

Capacity Management Tools User Manual

Version 3.0 September 2012

Department of Veterans Affairs (VA)
Testing Services (TS)
Capacity Planning (CP) Service

Revision History

Documentation Revisions

The following table displays the revision history for this document. Revisions to the documentation are based on patches and new versions released to the field.

Table i: Documentation revision history

Date	Revision	Description	Author
09/20/2012	1.0	Initial Capacity Management (CM) Tools software and documentation release.	Capacity Planning Development Team
		Software: CM Tools 3.0	Development Manager— Thomas Grohowski
			Developer—Robert Kamarowski
			Software Quality Assurance (SQA)—Gurbir Singh
			Technical Writer—Thom Blom

Patch Revisions

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

Revision History

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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) is the primary stakeholder who is responsible for the management of VistA M software.
- VistA M application developers who develop VistA software and patches.
- Product Support (PS).

Legal Requirements

There are no special legal requirements involved in the use of Capacity Management (CM) Tools.

Disclaimers

This manual provides an overall explanation of configuring and maintaining the Capacity Management (CM) Tools interface and the changes contained in Capacity Management Tools Version 3.0; 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 Websites on the Internet and VA Intranet for a general orientation to VistA. For example, visit the Office of Information & Technology (OIT) VistA Development VA Intranet Website: http://vaww.vista.med.va.gov/



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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. The following table gives a description of each of these symbols:

Table ii. Documentation symbol/term descriptions

Symbol	Description
1	NOTE/REF: Used to inform the reader of general information including references to additional reading material.
A	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) will begin with either "000" or "666".
 - O Patient and user names will be formatted as follows: [Application Name]PATIENT,[N] and [Application Name]USER,[N] respectively, where "Application Name" is defined in the Approved Application Abbreviations document and "N" represents the first name as a number spelled out and incremented with each new entry. For example, in Kernel (KRN) test patient and user names would be documented as follows: KRNPATIENT,ONE; KRNPATIENT,TWO; KRNPATIENT,THREE; etc.
- "Snapshots" of computer commands and online displays (i.e., screen captures/dialogues) and computer source code, if any, are shown in a *non*-proportional font and may be enclosed within a box. Also included are Graphical User Interface (GUI) Microsoft® Windows images (i.e., dialogues or forms).
 - User's responses to online prompts will be **bold** typeface and highlighted using **yellow blocking** (e.g., <Enter>).
 - The "**Enter**" found within these snapshots indicate that the user should press the **Enter** key on their keyboard.
 - o Emphasis within a dialogue box will be **bold** typeface and highlighted in **blue blocking** (e.g., **STANDARD LISTENER**: **RUNNING**).
 - o Some software code reserved/key words will be **bold** typeface with alternate color font.
 - o Author's comments, if any, 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.

- Besides established styles and conventions, the following additional text formatting will be used to further highlight or emphasize specific document content:
 - o Bold Typeface:
 - All values entered or selected by the user in computer dialogues (e.g., "Enter 'xyz' in the Server Name field" or "Choose the ABCD folder entry from the list").
 - All computer keys when referenced with a command (e.g., "press Enter" or "click OK").
 Other special keys are represented within angle brackets (<>). For example, pressing the PF1 key can be represented as pressing <PF1>.
 - All references to computer dialogue tab or menu names (e.g., "go to the General tab" or "choose Properties from the Action menu").
 - All user text (e.g., commands) typed or entered in a Command-Line prompt (e.g., "Enter the following command: CD xyz").
 - o Italicized Typeface:
 - Emphasis (e.g., do *not* proceed or you *must* do the following steps).
 - All reference to computer dialogue or screen titles (e.g., "in the *Add Entries* dialogue...").
 - All document or publication titles and references (e.g., "see the ABC Installation Guide").
- All uppercase is reserved for the representation of M code, variable names, or the formal name of options, field and file names, and security keys (e.g., the XUPROGMODE key).

Documentation Navigation

Document Navigation—This document uses Microsoft[®] Word's built-in navigation for internal hyperlinks. To add **Back** and **Forward** navigation buttons to your toolbar, do the following:

- 1. Right-click anywhere on the customizable Toolbar in Word 2007 (not the Ribbon section).
- 2. Select **Customize Quick Access Toolbar** from the secondary menu.
- 3. Press the dropdown 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. Click/Highlight the **Back** command and press **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. Click/Highlight the Forward command and press **Add** to add it to your customized toolbar.
- 9. Press 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 will automatically be available in any other Word document once you install it on the Toolbar.

How to Obtain Technical Information Online

Exported file, routine, and global documentation can be generated through the use of Kernel, MailMan, and VA FileMan utilities.



NOTE: Methods of obtaining specific technical information online will be indicated where applicable under the appropriate topic.

REF: See the *Capacity Management Tools Technical Manual* for further information.

Help at Prompts

VistA M-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-based software.

Obtaining Data Dictionary Listings

Technical information about VistA M-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 submenu 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" chapter in the "File Management" section of 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
 - o Kernel—VistA M Server software
 - o VA FileMan data structures and terminology—VistA M Server software
- Microsoft® Windows
- 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)
- The Capacity Planning (CP) Service's Intranet Website: http://vaww.vista.med.va.gov/capman/default.asp

This site contains additional information and documentation.

VistA documentation is made available online in Microsoft Word format and Adobe® Acrobat Portable Document Format (PDF). The PDF documents *must* be read using the Adobe® Acrobat Reader (i.e., ACROREAD.EXE), which is freely distributed by Adobe® Systems Incorporated at the following Website: http://www.adobe.com/

VistA documentation can be downloaded from the VA Software Document Library (VDL) Website: http://www4.va.gov/vdl/

VistA documentation and software can also be downloaded from the Product Support (PS) anonymous directories:

Preferred Method download.vista.med.va.gov



NOTE: This method transmits the files from the first available File Transfer Protocol (FTP) server.

Albany OIFO ftp.fo-albany.med.va.gov
 Hines OIFO ftp.fo-hines.med.va.gov
 Salt Lake City OIFO ftp.fo-slc.med.va.gov

Orientation

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.

1

Introduction

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: http://vaww.vista.med.va.gov/capman/Site Statistics.asp



REF: For more information on the Capacity Planning National Database and data display, see the "Statistics and Projections" topic that follows in this chapter.

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," in this manual.

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" topic in Chapter 3, "CM Tools: Options," in this manual.

2.3 Statistics and Projections

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.
- **REF:** For more information on the CP parameters, see the "<u>Edit CP Parameters File</u>" topic in Chapter 3, "<u>CM Tools: Options</u>," in this manual.

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: http://vaww.vista.med.va.gov/capman/Site_Statistics.asp
- Projections—Provides data trends for each listed site: http://vaww.vista.med.va.gov/capman/Site_Projections.asp

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*.

CM Tools: Software Overview and Use

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 below:

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
         Capacity Planning ...
                                                                         [XTCM MAIN]
  CM
         Alert Management ...
         Alpha/Beta Test Option Usage Men
          Clean old Job Nodes in XUTL
                                                            The Capacity Planning
          Delete Old (>14 d) Alerts
                                                            menu is accessed via
          Kernel Management Menu ...
                                                            the Operations
          Post sign-in Text Edit
                                                            Management menu.
          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 may 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 will be discussed in greater detail in the topics 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] (<u>Figure 2</u>). 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.

<u>Figure 3</u> 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
                                             Enter users to the KMP-CAPMAN mail
Select MEMBER: KMPDUSER, ONE // ?
                                             group. These mail group members
   Answer with MEMBER
                                             (e.g., IRM personnel) will receive
   Choose from:
                                             messages from Capacity Planning-
   KMPDUSER, ONE
   KMPDUSER, TWO
                                             related software (e.g., CM Tools).
        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.
                                           Indicate whether or not
     Choose from:
                                           the mail group member
       С
                TNFO
                                           is a primary recipient.
  TYPE: CC// <Enter>
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 whether or not
                                                       Choose the mail group
                           the mail group is
                                                       organizer and coordinator. The
     Choose from:
                           public or private.
                                                       coordinator is responsible for
       DII
               public
       PR
                                                       maintaining the membership of
                private
TYPE: public// <Enter>
                                                       the mail group. Also, enter any
ORGANIZER: KMPDUSER, TWO// <Enter>
                                                       authorized senders.
COORDINATOR: KMPDUSER, TWO// <Enter>
Select AUTHORIZED SENDER: <Enter>
```

```
ALLOW SELF ENROLLMENT?: NO// ?
     If users may join this group by themselves, say "YES"
     Choose from:
      V
               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).
Select REMOTE MEMBER: <Enter>
Select DISTRIBUTION LIST: ?
       You may enter a new DISTRIBUTION LIST, if you wish
   Answer with DISTRIBUTION LIST NAME
   Choose from:
                                              This series of prompts is used to
   486 TEAM
                                              enter any additional remote users,
   G.IMG@RD4.VA.GOV
                                              mail groups, distribution lists, or
   GUESS
   TRM
                                              FAX recipients/groups as members
   IRM
                                              to the KMP-CAPMAN mail group.
   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] (<u>Figure 2</u>). 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 topics 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] (<u>Figure 4</u>). It allows users to check the capacity planning environment at their site. It displays data from the following areas (see <u>Figure 5</u>):

- 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 below:

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 <u>Figure 7</u> and <u>Figure 19</u>), the CP Environment Check option [KMPD STATUS] displays the following information regarding the scheduled CM Tools Background Driver option [KMPD BACKGROUND DRIVER]:

Table 1. CP Environment Check option—CM Tools Background Driver option statistics

Data	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 will run 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].

Data	Description
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 will only display 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] (se Section 3.2), the CP Environment Check option—HL7 [KMPD STATUS] displays the following HL7-specific and other general CM Tools report information (see <u>Table 2</u>, <u>Figure 7</u>, and <u>Figure 8</u>):

Table 2. CP Environment Check option: HL7—Report data fields

Data	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 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 HL7 data collection.
HL7 Wkly Backgrnd 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.
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	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.
	REF: For more information on this file, see the Chapter 3, "Files," in the Capacity Management Tools Technical Manual.

Data	Description
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.

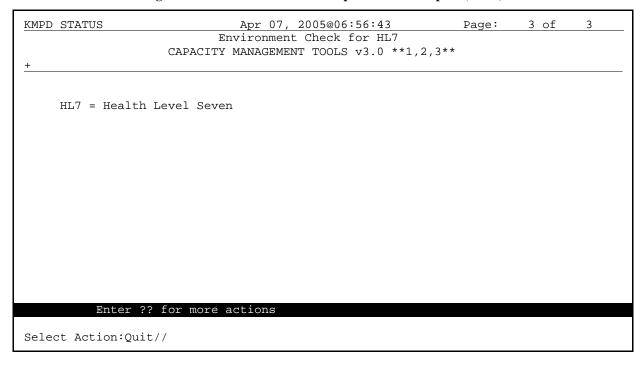
Figure 7. CP Environment Check option: HL7—Report (1 of 3)

```
KMPD STATUS
                              Apr 07, 2005@06:55:23
                                                                               3
                                                              Page:
                                                                       1 of
                           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)
  H17 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@FO-ALBANY.MED.VA.GO
                                S.KMP4-CM-SERVER@FO-ALBANY.MED.VA.GOV
          Enter ?? for more actions
Select Action:Next Screen// <Enter>
```

Figure 8. CP Environment Check option: HL7—Report (2 of 3)

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 Entries	Oldest Date			
8973.1 - CM HL7 DATA	4,560	3/20/05	4/6/05		
CM TOOLS routines 50 Routines - No Problems					
Node/CPU Data	573A02 hp . 573A03 hp .	AlphaServeı AlphaServeı	ES80 7/1000 ES80 7/1000 ES80 7/1000 ES80 7/1000	(6) (6)	
KMP-CAPMAN Mail Group CAPMANUSER,TWO CAPMANUSER,THREE R CAPMANUSER,FOUR A CAPMANUSER,FIVE E					
+ Enter ?? for more act Select Action:Next Screen// <en< td=""><td></td><td></td><td></td><td></td><td></td></en<>					

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



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 3. CP Environment Check option—RUM Background Driver option statistics

Data	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 will run at this scheduled time depending on the Rescheduling Frequency indicated.
	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.
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].

Data	Description
QUEUED BY	This is the person who schedules the RUM Background Driver option [KMPR BACKGROUND DRIVER] to run via TaskMan.
	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.

If the CP Environment Check option—RUM [KMPD STATUS] detects that the RUM Background Driver option [KMPR BACKGROUND DRIVER] has *not* been scheduled, it will only display 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, please consult the RUM documentation located on the VA Software Document Library (VDL) at the following Website: http://www4.va.gov/vdl/application.asp?appid=130 In addition to the information regarding the RUM Background Driver option [KMPR BACKGROUND DRIVER] (<u>Table 3</u>), the CP Environment Check option—RUM [KMPD STATUS] also displays the following additional RUM and general information (see <u>Figure 12</u> and <u>Figure 13</u>):

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

Data	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 Bkgrnd 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 Backgrnd 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	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.	
	REF: For more information on this file, see the Chapter 3, "Files," in the Capacity Management Tools Technical Manual.	

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

```
Apr 07, 2005@06:57:06
KMPD STATUS
                                                                     1 of
                                                                             3
                                                            Page:
                          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
  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
         Enter ?? for more actions
Select Action:Next Screen// <Enter>
```

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

```
Apr 07, 2005@06:57:25
KMPD STATUS
                                                       Page:
                                                               2 of
                        Environment Check for RUM
                    CAPACITY MANAGEMENT - RUM v3.0 **1**
  RUM Purge Data After..... 2 weeks
  RUM Transmit Data to...... CAPACITY, MANAGEMENT@FO-ALBANY.MED.VA.GO
                              S.KMP2-RUM-SERVER@FO-ALBANY.MED.VA.GOV
                                # of
                                       Oldest
                                                 Recent
  File
                               Entries Date
                                                  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)
         Enter ?? for more actions
Select Action: Next Screen// <Enter>
```

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

```
Enter ?? for more actions

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

Enter ?? for more actions

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 5. CP Environment Check option—SAGG Master Background Task option statistics

Data	Description
Current Status	Indicates the scheduling status of the SAGG Master Background Task option [KMPS SAGG REPORT]. Values are:
	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 will run 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).

Data	Description
TASK ID	This is the TaskMan task ID scheduled to run the SAGG Master Background Task option [KMPS SAGG REPORT].
QUEUED BY	This is the person who schedules the SAGG Master Background Task option [KMPS SAGG REPORT] to run via TaskMan.
	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.

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 will only display 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, please consult the SAGG documentation located on the VA Software Document Library (VDL) at the following Website: http://www4.va.gov/vdl/application.asp?appid=115

In addition to the information regarding the SAGG Master Background Task option [KMPS SAGG REPORT] (<u>Table 5</u>), the CP Environment Check option—SAGG [KMPD STATUS] also displays the following additional SAGG and general information (see <u>Figure 15</u> and <u>Figure 16</u>):

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

Data	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 will be monitoring.
File Entries	Number of entries within the SAGG PROJECT file (#8970.1). This file is populated when the data collection is started.
	REF: For more information on this file, see the Chapter 3, "Files," in the Capacity Management Tools Technical Manual.

Data	Description
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.

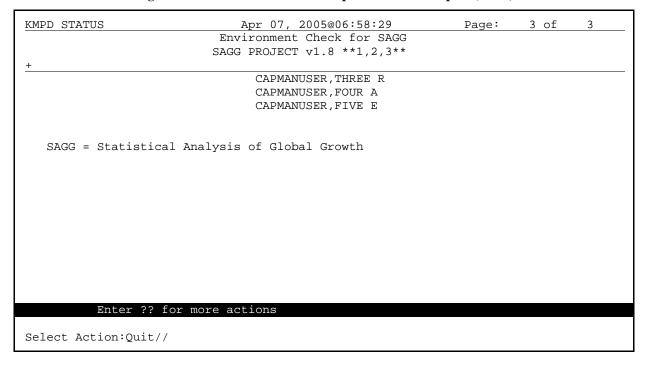
Figure 15. CP Environment Check option: SAGG—Report (1 of 3)

```
KMPD STATUS
                            Apr 07, 2005@06:57:59
                                                                         3
                                                         Page:
                                                                 1 of
                         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 collection routines will monitor the following:
                                      _$1$DGA101:[NFL.VCC]
         _$1$DGA101:[NFL.ROU]
         _$1$DGA101:[NFL.VDD]
                                      _$1$DGA101:[NFL.ZSHARE]
         _$1$DGA102:[NFL.VAA]
                                      _$1$DGA102:[NFL.VHH]
          $1$DGA103:[NFL.VEE]
                                      _$1$DGA103:[NFL.VFF]
         Enter ?? for more actions
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
                          Environment Check for SAGG
                         SAGG PROJECT v1.8 **1,2,3**
         _$1$DGA103:[NFL.VGG]
                                       _$1$DGA104:[NFL.SQL]
         _$1$DGA104:[NFL.VBB]
                                        _$1$DGA104:[NFL.VII]
                                   # of
  File
                                  Entries
                                       1
  8970.1-SAGG PROJECT
  SAGG routines..... 7 Routines - No Problems
  Node/CPU Data...... 573A01 hp AlphaServer ES80 7/1000 (6)
                                      hp AlphaServer ES80 7/1000 (6)
                               573A02
                               573A03 hp AlphaServer ES80 7/1000 (6)
                               573A04 hp AlphaServer ES80 7/1000 (6)
  KMP-CAPMAN Mail Group..... CAPMANUSER, TWO
         Enter ?? for more actions
Select Action: Next Screen// <Enter>
```

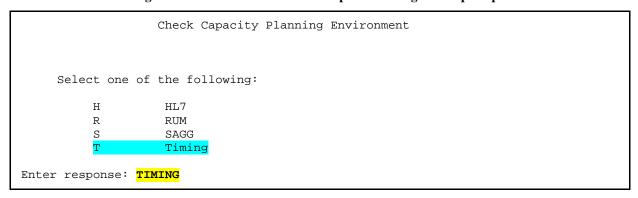
Figure 17. CP Environment Check option: SAGG—Report (3 of 3)



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 below:

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



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

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 <u>Table 7</u>, <u>Figure 19</u>, and <u>Figure 20</u>):

Table 7. CP Environment Check option: Timing—Report data fields

Data	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.
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.

Data	Description
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	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.
	REF: For more information on this file, see the Chapter 3, "Files," in the Capacity Management Tools Technical Manual.
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:
                  HL7
         Η
         R
                  RUM
         S
                  SAGG
                  Timing
Enter response: TIMING
                            Apr 07, 2005@06:58:46
KMPD STATUS
                                                         Page:
                                                                 1 of
                        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
  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@FO-ALBANY.MED.VA.GO
                             S.KMP6-TIMING-SERVER@FO-ALBANY.MED.VA.GOV
                                 # of
                                         Oldest
                                                    Recent
  File
                                                    Date
                                Entries
                                         Date
         Enter ?? for more actions
Select Action:Next Screen// <Enter>
```

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

```
Apr 07, 2005@06:59:06
KMPD STATUS
                                                            Page:
                                                                    2 of
                         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
         Enter ?? for more actions
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" topic in this chapter.

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:

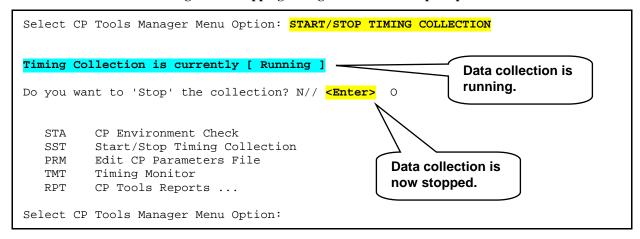
Select CP Tools Manager Menu Option: START/STOP TIMING COLLECTION Data collection is Timing Collection is currently [STOPPED] stopped. Do you want to 'Start' the collection? N// Y <Enter> Timing Collection has been [Started] STA CP Environment Check SST Start/Stop Timing Collection Data collection is Edit CP Parameters File PRM now started. TMT Timing Monitor RPT CP Tools Reports ... Select CP Tools Manager Menu Option:

Figure 21. Starting timing collection—User prompts

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



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.

Table 8: TIMING^KMPDTU11() API—Used to start/stop gathering CM Tools Timing data

Reference Type	Supported	Supported		
Category	Capacity Mana	gement Tools		
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") will be used.		

Example to Start TIMING:

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

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] (<u>Figure 4</u>). 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" topic in this chapter.

This option allows users to edit the following parameters:

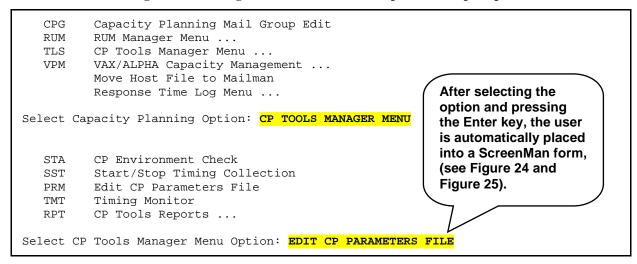
Table 9. CP parameters/fields, stored in the CP PARAMETERS file (#8973)

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 will be 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 will be 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 will be 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 will appear on the Timing Monitor screen. Enter a whole number between 10 and 999.
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.

Parameter	Field Name (Number) (in File #8973)	Description
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.

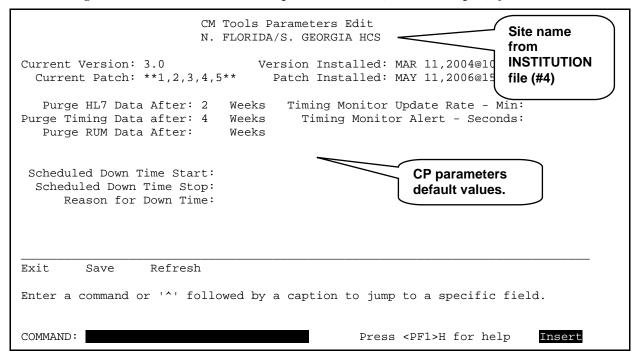
<u>Figure 23</u>, <u>Figure 24</u>, and <u>Figure 25</u> show the prompts and user responses for the Edit CP Parameters File option:

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



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)

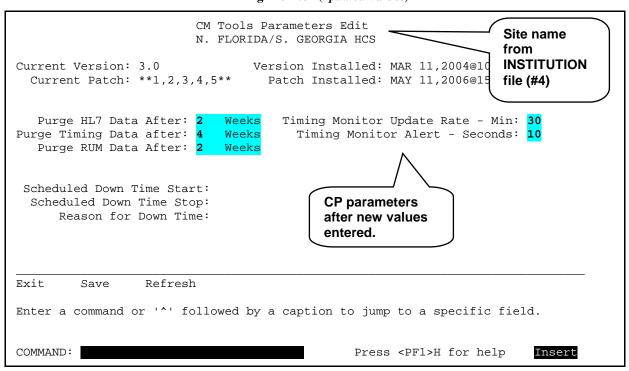


This screen (Figure 24) allows users to edit the parameter values that are stored in the CP PARAMETERS file (#8973), see Table 9.

3.1.2.3.1 Data Purges and Timing Monitor

<u>Figure 25</u> 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)



In this example (<u>Figure 25</u>), the user has made entries for the data purge and Timing Monitor parameters only. In most cases, the recommended value was entered (see <u>Table 9</u>). 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 (OIT).
- 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~WEST-HAVEN.VA.GOV [#8198307] 05/15/06@10:02 1 line From: MASTER CP ECHO SERVER In 'IN' basket. Page 1

ECHO FROM ALBANY TO WEST-HAVEN.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~N. FLORIDA/S. GEORGIA VHS (573)~ [#63014754]
05/15/06@10:03 2 lines
From: ECHO BACK FROM N. FLORIDA/S. GEORGIA VHS In 'IN' basket. Page 1 *New*

START=
STOP=

Enter message action (in IN basket): Ignore/

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

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.

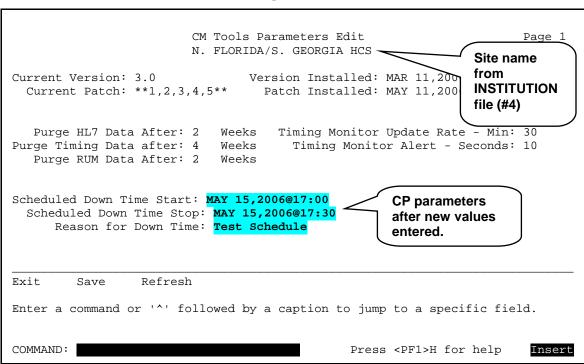
4. If the Capacity Planning National Database has *not* received a return message from the site after a certain period of time (e.g., one hour) and there are no entries in the SCHEDULED DOWN TIME START (#5.01) and SCHEDULED DOWN TIME STOP (#5.02) fields (see Figure 27), then a routine on the Capacity 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 (OIT).

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)



In this example (<u>Figure 28</u>), 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

```
Subj: CP ECHO~5/15/06-31~N. FLORIDA/S. GEORGIA VHS (573)~ [#63014754]
05/15/06@10:23 2 lines
From: ECHO BACK FROM N. FLORIDA/S. GEORGIA VHS In 'IN' basket. Page 1 *New*

START=3060515.17
STOP=3060515.1730
Here, the Start and Stop fields are filled in, so a scheduled down time is now indicated.

Enter message action (in IN basket): Ignor
```

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

Timing Data Monitor

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

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

Timing Data Monitor

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.....

<u>Figure 32</u> 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):

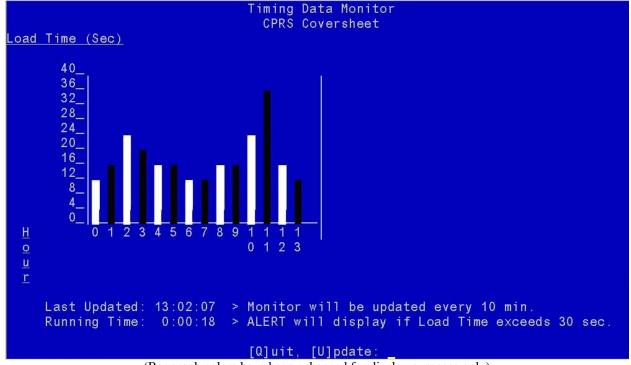


Figure 32. Running the Timing Monitor option—Report, no alert

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

In this example (<u>Figure 32</u>), 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 <u>Figure 33</u>.

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.

A

REF: For more information on the CP parameters, see the "Edit CP Parameters File" topic and Table 9 in this chapter.

<u>Figure 33</u> shows a sample report with an alert message displayed:

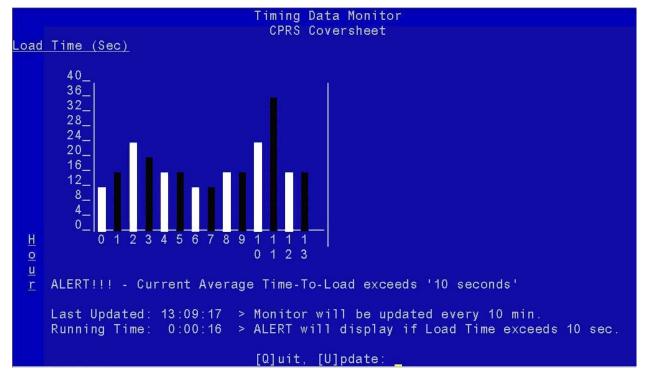


Figure 33. Running the Timing Monitor option—Report, with alert

In this example (<u>Figure 33</u>), 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" topic and Table 9 in this chapter.

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 the topic that follows.

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]
                                                             [KMPD TMG HRLY TTL]
  AVH
         Average Hourly Coversheet Load
                                                     [KMPD TMG DLY TTL DETAIL]
  DTD
        Detailed Daily Coversheet Load
  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 topics 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>
     Select one of the following:
                                              Here the user chose the end date and
                                              number of days data upon which to
                    Prime Time
                                              report up to that end date.
                    Non-Prime Time
Select Time Frame: 1// <Enter> Prime Time
                                            Prime time is 8 a.m. to 5 p.m. (17:00)
Device: HOME// <Enter> TELNET DEVICE
                                            Monday through Friday, excluding
                                            holidays. Non-prime time hours are all
Compiling timing stats.....
                                            other hours (i.e., weekends, nights and
                                            holidays).
```

Figure 38 shows the actual report generated from the Average Daily Coversheet Load option:

Figure 38. Average Daily Coversheet Load option—Report

	Average	Prim	me-to-Load (TT ne Time - May 19, 2009	L) Report Printed:	05/20/09	
	1	Seconds				
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 RETUI	RN to continue:					

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

- 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" topic in this chapter.

For more information on the Threshold Alert report option [KMPD TMG TTL ALERT], see the "Threshold Alert" topic in this chapter.

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

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

Figure 40. Average Hourly Coversheet Load option—Report

		Hourly Coversh	eet Time-to-Lo	ad (TTI.) Panor	+
					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 53	161
	10	10	4	53	254
	11 12	10	5 4	69 166	225
	13	11 9	4	166 43	210 203
	14	12	4	59	245
	1.1	12	-	3,7	245
Enter RETU		ontinue or '^' f			t
Enter RETU		Hourly Coversho	eet Time-to-Lo , 2009 - May 1	ad (TTL) Repor 9, 2009	t Printed: 05/20/09
	Hour	Hourly Coversho May 19 TTL Average	eet Time-to-Lo , 2009 - May 1 Seconds TTL Minimum	ad (TTL) Repor 9, 2009 TTL Maximum	Printed: 05/20/09 # of CV Loads
	Hour	Hourly Coversho	eet Time-to-Lo , 2009 - May 1 Seconds TTL Minimum	ad (TTL) Repor 9, 2009 TTL Maximum	Printed: 05/20/09 # of CV Loads
	Hour 15 16	Hourly Covershow May 19	eet Time-to-Lo, , 2009 - May 1Seconds TTL Minimum4 5	ad (TTL) Repor 9, 2009 TTL Maximum 60 38	# of CV Loads
	Hour 15 16 17	Hourly Covershow May 19 TTL Average	eet Time-to-Lo, , 2009 - May 1Seconds TTL Minimum	ad (TTL) Repor 9, 2009 TTL Maximum 60 38 67	# of CV Loads
	Hour 15 16 17 18	Hourly Covershom May 19 TTL Average	eet Time-to-Lo, , 2009 - May 1Seconds TTL Minimum	ad (TTL) Repor 9, 2009 TTL Maximum 60 38 67 64	# of CV Loads
	Hour 15 16 17 18 19	Hourly Covershow May 19	eet Time-to-Lo, , 2009 - May 1Seconds TTL Minimum	ad (TTL) Repor 9, 2009 	# of CV Loads
	Hour 15 16 17 18 19 20	Hourly Covershow May 19 TTL Average	eet Time-to-Lo., 2009 - May 1Seconds TTL Minimum	ad (TTL) Repor 9, 2009 TTL Maximum 60 38 67 64 58 43	# of CV Loads
	Hour 15 16 17 18 19 20 21	Hourly Coversho May 19	eet Time-to-Lo., 2009 - May 1Seconds TTL Minimum	ad (TTL) Repor 9, 2009 TTL Maximum 	# of CV Loads
	Hour 15 16 17 18 19 20 21	Hourly Covershow May 19 TTL Average	eet Time-to-Lo., 2009 - May 1Seconds TTL Minimum	ad (TTL) Repor 9, 2009 TTL Maximum 60 38 67 64 58 43 72 58	# of CV Loads
	Hour 15 16 17 18 19 20 21	Hourly Coversho May 19	eet Time-to-Lo., 2009 - May 1Seconds TTL Minimum	ad (TTL) Repor 9, 2009 TTL Maximum 	# of CV Loads 213 137 217 172 154 112 139 94 132
Enter RETU	Hour 15 16 17 18 19 20 21	Hourly Covershow May 19 TTL Average	eet Time-to-Lo., 2009 - May 1Seconds TTL Minimum	ad (TTL) Repor 9, 2009 TTL Maximum 60 38 67 64 58 43 72 58	# of CV Loads
	Hour 15 16 17 18 19 20 21	Hourly Coversho May 19 TTL Average	eet Time-to-Lo., 2009 - May 1Seconds TTL Minimum 4 5 5 4 5 5 5 5 5	ad (TTL) Repor 9, 2009 	# of CV Loads
Date CV = Co	Hour 15 16 17 18 19 20 21 22 23	Hourly Coversho May 19 TTL Average	eet Time-to-Lo., 2009 - May 1Seconds TTL Minimum	ad (TTL) Repor 9, 2009 TTL Maximum 60 38 67 64 58 43 72 58 58 are represented	# of CV Loads 213 137 217 172 154 112 139 94 132 3,563

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

- 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:
 - o Each hour of the day.
 - o 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>
     Select one of the following:
                                               Here the user chose the end date
                                               and number of days data upon which
                    Prime Time
                                               to report up to that end date.
                   Non-Prime Time
                                               However, since the user chose to
                                               start a few days back (T-3), the
Select Time Frame: 1// <Enter> Prime Time
                                               maximum number of day's data
Device: HOME// <Enter> TELNET DEVICE
                                               possible for this report is only 28
                                               days (assuming 4 weeks of data
Compiling timing stats.....
                                               accumulation before purging).
```

<u>Figure 42</u> shows the actual report generated from the Detailed Daily Coversheet Load option:

Figure 42. Detailed Daily Coversheet Load option—Report

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

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

<u>Figure 44</u> shows the actual report generated from the Detailed Hourly Coversheet Load option:

Figure 44. Detailed Hourly Coversheet Load option—Report

		Hourly Covershe			Report Printed: 05/20/09
Date	Hr	TTL Seconds	# CV Loads	CV Percent	
05/19/09	8	0 to <10 10 to <20 20 to <30 30 to <40 40 to <50 50 to <60 60 to <70 70 to <80 80 to <90 90 or greater	104 53 6 3 1 0 0 0	62.3% 31.7% 3.6% 1.8% 0.6% 0.0% 0.0% 0.0% 0.0%	
		Incomplete	167 0	100%	
CV = Cor TTL = Tit Press RETU	me-to	-Load			

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.

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,
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
     Select one of the following:
                                                            threshold amount (in
                                                            seconds) upon which to
          1
                    User Name
                                                            report. There is no upper
          2
                    Client Name
                                                            limit on the Time-To-
                    IP Address
                                                            Load Threshold.
                    Any Occurrence
Search By: 4// <Enter>
                        Any Occurrence
                                                    Here the user chose to report on
Device: HOME// <Enter> TELNET DEVICE
                                                    any occurrence: user name,
                                                    client name, and IP address.
Compiling timing stats.....
```

<u>Figure 46</u> 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 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 08:11 KMPDUSER, THREE XXX-XX57738.V08 99.99.99.16
08:21 KMPDUSER, FOUR XXX-XX56313.V08 99.99.9.108
08:29 KMPDUSER, FIVE XXX-XX45760.gai 99.99.9.19
08:30 KMPDUSER, SIX XXX-XX59283.V08 99.99.99.54
08:32 KMPDUSER, SEVEN L XXX-XX57703.V08 99.99.99.33
08:35 KMPDUSER, EIGHT XXX-XX48247.gai 99.99.9.225
08:37 KMPDUSER, NINE XXX-XX57710.V08 99.99.9.229
08:38 KMPDUSER, NINE XXX-XX57710.V08 99.99.9.229
08:39 KMPDUSER, TEN C XXX-XX02.gaines 99.99.9.14 63 78 76 64 63 87 87 08:39 KMPDUSER, TEN C xxx-xx02.gaines 99.99.9.14 64 104 65 123 117 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.

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>
     Select one of the following:
                                            Here the user chose the hour
                    User Name
                                            range of today's date and
          2
                    Client Name
                    IP Address
                                            threshold amount (in seconds)
          3
                    Any Occurrence
                                            upon which to report.
Search By: 4// <Enter> Any Occurrence >
                                                   Here the user chose to report on
Device: HOME// <Enter> TELNET DEVICE
                                                   any occurrence: user name,
                                                   client name, and IP address.
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 will only be available from midnight to 8:00 a.m. However, if the option is run at 2:00 p.m. (14:00) the data will be 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)

			Any Occurrence: reshold: 60 second	7,8, Pri	
Date		User Name	Client Name	IP Address	
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
			xxx-xx02.gaines		78
	KMPDUSER,14	xxx-xx45112.gai	99.99.9.59	143	
	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.		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
		KMPDUSER, 18	xxx-xx55788.v08	99.99.9.120	437
Enter RET	URN to	Coversheet Time-	to exit: <enter> -to-Load Alert Reps): 0,1,2,3,4,5,6,</enter>		
Enter RET	URN to	Coversheet Time- Hour(s	-to-Load Alert Rep	7,8, Pri	
		Coversheet Time- Hour(s	-to-Load Alert Rep s): 0,1,2,3,4,5,6, Any Occurrence: reshold: 60 second	7,8, Pri	nted: 05/20/09
Date	Time	Coversheet Time- Hour(s The User Name	-to-Load Alert Reps): 0,1,2,3,4,5,6, Any Occurrence: reshold: 60 second	7,8, Pri	Time-to-Load
Date	Time 04:19 04:22	Coversheet Time- Hour(s The User Name KMPDUSER, 19 KMPDUSER, 23 S	-to-Load Alert Reps): 0,1,2,3,4,5,6, Any Occurrence: reshold: 60 second Client Name	7,8, Pri	Time-to-Load
Date	Time 04:19 04:22 04:39	Coversheet Time-Hour(s Thr User Name	cto-Load Alert Reps): 0,1,2,3,4,5,6, Any Occurrence: ceshold: 60 second Client Name xxx-xx47466.gai xxx-xx50606.gai xxx-xx.v08.	7,8, Pri	Time-to-Load
Date	Time 04:19 04:22 04:39	Coversheet Time-Hour(s Thr User Name	-to-Load Alert Reps): 0,1,2,3,4,5,6, Any Occurrence: reshold: 60 second Client Name	7,8, Pri	Time-to-Load
Date	Time 04:19 04:22 04:39 04:56	Coversheet Time-Hour(s Thruser Name	cto-Load Alert Reps): 0,1,2,3,4,5,6, Any Occurrence: ceshold: 60 second Client Name xxx-xx47466.gai xxx-xx50606.gai xxx-xx.v08.	7,8, Pri	Time-to-Load
Date	Time 04:19 04:22 04:39 04:56 05:19	Coversheet Time-Hour(s Thr User Name KMPDUSER,19 KMPDUSER,23 S KMPDUSER,16 KMPDUSER,16 KMPDUSER,16 KMPDUSER,16 KMPDUSER,16	cto-Load Alert Reps): 0,1,2,3,4,5,6, Any Occurrence: reshold: 60 second Client Name xxx-xx47466.gai xxx-xx50606.gai xxx-xx.v08. xxx-xx.v08. xxx-xx.v08.	7,8, Pris	Time-to-Load
Date	Time 04:19 04:22 04:39 04:56 05:19 07:07 07:18	Coversheet Time-Hour(s Thruser Name	cto-Load Alert Reps): 0,1,2,3,4,5,6, Any Occurrence: ceshold: 60 second Client Name xxx-xx47466.gai xxx-xx50606.gai xxx-xx55831.gai xxx-xx.v08. xxx-xx57738.v08 xxx-xx51177.gai	7,8, Pris	Time-to-Load
Date	Time 04:19 04:22 04:39 04:56 05:19 07:07 07:18 07:43	Coversheet Time-Hour(s Thr User Name	cto-Load Alert Reps): 0,1,2,3,4,5,6, Any Occurrence: reshold: 60 second Client Name	7,8, Pris	Time-to-Load
Date	Time 04:19 04:22 04:39 04:56 05:19 07:07 07:18 07:43	Coversheet Time-Hour(s Thruser Name	cto-Load Alert Reps): 0,1,2,3,4,5,6, Any Occurrence: ceshold: 60 second Client Name xxx-xx47466.gai xxx-xx50606.gai xxx-xx55831.gai xxx-xx.v08. xxx-xx57738.v08 xxx-xx51177.gai	7,8, Pris	Time-to-Load

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

		User Name			
			Client Name		
		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
08:14 08:15 08:16	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
	KMPDUSER, 29	xxx-xx45753.gai	99.99.9.93	156	
		xxx-xx55831.gai		75	
			xxx-xx45078.gai		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
		KMPDUSER, 32	xxx-xx59301.v08	99.99.9.234	66
	08:20	KMPDUSER, 24	xxx-xx55771.v08 xxx-xx57893.v08	99.99.9.157	63 193
Enter RETU	JRN to	continue or '^'	to exit: <enter></enter>		
Date	Time	Hour(-to-Load Alert Rep s): 0,1,2,3,4,5,6, Any Occurrence: reshold: 60 second	7,8, Prin	nted: 05/20/09
		Hour(Th User Name	s): 0,1,2,3,4,5,6, Any Occurrence: reshold: 60 second Client Name	7,8, Prin	nted: 05/20/09 Time-to-Load
	08:25	Hour(Th User Name KMPDUSER,NINE	s): 0,1,2,3,4,5,6, Any Occurrence: reshold: 60 second Client Name	7,8, Prinds IP Address 99.99.9.229	Time-to-Load
	08:25 08:26	Hour(Th User Name KMPDUSER,NINE KMPDUSER,34 N	s): 0,1,2,3,4,5,6, Any Occurrence: reshold: 60 second Client Name xxx-xx57710.v08 xxx-xx53033.gai	7,8, Prinds IP Address 99.99.9.229 99.99.999.244	Time-to-Load 69 68
	08:25 08:26 08:27	Hour(Th User Name KMPDUSER,NINE KMPDUSER,34 N KMPDUSER,FIVE	s): 0,1,2,3,4,5,6, Any Occurrence: reshold: 60 second Client Name xxx-xx57710.v08 xxx-xx53033.gai xxx-xx45760.gai	7,8, Prints Is IP Address 99.99.9.229 99.99.999.244 99.99.9.19	Time-to-Load 69 68 61
	08:25 08:26 08:27 08:28	Hour(Th User Name KMPDUSER,NINE KMPDUSER,34 N KMPDUSER,FIVE KMPDUSER,22	s): 0,1,2,3,4,5,6, Any Occurrence: reshold: 60 second Client Name xxx-xx57710.v08 xxx-xx53033.gai xxx-xx45760.gai xxx-xx50903.v08	7,8, Prints IP Address 99.99.9.229 99.99.999.244 99.99.919 99.99.13	Time-to-Load 69 68
	08:25 08:26 08:27 08:28 08:31	Hour(Th User Name KMPDUSER,NINE KMPDUSER,34 N KMPDUSER,FIVE	s): 0,1,2,3,4,5,6, Any Occurrence: reshold: 60 second Client Name	7,8, Prints IP Address 99.99.9.229 99.99.999.244 99.99.913 99.99.99.18	Time-to-Load 69 68 61 72
	08:25 08:26 08:27 08:28 08:31 08:32	Hour(Th User Name KMPDUSER,NINE KMPDUSER,34 N KMPDUSER,FIVE KMPDUSER,22 KMPDUSER,25	s): 0,1,2,3,4,5,6, Any Occurrence: reshold: 60 second Client Name	7,8, Prints IP Address 99.99.9.229 99.99.999.244 99.99.913 99.99.99.13 99.99.918 99.99.9134	Time-to-Load
	08:25 08:26 08:27 08:28 08:31 08:32 08:33	Hour(The User Name KMPDUSER,NINE KMPDUSER,34 N KMPDUSER,FIVE KMPDUSER,22 KMPDUSER,25 KMPDUSER,33 M	s): 0,1,2,3,4,5,6, Any Occurrence: reshold: 60 second Client Name xxx-xx57710.v08 xxx-xx53033.gai xxx-xx45760.gai xxx-xx50903.v08 xxx-xx57600.v08 xxx-xx57893.v08	7,8, Prints IP Address 99.99.9.229 99.99.999.244 99.99.913 99.99.913 99.99.918 99.99.9134 99.99.954	Time-to-Load 69 68 61 72 68 273
	08:25 08:26 08:27 08:28 08:31 08:32 08:33	Hour(The User Name KMPDUSER,NINE KMPDUSER,34 N KMPDUSER,FIVE KMPDUSER,22 KMPDUSER,25 KMPDUSER,33 M KMPDUSER,33 M KMPDUSER,35	s): 0,1,2,3,4,5,6, Any Occurrence: reshold: 60 second Client Name xxx-xx57710.v08 xxx-xx53033.gai xxx-xx45760.gai xxx-xx50903.v08 xxx-xx57600.v08 xxx-xx57893.v08 xxx-xx57893.v08	7,8, Prints IP Address 99.99.9.229 99.99.999.244 99.99.913 99.99.99.13 99.99.918 99.99.9134 99.99.9134 99.99.9111	Time-to-Load
	08:25 08:26 08:27 08:28 08:31 08:32 08:33 08:35 08:37	Hour(The User Name KMPDUSER, NINE KMPDUSER, 34 N KMPDUSER, 51VE KMPDUSER, 22 KMPDUSER, 25 KMPDUSER, 33 M KMPDUSER, 35 KMPDUSER, 36 KMPDUSER, 36 KMPDUSER, 37	s): 0,1,2,3,4,5,6, Any Occurrence: reshold: 60 second Client Name	7,8, Prints IP Address 99.99.9.229 99.99.99.244 99.99.913 99.99.913 99.99.914 99.99.9134 99.99.9134 99.99.9111 99.99.99.91	Time-to-Load 69 68 61 72 68 273 61 162 65
	08:25 08:26 08:27 08:28 08:31 08:32 08:33 08:35 08:37	Hour(The User Name KMPDUSER, NINE KMPDUSER, 34 N KMPDUSER, 51VE KMPDUSER, 22 KMPDUSER, 25 KMPDUSER, 33 M KMPDUSER, 35 KMPDUSER, 36 KMPDUSER, 36 KMPDUSER, 37	s): 0,1,2,3,4,5,6, Any Occurrence: reshold: 60 second Client Name	7,8, Prints IP Address	Time-to-Load 69 68 61 72 68 273 61 162 65
	08:25 08:26 08:27 08:28 08:31 08:32 08:33 08:35 08:37 08:39	Hour (The User Name KMPDUSER,NINE KMPDUSER,34 N KMPDUSER,FIVE KMPDUSER,22 KMPDUSER,25 KMPDUSER,33 M KMPDUSER,35 KMPDUSER,35 KMPDUSER,36 KMPDUSER,36	s): 0,1,2,3,4,5,6, Any Occurrence: reshold: 60 second Client Name	7,8, Prints IP Address	Time-to-Load 69 68 61 72 68 273 61 162 65 69

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
         Time User Name Client Name
                                             IP Address Time-to-Load
Date
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 08:51 KMPDUSER,43 xxx-xx59924.v08 99.99.9.219
                                                                      84
                                                                      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).
- 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" topic in this chapter.

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.

<u>Figure 51</u> 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

```
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:

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 73 0.0 15 6 143 0.1 14 6 52 103 02 5 69 97 16 03 17 5 74 93 04 25 437 78 05 10 62 139 06 59 11 270 4 12 98 07 963 5 80 273 16 2,028 3,844 Incomplete: 68 CV = Coversheet TTL = Time-to-Load

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

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:
 - o Each hour of the day.

Press RETURN to continue:

- o 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.

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.

Version 3.0

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 10. 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 will be queued to print by TaskMan. At the time of queuing, If TaskMan cannot identify a device by this name the job will not be 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 will run daily. If this field is left blank, then the job will run 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)
                                                   At this point users are
      (R)
                                                   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

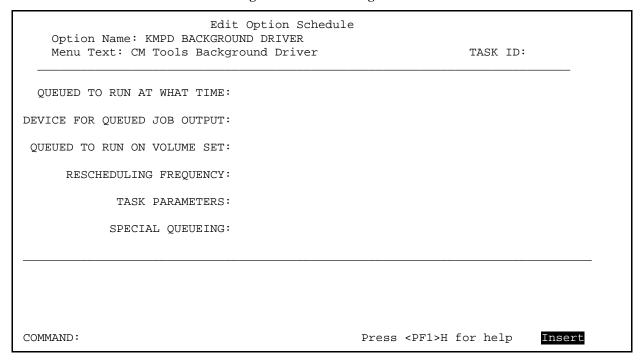


Figure 55. Sample TaskMan's Schedule/Unschedule Options option (ScreenMan) —User prompts, after scheduling the CM Tools Background Driver

Edit Option Schedule

Option Name: KMPD BACKGROUND DRIVER Menu Text: CM Tools Background Driver

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

Glossary

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, excluding 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 OIT Master Glossary VA Intranet Website:

http://vaww.oed.wss.va.gov/process/Library/master_glossary/masterglossary.htm

For a list of commonly used acronyms, see the VA Acronym Lookup Intranet Website: http://vaww1.va.gov/Acronyms/index.cfm

Glossary

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