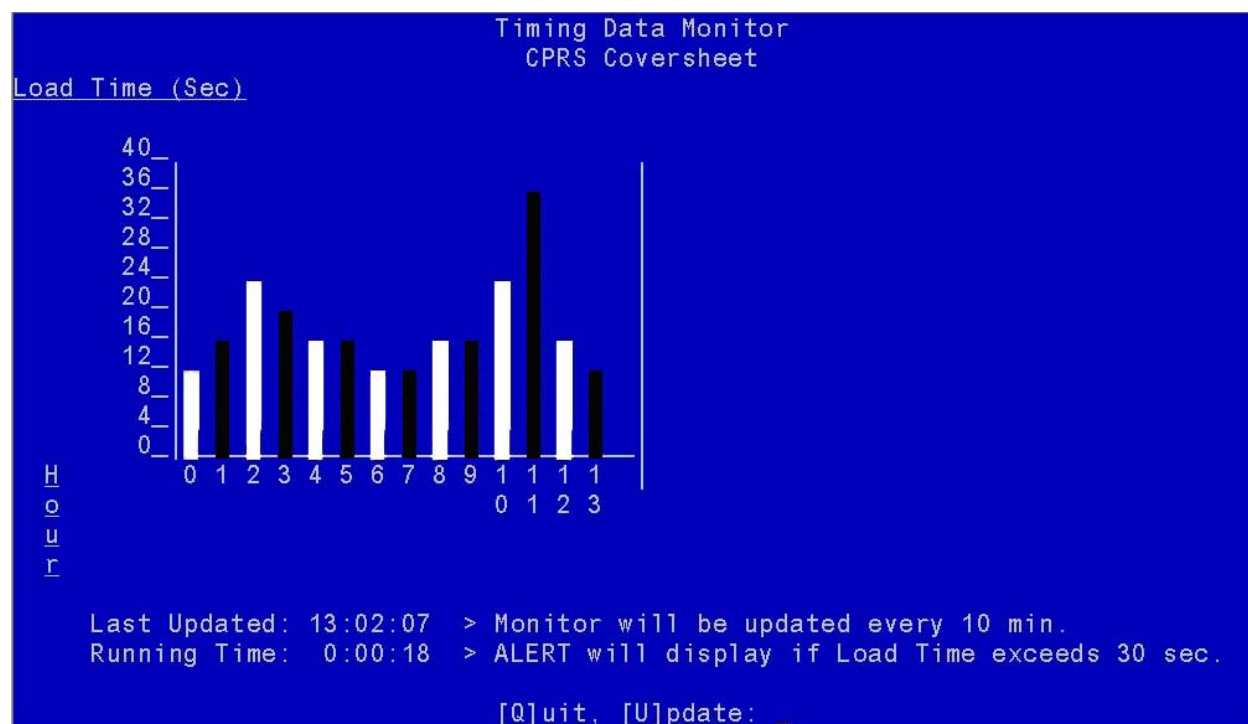
CP Parameters File option).

Continue? YES// **<Enter>**

Compiling timing stats.....

[Figure 32](#) shows a snapshot in time of average CPRS coversheet loads at a site over a 13-hour time span. The data is displayed in a bar graph format (bar graph colors have been enhanced for clarity in the display):

Figure 32. Running the Timing Monitor option—Report, *no* alert



(Bar graph colors have been enhanced for display purposes only)

In this example ([Figure 32](#)), the Timing Monitor option has been running for 13+ hours at a site. Thus, the sample graph displays the average CPRS coversheet loads from midnight (0 hour) to 1:00 p.m. (13:00 hour). If the Timing Monitor is left running, eventually a full 24-hour range of data would be displayed.

For this example, the site has set the Timing Monitor Alert - Seconds parameter (i.e., MONITOR ALERT - SECONDS field [#19.02] in the CP PARAMETERS file [#8973]) to 30 seconds. The graph shows that the average CPRS coversheet loads did *not* exceed the 30 second threshold except at the 11th hour. During the 11th hour the average CPRS coversheet load was approximately 36 seconds. If the user had checked the monitor at the 11th hour he/she would have gotten an alert message displayed at the bottom of the screen.



REF: For an example of an alert message due to coversheet loads exceeding the Timing Monitor Alert - Seconds parameter, see [Figure 33](#).

Sites can set the Timing Monitor Alert - Seconds parameter from 10 to 999 seconds via the MONITOR ALERT - SECONDS field (#19.02) in the CP PARAMETERS file (#8973).

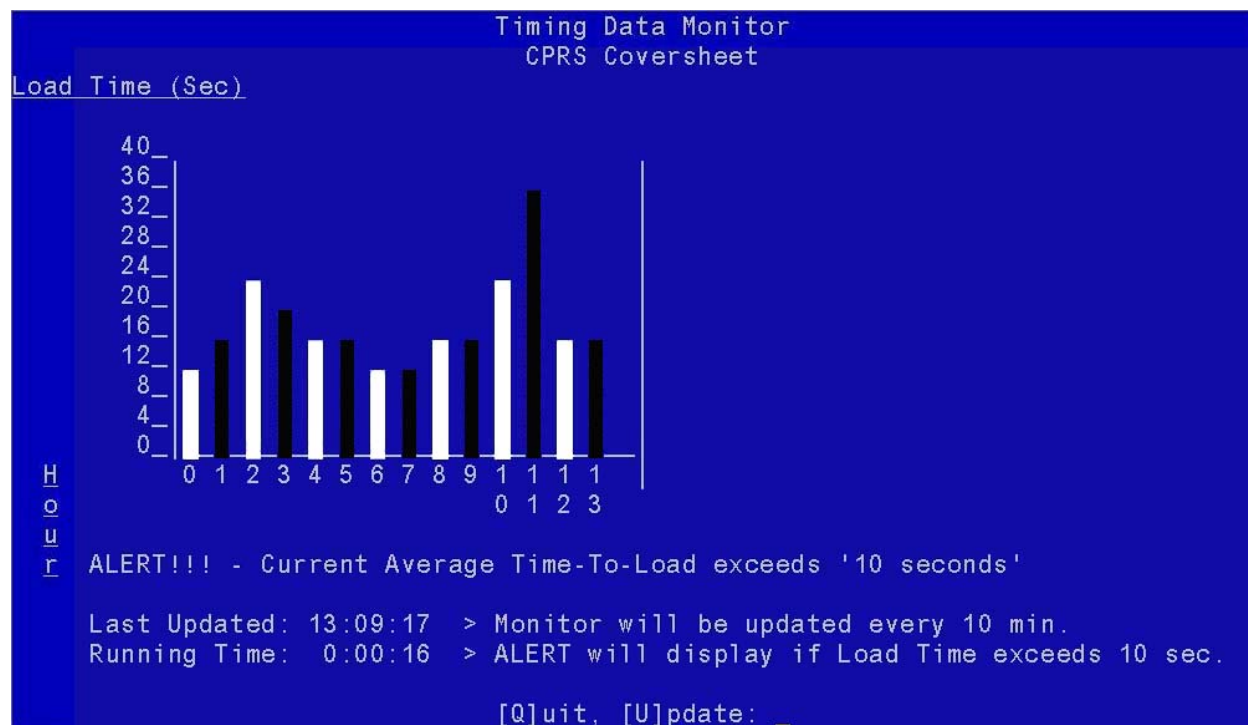
To quit/stop the Timing Monitor, enter a “Q” after the “[Q]uit [U]pdate” prompt. To refresh the data/bar graph, enter a “U” after the “[Q]uit [U]pdate” prompt.



REF: For more information on the CP parameters, see the “[Edit CP Parameters File](#)” section and [Table 10](#).

[Figure 33](#) shows a sample report with an alert message displayed:

Figure 33. Running the Timing Monitor option—Report, *with* alert



In this example ([Figure 33](#)), the Timing Monitor option has been running for 13+ hours at a site. Thus, the sample graph displays the average CPRS coversheet loads from midnight (0 hour) to 1:00 p.m. (13:00 hour).

For this example, the site has set the Timing Monitor Alert - Seconds parameter (i.e., MONITOR ALERT - SECONDS field [#19.02] in the CP PARAMETERS file [#8973]) to 10 seconds. The graph shows that the average CPRS coversheet loads exceeded the 10 second threshold during the 1st through the 13th hour. Since the user is checking the monitor at the 13th hour, where the CPRS coversheet load took approximately 15 seconds, he/she saw the alert message displayed at the bottom of the screen:

ALERT!!! – Current Average Time-To-Load exceeds '10 seconds'

Sites can set the Timing Monitor Alert - Seconds parameter from 10 to 999 seconds via the MONITOR ALERT - SECONDS field (#19.02) in the CP PARAMETERS file (#8973).



REF: For more information on the CP parameters, see the “[Edit CP Parameters File](#)” section and [Table 10](#).

3.1.2.5 CP Tools Reports Menu

The CP Tools Reports menu [KMPD CM TOOLS REPORTS; Synonym: **RPT**] is available on the CP Tools Manager Menu [KMPD CM TOOLS MANAGER MENU], as shown below:

Figure 34. Accessing the CP Tools Reports—Menu option

Select CP Tools Manager Menu Option: CP TOOLS REPORTS	
TMG	Timing Reports ...
Select CP Tools Reports Option:	

The CP Tools Reports menu [KMPD CM TOOLS REPORTS] contains a report option that generates report information for a variety of Computerized Patient Record System (CPRS) event statistics accumulated within the CP TIMING file (#8973.2).

The CP Tools Reports menu contains the following sub-menu option:

Figure 35. CP Tools Reports—Menu option

TMG	Timing Reports ...	[KMPD TMG REPORTS]
-----	--------------------	--------------------

This sub-menu option is discussed in greater detail in Section [3.1.2.5.1](#).

3.1.2.5.1 Timing Reports Menu

The Timing Reports menu [KMPD TMG REPORTS; Synonym: **TMG**] is located under the CP Tools Reports menu [KMPD CM TOOLS REPORTS]. It contains the following report options:

Figure 36. Timing Reports—Menu option

Select CP Tools Reports Option: TIMING REPORTS		
AVD	Average Daily Coversheet Load	[KMPD TMG AVG TTL]
AVH	Average Hourly Coversheet Load	[KMPD TMG HRLY TTL]
DTD	Detailed Daily Coversheet Load	[KMPD TMG DLY TTL DETAIL]
DTH	Detailed Hourly Coversheet Load	[KMPD TMG HRLY TTL DETAIL]
TAL	Threshold Alert	[KMPD TMG TTL ALERT]
RTA	Real-Time Threshold Alert	[KMPD TMG TTL ALERT RT]
RAV	Real-Time Average Hourly Coversheet Load	[KMPD TMG HRLY TTL RT]
Select Timing Reports Option:		

The options on this menu generate report information for a variety of Computerized Patient Record System (CPRS) event statistics accumulated within the CP TIMING file (#8973.2). These report options display CPRS coversheet load time data. The CPRS coversheet is the main CPRS software page, which is a screen of the CPRS patient chart that displays an overview of the patient's record.

Each of these options is discussed in greater detail in the sections that follow.

3.1.2.5.1.1 Average Daily Coversheet Load Option

The Average Daily Coversheet Load option [KMPD TMG AVG TTL; Synonym: **AVD**] is located on the Timing Reports menu [KMPD TMG REPORTS]. It produces a report that displays the daily average time-to-load (TTL) value for the coversheet at a site. Average time-to-load values are given for either daily prime time or non-prime time periods.

[Figure 37](#) shows the prompts and user responses for the Average Daily Coversheet Load option:

Figure 37. Average Daily Coversheet Load option—User prompts

```
Select Timing Reports Option: AVERAGE DAILY COVERSHEET LOAD

      Average Coversheet Time-to-Load (TTL) Report

      This report displays the daily average time-to-load value for
      the coversheet at this site. Average time-to-load values are
      given for either daily prime time or non-prime time periods.

Select End Date:  (9/20/2009 - 05/19/2009): May 19, 2009// <Enter> (MAY 19, 2009)
Select # of Days Review:  (1-30): 7// <Enter>
```

Here the user chose the end date and number of days data upon which to report up to that end date.

```
Select one of the following:

      1      Prime Time
      2      Non-Prime Time

Select Time Frame: 1// <Enter> Prime Time
```

Prime time is 8 a.m. to 5 p.m. (17:00) Monday through Friday, *excluding* holidays. Non-prime time hours are all other hours (i.e., weekends, nights and holidays).

```
Device: HOME// <Enter> TELNET DEVICE

Compiling timing stats.....
.....
```

[Figure 38](#) shows the actual report generated from the Average Daily Coversheet Load option:

Figure 38. Average Daily Coversheet Load option—Report

Average Coversheet Time-to-Load (TTL) Report				
Prime Time - FOREGROUND				
May 13, 2009 - May 19, 2009			Printed: 05/20/09	
Date	Average TTL	Minimum TTL	Maximum TTL	# of CV Loads
05/13/09	0	0	0	0
05/14/09	14	3	500	16,465
05/15/09	14	3	615	18,674
05/16/09	14	3	288	18,123
05/17/09	12	3	436	16,955
05/18/09	0	0	0	0
05/19/09	0	0	0	0
Incomplete: 0				
CV = Coversheet				
TTL = Time-to-Load				
Press RETURN to continue:				

This report provides the following data regarding coversheet loads at a site for a specified number of days:

- Header Second Line—Denotes if the coversheet load was executed in the Foreground, Background, or both. Reports display metrics for Foreground, Background, and Combined timings.
- Date—Specific day that the coversheet load began.
- Average TTL—Average time-to-load (in seconds) for each day.
- Minimum TTL—Minimum time-to-load (in seconds) for each day.
- Maximum TTL—Maximum time-to-load (in seconds) for each day.
- # of CV Loads—Total number of coversheet loads for each day.
- Incomplete—Total number of coversheets where the report option was unable to determine the coversheet end load time, so it was unable to calculate the time to load the coversheet.

Sites can use this report to track average coversheet load times. It also indicates the shortest and longest coversheets time-to-load (TTL). If some of the longer load times are extreme, sites can run any of the other Timing Report options to find out more specific information. For example, sites can then run the Detailed Hourly Coversheet Load report option [KMPD TMG HRLY TTL DETAIL] to see how many loads were over 90 seconds, etc., and also run the Threshold Alert report option [KMPD TMG TTL ALERT] to get a breakdown of which user/client/IP address had slow times.



REF: For more information on the Detailed Hourly Coversheet Load report option [KMPD TMG HRLY TTL DETAIL], see the “[Detailed Hourly Coversheet Load](#)” section.

For more information on the Threshold Alert report option [KMPD TMG TTL ALERT], see the [“Threshold Alert”](#) section.

For this report, the user chose to report on the last 7 days of coversheet load data from 05/13/09 to 05/19/09. From the report, on 05/15/09, for example, there were a total of 18,674 coversheets loaded with an average time-to-load (TTL) for each coversheet of 14 seconds. On that same day the shortest coversheet time-to-load (TTL) took only 3 seconds and the longest coversheet time-to-load (TTL) took 615 seconds (10 minutes and 15 seconds). Zeroes under the “Average TTL,” “Minimum TTL,” “Maximum TTL,” and “# of CV Loads” columns indicates that the coversheets took less than one second to load (see report data for 05/13/09, 05/18/09, and 05/19/09).

3.1.2.5.1.2 Average Hourly Coversheet Load Option

The Average Hourly Coversheet Load option [KMPD TMG HRLY TTL; Synonym: **AVH**] is located on the Timing Reports menu [KMPD TMG REPORTS]. It produces a report that displays the hourly average time-to-load (TTL) value for the coversheet at a site over a 24-hour period.

[Figure 39](#) shows the prompts and user responses for the Average Hourly Coversheet Load option:

Figure 39. Average Hourly Coversheet Load option—User prompts

```
Select Timing Reports Option: AVERAGE HOURLY COVERSHEET LOAD

      Hourly Coversheet Time-to-Load (TTL) Report

      This report displays the hourly average time-to-load value for
      the coversheet at this site over 24 hours.

Select End Date:  (9/20/2009 - 05/19/2009): May 19, 2009// <Enter> (MAY 19, 2009)
Select # of Days Review:  (1-30): 1// <Enter>

Here the user chose the end date and number of days data upon which to report hourly up
to that end date.

Device: HOME// <Enter> TELNET DEVICE

Compiling timing stats.....
```

Figure 40 shows the actual report generated from the Average Hourly Coversheet Load option:

Figure 40. Average Hourly Coversheet Load option—Report

```

Hourly Coversheet Time-to-Load (TTL) Report
Combined FOREGROUND and BACKGROUND Coversheet Loads
May 19, 2009 - May 19, 2009          Printed: 05/20/09

|-----Seconds-----|
Date      Hour      TTL Average  TTL Minimum  TTL Maximum  # of CV Loads
-----
05/19/09   00          14           6           79           52
           01          16           5           83           90
           02          16           5          100          131
           03          10           5           39           69
           04          26           5          150           77
           05          14           5           86           98
           06          13           5           65           77
           07          11           5           44          134
           08          10           4           42          167
           09           9           4           55          161
           10          10           4           53          254
           11          10           5           69          225
           12          11           4          166          210
           13           9           4           43          203
           14          12           4           59          245

Enter RETURN to continue or ^^ to exit: <Enter>

Hourly Coversheet Time-to-Load (TTL) Report
May 19, 2009 - May 19, 2009          Printed: 05/20/09

|-----Seconds-----|
Date      Hour      TTL Average  TTL Minimum  TTL Maximum  # of CV Loads
-----
           15          11           4           60          213
           16          11           5           38          137
           17          10           5           67          217
           18          12           4           64          172
           19          11           5           58          154
           20          11           5           43          112
           21          13           5           72          139
           22          12           5           58           94
           23          12           5           58          132
-----
                                3,563

Hours are represented in military time:

00 = midnight
12 = noon
23 = 11:00 p.m.

Incomplete: 0

CV = Coversheet
TTL = Time-to-Load

Press RETURN to continue:

```

This report provides the following data regarding coversheet loads at a site for each hour of the specified number of days:

- Header Second Line—Denotes if the coversheet load was executed in the Foreground, Background, or both. Reports display metrics for Foreground, Background, and Combined timings.
- Date—Specific day that the coversheet load began.
- Hour—Specific hour that the coversheet load began (00 - 23).
- TTL Average—Average time-to-load (in seconds) for each hour of a day.
- TTL Minimum—Minimum time-to-load (in seconds) for each hour of a day.
- TTL Maximum—Maximum time-to-load (in seconds) for each hour of a day.
- # of CV Loads—Total number of coversheet loads for:
 - Each hour of the day.
 - Grand total for the entire day.
- Incomplete—Total number of coversheets where the report option was unable to determine the coversheet end load time, so it was unable to calculate the time to load the coversheet.

This report allows sites to identify times of the day when the most coversheet loads are taking place, and when the longest times to load are taking place. Sites can run any of the other Timing Report options to find out more specific information.

For this report, the user chose to report on 24 hours of coversheet load data for a single day, 05/19/09. From the report, at 12:00 p.m. to 12:59 p.m. on 05/19/09, for example, there were a total of 210 coversheets loaded with an average time-to-load (TTL) for each coversheet of 11 seconds. At that same hour the shortest coversheet time-to-load (TTL) took only 4 seconds and the longest coversheet time-to-load (TTL) took 166 seconds (2 minutes and 46 seconds).

3.1.2.5.1.3 Detailed Daily Coversheet Load Option

The Detailed Daily Coversheet Load option [KMPD TMG DLY TTL DETAIL; Synonym: **DTD**] is located on the Timing Reports menu [KMPD TMG REPORTS]. It produces a report that displays the daily time-to-load (TTL) values for the coversheet at a site. The report breaks the time-to-load (TTL) metrics into ten second groupings.

[Figure 41](#) shows the prompts and user responses for the Detailed Daily Coversheet Load option:

Figure 41. Detailed Daily Coversheet Load option—User prompts

```
Select Timing Reports Option: DETAILED DAILY COVERSHEET LOAD

      Daily Coversheet Time-to-Load (TTL) Detailed Report

      This detailed report displays daily time-to-load values for the
      coversheet at this site.  The report breaks the time-to-load
      metrics into ten second groupings.

Select End Date:  (9/20/2009 - 05/19/2009): May 19, 2009// T-3 <Enter>  (MAY 17,
2009)
Select # of Days Review:  (1-28): 1// <Enter>

      Here the user chose the end date and number of days data upon which to report up to
      that end date. However, since the user chose to start a few days back (T-3), the
      maximum number of day's data possible for this report is only 28 days (assuming 4
      weeks of data accumulation before purging).

      Select one of the following:

          1          Prime Time
          2          Non-Prime Time

Select Time Frame: 1// <Enter> Prime Time

Device: HOME// <Enter> TELNET DEVICE

Compiling timing stats.....
```

Figure 42 shows the actual report generated from the Detailed Daily Coversheet Load option:

Figure 42. Detailed Daily Coversheet Load option—Report

Prime Time			Printed: 05/20/09
May 17, 2009 - May 17, 2009			
Date	TTL Seconds	# of CV Loads	CV Percent
05/17/09	0 to <10	8,682	51.2%
	10 to <20	6,273	37.0%
	20 to <30	1,238	7.3%
	30 to <40	374	2.2%
	40 to <50	175	1.0%
	50 to <60	77	0.5%
	60 to <70	51	0.3%
	70 to <80	30	0.2%
	80 to <90	18	0.1%
	90 or greater	37	0.2%
		-----	-----
		16,955	100%
	Incomplete	0	
CV = Coversheet	Coversheet sections run in :		
TTL = Time-to-Load	Both Foreground and Background		
Press RETURN to continue:			

This report provides the following data regarding detailed daily coversheet load data at a site in 10-second intervals for the specified days:

- Date—Specific day that the coversheet load began.
- TTL Seconds—Time-To-Load 10-second interval ranges.
- # of CV Loads—Total number of coversheet loads in the specified days within each 10-second time interval.
- CV Percent—Total percentage of coversheet loads in the specified days within each 10-second time interval.
- Total—Grand total of coversheet loads for the specified days.
- Incomplete—Total number of coversheets where the report option was unable to determine the coversheet end load time, so it was unable to calculate the time to load the coversheet.
- Report Footer—Denotes if the coversheet load was executed in the Foreground, Background, or both.

If the report indicates an “excessive” time-to-load (TTL) for a large percentage of coversheets, sites can run any of the other Timing Report options to get more specific information. What is considered “excessive” is site-specific (e.g., over 60 seconds or over 90 seconds, etc.).

For this report, the user chose to report detailed daily coversheet load data for a single day, 05/17/09 during prime time hours. The report shows that 51.2% (i.e., 8,682 coversheets) took less than 10 seconds to load. The report also shows that on that same day .2% (i.e., 37 coversheets) took 90 seconds or more to load. Overall, the report further shows that 95.5% of the coversheets loaded in less than 30 seconds.

3.1.2.5.1.4 Detailed Hourly Coversheet Load Option

The Detailed Hourly Coversheet Load option [KMPD TMG HRLY TTL DETAIL; Synonym: **DTH**] is located on the Timing Reports menu [KMPD TMG REPORTS]. It produces a report that displays the hourly time-to-load (TTL) values for the coversheet at a site. The report breaks the time-to-load metrics into ten second groupings.

[Figure 43](#) shows the prompts and user responses for the Detailed Hourly Coversheet Load option:

Figure 43. Detailed Hourly Coversheet Load option—User prompts

```
Select Timing Reports Option: DETAILED HOURLY COVERSHEET LOAD

      Hourly Coversheet Time-to-Load (TTL) Detail Report

      This detail report displays the hourly time-to-load values
      for the coversheet at this site.  The report breaks the
      time-to-load metrics into ten second groupings.

Select End Date:  (9/20/2009 - 05/19/2009): May 19, 2009// <Enter> (MAY 19, 2009)
Select Hour(s) to Review:  (0-23): 8// <Enter>

Here the user chose the day and hour of the day upon which to report.



Device: HOME// <Enter> TELNET DEVICE

Compiling timing stats...
```

[Figure 44](#) shows the actual report generated from the Detailed Hourly Coversheet Load option:

Figure 44. Detailed Hourly Coversheet Load option—Report

Hourly Coversheet Time-to-Load (TTL) Detail Report				
May 19, 2009 - May 19, 2009			Printed: 05/20/09	
Date	Hr	TTL Seconds	# CV Loads	CV Percent

05/19/09	8	0 to <10	104	62.3%
		10 to <20	53	31.7%
		20 to <30	6	3.6%
		30 to <40	3	1.8%
		40 to <50	1	0.6%
		50 to <60	0	0.0%
		60 to <70	0	0.0%
		70 to <80	0	0.0%
		80 to <90	0	0.0%
		90 or greater	0	0.0%
		-----	-----	
		167	100%	
	Incomplete	0		
CV = Coversheet		Coversheet sections run in :		
TTL = Time-to-Load		Foreground Only		
Press RETURN to continue:				

This report provides the following data regarding detailed hourly coversheet load data at a site in 10-second intervals for the specified hours:

- Date—Specific day that the coversheet load began.
- HR—Specific hour that the coversheet load began.
- TTL Seconds—Time-To-Load 10-second interval ranges.
- # CV Loads—Total number of coversheet loads in the specified hours within each 10-second time interval.
- CV Percent—Total percentage of coversheet loads in the specified hours within each 10-second time interval.
- Total—Grand total of coversheet loads for the specified hours.
- Incomplete—Total number of coversheets where the report option was unable to determine the coversheet end load time, so it was unable to calculate the time to load the coversheet.
- Report Footer—Denotes if coversheet load was executed in the Foreground, Background, or both.

As with all Timing Report options, sites can run any of the other Timing Report options to find out more specific information.

For this report, the user chose to report detailed hourly coversheet load data for a single hour, 8:00:00 a.m. to 8:59:59 a.m. on 05/19/09. The report shows that within that hour 62.3% (i.e., 104 coversheets) took less than 10 seconds to load. The report also shows that within that hour on the same day .6% (i.e., 37 coversheets) took less than 50 seconds to load. Overall, the report further shows that 97.6% of the coversheets loaded in less than 30 seconds within that hour. Finally, the report shows that no coversheet took more than 50 seconds total to load within that hour.

3.1.2.5.1.5 Threshold Alert Option

The Threshold Alert option [KMPD TMG TTL ALERT; Synonym: **TAL**] is located on the Timing Reports menu [KMPD TMG REPORTS]. It produces a report that displays the particular coversheet loads that had excessive time-to-load (TTL) values. This report searches for a particular person, client name, or Internet Protocol (IP) address. There is no upper limit on the Time-To-Load (TTL) Threshold.

[Figure 45](#) shows the prompts and user responses for the Threshold Alert option:

Figure 45. Threshold Alert option—User prompts

```
Select Timing Reports Option: THRESHOLD ALERT

Coversheet Time-to-Load (TTL) Alert Report

This alerting report shows the particular coversheet loads
that had excessive time-to-load values. This report will
search for a particular person, a particular client name or
IP address.

Select End Date: (9/20/2009 - 05/19/2009): May 19, 2009// T-3 <Enter> (MAY 17,
2009)
Select Hour(s) to Review: (0-23): 8// <Enter>
Select Time-To-Load Threshold (Seconds): 60// <Enter>
```

Here the user chose the day, hour of the day, and threshold amount (in seconds) upon which to report. There is no upper limit on the Time-To-Load Threshold.

```
Select one of the following:

1      User Name
2      Client Name
3      IP Address
4      Any Occurrence

Search By: 4// <Enter> Any Occurrence
```

Here the user chose to report on any occurrence: user name, client name, and IP address.

```
Device: HOME// <Enter> TELNET DEVICE

Compiling timing stats.....
```

[Figure 46](#) shows the actual report generated from the Threshold Alert option:

Figure 46. Threshold Alert option—Report

Coversheet Time-to-Load (TTL) Alert Report					
May 17, 2009 - May 17, 2009				Printed: 05/20/09	
Any Occurrence:					
Threshold: 60 seconds					
Date	Time	User Name	Client Name	IP Address	Time-to-Load

05/17/09	08:11	KMPDUSER, THREE	xxx-xx57738.v08	99.99.99.16	71
	08:21	KMPDUSER, FOUR	xxx-xx56313.v08	99.99.9.108	63
	08:29	KMPDUSER, FIVE	xxx-xx45760.gai	99.99.9.19	78
	08:30	KMPDUSER, SIX	xxx-xx59283.v08	99.99.99.54	76
	08:32	KMPDUSER, SEVEN L	xxx-xx57703.v08	99.99.99.33	64
	08:35	KMPDUSER, EIGHT	xxx-xx48247.gai	99.99.9.225	63
	08:37	KMPDUSER, NINE	xxx-xx57710.v08	99.99.9.229	87
	08:38	KMPDUSER, NINE	xxx-xx57710.v08	99.99.9.229	87
	08:39	KMPDUSER, TEN C	xxx-xx02.gaines	99.99.9.14	64
	08:40	KMPDUSER, 11	xxx-xx43202.gai	99.99.99.237	104
	08:43	KMPDUSER, 12	xxx-xx56231.v08	99.99.9.114	65
	08:52	KMPDUSER, 12	xxx-xx56231.v08	99.99.9.114	123
	08:56	KMPDUSER, 12	xxx-xx56231.v08	99.99.9.114	117
Press RETURN to continue:					

This report provides the following data regarding threshold alert data at a site listing only those coversheet loads exceeding the threshold interval chosen by the user for the specified hours on the specified days:

- Date—Specific day that the coversheet load began.
- Time—Specific time that the coversheet load began (hours and minutes).
- User name—Name of the person signed on to the client workstation loading the coversheet.
- Client Workstation—Name of the client workstation that loaded the coversheet.
- IP Address—Internet Protocol (IP) address of the client workstation that loaded the coversheet.
- Time-To-Load—Total elapsed time to load the coversheet; loads that went beyond the threshold interval. Displayed metrics include the sum of Foreground and Background timings.

This report allows sites to find “out of line” load times. They can then track down the problem (e.g., network problem, individual CPRS setting problems, etc.). Again, as with all Timing Reports, sites can run any of the other Timing Report options to find out more specific information.

For this report, the user chose to report on coversheet loads that exceeded 60 seconds between 8:00:00 a.m. and 8:59:59 a.m. on 05/17/09. The report shows that the longest coversheet load took 123 seconds at 8:52 a.m. KMPDUSER,12 signed onto the client workstation identified as “xxx-xx56231.v08” with an IP address of 99.99.9.114 and loaded that particular coversheet.

3.1.2.5.1.6 Real-Time Threshold Alert Option

The Real-Time Threshold Alert option [KMPD TMG TTL ALERT RT; Synonym: **RTA**] is located on the Timing Reports menu [KMPD TMG REPORTS]. It produces a report that displays the particular coversheet loads that have excessive time-to-load (TTL) values for TODAY (real-time). This report searches for a particular person, client name, or Internet Protocol (IP) address.

[Figure 47](#) shows the prompts and user responses for the Real-Time Threshold Alert option:

Figure 47. Real-Time Threshold Alert option—User prompts

```
Select Timing Reports Option: REAL-TIME THRESHOLD ALERT

      Coversheet Time-to-Load Alert Report > Real-Time

      This alerting report shows the particular coversheet loads
      that have excessive time-to-load values for TODAY (Real-Time).
      This report will search for a particular person, a particular
      client name or IP address.

==> building Hours list.....

Select Hour(s): (0-8): 0-8
Select Time-To-Load Threshold (Seconds): 60// <Enter>
```

Here the user chose the hour range of today's date and threshold amount (in seconds) upon which to report.

```
Select one of the following:

1      User Name
2      Client Name
3      IP Address
4      Any Occurrence

Search By: 4// <Enter> Any Occurrence
```

Here the user chose to report on any occurrence: user name, client name, and IP address.

```
Device: HOME// <Enter> TELNET DEVICE

Compiling timing stats.....
```

This is a real-time report option. Thus, if it is 8:30 a.m. when the site runs this report option, the data is only available from midnight to 8:00 a.m. However, if the option is run at 2:00 p.m. (14:00) the data is available from midnight to 1400 hours.

[Figure 48](#) show the actual report generated from the Real-Time Threshold Alert option:

Figure 48. Real-Time Threshold Alert option—Report (1 of 3)

Coversheet Time-to-Load Alert Report > Real-Time					
Hour(s): 0,1,2,3,4,5,6,7,8,				Printed: 05/20/09	
Any Occurrence:					
Threshold: 60 seconds					
Date	Time	User Name	Client Name	IP Address	Time-to-Load

05/20/09	00:24	KMPDUSER,13	xxx-xx57694.v08	99.99.99.238	70
	00:41	KMPDUSER,TEN C	xxx-xx02.gaines	99.99.91.14	72
	00:57	KMPDUSER,TEN C	xxx-xx02.gaines	99.99.9.14	78
	00:59	KMPDUSER,14	xxx-xx45112.gai	99.99.9.59	143
	02:01	KMPDUSER,15	xxx-xx50691.gai	99.99.9.232	69
	03:45	KMPDUSER,13	xxx-xx50606.gai	99.99.9.154	74
	03:51	KMPDUSER,16	xxx-xx.v08.	99.99.99.17	65
	03:57	KMPDUSER,16	xxx-xx.v08.	99.99.99.17	61
	04:02	KMPDUSER,17	xxx-xx45098.gai	99.99.99.15	161
	04:10	KMPDUSER,18	xxx-xx55788.v08	99.99.9.120	437
Enter RETURN to continue or '^' to exit: <Enter>					
Coversheet Time-to-Load Alert Report > Real-Time					
Hour(s): 0,1,2,3,4,5,6,7,8,				Printed: 05/20/09	
Any Occurrence:					
Threshold: 60 seconds					
Date	Time	User Name	Client Name	IP Address	Time-to-Load

05/20/09	04:19	KMPDUSER,19	xxx-xx47466.gai	99.99.99.82	113
	04:22	KMPDUSER,23 S	xxx-xx50606.gai	99.99.9.154	82
	04:39	KMPDUSER,16	xxx-xx.v08.	99.99.99.17	68
	04:56	KMPDUSER,19	xxx-xx55831.gai	99.99.99.86	75
	05:19	KMPDUSER,16	xxx-xx.v08.	99.99.99.17	62
	07:07	KMPDUSER,THREE	xxx-xx57738.v08	99.99.99.16	98
	07:18	KMPDUSER,20	xxx-xx51177.gai	99.99.999.33	64
	07:43	KMPDUSER,21	xxx-xx57678.v08	99.99.9.55	72
	07:59	KMPDUSER,22	xxx-xx50903.v08	99.99.99.13	96
	08:01	KMPDUSER,24	xxx-xx55771.v08	99.99.9.157	108
Enter RETURN to continue or '^' to exit: <Enter>					

Figure 49. Real-Time Threshold Alert option—Report (2 of 3)

Coversheet Time-to-Load Alert Report > Real-Time					
Hour(s): 0,1,2,3,4,5,6,7,8,			Printed: 05/20/09		
Any Occurrence:					
Threshold: 60 seconds					
Date	Time	User Name	Client Name	IP Address	Time-to-Load

05/20/09	08:04	KMPDUSER,25	xxx-xx57600.v08	99.99.99.18	91
	08:06	KMPDUSER,26	xxx-xx45092.v08	99.99.99.111	111
	08:10	KMPDUSER,27	xxx-xx56195.v08	99.99.9.106	203
	08:11	KMPDUSER,28 A	xxx-xx45078.gai	99.99.9.153	73
	08:14	KMPDUSER,27	xxx-xx56195.v08	99.99.9.106	82
	08:15	KMPDUSER,29	xxx-xx45753.gai	99.99.9.93	156
	08:16	KMPDUSER,30 L	xxx-xx55831.gai	99.99.99.86	75
	08:17	KMPDUSER,28 A	xxx-xx45078.gai	99.99.9.153	61
	08:18	KMPDUSER,31	xxx-xx57094.v08	99.99.99.91	70
	08:19	KMPDUSER,FOUR	xxx-xx57656.v08	99.99.9.17	95
	08:20	KMPDUSER,32	xxx-xx59301.v08	99.99.9.234	66
	08:20	KMPDUSER,24	xxx-xx55771.v08	99.99.9.157	63
	08:21	KMPDUSER,33 M	xxx-xx57893.v08	99.99.9.134	193
Enter RETURN to continue or '^' to exit: <Enter>					
Coversheet Time-to-Load Alert Report > Real-Time					
Hour(s): 0,1,2,3,4,5,6,7,8,			Printed: 05/20/09		
Any Occurrence:					
Threshold: 60 seconds					
Date	Time	User Name	Client Name	IP Address	Time-to-Load

05/20/09	08:25	KMPDUSER,NINE	xxx-xx57710.v08	99.99.9.229	69
	08:26	KMPDUSER,34 N	xxx-xx53033.gai	99.99.999.244	68
	08:27	KMPDUSER,FIVE	xxx-xx45760.gai	99.99.9.19	61
	08:28	KMPDUSER,22	xxx-xx50903.v08	99.99.99.13	72
	08:31	KMPDUSER,25	xxx-xx57600.v08	99.99.99.18	68
	08:32	KMPDUSER,33 M	xxx-xx57893.v08	99.99.9.134	273
	08:33	KMPDUSER,35	xxx-xxrx.gaines	99.99.9.54	61
	08:35	KMPDUSER,26	xxx-xx45092.v08	99.99.99.111	162
	08:37	KMPDUSER,36	xxx-xx56665.v08	99.99.9.91	65
	08:39	KMPDUSER,37	xxx-xx51734.gai	99.99.999.110	69
	08:40	KMPDUSER,38	xxx-xx54233.gai	99.99.99.82	70
	08:41	KMPDUSER,39	xxx-xx50701.gai	99.99.9.71	66
	08:44	KMPDUSER,12	xxx-xx56231.v08	99.99.9.114	117
Enter RETURN to continue or '^' to exit: <Enter>					

Figure 50. Real-Time Threshold Alert option—Report (3 of 3)

Coversheet Time-to-Load Alert Report > Real-Time					
Hour(s): 0,1,2,3,4,5,6,7,8,				Printed: 05/20/09	
Any Occurrence:					
Threshold: 60 seconds					
Date	Time	User Name	Client Name	IP Address	Time-to-Load

05/20/09	08:45	KMPDUSER,40	xxx-xx57078.v08	99.99.9.129	106
	08:47	KMPDUSER,41 L	xxx-xx50888.gai	99.99.99.86	61
	08:49	KMPDUSER,42	xxx-xx49015.gai	99.99.9.181	84
	08:51	KMPDUSER,43	xxx-xx59924.v08	99.99.9.219	71
Total Count: 50					
Press RETURN to continue:					

This report provides the following data regarding threshold alert data at a site listing only those coversheet loads exceeding the threshold interval chosen by the user for the specified hours on the day the report was run (real-time):

- Date—Today’s date that the coversheet load began (real-time).
- Time—Specific time that the coversheet load began (hours and minutes, real time).
- User name—Name of the person signed on to the client workstation loading the coversheet (real-time).
- Client Workstation—Name of the client workstation that loaded the coversheet (real-time).
- IP Address—Internet Protocol (IP) address of the client workstation that loaded the coversheet (real-time).
- Time-To-Load—Total elapsed time to load the coversheet; loads that went beyond the threshold interval (real-time). Displayed metrics include the sum of Foreground and Background timings.
- Total—Grand total of report line items listed (real-time).

As with the Threshold Alert report option [KMPD TMG TTL ALERT], problems can be identified. However, because this is real-time report, sites can track what is going on throughout the day.



REF: For more information on the Threshold Alert report option [KMPD TMG TTL ALERT], see the “[Threshold Alert](#)” section.

For this report, the user chose to report on coversheet loads that exceeded 60 seconds between the hours of 00:00:00 a.m. and 8:59:59 a.m. on 05/20/09. The report shows that the longest coversheet load took 437 seconds at 4:10 a.m. KMPDUSER,18 signed onto the client workstation identified as “xxx-xx55788.v08” with an IP address of 99.99.9.120 and loaded that particular coversheet.

3.1.2.5.1.7 Real-Time Average Hourly Coversheet Load Option

The Real-Time Average Hourly Coversheet Load option [KMPD TMG HRLY TTL RT; Synonym: **RAV**] is located on the Timing Reports menu [KMPD TMG REPORTS]. It produces a report that displays the hourly average time-to-load (TTL) value for the coversheet at a site over a 24-hour period.

[Figure 51](#) shows the prompts and user responses for the Real-Time Average Hourly Coversheet Load option:

Figure 51. Real-Time Average Hourly Coversheet Load option—User prompts

```
Select Timing Reports Option: REAL-TIME AVERAGE HOURLY COVERSHEET LOAD

Real-Time Hourly Coversheet Time-to-Load (TTL) Report

This report displays the hourly average time-to-load value for
the coversheet at this site over 24 hours.

Device: HOME// <Enter> TELNET DEVICE

Compiling timing stats.....
```

This is a real-time report option. Data is only available from midnight to 8:00 a.m.

[Figure 52](#) shows the actual report generated from the Real-Time Average Hourly Coversheet Load option:

Figure 52. Real-Time Average Hourly Coversheet Load option—Report

```
Real-Time Hourly Coversheet Time-to-Load (TTL) Report
May 20, 2009 Printed: 05/20/09

|-----Seconds-----|
Date      Hour      TTL Average  TTL Minimum  TTL Maximum  # of CV Loads
-----
05/20/09   00             15           6          143           73
           01             14           6           52          103
           02             16           5           69           97
           03             17           5           74           93
           04             25           5          437           78
           05             10           5           62          139
           06             11           4           59          270
           07             12           4           98          963
           08             16           5          273         2,028
                                     -----
                                     3,844

Incomplete: 68

CV = Coversheet
TTL = Time-to-Load

Press RETURN to continue:
```

This report provides the following data regarding coversheet loads at a site for each hour of the specified number of days:

- Date—Today's date that the coversheet load began (real-time).
- Hour—Specific hour that the coversheet load began (00 - 23, real-time).
- TTL Average—Average time-to-load (in seconds) for each hour of the day (real-time).
- TTL Minimum—Minimum time-to-load (in seconds) for each hour of the day (real-time).
- TTL Maximum—Maximum time-to-load (in seconds) for each hour of the day (real-time).

- # of CV Loads—Total number of coversheet loads for:
 - Each hour of the day.
 - Grand total for the entire day.
- Incomplete—Total number of coversheets where the report option was unable to determine the coversheet end load time, so it was unable to calculate the time to load the coversheet.



NOTE: TTL metrics include the sum of Foreground and Background timings.

For this report, the user chose to report on the current day (05/20/09, midnight to 8:00 a.m.) of coversheet load data (real-time). The report shows that at 08:00 a.m. on 05/20/09, for example, there were a total of 2,028 coversheets loaded with an average time-to-load (TTL) for each coversheet of 16 seconds. At that same hour the report also shows that the shortest coversheet time-to-load (TTL) took only 5 seconds and the longest coversheet time-to-load (TTL) took 273 seconds (4 minutes and 55 seconds). Also, the report shows that there were a total of 68 coversheets that did *not* load to completion.

3.2 CM Tools Background Driver Option

On a nightly basis, the CM Tools Background Driver option [KMPR BACKGROUND DRIVER] does the following:

- Moves the data within the ^TMP("KMPDH",\$J) collection global to the CM HL7 DATA file (#8973.1).
- Moves the data within the ^KMPTMP("KMPDT") collection global to the CP TIMING file (#8973.2)

Upon completion, the data within both the ^TMP("KMPDH",\$J) and ^KMPTMP("KMPDT") temporary collection globals is purged.

Every Sunday night, the CM Tools Background Driver option [KMPD BACKGROUND DRIVER] monitors and trims (records deleted) the following files to ensure that the correct maximum number of day's data is maintained as determined by the appropriate CP parameters:

- CM HL7 DATA file (#8973.1)—The maximum amount of data collected is determined by the Purge HL7 Data After CP parameter.
- CP TIMING file (#8973.2)—The maximum amount of data collected is determined by the Purge Timing Data After CP parameter.

Also, each Sunday night, the CM Tools Background Driver option automatically compresses the information contained within the CM HL7 DATA file (#8973.1) into weekly statistics. These weekly statistics are converted into an electronic mail message that is automatically transferred via network mail (i.e., VistA MailMan) and merged into a Capacity Planning National Database where this data is used for evaluation purposes.

The CM Tools Background Driver option [KMPD BACKGROUND DRIVER] is *not* assigned to any menu. This option is scheduled through TaskMan to start the Capacity Management Tools software's background driver routine.

This option should be (re)scheduled with TaskMan's Schedule/Unschedule Options [XUTM SCHEDULE] located under the Taskman Management menu [XUTM MGR], see [Figure 53](#).



NOTE: The installation of the CM Tools software automatically sets the Background Driver job to run daily at 1:30 a.m. It does the same thing as TaskMan's Schedule/Unschedule Option, which saves the installer the job of having to set up the Background Driver job later.

This option lets users set the following TaskMan parameters in the OPTION SCHEDULING file (#19.2, see [Figure 54](#) and [Figure 55](#)):

Table 11. TaskMan parameters/fields, stored in the OPTION SCHEDULING file (#19.2)

Parameter	Field Name (Number) (in File #19.2)	Description
QUEUED TO RUN AT WHAT TIME	QUEUED TO RUN AT WHAT TIME field (#2)	This is the date and time the user wants this option to be started by TaskMan. It should be scheduled to run daily at 1:30 a.m.
DEVICE FOR QUEUED JOB OUTPUT	DEVICE FOR QUEUED JOB OUTPUT field (#3)	The field is the name of the device on which the specified option is queued to print by TaskMan. At the time of queuing, If TaskMan <i>cannot</i> identify a device by this name the job does <i>not</i> run. Only enter a device if the job needs an output device.
QUEUED TO RUN ON VOLUME SET	QUEUED TO RUN ON VOLUME SET field (#5)	This field is used to let the Task Manager know where to run the queued job. It is the Volume set [node] upon which the user wants the job to run. Answer <i>must</i> be 2-15 characters.
RESCHEDULING FREQUENCY	RESCHEDULING FREQUENCY field (#6)	This is the frequency at which the user wants the job to automatically run. For the CM Tools Background Driver, this should be set to "1D" so that it runs daily. If this field is left blank, then the job runs only once.



REF: For more information on TaskMan, see the *Kernel Systems Management Guide*.



CAUTION: Capacity Planning Service *strongly* recommends that the CM Tools Background Driver option [KMPD BACKGROUND DRIVER] be scheduled to run daily at 1:30 a.m., because this background driver is the main mechanism by which the following sub-globals are purged nightly:

- ^KMPD(8973.1)—CM HL7 DATA file (#8973.1): Records are purged as prescribed by the Purge HL7 Data After CP parameter, which is stored in the HL7 WEEKS TO KEEP DATA field (#3.11) in the CP PARAMETERS file (#8973). This parameter is edited via the Edit CP Parameters File option [KMPD PARAM EDIT].
- ^KMPD(8973.2)—CP TIMING file (#8973.2): Records are purged as prescribed by the Purge Timing Data After CP parameter, which is stored in the TIMING WEEKS TO KEEP DATA field (#4.11) in the CP PARAMETERS file (#8973). This parameter is edited via the Edit CP Parameters File option [KMPD PARAM EDIT].

Modification of the frequency and time may have adverse effects on the size of the temporary ^KMPD(8973.1) and ^KMPD(8973.2) sub-globals and on the number of entries within the CM HL7 DATA file (#8973.1) and CP TIMING (#8973.2) files.

The following examples show typical displays when using TaskMan's Schedule/Unschedule Options option:

Figure 53. Running TaskMan's Schedule/Unschedule Options option to set up the CM Tools Background Driver—User prompts

```
Select Systems Manager Menu Option: TASKMAN MANAGEMENT

    Schedule/Unschedule Options
    One-time Option Queue
    Taskman Management Utilities ...
    List Tasks
    Dequeue Tasks
    Requeue Tasks
    Delete Tasks
    Print Options that are Scheduled to run
    Cleanup Task List
    Print Options Recommended for Queueing

Select Taskman Management Option: SCHEDULE/UNSCHEDULE OPTIONS

Select OPTION to schedule or reschedule: KMPD BACKGROUND DRIVER <Enter> CM Tools
Background Driver
    ...OK? Yes// <Enter> (Yes)
(R)
```

At this point users are automatically placed into a ScreenMan form, see [Figure 54](#).

After selecting the specific option in TaskMan's Schedule/Unschedule Options option, the user is automatically placed into the following ScreenMan form:

Figure 54. Sample TaskMan's Schedule/Unschedule Options option (ScreenMan)—User prompts, *before* scheduling the CM Tools Background Driver

```

                                Edit Option Schedule
Option Name: KMPD BACKGROUND DRIVER
Menu Text: CM Tools Background Driver                                TASK ID:
_____

QUEUED TO RUN AT WHAT TIME:
DEVICE FOR QUEUED JOB OUTPUT:
QUEUED TO RUN ON VOLUME SET:
    RESCHEDULING FREQUENCY:
        TASK PARAMETERS:
            SPECIAL QUEUEING:
_____

COMMAND:                                Press <PF1>H for help  [REDACTED]
```

Figure 55. Sample TaskMan's Schedule/Unschedule Options option (ScreenMan) —User prompts, *after* scheduling the CM Tools Background Driver

```

                                Edit Option Schedule
Option Name: KMPD BACKGROUND DRIVER
Menu Text: CM Tools Background Driver                                TASK ID: 2156701
_____

QUEUED TO RUN AT WHAT TIME: MAY 2,2009@01:30
DEVICE FOR QUEUED JOB OUTPUT:
QUEUED TO RUN ON VOLUME SET:
    RESCHEDULING FREQUENCY: 1D
        TASK PARAMETERS:
            SPECIAL QUEUEING:
_____

COMMAND:                                Press <PF1>H for help  [REDACTED]
```

Glossary

Table 12. Capacity Management Tools glossary terms

Term	Description
CAPACITY PLANNING	The process of assessing a system's capacity and evaluating its efficiency relative to workload in an attempt to optimize system performance. (Formerly known as Capacity Management.)
CM TOOLS	Capacity Management Tools. A fully automated support tool developed by Capacity Planning (CP) Service, which entails the daily capture of VistA HL7 workload information from participating sites.
COVERSHEET	The Computerized Patient Record System (CPRS) coversheet, which is the main CPRS page. This main page is a screen of the CPRS patient chart that displays an overview of the patient's record.
PRIME TIME HOURS	Prime time hours are 8:00 a.m. to 5:00 p.m. (17:00) Monday through Friday, <i>excluding</i> holidays. Non-prime time hours are all other hours (i.e., weekends, nights and holidays).



REF: For a list of commonly used terms and definitions, see the OI&T Master Glossary VA Intranet Website.

For a list of commonly used acronyms, see the VA Acronym Lookup Intranet Website.

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