

# **AUTOMON/CICS®**

## **User's Guide**

### **Publication Number**

**GP38-0420-3**

**WORLD HEADQUARTERS**  
**UNICOM Systems, Inc.**  
1032 Cove Way  
Beverly Hills, CA 90210  
(818) 838-0606

**MISSION HILLS DIVISION**  
**UNICOM Systems, Inc.**  
15535 San Fernando Mission Blvd.  
Mission Hills, CA 91345, U.S.A.  
(818) 838-0606 Fax:(818)838-0776

**FAREAST DIVISION**  
**UNICOM Systems, Korea**  
Hawangshimnidong 301 102  
Sungdong-ku, Seoul, Korea  
(02) 296-5476

## Tenth Edition:

The information in this documentation applies to Version 4 Release 2 Modification 0 of the program product AUTOMON/CICS for MVS/ESA, z/OS, and VSE/ESA.  
(AUTOMON/CICS V420).

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## **AUTOMON/CICS**

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## Preface

This manual contains a description of the AUTOMON/CICS Version 4 Release 2 Modification 0. It provides information necessary to install AUTOMON/CICS, maintenance and use of the product and is intended primarily for the person responsible for installing, maintaining and using AUTOMON/CICS. General audience for this manual are the system manager, systems programmer, programmer analyst and system operator.

This manual contains six chapters and two appendices:

**Chapter 1 Introduction** This chapter provides a general description of the AUTOMON/CICS architecture and key functions.

**Chapter 2 Operation** This chapter describes the online operation and control of AUTOMON/CICS. It discusses how to use the UMON CICS transaction and how to display AUTOMON/CICS messages, threshold values and system tables.

**Chapter 3 Installation Considerations** This chapter provides system requirements.

**Chapter 4 Customization** This chapter describes how you may apply user-written enhancements or variations, such as user exit programs.

**Chapter 5 Batch Utility** This chapter describes the AUTOMON/CICS batch utility functions in detail and includes examples, of the displays associated with each function.

**Chapter 6 Messages and Abend Codes** This chapter describes the AUTOMON/CICS messages. Each message has the explanation, system action and user response.

**Appendices** The appendices provide additional detail including required CICS tables, JCL statements and AUTOMON/CICS default threshold values.

**Index** An index allows you to quickly locate answers to specific questions.

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# **Chapter 1. Introduction**

**This Chapter Describes:**

- What is AUTOMON/CICS ?
- What Does AUTOMON/CICS Do ?
- Why Would You Need AUTOMON/CICS ?
- Product Overview
- Initialization Process
- Functions and Capabilities

---

## 1.0. What is AUTOMON/CICS ?

"*AUTOMON*", which stands for Automatic Monitoring, is a state-of-the art Artificial Intelligence product which "*thinks*" as it diagnoses problems.

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### Features of AUTOMON/CICS

#### Components

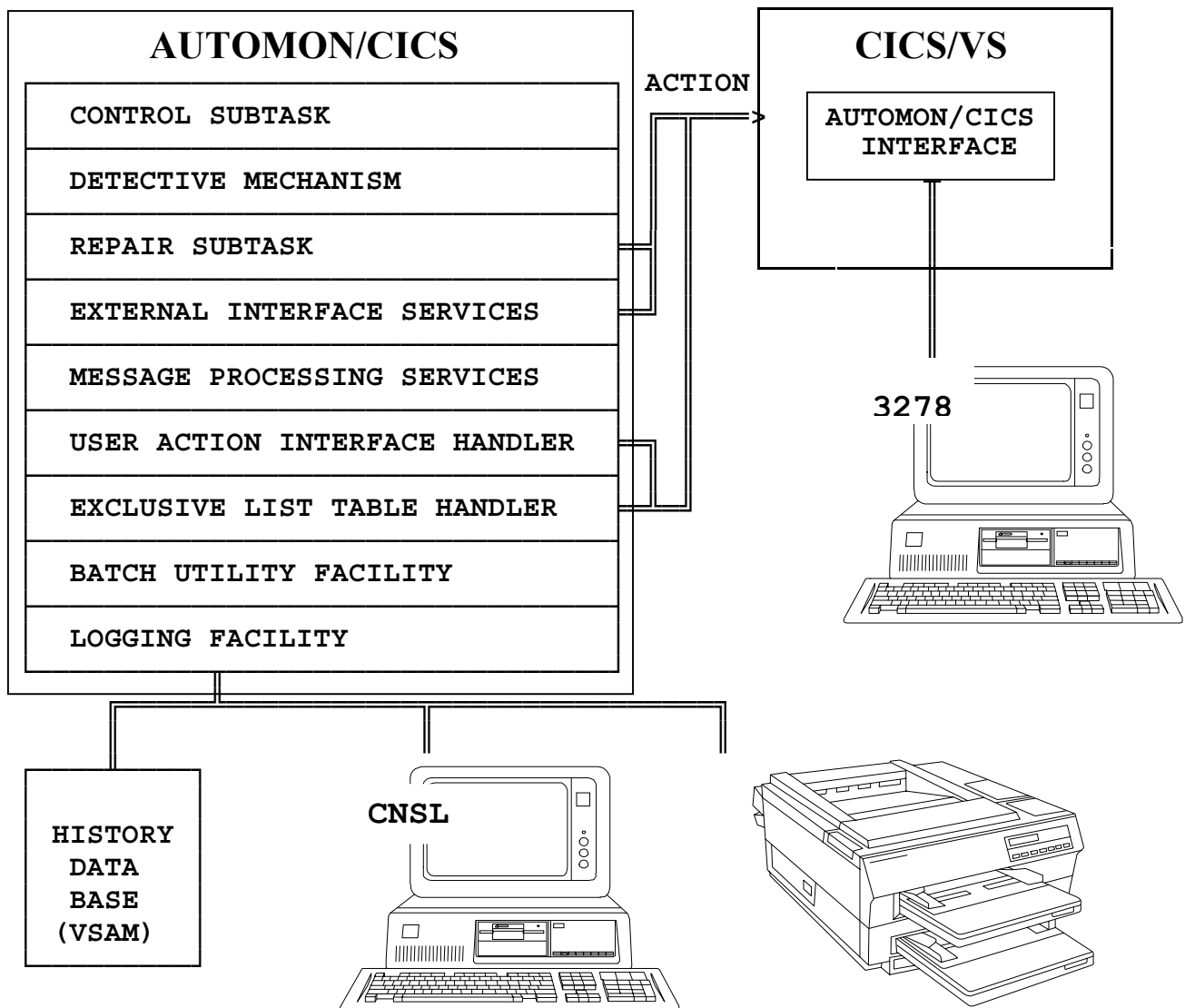
It consists of nine major components: Control Subtask; Detective Mechanism; Repair Subtask; External Interface Services; Message Processing Services; User Action Interface Handler; Exclusive List Table Handler; Batch Utility Facility; and Logging Facility. See Figure 1-1. Once you activate AUTOMON in your system, it will self identify CICS system problems, investigate the actual cause of the problem and take corrective actions dynamically so that your CICS system remains available without interruption.

#### Features

Some of AUTOMON/CICS' features include detection, investigation and correction of: Loop conditions; System crashes; Storage violation conditions; Short on storage conditions and many others. It will also address additional performance concerns automatically by altering the MXT, AMXT and Cushion Size values dynamically (for maximum throughput based on resource availability), self detecting temporary storage shortages, capturing MRO/ISC link pending, alerting the user of VSAM and VTAM related resource dead-lock conditions, and preventing various types of CICS system abends which includes but is not limited to U405, U601, U602, U615, etc. These are but a few of AUTOMON/CICS' capabilities.

## Action Product

AUTOMON/CICS can be thought of as a "*thinking*" product. As such, AUTOMON/CICS is an action oriented system incorporating preventive and proactive mechanism (rather than re-active). It is capable of diagnosing problem symptoms in a developing stage, make proper decisions and take corrective actions automatically without human intervention.



**Figure 1-1. AUTOMON/CICS Overview**

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## 1.1. Why Would You Need AUTOMON/CICS?

AUTOMON/CICS boosts confidence and productivity by helping data center personnel find swift solutions to availability problems. It conserves your most precious commodity -time- and relieves the anxiety and aggravation caused by faltering loops and hard-to-diagnose storage violations.

---

## Availability Issues

### System Availability

In today's data processing environments, the high availability of production CICS systems is more critical than ever before. In the data processing marketplace, there is a proliferation of products which will monitor CICS systems and, will inform the systems programmer of currently occurring problems (unfortunately, in some cases, the System is contaminated beyond repair such as a major storage violation problem or maybe an SOS dead-lock condition, etc.). It is the responsibility of the Systems Programmer to find the right solution to these problems in a timely manner or, the problem might surface again and again (are there CICS dumps occupying space in your office?). Companies who require a highly available CICS on-line system, have come to realize that more than just a performance monitor is needed to maintain their systems, many have realized they need AUTOMON/CICS.

### Artificial Intelligence

CICS on-line system availability can be directly translated to dollars. Unscheduled "*down time*" or slow "*response time*" can cause lost customers, departmental inefficiency, lost orders, scheduling problems and overall inefficiency. once CICS problems are encountered, those responsible for its availability and performance cannot wait for tomorrow's solutions to resolve today's problem. Whether you have a large or small scale on-line system,

AUTOMON/CICS' Artificial Intelligence technology provides immediate solutions in many aspects of CICS. These solutions allow you to operate your CICS system with minimum down time and maximum throughput. This results in a smoothly operating on-line environment and most of all satisfied end users. Post event reporting allows your system programmers to remedy the detected problems at a later time. The prime concern of AUTOMON/CICS is to buy you insurance, while at the same time reducing system programmer load and easing change control. While the package may be readily justified on the latter two items, it is your peace of mind that really counts.

---

## 1.2. What Does AUTOMON/CICS Do ?

AUTOMON/CICS reduces CICS system outages via early detection of critical system problems and dynamically corrects them.

---

### Automation Product

#### Automation

AUTOMON/CICS offers many services to assist in the detection and processing of exceptional and abnormal conditions during the execution of the CICS system. When AUTOMON discovers an abnormal condition, it does a great deal of checking for storage corruption, loops and various other exceptional conditions. Once it identifies the CICS system problem, it will diagnose the symptoms and take corrective actions dynamically to prevent system crashes, enhance system availability and improve system performance. AUTOMON/CICS continuously captures significant activities and conditions of CICS, VTAM, VSAM and the operating system. AUTOMON/CICS will then periodically evaluate overall system performance objectives and then set severity stages (normal, warning and critical).

#### Normal

In normal processing, AUTOMON/CICS offer users maximum throughput by allowing all incoming and outgoing transaction requests to be processed up to the HIGH threshold values which are pre set by the systems programmer. This is known as the Green Flag Stage.

#### Warning

If the system is experiencing a performance problem, AUTOMON/CICS notifies the system console operator as to its cause. Simultaneously, it reduces the

incoming transaction flow by decreasing threshold values until the performance problem is resolved. This is known as the Yellow Flag Stage.

## **Action**

In a critical performance environment - system loop, short on storage, maximum tasks, resources deadlock, permanent ECB wait, storage violation, etc., AUTOMON/CICS will immediately notify the system console operator of the precise cause and will wait for the Action Cycle to expire. The Action Cycle is pre set by your systems programmer. After expiration of the Action Cycle, AUTOMON/CICS takes corrective actions to relieve the problem. This is known as the Red Flag Stage.



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## 1.3. Automatic Monitoring

AUTOMON/CICS is an automatic monitoring facility for CICS systems.

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### Prevent System Crashes

#### Prevention

It is designed to prevent various CICS system crashes, enhance system availability, improve system performance and escalate productivity. AUTOMON/CICS also provides quick debugging, comprehensive problem resolution and essential tuning information. Information such as transaction loops, transaction rate, file I/O rate, VTAM I/O rate, MRO/ISC link pending, VSAM string wait, journal switch pending, short on storage (SOS) and storage violations can be displayed online as well as captured onto a history database.

#### Ease of Use

AUTOMON/CICS follows CICS standard conventions such as the output screen displays, PF/PA key definitions, program naming and system table suffixing so that the users who are familiar with CICS, TSO/ISPF or CMF/ICCF can be familiar with AUTOMON/CICS with great ease within a short period of training time. Using the AUTOMON/CICS viewing facility, the user can monitor one or more CICS systems with a single sign-on. This can be done through a CICS sign-on ("*UMON*") or a TSO/ISPF sign-on ("*AMON*").

AUTOMON/CICS functions act independently and the user may activate or deactivate any functions at any time.

---

## 1.4. Product Overview

The Most Advanced CICS Action Product in the World.

---

### General Overview

#### **Detective Mechanism**

AUTOMON/CICS offers many services to assist in the detection and processing of exceptional and abnormal conditions during the execution of the CICS/VS system.

When AUTOMON/CICS discovers an abend condition, it does a great deal of checking for storage corruption, loops and various other exceptional conditions. A management subtask is provided to detect and process error conditions such as system loop, short on storage, VSAM string wait, VTAM transmission deadlock, MRO/ISC link pending, MXT wait conditions, and storage corruptions.

#### **Repair Mechanism**

AUTOMON/CICS' behavior correspond to CICS. When CICS/VS is experiencing a system abend condition, a repair subtask will be activated automatically to take corrective actions to prevent a system crash. All key virtual storage areas will be checked and repaired. After the completion of the recovery stages, the control task will give control back to CICS (dispatcher domain) for the continuous process.

---

## 1.4.1. Initialization Process

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### Attachment

#### An AMON Task

At CICS system initialization time (PLTPI), a CICS transaction "AMON" will be attached. The AMON transaction then establishes the communication path with the control task, issues WAIT macro and will wait until the management subtask posts it's ECB with the request.

#### A UMON Task

A CICS conversational transaction "UMON" is also provided which can be used to display various AUTOMON/CICS generated messages. Figure 1-2 illustrates AUTOMON/CICS general architecture.

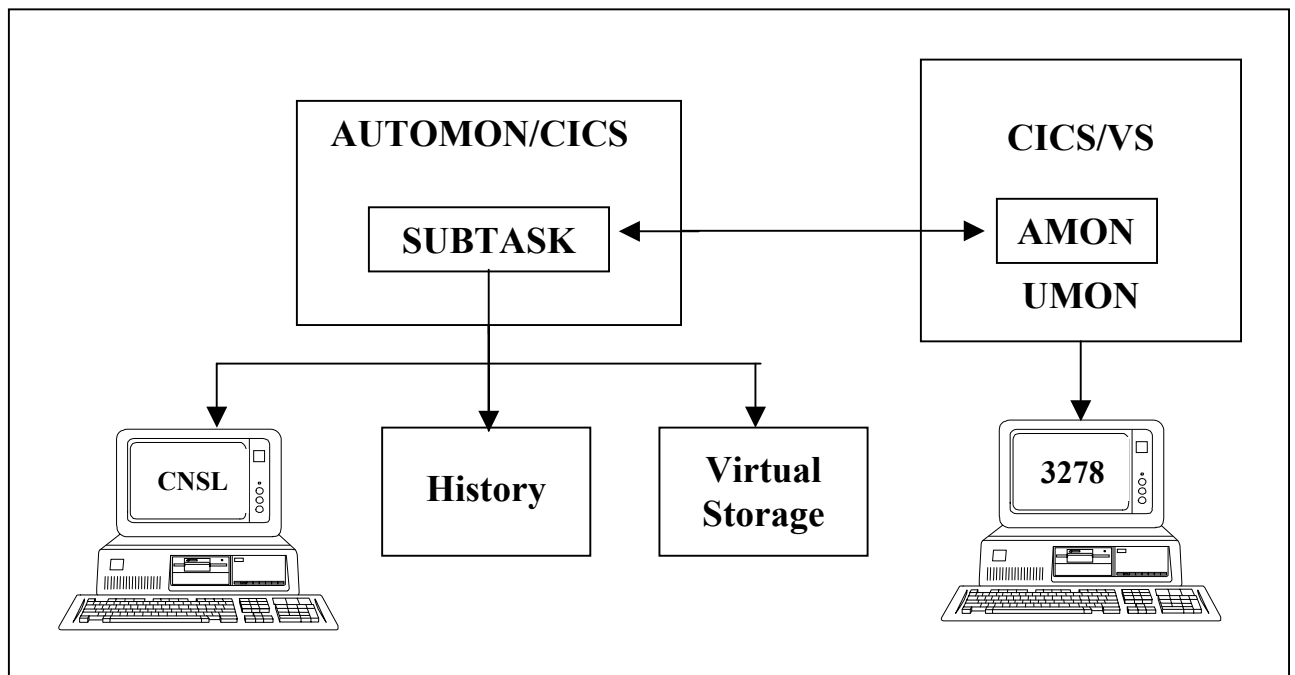


Figure 1-2. AUTOMON/CICS General Architecture

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## 1.4.2. Functions and Capabilities

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### Key Features

#### Major Functions

**AUTOMON/CICS provides the following major functions:**

- System loop detection and application loop correction.
- Prevention of short on storage and reduction of program compression cycles.
- Adjusting the MXT, AMXT and Cushion size values dynamically.
- Relief for system stress conditions.
- Storage violation detection and correction.
- Automatic recovery of System/User Abends. (U305, U409, U602, U615, etc.)
- Average transaction rate, file I/O rate, VTAM I/O rate and aux temporary storage request rate capturing.
- Detection of exception and degradation conditions.
- Automatic logging of CICS changes.
- Monitoring of multi-CICS system activity through CICS and TSO/ISPF.
- Online access to messages and abend codes.
- Logging facility. (History database)
- Online generation of AUTOMON/CICS system tables.

---

### 1.4.3. Loop Detection and Correction

AUTOMON/CICS detects CICS system loops as well as transaction loops.

---

#### High CPU No I/O

##### Operating System Loop

AUTOMON/CICS detects CICS system loops as well as transaction loops. Loop detection includes application program loop, file I/O loop, resource deadlock, single and multiple CICS macro loop, supervisor services (SVC) loop and operating system macro loop.

##### CICS Loop

In case of a CICS system loop, a warning message, with the name of the CICS looping module will be written to the operator's console. The operator can then notify the system programming staff and cancel CICS with a dump. Since most installations learn about system loop problems only after the field operators have called in, this quick detection could allow decisions to be made right away so that the CICS system down time would be minimized.

##### Application Loop

In the event of a transaction loop, the task will be purged with a transaction dump written to the CICS dump dataset after a time value specified in the AUTOMON/CICS thresholds table is expired. The PSW found in the dump would be a part of the looping instruction. An action message will be written to the user terminal, operator console, CICS job log and onto the AUTOMON/CICS history database. The user written exclude list table (XLT) can be used to bypass this purge processing or set special thresholds on a transaction level.

---

## 1.4.4. Short On Storage Prevention

AUTOMON/CICS Prevents SOS Conditions.

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## Excessive Storage Usage

### Prevention

AUTOMON/CICS detects the tasks that are using excessive storage and automatically purges that task(s) with a dump to prevent short on storage. This is done by monitoring the CICS tasks periodically and keeping track of the size of the current task's storage utilization. However, the user written exclude list tables (XLTs) could be used to bypass this purge processing.

### MXT Adjustment

The maximum tasks (MXT), the maximum active (AMXT) values and Storage Cushion Size (SCS) will also be altered dynamically depending on the availability of the CICS dynamic storage area (DSA). If CICS is encountering a system stress and/or short on storage (SOS) condition, the MXT value will be set LOW to prevent further SOS conditions after recovery of the initial short on storage. The MXT value will be increased later on up to the pre-defined HIGH value depending on DSA availability and various other system considerations. The MXT value will be adjusted dynamically all throughout the life of CICS to allow maximum throughput and greater system availability. Using the "UMON" CICS transaction, the user can dynamically alter the LOW and HIGH MXT threshold values online.

---

## 1.4.5. Storage Violation Detection

AUTOMON/CICS detects and repair the storage violation immediately and notifies the operator.

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## Storage Overlay

### Storage Violation

Storage violation is the most common and critical problem in CICS. Yet, it is the most time consuming process to find (if not impossible) which transaction and program is causing such violation. It is difficult because CICS normally frees certain types of storage during the processing of the task and CICS usually discovers a storage overlay at task detach time, which is after the fact in most cases.

### Recovery

AUTOMON/CICS detects the storage violation immediately and notifies the operator. This powerful message contains the transaction ID, terminal name, total storage violation count, storage accounting information, address of the bad storage and data. When AUTOMON/CICS discovers a storage violation, it first issues a warning message with the time stamp on it and then tries to recover the bad storage on behalf of the task. Storage violations has been caused by a program writing to an area it does not own, but you probably have no idea at the outset which program is at fault. Look carefully at the content of the overlay using the AUTOMON/CICS history log, because it could help you to identify the transaction that caused the error. If you have no idea which transaction is causing the overlay, you may need to activate an AUTOMON/CICS user exit program (CSHXMGPB).

## Detection

AUTOMON/CICS can detect storage violations when:

1. The duplicate storage accounting area (SAA) or the initial SAA of a TIOA storage element has become corrupted.
2. The leading storage check zone or the trailing storage check zone of a user-task storage element has become corrupted.
3. The subpool control area (SCA) or storage element descriptor (SCE) or free storage descriptor (SCF) chain has become corrupted.

AUTOMON/CICS detects storage violations involving TIOAs by checking the SAA chains when it's detective mechanism receives control. AUTOMON/CICS detects storage violations involving user-task storage by checking the storage check zones of an element if user-task storage when it's detective mechanism receives a control.

The fact that the SAA or storage check zone is overlaid some time before it is detected does not matter too much for user storage where the trailing storage check zone has been overlaid, because the transaction whose storage has been violated is also very likely to be the one responsible for the violation. It is fairly common for transactions to write data beyond the end of the allocated area in a storage element and into the check zone.

The situation could be more serious if the leading check zone has been overlaid, because in that case it could be that some other unrelated transaction was to blame. However, storage elements belonging to individual tasks are likely to be more or less contiguous, and overwrite could extend beyond the end of one element and into the next.

Finding the offending transaction when the duplicate SAA of a TIOA storage element has been overlaid might not be so straightforward. This is because TIOAs tend to have much longer lifetimes than tasks, because they wait on the response of terminal operators. However AUTOMON/CICS techniques for AUTOMON/CICS-detected violations still apply.

If you are unable to identify the cause of the storage violation, contact your UNICOM Support Center. They may suggest coding an AUTOMON/CICS user exit to detect the storage violation.



---

## 1.4.6. System/User Abend Automatic Recovery

AUTOMON/CICS System Recovery Program (CSHASRP) will be attached automatically to perform recovery.

---

### System Failure

#### (E)SPIE/ESTAE

Whenever CICS encounters an abnormal termination condition as a result of ESPIE/ESTAE operating system abends, AUTOMON/CICS System Recovery Program (CSHASRP) will receive control. CSHASRP will notify the operator immediately, suspend the CICS TCB and performs eight (8) abend recovery stages automatically to identify and potentially repair the problems. Figure 1-3 illustrates AUTOMON/CICS System/User Recovery Functions. Each abend recovery stage has its own master, warning and action flags and you may program different combination of flags temporarily or permanently. AUTOMON supports multiple sets of stages and you may create unlimited combination of stages and assign unique set of stages to one or a group of different CICS systems.

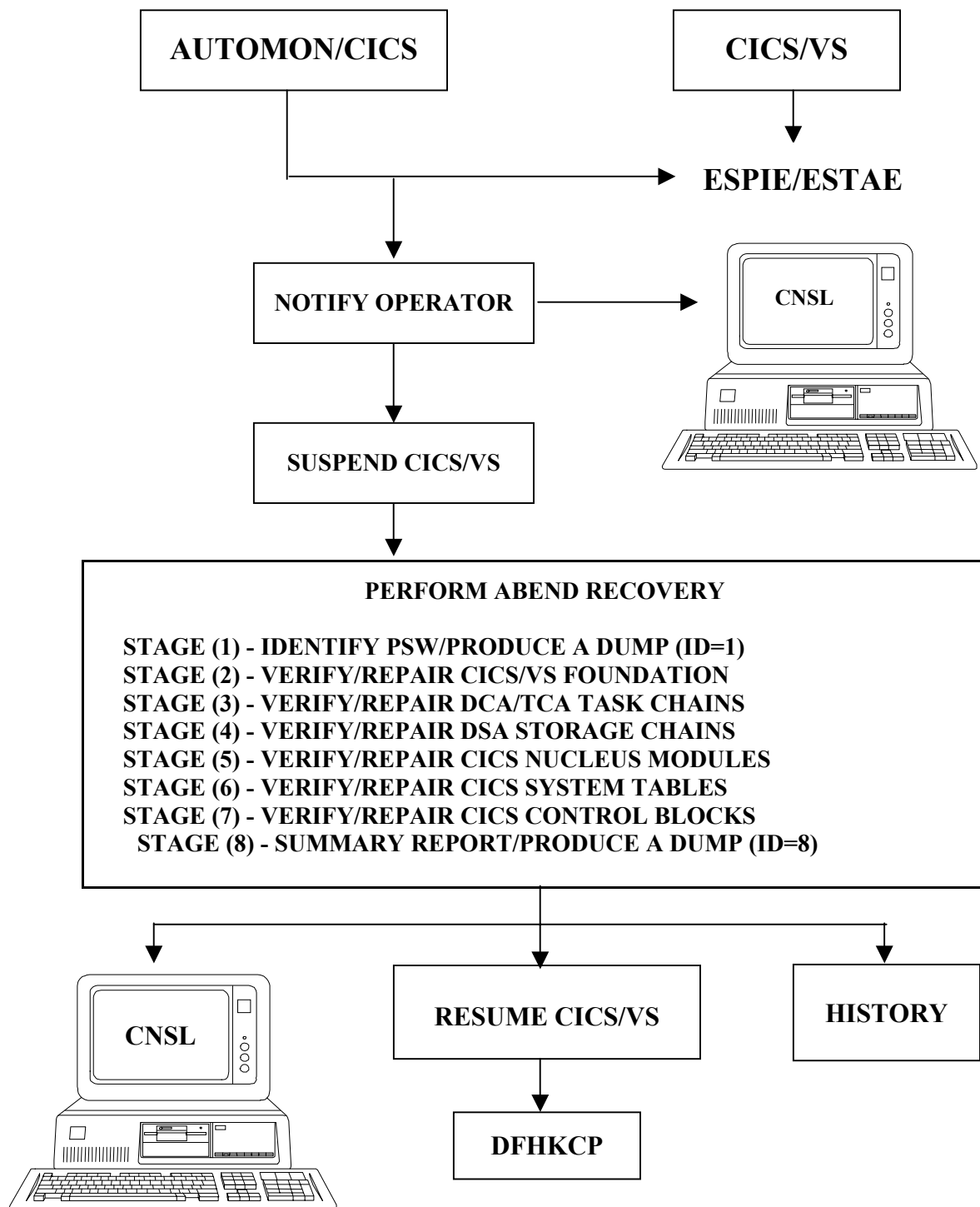
Some functions, such as some security calls and some file control calls made to database, are issued under an operating system subtask which handles its own abend recovery. AUTOMON/CICS recovery processing is not involved in such recovery.

## Abend Codes

**AUTOMON/CICS intercepts the following System/User Abends:**

S047, S04D, S052, S053, S0C1, S0C2, S0C3, S0C3, S0C4, S0C5, S0C6, S0C7, S0C8, S0C9, S0CA, S0CB, S0CC, S0CD, S0CE, S0CF, S0F8, S101, S102, S104, S106, S10A, S10B, S10E, S112, S12F, S130, S133, S178, S201, S202, S204, S205, S206, S230, S238, S23E, S301, S305, S306, S522, S722, S722, S804, S806, S80A, S878, U305, U308, U403, U405, U409, U501, U504, U505, S519, U519, U602, U603, U608, U612, U613, U615, U900, U902, U2304, U2307, U2308, U2309, U4032, etc.

Some system abends, such as a program check in a CICS management module such as DFHTCP/DFHKCP which the CICS system recovery program (DFHSRP) forces it to abend, AUTOMON/CICS recovery processing is not involved in such an abend. A program check is detected by the hardware, for example trying to write over protected storage. Register 13 points at the CSA and register 12 points at the TCA for the system task being abended. The abend code is in TCAPCAC. The address of the PPT entry for the program being executed will be in TCAPCTA.



**Figure 1-3. System/User Abend Recovery Functions**

---

## 1.4.7. Performance Data Capturing

The number of units of processing successfully completed per second will be captured by AUTOMON/CICS.

---

## Performance Record

### Events Recording

The number of units of processing successfully completed per second will be captured by AUTOMON/CICS. The data such as recording unit time, current rate, average rate, high water mark, and high water mark hit time will be captured by transactions, file I/Os, VTAM transmissions, and aux temporary storage requests.

---

## 1.4.8. Exceptional/Degradational Conditions

AUTOMON/CICS Detects Exceptional and/or Degradational Conditions.

---

### Performance Problem

#### Thresholds

When CICS is experiencing a "*slow-down*", you need to identify the precise cause of the system bottlenecks. The bottlenecks could be in the CPU, paging, file I/O, VTAM link, or simply too many CICS users are logged on. AUTOMON/CICS will help you to identify these potential performance constraints and system resource utilization bottlenecks. AUTOMON/CICS checks CICS variables constantly against pre defined threshold values. If any CICS variables are gone over or below the limit of pre-defined EXC/DEG threshold values, AUTOMON/CICS will warn the system console operator immediately.

#### Exception

**AUTOMON/CICS detects exceptional conditions such as:**

Dynamic storage area usage, auxiliary temporary storage usage, VSAM string wait, VTAM receive any high water mark, MRO/ISC link hang, journal switch pending, storage dumps and MXT conditions.

#### Degradation

**AUTOMON/CICS detects degradational conditions such as:**

File I/O wait, page wait, resource deadlock, storage wait, excessive number of active, suspended, dispatchable and non-dispatchable tasks. A CICS transaction, "*UMON*", is provided to alter the EXC/DEG threshold values temporarily or permanently.

---

## 1.4.9. Automatic Logging of CICS Changes

CICS changes will be logged by AUTOMON/CICS.

---

### CICS Parameter Changes

#### **Automatic Logging**

AUTOMON/CICS provides a logging facility. CICS changes such as MXT, AMXT, ICV, ICVR, ICVS, ICVTSD, storage cushion size, IOCP, trace on|off, CMF on|off and VTAM open|close will be logged with a time stamp on it so that you are able to identify which CICS system variables were changed. Any CICS changes made by AUTOMON/CICS will also be logged.

---

## 1.4.10. Multiple CICS System Online Monitor

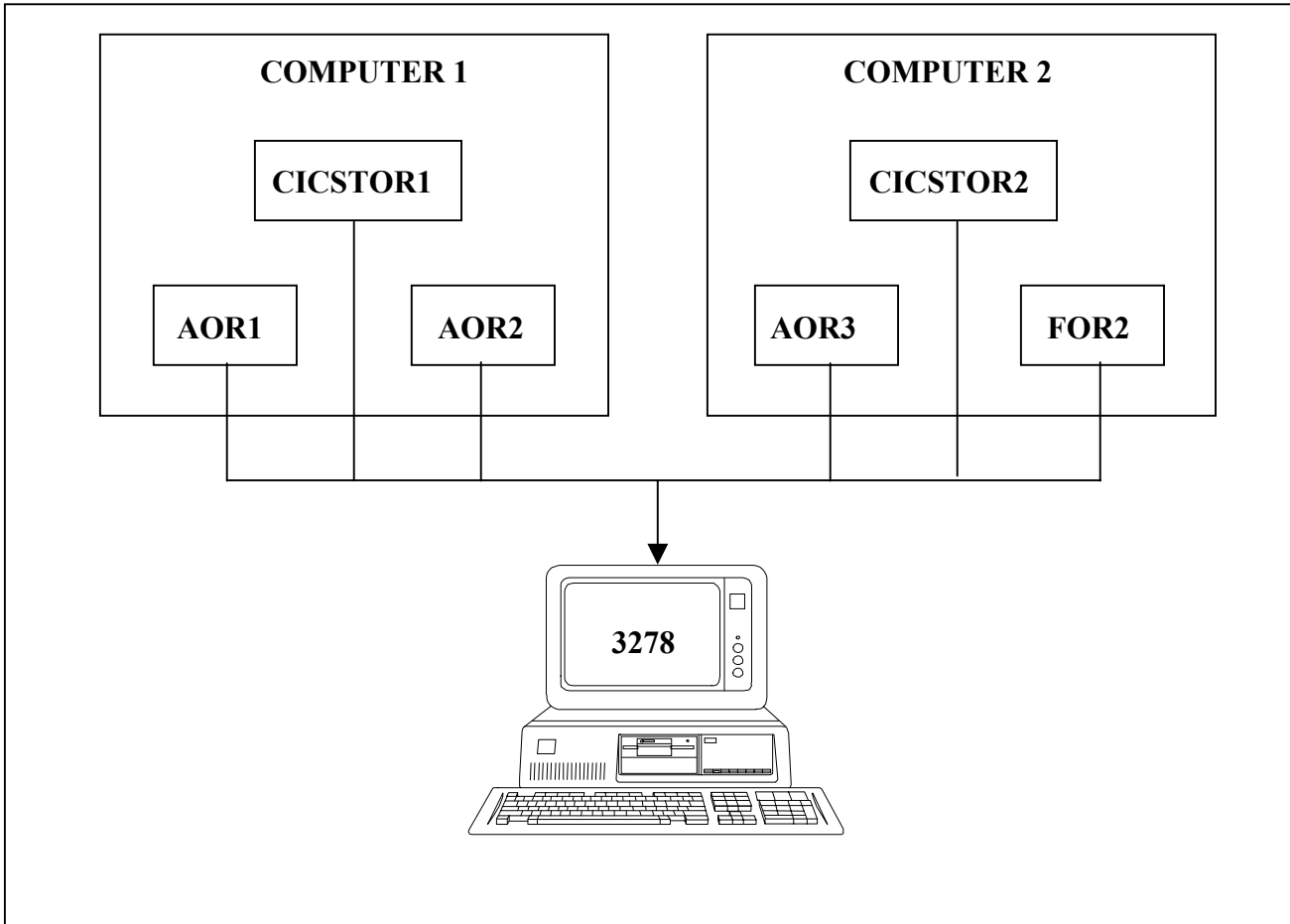
One or More CICS Activities Can Be Monitored.

---

### Multiple System Monitoring

#### Online Monitoring

Multiple CICS system activities, including across different CPUs, can be viewed either through a CICS terminal or TSO/ISPF. (you do not need MRO/ISC links). This unique facility provides the user with a centralized online monitoring capability for multi-CICS systems with just one single logon to any CICS terminal or TSO/ISPF. In using this facility, the user can identify not only individual CICS problems but also system wide problems affecting all CICS regions. Figure 1-4 illustrates Multiple CICS Systems Online Monitor.



**Figure 1-4. Multiple CICS Systems Online Monitor**



---

## **1.4.11. Messages and Abend Codes Online Access**

AUTOMON/CICS provides online access to CICS and AUTOMON/CICS messages and abend codes.

---

### **Online Access**

#### **Messages and Codes**

AUTOMON/CICS provides online access to CICS and AUTOMON/CICS messages and abend codes. Messages or abend codes can be selected by entering a specific error message number. Standard PA/PF key is also supported to print screen, scroll backward and scroll forward.

---

## 1.4.12. Logging Facility (History Database)

AUTOMON/CICS Provides a Logging Facility.

---

### History Database

#### Recording Messages

AUTOMON/CICS optionally records all of the AUTOMON/CICS messages onto the history database. This facility can be used to retrieve prerecorded historical information for the purpose of identifying pre-existing problems.

To utilize this facility, you must define AMON001 VSAM file and specify AUX=YES in the AUTOMON/CICS initialization table (AIT).

---

## 1.4.13. AUTOMON/CICS System Tables

AUTOMON/CICS Requires a Several System Tables.

---

### Threshold Tables

#### **AUTOMON/CICS Tables**

AUTOMON/CICS optionally requires seven system tables. AUTOMON/CICS will use a set of default threshold values unless overridden via the AUTOMON/CICS system tables. These tables are maintained online and no assembly is required. AUTOMON/CICS System Tables are listed in Figure 1-5.

<b>TABLE</b>	<b>DESCRIPTION</b>
APPLID	Specify which AIT to use at initialization time
AIT	Specify which XLT, THT, EXC, DEG and SRT to use
XLT	Specify trans/program IDs to be ignored
THT	Specify various flags, cycles and thresholds
EXC	Specify exceptional condition thresholds
DEG	Specify degradational condition thresholds
SRT	Specify which abend recovery stages to perform

**Figure 1-5. AUTOMON/CICS System Tables**

---

## **1.5. Related Products and Publications**

This section describes AUTOMON/CICS related products and publications.

---

### **Related Products**

---

## 1.5.1. UNIMON/CICS

UNIMON/CICS is a program proprietary of UNICOM Systems, Inc. It is an online performance monitor for CICS/VS systems. It combines features of reliability, flexibility, and recoverability for the user's benefit.

---

### General Overview

#### Overview

It is designed to provide support to the data processing manager, systems programmer, operator and other concerned users and will provide the following:

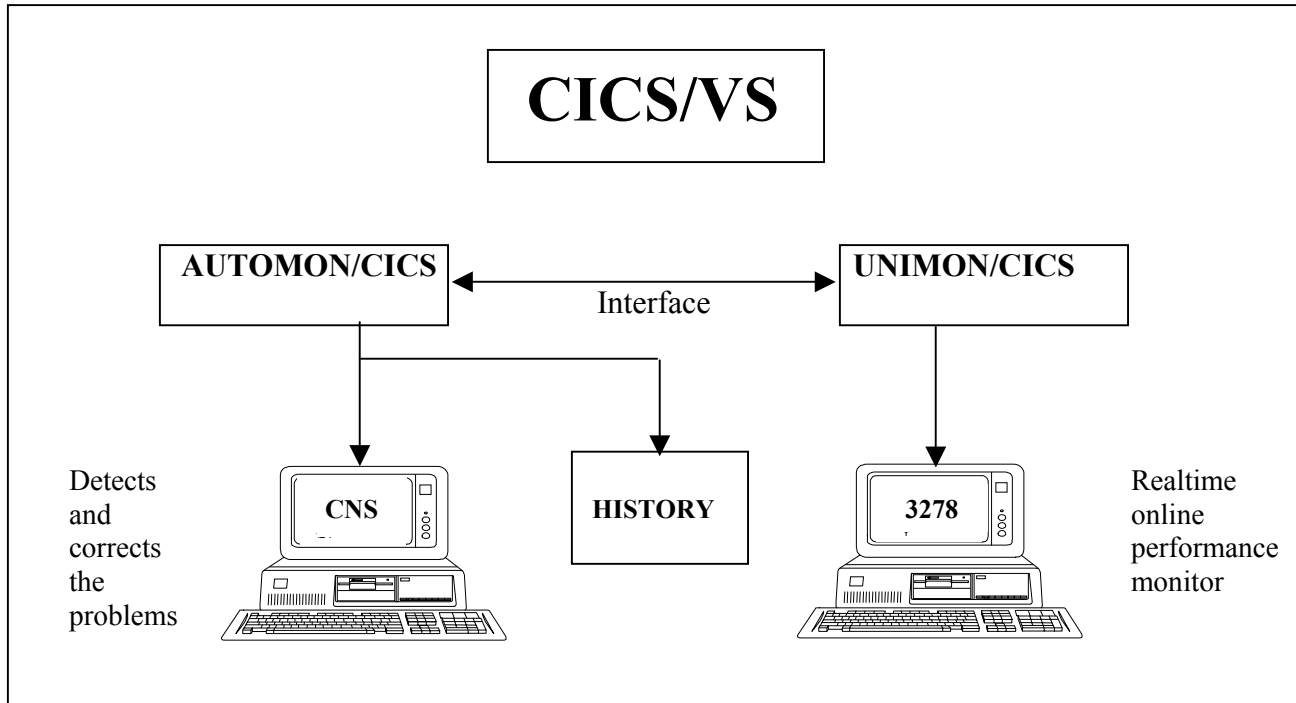
- Application problem determination and resolution
- Online display of CICS error messages and abend codes
- CICS problem determination and resolution
- Resource utilization and tuning
- VTAM and VSAM LSR utilization
- MRO and ISC link utilization
- Paging and real storage utilization
- Display and zap virtual storage
- Online display of the trace table
- Purge CICS tasks

## Features

UNIMON/CICS provides the following key functions:

- UNIMON/CICS profile
- CICS statistics
- Task management
- Storage management
- Resource management
- Data areas
- Service aids
- Messages and abend codes
- UNIMON/CICS security management
- Operating system statistics

A relationship between AUTOMON/CICS and UNIMON/CICS is illustrated in Figure 1-6.



**Figure 1-6. AUTOMON/CICS and UNIMON/CICS Relationships**

---

## 1.5.2. Related Publications

AUTOMON/CICS Related Publications.

---

### Publications

AUTOMON/CICS related publications are listed in figure 1-7.

<b>ORDER NO.</b>	<b>TITLE</b>
GP38-0420-1	AUTOMON/CICS User's Guide
GP39-0420-1	UNIMON/CICS User's Guide
GP38-0420-2	AUTOMON/CICS General Information
GB38-0420-1	Artificial Intelligence: AUTOMON/CICS
GM38-0420-3	AUTOMON/CICS Overview

**Figure 1-7. AUTOMON/CICS Related Publications**

---

## **Chapter 2. Operations**

**This Chapter Describes:**

- Unicom Command Control Facility
- Sign-on Instruction
- How to Set UMON Security Flags
- How to Set/Change Threshold Values
- AUTOMON/CICS System Tables
- AUTOMON/CICS Profile
- How to Display AUTOMON/CICS Messages



---

## 2.1. Universal Command Control Facility

The Universal Command Control Facility (UCCF/Server), a proprietary product of Unicom Systems, Inc. which requires separate licencing, allows AUTOMON/CICS to issue authorized MVS Commands. This system is available to MVS users only.

**WARNING:** This is an optional feature which performs various authorized MVS functions. The UCCF.V420.AUTHLIB must be included in the APF list in order for these functions to be available. Implementation of these features is at the discretion of the user.

---

### UCCF/Server Overview

#### Overview

UCCF/Server, a proprietary product of Unicom Systems, Inc., runs as a MVS subsystem task. Through the use of program calls (PCs) made to the UCCF/Server, AUTOMON/CICS is able to invoke a number of Authorized MVS commands. These functions include:

#### *Loop Kill*

UCCF/Server allows AUTOMON/CICS to perform authorized functions to purge looping transactions it was unable to purge in the previous AUTOMON/CICS releases.

When AUTOMON/CICS runs in CICS regions, it runs in key 8 storage areas and requires no APF authorization. For this reason, AUTOMON/CICS is unable to cancel looping transactions whose modules run in the operation system key 0 storage area. Examples of these types of modules include programs that reside in the ERDSA or the link pack area. However, with UCCF/Server, AUTOMON/CICS is capable of initiating authorized functions from UCCF/Server to kill a looping transaction even if its module is running in the key 0 protected storage area.

Users can identify a task cancelled by UCCF/Server with a new AUTOMON/CICS abend code, UAMK. The user task will be abended with

either a S0C6 specification exception or an ASRA abend.

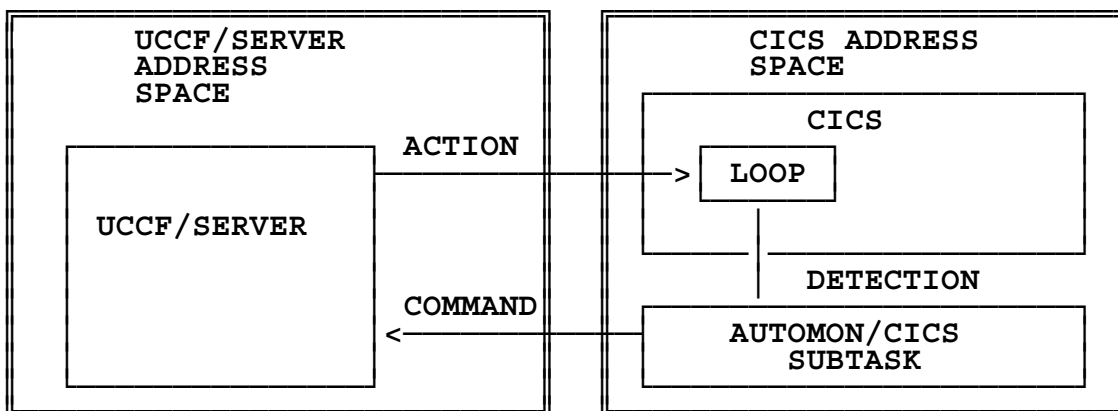
## *SDUMP*

The AUTOMON/CICS System Recovery Table (SRT) stage 1 and stage 8 allows the user to optionally produce a dump when AUTOMON/CICS detects a System Crash Condition or a Storage Violation. This dump provides the user with a snapshot of the system prior to any actions taken by AUTOMON/CICS. The structure of AUTOMON/CICS allows for the capture of this information prior to the point at which CICS would recognize the damage to the system and take its own dump. This dump will therefore provide the user with a cleared picture as to the cause of the problem.

When UCCF/Server is active and the user elects to have AUTOMON/CICS provide a dump when it detects a storage violation of system crash condition, AUTOMON/CICS will generate an MVS System SVC Dump. This is a synchronous formatted dump which may be read by products such as IPCS. When UCCF/Server is inactive, AUTOMON will produce a SNAP dump in written to DD card AMON002, at the time that it detects the problem in the system.

## *Console Commands*

UCCF/Server gives AUTOMON/CICS the ability to issue Console Commands directly to the system.



**Figure 2-1. UCCF/Server Architecture**

---

## 2.1.1. Starting UCCF/Server

Job stream to start the UCCF/Server address space.

---

### UCCF/Server Initialization

#### CSH00SIP

The JCL to follow is a sample of the jobstream which should be submitted to start the UCCF/Server. The jobstream to start UCCF/Server is located in the UNICOM.INSTLIB member CSH00SIP and must meet the following requirements.

1. STEPLIB must exist and point to the UCCF.V420.AUTHLIB. When UCCF.V420.AUTHLIB is not in the link list.
2. The library pointed to by STEPLIB must have been previously included in the Authorized Program Facility(APF) list.
3. CSHLOG must exist and should point to the UCCF/Server log file allocated during installation.
4. CSH00SIP must be initiated as a started task using the MVS START command. The SUBSYS start-up parameter specifies the name to be assigned to UCCF/Server. The SUBSYS parameter identifies UCCF/Server to AUTOMON/CICS. The SUBSYS PARM must be a unique 4-byte subsystem name.

## JCL to Start UCCF/Server

```

//*****
//*-----*
//* THIS JOB IS OPTIONAL *
//* IF YOU START THIS JOB, AUTOMON/CICS WILL ISSUE VARIOUS *
//* APF AUTHORIZED MVS ACTION COMMANDS.  COMMANDS SUCH AS: *
//* . AUTHORIZED LOOP_KILL *
//* . SDUMP - SVC DUMP *
//* . MGCR - CONSOLE COMMANDS *
//* ("STEPLIB" NEEDS TO BE INCLUDED IN THE APF LIST) *
//*-----*
//*****
//*****
//*-----*
//* | START UCCF ADDRESS SPACE *
//*-----*
//*****
//CSH30SIP EXEC PGM=CSH30SIP,TIME=1440,
// PARM='SUBSYS(UCOM),MAXCICS(32),MAXUSER(32)'
//STEPLIB DD DISP=SHR,DSN=UCCF.V420.AUTHLIB
//CSHRPL DD DISP=SHR,DSN=UCCF.V420.AUTHLIB
//CSHLOG DD DISP=SHR,DSN=UCCF.AUTHLIB.LOG
//AMON501 DD DISP=SHR,DSN=UCCF.AMON501

```

Figure 2-2. JCL to Start UCCF/Server

---

## 2.1.2. Stopping UCCF/Server

The use of an MVS MODIFY command is required to terminate UCCF/Server. UCCF/Server can be stopped with either an MVS STOP command or an MVS MODIFY command specifying the UCCF/Server STOP command. MVS CANCEL may also be used.

---

### UCCF/Server Termination

#### MVS MODIFY Command

When you wish to terminate/cancel the UCCF/Server address space from a console use the MVS MODIFY command:

**MODIFY Jobname,STOP**

or

**F Jobname,STOP**

The MODIFY command may also be executed from SDSF with the following syntax.

**/F Jobname,STOP**

## **STOP Command**

When you wish to terminate/cancel the UCCF/Server address space from a console use the MVS STOP command:

### **STOP Jobname**

or

### **P Jobname**

The MODIFY command may also be executed from SDSF with the following syntax:

### **/P Jobname**

---

## 2.2. UMON

AUTOMON/CICS provides a "UMON" CICS transaction which can be used as an online transaction to display status, alter threshold values and view messages.

---

### An Online Utility Transaction

#### A UMON Transaction

The "UMON" transaction can also be used as an online monitoring tool. These extended functions are not included in the AUTOMON/CICS licensed package therefore, an additional license is required to use it. (UNIMON/CICS and/or UMF/CICS) The UMON is engineered with a menu driven facility providing full color support, graphic oriented output display and built-in print function to provide the user with the most effective use of the product. The general architecture of UMON is illustrated in Figure 2-3.

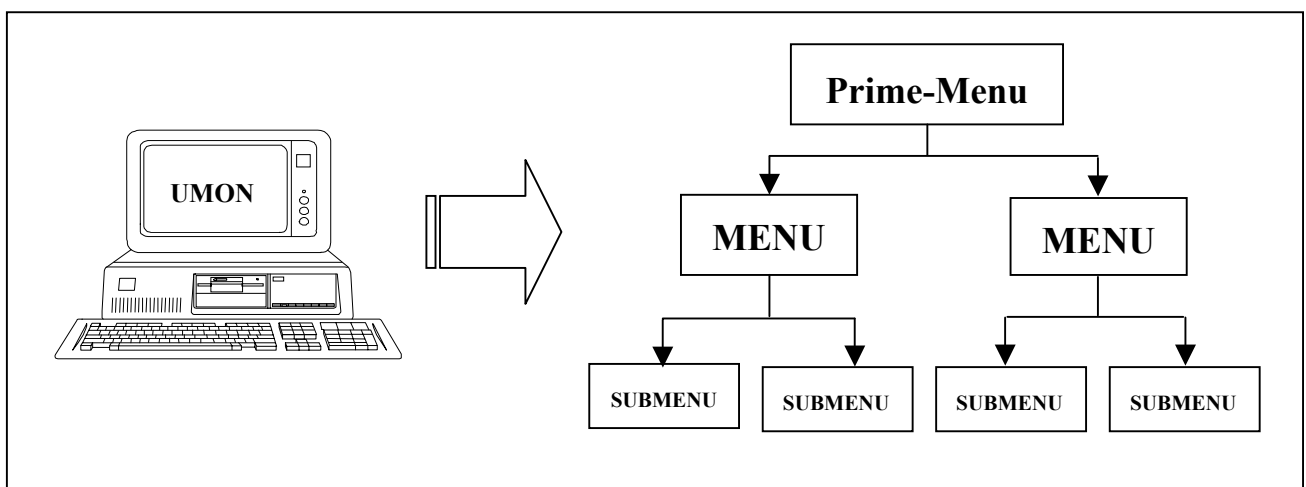


Figure 2-3. UMON General Architecture

---

## 2.2.1. Sign-On Instruction

The UMON task runs as a CICS conversational transaction.

---

### Start A UMON Transaction

1. Key in "UMON", hit Enter.
2. UMON sign-on menu display.

WELCOME)	***SIGN-ON***	UNIMON/CICS V420
APPLID=CICSTOR1,CICS=331,DATE=1996/07/03,TIME=13:04:56,TERM=V100,NAME=		
Copyright (C) UNICOM Systems, Inc. 1985 - 2000.		
UNIMON/CICS is a licensed material. Copying, Distribution, Modification or Illegal use without the express written consent of UNICOM is prohibited. All Rights Reserved.		
NAME : _____ PASSWORD : _____		
Please, Type NAME and PASSWORD and hit "ENTER"		
PF1=N/A PF2=PRINT PF3/PA1/CLEAR=EXIT		

**Figure 2-4. UMON Sign-on**



3. Key in your Name and Password, hit ENTER.
4. You have now successfully logged on to UMON.

```

ENTER OPTION ==> _____          ***UNIMON/CICS***          UNIMON/CICS V420

APPLID=CICSTOR1,CICS=331,DATE=1996/07/03,TIME=13:04:56,TERM=V100,NAME=UNICOM

      0 - Profile.....UNIMON/CICS user profile
      1 - CICS/VS.....Display CICS/VS statistics
      2 - Tasks.....Display CICS/VS tasks
      3 - Storage.....Display storage utilization
      4 - Resource.....Display resource statistics
      5 - Data area.....Display System control blocks
      6 - Service Aid.....Debugging and trouble shooting
      7 - Messages.....Display messages and abend codes
      8 - Security.....Display/add/update/delete security
      E - AUTOMON/CICS.....AUTOMON/CICS
      F - IVP.....Installation Verification Procedure
      X - Exit.....End UNIMON/CICS

PF1=N/A PF2=PRINT PF3/PA1/CLEAR=EXIT

```

**Figure 2-5. UMON Prime Menu**

Figure 2-5 presents the starting point for further activity for AUTOMON/CICS, UNIMON/CICS and UMF/CICS products.

### **Command Line**

Enter the appropriate option onto the input command line which is located in the upper-left portion of the Primary Menu and hit ENTER to initiate processing.

### **Exit**

Entry of X will cause the system to exit UMON processing. You can exit from the system from any screen. You may also exit from the UMON by pressing PF3 key, PA1 key or CLEAR key.

## **AUTOMON/CICS License Only**

If you have the AUTOMON/CICS license only, the following options are available for you.

0 - Profile	UNIMON/CICS user profile
7 - Messages	Display messages and abend codes
8 - Security	Display/add/update/delete security
E - AUTOMON/CICS	AUTOMON/CICS
F - IVP	Installation Verification Procedure
X - Exit	End UNIMON/CICS

**Figure 2-6. AUTOMON/CICS Available Options**

---

## 2.2.2. Standard PA/PF Keys

The UMON follows IBM standard PF/PA key conventions.

---

### Program Access and Function Keys

#### PF/PA Conventions

On the 327x terminal, the program access (PA) and program function (PF) keys are used to request commonly used operations. The UMON follows IBM standard PF/PA key conventions, so that the users who are familiar with CICS and TSO/ISPF can be familiar with UMON with great ease within a short period of training time.

KEY	FUNCTION	EXPLANATION
PF1	Unused	
PF2	Print	Print output screen
PF3	Return	Return to higher menu level
PF4	Prim-menu	Return to primary menu display
PF5	Locate	Locate entries or characters
PF6	Change	Change, add, delete and the zap
PF7	Up	Scroll backward
PF8	Down	Scroll forward
PF9	Refresh	Automatic screen refresh
PF10	Left	Scroll Left
PF11	Right	Scroll Right
PF12	Unused	
CLEAR	End	Terminate UNIMON/CICS immediately
PA1	End	Terminate UNIMON/CICS immediately

Figure 2-7. UMON Standard PF/PA Keys

---

## 2.2.3. Jump Capability

The jump capability allows you to display from one screen to another screen.

---

### Semicolon / Equal

#### Jump

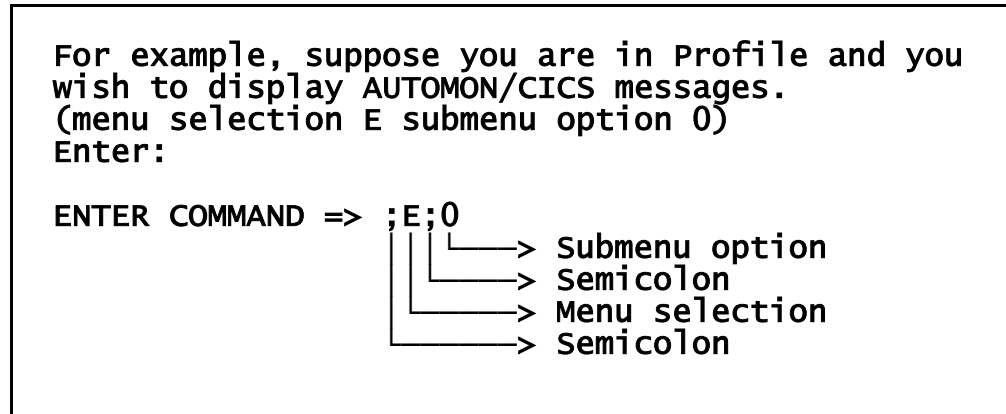
The jump capability allows you to display from one screen to another screen under the same option without displaying the primary option menu, as follows: In the command field on any screen preceded by an "ENTER COMMAND =>", enter a semicolon ";" or "=" immediately followed by the Menu selection, then press the ENTER key. Figure 2-8 shows how to select menu selection E submenu option 0.

#### Exit

You may enter ";X" or "=X", which is equivalent to selecting the X option on the primary menu. This causes the UMON to be terminated immediately.

You may also exit from the UMON by pressing PF3 key, PA1 key or CLEAR key. (An example is shown on the next page.)

## Example



**Figure 2-8. UMON Jump Capability**

This causes the Profile to be ended and the AUTOMON/CICS messages to be displayed. The processing is exactly the same as if you had repeatedly hit PF3 until the primary menu was displayed, and then you had entered "E" on the primary menu and entered "0" on the submenu.

---

## 2.2.4. UMON Profile

Display and set a UNIMON/CICS Profile Screen.

---

### Profile Screen

;0;0

You may customize the UNIMON/CICS functions by changing the information on the UNIMON/CICS Profile screen. The UNIMON/CICS profile screen can be accessed by entering: Menu selection 0 Submenu option 0 (;0;0).

```
ENTER COMMAND ==> _____ ***UNIMON/CICS PROFILE*** UNIMON/CICS V420
APPLID=CICSTOR1,CICS=331,DATE=1996/07/03,TIME=13:04:56,TERM=VI00,NAME=UNICOM

-----CPUID-----
SERIAL NUMBER MODEL PRODUCT EXPIRATION DATE
66121111 3090 1996/12/31

-----UNIMON/CICS-----

-----FLAG-----
TRACE WTO BELL
ON ON ON

-----LOG OPTION-----
TASK PURGE(2.5) CORE ZAP(6.1) AUTO LOG
ON ON OFF

-PRINTER- -----SCREEN REFRESH----- --CHARACTER-
PRIM ALT INTERVAL(SEC) REPEAT COUNT SEARCH LIMIT
P001 P002 3 15 1000000

PF1=N/A PF2=PRINT PF3=RETURN PF4=MENU PF6=CHANGE PF9=REFRESH PA1/CLEAR=EXIT
```

**Figure 2-9. UNIMON/CICS Profile screen**

**The following is a description of each field in the UMON/CICS Profile screen:**

**CPUID SERIAL NUMBER**

The CPU serial number.  
Value: Decimal

**CPUID MODEL**

The CPU model number.  
Value: Decimal

**UNIMON/CICS PRODUCT EXPIRATION DATE**

Product expiration date.  
Value: Date in format YYYY/MM/DD.

**FLAG TRACE**

The status of the UNIMON/CICS internal trace facility. If this flag is On, the UNIMON/CICS events will be traced onto the CICS trace table.  
Trace-ID = X'77'  
Value: ON or OFF

**FLAG WTO**

The status of the UNIMON/CICS write to operator (WTO) facility. If this flag is On, severe error messages will be written to the operating system console.  
Value: ON or OFF

**FLAG BELL**

The status of the IBM 327x bell feature. If this flag is On, the error messages will be displayed with the sound.  
Value: ON or OFF

**LOG OPTION TASK PURGE(2.5)**

This option is available only for the UNIMON/CICS users. If this flag is On, the task purge requests will automatically be logged to the printer.  
Value: ON or OFF

**LOG OPTION CORE ZAP(6.1)**

This option is available only for the UNIMON/CICS users. If this flag is On, the after image of core zap requests will automatically be logged to the printer.  
Value: ON or OFF

## LOG OPTION AUTO LOG

If this flag is On, the screen displays will automatically be logged to the printer.  
Value: ON or OFF

## (PF2) PRINTER PRIM

Specifying the primary CICS printer ID (TCT:PRINTO=) for the logging facility.  
Value: Characters

## (PF2) PRINTER ALT

Specifying the alternative CICS printer ID for the logging facility.  
Value: Characters

## (PF9) SCREEN REFRESH INTERVAL(SEC)

Specifying the screen refresh interval in seconds.  
Value: 1 to 999

## (PF9) SCREEN REFRESH REPEAT COUNT

Specifying the screen refresh repeat count.  
Value: 1 to 999

## CHARACTER SEARCH LIMIT

This option is available only for the UNIMON/CICS users. Specify the limit for a character string search request. On DUMP or CORE screen, you may search for a character string by simply entering =character-string onto the command line and hit PF5. For example, if you type =WORK onto the command line and hit PF5 (Find) on the DUMP or CORE screen, UNIMON/CICS will search for the character string WORK and will stop searching if the character string is found or reaches the character search limit herein specified. Entering = or + followed by the character-string causes the search to be performed in forward direction, and entering - followed by the character-string causes the search to be performed in backward direction. You may also search for the Hex-string in forward or backward direction by simply entering X'*string*' or X-*string*' respectively.  
Value: 1 to 9999999999



---

## 2.2.5. UMON Security

Display and set a UMON Security Screen.

---

### Security Screen

**;8;0**

The Security Management (primary selection 8) may be used to display, add, delete and update the UMON security records.

Menu selection 8 submenu option 0 can be used to display the UMON security records. Information including operator name, operator priority, security bits, password expiration date and last accessed date will be displayed.

```
ENTER COMMAND => _____ ***DISPLAY SECURITY*** UNIMON/CICS V420
APPLID=CICSTOR1,CICS=331,DATE=1996/07/03,TIME=13:04:57,TERM=V100,NAME=UNICOM
-OPERATOR- -----SECURITY-----
NAME PRTY 0...1...2...3...4...5...6...7...8...9...A...B...C...D...E...F...
UNICOM 255 FFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF
PWD: EXP.DATE: 1996 12 31 ACC-HOUR: 0700 1730 LAST-ACC(DAT=1996/03/21)

PF1=N/A PF2=PRT PF3=RTN PF4=MENU PF5=FIND PF7=UP PF8=DN PF9=REFRSH PA1/CLR=EXIT
```

**Figure 2-10. UNIMON/CICS Security Screen**



## ACC-HOUR

Access hours.

Figure 2-12 explains how to set UMON access hour.

Value: HHMM HHMM

```
ACC-HOUR: 0730 1900 Operator is allowed to use
              between 7:30 AM and 7:00 PM.
```

**Figure 2-12. UMON Access Hour**

## LAST-ACC(=

Last logon date.

Value: Date in format YYYY/MM/DD.

;8;1

You may also add, change and delete the UMON security records through: Menu selection 8 Submenu option 1 (;8;1).

To add, change or delete operator, simply type A, C or D respectively onto the input field and then hit PF6 (Change). Figure 2-13 shows how to add a new operator ANN.

```
NAME  PRTY 0...1...2...3...4...5...6...7...8...9...A...B...C...D...E...F...
a ann 255 FFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF
PWD: love EXP.DATE 1996 12 31 ACC-HOUR: 0700 1700
LAST-ACC(DAT=1996/03/21)
```

**Figure 2-13. Adding a UMON Operator**

---

## 2.3. AUTOMON/CICS Profile

Display and set an AUTOMON/CICS profile screen.

---

### Temporary Threshold Values

#### Temporary Set

This section describes how to display and set AUTOMON/CICS system flags and options temporarily. Each item acts independently and has its own master, warning, and action flags. AUTOMON/CICS supports multiple sets of flags. You may create and assign a unique set of flags to one or a group of CICS systems. Setting the AUTOMON/CICS flags and options permanently is described later in this chapter.

---

### 2.3.1. Display/Set Current Status

The jump capability allows you to display from one screen to another screen.

---

#### Profile Screen

**;0;1**

Menu selection 0 submenu option 1 (;0;1) displays the current status of AUTOMON/CICS. You may adjust profile temporarily by simply altering various flags and options on the screen and hit PF6 (Change). When you alter the profile options, it will be effective immediately and will be erased when CICS terminates normally or abnormally. AUTOMON/CICS supplies the default flags and options. Setting AUTOMON/CICS flags and options permanently is described later in this chapter.

```

ENTER COMMAND => _____ **AUTOMON/CICS STATUS** UNIMON/CICS V420
APPLID=CICSTOR1,CICS=331,DATE=1996/07/03,TIME=13:04:57,TERM=V100,NAME=UNICOM

      _____
      AUTOMON/CICS
      PRODUCT EXPIRATION DATE
      1996/12/31

      _____
      AUTOMON/CICS STATUS
      ACTIVE          START-UP          TOTAL
      INDICATOR      DATE      TIME      MESSAGES
      ON            1996/07/03 04:34:25  1,472

      _____
      MASTER FLAG INDICATORS
      WTO_IGNORE_MAXIMUM  HISTORY_FILE  VIEW  LOG_TABLE_SIZE
      ON      10      900  ON AMON001  AMON001  200

      _____
      AUTOMON/CICS SYSTEM TABLES
      AIT      THT      XLT1      XLP1      XLT2      XLP2
      TE      TE      T1      T2      T3      T4

      ABEND_RECOVERY_RETRY_COUNT      STORAGE_VIOLATION  AMXT  SCS
      CURRENT      MAXIMUM      (ALL|CUR|NON)  LEVEL  FLAG  FLAG
      5      20      CUR      4  ON  ON

PF1=N/A PF2=PRINT PF3=RETURN PF4=MENU PF6=CHANGE PF9=REFRESH PA1/CLEAR=EXIT

```

**Figure 2-14. AUTOMON/CICS Profile Screen**

**The following is a description of each field in the AUTOMON/CICS Status screen:**

**PRODUCT EXPIRATION DATE**

AUTOMON/CICS expiration date.  
Value: Date in format YYYY/MM/DD.

**ACTIVE INDICATOR**

AUTOMON/CICS status.  
Value: ON or OFF

**START-UP DATE**

AUTOMON/CICS activated date.  
Value: Date in format YYYY/MM/DD.

**START-UP TIME**

AUTOMON/CICS activated time.  
Value: HH/MM/SS

## TOTAL MESSAGES

Accumulated total number of AUTOMON/CICS messages.  
Value: Decimal

## WTO

The AUTOMON/CICS messages Write To Operator option. This flag indicates whether or not the AUTOMON/CICS generated messages will be written to the system operator console. WTL indicates that the messages will be written on to the system log.  
Value: ON or OFF or WTL

## IGNORE

The write to operator ignore count. The number of consecutive same messages that can be written to the operating system console in one string. The AUTOMON/CICS message processing facility will ignore sending requests to a WTO Handler Program if the number of consecutive same messages are generated repeatedly.  
Value: Decimal

## MAXIMUM

The write to operator maximum count. The maximum number of messages that can be written to the operating system console.  
Value: Decimal

## HISTORY

The AUTOMON/CICS logging facility. (history database) If this flag is on, the AUTOMON/CICS generated messages will be written to the history database file.  
Value: ON or OFF

## FILE

The AUTOMON/CICS logging facility. (history database)  
The AUTOMON/CICS history database file ID.  
Value: Characters

## VIEW

This field allows the user to select a file in which the DD card is pointing, allowing the user to view the selected history file for the AUTOMON/CICS Display Multi Message Screen (=E.1).  
Value: Characters

## LOG-TABLE-SIZE

The AUTOMON/CICS message log table entry size. The log table will reside in virtual storage above the 16-Meg line, and will roll over when it reaches the end.  
Value: Decimal

## AIT

The AUTOMON/CICS Initialization Table suffix.  
Value: Characters

## THT

Selected suffixes for the AUTOMON/CICS thresholds table (THT), exceptional thresholds table (EXC), degradation thresholds table (DEG) and system recovery table (SRT).  
Value: Characters

## XLT1

The AUTOMON/CICS transaction exclude list table 1 suffix.

Specifies the transaction ID's to be excluded from the loop action mechanism, or transactions that have a special loop action threshold that is different than the global threshold defined in the THT table.  
Value: Characters

## XLP1

The AUTOMON/CICS program exclude list table 1 suffix.

Specifies the program ID's to be excluded from the loop action mechanism, or programs that have a special loop action threshold that is different than the global threshold defined in the THT table.  
Value: Characters



## XLT2

The AUTOMON/CICS transaction exclude list table 2 suffix.

Specifies the transaction ID's to be excluded from the excessive storage usage action mechanism, or transactions that have a special excessive storage HWM action threshold that is different than the global threshold defined in the THT table.

Value: Characters

## XLP2

The AUTOMON/CICS program exclude list table 2 suffix.

Specifies the program ID's to be excluded from the excessive storage usage action mechanism, or programs that have a special excessive storage usage action threshold that is different than the global threshold defined in the THT table.

Value: Characters

## ABEND-RECOVERY-RETRY-COUNT CURRENT

A total number of times the AUTOMON/CICS system recovery program (CSHASRP) has been entered as a result of ESPIE/ESTAE.

Value: Decimal (0 - 999)

## ABEND-RECOVERY-RETRY COUNT MAXIMUM

The maximum number of times the AUTOMON/CICS system recovery program (CSHASRP) will be allowed to intercept the operating system abends. The CICS address space will be terminated abnormally with a dump (U998) if the total number of ESPIE/ESTAE operating system abends exceed this maximum value.

If set to 0: An AUTOMON/CICS system recovery subtask will not be invoked in the event of any system abend conditions.

If set to n: An AUTOMON/CICS system recovery subtask will attempt to recover the system crash conditions up to n times.

To preserve the data integrity, setting to or from 0 is only allowed at AUTOMON/CICS attach time.

Value: Decimal (0 - 999)

## STORAGE-VIOLATION

You may use this function to activate and deactivate the storage violation trap. The trap which is in the AUTOMON/CICS Storage Recovery Program (CSHSCR), lets you verify the user storage chains associated with the current active task.

"*ALL*" - specifies that the validation will be performed for all tasks in system.

"*CUR*" - specifies that the validation will be performed for the current task only.

"*NON*" - deactivates the user storage checking function.

Value: ALL|CURrent|NONE

## STORAGE-VIOLATION LEVEL

Specifies the storage violation validity level.

Level 1 - The storage validity check shall be performed in normal AUTOMON/CICS dispatching cycle.

Level 2 - Level 1 plus whenever AUTOMON/CICS detects a transaction abend.

Level 3 - Level 2 plus whenever the dispatcher domain gains control.

Level 4 - Level 3 plus whenever the domain manager gains control.

Value: Decimal (1 - 4)

## AMXT FLAG

Specifies whether the Maximum Active Tasks (AMXT) value shall be adjusted by a repair subtask or not.

Value: ON|OFF

## SCS FLAG

Specifies whether the Storage Cushion Size (SCS) value shall be adjusted.

Value: ON|OFF

---

## **2.4. Display Messages**

Display AUTOMON/CICS generated messages.

---

### **AUTOMON/CICS Messages**

---

## 2.4.1. Display Single CICS Messages

Display AUTOMON/CICS Log records.

---

### Message Log

**;E;0**

Menu selection E submenu option 0 (;E;0) displays the AUTOMON/CICS messages from the AUTOMON/CICS log entry table. The log entry table will be getmained, at the AUTOMON/CICS initialization time, out of the extended subpool 0 virtual storage area via an OS GETMAIN ANY request (above the 16-Meg line). Figure 2-15 is the output screen format of the AUTOMON/CICS single messages.

```
ENTER COMMAND => _____ ***DISPLAY AUTOMON/CICS***          AUTOMON/CICS V420
APPLID=CICSTOR1,CICS=331,DATE=1996/07/03,TIME=13:05:17,TERM=V100,NAME=UNICOM
TIME -----MESSAGES-----
09:19:41 CSH6000I-AUTOMON/CICS SUBTASK ATTACHED.  AIT=TE,LOG=300
09:19:49 CSH6101A-MXT VALUE ALTERED. DSA=2048K,FREE=2242K,MXT=999,TASKS=5
09:19:49 CSH6160I-(LOG) MXT NEW=999, OLD=30
09:31:04 CSH6205I-TASK ABENDED. TRAN=MAST,PROGRAM=MAFI30,TERM=TN96,ABCD=ATNI
09:33:17 CSH6621E-*(SRP)* A STORAGE VERIFICATION FAILED.
09:33:17 CSH6622E-*(SRP)* ADDRESS=0042E0A0,MODULE=DFHFCP,OFFSET=+0124
09:33:17 CSH6623E-*(SRP)* CURRENT:0000000000000000 SHOULD BE:185E47F032C2
09:33:17 CSH6624A-*(SRP)* ACTION IN STORAGE VIOLATION.
09:42:12 CSH6101A-MXT VALUE ALTERED. DSA=2048K,FREE=2242K,MXT=999,TASKS=5
09:42:12 CSH6160I-(LOG) MXT NEW=999, OLD=30
10:51:02 CSH6303E-STORAGE VIOLATION. CNT=1,TRN=CA00,TRM=TN76,PGM=EIAD00
10:51:03 CSH6304E-HEAD:A=0008C320-8C000020,TAIL:A=0008C348-F3F40020
10:51:03 CSH6305E-DATA:F1F2F3F4F5F6F7F8F9F000000000 1234567890....
10:51:03 CSH6306A-STORAGE VIOLATION IN PROGRESS.
10:51:04 CSH6205I-TASK ABENDED. TRAN=MAST,PROGRAM=MAFI30,TERM=TN96,ABCD=ATNI
10:53:39 CSH6307E-STORAGE VIOLATION. TYPE=FAQE,SP=TASK,ADDR=00032890

PF1=N/A PF2=PRT PF3=RET PF4=MENU PF5=FOUND PF7=UP PF8=DN PF9=REF PA1/CLEAR=EXIT
```

**Figure 2-15. AUTOMON/CICS Single CICS Messages**

---

## 2.4.2. Display Multi CICS Messages

Display AMON001 History Database records.

---

### History Database

**;E;1**

Menu selection E submenu option 1 (;E;1) displays the AUTOMON/CICS messages from AUTOMON/CICS history database (AMON001). The history database is a standard VSAM KSDS file. Figure 2-16 is the output screen format of the AUTOMON/CICS multi messages.

```
ENTER COMMAND => _____ ***DISPLAY MULTI AUTOMON/CICS*** AUTOMON/CICS V420
  APPLID=CICSTOR1,CICS=311,DATE=1996/09/13,TIME=13:05:20,TERM=V100,NAME=UNICOM
  FILE AMON001  SELECT *  APPLID _____ FROM 1996/00/00 00:00:00
  APPLID  DATE  TIME  MESSAGE
CICSTOR1 1996/09/13 09:31:04 CSH6205I-TASK ABENDED. TRAN=MAST,PROGRAM=MAFI030
CICSTOR1 1996/09/13 09:33:17 CSH6621E-*(SRP)* A STORAGE VERIFICATION FAILED
CICSTOR1 1996/09/13 09:33:17 CSH6622E-*(SRP)* ADDRESS=0042E0A0,MODULE=DFHFCP,O
CICSTOR1 1996/09/13 09:33:17 CSH6623E-*(SRP)* CURRENT:0000000000000000 SHOULD
CICSTOR1 1996/09/13 09:33:17 CSH6624A-*(SRP)* ACTION IN STORAGE VIOLATION
CICSTOR1 1996/09/13 09:42:12 CSH6101A-MXT VALUE ALTERED. DSA=2048K,FREE=2242K
CICSTOR1 1996/09/13 09:42:12 CSH6160I-(LOG) MXT NEW=999,OLD=30
CICSTOR1 1996/09/13 10:51:02 CSH6303E-STORAGE VIOLATION. CNT=1,TRN=CA00,TRM=T
CICSTOR1 1996/09/13 10:51:03 CSH6304E-HEAD:A=0008C320-8C000020,TAIL:A=0008C348
CICSTOR1 1996/09/13 10:51:03 CSH6305E-DATA:F1F2F3F4F5F6F7F8F9F000000000 123456
CICSTOR1 1996/09/13 10:51:03 CSH6306A-STORAGE VIOLATION IN PROGRESS

PF1=N/A PF2=PRT PF3=RET PF4=MENU PF5=FIND PF7=UP PF8=DN PF9=REFRSH PA1/CLR=EXIT
```

**Figure 2-16. AUTOMON/CICS Multi CICS Messages**

**The following is a description of each field in the AUTOMON/CICS Multi CICS messages:**

**FILE**

This field allows the user to select a file in which the DD card is pointing, allowing the user to view the selected history file.

**SELECT**

The message type selection. You may select all (\*) or the one of the following types of AUTOMON generated messages:

(\*) : All messages  
(A) Action : Action messages  
(E) Error : Error detection messages  
(I) Indication : Informational messages  
(W) Warning : Exceptional/degradational messages  
Value: \*, A, E, I or W

**APPLID**

The VTAM application ID selection field.  
Value: character

**FROM**

The date selection fields.  
YYYY/MM/DD : Start date.  
HH:MM:SS : Start time.  
Value: YYYY/MM/DD HH:MM:SS

**DATE**

The message generation date.  
Value: Date in the format YYYY/MM/DD.

**TIME**

The message generation time.  
Value: Time in the format HH:MM:SS

**MESSAGE**

AUTOMON/CICS message generated.  
Value: character

---

## 2.4.3. Display CICS Messages

Display CICS error messages online.

---

### CICS Messages

;7;0

Menu selection 7 submenu option 0 (;7;0) displays the CICS/VS error messages. The display contains a description of the message, system action and user action. You may select a specific message by entering the error message number (DFHxxxx) onto the input command line and hit PF5 (Find).

```
ENTER COMMAND => _____ ***CICS/VS MESSAGES** UNIMON/CICS V420
APPLID=CICSTOR1,CICS=331,DATE=1996/07/03,TIME=13:05:20,TERM=V100,NAME=UNICOM
MSG/ABCD SEQ -----DESCRIPTION-----
CODE NO
DFH0305 C.I.C.S ABEND
Explanation: The task control program (KCP) has been
requested to suspend an internal CICS/VS system task
(for example, terminal control task).
System Action: CICS/VS is unable to continue since it
is dependent on continued processing of these types of tasks
Audience Action: CICS/VS is abnormally terminated and a
dump is provided for reviews by the responsible system pgrmr.
Destination: Console
Module: DFHKCP
DFH0306 C.I.C.S ABEND
Explanation: CICS/VS is in final termination phase and a
program appearing in the customer's program list table
(PLT) has attempted to attach a new task.
System Action: CICS/VS abnormally terminates its own
processing.
Audience Action: CICS/VS is abnormally terminated with
a dump. Suggest that system programmer review currently

PF1=N/A PF2=PRT PF3=RET PF4=MENU PF5=FIN PF7=UP PF8=DN PF9=REF PA1/CLR=EXIT
```

Figure 2-17. CICS/VS Messages Screen

**The following is a description of each field in the CICS/VS Messages screen:**

**MSG/ABEND CODE**

Messages and Abend codes.  
Value: DFHxxxx

**SEQ NO**

Unused.  
Value: ????????

**DESCRIPTION**

Message description.  
Value: Characters



---

## 2.4.4. Display CICS Abend Codes

Display CICS abend codes online.

---

### CICS Abend Codes

;7;1

Menu selection 7 submenu option 1 (;7;1) displays the CICS/VS abend codes. You may select a specific abend code by entering the abend code (Axxx) onto the input command line and hit PF5 (Find).

```
ENTER COMMAND => _____ ***CICS/VS ABEND CODES*** UNIMON/CICS V420
APPLID=CICSTOR1,CICS=331,DATE=1996/07/03,TIME=13:05:20,TERM=V100,NAME=UNICOM
MSG/ABCD SEQ -----DESCRIPTION-----
CODE NO
AACA Interval error has been passed to the DFHACP
AAKP I/O error occurred while attempting to write to master log
AAMA Internal logic error in DFHAMP
AAMB Internal logic error in DFHBTM
AAMD Internal logic error in DFHAMP due to bad RC from DFHDMP
AAMP Internal logic error in DFHAMP due to bad RC from DFHPUP
AAMT Internal logic error in DFHAMP due to bad RC from DFTMP
ABMA Terminal I/O Area Length (TIOAL) error on BMS request
ABMB Cursor position is outside of current screen size for 3270
ABMD DFHTPR or DFHTPP issued DFHDI TYPE=SEND has received bad RC
ABMG Requested BMS service is not specified at system generation
ABMI Requested BMS input map is not an input map
ABML DFHTC locate routine received bad RC from DFHRLR (BMS)
ABMO Requested BMS output map is not an output map
ABMP Requested page retrieval using PA/PF/LPA not in DFHSIT
ABMR Requested BMS modules are not generated in this system
ABMS BMS retrieved a nonzero RC from a task control schedule req
ABMT Minimum-function BMS is being used for a non-3270 term type

PF1=N/A PF2=PRT PF3=RET PF4=MENU PF5=FOUND PF7=UP PF8=DN PF9=REF PA1/CLR=EXIT
```

**Figure 2-18. CICS/VS Abend codes Screen**

**The following is a description of each field in the CICS/VS Abend code screen:**

**MSG/ABEND CODE**

CICS/VS abend code.

Value: Axxx

**SEQ NO**

Unused.

Value: ????????

**DESCRIPTION**

CICS/VS abend code description.

Value: Characters

---

## 2.4.5. Display UNIMON/CICS Messages

Display UNIMON/CICS messages online.

---

### UNIMON/CICS Error Messages

;7;2

Menu selection 7 submenu option 2 (;7;2) displays the UNIMON/CICS error messages. You may select a specific message by entering the message number (CSHxxxx) onto the input command line and hit PF5 (Find).

```
ENTER COMMAND => _____ ***UNIMON/CICS MESSAGES*** UNIMON/CICS V420
APPLID=CICSTOR1,CICS=331,DATE=1996/07/03,TIME=13:05:20,TERM=V100,NAME=UNICOM
MSG/ABCD SEQ -----DESCRIPTION-----
  CODE      NO
CSH0000     -UNIMON/CICS PRODUCT EXPIRED.
              Explanation: The error condition has occurred during the prod
              verification and security check process.
              System Action: UNIMON/CICS abnormally terminates its own proc
              User Action: Contact UNICOM SUPPORT CENTER.
CSH0001     -UNIMON/CICS PRODUCT EXPIRATION DATE VERIFICATION FAILED.
              Explanation: An error condition has occurred during the produ
              verification and security check process.
              System Action: UNIMON/CICS abnormally terminates its own proc
              User Action: Contact UNICOM SUPPORT CENTER.
CSH0002     -UNIMON/CICS WILL EXPIRE WITHIN 30 DAYS.
              Explanation: A warning condition has occurred during the prod
              verification and security check process.
              System Action: UNIMON/CICS continues its own process
              User Action: Contact UNICOM SUPPORT CENTER.
CSH0003     -UNIMON/CICS WILL EXPIRE WITHIN 30 DAYS.
              Explanation: A warning condition has occurred during the prod
              verification and security check process.

PF1=N/A PF2=PRT PF3=RET PF4=MENU PF5=FINN PF7=UP PF8=DN PF9=REF PA1/CLR=EXIT
```

**Figure 2-19. UNIMON/CICS Messages Screen**

**The following is a description of each field in the UNIMON/CICS Messages screen:**

**MSG/ABEND CODE**

UNIMON/CICS messages.

Value: CSHxxxx

**SEQ NO**

N/A

Value: ????????

**DESCRIPTION**

UNIMON/CICS message description.

Value: Characters

---

## 2.4.6. Display UNIMON/CICS Abend Codes

Display UNIMON/CICS abend codes online.

---

### UNIMON/CICS Abend Codes

;7;3

Menu selection 7 submenu option 3 (;7;3) displays the UNIMON/CICS abend entering the abend code (Uxxx) onto the input command line and hit PF5 (Find).

```
ENTER COMMAND => _____ ***UNIMON/CICS ABEND CODES*** UNIMON/CICS V420
APPLID=CICSTOR1,CICS=311,DATE=1996/09/13,TIME=13:05:20,TERM=V100,NAME=UNICOM
MSG/ABCD SEQ -----DESCRIPTION-----
CODE NO
UAMA Explanation: A logical loop condition has been
detected by AUTOMON/CICS and the task is being abnormally
terminated with a dump written to the CICS dump dataset. The
condition indicates a possible logical loop in the user's
program. AUTOMON/CICS may terminate the task without a dump
if 1) CICS is experiencing a slow-down;
2) CICS is having short on storage and/or MXT condition;
3) too many UAMA and/or UAMB abends.
System Action: The task is abnormally terminated
with a transaction dump.
User Response: Take corrective action within the
program being executed. The CICS auxiliary trace can be used
determine if a true loop condition has been detected.
UAMB Explanation: A logical loop condition has been
detected by AUTOMON/CICS and the task is being abnormally
terminated with a dump written to the CICS dump dataset. The
condition indicates a possible logical loop in the user's
program. AUTOMON/CICS may terminate the task without a dump
PF1=N/A PF2=PRT PF3=RET PF4=MENU PF5=FIND PF7=UP PF8=DN PF9=REF PA1/CLR=EXIT
```

Figure 2-20. UNIMON/CICS Abend code Screen

**The following is a description of each field in the UNIMON/CICS Abend code screen:**

**MSG/ABEND CODE**

UNIMON/CICS abend codes.

Value: UAxX

**SEQ NO**

N/A

**DESCRIPTION**

UNIMON/CICS abend code description.

Value: Characters

---

## 2.4.7. Add/Delete/Change Messages and Abend Codes

Online utility function.

---

### Utility

;7;4

Menu selection 7 submenu option 4 (;7;4) provides the utility functions. You may add, delete and change the messages and abend codes online.

To add, delete or change the messages and abend codes, simply type A, D or C respectively onto the input fields and hit PF6 (Change). Figure 2-21 illustrates how to add a new user generated abend code "usr1" which consists of 3 lines of description.

```
ENTER COMMAND => _____ ***MESSAGE UTILITY*** UNIMON/CICS V420
APPLID=CICSTOR1,CICS=311,DATE=1996/09/13,TIME=13:05:20,TERM=V100,NAME=UNICOM
MSG/ABCD SEQ -----DESCRIPTION-----
CODE NO
a usr1 1 During a formatted dump, the formatted dump program has run
a usr1 2 out of working storage and has been unable to obtain any more
a usr1 3 from the operating system.

PF1=N/A PF2=PRT PF3=RET PF4=MENU PF5=FIND PF6=CHANGE PF7=UP PF8=DN PF9=REFRSH
```

**Figure 2-21. Adding a User Abend Code**

**The following is a description of each field in the UNIMON/CICS Utility screen:**

**MSG/ABEND CODE**

UNIMON/CICS user abend codes.

Value: Uxxx

**SEQ NO**

Since these information will be written onto the UMON001 VSAM KSDS file, the sequence number will be used as a part of key.

Value: 0 to 255

**DESCRIPTION**

UNIMON/CICS user abend code description.

Value: Characters



---

## **2.5. Set Threshold Values Temporarily**

Setting AUTOMON/CICS values temporarily.

---

### **Setting Threshold Values**

#### **Thresholds**

This section describes how to set the AUTOMON/CICS threshold values temporarily. Each threshold value acts independently, and these values will be erased when CICS/VS terminates normally or abnormally.

---

## 2.5.1. Set Threshold Values

Display and set AUTOMON/CICS thresholds temporarily.

---

### AUTOMON/CICS Thresholds

**;0;2**

Menu selection 0 submenu option 2 (;0;2) can be used to set AUTOMON/CICS threshold values temporarily by simply entering values onto the input fields and hit PF6 (Change). When these values are changed temporarily, they will be effective immediately and will be erased when CICS/VS terminates normally or abnormally.

#### Supplied Thresholds

AUTOMON/CICS supplies the default threshold values which were carefully selected for general installations. Most often, these supplied threshold values are adequate enough to be used without any modifications. (Please see Appendix A for the respective default threshold values).

```

ENTER COMMAND => _____ ***AUTOMON/CICS THRESHOLDS*** UNIMON/CICS V420
APPLID=CICSTOR1,CICS=331,DATE=1996/07/03,TIME=13:05:20,TERM=V100,NAME=UNICOM

```

ITEM	ACTIVE INDICATOR			CYCLE (SEC)	THREADS		DESCRIPTION
	FLAG	NOTFY	ACT		NOTIFY	ACTION	
LOOP DETECTION	ON	ON	ON	---	20	180	IN SECONDS
STORAGE HWM	ON	ON	ON	30	100000	750000	IN BYTES
SHORT ON STORAGE	ON	ON	ON	---	1	60	IN SECONDS
PERFORMANCE DATA	ON	---	---	---	32000	---	IN SECONDS
VSAM STRING WAIT	ON	---	---	60	1	---	1ST CONDITION
VTAM TERMNL WAIT	ON	---	---	60	1	---	1ST CONDITION
JOURNAL SWITCH	ON	---	---	60	1	---	1ST CONDITION
AUX TEMP STORAGE	ON	---	---	60	98 %	---	PERCENTAGE
EXCEPTIONAL	ON	---	---	60	1	---	1ST CONDITION
DEGRADATIONAL	ON	---	---	60	1	---	1ST CONDITION
		FLAG	LOW HIGH	CYCLE	LOW	HIGH	
MXT	ON	ON	ON	30	32	490	NUMBER OF TASKS

```

PF1=N/A PF2=PRINT PF3=RETURN PF4=MENU PF6=CHANGE PF9=REFRSH PA1/CLEAR=EXIT

```

**Figure 2-22. Menu Selection 0 Submenu Option 2 Screen**

**The following is a description of each field in the Menu selection 0 Submenu option 2:**

**ACTIVE INDICATOR FLAG**

The master functional indicator.  
Value: ON or OFF

**ACTIVE INDICATOR NOTFY**

This flag indicates whether AUTOMON/CICS will or will not issue a warning message to the system console operator whenever the notification threshold value has gone over the limit.  
Value: ON or OFF

**ACTIVE INDICATOR ACT**

This flag indicates whether AUTOMON/CICS will or will not take corrective actions in the event of error condition.  
Value: ON or OFF

## CYCLE (SEC)

This cycle in seconds indicates how often the action and notification buckets are to be examined by AUTOMON/CICS.

Value: Decimal

## THREADS NOTIFY

Specifies the notification threshold values.

Value: Decimal

## THREADS ACTION

Specifies the action threshold values. AUTOMON/CICS will purge a task that has gone over the action threshold value specified herein. You may exempt certain transactions from the purge process by defining a single or a group of transactions to the AUTOMON/CICS Exclusive List Tables (XLTs).

Value: Decimal

## LOOP DETECTION

CICS/VS system and application program loop detection.

## STORAGE HWM

The maximum allowable virtual storage that can be chained in Dynamic Storage Area (DSA) by the CICS/VS task at any given time.

## SHORT ON STORAGE

A system stress condition.

## PERFORMANCE DATA

The number of units of processing successfully completed per second will be captured by AUTOMON/CICS. The data such as recording unit time, current rate, average rate, high water mark, and high water mark hit time will be captured by transactions, file I/Os, VTAM transmissions, and aux temporary storage requests.

## STORAGE VIOLATION

A Storage Violation condition.

## VSAM STRING WAIT

A VSAM string wait condition.

**VTAM TERMNL WAIT**

A VTAM wait list condition. Could be a Logical Unit (LU) wait or MRO/ISC link pending condition as well.

**JOURNAL SWITCH**

A CICS/VS journal dataset volume switch condition.

**TEMP STOR USE**

Auxiliary temporary storage usage (DFHTEMP).

**EXCEPTIONAL**

An exceptional condition.

**DEGRADATIONAL**

A degradational condition.

**MXT**

The Maximum tasks (MXT) value will be altered dynamically depending on the availability of the Dynamic Storage Area (DSA).

---

## 2.5.2. Set EXC Threshold Values

Display and set Exceptional thresholds temporarily.

---

### Exceptional Thresholds

**;0;3**

Menu selection 0 submenu option 3 (;0;3) may be used to set the AUTOMON/CICS exceptional threshold values temporarily by simply entering values onto the input fields and hit PF6 (Change). When these values are changed temporarily, they will be effective immediately and will be erased when CICS/VS terminates normally or abnormally.

### Supplied Thresholds

AUTOMON/CICS supplies the default threshold values which were carefully selected for general installations. Most often, these supplied threshold values are adequate enough to be used without any modifications. (Please see Appendix A for the respective default threshold values).

ENTER COMMAND => _____ ***EXCEPTION THRESHOLDS*** UNIMON/CICS V420					
APPLID=CICSTOR1, CICS=311, DATE=1996/09/13, TIME=13:05:20, TERM=V100, NAME=UNICOM					
ITEM	THREADS	DESCRIPTION	ITEM	THRED	DESCRIPTION
SOS	8	NUMBER OF SOS	DSA	98 %	STORAGE ALLOCATION
STORAGE Q'D	200	NUMBER OF QUEUES	CON	30 %	
STOR Q HWM	200	HIGH WATER MARK	TP	20 %	
STOR Q ZERO	20	NUMBER OF CHAINS	MIX	5 %	
GETMAIN	10000	NUMBER OF GETMAINS	ISO	20 %	
FREEMAIN	10000	NUMBER OF FREEMAINS	SHR	40 %	
AMXT HWM	20	ACTIVE TASKS HWM	RPL	5 %	
RUNAWAY HWM	5	RUNAWAY TASKS HWM	PGM	80 %	
TOTAL TASKS	10000	TOTAL CICS/VIS TASKS			
VTAM RA RPL	10000	VTAM RECEIVE ANY			
ACT RA RPL	10	CONCURRENT RA RPL'S			
FREE RPL'S	1	AVAILABLE RPL'S			

PF1=N/A PF2=PRINT PF3=RETURN PF4=MENU PF6=CHANGE PF9=REFRSH PA1/CLEAR=EXIT

**Figure 2-23. Menu Selection 0 Submenu Option 3 Screen**

**The following is a description of each field in the Menu 0 Submenu 3:**

**SOS**

The operator will be notified when the Short On Storage (SOS) counts reaches this threshold value.

Value: Decimal

**STORAGE Q'D**

Total number of virtual storage requests queued.

Value: Decimal

**STORAGE Q HWM**

The virtual storage requests queued high water marks.

Value: Decimal

**STORAGE Q ZERO**

Accumulated number of the storage-requests-queue-chain started from zero.

Value: Decimal

## GETMAIN

Total number of getmains.  
Value: Decimal

## FREEMAIN

Total number of freemains.  
Value: Decimal

## AMXT HWM

The Active Maximum Tasks high water marks.  
Value: Decimal

## RUNAWAY HWM

Runaway tasks high water marks.  
Value: Decimal

## TOTAL TASKS

Accumulated numbers of attached user tasks.  
Value: Decimal

## VTAM RA RPL

Total number of VTAM Receive Any Request Parameter Lists.  
Value: Decimal

## ACT RA RPL

Total number of VTAM active receive any Request Parameter Lists.  
Value: Decimal

## FREE RPL'S

Total number of VTAM available RPL's.  
Value: Decimal

## DSA

The Dynamic Storage Area utilization.  
Value: Percentage

## CON

Control subpool utilization.  
Value: Percentage



TP  
Teleprocessing subpool utilization.  
Value: Percentage

TSK  
Task subpool utilization.  
Value: Percentage

SHR  
Shared subpool utilization.  
Value: Percentage

RPL  
RPL subpool utilization.  
Value: Percentage

PGM  
Program subpool utilization.  
Value: Percentage

---

### 2.5.3. Set DEG Threshold Values

Display and set Degradational thresholds temporarily.

---

### Degradational Thresholds

**;0;4**

Menu selection 0 submenu option 4 (;0;4) may be used to set AUTOMON/CICS degradational threshold values temporarily by simply entering values onto the input fields and hit PF6 (Change). When these values are changed temporarily, they will be effective immediately and will be erased when CICS/VS terminates normally or abnormally.

#### **Supplied Thresholds**

AUTOMON/CICS supplies the default threshold values which were carefully selected for general installations. Most often, these supplied threshold values are adequate enough to be used without any modifications. (Please see Appendix A for the respective default threshold values)

ENTER COMMAND => \_\_\_\_\_ \*\*\*DEGRADATION THRESHOLDS\*\*\* UNIMON/CICS V420  
 APPLID=CICSTOR1,CICS=331,DATE=1996/07/03,TIME=13:05:20,TERM=V100,NAME=UNICOM

ITEM	THRSH	ITEM	THRSH	ITEM	THRSH
ACTIVE TASKS	40	TEMP STORAGE WAIT	5	BMS REQUESTS	5
SUSPENDED TASKS	5	STORAGE WAIT	5	DL/I REQUESTS	5
NON-DISPATCHABLE	5	ENQUEUE WAIT	5	DFHDC REQUESTS	5
DISPATCHER WAIT	5	FILE I/O WAIT	5	DFHDI REQUESTS	5
ATTACH WAIT	5	PAGE WAIT	5	DFHFC REQUESTS	5
AMXT WAIT	5	SRB MODE	5	DFHIC REQUESTS	5
CMXT WAIT	5	ECB WAIT	5	DFHPC REQUESTS	5
DFHIC WAIT	5	ECB LIST WAIT	5	DFHSC REQUESTS	5
		CICS WAIT	5	DFHTC REQUESTS	5
		TERM WAIT		DFHTD REQUESTS	5
				DFHTS REQUESTS	5

PF1=N/A PF2=PRINT PF3=RETURN PF4=MENU PF6=CHANGE PF9=REFRSH PA1/CLEAR=EXIT

**Figure 2-24. Menu Selection 0 Submenu Option 4 Screen**

**The following is a description of each field in the Menu 0 Submenu 4:**

**ACTIVE TASKS**

Concurrent active tasks.  
 Value: Decimal

**SUSPENDED TASKS**

Total number of suspended tasks.  
 Value: Decimal

**NONDISPATCHABLE**

Total number of non-dispatchable tasks.  
 Value: Decimal

**DISPATCHER WAIT**

Total number of tasks that are waiting for Task Dispatcher.  
 Value: Decimal

## ATTACH WAIT

Total number of tasks that are waiting for Task Attacher.

Value: Decimal

## AMXT WAIT

Total number of tasks that are waiting for Active Maximum Tasks reasons.

Value: Decimal

## CMXT WAIT

Total number of tasks that are waiting for Class Maximum Tasks reasons.

Value: Decimal

## DFHIC WAIT

Total number of tasks that are waiting for Interval Control reasons.

Value: Decimal

## TEMP STOR WAIT

Total number of tasks that are waiting for Temporary Storage.

Value: Decimal

## STORAGE WAIT

Total number of tasks that are waiting for Storage allocation.

Value: Decimal

## ENQUEUE WAIT

Total number of tasks that are waiting for Enqueue reasons.

Value: Decimal

## FILE I/O WAIT

Total number of tasks that are waiting for File I/O requests.

Value: Decimal

## PAGE WAIT

Total number of tasks that are waiting for Paging operations.

Value: Decimal

## SRB MODE

Total number of tasks that are waiting for SRB Scheduler.

Value: Decimal

## ECB WAIT

Total number of tasks that are waiting for Single ECB event.  
Value: Decimal

## ECB LIST WAIT

Total number of tasks that are waiting for Multiple ECB events.  
Value: Decimal

## CICS WAIT

Total number of tasks that are waiting for work.  
Value: Decimal

## TERM WAIT

Total number of tasks that are waiting for Terminal reasons.  
Value: Decimal

## BMS REQUESTS

Total number of tasks that are accessing BMS functions.  
Value: Decimal

## DL/I REQUESTS

Total number of tasks that are accessing DL/I functions.  
Value: Decimal

## DFHDC REQUESTS

Total number of tasks that are accessing Dump Control functions.  
Value: Decimal

## DFHDI REQUESTS

Total number of tasks that are accessing Data Interchange Services.  
Value: Decimal

## DFHFC REQUESTS

Total number of tasks that are accessing File Control functions.  
Value: Decimal

## DFHIC REQUESTS

Total number of tasks that are accessing Interval Control functions.  
Value: Decimal

### DFHPC REQUESTS

Total number of tasks that are accessing Program Control functions.

Value: Decimal

### DFHSC REQUESTS

Total number of tasks that are accessing Storage Control functions.

Value: Decimal

### DFHTC REQUESTS

Total number of tasks that are accessing Terminal Control functions.

Value: Decimal

### DFHTD REQUESTS

Total number of tasks that are accessing Transient Data functions.

Value: Decimal

### DFHTS REQUESTS

Total number of tasks that are accessing Temporary Storage functions.

Value: Decimal

---

## 2.5.4. Set SRT Threshold Values

Display and set SRT thresholds temporarily.

---

### SRT Thresholds

**;0;5**

Menu selection 0 submenu option 5 (;0;5) may be used to set AUTOMON/CICS system recovery table threshold values temporarily by simply entering values onto the input fields and hit PF6 (Change). When these values are changed temporarily, they will be effective immediately and will be erased when CICS/VS terminates normally or abnormally.

#### Supplied Thresholds

AUTOMON/CICS supplies the default threshold values which were carefully selected for general installations. Most often, these supplied threshold values are adequate enough to be used without any modifications. (Please see Appendix A for the respective default threshold values)

ENTER COMMAND => \_\_\_\_\_ \*\*\*SYSTEM RECOVERY TABLE\*\*\* UNIMON/CICS V420  
 APPLID=CICSTOR1, CICS=311, DATE=1996/09/13, TIME=13:05:20, TERM=V100, NAME=UNICOM

STAGE	MASTER	NOTIFY	ACTION	DESCRIPTION
1	ON	ON	OFF	DISPLAY PSW/PRODUCE A SYSTEM DUMP
2	ON	ON	ON	VERIFY/REPAIR CICS/VS FOUNDATION
3	ON	ON	ON	VERIFY/REPAIR DCA TASK CHAINS
4	ON	ON	ON	VERIFY/REPAIR DYNAMIC STORAGE AREA
5	ON	ON	ON	VERIFY/REPAIR CICS/VS PROGRAMS
6	ON	ON	ON	VERIFY/REPAIR CICS TABLES
7	ON	ON	ON	VERIFY/REPAIR CICS CNTL BLOCKS
8	ON	ON	OFF	SUMMARY REPORT/PRODUCE A SYSTEM DUMP

PF1=N/A PF2=PRINT PF3=RETURN PF4=MENU PF6=CHANGE PF9=REFRSH PA1/CLEAR=EXIT

**Figure 2-25. Menu Selection 0 Submenu Option 5 Screen**

**The following is a description of each field in the Menu 0 Submenu 5:**

**STAGE**

The system recovery program (CSHASRP) functional stages. See Introduction for more information.

Value: Decimal

**MASTER**

The master flag indicates whether a specific stage is to be performed or not in the event of ESPIE/ESTAE operating system interrupts.

Value: ON or OFF

**NOTIFY**

The notification flag indicates whether to attach a detective subtask to verify the CICS/VS system integrity.

Value: ON or OFF



## ACTION

The action flag indicates whether to attach a repair subtask to potentially correct the damaged storage areas.

Value: ON or OFF

## STAGE (1) NOTIFY

The PSW, registers contents at the time of abend, abend code, transaction name, program name, terminal ID, task number, etc will be reported. Related messages: CSH6610I, CSH6611 and CSH6016.

## STAGE (1) ACTION

AUTOMON/CICS will take a dump when it detects a storage violation or system crash condition, before the repair subtask intercepts the abend. For MVS users when the UCCF/Server is active AUTOMON/CICS will generate an MVS System SVC Dump. When UCCF/Server is inactive, AUTOMON/CICS will produce a SNAP dump written to DD card AMON002 at the time that it detects the problem in the system. For VSE users, the dump will be written to the SYSLIST.

Related messages: CSH6608A and CSH6609I.

## STAGE (2) NOTIFY

The verification of CICS/VS foundation will be performed for the possibility of storage overlay conditions.

Related messages: CSH6620I through CSH6623W.

## STAGE (2) ACTION

The repair subtask will be attached to take corrective actions to repair the damaged CICS/VS foundation. Specifies whether the damaged system areas (eg. CSA, OPFL, etc.) will be repaired or not.

Related messages: CSH6624A and CSH6625E.

## STAGE (3) NOTIFY

The verification of CICS/VS task chains will be performed for the possibility of storage overlay conditions.

Related messages: CSH6611I and CSH6630I.

### STAGE (3) ACTION

The repair subtask will be attached to take corrective actions to repair the damaged task chains. Specifies whether the transaction at the time of a system crash and/or a storage violation will be disabled or not. Equivalent of issuing a CEMT SET TRAN(????) DISABLE command.

Related messages: CSH6612A.

### STAGE (4) NOTIFY

The verification of Dynamic Storage Area will be performed for the possibility of storage overlay conditions.

Related messages: CSH6620I through CSH6623W.

### STAGE (4) ACTION

The repair subtask will be attached to take corrective actions to repair the damaged storage areas.

Specifies whether the damaged storage areas will be corrected or not.

Related messages: CSH6624A and CSH6625E.

### STAGE (5) NOTIFY

The verification of key CICS/VS nucleus modules will be performed for the possibility of storage overlay conditions.

Related messages: CSH6620I through CSH6623W and CSH6650I.

### STAGE (5) ACTION

The repair subtask will be attached to take corrective actions to repair the damaged CICS/VS nucleus modules.

Related messages: CSH6624A and CSH6625E.

### STAGE (6) NOTIFY

The verification of key CICS/VS system tables and table manager's storage pointers will be performed for the possibility of storage overlay conditions.

Related messages: CSH6620I through CSH6623W and CSH6650I.

### STAGE (6) ACTION

The repair subtask will be attached to take corrective actions to repair the damaged CICS/VS system tables.

Related messages: CSH6624I through CSH6623W and CSH6625E.

#### STAGE (7) NOTIFY

The verification of key CICS/VS system areas and pointers will be performed for the possibility of storage overlay conditions.

Related messages: CSH6620I through CSH6623W and CSH6650I.

#### STAGE (7) ACTION

The repair subtask will be attached to take corrective actions to repair the damaged CICS/VS system areas and pointers.

Related messages: CSH6624A and CSH6625E.

#### STAGE (8) NOTIFY

The summary report will be produced

Related messages: CSH6680I.

#### STAGE (8) ACTION

AUTOMON/CICS will take a dump when it detects a storage violation or system crash condition, after the repair subtask intercepts the abend. For MVS users when the UCCF/Server is active AUTOMON/CICS will generate an MVS System SVC Dump. When UCCF/Server is inactive, AUTOMON/CICS will produce a SNAP dump written to DD card AMON002 at the time that it detects the problem in the system. For VSE users, the dump will be written to the SYSLIST.

Related messages: CSH6608A and CSH6609I.

---

## 2.5.5. Set System/User Abend Code Flags

Display and set abend code flags temporarily.

---

### Abend Code Flags

**;0;6**

Menu selection 0 submenu option 6 (;0;6) may be used to set AUTOMON/CICS System/User abend code flags temporarily by simply entering values onto the input fields and hit PF6 (Change). When these values are changed temporarily, they will be effective immediately and will be erased whether CICS/VS terminates normally or abnormally.

### Supplied Thresholds

AUTOMON/CICS supplies the default threshold values which were carefully selected for general installations. Most often, these supplied threshold values are adequate enough to be used without any modifications. (Please see Appendix A for the respective default threshold values)

ENTER COMMAND => _____ ***SYSTEM/USER ABEND CODES*** UNIMON/CICS V420											
APPLID=CICSTOR1, CICS=331, DATE=1996/07/03, TIME=13:05:20, TERM=V100, NAME=UNICOM											
ABCD		STAT		ABCD		STAT		ABCD		STAT	
U0301	ON	U0305	ON	U0308	ON	U0401	ON	U0403	ON	U0405	ON
U0409	ON	U0501	ON	U0504	ON	U0505	ON	U0519	ON	U0601	ON
U0602	ON	U0603	ON	U0608	ON	U0612	ON	U0613	ON	U0615	ON
U0900	ON	U0902	ON	U2304	ON	U2307	ON	U2308	ON	U2309	ON
U4032	ON	S0047	ON	S004D	ON	S0052	ON	S0053	ON	S00C1	ON
S00C2	ON	S00C3	ON	S00C4	ON	S00C5	ON	S00C6	ON	S00C7	ON
S00C8	ON	S00C9	ON	S00CA	ON	S00CB	ON	S00CC	ON	S00CD	ON
S00CE	ON	S00CF	ON	S00F8	ON	S0101	ON	S0102	ON	S0104	ON
S0106	ON	S010A	ON	S010B	ON	S010E	ON	S010F	ON	S0112	ON
S0130	ON	S0133	ON	S0178	ON	S0201	ON	S0202	ON	S0204	ON
S0205	ON	S0206	ON	S0232	ON	S0238	ON	S023E	ON	S0301	ON
S0305	ON	S0306	ON	S0552	ON	S0722	ON	S0804	ON	S0806	ON
S080A	ON	S0878	ON								

PF1=N/A PF2=PRINT PF3=RETURN PF4=MENU PF6=CHANGE PF9=REFRSH PA1/CLEAR=EXIT

**Figure 2-26. Menu Selection 0 Submenu Option 6 Screen**

**The following is a description of each field in the Menu 0 Submenu 6:**

**ABCD**

System/user abend code.  
Value: Decimal

**STAT**

This flag indicates whether or not the repair subtask will be attached to perform recovery stages.  
Value: ON or OFF

---

## 2.5.6. Set XLT Entries and Threshold Values

Display and set exclusive list table entries and thresholds temporarily.

---

### Exclusive List Table Entries and Thresholds

**;0;7**

Menu selection 0 submenu option 7 (;0;7) may be used to change and delete the Exclude List Tables (XLT) entries. XLT entries allow for a transaction or program to be excluded from any actions by AUTOMON/CICS. XLT entries can also be used to provide a set of warning and action thresholds for a transaction or program which will override the global warning and action thresholds defined to AUTOMON/CICS. There are four different XLTs:

- XLT1 - Defines transactions who's thresholds will differ from the global LOOP thresholds defined to AUTOMON/CICS.
- XLP1 - Defines programs who's thresholds will differ from the global LOOP thresholds defined to AUTOMON/CICS.
- XLT2 - Defines transactions who's thresholds will differ from the global STORAGE HWM thresholds defined to AUTOMON/CICS.
- XLP2 - Defines programs who's thresholds will differ from the global STORAGE HWM thresholds defined to AUTOMON/CICS.

You may change and delete a set of transactions and/or programs to be exempted from the AUTOMON/CICS action categories, (eg. loop and storage HWM). You may also change the thresholds of transactions and programs listed in the Exclude List Table (XLTs). You must not mix transaction ID's with program names in an XLT table. Each XLT table must contains a set of transaction IDs or a set of program IDs. You may use an asterisk (\*) as the last character in the defined partial transaction/program, it will act as a wild card character. Figure 2-27 demonstrates how to change and delete an XLT table entry.

```

ENTER COMMAND => _____ ***EXCLUDE LIST TABLE*** UNIMON/CICS V420
APPLID=CICS410 ,CICS=410,DATE=1997/09/24,TIME=09:38:03,TERM=0059,NAME=UNICOM
  XLT_ SUFFIX TRAN/PGM MASTER_WARNING_ACTION _WARNING _ACTION_ SEQ#
- XLT1 T1 CDB* OFF OFF OFF 0 0 1
- XLT1 T1 CDBS ON ON OFF 0 0 2
- XLT1 T1 CSNE ON ON ON 0 0 3
- XLT1 T1 CSTP ON ON ON 0 0 4
- XLT1 T1 DSNC ON ON ON 0 0 5
- XLT1 T1 I$$Q ON ON ON 0 0 6
- XLT1 T1 IESO ON ON ON 0 0 7
- XLT1 T1 IESX ON ON ON 0 0 8
- XLT1 T1 JNL2 ON ON ON 0 0 9
- XLT1 T1 MCI1 ON ON ON 0 0 10
- XLT1 T1 MCI2 ON ON ON 10 0 11
- XLT1 T1 MCI3 ON ON ON 0 200 12
- XLT1 T1 MCX* ON ON ON 0 0 13
- XLT1 T1 TM* ON ON ON 0 0 14
- XLT1 T1 U$AM ON ON ON 0 0 15
- XLT1 T1 U* ON ON ON 10 0 16
- XLP1 P1 CSHAMPC ON ON ON 0 0 17
- XLT2 T2 AMON ON ON ON 0 0 18
- XLT2 T2 AOFF ON ON ON 0 0 19

PF1=N/A PF2=PRINT PF3=RETURN PF4=MENU PF6=CHANGE PF9=REFRESH PA1/CLEAR=EXIT

```

**Figure 2-27. Menu Selection 0 Submenu Option 7 Screen**

**The following is a description of each field in the XLT table:**

**XLT**

Specifies the type of AUTOMON/CICS Exclude List Table  
Please refer to Chapter 2.6.2. "The AIT Table" for details on the functions of  
different XLT table types.  
Value: XLT1 / XLP1 / XLT2 / XLP2.

**SUFF**

Exclude List Table suffix. These suffixes should match the suffixes defined in the  
AUTOMON/CICS AIT table.  
Value: 1 or 2 characters.

**TRAN/PGM**

Transaction ID or program name.  
Value: Characters, Asterix (\*) as the last character will act as a wild card.

## MASTER

The master flag controls whether XLT processing will be performed by AUTOMON/CICS for the specified XLT entry.

Value: ON or OFF.

## WARNING

The warning flag controls whether AUTOMON/CICS will produce a warning message when the XLT warning threshold has been exceeded by the task. If the flag is '*OFF*' then a warning message will be issued by AUTOMON/CICS when the global threshold in the AUTOMON/CICS THT is reached. If the warning flag is '*ON*' and the warning threshold for the task has been set to 0 no warning message will be issued by AUTOMON/CICS. Otherwise a warning message will be issued by AUTOMON/CICS when the XLT warning threshold is reached.

Value: ON or OFF.

## ACTION

The action flag controls whether AUTOMON/CICS will take actions when the XLT action threshold is exceeded. If the flag is '*OFF*' then AUTOMON/CICS will take action based on the global action threshold in the AUTOMON/CICS THT table. If the XLT action flag is '*ON*' and the action threshold for the task has been set to 0(exclude the task from any action) then a *\*BYPASS\** message will be issued by AUTOMON/CICS to inform the user that action would have been taken if the task had not been defined in the AUTOMON/CICS XLT. Otherwise AUTOMON/CICS will take action when the XLT action threshold is reached.

Value: ON or OFF.

## WARNING THRSOLD

AUTOMON/CICS Exclude list table warning threshold.

A '0' value indicates AUTOMON/CICS will not produce any warning messages for the specified task.

As long as the XLT warning flag is '*ON*', A non-zero value indicates that AUTOMON/CICS will not issue a warning message for the transaction/program until the XLT warning threshold has been reached. Users can specify a threshold that is different than the global notification threshold defined in the AUTOMON/CICS THT table. The XLT warning threshold overrides the global notification threshold in the AUTOMON/CICS THT.

This special warning threshold value must be greater than or equal to the global



notification threshold specified in the AUTOMON/CICS THT table.

Value: Decimal Range: 0-99999998

## ACTION THRSHL

AUTOMON/CICS Exclude list table action threshold.

A '0' value indicates AUTOMON/CICS will not take any actions to purge the specified task. If the XLT action flag is 'ON' and the XLT action threshold is '0' then a \*BYPASS\* message will be issued by AUTOMON/CICS to inform the user that the task would have been purged by AUTOMON/CICS had it not been defined in the AUTOMON XLT table. If the user wishes to repress the \*BYPASS\* message then set the XLT action threshold to a very large number.

As long as the XLT action flag is 'ON', a non-zero value will cause AUTOMON/CICS to take action when the transaction/program reaches the XLT action threshold. Users can specify a threshold that is different than the global action threshold defined in the AUTOMON/CICS THT table(=E.5). The XLT action threshold overrides the global action threshold specified in the AUTOMON/CICS THT.

This special action threshold value must be greater than or equal to the global notification threshold specified in the AUTOMON/CICS THT table.

Value: Decimal Range: 0-99999998

## SEQ#

The relative position of the entry within the XLT table specified.

A '0' value indicates AUTOMON/CICS will not take any actions to purge the specified task. If the XLT action flag is on and the XLT action threshold is '0' then a \*BYPASS\* message will be issued by AUTOMON/CICS to inform the user that the task would have been purged by AUTOMON/CICS had it not been defined in the AUTOMON XLT table.

---

## 2.6. Set Threshold Values Permanently

This section describes how to set AUTOMON/CICS threshold values permanently.

---

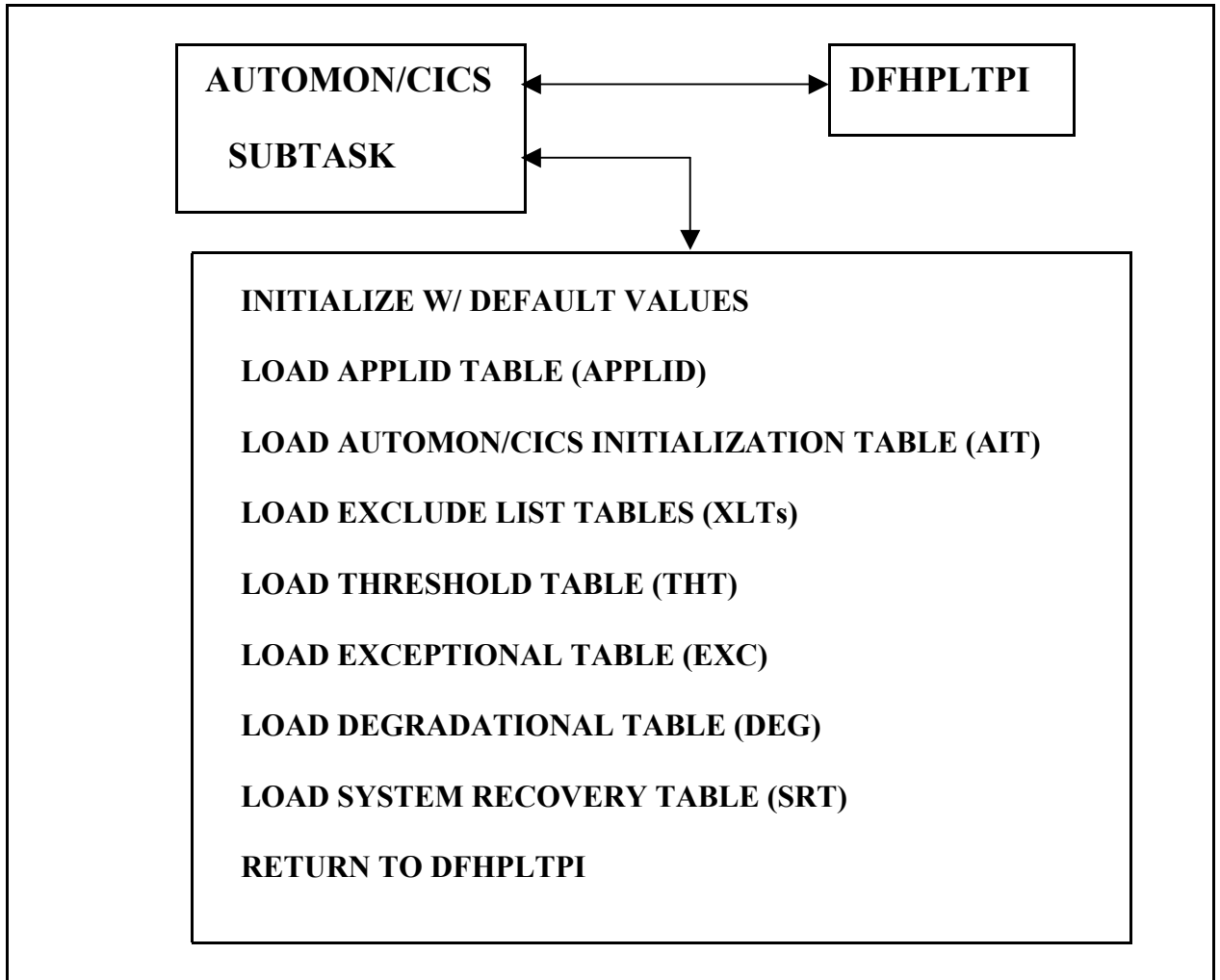
### AUTOMON/CICS Thresholds

#### **Jump**

This section describes how to set AUTOMON/CICS threshold values permanently. Each threshold value acts independently, and these threshold values will be stored, with a unique table suffix ID, onto the AUTOMON/CICS system file (UMON001).

#### **Initialization Process**

At CICS/VS system initialization time (DFHPLTPI), the AUTOMON/CICS interface task will be attached automatically to establish a communication link between CICS/VS and the AUTOMON/CICS management subtask. Once the AUTOMON/CICS management subtask establishes the path, it will then open the UMON001 system file (VSAM KSDS) to read an APPLID table that matches the CICS/VS' VTAM Application Identification. The management subtask then tries to load the system initialization table (AIT), exclude list tables (XLTs), threshold table (THT), exceptional condition table (EXC), degradational condition table (DEG), and system recovery table (SRT).



**Figure 2-28. AUTOMON/CICS Initialization Processing.21**

---

## 2.6.1. The APPLID Table

Display and set APPLID table entries permanently.

---

### APPLID Table Entries

**;E;2**

Menu selection E submenu option 2 (;E;2) may be used to add, change and delete the application ID table entries (APPLID). The APPLID entry contains the respective CICS/VS system's VTAM application ID and the suffix of the AUTOMON/CICS Initialization Table (AIT). Figure 2-29 demonstrates how to add an APPLID table entry.

```
ENTER COMMAND => _____ ***APPLID TABLE ENTRY*** AUTOMON/V420
APPLID=CICSTOR1,CICS=331,DATE=1996/07/03,TIME=13:07:24,TERM=V100,NAME=UNICOM
APPLID AIT USE_CNT LAST_ACC_DAT LAST_MOD_DAT APPLID USERID CREATED
a cicstor1 t1

PF1=N/A PF2=PRINT PF3=RET PF4=MENU PF5=FIND PF6=CHANGE PF7=UP PF8=DOWN
```

**Figure 2-29. Adding a APPLID Table Entry**

**The following is a description of each field in the APPLID table:**

**APPLID**

VTAM Application Identification.  
Value: Characters

**AIT**

AUTOMON/CICS system initialization table suffix.  
Value: Characters

**USE-CNT**

Accumulated use count.  
Value: Decimal

**LAST-ACC-DAT**

Last accessed date.  
Value: Date in the format YYYY/MM/DD.

**LAST-MOD-DAT**

Date the AUTOMON/CICS APPLID table was last modified.  
Value: Date in the format YYYY/MM/DD.

---

## 2.6.2. The AIT Table

Display and set AUTOMON/CICS Initialization Table entries permanently.

---

### AIT Table Entries

**;E;3**

Menu selection E submenu option 3 (;E;3) may be used to add, change and delete the AUTOMON/CICS initialization table entries (AIT). The AIT suffix must be unique and consist of one or two characters. The AIT is being used by the management subtask at system initialization processing time to identify and load the correct suffixes for THT, XLTs, EXC and DEG system tables. Figure 2-30 illustrates how to add an AIT table entry.

```
ENTER COMMAND => _____ ***AIT TABLE*** AUTOMON/V420
APPLID=CICSTOR1,CICS=331,DATE=1996/07/03,TIME=13:07:24,TERM=V100,NAME=UNICOM
AIT RETRY WTO-IGNOR-MAX LOG THT XLT1 XLP1 XLT2 XLP2 SV AMXT SCS LACCDATE
a T1 20 ON 20 150 100 T1 T1 P1 T1 P1 A 4 ON ON 1996/06/13
PF1=N/A PF2=PRT PF3=RET PF4=MENU PF5=FIND PF6=CHANGE PF7=UP PF8=DN PF9=REFSHR
```

**Figure 2-30. Adding a AIT Table Entry**

**The following is a description of each field in the AIT table:**

**AIT**

AUTOMON/CICS initialization table suffix.  
Value: Characters

**RETRY**

The maximum number of times that the system recovery subtask will be allowed to intercept the ESPIE/ESTAE operating system abends. If the operating system

abends exceed the maximum retry count, the CICS/VS address space will be terminated abnormally with a dump (U998).

Value: Decimal (0 - 999)

## WTO

The AUTOMON/CICS messages Write To Operator option. This flag indicates whether or not the AUTOMON/CICS generated messages will be written to the system operator console. WTL indicates that the messages will be written on to the system log.

Value: ON or OFF or WTL

## IGNOR

The AUTOMON/CICS messages Write To Operator ignore count. Specifies the total number of same consecutive AUTOMON/CICS messages that can be written to the system operator console.

Value: Decimal

## MAX

The AUTOMON/CICS messages Write To Operator maximum count. Specifies the total number of messages that can be written to the system operator console.

Value: Decimal

## AUX

The AUTOMON/CICS logging facility. (history database) if this flag is on, the AUTOMON/CICS generated messages will be written to the history database file.

Value: ON|OFF

## LOG

The AUTOMON/CICS log table entry size. Specifies the total number of AUTOMON/CICS generated messages that can be stored in virtual storage area for viewing. The log table resides above 16-Meg line (Extended subpool zero) and will roll over if it reaches the end. Recommended value is 300 entries.

(Default=100)

Value: Decimal

## THT

The AUTOMON/CICS threshold table suffix. Specifies the suffixes for the thresholds table (THT), exceptional thresholds table (EXC), degradation thresholds table (DEG), and system recovery table (SRT).

Value: Characters

## XLT1

The AUTOMON/CICS transaction exclude list table 1 suffix.

Specifies the transaction ID's to be excluded from the loop action mechanism, or transactions that have a special loop action threshold that is different then the global threshold defined in the THT table.

Value: Characters

#### XLP1

The AUTOMON/CICS program exclude list table 1 suffix.

Specifies the program ID's to be excluded from the loop action mechanism, or programs that have a special loop action threshold that is different then the global threshold defined in the THT table.

Value: Characters

#### XLT2

The AUTOMON/CICS transaction exclude list table 2 suffix.

Specifies the transaction ID's to be excluded from the excessive storage usage action mechanism, or transactions that have a special excessive storage usage action threshold that is different then the global threshold defined in the THT table.

Value: Characters

#### XLP2

The AUTOMON/CICS program exclude list table 2 suffix.

Specifies the program ID's to be excluded from the loop action mechanism, or programs that have a special loop action threshold that is different then the global threshold defined in the THT table.

Value: Characters

#### SV n

You may use this function to activate and deactivate the storage violation trap The trap which is in the AUTOMON/CICS Storage Recovery Program (CSHSCR), lets you verify the user storage associated with the currently active task.

"*ALL*" - specifies that validity checks will be performed for all tasks in system.

"*CUR*" - specifies that validity checks will be performed for the current



task only.  
"NON" with Level 0 deactivates both CICS exits and storage violation detection subtask.  
with Level 1-4 CICS exits will be deactivated but storage violation detection subtask will perform for all tasks in system.  
Value: ALL|CURRENT|NONE

Specifies the storage violation validity level.

- Level 0 - Only applicable if "NON" is specified.
- Level 1 - The storage validity check shall be performed in normal AUTOMON/CICS dispatching cycle.
- Level 2 - Level 1 plus whenever AUTOMON/CICS detects a Transaction abend.
- Level 3 - Level 2 plus whenever the dispatcher domain gains control.
- Level 4 - Level 3 plus whenever the domain manager gains control.

Value: Decimal (1 - 4)

## AMXT

Specifies whether the Maximum Active Tasks (AMXT) value shall be adjusted by a repair subtask or not.  
Value: ON|OFF

## SCS

Specifies whether the Storage Cushion Size (SCS) value shall be adjusted by a repair subtask or not.  
Value: ON|OFF

## LAST-ACC-DATE

Last accessed date.  
Value: Date in the format YYYY/MM/DD.

---

## 2.6.3. The XLT Table

Display and set exclusive list table entries permanently.

---

### Exclusive List Table Entries

**;E;4**

Menu selection E submenu option 4 (;E;4) may be used to add, change and delete exclude list tables (XLTs). The XLT table suffix must be unique and consist of one or two characters. XLT entries allow for a transaction or program to be excluded from any actions by AUTOMON/CICS. XLT entries can also be used to provide a set of warning and action thresholds for a transaction or program which will override the global warning and action thresholds defined to AUTOMON/CICS. There are four different XLTs:

- XLT1 - Defines transactions who's thresholds will differ from the global LOOP thresholds defined to AUTOMON/CICS.
- XLP1 - Defines programs who's thresholds will differ from the global LOOP thresholds defined to AUTOMON/CICS.
- XLT2 - Defines transactions who's thresholds will differ from the global STORAGE HWM thresholds defined to AUTOMON/CICS.
- XLP2 - Defines programs who's thresholds will differ from the global STORAGE HWM thresholds defined to AUTOMON/CICS.

Each XLT is assigned a suffix in the AUTOMON/CICS AIT table. You must not mix transaction ID's with program names in an XLT table. Each XLT table must contain a set of transaction Ids or a set of program Ids. You may use the wildcard character (\*) as the last character in a transaction/program field to specify a group of transactions or programs. Figure 2-31 demonstrates how to add an XLT table entry.

```

ENTER COMMAND => _____ ***EXCLUDE LIST TABLE*** UNIMON/CICS V420
APPLID=CICS410 ,CICS=410,DATE=1997/09/24,TIME=11:46:32,TERM=0059,NAME=UNICOM
XLT TRAN/PGM MASTER_WARNING_ACTION _WARNING _ACTION_
- P1 CSHAMPC ON ON ON 0 0
- P2 CSHAMPC ON ON ON 0 0
- T1 CDB* ON ON ON 0 0
- T1 CSKC ON ON ON 0 0
- T1 CSNE ON ON ON 0 0
- T1 CSTP ON ON ON 0 0
- T1 DSNC ON ON ON 0 0
- T1 I$$Q ON ON ON 0 0
- T1 IESO ON ON ON 0 0
- T1 IESX ON ON ON 0 0
- T1 JNL2 ON ON ON 0 0
- T1 MCI1 ON ON ON 0 0
- T1 MCI2 ON ON ON 10 0
- T1 MCI3 ON ON ON 0 200
- T1 MCX* ON ON ON 0 0
- T1 TM* ON ON ON 0 0
- T1 U$AM ON ON ON 0 0
- T1 U* ON ON ON 10 0
- T2 AMON ON ON ON 0 0
PF1=N/A PF2=PRT PF3=RET PF4=MENU PF5=FIND PF6=CHANGE PF7=UP PF8=DN PF9=REFRESH

```

**Figure 2-31. Adding a XLT Table Entry**

**The following is a description of each field in the XLT table:**

**XLT**

Exclude List Table suffix.

These suffixes should match the suffixes defined in the AUTOMON/CICS AIT table.

Value: 1 or 2 characters.

**TRAN/PGM**

Transaction ID or program name.

Value: Characters, Asterix (\*) as the last character will act as a wild card.

## MASTER

The master flag controls whether XLT processing will be performed by AUTOMON/CICS for the specified XLT entry.

Value: ON or OFF.

## WARNING

The warning flag controls whether AUTOMON/CICS will produce a warning message when the XLT warning threshold has been exceeded by the task. If the flag is '*OFF*' then a warning message will be issued by AUTOMON/CICS when the global threshold in the AUTOMON/CICS THT is reached. If the warning flag is '*ON*' and the warning threshold for the task has been set to 0 no warning message will be issued by AUTOMON/CICS. Otherwise a warning message will be issued by AUTOMON/CICS when the XLT warning threshold is reached.

Value: ON or OFF.

## ACTION

The action flag controls whether AUTOMON/CICS will take actions when the XLT action threshold is exceeded. If the flag is '*OFF*' then AUTOMON/CICS will take action based on the global action threshold in the AUTOMON/CICS THT table. If the XLT action flag is '*ON*' and the action threshold for the task has been set to 0(exclude the task from any action) then a *\*BYPASS\** message will be issued by AUTOMON/CICS to inform the user that action would have been taken if the task had not been defined in the AUTOMON/CICS XLT. Otherwise AUTOMON/CICS will take action when the XLT action threshold is reached.

Value: ON or OFF.

## WARNING THRSHLD

AUTOMON/CICS Exclude list table warning threshold.

A '0' value indicates AUTOMON/CICS will not produce any warning messages for the specified task.

As long as the XLT warning flag is 'ON', A non-zero value indicates that AUTOMON/CICS will not issue a warning message for the transaction/program until the XLT warning threshold has been reached. Users can specify a threshold that is different than the global notification threshold defined in the AUTOMON/CICS THT table. The XLT warning threshold overrides the global notification threshold in the AUTOMON/CICS THT.

This special warning threshold value must be greater than or equal to the global notification threshold specified in the AUTOMON/CICS THT table.

Value: Decimal Range: 0-99999998

## ACTION THRSHLD

AUTOMON/CICS Exclude list table action threshold.

A '0' value indicates AUTOMON/CICS will not take any actions to purge the specified task. If the XLT action flag is 'ON' and the XLT action threshold is '0' then a \*BYPASS\* message will be issued by AUTOMON/CICS to inform the user that the task would have been purged by AUTOMON/CICS had it not been defined in the AUTOMON XLT table. If the user wishes to repress the \*BYPASS\* message then set the XLT action threshold to a very large number.

As long as the XLT action flag is 'ON', a non-zero value will cause AUTOMON/CICS to take action when the transaction/program reaches the XLT action threshold. Users can specify a threshold that is different than the global action threshold defined in the AUTOMON/CICS THT table(=E.5). The XLT action threshold overrides the global action threshold specified in the AUTOMON/CICS THT.

This special action threshold value must be greater than or equal to the global notification threshold specified in the AUTOMON/CICS THT table.

Value: Decimal Range: 0-99999998

## 2.6.4. The THT Table

Display and set threshold table entries permanently.

### Threshold Table Entries

**;E;5**

Menu selection E submenu option 5 (;E;5) may be used to add, change and delete threshold table entries (THT). The THT table suffix must be unique and consist of one or two characters. A newly created THT table entry will be stored onto the UMON001 system file. Figure 2-32 illustrates how to add a THT table entry.

```

ENTER COMMAND => _____          ***TRESHOLD TABLE***          UNIMON/V420
APPLID=CICSTOR1,CICS=331,DATE=1996/07/03,TIME=13:09:52,TERM=V100,NAME=UNICOM
+-----+-----+-----+-----+-----+-----+-----+-----+
THT  | ITEM | FLAGS | CYCLE | NOTIFY | ACTION | ITEM | FLG | CYCLE |
+-----+-----+-----+-----+-----+-----+-----+-----+
a t1 | LOOP | o o o |      |      30 |      60 | VSAM STRING WAIT | o | 60 |
    | STOR HWM | f f f | 30 | 100000 | 500000 | VTAM TERMNL WAIT | o | 60 |
    | MXT | o | 20 | 32 | 490 | JOURNAL SWITCH | o | 60 |
    | TS HWM | o | 60 | 80 % | | EXCEPTIONAL | o | 60 |
    | SOS | o o o | | 1 | 30 | DEGRADATIONAL | o | 60 |
    | PER DATA | o | --- | 1800 | | | o | 60 |
+-----+-----+-----+-----+-----+-----+-----+-----+
    | ITEM | FLAGS | CYCLE | NOTIFY | ACTION | ITEM | FLG | CYCLE |
+-----+-----+-----+-----+-----+-----+-----+-----+
    | LOOP | | | | | VSAM STRING WAIT | | |
    | STOR HWM | | | | | VTAM TERMNL WAIT | | |
    | MXT | | | | | JOURNAL SWITCH | | |
    | TS HWM | | | | | EXCEPTIONAL | | |
    | SOS | | | | | DEGRADATIONAL | | |
    | PER DATA | | | | | | |
+-----+-----+-----+-----+-----+-----+-----+
PF1=N/A PF2=PRT PF3=RET PF4=MENU PF5=FIND PF6=CHANGE PF7=UP PF8=DN PF9=REFRSH

```

**Figure 2-32. Adding a THT Table Entry**

**The following is a description of each field in the Menu selection E Submenu option 5:**

## FLAGS

The FLAG field consists of three columns, representing flags settings for the individual items in following order:

First column contains Master indicator.

Second column contains Notify indicator.

Third column contains Action Indicator.

Value: ON or OFF (o or f)

## CYCLE (SEC)

This cycle in seconds indicates how often the action and notification buckets are to be examined by AUTOMON/CICS.

Value: Decimal

## THREADS NOTIFY

Specifies the notification threshold values.

Value: Decimal

## THREADS ACTION

Specifies the action threshold values. AUTOMON/CICS will purge a task that has gone over the action threshold value specified herein. You may exempt certain transactions from the purge process by defining a single or a group of transactions to the AUTOMON/CICS Exclusive List Tables (XLTs).

Value: Decimal

## LOOP DETECTION

CICS/VS system and application program loop detection.

## STORAGE HWM

The maximum allowable virtual storage that can be chained in Dynamic Storage Area (DSA) by the CICS/VS task at any given time.

## SHORT ON STORAGE

A system stress condition.

## PERFORMANCE DATA

The number of units of processing successfully completed per second will be captured by AUTOMON/CICS. The data swatch as recording unit time, current rate, average rate, high water mark, and high water mark hit time will be captured by transactions, file I/Os, VTAM transmissions, and aux temporary storage requests.

## STORAGE VIOLATION

A Storage Violation condition.

## VSAM STRING WAIT

A VSAM string wait condition.

## VTAM TERMNL WAIT

A VTAM wait list condition. Could be a Logical Unit (LU) wait or MRO/ISC link pending condition as well.

## JOURNAL SWITCH

A CICS/VS journal dataset volume switch condition.

## TEMP STOR USE

Auxiliary temporary storage usage (DFHTEMP).

## EXCEPTIONAL

An exceptional condition.

## DEGRADATIONAL

A degradational condition.

## MXT

The Maximum tasks (MXT) value will be altered dynamically depending on the availability of the Dynamic Storage Area (DSA).



## 2.6.5. The EXC Table

Display and set Exceptional thresholds Permanently.

### Exceptional Thresholds

;E;6

ENTER COMMAND => _____ ***EXC THRESHOLD ENTRY*** AUTOMON/V420						
APPLID=CICSTOR1, CICS=331, DATE=1996/07/03, TIME=13:09:52, TERM=V100, NAME=UNICOM						
EXC	ITEM	THREADS	ITEM	THREADS	ITEM	THREADS
_TE	DSA	90 %	CON SUBPOOL	30 %	TP SUBPOOL	20 %
	MIX SUBPOOL	10 %	ISO SUBPOOL	40 %	SHR SUBPOOL	40 %
	RPL SUBPOOL	10 %	PGM SUBPOOL	60 %	SOS	5
	STORAGE Q"D	200	STOR Q HWM	90	STOR QZERO	5
	GETMAIN	90000	FREEMAIN	90000	AMXT HWM	500
	RUNAWAY HWM	10	TOTAL TASKS	99999	VTAM RA RPL	20
	ACT RA RPL	2	FREE RPL"S	10		
	_WN	DSA	%	CON SUBPOOL	%	TP SUBPOOL
MIX SUBPOOL		%	ISO SUBPOOL	%	SHR SUBPOOL	%
RPL SUBPOOL		%	PGM SUBPOOL	%	SOS	
STORAGE Q"D			STOR Q HWM		STOR QZERO	
GETMAIN			FREEMAIN		AMXT HWM	
RUNAWAY HWM			TOTAL TASKS		VTAM RA RPL	
ACT RA RPL			FREE RPL"S			

PF1=N/A PF2=PRT PF3=RET PF4=MENU PF5=FOUND PF6=CHANGE PF7=UP PF8=DN PF9=REFRSH

Figure 2-33. Adding a EXC Table Entry

**The following is a description of each field in the Menu E Submenu 7:**

**SOS**

The operator will be notified when the Short On Storage (SOS) counts reaches this threshold value.

Value: Decimal

**STORAGE Q"D**

Total number of virtual storage requests queued.

Value: Decimal

**STORAGE Q HWM**

The virtual storage requests queued high water marks.

Value: Decimal

**STORAGE Q ZERO**

**GETMAIN**

Total number of getmains.

Value: Decimal

**FREEMAIN**

Total number of freemains.

Value: Decimal

**AMXT HWM**

The Active Maximum Tasks high water marks.

Value: Decimal

**RUNAWAY HWM**

Runaway tasks high water marks.

Value: Decimal

**TOTAL TASKS**

Accumulated numbers of attached user tasks.

Value: Decimal

**VTAM RA RPL**

Total number of VTAM Receive Any Request Parameter Lists.

Value: Decimal

ACT RA RPL  
Total number of VTAM active receive any Request Parameter Lists.  
Value: Decimal

FREE RPL'S  
Total number of VTAM available RPL's.  
Value: Decimal

DSA  
The Dynamic Storage Area utilization.  
Value: Percentage

CON  
Control subpool utilization.  
Value: Percentage

TP  
Teleprocessing subpool utilization.  
Value: Percentage

TSK  
Task subpool utilization.  
Value: Percentage

SHR  
Shared subpool utilization.  
Value: Percentage

RPL  
RPL subpool utilization.  
Value: Percentage

PGM  
Program subpool utilization.  
Value: Percentage

## 2.6.6. The DEG Table

Display and set degradational thresholds permanently.

### Degradational Thresholds

**;E;7**

Menu selection E submenu option 7 (;E;7) may be used to add, change and delete Degradational Condition table entries (DEG). The DEG table suffix must be unique and consist of one or two characters. A newly created DEG table entry will be stored onto the UMON001 system file. Figure 2-34 illustrates how to add a DEG table entry.

```

ENTER COMMAND => _____ ***DEG THRESHOLD ENTRY*** AUTOMON/V420
APPLID=CICSTOR1,CICS=311,DATE=1996/09/13,TIME=13:09:52,TERM=V100,NAME=UNICOM
  
```

DEG	ITEM	THRED	ITEM	THRED	ITEM	THRED	ITEM	THRED
_TE	ACT TASKS	5	TS WAIT	1	ECB LIST	5	DFHPC REQ	10
	SUS TASKS	20	STOR WAIT	2	CICS WAIT	10	DFHSC REQ	10
	NON-DSPTR	1	ENQ WAIT	3	BMS REQ	5	DFHTC REQ	10
	DISPATCHR	3	FILE I/O	4	DL/I REQ	10	DFHTD REQ	10
	AMXT WAIT	1	PAGE WAIT	1	DFHDI REQ	2	DFHTS REQ	10
	CMXT WAIT	1	SRB MODE	1	DFHFC REQ	15	DFHDC REQ	10
	DFHIC WT	1	ECB WAIT	5	DFHIC REQ	2	TERM WAIT	40
_WN	ACT TASKS		TS WAIT		ECB LIST		DFHPC REQ	
	SUS TASKS		STOR WAIT		CICS WAIT		DFHSC REQ	
	NON-DSPTR		ENQ WAIT		BMS REQ		DFHTC REQ	
	DISPATCHR		FILE I/O		DL/I REQ		DFHTD REQ	
	AMXT WAIT		PAGE WAIT		DFHDI REQ		DFHTS REQ	
	CMXT WAIT		SRB MODE		DFHFC REQ		DFHDC REQ	
	DFHIC WT		ECB WAIT		DFHIC REQ		TERM WAIT	

```

PF1=N/A PF2=PRT PF3=RET PF4=MENU PF5=FIND PF6=CHANGE PF7=UP PF8=DN PF9=REFRSH
  
```

**Figure 2-34. Adding a DEG Table Entry**

**The following is a description of each field in the Menu E Submenu 7:**

**ACTIVE TASKS**

Concurrent active tasks.  
Value: Decimal

**SUSPENDED TASKS**

Total number of suspended tasks.  
Value: Decimal

**NONDISPATCHABLE**

Total number of non-dispatchable tasks.  
Value: Decimal

**ATTACH WAIT**

Total number of tasks that are waiting for Task Attacher.  
Value: Decimal

**AMXT WAIT**

Total number of tasks that are waiting for Active Maximum Tasks reasons.  
Value: Decimal

**CMXT WAIT**

Total number of tasks that are waiting for Class Maximum Tasks reasons.  
Value: Decimal

**DFHIC WAIT**

Total number of tasks that are waiting for Interval Control reasons.  
Value: Decimal

**TEMP STOR WAIT**

Total number of tasks that are waiting for Temporary Storage.  
Value: Decimal

**STORAGE WAIT**

Total number of tasks that are waiting for Storage allocation.  
Value: Decimal

## ENQUEUE WAIT

Total number of tasks that are waiting for Enqueue reasons.  
Value: Decimal

## FILE I/O WAIT

Total number of tasks that are waiting for File I/O requests.  
Value: Decimal

## PAGE WAIT

Total number of tasks that are waiting for Paging operations.  
Value: Decimal

## SRB MODE

Total number of tasks that are waiting for SRB Scheduler.  
Value: Decimal

## ECB WAIT

Total number of tasks that are waiting for Single ECB event.  
Value: Decimal

## ECB LIST WAIT

Total number of tasks that are waiting for Multiple ECB events.  
Value: Decimal

## CICS WAIT

Total number of tasks that are waiting for work.  
Value: Decimal

## BMS REQUESTS

Total number of tasks that are accessing BMS functions.  
Value: Decimal

## DL/I REQUESTS

Total number of tasks that are accessing DL/I functions.  
Value: Decimal

## DFHDC REQUESTS

Total number of tasks that are accessing Dump Control functions.  
Value: Decimal

## DFHDI REQUESTS

Total number of tasks that are accessing Data Interchange Services.  
Value: Decimal

#### DFHFC REQUESTS

Total number of tasks that are accessing File Control functions.  
Value: Decimal

#### DFHIC REQUESTS

Total number of tasks that are accessing Interval Control functions.  
Value: Decimal

#### DFHPC REQUESTS

Total number of tasks that are accessing Program Control functions.  
Value: Decimal

#### DFHSC REQUESTS

Total number of tasks that are accessing Storage Control functions.  
Value: Decimal

#### DFHTC REQUESTS

Total number of tasks that are accessing Terminal Control functions.  
Value: Decimal

#### DFHTD REQUESTS

Total number of tasks that are accessing Transient Data functions.  
Value: Decimal

#### DFHTS REQUESTS

Total number of tasks that are accessing Temporary Storage functions.  
Value: Decimal

#### TERM WAIT

Total number of tasks that are waiting for Terminal reasons.  
Value: Decimal

---

## 2.6.7. The SRT Table

Display and set SRT thresholds permanently.

---

### SRT Thresholds

**;E;8**

Menu selection E submenu option 8 (;E;8) may be used to add, change and delete System Recovery table entries (SRT). The SRT table suffix must be unique and consist of one or two characters. A newly created SRT table entry will be stored onto the UMON001 system file. Figure 2-35 illustrates how to add a SRT table entry.



```

ENTER COMMAND => _____ ***SYSTEM RECOVERY TABLE***          AUTOMON/V420
APPLID=CICSTOR1,CICS=331,DATE=1996/07/03,TIME=13:09:52,TERM=V100,NAME=UNICOM

```

SRT	STAGE	MASTER	NOTIFY	ACTION	DESCRIPTION
_TE	1	ON	ON	OFF	DISPLAY PSW/PRODUCE A DUMP
	2	ON	ON	ON	VERIFY/REPAIR CICS/VS FOUNDATION
	3	ON	ON	ON	VERIFY/DISABLE A TRANSACTION
	4	ON	ON	ON	VERIFY/REPAIR DYNAMIC STORAGE ARE
	5	ON	ON	ON	VERIFY/REPAIR CICS/VS PROGRAMS
	6	ON	ON	ON	VERIFY/REPAIR CICS/VS TABLES
	7	ON	ON	ON	VERIFY/REPAIR CICS/VS CNTL BLOCKS
	8	ON	ON	OFF	SUMMARY REPORT/PRODUCE A DUMP
_WN	1	ON	ON	OFF	DISPLAY PSW/PRODUCE DUMP
	2	ON	ON	OFF	VERIFY/REPAIR CICS/VS FOUNDATION
	3	ON	ON	OFF	VERIFY/DISABLE A TRANSACTION
	4	ON	ON	OFF	VERIFY/REPAIR DYNAMIC STORAGE ARE
	5	ON	ON	OFF	VERIFY/REPAIR CICS/VS PROGRAMS
	6	ON	ON	OFF	VERIFY/REPAIR CICS/VS TABLES
	7	ON	ON	OFF	VERIFY/REPAIR CICS/VS CNTL BLOCKS
	8	ON	ON	OFF	SUMMARY REPORT/PRODUCE A DUMP

```

PF1=N/A PF2=PRT PF3=RET PF4=MENU PF5=FINN PF6=CHANGE PF7=UP PF8=DN PF9=REFRSH

```

**Figure 2-35. Adding a SRT Table Entry**

**The following is a description of each field in the Menu E Submenu 8:**

#### STAGE

The system recovery program (CSHASRP) functional stages. See Introduction for more information.

Value: Decimal

#### MASTER

The master flag indicates whether a specific stage is to be performed or not in the event of ESPIE/ESTAE operating system interrupts.

Value: ON or OFF

#### NOTIFY

The notification flag indicates whether to attach a detective subtask to verify the CICS/VS system integrity.

Value: ON or OFF

## ACTION

The action flag indicates whether to attach a repair subtask to potentially correct the damaged storage areas.

Value: ON or OFF

## STAGE (1) NOTIFY

The PSW, registers contents at the time of abend, abend code, transaction name, program name, terminal ID, task number, etc will be reported.

Related messages: CSH6610I, CSH6611 and CSH6016.

## STAGE (1) ACTION

AUTOMON/CICS will take a dump when it detects a storage violation or system crash condition, before the repair subtask intercepts the abend. For MVS users when the UCCF/Server is active AUTOMON/CICS will generate an MVS System SVC Dump. When UCCF/Server is inactive, AUTOMON/CICS will produce a SNAP dump written to DD card AMON002 at the time that it detects the problem in the system. For VSE users, the dump will be written to the SYSLIST.

Related messages: CSH6608A and CSH6609I.

## STAGE (2) NOTIFY

The verification of CICS/VS foundation will be performed for the possibility of storage overlay conditions.

Related messages: CSH6620I through CSH6623W.

## STAGE (2) ACTION

The repair subtask will be attached to take corrective actions to repair the damaged CICS/VS foundation. Specifies whether the damaged system areas (eg. CSA, OPFL, etc.) will be repaired or not.

Related messages: CSH6624A and CSH6625E.

## STAGE (3) NOTIFY

The verification of CICS/VS task chains will be performed for the possibility of storage overlay conditions.

Related messages: CSH6611I and CSH6630I.

### STAGE (3) ACTION

The repair subtask will be attached to take corrective actions to repair the damaged task chains. Specifies whether the transaction at the time of a system crash and/or a storage violation will be disabled or not. Equivalent of issuing a CEMT SET TRAN(????) DISABLE command.

Related messages: CSH6612A.

### STAGE (4) NOTIFY

The verification of Dynamic Storage Area will be performed for the possibility of storage overlay conditions.

Related messages: CSH6620I through CSH6623W.

### STAGE (4) ACTION

The repair subtask will be attached to take corrective actions to repair the damaged storage areas. Specifies whether the damaged storage areas will be corrected or not.

Related messages: CSH6624A and CSH6625E.

### STAGE (5) NOTIFY

The verification of key CICS/VS nucleus modules will be performed for the possibility of storage overlay conditions.

Related messages: CSH6620I through CSH6623W and CSH6650I.

### STAGE (5) ACTION

The repair subtask will be attached to take corrective actions to repair the damaged CICS/VS nucleus modules.

Related messages: CSH6624A and CSH6625E.

### STAGE (6) NOTIFY

The verification of key CICS/VS system tables and table manager's storage pointers will be performed for the possibility of storage overlay conditions.

Related messages: CSH6620I through CSH6623W and CSH6650I.

### STAGE (6) ACTION

The repair subtask will be attached to take corrective actions to repair the damaged CICS/VS system tables.

Related messages: CSH6624I through CSH6623W and CSH6625E.

### STAGE (7) NOTIFY

The verification of key CICS/VS system areas and pointers will be performed for the possibility of storage overlay conditions.

Related messages: CSH6620I through CSH6623W and CSH6650I.

### STAGE (7) ACTION

The repair subtask will be attached to take corrective actions to repair the damaged CICS/VS system areas and pointers.

Related messages: CSH6624A and CSH6625E.

### STAGE (8) NOTIFY

The summary report will be produced.

Related messages: CSH6680I.

### STAGE (8) ACTION

AUTOMON/CICS will take a dump when it detects a storage violation or system crash condition, before the repair subtask intercepts the abend. For MVS users when the UCCF/Server is active AUTOMON/CICS will generate an MVS System SVC Dump. When UCCF/Server is inactive, AUTOMON/CICS will produce a SNAP dump written to DD card AMON002 at the time that it detects the problem in the system. For VSE users, the dump will be written to the SYSLIST.

Related messages: CSH6608A and CSH6609I.



---

## **Chapter 3. Installation Considerations**

**This Chapter Describes:**

- Hardware Requirements
- Software Requirements
- Disk Storage
- CPU Utilization
- Virtual Storage

---

## **Installation Steps**

- 1) Installation of the base product.
- 2) Installation verification procedure.

The base product performs all AUTOMON/CICS functions.

---

## **Installation**

Upon receipt of the distribution tape please check that you have the right tape. You should also call the UNICOM SUPPORT CENTER at (818) 838-0606 prior to installation for the latest program temporary fixes (PTFs) or installation changes for this release of AUTOMON/CICS.

---

## 3.1. Hardware Requirements

AUTOMON/CICS operates on any IBM System/370, 303x series, 308x series, 309x series, 4300 series, or ES9000 series or on a virtual machine supported by VM/370.

You also need sufficient I/O devices to support the requirements for AUTOMON/CICS libraries, data sets, input, and output.

AUTOMON/CICS requires one 9-track tape drive to unload the distribution tape.

---

## 3.2. Software Requirements

AUTOMON/CICS Version 4 Release 2 Modification 0 operates under:

- CICS/ESA Version 5 Release 1 (CICS 5.1)
- CICS/ESA Version 4 Release 1 (CICS 4.1)
- CICS/ESA Version 3 Release 3 (CICS 3.3)
- CICS/ESA Version 3 Release 2 (CICS 3.2)
- CICS/ESA Version 3 Release 1 (CICS 3.1)
- CICS/MVS Version 2 Release 1 (CICS 2.1)
- CICS/MVS Version 1 Release 7 (CICS 1.7)

In addition to CICS/VS, you also need any one of the following operating system:

- MVS/SP      • MVS/XA      • MVS/ESA
- VSE/SP      • VSE/ESA      • VSE/VM

UCCF/Server requires MVS/ESA and TSO/E V2.



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### **3.3. Disk Storage**

AUTOMON/CICS requires approximately thirty cylinders of 3390 DASD space for all required datasets.

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### **3.4. CPU Utilization**

AUTOMON/CICS consumes approximately 0.5% of the IBM 3090 600E processor.

---

### **3.5. Virtual Storage**

AUTOMON/CICS issues OS GETMAIN ANY (Extended Subpool 0) to obtain sufficient storage to perform the recovery. AUTOMON/CICS consumes approximately 70K of non-contiguous virtual storage above 16 meg line. Some AUTOMON/CICS modules will be loaded into OSCOR (Subpool 251). The UNIMON/CICS interface programs will be loaded into the Dynamic Storage Area (DSA), and they will consume approximately 25K of non-contiguous virtual storage. (Including Task Subpool, Shared Subpool and Program Subpool storage)

<i>MODULES</i>	<i>PROGRAM SIZE</i>	<i>DESCRIPTION</i>
<i>CSHAMP</i>	<i>2.4 K</i>	<i>AUTOMON MANAGEMENT SUBTASK</i>
<i>CSHAMPO</i>	<i>9.9 K</i>	<i>MANAGEMENT SUB-PROGRAM0</i>
<i>CSHAMP1</i>	<i>4.3 K</i>	<i>MANAGEMENT SUB-PROGRAM1</i>
<i>CSHGOD</i>	<i>0.7 K</i>	<i>AUTOMON CONTROL SUBTASK</i>
<i>CSHAMGP</i>	<i>5.0 K</i>	<i>AUTOMON MESSAGE PROGRAM</i>
<i>CSHAMGT</i>	<i>5.0 K</i>	<i>AUTOMON MESSAGE TABLE</i>
<i>CSHASRP</i>	<i>11.1 K</i>	<i>SYSTEM/USER ABEND RECOVERY</i>
<i>CSHAUP</i>	<i>4.0 K</i>	<i>UTILITY PROGRAM</i>
<i>CSHAMPC</i>	<i>9.1 K</i>	<i>CICS/VS COMMUNICATION TASK</i>
<i>CSHSCR</i>	<i>5.5 K</i>	<i>STORAGE RECOVERY PROGRAM</i>
<i>CSHSRP</i>	<i>1.1 K</i>	<i>SYSTEM RECOVERY PROGRAM</i>
<i>CSHSIP</i>	<i>4.2 K</i>	<i>PRODUCT INITIALIZATION</i>
<i>CSHMGP</i>	<i>5.9 K</i>	<i>MESSAGE PROGRAM</i>
<i>CSHTRP</i>	<i>1.1 K</i>	<i>INTERNAL TRACE PROGRAM</i>
<i>CSHPCP</i>	<i>3.9 K</i>	<i>PROGRAM CONTROL PROGRAM</i>
<i>CSHAPLP</i>	<i>1.1 K</i>	<i>AUTO INIT/SHUT PROGRAM</i>
<i>CSHTCP</i>	<i>7.6 K</i>	<i>TERMINAL CONTROL PROGRAM</i>
<i>CSHSNP</i>	<i>1.4 K</i>	<i>SECURITY MGMT PROGRAM</i>
<i>CSHSTP</i>	<i>1.3 K</i>	<i>SYSTEM TERMINATION PROGRAM</i>
<i>CSHPC00</i>	<i>3.8 K</i>	<i>PROGRAM CONTROL SUB-PGM00</i>
<i>CSHPC01</i>	<i>10.2 K</i>	<i>PROGRAM CONTROL SUB-PGM01</i>
<i>CSHPC02</i>	<i>6.7 K</i>	<i>PROGRAM CONTROL SUB-PGM02</i>
<i>CSHPC70</i>	<i>5.5 K</i>	<i>PROGRAM CONTROL SUB-PGM70</i>
<i>CSHPC80</i>	<i>6.2 K</i>	<i>PROGRAM CONTROL SUB-PGM80</i>
<i>CSHPCE0</i>	<i>5.3 K</i>	<i>PROGRAM CONTROL SUB-PGME0</i>
<i>CSHPCE1</i>	<i>12.2 K</i>	<i>PROGRAM CONTROL SUB-PGME1</i>
<i>CSHPCE2</i>	<i>5.1 K</i>	<i>PROGRAM CONTROL SUB-PGME2</i>
<i>CSHZCP</i>	<i>19.4 K</i>	<i>TERMINAL I/O CONTROL PGM</i>
<i>CSHZCP0</i>	<i>16.0 K</i>	<i>TERMINAL I/O CONTROL PGM0</i>
<i>CSHZCP7</i>	<i>3.3 K</i>	<i>TERMINAL I/O CONTROL PGM7</i>
<i>CSHZCP8</i>	<i>4.8 K</i>	<i>TERMINAL I/O CONTROL PGM8</i>
<i>CSHZCPE</i>	<i>44.1 K</i>	<i>TERMINAL I/O CONTROL PGME</i>

**Figure 3-1. AUTOMON/CICS Modules**



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## **Chapter 4. Customization**

**This Chapter Describes:**

- Customization Steps
- AUTOMON/CICS Batch Utility
- Implementing AUTOMON/CICS in Additional Regions
- Global User Exits
- General Conventions
- General Registers
- List of Exits
- CSHXMGPB Message Processing Exit
- CSHXAMPB Detective Subtask Exit
- CSHXXIPB CICS User Exit
- Sample User Exit Programs

---

## 4.1. AUTOMON/CICS Customization

AUOTMON/CICS Customization describes the steps to optimize the benefits which you will receive from AUTOMON/CICS.

---

### Customization Overview

#### Overview

AUTOMON/CICS is comprised of a number of different tables which control the functions and actions which AUTOMON/CICS will perform during the course of an AUTOMON/CICS session. These tables may be modified to optimize the benefits which you will receive from AUTOMON/CICS. In this section, each of the AUTOMON/CICS tables and their key parameters will be explained. Helpful tips will also be given to help you tailor this product to the individual need of your environment. All AUTOMON/CICS system definition tables may be modified through the utility transaction "UMON". The "UMON" transaction has more than 50 panels to provide users with both control and monitoring functions.

There are two main groups of control panels in the "UMON" transaction, Option "0" and Option "E", which will be discussed in this customization section. Subpanels of Option "0" on the AUTOMON/CICS main menu will dynamically alter the AUTOMON/CICS control blocks. The subpanels of Option "E" of the AUTOMON/CICS main menu will modify AUTOMON/CICS table definitions located in the UMON001 file.

ENTER OPTION ==> \_\_\_\_\_ \*\*\*UNIMON/CICS\*\*\* UNIMON/CICS V420  
APPLID=CICS410 ,CICS=410,DATE=1995/12/12,TIME=05:00:06,TERM=R001,NAME=UNICOM

- 0 - PROFILE.....UNIMON/CICS USER PROFILE
- 1 - CICS/VSE.....DISPLAY CICS/VSE STATISTICS
- 2 - TASKS.....DISPLAY CICS/VSE TASKS
- 3 - STORAGE.....DISPLAY STORAGE UTILIZATION
- 4 - RESOURCE.....DISPLAY RESOURCE STATISTICS
- 5 - DATA AREA.....DISPLAY SYSTEM CONTROL BLOCKS
- 6 - SERVICE AID.....DEBUGGING AND TROUBLE SHOOTING
- 7 - MESSAGES.....DISPLAY MESSAGES AND ABEND CODES
- 8 - SECURITY.....DISPLAY/ADD/UPDATE/DELETE SECURITY
- D - SUPERMON/CICS.....SUPERMON/CICS
- E - AUTOMON/CICS.....AUTOMON/CICS
- F - IVP.....PRODUCT INSTALLATION VERIFICATION PROCEDURE
- X - EXIT.....END UNIMON/CICS

CSH0007I UNIMON/CICS SESSION START. DATE=1995/12/12,TIME=05:00:06,TERM=R001  
PF1=N/A PF2=PRINT PF3/PA1/CLEAR=EXIT

**Figure 4-1. UNIMON/CICS Session Menu**

---

### 4.1.1. Option "0": AUTOMON/CICS Control Blocks

Panels located under option 0 "*PROFILE*" allow users to make dynamic changes to the AUTOMON/CICS control blocks which are loaded when the AUTOMON/CICS subtask is attached. This group of panels will contain the current settings in effect for this session of AUTOMON/CICS.

Changes made to the AUTOMON/CICS control blocks from any "*PROFILE*" subpanel will be effective immediately. However, be aware that changes made from these panels are only made in virtual storage, therefore, these changes are only effective for the current session of AUTOMON/CICS. These panels allow users to test the results of changes to any of the AUTOMON/CICS tables prior to implementing these changes on a permanent basis.

On entry to any of the "*PROFILE*" subpanels, all the current settings for the selected AUTOMON/CICS table will be displayed. The user may tab the cursor to any modifiable field and make changes to the table dynamically. There are certain fields which may not be modified and the cursor will skip over these fields and come to rest on the next modifiable field when the tab key is pressed.

AUTOMON/CICS requires you to press the PF06 key after you have changed the values in any of the modifiable fields for the changes to be effective. This is done in an effort to prevent an accidental change to any field in the active AUTOMON/CICS control tables.

---

## 4.1.2. Option "E": AUTOMON/CICS Table Definitions

Panels located under option E "*AUTOMON/CICS*" allow users to make permanent changes to the UMON001 system definition file. When the AUTOMON/CICS subtask is attached, the table definitions stored in this file are used to create the AUTOMON/CICS control blocks. These control blocks determine the actions AUTOMON/CICS will take. This group of panels will contain the default table definitions provided with the product as well as any user defined table definitions.

Two sets of default control tables, with the suffix of "*WN*" and "*TE*", are provided with the product. These table suffixes allow AUTOMON/CICS to run in either a "*WARNING*" or "*ACTION*" mode.

- Tables with the "*WN*" suffix contains settings which allow users to run AUTOMON/CICS in a warning-mode only state. If a user runs AUTOMON/CICS in "*WARNING*" mode, AUTOMON/CICS will report problems that it detects in the system and provide the user with valuable diagnostic information as to the cause of these problems. However, no corrective actions will be attempted by AUTOMON/CICS when the product is running in "*WARNING*" mode. In order to properly start AUTOMON/CICS in warning mode, the APPLID of the region should be defined in the AUTOMON/CICS APPLID table with an AIT table suffix of "*WN*".
- Tables with the "*TE*" suffix contain settings which allow users to run AUTOMON/CICS in an action mode state. If a user runs AUTOMON/CICS in "*ACTION*" mode, AUTOMON/CICS will report and diagnose problems that it detects in the system and take corrective actions where appropriate. The "*TE*" table suffix is the normal default of AUTOMON/CICS. This means that AUTOMON/CICS will start in "*ACTION*" mode if the CICS APPLID is not defined in the AUTOMON/CICS APPLID table.



Any changes made to the AUTOMON/CICS table definitions from any subpanels in Option "E" will not take effect until the next session of AUTOMON/CICS. However, changes made from any of these subpanels will be permanently in effect once the AUTOMON/CICS session has been recycled. The user may tab the cursor to any modifiable fields and make changes to the table.

Modifications to permanent table definitions are accomplished by typing an action code, the modified value and pressing the PF06 key. There are three 1 byte action codes which are available to make modifications to any given AUTOMON/CICS table definition. These action codes are "A" for ADD, "C" for CHANGE and "D" for DELETE. Users can modify the AUTOMON/CICS system definition tables by performing the following steps.

1. Code the appropriate action code on the underscore in front of the AUTOMON/CICS table definition. If you are adding a table definition, you may code an "A" in front of any existing table definition.
2. Change any of the user definable fields to the desired value.
3. Press the PF06 key to perform the change request.

---

### 4.1.3. Starting and Stopping the AUTOMON/CICS Subtask

As mentioned previously, all changes made through option E "AUTOMON/CICS" subpanels will not take effect until the next session of AUTOMON/CICS. A session of AUTOMON/CICS consists of the time between the attach of the AUTOMON/CICS subtask and the time the subtask is detached. There are three ways in which you can turn AUTOMON/CICS ON and OFF.

1. Define CSHAPLP as the last program in the PLTPI and the first program in the PLTSD. Sample sources for the PLT definitions are provided in AUTOMON.INSTLIB.
2. There are two utility transactions provided to start and stop the AUTOMON/CICS subtask. The "AON" transaction will start the AUTOMON/CICS subtask and the "AOFF" transaction will terminate the AUTOMON/CICS subtask.
3. The active indicator may be changed in the AUTOMON/CICS STATUS panel(=0.1).

---

## 4.2. Customization Steps

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AUTOMON/CICS is shipped with two sets of default table definitions. These definitions were created to provide increased productivity and availability in any CICS region. However, each user's environment is designed differently. Therefore, the user may be able to further optimize their AUTOMON/CICS functions by customizing AUTOMON/CICS to their environment. Customization usually involves creating new table definitions or updating the control tables default table definitions. These definitions are tailored by users to fit into the individual needs of their environment. This section will discuss some of the key parameters which are most commonly modified to optimize the performance of AUTOMON/CICS. Please refer to the AUTOMON/CICS Users Guide for a detailed description of all the parameters in the AUTOMON/CICS tables.



If the VTAM APPLID of this address space is not defined in the AUTOMON/CICS APPLID table, the default AIT table suffix assigned is "TE". This means that by default the AUTOMON/CICS subtask will start in "ACTION" mode if APPLID of the region is not defined in the APPLID table.

It is strongly recommended that users start AUTOMON/CICS in "WARNING" mode in a production environment. The user should then monitor messages produced by AUTOMON/CICS for at least a few days to see what types of customization may be necessary before the product is started in "ACTION" mode.

To start AUTOMON/CICS in warning mode, simply add the APPLID of the region in the AUTOMON/CICS APPLID table with a table suffix of "WN" as shown above. In this display an APPLID of PRODCICS is being added to the AUTOMON/CICS APPLID table. The user has coded an action code of "a" on the first entry in the table and overtyped the default APPLID of CICSPROD with the APPLID of PRODCICS. The APPLID table entry of PRODCICS with an AIT table suffix of "WN" will be added to the AUTOMON/CICS APPLID table after the user presses the PF06 key.

All AUTOMON/CICS table definitions are stored in the UMON001 file defined to the region. The UMON001 file is sharable by multiple CICS regions. Therefore, you may pre-define the APPLID table entry from any region which is sharing the UMON001 file.



## ***WTO/AUX***

When AUTOMON/CICS produces messages, the messages are initially written to the core log. Once the messages have been written to the core log, two fields determine where the AUTOMON/CICS messages will be permanently stored. These two fields are the "*AUX*" field and the "*WTO*" field.

The "*AUX*" field may be set to either "*ON*" or "*OFF*". This field controls whether messages will be written to the AUTOMON/CICS history file defined by the DD card AMON001. AUTOMON/CICS uses the internal "AMON" transaction to write its messages from the core log to the history file. The AUTOMON/CICS messages are an extremely important part of this product, the "*AUX*" field should always be set to "*ON*".

The "*WTO*" field may be set to either "*ON*", "*WTL*" or "*OFF*".

When the "*WTO*" field is set to "*ON*", then all AUTOMON/CICS core log messages are also written to the MVS SYSLOG before they are written to the AUTOMON History file. This is done for two reasons:

1. It allows the user to interface with any other automation products at their installation by intercepting the WTO messages.
2. AUTOMON/CICS uses a CICS transaction to write its messages to the AMON001 History file. In the event that CICS is having trouble, in certain situations, some AUTOMON/CICS messages may not be written to the history file because CICS was unable to perform the file control write request at the time of trouble. This duplication of AUTOMON/CICS messages ensures that diagnostic information will always be available to the user.

When the "*WTO*" field is set to "*ON*", all AUTOMON/CICS messages are also sent to the CONSOLE. If you do not want your operators to see AUTOMON/CICS messages, set the "*WTO*" field to "*WTL*"(Write To Log). In this case, AUTOMON/CICS messages will be duplicated in the System log but will not show up on the system console.

When the "*WTO*" field is set to "*OFF*" then neither of the above actions will take place. Please note that if this field is set to "*OFF*" the possibility exists that some data may be lost if CICS is not able to write the AUTOMON/CICS messages to the AMON001 History file.

## ***THT***

The "*THT*" field is used to specify what table suffix will be used by AUTOMON/CICS when it build control blocks for 4 of the AUTOMON/CICS tables. These 4 tables include the AUTOMON/CICS Threshold table(*THT*), AUTOMON/CICS Exception table(*EXC*), AUTOMON/CICS Degradation table(*DEG*) and the AUTOMON/CICS System Recovery Table(*SRT*). Once a table suffix value is specified in this field, all of the four above tables will be using the same suffix. Users need to verify the existence of these tables. For example, when the user creates a new *THT* table with the suffix of 'AA' and assigns this suffix in this field, the user should also create the other three tables, *EXC*, *DEG*, & *SRT*, with the same suffix of 'AA'. For further details on creating new tables please refer to section 4.2.8.

## ***XLT1/XLP1/XLT2/XLP2***

AUTOMON/CICS allows you to specify transactions and or programs in special exclusion list tables(*XLT*). There are two main reasons that the user may wish to define a transaction in one of the AUTOMON/CICS Exclusion List Tables.

1. You may wish to exclude a transaction or program from one of AUTOMON/CICS purge actions.
2. You may wish to define spacial warning and action thresholds for a transaction or program which are different from the global notification and action thresholds set in the AUTOMON/CICS Threshold table (*THT*).

The *AIT* table has 4 fields which allow the user to specify table suffixes for exceptions to the global action thresholds in the *THT* table. These 4 fields are "*XLT1*", "*XLP1*", "*XLT2*" and "*XLP2*".

"*XLT1*" - Determines which *XLT* table suffix will be used to define action thresholds for AUTOMON/CICS's looping mechanism on a transaction ID basis.

"*XLP1*" - Determines which *XLT* table suffix will be used to define action thresholds for AUTOMON/CICS's looping mechanism on a program name basis.

"*XLT2*" - Determines which *XLT* table suffix will be used to define action thresholds for AUTOMON/CICS's storage high water mark mechanism on a transaction ID basis.

"*XLP2*" - Determines which *XLT* table suffix will be used to define action thresholds for AUTOMON/CICS's storage high water mark mechanism on a program name basis.



### 4.2.3. AUTOMON/CICS XLT Table(=E.4)

The AUTOMON/CICS XLT table allows the user to define sets of transactions or programs to be exempted from the AUTOMON/CICS global action mechanisms. In addition, this table allows users to assign warning and action thresholds to transactions and programs which will override the global notification and action thresholds defined in the AUTOMON/CICS THT table. These entries are associated with an XLT table suffix. The AIT table entry determines which XLT table suffix is used to make the exceptions to AUTOMON/CICS's global warning and action mechanisms.

```

ENTER COMMAND => _____ ***EXCLUDE LIST TABLE*** UNIMON/CICS V420
APPLID=CICS410 ,CICS=410,DATE=1997/09/24,TIME=11:46:32,TERM=0059,NAME=UNICOM
  XLT TRAN/PGM MASTER_WARNING_ACTION _WARNING _ACTION_
- P1 CSHAMPC      ON      ON      ON          0          0
- P2 CSHAMPC      ON      ON      ON          0          0
- T1 CDB*         ON      ON      ON          0          0
- T1 CSKC         ON      ON      ON          0          0
- T1 CSNE         ON      ON      ON          0          0
- T1 CSTP         ON      ON      ON          0          0
- T1 DSNC         ON      ON      ON          0          0
- T1 I$$Q         ON      ON      ON          0          0
- T1 IESO         ON      ON      ON          0          0
- T1 IESX         ON      ON      ON          0          0
- T1 JNL2         ON      ON      ON          0          0
- T1 MCI1         ON      ON      ON          0          0
- T1 MCI2         ON      ON      ON          10         0
- T1 MCI3         ON      ON      ON          0          200
- T1 MCX*         ON      ON      ON          0          0
- T1 TM*          ON      ON      ON          0          0
- T1 U$AM         ON      ON      ON          0          0
- T1 U*           ON      ON      ON          10         0
- T2 AMON         ON      ON      ON          0          0

PF1=N/A PF2=PRT PF3=RET PF4=MENU PF5=FOUND PF6=CHANGE PF7=UP PF8=DN PF9=REFRESH

```

Figure 4-4. Exclude List Table

There are a set of rules which apply to the XLT table flags and thresholds. These rules are summarized below.

- 1) If the master flag is 'OFF' in an XLT entry, then no XLT processing will be performed for the transaction or program in the XLT entry.
- 2) If an XLT warning threshold is less than the global AUTOMON/CICS THT notification threshold, the global notification threshold will be used.
- 3) If an XLT action threshold is less than the global AUTOMON/CICS THT notification threshold, the global notification threshold will be used.
- 4) If the XLT warning flag is 'ON' and the XLT warning threshold is '0' then no warning message will be issued by AUTOMON/CICS.
- 5) If the XLT action flag is 'ON' and the XLT action threshold is '0' then AUTOMON/CICS will issue a \*BYPASS\* message when the global action threshold is reached.
- 6) If the XLT action flag is 'ON' and the XLT action threshold is '0' then SOS action for the specified transaction or program will be ignored.(XLT2 and XLP2 only)
- 7) If the XLT action flag is 'ON' and the XLT action threshold is non-zero then SOS action for the specified transaction or program will be taken.(XLT2 and XLP2 only)
- 8) If the PPT/PLCB pointer to the program is zero, then the program XLT process will be ignored.

AUTOMON/CICS is shipped with 4 pre-coded XLT tables. These XLT tables are table suffixes P1, T1, P2 and T2. The XLT table suffixes used by AUTOMON/CICS are defined in the AIT table.

To illustrate how the XLT works, the T1 XLT table will be used as an example. The default AIT suffix of "TE" has the XLT table suffix of T1 for its "XLT1" field. This indicates that the entries in the T1 XLT table will be transactions excluded from AUTOMON/CICS's global looping threshold defined in the THT table.

AIT	RETRY	WTO-IGNOR-MAX	AUX	LOG	THT	XLT1	XLP1	XLT2	XLP2	SV	AMXT	SCS	LACCDATE
_ TE	20	ON 100	10000	ON 400	TE	T1	P1	T2	P2	A 4	ON	ON	1995/12/12

**Figure 4-5. XLT Table Suffix**

The T1 XLT entry for the DSNC transaction has been defined with both warning and action thresholds of 0. If you define a transaction/program with a threshold value of zero in any of the XLT tables, the transaction or program will be exempted from the AUTOMON/CICS warning or action associated with the table. In this case if the DSNC transaction went into a loop:

- 1) No warning message would be issued when the global notification threshold was exceeded in the AUTOMON/CICS THT table.
- 2) The DSNC transaction is excluded from the looping action mechanism of AUTOMON/CICS when the global action threshold is exceeded in the AUTOMON/CICS THT table.
- 3) A LOOP *\*BYPASS\** message will be issued by AUTOMON/CICS when the DSNC reaches the global action threshold to indicate that the transaction would have been purged by AUTOMON/CICS had it not been defined in the XLT1 table. To avoid the *\*BYPASS\** message completely change the XLT threshold to a very large number. Valid XLT threshold values are between 0 and 99999998.

XLT	TRAN/PGM	MASTER_WARNING_ACTION	_WARNING_	_ACTION_
_ T1	DSNC	ON	ON	ON
			0	0

**Figure 4-6. T1 XLT Entry**

The user may insert a wildcard character of "\*" at the end of the *"TRAN/PGM"* field to exclude a group of transactions/programs from the action mechanisms of AUTOMON/CICS. The following example illustrates how a wildcard of "\*" may be used to exclude all transactions which start with the character string of "CS"(and are at least 3 characters long) may be excluded from the looping action mechanism of AUTOMON/CICS.

XLT	TRAN/PGM	MASTER_WARNING_ACTION	_WARNING_	_ACTION_
_ T1	CS*	ON	ON	ON
			0	0

**Figure 4-7. TRAN/PGM Wildcard**

The user may assign a warning and/or action threshold which is different than the global action threshold defined in the AUTOMON/CICS Threshold (THT) table. The following T1 XLT definition will set the warning and action thresholds for the SAMP transaction to 500 and 600 seconds. The global notification and action thresholds set in the THT table are 20 and 180 seconds in the TE THT table. If the SAMP transaction was not defined in the T1 XLT table, AUTOMON/CICS would issue warning messages for the SAMP transaction beginning at the time the transaction either held exclusive control of the task dispatcher for 20 second or accumulated 20 seconds of CPU time. These warning messages would be issued periodically until the global loop action threshold was reached. At this point AUTOMON/CICS would purge the SAMP transaction with a UAMA or UAMB abend code. With the SAMP entry in the T1 XLT (shown below), the XLT warning threshold of 500 seconds will override the 20 second threshold in the AUTOMON/CICS THT and the XLT action threshold of 600 second, will override the global action threshold of 180 cpu seconds in the THT. Therefore, with this entry defined in the T1 XLT table, AUTOMON/CICS will not take any action to purge the transaction until the transaction has run for more than 600 cpu seconds and no warning messages will be issued by AUTOMON/CICS until the transaction has run for more than 500 seconds.

XLT	TRAN/PGM	MASTER_WARNING_ACTION	_WARNING	_ACTION_
_ T1	SAMP	ON	ON	ON
			500	600

**Figure 4-8. Entry in T1 XLT**

**Note:**

An entry may also be defined in one of the XLT tables which has a threshold lower than the action threshold defined in the AUTOMON/CICS THT table. However, if the threshold is defined lower than the global warning threshold, then AUTOMON/CICS will not take any action until the transaction/program reaches the global warning threshold.

## 4.2.4. AUTOMON/CICS THT Table(=E.5)

The AUTOMON/CICS XLT table is a very important table when customizing AUTOMON/CICS to your environment. This table allows users to control the frequency with which AUTOMON/CICS will check the system as well as the global warning and action thresholds for various AUTOMON/CICS mechanisms. This panel also allows users to selectively turn on or off many of the features of AUTOMON/CICS.

ENTER COMMAND =>		***THRESHOLD TABLE***					UNIMON/CICS V420		
APPLID=CICS410		,CICS=410,DATE=1995/12/12,TIME=08:30:05,TERM=R001,NAME=UNICOM							
THT									
TE	ITEM	FLAGS	CYCLE	NOTIFY	ACTION	ITEM	FLG	CYCLE	
	LOOP	0 0 0	---	20	180	VSAM STRING WAIT	0	60	
	STOR HWM	0 0 0	30	300000	750000	VTAM TERMNL WAIT	0	60	
	MXT	F 0 0	30	32	490	JOURNAL SWITCH	0	60	
	TS HWM	0 - -	60	98 %	---	EXCEPTIONAL	0	60	
	SOS	0 0 0	---	---	60	DEGRADATIONAL	0	60	
	PER DATA	0 - -	---	32000	---				
WN	ITEM	FLAGS	CYCLE	NOTIFY	ACTION	ITEM	FLG	CYCLE	
	LOOP	0 0 F	---	20	180	VSAM STRING WAIT	0	60	
	STOR HWM	0 0 F	30	300000	750000	VTAM TERMNL WAIT	0	60	
	MXT	F 0 0	30	32	490	JOURNAL SWITCH	0	60	
	TS HWM	0 - -	60	98 %	---	EXCEPTIONAL	0	60	
	SOS	0 0 F	---	---	60	DEGRADATIONAL	0	60	
	PER DATA	0 - -	---	32000	---				

PF1=N/A PF2=PRT PF3=RET PF4=MENU PF5=FIND PF6=CHANGE PF7=UP PF8=DN PF9=REFRESH

Figure 4-9. Threshold Table

### FLAGS

The first important item to notice in this panel is the "FLAGS" field. There are 3 user definable flags in this field which from left to right are named the Master flag, Notify flag and Action flag.

The Master flag has two possible values, O for ON and F for OFF. This flag is used to turn a particular AUTOMON/CICS function ON or OFF. When the Master flag is set to OFF, it overrides the settings in the Notify and Action flags.

The Notify flag has two possible values, O for ON and F for OFF. If the Notify and the Master flags are both ON, AUTOMON will produce a warning message whenever the notification threshold has been exceeded. In the example below, if a transaction is running for longer than 20 cpu seconds, AUTOMON/CICS will produce a warning message. During the IVP, a looping condition in the UMON transaction was created. The CSH6200W message was written to the AMON001 History file when the UMON transaction's cpu usage exceeded the global warning threshold defined in the "NOTIFY" field of the LOOP feature.

_	TE	ITEM	FLAGS	CYCLE	NOTIFY	ACTION	ITEM	FLG	CYCLE
		LOOP	O O O	---	20	180	VSAM STRING WAIT	O	60
CSH6200W-LOOP/WAIT DETECTION. TRAN=UMON,PGM=CSHPCF0 ,ID= 27,TRM=RR01									

**Figure 4-10. Notify Flag**

The Action flag has two possible values, O for ON and F for OFF. If the Action and the Master flags are both ON, AUTOMON will purge a transaction if it exceeds the global action threshold defined in the "ACTION" field. In the example below, if a transaction is running for longer than 180 cpu seconds, AUTOMON/CICS will purge the looping transaction. An action message will be written to the AMON001 History file indicating the transaction purged by AUTOMON/CICS as well as the reason that the transaction was purges. In the IVP you created a looping condition in the UMON transaction. The CSH6201A message was written to the AMON001 History file when the UMON transaction exceeded the global action threshold defined in the "ACTION" field of the LOOP record.

_	TE	ITEM	FLAGS	CYCLE	NOTIFY	ACTION	ITEM	FLG	CYCLE
		LOOP	O O O	---	20	180	VSAM STRING WAIT	O	60
CSH6201A-*ACTION* LOOP. TRAN=UMON,PGM=CSHPCF0 ,ID= 27,TRM=RR01,ABCD=UAMB									

**Figure 4-11. Action Flag**

### ***CYCLE***

The "*CYCLE*" field allows users to set the frequency with which AUTOMON/CICS will perform its functions. Some AUTOMON/CICS functions have their own default values and are not user definable. Your cursor will skip the "*CYCLE*" field if attempt to tab to and modify the cycle field for this type of item. However, the majority of items in this table allow the user to set the "*CYCLE*" to a different value. All values listed in the "*CYCLE*" field are in seconds.

### ***NOTIFY***

The "*NOTIFY*" field is used to specify the global warning threshold for AUTOMON/CICS functions. When this threshold has been exceeded and the flag setting for notification is ON, a message will be written to the AUTOMON/CICS History File.

The values set for the global notify threshold for LOOP and STOR HWM impacts how AUTOMON/CICS handles user defined XLT settings. AUTOMON/CICS will not take any actions to purge a transaction until, at least, the global warning threshold set in the "NOTIFY" field for these two items has been reached.

Assume that a transaction SAMP has been defined in the XLT1 table suffix with a value of 10 cpu seconds. Also assume that the global warning threshold is set to 20 cpu seconds for AUTOMON/CICS's looping mechanism. Even though the SAMP transaction exceeds 10 cpu seconds, AUTOMON/CICS will not purge the transaction until the transaction accumulates 20 seconds of cpu time. In order to kill the transaction at 10 cpu seconds the value set in the "NOTIFY" field for the LOOP item must be 10 or less.

### ***Customizing Threshold Values Using "NOTIFY"***

To customize the threshold values to fit into an individual user's environment, users need to have good transaction profile information. User may easily produce a transaction profile for a CICS region by adjusting the "NOTIFY" thresholds while in warning mode. As an example, suppose a user wished to produce a storage usage profile of the transactions in a particular region. The user could start by setting the "NOTIFY" threshold of the STOR HWM (Storage High Water Mark) ITEM to 100000 bytes. If the user let AUTOMON/CICS run for a few days, they could then use the AUTOMON/CICS batch utility job to get a listing of all the transactions which consume more than 100000 bytes of storage.

The user could then set a new warning threshold of 200,000 bytes and repeat the process of collecting and reporting the data. This second list would only contain the names of transactions using more than 200000 bytes of storage. Therefore, any transactions that appear in the first report but not found on the report would normally be consuming between 100,000 and 200,000 bytes of storage.

Repeating this process a number of times would produce a good transaction profile for the region. Once the transaction profile has been produced, users can assign appropriate "NOTIFY" and "ACTION" threshold values for their individual CICS regions. This process could be used to customize any of the other AUTOMON/CICS features.

### ***ACTION***

The "ACTION" field is used to specify the global action threshold for AUTOMON/CICS functions. When this threshold value has been exceeded and the flag setting for action is ON, AUTOMON/CICS will take the action which corresponds to the listed item. The only exception to this rule applies to transaction/programs listed in one of the AUTOMON/CICS XLT tables.



### ***ITEM***

This section will describe the AUTOMON/CICS functions which apply to each of the "ITEM" records listed in the AUTOMON/CICS THT table.

### **LOOP**

The **LOOP** related functions of AUTOMON/CICS apply to transactions or programs which hold control of CICS for longer than the global thresholds defined in the "*NOTIFY*" and "*ACTION*" fields. The value specified for these **LOOP** fields are in cpu seconds. If the user is running CICS with the monitoring facility(CMF) ON in class PERFORMANCE, AUTOMON/CICS will also check the accumulated cpu time of the transaction/program against the global threshold values. When the global **LOOP** notification threshold has been exceeded, AUTOMON/CICS will issue the warning message CSH6200W. When the global action threshold has been exceeded, AUTOMON/CICS will issue the action message CSH6201A. This message indicates that AUTOMON/CICS is purging the named transaction. AUTOMON/CICS will abend the transaction with either a UAMA, UAMB or UAMK abend code.

Any transactions/programs specified in the XLT tables will not be governed by the global action threshold. Transactions/programs specified in the XLT tables will either be bypassed if the XLT threshold is zero; or be purged when the threshold specified in the XLT table has been exceeded.

## **STOR HWM**

The **STOR HWM** related functions of AUTOMON/CICS apply to transactions or programs whose storage usage exceeds the global thresholds defined in the "*NOTIFY*" and "*ACTION*" fields. The value specified for these **STOR HWM** fields are in bytes. When the global **STOR HWM** notification threshold has been exceeded, AUTOMON/CICS will issue the warning message CSH6300W. When the global action threshold has been exceeded, AUTOMON/CICS will issue the action message CSH6301A. This message indicates that AUTOMON/CICS is purging the named transaction. AUTOMON/CICS will abend the transaction with either a UAMC or UAMD abend code.

Any transactions/programs specified in the XLT tables will not be governed by the global action threshold. Transactions/programs specified in the XLT tables will either be bypassed if the XLT threshold is zero; or be purged when the threshold specified in the XLT table has been exceeded.

## **MXT**

The **MXT** related functions of AUTOMON/CICS are designed to increase transaction throughput by balancing the transaction workload with available CICS resources. CICS requires the user to specify a MXT value in the CICS SIT table.

The value specified in the SIT is the best possible value for the full range of workloads the CICS region is likely to experience. However, because the workload of CICS is not static, the MXT value chosen for the SIT may not be the best possible value at any given time. The AUTOMON/CICS MXT function is designed to set the MXT to a value which will optimize CICS transaction throughput and performance at any given time.

In the case of a SOS condition, AUTOMON/CICS will lower the MXT value to limit incoming transactions to the system. This will allow CICS to better handle the stress condition it is experiencing. At other times, there may be unused DSA in the system which could handle additional transactions, but the MXT value may have already been reached. AUTOMON/CICS will dynamically adjust the MXT value, so no new transactions are allowed into the system. The AUTOMON/CICS MXT functions could be thought of as a CICS traffic cop which will direct CICS traffic to prevent a traffic jam.

The "*NOTIFY*" and "*ACTION*" fields for this item are actually the minimum and maximum values within which the MXT value is to be adjusted. As each user's environment is different, this range of MXT values will vary from one installation to another. When the AUTOMON/CICS tape is installed, the Master flag for this feature is initially turned OFF.

If the user elects to use this feature, it is recommended that the "*ACTION*" value be set initially 10% higher than MXT value specified in the SIT. The user should then monitor the region and adjust this value up or down based on the observed results.

### **TS HWM**

The **TS HWM** feature of AUTOMON/CICS will issue the warning message CSH6403W whenever the percentage of AUX temporary storage usage exceeds the value specified in the "*NOTIFY*" field for this item. As with all AUTOMON/CICS messages, this message is produced with a time stamp which indicates when the TS storage usage reached this level. If the user is not sure of their current AUX TS usage the notify threshold may be lowered until this message is found in the AUTOMON/CICS history log.

## **SOS**

The **SOS** feature of AUTOMON/CICS is designed to recover from an SOS condition in the event that the CICS mechanism is unable to recover from the stress condition on its own. When CICS goes short on storage a bit is turned on in the CSA. When this bit is on and the user has activated the MXT feature of AUTOMON/CICS, the MXT value will be lowered to limit the number of transactions in the system. AUTOMON/CICS will then wait for the interval defined in the "*ACTION*" field for this item to expire before it takes any further actions. If the SOS bit in the CSA is still on after the "*ACTION*" interval expires, AUTOMON/CICS will assume that CICS is unable to recover from this stress condition. AUTOMON will then scan through the task chain and determine which transactions should be purged to relieve the stress condition.

If AUTOMON/CICS is able to relieve the stress condition, AUTOMON will increase the storage cushion size by 4K to allow CICS to better handle the next stress condition it encounters.

## **PER DATA**

Every time the interval specified in the "*NOTIFY*" field expires, the number of units processing successfully completed per second will be reported by AUTOMON/CICS. The data such as recording unit time, current rate, average rate, high water mark, and high water mark time will be reported by transaction, file I/O, VTAM transmissions, and AUX temporary storage requests. The current level of MAIN temporary storage usage as well as the high water mark for MAIN TS usage is also displayed in every interval.

## **VSAM STRING WAIT**

AUTOMON/CICS detects all VSAM string wait conditions occurring in the region at its detection cycle. If a VSAM string wait condition occurred, AUTOMON/CICS will issue a set of warning messages. These messages will indicate the tasks that are holding the strings and those tasks that are waiting for a string. These messages provide users with valuable information in solving their string wait problems.

The frequency that AUTOMON/CICS performs the VSAM string wait checking is controlled by the "*CYCLE*" field.

## **VTAM TERMNL WAIT**

AUTOMON/CICS performs the VTAM terminal wait condition checking based on the time specified in the "*CYCLE*" field. If a MRO/ISC link was hanging for longer than the interval specified in the "*CYCLE*" field, AUTOMON/CICS will issue a VTAM terminal pending message with a type of ISC.

If a LU type 2 device was hanging for longer than the interval specified in the "*CYCLE*" field, AUTOMON/CICS will issue a VTAM terminal pending message with a type of TERM.

The frequency that AUTOMON/CICS performs the VTAM terminal wait checking is controlled by the "*CYCLE*" field.

## 4.2.5. AUTOMON/CICS EXC Table(=E.6)

The AUTOMON/CICS EXC table is designed to produce warning messages which will show exceptional conditions on various resource usage in the system. These warning messages are identified by the characters "(EXC)" following the AUTOMON/CICS message ID. The default values shipped with the product are generally quite good for most CICS environments. It is normal to see these messages appear in the AUTOMON/CICS History log from time to time. However, if one of these warning messages appears in the History log frequently, this message should be investigated. Most of the items specified in the AUTOMON/CICS EXC table are explained in the CICS Performance Guide. Refer to this IBM manual for recommended actions for the user's CICS release.

```

ENTER COMMAND => _____ ***EXC THRESHOLD TABLE*** UNIMON/CICS V420
APPLID=CICS410 ,CICS=410,DATE=1995/12/12,TIME=08:33:00,TERM=R001,NAME=UNICOM
  
```

EXC	ITEM	THREADS	ITEM	THREADS	ITEM	THREADS
- TE	D	98 %	CON SUBPOOL	30 %	TP SUBPOOL	30 %
	MIX SUBPOOL	30 %	ISO SUBPOOL	40 %	SHR SUBPOOL	60 %
	RPL SUBPOOL	30 %	PGM SUBPOOL	90 %	SOS	5
	STORAGE Q"D	1	STOR Q HWM	1	STOR Q ZERO	1
	GETMAIN	500000	FREEMAIN	500000	AMXT HWM	1
	RUNAWAY HWM	1	TOTAL TASKS	10000	VTAM RA RPL	1000
	ACT RA RPL	10	FREE RPL"S	1		
WN	DSA	98 %	CON SUBPOOL	30 %	TP SUBPOOL	30 %
	MIX SUBPOOL	30 %	ISO SUBPOOL	40 %	SHR SUBPOOL	60 %
	RPL SUBPOOL	30 %	PGM SUBPOOL	90 %	SOS	5
	STORAGE Q"D	1	STOR Q HWM	1	STOR Q ZERO	1
	GETMAIN	500000	FREEMAIN	500000	AMXT HWM	1
	RUNAWAY HWM	1	TOTAL TASKS	10000	VTAM RA RPL	1000
	ACT RA RPL	10	FREE RPL"S	1		

```

PF1=N/A PF2=PRT PF3=RET PF4=MENU PF5=FIND PF6=CHANGE PF7=UP PF8=DN PF9=REFRESH
  
```

Figure 4-12. EXT Threshold Table

---

## 4.2.6. AUTOMON/CICS DEG Table(=E.7)

The AUTOMON/CICS DEG table is designed to produce warning messages which will indicate degradational or bottleneck conditions which have developed within the system. These warning messages are identified by the characters "(DEG)" following the AUTOMON/CICS message ID. The default values shipped with the product are generally quite good for most CICS environments. It is normal to see these messages appear in the AUTOMON/CICS History log from time to time. However, if one of these warning messages appears in the History log frequently, this message should be investigated. Most of the items specified in the AUTOMON/CICS EXC table are explained in the CICS Problem Determination Guide. Refer to this IBM manual for recommended actions for the user's CICS release.

The AUTOMON/CICS THT table contains a **DEGRADATIONAL** item. The "*CYCLE*" field in the THT table for this item determines how often AUTOMON/CICS will go through the task chain in an effort to identify bottleneck conditions. As AUTOMON/CICS scans through the task chain, it will identify the type of wait or request associated with each task in the system. Each type of wait or request condition that is identified is accumulated in a bucket by AUTOMON/CICS. When the total number of tasks accumulated in the same type of wait or request bucket reaches the threshold defined in the "*THRED*" field, an AUTOMON/CICS warning message will be issued to the History log.

ENTER COMMAND => \_\_\_\_\_ \*\*\*DEG THRESHOLD TABLE\*\*\* UNIMON/CICS V420  
 APPLID=CICS410 ,CICS=410,DATE=1995/12/12,TIME=08:36:13,TERM=R001,NAME=UNICOM

DEG	ITEM	THRED	ITEM	THRED	ITEM	THRED	ITEM	THRED
- TE	ACT TASKS	40	TS WAIT	1	ECB LIST	10	DFHPC REQ	10
	SUS TASKS	40	STOR WAIT	1	CICS WAIT	30	DFHSC REQ	10
	NON-DSPTR	10	ENQ WAIT	1	BMS REQ	40	DFHTC REQ	40
	DISPATCHR	10	FILE I/O	5	DL/I REQ	10	DFHTD REQ	10
	AMXT WAIT	1	PAGE WAIT	1	DFHDI REQ	10	DFHTS REQ	10
	CMXT WAIT	1	SRB MODE	1	DFHFC REQ	10	TERM WAIT	40
	DFHIC WT	10	ECB WAIT	10	DFHIC REQ	10	DFHDC REQ	10
	- WN	ACT TASKS	40	TS WAIT	1	ECB LIST	10	DFHPC REQ
SUS TASKS		40	STOR WAIT	1	CICS WAIT	30	DFHSC REQ	10
NON-DSPTR		10	ENQ WAIT	1	BMS REQ	40	DFHTC REQ	40
DISPATCHR		10	FILE I/O	5	DL/I REQ	10	DFHTD REQ	10
AMXT WAIT		1	PAGE WAIT	1	DFHDI REQ	10	DFHTS REQ	10
CMXT WAIT		1	SRB MODE	1	DFHFC REQ	10	TERM WAIT	40
DFHIC WT		10	ECB WAIT	10	DFHIC REQ	10	DFHDC REQ	10

PF1=N/A PF2=PRT PF3=RET PF4=MENU PF5=FIND PF6=CHANGE PF7=UP PF8=DN PF9=REFRESH

**Figure 4-13. DEG Threshold Table**



## 4.2.7. AUTOMON/CICS SRT Table(=E.8)

The AUTOMON/CICS System Recovery Table is called by AUTOMON/CICS when a storage violation or system crash condition is detected by AUTOMON/CICS. The AUTOMON/CICS System Recovery Program (CSHASRP) will receive control when the above condition happened. CSHASRP will notify the operator immediately, suspend the CICS TCB and performs eight (8) Abend recovery stages automatically to identify and potentially repair the problems. Each Abend recovery stage has its own master, notify and action flags and you may specify different combinations of flags in these stages.

```

ENTER COMMAND => _____ ***SYSTEM RECOVERY TABLE*** UNIMON/CICS V420
APPLID=CICS410 ,CICS=410,DATE=1995/12/12,TIME=08:42:40,TERM=R001,NAME=UNICOM

```

SRT	STAGE	MASTER	NOTIFY	ACTION	DESCRIPTION
- TE	1	ON	ON	OFF	DISPLAY PSW/PRODUCE A DUMP
	2	ON	ON	ON	VERIFY/REPAIR CICS/VS FOUNDATION
	3	ON	ON	ON	VERIFY/DISABLE A TRANSACTION
	4	ON	ON	ON	VERIFY/REPAIR DYNAMIC STORAGE AREA
	5	ON	ON	ON	VERIFY/REPAIR CICS/VS PROGRAMS
	6	ON	ON	ON	VERIFY/REPAIR CICS/VS TABLES
	7	ON	ON	ON	VERIFY/REPAIR CICS/VS CNTL BLOCKS
	8	ON	ON	OFF	SUMMARY REPORT/PRODUCE A DUMP
- WN	1	ON	ON	OFF	DISPLAY PSW/PRODUCE A DUMP
	2	ON	ON	OFF	VERIFY/REPAIR CICS/VS FOUNDATION
	3	ON	ON	OFF	VERIFY/DISABLE A TRANSACTION
	4	ON	ON	OFF	VERIFY/REPAIR DYNAMIC STORAGE AREA
	5	ON	ON	OFF	VERIFY/REPAIR CICS/VS PROGRAMS
	6	ON	ON	OFF	VERIFY/REPAIR CICS/VS TABLES
	7	ON	ON	OFF	VERIFY/REPAIR CICS/VS CNTL BLOCKS
	8	ON	ON	OFF	SUMMARY REPORT/PRODUCE A DUMP

```

PF1=N/A PF2=PRT PF3=RET PF4=MENU PF5=FIND PF6=CHANGE PF7=UP PF8=DN PF9=REFRESH

```

**Figure 4-14. System Recovery Table**

The Abend recovery stages that are most frequently customized by the user. Each of these stages is described below.

## **STAGE 1**

When AUTOMON/CICS recovers from a system crash condition or storage violation, more than 100 messages are usually produced to provide users with a great deal of diagnostic information. AUTOMON/CICS freezes the CICS system and goes through the control blocks at the time the condition is detected. Key information which might take a user hours to extract from a DUMP is captured and formatted by AUTOMON/CICS at machine speed. In most situations, these messages provide the user with enough information to determine the cause of the problem.

Occasionally, users may require more information to solve the problem detected by AUTOMON/CICS. In this case, users may optionally turn on the STAGE 1 action flag. When the STAGE 1 action flag is turned on, AUTOMON/CICS will take a dump when it detects a storage violation or system crash condition before the AUTOMON/CICS subtask attempts any repairs. For MVS users, when the UCCF/Server is active, AUTOMON/CICS will generate an MVS System SVC Dump. When UCCF/Server is inactive, AUTOMON/CICS will produce a SNAP dump, written to the AMON002 DD card. For VSE users, this SNAP dump will be written to SYSLST.

## **STAGE 3**

In the case of a SYSTEM CRASH condition, the action flag for STAGE 3 of the SRT will determine whether to disable the transaction causing the crash condition. This action is taken in an effort to prevent other users from creating another system crash once AUTOMON/CICS has recovered the system. This gives system programmers time to correct the problem transaction without jeopardizing the integrity of the system.

Some users may have an "umbrella" transaction that all users sign on to. This type of transaction usually provides users with a master menu when the "umbrella" transaction is entered. Then, users select subfunctions from this master menu. If an "umbrella" transaction is involved in a system crash, disabling the transaction is effectively the same as bringing the region down. If this type of a transaction exists in the user's environment, the STAGE 3 action flag should be set to OFF. When the STAGE 3 action flag is off, AUTOMON/CICS will still attempt to recover from the system crash condition. However, the transaction involved in the system crash condition will not be disabled by AUTOMON/CICS.

#### **STAGE 4**

In the case of a STORAGE VIOLATION, the action flag for STAGE 4 of the SRT will determine whether to repair the SAA/SCZ header and/or trailer involved in the storage violation. Certain industries, such as the banking industry have strict provisions regarding the changing of storage within the system.

While many banks enjoy the benefits of AUTOMON/CICS's unique storage violation detection mechanism, they do not wish to have AUTOMON/CICS repair the damaged storage chains. These institutions elect to turn the STAGE 4 action flag to OFF. If the STAGE 4 action flag is OFF, AUTOMON/CICS will report the storage violation(s) detected, however the SAA/SCZ headers and trailers will not be repaired.

---

## 4.2.8. AUTOMON/CICS Customization - Review

To customize AUTOMON/CICS to an individual CICS environment, the following steps are recommended.

- 1) Add 5 new AUTOMON/CICS table definitions (AIT, THT, EXC, DEG and SRT) all with the same table suffix.
- 2) The new AIT table entry should specify this new table suffix in the "*THT*" field.
- 3) Add the APPLID of the region in which you wish to customize AUTOMON/CICS to the AUTOMON/CICS APPLID table making sure that the "*AIT*" field points to the new table suffix created.
- 4) Modify the parameters in the newly created AUTOMON/CICS table definitions to optimize the performance of AUTOMON/CICS in your environment.

---

## 4.2.9. AUTOMON/CICS Display Local Messages(=E.0)

The AUTOMON/CICS Display Local Messages screen will display the messages in the AUTOMON/CICS core log which is GETMAINED above the 16MB line. This is a wrap around table showing the latest messages produced by AUTOMON/CICS in the APPLID specified. The size of this log is determined by the "LOG" field in the AUTOMON/CICS AIT table. The "LOG" field will specify how many AUTOMON/CICS messages will fit into the core log. When the core log fills, new messages will overwrite messages at the beginning of the table.

```
ENTER COMMAND => _____ ***DISPLAY AUTOMON/CICS*** UNIMON/CICS V420
APPLID=CICS410 ,CICS=410,DATE=1995/12/15,TIME=07:07:23,TERM=R001,NAME=UNICOM
TIME -----MESSAGE-----
07:02:06 CSH6025W-*WARNING* YOU ARE LOADING A "TRIAL_VERSION" OF AUTOMON/CICS.
07:02:06 CSH6027I-*(LICENSE)* COMPANY_NAME : *TRIAL_VERSION*
07:02:06 CSH6028I-*(LICENSE)* CUSTOMER_I.D.: *TRIAL_VERSION*
07:02:06 CSH6000I-AUTOMON/CICS SUBTASK ATTACHED. AIT=TE,LOG=400,VER=C41A420-96
07:02:06 CSH6019I-AUTOMON/CICS CSHSRP ATTACHED. MAX= 20,STAGES=12345678
07:02:06 CSH6019I-AUTOMON/CICS CSHAXIP ATTACHED. MAX= 20,STAGES=12345678
07:02:07 CSH6018E-VSAM WRITE ERROR. FILE=AMON001 ,RC=ERROR
07:05:28 CSH6200W-LOOP/WAIT DETECTION. TRN=UMON,PGM=CSHPCF0 ,ID= 31,TERM=
07:05:37 CSH6205I-TASK ABENDED. TRAN=UMON,PGM=CSHPCF0 ,TERM=R001,ABCD=AICA
07:05:37 CSH6206I-PSW=8008217E,ENTRY=860856E8,OFFSET=+0000,LAN=ASSEMBLER
07:05:37 CSH6207I-OBJ=.....,RC=ABNORMAL CONDITION
07:05:37 CSH6016W-(0-5) 05BF4730 05D06200 060861DE 00118B70 80081570 800814A8
07:05:37 CSH6016W-(6-B) 00000361 060861DE 00081D74 000813C2 06031228 00054388
07:05:37 CSH6016W-(C-F) 00054080 060099D0 05D2E09F 80081570
07:05:58 CSH6100I-A SHORT-ON-STORAGE CONDITION. MXT= 32,TASKS= 13
07:05:58 CSH6107I-CICS IS UNDER STRESS. AREA=BLW_16MB
07:06:10 CSH6300W-EXCESSIVE STORAGE USAGE. TRAN=UMON,TERM=R001,STOR= 3782464
07:06:10 CSH6301A-*ACTION* STORAGE USAGE. TRAN=UMON,TERM=R001,STOR= 3782464
07:06:10 CSH6205I-TASK ABENDED. TRAN=UMON,PGM=CSHPCF0 ,TERM=R001,ABCD=AEXY

PF1=N/A PF2=PRT PF3=RET PF4=MENU PF5=FOUND PF7=UP F8=DN PF9=REFRSH PA1/CLR=EXIT
```

Figure 4-15. Local Message Display

***TIME***

This field specifies the time that AUTOMON/CICS issued the message.

***MESSAGE***

This field contains the actual AUTOMON/CICS message. It will display the AUTOMON/CICS message number followed by the corresponding message.

***Screen Actions***

PF5 - Locate  
PF7 - Page Up  
PF8 - Page Down  
PF10 - Scroll Left  
PF11 - Scroll Right

The user may enter any character string on the command line and press the PF05 key to find the first occurrence of the specified character string in the log. The search begins from the current log pointer.

The user may also type an "M" on the command line and press the PF07 or PF08 key to jump to the top or bottom of the core log.

## 4.2.10. AUTOMON/CICS Display Multi Messages(=E.1)

The AUTOMON/CICS Display Multi messages display allows the user to browse the AUTOMON/CICS History file. The AMON001 file may be shared by multiple CICS regions, therefore this display will show the AUTOMON/CICS messages of all the regions sharing this file. This can be very useful in determining problems in an MRO/ISC environment. Many times an apparent problem in one region is actually the result of a problem occurring in a different region. The ability to see all AUTOMON/CICS messages together can facilitate the debugging process in this circumstance.

```

ENTER COMMAND => _____ ***DISPLAY MULTI AUTOMON/CICS*** UNIMON/CICS V420
  APPLID=CICS410 ,CICS=410,DATE=1995/12/15,TIME=07:14:03,TERM=R001,NAME=UNICOM
  FILE AMON001 SELECT * APPLID _____ FROM 1995/12/15 00:00:00
  APPLID      DATE      TIME      MESSAGE
CICS410 1995/12/13 14:08:43 CSH6690I-AUX TS ] .00/SEC ] .00/SEC] .00/SEC]
CICS410 1995/12/13 14:08:43 CSH6691I-MAIN TS USAGE. CURRENT= 40,MAXIMUM=
CICS410 1995/12/13 18:46:39 CSH6205I-TASK ABENDED. TRAN=UMON,PGM=CSHTCP ,TERM=
CICS410 1995/12/13 18:46:39 CSH6206I-PSW=00000000,ENTRY=00115028,OFFSET=+0000,LA
CICS410 1995/12/13 18:46:39 CSH6207I-OBJ=.....,RC=ABNORMAL CONDI
CICS410 1995/12/13 18:46:39 CSH6016W-(0-5) 0000001E 06038624 000780A0 85ED3ED4 0
CICS410 1995/12/13 18:46:39 CSH6016W-(6-B) 00078338 82FFFFC4 001187A6 06038618 0
CICS410 1995/12/13 18:46:39 CSH6016W-(C-F) 00054680 80045570 85ED4744 00000000
CICS410 1995/12/13 18:46:40 CSH6405E-VTAM NODE ERROR. TERM=R002,NETNAME=TVR002
CICS410 1995/12/13 18:53:06 CSH6205I-TASK ABENDED. TRAN=UMON,PGM=CSHTCP ,TERM=
CICS410 1995/12/13 18:53:06 CSH6206I-PSW=00000000,ENTRY=00115028,OFFSET=+0000,LA
CICS410 1995/12/13 18:53:06 CSH6207I-OBJ=.....,RC=ABNORMAL CONDI
CICS410 1995/12/13 18:53:06 CSH6016W-(0-5) 0000050D 06038234 0007A5A4 85ED3ED4 0
CICS410 1995/12/13 18:53:06 CSH6016W-(6-B) 0007A338 82FFFFC4 00121E47 06038228 0
CICS410 1995/12/13 18:53:06 CSH6016W-(C-F) 00054080 80045570 85ED4744 00000000
CICS410 1995/12/13 18:53:06 CSH6405E-VTAM NODE ERROR. TERM=R001,NETNAME=TVR001
CICS410 1995/12/13 23:02:55 CSH6690I-23:02:14]..CURRENT..]..AVERAGE.]....HWM...]
CICS410 1995/12/13 23:02:55 CSH6690I-TRANS ] .00/SEC ] .00/SEC] .00/SEC]

PF1=N/A PF2=PRT PF3=RET PF4=MENU PF5=FIND PF7=UP F8=DN PF9=REFRSH PA1/CLR=EXIT
  
```

**Figure 4-16. Multi Message Display**

### ***FILE***

This field allows the user to select a file in which the DD card is pointing, allowing the user to view the selected history file.

### ***SELECT***

This field specifies the type of messages displayed. Valid select codes are A, E, I, W and \*. Code a valid select code in the field and hit the enter key.

- A - Display only AUTOMON/CICS Action messages
- E - Display only AUTOMON/CICS Error messages
- I - Display only AUTOMON/CICS Informational messages
- W - Display only AUTOMON/CICS Warning messages
- \* - Display all AUTOMON/CICS messages

### ***APPLID***

This field allows users to view only the messages generated from a particular APPLID. Enter the APPLID of the CICS region whose messages are to be viewed and hit the enter key.

### ***FROM***

The "*FROM*" field allows users to set the record pointer in the AMON001 History file to a particular date and time. Code the date and time desired and hit the enter key. AUTOMON/CICS messages will be displayed starting from the date and time specified.

### **Screen Actions**

- PF5 - Locate
- PF7 - Page Up
- PF8 - Page Down
- PF10 - Scroll Left
- PF11 - Scroll Right

The user may enter any character string on the command line and press the PF05 key to find the first occurrence of the specified character string in the file. The search begins from the current file pointer.

The user may also type an "M" on the command line and press the PF07 or PF08 key to jump to the top or bottom of the AMON001 History file.



## 4.2.11. AUTOMON/CICS Status Display(=0.1)

The AUTOMON/CICS Status display contains the current table suffixes and startup parameters which were used during the AUTOMON/CICS subtask initialization. This panel will also display the product expiration date and the Active Status of AUTOMON/CICS(Either ON or OFF). A number of fields in this display may be modified by the user. The cursor will come to rest on a modifiable field when the Tab key is pressed.

```

ENTER COMMAND => _____ ***AUTOMON/CICS STATUS*** UNIMON/CICS V420
APPLID=CICS410 ,CICS=410,DATE=1995/12/12,TIME=08:58:14,TERM=R001,NAME=UNICOM
AUTOMON/CICS _____
PRODUCT EXPIRATION DATE
1996/03/31
AUTOMON/CICS STATUS _____
ACTIVE START_UP TOTAL
INDICATOR DATE TIME MESSAGES
ON 1995/12/12 07:09:57 6

MASTER FLAG INDICATORS _____
WTO_IGNORE_MAXIMUM HISTORY_FILE VIEW LOG_TABLE_SIZE
ON 100 10000 ON AMON001 AMON001 400

AUTOMON/CICS SYSTEM TABLES _____
AIT THT XLT1 XLP1 XLT2 XLP2
TE TE T1 P1 T2 P2

ABEND_RECOVERY_RETRY_COUNT STORAGE_VIOLATION AMXT SCS
CURRENT MAXIMUM (ALL]CUR]NON) LEVEL FLAG FLAG
0 20 NON 4 ON OFF

PF1=N/A PF2=PRINT PF3=RETURN PF4=MENU PF6=CHANGE PF9=REFRESH PA1/CLEAR=EXIT

```

**Figure 4-17. AUTOMON/CICS Status**

The user may turn AUTOMON/CICS ON or OFF from this panel by overtyping the "ACTIVE INDICATOR". This allows users to recycle AUTOMON/CICS without having to leave the "UMON" transaction. This dynamic method of turning AUTOMON/CICS ON or OFF is equivalent to executing the two utility transactions "AON" and "AOFF".

Any changes made to this panel will be effective immediately, however these changes will only be effective for the current session of AUTOMON/CICS.

## 4.2.12. AUTOMON/CICS Thresholds(=0.2)

The AUTOMON/CICS Threshold display has the same look and feel as the AUTOMON/CICS Threshold table definitions in the UMON001 System file. This panel displays THT settings currently in use by AUTOMON/CICS in the region. This panel will update the AUTOMON/CICS threshold control block in virtual storage instead of the THT table definition in the UMON001 system file. Any changes made to this panel are temporary changes valid only for this session of AUTOMON/CICS. A number of fields in this display may be modified by the user. The cursor will come to rest on a modifiable field when the Tab key is pressed.

```

ENTER COMMAND => _____ ***AUTOMON/CICS THRESHOLDS*** UNIMON/CICS V420
APPLID=CICS410 ,CICS=410,DATE=1995/12/12,TIME=09:06:29,TERM=R001,NAME=UNICOM
  
```

ITEM	ACTIVE INDICATOR			CYCLE (SEC)	THRESHOLDS		DESCRIPTION
	FLAG	LOW	HIGH		NOTIFY	ACTION	
LOOP DETECTION	ON	ON	ON	---	20	180	IN SECONDS
STORAGE HWM	ON	ON	ON	30	300000	750000	IN BYTES
SHORT ON STORAGE	ON	ON	ON	---	1	60	IN SECONDS
PERFORMANCE DATA	ON	---	---	---	32000	---	IN SECONDS
VSAM STRING WAIT	ON	---	---	60	1	---	1ST CONDITION
VTAM TERMNL WAIT	ON	---	---	60	1	---	1ST CONDITION
JOURNAL SWITCH	ON	---	---	60	1	---	1ST CONDITION
AUX TEMP STORAGE	ON	---	---	60	98 %	---	PERCENTAGE
EXCEPTIONAL	ON	---	---	60	1	---	1ST CONDITION
DEGRADATIONAL	ON	---	---	60	1	---	1ST CONDITION
		FLAG	LOW HIGH	CYCLE	LOW	HIGH	
MXT	OFF	ON	ON	30	32	490	NUMBER OF TASK

```

PF1=N/A PF2=PRINT PF3=RETURN PF4=MENU PF6=CHANGE PF9=REFRESH PA1/CLEAR=EXIT
  
```

Figure 4-18. AUTOMON/CICS Thresholds

## 4.2.13. AUTOMON/CICS EXC(=0.3)

The AUTOMON/CICS EXC display has the same look and feel as the AUTOMON/CICS Exception table definitions in the UMON001 System file. This panel displays EXC settings currently in use by AUTOMON/CICS in the region. This panel will update the AUTOMON/CICS exception threshold control block in virtual storage instead of the EXC table definition in the UMON001 system file. Any changes made to this panel are temporary changes valid only for this session of AUTOMON/CICS. A number of fields in this display may be modified by the user. The cursor will come to rest on a modifiable field when the Tab key is pressed.

```

ENTER COMMAND => _____      ***EXCEPTION THRESHOLDS***      UNIMON/CICS V420
APPLID=CICS410 ,CICS=410,DATE=1995/12/12,TIME=09:13:06,TERM=R001,NAME=UNICOM
-----
| ITEM | THRESHOLD | DESCRIPTION | ITEM | THRESH | DESCRIPTION |
|-----|-----|-----|-----|-----|-----|
| SOS | 5 | NUMBER OF SOS | DSA | 98 % | STORAGE |
| STORAGE Q"D | 1 | NUMBER OF QUEUES | CON | 30 % | ALLOCATION |
| STOR Q HWM | 1 | HIGH WATER MARK | TP | 30 % | |
| STOR Q ZERO | 1 | NUMBER OF CHAINS | MIX | 30 % | |
| GETMAIN | 500000 | NUMBER OF GETMAINS | ISO | 40 % | |
| FREEMAIN | 500000 | NUMBER OF FREEMAINS | SHR | 60 % | |
| AMXT HWM | 1 | ACTIVE TASKS HWM | RPL | 30 % | |
| RUNAWAY HWM | 1 | RUNAWAY TASKS HWM | PGM | 90 % | |
| TOTAL TASKS | 10000 | TOTAL CICS/VIS TASKS | | | |
| VTAM RA RPL | 1000 | VTAM RECEIVE ANY | | | |
| ACT RA RPL | 10 | CONCURRENT RA RPL"S | | | |
| FREE RPL"S | 1 | AVAILABLE RPL"S | | | |
|-----|-----|-----|-----|-----|-----|
PF1=N/A PF2=PRINT PF3=RETURN PF4=MENU PF6=CHANGE PF9=REFRESH PA1/CLEAR=EXIT

```

Figure 4-19. Exception Thresholds

## 4.2.14. AUTOMON/CICS DEG(=0.4)

The AUTOMON/CICS DEG display has the same look and feel as the AUTOMON/CICS Degradation table definitions in the UMON001 System file. This panel displays DEG settings currently in use by AUTOMON/CICS in the region. This panel will update the AUTOMON/CICS degradation threshold control blocks in virtual storage instead of the DEG table definition in the UMON001 system file. Any changes made to this panel are temporary changes valid only for this session of AUTOMON/CICS. A number of fields in this display may be modified by the user. The cursor will come to rest on a modifiable field when the Tab key is pressed.

```

ENTER COMMAND => _____      ***DEGRADATION THRESHOLDS***      UNIMON/CICS V420
APPLID=CICS410 ,CICS=410,DATE=1995/12/12,TIME=09:17:23,TERM=R001,NAME=UNICOM
-----
| ITEM | |THRSH| | ITEM | |THRSH| | ITEM | |THRSH|
-----
| ACTIVE TASKS | 40 | TEMP STORAGE WAIT | 5 | BMS REQUESTS | 5 |
| SUSPENDED TASKS | 5 | STORAGE WAIT | 5 | DL/I REQUESTS | 5 |
| NON-DISPATCHABLE | 5 | ENQUEUE WAIT | 5 | DFHDC REQUESTS | 5 |
| DISPATCHER WAIT | 5 | FILE I/O WAIT | 5 | DFHDI REQUESTS | 5 |
| ATTACH WAIT | 5 | PAGE WAIT | 5 | DFHFC REQUESTS | 5 |
| AMXT WAIT | 5 | SRB MODE | 5 | DFHIC REQUESTS | 5 |
| CMXT WAIT | 5 | ECB WAIT | 5 | DFHPC REQUESTS | 5 |
| DFHIC WAIT | 5 | ECB LIST WAIT | 5 | DFHSC REQUESTS | 5 |
| | | CICS WAIT | 5 | DFHTC REQUESTS | 5 |
| | | TERM WAIT | 5 | DFHTD REQUESTS | 5 |
| | | | | DFHTS REQUESTS | 5 |
-----
PF1=N/A PF2=PRINT PF3=RETURN PF4=MENU PF6=CHANGE PF9=REFRESH PA1/CLEAR=EXIT

```

**Figure 4-20. Degradation Thresholds**

## 4.2.15. AUTOMON/CICS SRT(=0.5)

The AUTOMON/CICS SRT display has the same look and feel as the AUTOMON/CICS System Recovery table definitions in the UMON001 System file. This panel displays SRT settings currently in use by AUTOMON/CICS in the region. This panel will update the AUTOMON/CICS SRT control blocks in virtual storage instead of the DEG table definition in the UMON001 system file. Any changes made to this panel are temporary changes valid only for this session of AUTOMON/CICS. A number of fields in this display may be modified by the user. The cursor will come to rest on a modifiable field when the Tab key is pressed.

```

ENTER COMMAND => _____ ***SYSTEM RECOVERY TABLE*** UNIMON/CICS V420
APPLID=CICS410 ,CICS=410,DATE=1995/12/12,TIME=09:23:49,TERM=R001,NAME=UNICOM
  
```

STAGE	MASTER	NOTIFY	ACTION	DESCRIPTION
1	ON	ON	OFF	DISPLAY PSW/PRODUCE A SYSTEM DUMP
2	ON	ON	ON	VERIFY/REPAIR CICS/VS FOUNDATION
3	ON	ON	ON	VERIFY/DISABLE A TRANSACTION
4	ON	ON	ON	VERIFY/REPAIR DYNAMIC STORAGE AREA
5	ON	ON	ON	VERIFY/REPAIR CICS/VS PROGRAMS
6	ON	ON	ON	VERIFY/REPAIR CICS/VS TABLES
7	ON	ON	ON	VERIFY/REPAIR CICS/VS CNTL BLOCKS
8	ON	ON	OFF	SUMMARY REPORT/PRODUCE A DUMP

```

PF1=N/A PF2=PRINT PF3=RETURN PF4=MENU PF6=CHANGE PF9=REFRESH PA1/CLEAR=EXIT
  
```

Figure 4-21. System Recovery Table

---

## 4.3. AUTOMON/CICS Batch Utility

---

### 4.3.1. AUTOMON/CICS Message Reports

Since AUTOMON/CICS is capable of detecting and correcting problems automatically, users may not be aware of certain developing system problems that have been taken care of by AUTOMON/CICS automatically. AUTOMON/CICS will log every condition that it detects as well as every action which may be taken in response to a perceived system problem in the history file. Therefore, it is important that users review the AUTOMON/CICS history file regularly.

There will be times that AUTOMON/CICS is able to avert performance problems before any end users even notice any degradation to the system. In these instances, AUTOMON/CICS is able to provide system programmers with additional time in which to correct these problems permanently, provided that the History log is reviewed. If the history log is not reviewed on a regular basis, the problem could recur and might eventually cause greater problems in the system.

Users can specify appropriate "*FROM*" and "*TO*" dates in the following job to print the reports for a period of time. Users may also specify a special date format, "\*\*\*\*/\*\*/\*\*", as illustrated in the following job. The user may then, schedule the following job to run every night 15-20 minutes prior to midnight. This job will print a summary report of all messages issued by AUTOMON/CICS for the day that this job is run.

```

//CSHLIST JOB (0,0000), 'AUTOMON/CICS BATCH', CLASS=0, MSGLEVEL=(1,1)
//*****
//*+=====+*
//*] PRINT AUTOMON/CICS HISTORY DATABASE ]*
//*+=====+*
//*****
//CSHLIST EXEC PGM=CSHLIST, REGION=4096K
//STEPLIB DD DISP=SHR, DSN=AUTOMON.V420.CICS321.LOADLIB
//AMON001 DD DISP=SHR, DSN=AUTOMON.SYS001
//UMON001 DD DISP=SHR, DSN=UNIMON.SYS001
//SYSPRINT DD SYSOUT=*, DCB=BLKSIZE=133
//SYSOUT DD SYSOUT=*, DCB=BLKSIZE=133
//SYSIN DD *
WTO(YES), - WRITE TO OPERATOR MESSAGES.....(YES|NO)
COMPANY(COMPANY NAME), - YOUR COMPANY NAME.....(UP TO 42)
APPLID(*), - APPLICATION ID(S).....(UP TO 8)
DETAIL(NO), - PRINT DETAIL REPORT.....(YES|NO)
SUMMARY(YES), - PRINT SUMMARY REPORT.....(YES|NO)
FROM(****/**/**, 00:00:00), - FROM.....(YYYY/MM/DD, HH:MM:SS)
TO(****/**/**, 23:59:59), - TO.....(YYYY/MM/DD, HH:MM:SS)
PAGESIZE(50), - NUMBER OF LINES PER PAGE.....(10-999)
COUNT(999999), - MAX RECORD SELECTION.....(0-9999999)
SCAN(FORWARD), - DIRECTION.....(FORWARD|BACKWARD)
SKIP(0), - # OF RECORDS TO BE BYPASSED....(0-9999999)
TYPE(*) RECORD SELECTION(S).....(A, E, I, W)
/*

```

Figure 4-22. Sample Print History Log JCL

(DATE=1995/12/15, JDATE=1995/349) AUTOMON/CICS HISTORY DATABASE SUMMARY REPORT (TIME=08:09:13, PAGE= 1)  
 (CPUID=FF170848) (UNICOM SYSTEMS, INC.) (MODEL=3090)

APPLID	DATE	TIME	TRAN	PROGRAM	TERM	ABCD	DESCRIPTION
CICS330	1995/12/15	05:19:36	UMON	CSHTCP	R001	ATNI	CSH6205I-TASK ABENDED. TRAN=UMON, PGM=CSHTCP, TERM=R001, ABCD=AT
CICS321	1995/12/15	05:20:57	****	*****	****	****	CSH6691I-MAIN TS USAGE. CURRENT= 40, MAXIMUM= 40
CICS330	1995/12/15	05:28:37	****	*****	****	****	CSH6691I-MAIN TS USAGE. CURRENT= 40, MAXIMUM= 40
CICS311	1995/12/15	06:13:35	****	*****	****	****	CSH6691I-MAIN TS USAGE. CURRENT= 40, MAXIMUM= 40
CICS321	1995/12/15	06:14:58	****	*****	****	****	CSH6691I-MAIN TS USAGE. CURRENT= 40, MAXIMUM= 40
CICS330	1995/12/15	06:22:37	****	*****	****	****	CSH6691I-MAIN TS USAGE. CURRENT= 40, MAXIMUM= 40
CICS330	1995/12/15	07:01:33	****	*****	****	****	CSH6691I-MAIN TS USAGE. CURRENT= 40, MAXIMUM= 40
CICS330	1995/12/15	07:22:14	UMON	CSHTCP	R001	ATNI	CSH6205I-TASK ABENDED. TRAN=UMON, PGM=CSHTCP, TERM=R001, ABCD=AT
CICS330	1995/12/15	08:00:00	****	*****	****	****	CSH6106W-TIMER ADJUSTMENT TASK PENDING.
CICS330	1995/12/15	08:55:45	****	*****	****	****	CSH6691I-MAIN TS USAGE. CURRENT= 40, MAXIMUM= 40
CICS330	1995/12/15	09:49:51	****	*****	****	****	CSH6691I-MAIN TS USAGE. CURRENT= 40, MAXIMUM= 40
CICS330	1995/12/15	09:57:07	UMON	CSHPCF0	R002	****	CSH6200W-LOOP/WAIT DETECTION. TRN=UMON, PGM=CSHPCF0, TERM=R002
CICS330	1995/12/15	09:57:07	UMON	CSHPCF0	R002	****	CSH6200W-LOOP/WAIT DETECTION. TRN=UMON, PGM=CSHPCF0, TERM=R002
CICS330	1995/12/15	09:57:17	UMON	CSHPCF0	R002	UAMA	CSH6201A-*ACTION* LOOP. TRAN=UMON, PGM=CSHPCF0, TERM=R002, ABCD=UAM
CICS330	1995/12/15	09:57:20	UMON	DFHUEH	R002	UAMB	CSH6205I-TASK ABENDED. TRAN=UMON, PGM=DFHUEH, TERM=R002, ABCD=UAMA
CICS330	1995/12/15	10:30:41	****	*****	****	****	CSH6691I-MAIN TS USAGE. CURRENT= 40, MAXIMUM= 40
CICS330	1995/12/15	10:41:03	****	*****	****	****	CSH6100I-A SHORT-ON-STORAGE CONDITION. MXT=135, MXTC= 15, TASKS=7
CICS330	1995/12/15	10:41:03	****	*****	****	****	CSH6107I-CICS IS UNDER STRESS. AREA=CDSA
CICS330	1995/12/15	10:41:33	UMON	*****	R002	****	CSH6300W-EXCESSIVE STORAGE USAGE. TRAN=UMON, TERM=R002, STOR=007347
CICS330	1995/12/15	10:42:03	UMON	*****	R002	****	CSH6300W-EXCESSIVE STORAGE USAGE. TRAN=UMON, TERM=R002, STOR=007347
CICS330	1995/12/15	10:42:04	UMON	*****	R002	UAMD	CSH6103A-*ACTION* SOS. MXT= 32, AMXT= 29, TRAN=UMON, TERM=R002, ABCD=
CICS330	1995/12/15	10:42:04	UMON	CSHPCF0	R002	UAMD	CSH6205I-TASK ABENDED. TRAN=UMON, PGM=CSHPCF0, TERM=R002, ABCD=UAMD
CICS330	1995/12/15	11:23:44	UMON	CSHTCP	R002	ATNI	CSH6205I-TASK ABENDED. TRAN=UMON, PGM=CSHTCP, TERM=R002, ABCD=ATNI
CICS330	1995/12/15	11:23:45	UMON	CSHTCP	R002	ATNI	CSH6205I-TASK ABENDED. TRAN=UMON, PGM=CSHTCP, TERM=R002, ABCD=ATNI
CICS330	1995/12/15	12:00:00	****	*****	****	****	CSH6106W-TIMER ADJUSTMENT TASK PENDING.
CICS330	1995/12/15	13:39:39	****	*****	****	****	CSH6691I-MAIN TS USAGE. CURRENT= 40, MAXIMUM= 40
CICS330	1995/12/15	14:33:43	****	*****	****	****	CSH6691I-MAIN TS USAGE. CURRENT= 40, MAXIMUM= 40
CICS330	1995/12/15	14:58:30	****	*****	****	****	CSH6610E-(SRP)* PSW=00000000 00000000, ABCD=*SVD*, AREA=0C4/AKEA/+0
CICS330	1995/12/15	14:58:34	****	*****	****	****	CSH6610E-(SRP)* PSW=00000000 00000000, ABCD=*SVD*, AREA=0C4/AKEA/+0
CICS330	1995/12/15	14:58:36	U\$SM	CSH39SIP	N/A	ASRA	CSH6205I-TASK ABENDED. TRAN=U\$SM, PGM=CSH39SIP, TERM=N/A, ABCD=ASRA
CICS330	1995/12/15	15:20:27	UMON	CSHTCP	R001	ATNI	CSH6205I-TASK ABENDED. TRAN=UMON, PGM=CSHTCP, TERM=R001, ABCD=AT
CICS330	1995/12/15	15:57:04	****	*****	****	****	CSH6691I-MAIN TS USAGE. CURRENT= 76, MAXIMUM= 76
CICS330	1995/12/15	16:51:06	****	*****	****	****	CSH6691I-MAIN TS USAGE. CURRENT= 76, MAXIMUM= 76
CICS330	1995/12/15	17:45:07	****	*****	****	****	CSH6691I-MAIN TS USAGE. CURRENT= 76, MAXIMUM= 76
CICS330	1995/12/15	18:39:08	****	*****	****	****	CSH6691I-MAIN TS USAGE. CURRENT= 76, MAXIMUM= 76
CICS330	1995/12/15	19:33:11	****	*****	****	****	CSH6691I-MAIN TS USAGE. CURRENT= 76, MAXIMUM= 76
CICS330	1995/12/15	19:52:45	****	*****	****	****	CSH6610E-(SRP)* PSW=00000000 00000000, ABCD=*SVD*, AREA=0C4/AKEA/+0
CICS330	1995/12/15	19:52:50	****	*****	****	****	CSH6610E-(SRP)* PSW=00000000 00000000, ABCD=*SVD*, AREA=0C4/AKEA/+0
CICS330	1995/12/15	19:52:53	U\$SM	CSH39SIP	N/A	ASRA	CSH6205I-TASK ABENDED. TRAN=U\$SM, PGM=CSH39SIP, TERM=N/A, ABCD=ASRA
CICS330	1995/12/15	20:11:51	****	*****	****	****	CSH6610E-(SRP)* PSW=00000000 00000000, ABCD=*SVD*, AREA=0C4/AKEA/+0
CICS330	1995/12/15	20:11:55	****	*****	****	****	CSH6610E-(SRP)* PSW=00000000 00000000, ABCD=*SVD*, AREA=0C4/AKEA/+0
CICS330	1995/12/15	20:11:58	U\$SM	CSH39SIP	N/A	ASRA	CSH6205I-TASK ABENDED. TRAN=U\$SM, PGM=CSH39SIP, TERM=N/A, ABCD=ASRA
CICS330	1995/12/15	21:08:05	UMON	CSHPCF0	R002	****	CSH6200W-LOOP/WAIT DETECTION. TRN=UMON, PGM=CSHPCF0, TERM=R002
CICS330	1995/12/15	21:08:05	UMON	CSHPCF0	R002	****	CSH6200W-LOOP/WAIT DETECTION. TRN=UMON, PGM=CSHPCF0, TERM=R002
CICS330	1995/12/15	21:10:47	UMON	CSHPCF0	R002	UAMA	CSH6201A-*ACTION* LOOP. TRAN=UMON, PGM=CSHPCF0, TERM=R002, ABCD=UAM
CICS330	1995/12/15	21:10:49	UMON	DFHUEH	R002	UAMB	CSH6205I-TASK ABENDED. TRAN=UMON, PGM=DFHUEH, TERM=R002, ABCD=UAMB
CICS330	1995/12/15	21:44:26	UMON	CSHTCP	R001	ATNI	CSH6205I-TASK ABENDED. TRAN=UMON, PGM=CSHTCP, TERM=R001, ABCD=ATNI
CICS330	1995/12/15	22:30:49	****	*****	****	****	CSH6691I-MAIN TS USAGE. CURRENT= 76, MAXIMUM= 76
CICS330	1995/12/15	22:42:32	****	*****	****	****	CSH6610E-(SRP)* PSW=00000000 00000000, ABCD=*SVD*, AREA=0C4/AKEA/+0
CICS330	1995/12/15	22:42:35	****	*****	****	****	CSH6610E-(SRP)* PSW=00000000 00000000, ABCD=*SVD*, AREA=0C4/AKEA/+0
CICS330	1995/12/15	22:42:38	U\$SM	CSH39SIP	N/A	ASRA	CSH6205I-TASK ABENDED. TRAN=U\$SM, PGM=CSH39SIP, TERM=N/A, ABCD=AS
CICS330	1995/12/15	23:22:10	****	*****	****	****	CSH6691I-MAIN TS USAGE. CURRENT= 76, MAXIMUM= 76

Figure 4-23. AUTOMON/CICS History Summary Report



If a particular problem is discovered in the review of the summary information provided in the previous report, users may review all the AUTOMON/CICS messages issued at the time of the problem. Analysis of all AUTOMON/CICS messages issued around the time of the problem will provide users with a clearer picture as to the cause of the problem. A detailed review of AUTOMON/CICS messages may be done in either of two ways.

1. The messages may be viewed online through the History file display of the "UMON" transaction (=E.1).
2. Users may print the History files messages around the time of the problem using the AUTOMON/CICS batch utility. To obtain all the AUTOMON/CICS messages users must specify the timeframe to be reported in the "FROM" and "TO" SYSIN parms. The "DETAIL" SYSIN parm should also be coded as YES.

---

## 4.3.2. AMON001 File Maintenance

Users may wish to delete records from the AUTOMON/CICS History file to control the size of this file. The AUTOMON/CICS batch facility allows users to delete records from this file while both CICS and AUTOMON/CICS are running in your system and the file pointed to by the AMON001 DD card is open and enabled. It is recommended that the records to be deleted be backed up before this job is run.

The SYSIN parameter "*RETAIN*" allows users to specify which records in the AMON001 History file will be kept. The "*RETAIN*" parameter may be specified as either a date in YYYY/MM/DD format or as a number of days prior to the current date. Any records prior to the date specified in the "*RETAIN*" parameter will be deleted from the AMON001 History file.

The SYSIN parameter RETAIN is mutually exclusive with all other SYSIN parameters used with CSHLIST except for the WTO and APPLID parameters. Do not attempt to code any other SYSIN parameters when the RETAIN parameter is coded as they will be ignored.

A sample JCL may be found in the AUTOMON/CICS Installation library in member CSHLISTD.

```
//CSHLIST JOB (0,0000), 'AUTOMON/CICS BATCH', CLASS=0, MSGLEVEL=(1,1)
//*****
//*+=====+*
//*]      DELETE RECORDS FROM AUTOMON/CICS HISTORY DATABASE      ]*
//*+=====+*
//*****
//CSHLIST EXEC  PGM=CSHLIST, REGION=4096K
//STEPLIB  DD  DISP=SHR, DSN=AUTOMON.V420.CICS321.LOADLIB
//AMON001  DD  DISP=SHR, DSN=AUTOMON.SYS001
//UMON001  DD  DISP=SHR, DSN=UNIMON.SYS001
//SYSPRINT DD  SYSOUT=*, DCB=BLKSIZE=133
//SYSOUT   DD  SYSOUT=*, DCB=BLKSIZE=133
//SYSIN    DD  *
           WTO(YES), -           WRITE TO OPERATOR MESSAGES.....(YES|NO)
           APPLID(*), -         APPLICATION ID(S).....(UP TO 8)
           RETAIN(1996/04/29)   DATE OR NUMBER OF DAYS DATA TO BE RETAINED
/*
```

Figure 4-24. Sample File Maintenance JCL

---

### 4.3.3. Implementing AUTOMON/CICS in Additional Regions

---

Once AUTOMON/CICS has been installed in one region, implementing AUTOMON/CICS to the other regions is a very simple process. There are only two steps involved in this process.

Step 1. Make the appropriate table definitions in the PPT, PCT, FCT and PLT tables.

Step 2. Modify the CICS startup JCL to include the AUTOMON/CICS load library and the AMON002 DD card for MVS users.

#### **Table Definitions**

##### **FCT Definition**

Both the UMON001 and AMON001 files defined during the initial installation may be shared by multiple CICS regions. However, It is recommended that the files be defined as a local FCT entry in the File Owning Region(FOR)-[or an AOR| and defined as remote FCT entries in all other regions that are running AUTOMON/CICS.

##### **PCT, PPT and PLT Definitions**

Follow the procedures outlined in the installation steps to install the necessary entries.

#### **Modify the CICS Startup JCL**

Add AUTOMON/CICS load library to the DFHRPL - A sample JCL is provided in AUTOMON.INSTLIB(CICSJCL)

Add AUTOMON/CICS file(s) to the CICS start-up JCL or incorporate the Data Set Names into the FCT definitions. These files include the UMON001 System File and AMON001 History File.

For MVS users, add the AMON 002 Snap Dump File DD card to the CICS start-up JCL.

---

## 4.4. Global User Exits

AUTOMON/CICS is designed to fulfil most needs of a CICS/VS system. Nevertheless, an installation can have special requirements which can not be met by the standard AUTOMON/CICS system. User exits make it possible to modify the AUTOMON/CICS system without changing its standard user interface.

However, There are certain restrictions which apply to the user exit programs which are used by AUTOMON/CICS. These restrictions apply because AUTOMON/CICS runs outside of CICS/VS and the architecture AUTOMON/CICS uses to obtain control from CICS/VS is unique. For example, even if your CICS/VS online system is in a critical hard loop state, your pre-assembled user-written exit programs can still be fetched by AUTOMON/CICS to perform your customized action items.

---

## AUTOMON/CICS Exits

### Addressability

AUTOMON/CICS gives user-written exits addressability to CSA (R12), current TCA (R11) and AUTOMON/CICS communication area (R4). Careful manipulation of these areas and use of return codes where applicable can produce customized AUTOMON/CICS results to fit any unique situation. During the execution of your user-written exit programs, addressability to CICS/VS control areas such as CSACDTA (currently dispatch task address), CSACTODB (current time of date), etc., could be changed. It's because your user-written exit programs will be processed concurrently with CICS/VS.

---

## 4.4.1. General Conventions

The user exit interface has the following characteristics:

1. The user-written code for an exit is a non-CICS/VS assembler-language program and runs OUT-SIDE-OF-CICS. Such a program is called an exit program and may call other program using operating system LINK, CALL or XCTL macros and SVCs.
2. The exit programs can provide return codes which are supported by certain exits.
3. The exit program is link edited by yourself into the AUTOMON/CICS load library.
4. The exit program does not need to be defined in DFHPPT.
5. The exit program may request operating system services.
6. The exit program must not request CICS services.
7. The exit program should save and restore any registers that it modifies.
8. The following general register values can be assumed on entry to an exit program.
  - Register 12 - Address of the current TCA.
  - Register 13 - Address of CSA.
  - Register 14 - Return address
  - Register 15 - Address of the exit program entry
9. Neither source nor object compatibility of AUTOMON/CICS management modules is guaranteed for future releases of AUTOMON/CICS. Any changes that affect exit programs will be documented in the appropriate manual.

---

## 4.4.2. List of Exits

The sample user exit program and assemble/linked JCL are provided in AUTOMON.INSTLIB. (CSHXAMPB, CSHXMGPB, CSHXTSKB, CSHXXIPB and ASSEMBLE)

---

## Exit Programs

### Exits

Figure 4-24 lists the standard exits available in AUTOMON/CICS management modules, and the information that is specified to each exit. For exits where no valid return-code is listed, the management module will always continue in the same way irrespective of the value in register 15.

EXITID DESC LOCATION REGISTERS	CSHXMGPB AUTOMON/CICS message exit program Before process the message R11-->AUTOMON/CICS message record R12-->Address of the current task's TCA R13-->Address of CSA
EXITID DESC LOCATION REGISTERS	CSHXAMPB AUTOMON/CICS subtask exit program Every .5 second cycle R12-->Address of the current task's TCA R13-->Address of CSA
EXITID DESC LOCATION REGISTERS	CSHXTSKB AUTOMON/CICS Task Chain Scan exit program Every .5 Sec Cycle R1 -->Task_Scan_Count R4 -->AUTOMON/CICS Communication Area R11-->XMXNC/TQE/DCA R12-->Address of the current task's TCA R13-->Address of CSA  RETURN CODES 00 - NORMAL 04 - Issue CEMT purge of task 08 - Issue CEMT force purge of task
EXITID DESC LOCATION REGISTERS	CSHXXIPB AUTOMON/CICS CICS user exit program CICS user exit pointers (XKCREQ and XPCFTCH) R12-->Address of the current task's TCA R13-->Address of CSA

**Figure 4-25. AUTOMON/CICS User Exits**

---

### 4.4.3. Sample Exit Programs

The sample user exit programs and assemble/linked JCL are provided in AUTOMON.INSTLIB.(CSHXMGPB, CSHXAMPB, CSHXXIPB and ASSEMBLE)

---

## Message Routine Exit Program

### CSHXMGPB

```
CSHXMGPB  TITLE 'AUTOMON/CICS AUTOMATIC MONITORING PROGRAM'
*****
*****
*   COPYRIGHT (C)   UNICOM SYSTEMS, INC.. 1985, 1997.   *
*****
*****
*           PROGRAM:      CSHXMGPB                       *
*           AUTHOR:       UNICOM SYSTEMS, INC.           *
*           DATE:         03/03/87                       *
*           REMARKS:      AUTOMON/CICS USER EXIT PROGRAM *
*                           BEFORE PROCESS THE MESSAGE   *
*                                                           *
*****
*                           MAINTENANCE LOG              *
*-----+-----+-----+
*           DESCRIPTIONS           | ID | DATE | *
*-----+-----+-----+
*                                   ]      ]      ] *
*****
*****
*           R0      UNUSED          *
*           R1      UNUSED          *
*           R2      UNUSED          *
*           R3      *BASE*          *
*           R4      *RESERVED*      *
*           R5      UNUSED          *
```

```

*          R6      UNUSED                      *
*          R7      UNUSED                      *
*          R8      UNUSED                      *
*          R9      UNUSED                      *
*          R10     UNUSED                      *
*          R11     CSHLOGDS                    *
*          R12     DFHTCADS                    *
*          R13     DFHCSADS                    *
*          R14     RETURN                      *
*          R15     ENTRY                       *

```

```

*****
*****
*   COPYRIGHT (C)   UNICOM SYSTEMS, INC. 1985. 1997.   *
*****
*****

```

```

CSHLOGDS  DSECT          AUTOMON/CICS LOG RECORD
LOGJDATE  DS          CL4          JDATE
LOGCTODB  DS          CL4          TIME OF DAY-100THS OF A SECOND
LOGIND1   DS          X          INDICATOR 1
LOGIND2   DS          X          INDICATOR 2
LOGQAUX   EQU        X'01'       WRITE TO HISTORY DATABASE REQUEST
LOGQWTO   EQU        X'02'       WTO REQUEST
LOGQLOG   EQU        X'04'       LOGGING REQUEST
LOGQWTL   EQU        X'08'       WTL REQUEST
LOGMSGN   DS          CL4          ACCUMULATED ERROR MESSAGES IN HEX
LOGMSG    DS          CL80        MESSAGE
LOGLEN    EQU        *-CSHLOGDS
CSHLOGE   EQU        *
          EJECT ,
          COPY DFHCSADS
          EJECT ,
          COPY DFHTCADS
          EJECT ,
R0         EQU        0
R1         EQU        1
R2         EQU        2
R3         EQU        3
R4         EQU        4
R5         EQU        5
R6         EQU        6
R7         EQU        7
R8         EQU        8
R9         EQU        9
R10        EQU        10
R11        EQU        11
R12        EQU        12
R13        EQU        13
R14        EQU        14

```



```

R15      EQU      15
          EJECT ,
CSHXMGPB CSECT
CSHXMGPB RMODE ANY
CSHXMGPB AMODE ANY
          LR      R3,R15                      LOAD ENTRY POINT
          USING   CSHXMGPB,R3
          USING   CSHLOGDS,R11
          USING   DFHTCADS,R12
          USING   DFHCSADS,R13
          STM     R0,R15,CSHREGS              SAVE REGISTERS
*         ESPIE  SET,ERR000,((1,15)),MF=(E,AMPPICA)
          B       MGP000
          ORG                                CSHXMGPB
          DS      6F
          DC      C'CSHXMGPB'                EYE CATCHER
          DC      C'(C) COPYRIGHT '
          DC      C'UNICOM SYSTEMS INC. '
          DC      C'1985, 1987 LICENSED MATERIAL '
          DC      C'PROGRAM PROPERTY OF '
          DC      C'AUTOMON/CICS '
          DC      C'/CICS ALL RIGHTS RESERVED'
          DC      CL8 '&SYSDATE'              ASSEMBLED DATE
          LCLC    &HH,&MM
          &HH     SETC  '&SYSTIME'(1,2)
          &MM     SETC  '&SYSTIME'(4,2)
          DC      CL8 '&HH.:&MM.:00'        ASSEMBLED TIME
          DC      0F
          *AMPPICA ESPIE SET,0,((1,15)),MF=L
CSHREGS  DS      0CL64                      REGISTER SAVE AREA
CSHREG0  DS      F                          REGISTER 0
CSHREG1  DS      F                          REGISTER 1
CSHREG2  DS      F                          REGISTER 2
CSHREG3  DS      F                          REGISTER 3
CSHREG4  DS      F                          REGISTER 4
CSHREG5  DS      F                          REGISTER 5
CSHREG6  DS      F                          REGISTER 6
CSHREG7  DS      F                          REGISTER 7
CSHREG8  DS      F                          REGISTER 8
CSHREG9  DS      F                          REGISTER 9
CSHREG10 DS      F                          REGISTER 10
CSHREG11 DS      F                          REGISTER 11
CSHREG12 DS      F                          REGISTER 12
CSHREG13 DS      F                          REGISTER 13
CSHREG14 DS      F                          REGISTER 14
*+*****+*
*]          MAIN ROUTINE                      ]*

```

```

*+*****+*
*****
MGP000    DS      0H
*          CLC    LOGMSG(8),=C'CSH6160I'    IS CSH6160I MESSAGE ?
*          BE     CSH6160                    YES... BRANCH
*          CLC    LOGMSG(8),=C'CSH9992I'    IS CSH9992I MESSAGE ?
*          BE     AUX000                     YES... BRANCH
*          CLC    LOGMSG(8),=C'CSH9993I'    IS CSH9993I MESSAGE ?
*          BE     LOG000                     YES... BRANCH
*          CLC    LOGMSG(8),=C'CSH9999E'    IS CSH9999E MESSAGE ?
*          BE     CSH9999                     YES... BRANCH
*          B      RETURN
*****
* THIS ROUTINE TURNS WRITE TO HISTORY DATABASE INDICATOR OFF *
*****
AUX000    DS      0H
*          NI     LOGIND2,X'FF'-LOGQAUX     SET AUX = NO
*          B      RETURN                     RETURN
*****
* THIS ROUTINE TURNS WRITE TO SYSLOG INDICATOR OFF *
*****
LOG000    DS      0H
*          NI     LOGIND2,X'FF'-LOGQLOG     SET LOG = NO
*          B      RETURN                     RETURN
*****
* THIS ROUTINE TURNS WRITE TO OPERATOR (WTO) INDICATOR OFF *
*****
WTO000    DS      0H
*          NI     LOGIND2,X'FF'-LOGQWTO     SET WTO = NO
*          B      RETURN                     RETURN
*****
* THIS ROUTINE WRITES THE WTO MESSAGE WITH ROUTCDE OF 11
*****
*RTE000    DS      0H
*          NI     LOGIND2,X'FF'-LOGQWTO     SET WTO = NO
*          MVC    MSGWTOM(80),LOGMSG        MOVE MESSAGE
*          LA     R5,MSGWTOE-1              END OF MESSAGE
*          LA     R6,84                      MAXIMUM LENGTH
*RTE002    DS      0H
*          CLI    0(R5),X'00'              END OF TEXT?

```

```

*           BNE      RTE004                YES ... BRANCH
*           BCTR   R5,0                    SUBTRACT 1
*           BCT   R6,RTE002                LOOP TIL END
*RTE004    DS      0H
*           MVC    1(4,R5),=B'000000000000000000000000100000'
*           STCM   R6,B'0011'MSGWTOL      SAVE THE REAL LENGTH
*           LA     R1,MSGWTOL
*           WTO    MF=(E,(R1))
*           B      RETURN                  RETURN
*           DS     0F
*MSGWTOL   DC      Y(MSGWTOE-*)           LENGTH
*MSGWTOF   DC      B'1000000000000000'   MCS FLAG
*MSGWTOM   CL80' '                        MESSAGE TEXT
*MSGWTOE   EQU    *                        END OF MESSAGE
*MSGWTOD   DC      B'0000000000000000'   DESCRIPTOR CODES
*MSGWTOR   DC      B'0000000000000000'   ROUTING CODE
*****
*****
*   THIS ROUTINE MODIFIES THE MESSAGE
*****
*****
CSH6160    DS      0H
*           MVC    LOGMSG+10(3),=C'MXT'   MOVE DATA
*           B      RETURN                  RETURN
*****
*****
*   THIS ROUTINE TURNS ALL INDICATORS OFF (AUX, LOG AND WTO)
*****
*****
CSH9999    DS      0H
*           NI     LOGIND2,X'FF'-LOGQAUX-LOGQLOG-LOGQWTO TURN OFF ALL
*           B      RETURN                  RETURN
ERR000     DS      0H
*           MVI    LOGMSG+8,C'+ '         MARK IT AS AN ERROR
*           WTO    'CSHAMGPE-*ERROR* A PROGRAM CHECK HAS OCCURRED. PGM=CSHXMGPB'
RETURN     DS      0H
*           LM     R0,R15,CSHREGS        RESTORE REGISTERS
*           BR     R14
*           EJECT ,
*           LTORG ,
*           END    CSHXMGPB

```

---

## Subtask User Exit Program

### CSHXAMPB

```
CSHXAMPB  TITLE 'AUTOMON/CICS AUTOMATIC MONITORING PROGRAM'
*****
*****
*  COPYRIGHT (C)  UNICOM SYSTEMS, INC.  1985, 2000.  *
*****
*****
*          PROGRAM:  CSHXAMPB  *
*          AUTHOR:   UNICOM Systems, Inc.  *
*          DATE:     03/03/87  *
*          REMARKS:  AUTOMON/CICS USER EXIT PROGRAM  *
*****
*
*          MAINTENANCE LOG  *
*-----+-----+-----+*
*          DESCRIPTIONS          | ID | DATE | *
*-----+-----+-----+*
*                               ]      ]      ] *
*****
*****
*          R0  UNUSED  *
*          R1  UNUSED  *
*          R2  UNUSED  *
*          R3  *BASE*  *
*          R4  *RESERVED*  *
*          R5  UNUSED  *
*          R6  UNUSED  *
*          R7  UNUSED  *
*          R8  UNUSED  *
*          R9  UNUSED  *
*          R10 UNUSED  *
*          R11 CSHLOGDS  *
*          R12 DFHTCADS  *
*          R13 DFHCSADS  *
*          R14 RETURN  *
*          R15 ENTRY  *
*****
*****
*  COPYRIGHT (C)  UNICOM SYSTEMS, INC.. 1985. 2000.  *
*****
*****
COPY DFHCSADS
```

```

EJECT ,
COPY DFHTCADS
R0 EQU 0
R1 EQU 1
R2 EQU 2
R3 EQU 3
R4 EQU 4
R5 EQU 5
R6 EQU 6
R7 EQU 7
R8 EQU 8
R9 EQU 9
R10 EQU 10
R11 EQU 11
R12 EQU 12
R13 EQU 13
R14 EQU 14
R15 EQU 15
CSHXAMPB CSECT
LR R3,R15 LOAD ENTRY POINT
USING CSHXAMPB,R3
USING DFHTCADS,R12
USING DFHCSADS,R13
STM R0,R15,CSHREGS SAVE REGISTERS
B AMP000
DS 0F
DC C'CSHXAMPB' EYE CATCHER
CSHREGS DS 0CL64 REGISTER SAVE AREA
CSHREG0 DS F REGISTER

CSHREG1 DS F REGISTER 1
CSHREG2 DS F REGISTER 2
CSHREG3 DS F REGISTER 3
CSHREG4 DS F REGISTER 4
CSHREG5 DS F REGISTER 5
CSHREG6 DS F REGISTER 6
CSHREG7 DS F REGISTER 7
CSHREG8 DS F REGISTER 8
CSHREG9 DS F REGISTER 9
CSHREG10 DS F REGISTER 10
CSHREG11 DS F REGISTER 11
CSHREG12 DS F REGISTER 12
CSHREG13 DS F REGISTER 13
CSHREG14 DS F REGISTER 14
CSHREG15 DS F REGISTER 15
AMP000 DS 0H
B RETURN

```

```
RETURN    DS      0H
          LM      R0,R15,CSHREGS          RESTORE REGISTERS
          BR      R14
          LTORG
          END     CSHXAMPB
```

---

# CICS User Exit Program

## CSHXXIPB

```
CSHXXIPB  TITLE 'AUTOMON/CICS AUTOMATIC MONITORING PROGRAM'
*****
*****
*   COPYRIGHT (C)   UNICOM SYSTEMS, INC.   1985, 2000.   *
*****
*****
*           PROGRAM:      CSHXXIPB           *
*           AUTHOR:       UNICOM SYSTEMS, INC.   *
*           DATE:         03/03/87           *
*           REMARKS:      AUTOMON/CICS USER EXIT PROGRAM *
*****
*                                     MAINTENANCE LOG      *
*-----+-----+-----+-----+-----+-----+-----+
*           DESCRIPTIONS                | ID | DATE | *
*-----+-----+-----+-----+-----+-----+-----+
*                                     ]      ]      ] *
*****
*****
*           R0      UNUSED                *
*           R1      UNUSED                *
*           R2      UNUSED                *
*           R3      *BASE*                *
*           R4      *RESERVED*            *
*           R5      UNUSED                *
*           R6      UNUSED                *
*           R7      UNUSED                *
*           R8      UNUSED                *
*           R9      UNUSED                *
*           R10     UNUSED                *
*           R11     CSHLOGDS              *
*           R12     DFHTCADS              *
*           R13     DFHCSADS              *
*           R14     RETURN                *
*           R15     ENTRY                 *
*****
*****
*   COPYRIGHT (C)   UNICOM SYSTEMS, INC.   1985. 2000.   *
*****
*****
```

```

*****
                COPY DFHCSADS
                EJECT ,
                COPY DFHTCADS
R0              EQU    0
R1              EQU    1
R2              EQU    2
R3              EQU    3
R4              EQU    4
R5              EQU    5
R6              EQU    6
R7              EQU    7
R8              EQU    8
R9              EQU    9
R10             EQU   10
R11             EQU   11
R12             EQU   12
R13             EQU   13
R14             EQU   14
R15             EQU   15
CSHXXIPB       CSECT
                LR      R3,R15                LOAD ENTRY POINT
                USING  CSHXXIPB,R3
                USING  DFHTCADS,R12
                USING  DFHCSADS,R13
                STM    R0,R15,CSHREGS        SAVE REGISTERS
                B      XIP000
                DS     0F
                DC     C'CSHXXIPB'          EYE CATCHER
CSHREGS        DS     0CL64                REGISTER SAVE AREA
CSHREG0        DS     F                    REGISTER 0
CSHREG1        DS     F                    REGISTER 1
CSHREG2        DS     F                    REGISTER 2
CSHREG3        DS     F                    REGISTER 3
CSHREG4        DS     F                    REGISTER 4
CSHREG5        DS     F                    REGISTER 5
CSHREG6        DS     F                    REGISTER 6
CSHREG7        DS     F                    REGISTER 7
CSHREG8        DS     F                    REGISTER 8
CSHREG9        DS     F                    REGISTER 9
CSHREG10       DS     F                    REGISTER 10
CSHREG11       DS     F                    REGISTER 11
CSHREG12       DS     F                    REGISTER 12
CSHREG13       DS     F                    REGISTER 13
CSHREG14       DS     F                    REGISTER 14
CSHREG15       DS     F                    REGISTER 15
XIP000         DS     0H
                B      RETURN

```



```
RETURN    DS      0H
          LM      R0,R15,CSHREGS          RESTORE REGISTERS
          BR      R14
          LTORG
          END     CSHXXIPB
```

# CICS Task Chain Scan Exit Program

## CSHXTSKB

```

CSHXTSKB      TITLE  'AUTOMON/CICS  AUTOMATIC  MONITORING  PROGRAM'
*****
*****
*  COPYRIGHT (C)  UNICOM SYSTEMS, INC.  1985, 2000.  *
*****
*****
*          PROGRAM:      CSHXTSKB                      *
*          AUTHOR:      UNICOM SYSTEMS, INC.          *
*          REMARKS:     AUTOMON/CICS USER EXIT PROGRAM *
*                   THIS PROGRAM RUNS OUTSIDE OF CICS AND *
*                   GAINS CONTROL ON EACH TASK SCAN AT .5 SEC *
*                   INTERVAL.                          *
*+*****+
*                   MAINTENANCE LOG                    *
*+-----+-----+-----+-----+
*                   DESCRIPTIONS      ]  ID  ]  DATE ]WHO]*
*+-----+-----+-----+-----+
*                   ]                ]          ]    ]*
*+*****+
*+*****+
*          R0      UNUSED                      *
*          R1      TASK_SCAN_COUNT            *
*          R2      UNUSED                      *
*          R3      *BASE*                     *
*          R4      *RESERVED*                 *
*          R5      UNUSED                      *
*          R6      UNUSED                      *
*          R7      UNUSED                      *
*          R8      UNUSED                      *
*          R9      UNUSED                      *
*          R10     UNUSED                      *
*          R11     XMXNC/TQE/DCA              *
*          R12     DFHTCADS                   *
*          R13     DFHCSADS                   *
*          R14     RETURN                      *
*          R15     ENTRY                      *
*+*****+
*+*****+
*]          COPYRIGHT (C)  UNICOM SYSTEMS INTERNATIONAL. 1985. 1987*
*+*****+

```

```

*****+*
        PRINT OFF
        COPY DFHCSADS
        COPY DFHTCADS
        DFHTCA CICSYST=YES
R0      EQU    0
R1      EQU    1
R2      EQU    2
R3      EQU    3
R4      EQU    4
R5      EQU    5
R6      EQU    6
R7      EQU    7
R8      EQU    8
R9      EQU    9
R10     EQU    10
R11     EQU    11
R12     EQU    12
R13     EQU    13
R14     EQU    14
R15     EQU    15
*****+*
*]      MAIN ROUTINE      ]*
*+*****+*
*****+*
CSHXTSKB_START DS 0H
*****+*
        XR      R15,R15          RC=0
        B       CSHXTSKB_RETURN  RETURN
*****+*
CSHXTSKB_RETURN DS 0H
*****+*
        LM      R0,R14,CSHREGS   RESTORE REGISTERS
        BR      R14
*****+*
        LTORG  ,
        END    CSHXTSKB

```

---

## **Chapter 5. Batch Utility**

**This Chapter Describes:**

- Input File
- Output Report Format
- JCL for Batch Report
- Batch Utility Command Language Format
- Detail Report
- Summary Report

---

## 5.1. Batch Utility

This chapter introduces the functions of AUTOMON/CICS batch utility. It lists the AUTOMON/CICS detail and summary output reports and tells you how to select certain type of records.

---

## 5.2. Input

AUTOMON/CICS batch utility uses AUTOMON/CICS history database (AMON001) as an input. The AMON001 is a standard KSDS VSAM file, and it is sharable with CICS/VS systems. (You do not need to close or deallocate the file).

---

## 5.3. Output

AUTOMON/CICS report consists of two parts: a detail and a summary section. The detail section contains information from all data records of that type that AUTOMON/CICS batch utility collected. The summary section provides a sum of the selected data record types.

- Detail report
- Summary report

---

## 5.4. Batch Utility Command Language Format

With AUTOMON/CICS batch utility, control statements created from a command language are used to request the various reports. This command language format is shown in figure 5-2.

BLANK	COMMAND	OPERANDS	COMMENTS
blank	command name	one or more operands	comments

**Figure 5-1. The command Language Format**

### Command Format

The general format of the command to produce a AUTOMON/CICS batch report is:

Keyword(subkeyword)

Where keyword is the keyword parameter for the report being requested.

To request selective application report, use the keyword APPLID and a subkeyword to specify the application ID. The general format of the command is:

APPLID(subkeyword)

Where subkeyword is the application ID.

AUTOMON/CICS batch utility commands are read in from the data set pointed to by the SYSIN DD statement in your job stream. A single command can contain a maximum of one line.

---

## 5.4.1. Batch Utility Commands

The keyword used for the tailoring are as follows:

---

### Batch Commands

#### APPLID

VTAM application identification.

Value : One to eight VTAM APPLIDs or \* - all

Example: APPLID(CICSTOR,AOR1) - select CICSTOR and AOR1

Default: \*

#### COMPANY

Your company name for the report heading.

Value : upto 42 Characters

Example: COMPANY(ABC COMPANY)

#### COUNT

Used to specify the maximum line count.

Value : 0 to 9999999

Example: COUNT(2000)

Default: 9999999

#### DETAIL

Print detail report.

Value : YES or NO

Example: DETAIL(YES)

Default: YES

## FROM

Used to specify a starting time for a time interval. This keyword is coded along with a time (YYYY/MM/DD,HH:MM:SS) and specifies a start time. Only data collections beginning after this start time will be processed. Both date and time are optional. The subkeyword of \*\*\*\*/\*\*/\*\* will be substituted with today's date.

Value : YYYY/MM/DD,HH:MM:SS or \*\*\*\*/\*\*/\*\*,HH:MM:SS

Example: FROM(1987/01/01,05:00:00)

Default: \*\*\*\*/\*\*/\*\*,00:00:00

## EXCLUDE

AUTOMON/CICS messages to be excluded from the batch utility

Value : One to eight AUTOMON/CICS messages

Example: EXCLUDE(CSH6600\*,CSH67\*), - exclude messages CSH6600 and all messages starting with CSH67 from the message analysis.

Do not code this keyword if you want to include all AUTOMON/CICS messages

Please note: EXCLUDE and INCLUDE keywords are mutually exclusive.

## INCLUDE

AUTOMON/CICS messages to be included in the batch utility

Value : One to eight AUTOMON/CICS messages

Example: INCLUDE(CSH6600\*,CSH67\*), - include only messages CSH6600 and all messages starting with CSH67 in the message analysis.

Do not code this keyword if you want to include all AUTOMON/CICS messages

Please note: INCLUDE and EXCLUDE keywords are mutually exclusive.



## MIGRATE

MIGRATE is used to facilitate the maintenance of multiple UMON001 files. This utility allows the user to migrate AUTOMON/CICS table definitions from one UMON001 to another. This eliminates the need to manually define AUTOMON/CICS table definitions in each and every UMON001 file. If you are running pre PTF9601 of AUTOMON/CICS, the records of your current UMON001 system definition file will be read and converted to a new format compatible to releases PTF9601 and above of AUTOMON/CICS. If your system is running PTF9601 and above the MIGRATE parameter will migrate your old UMON001 definitions to another UMON001 file. The MIGRATE parameter is mutually exclusive with all other parameters used with CSHLIST except for the WTO and REPLACE parameters. The new UMON001 file must have a different data set name from the old UMON001. There is a sample JCL in the AUTOMON/CICS instalib member CSHLISTM. Value : An asterix(\*), AIT, APPLID, XLT, THT, DEG, EXC, SRT, USERID. The asterix(\*) and the table ID's are mutually exclusive. Asterix(\*) stands for all tables.  
Example: MIGRATE(AIT, APPLID)

## PAGESIZE

Used to specify the number of lines per report.  
Value : 10 to 55  
Example: PAGESIZE(52)  
Default: 55

## REPLACE

Used to specify whether or not to replace a duplicate record that exists in both the existing and new UMON001 files. The REPLACE parameter is mutually exclusive with all other parameters used with CSHLIST except for the WTO and CONVERT parameters.  
Value : YES or NO.  
Example: REPLACE(YES)

## RETAIN

Is used to specify which records will be kept and which records will be deleted from the AUTOMON/CICS history file AMON001. The RETAIN parameter is mutually exclusive with all other parameters used with CSHLIST except for the WTO parameter. There are two(2) formats:

1. If the date is specified in a YYYY/MM/DD format then records prior to the date specified will be deleted.
2. If a number of days is specified from 0 to nnnnnnn, the job will delete records n-days prior to the current date. For example if you specify RETAIN(30) as the range and this job were to run on the 31st of March all records prior to the 1st of March will be deleted. Specifying RETAIN(0) would delete all records prior to the current date.

Value : Either a valid date YYYY/MM/DD, or a valid number 0 to nnnnnnn.

Example: RETAIN(1995/03/17) or RETAIN(30).

## SCAN

Used to specify the VSAM access direction.

Value : FORWARD or BACKWARD

Example: SCAN(BACKWARD)

Default: FORWARD

## SKIP

Used to specify the number of records to be bypassed.

Value : 0 to 9999999

Example: SKIP(2000)

Default: 0

## SUMMARY

Print summary report.

Value : YES or NO

Example: SUMMARY(YES)

Default: YES

## TO

Used to specify an ending time for a time interval. This keyword is coded along with a time (YYYY/MM/DD,HH:MM:SS) and specifies an end time. Only data collections occurring before this start time will be processed. Both date and time are optional. The subkeyword of \*\*\*\*/\*\*/\*\* will be substituted with today's date.

Value : YYYY/MM/DD,HH:MM:SS or \*\*\*\*/\*\*/\*\*,HH:MM:SS

Example: TO(1987/01/01,05:00:00)

Default: \*\*\*\*/\*\*/\*\*,23:59:59

## TYPE

Used to specify AUTOMON/CICS record types.

A - action messages to be processed

E - error messages to be processed

I - indication messages to be processed

W - warning messages to be processed

O - other messages to be processed

\* - process all messages

Value : A,E,I,W,O or \*

Example: TYPE(A,E,I,W,O)

Default: ALL

## WTO

The selected keyword will be logged to the system console

Value : YES or NO

Example: WTO(YES)

Default: YES

---

## 5.5. JCL For the Batch Report

Figure 5-2 is a sample of the job stream that must be submitted to request reports from AUTOMON/CICS batch utility. The job stream to generate batch reports must meet the following requirements:

- STEPLIB must point the AUTOMON/CICS loadlib.
- SYSPRINT must exist and should be checked for AUTOMON/CICS and operating error messages.
- SYSOUT must exist.
- AMON001 must exist and should point AUTOMON.SYS001 history database.
- The SYSIN DD statement points to the AUTOMON/CICS batch utility commands and keyword that specify the reports you want to produce.

```
//CSHLIST JOB (0,0000),'AUTOMON/CICS',CLASS=0,NOTIFY=AMON
//*****
//*+=====+*
//*|          PRINT AUTOMON/CICS HISTORY DATABASE          |*
//*+=====+*
//*****
//CSHLIST EXEC PGM=CSHLIST,REGION=4096K
//STEPLIB DD DISP=SHR,DSN=AUTOMON.V420.CICS311.LOADLIB
//AMON001 DD DISP=SHR,DSN=AUTOMON.SYS001
//UMON001 DD DISP=SHR,DSN=UNIMON.SYS001
//SYSPRINT DD SYSOUT=*,DCB=BLKSIZE=133
//SYSOUT DD SYSOUT=*,DCB=BLKSIZE=133
//SYSIN DD *
WTO(YES), - WRITE TO OPERATOR MSG....YES|NO
COMPANY(YOUR COMPANY NAME), - YOUR COMPANY NAME.....UPTO 42
APPLID(*), - APPLICATION ID(S).....UPTO 8
DETAIL(YES), - PRINT DETAIL REPORT.....YES|NO
SUMMARY(YES), - PRINT SUMMARY REPORT....YES|NO
FROM(1900/00/00,00:00:00), - FROM.....YYYY/MM/DD,HH:MM:SS
TO(2099/12/31,23:59:59), - TO.....YYYY/MM/DD,HH:MM:SS
PAGESIZE(55), - # OF LINES PER PAGE.....10-55
COUNT(2000), - MAX RECORD SELECTIONS.0-9999999
SCAN(FORWARD), - DIRECTION.....FORWARD|BACKWARD
SKIP(0), - BYPASS.....0-9999999
TYPE(*) RECORD SELECTIONS.....A,E,I,W,O
```

**Figure 5-2. Sample Report Generation JCL**

## 5.6. Detail Report

```

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-----
(DATE=1991/03/17,JDATE=1991/185)          AUTOMON/CICS HISTORY DATABASE DETAIL REPORT          PAGE=1
(CPUID=00174234)                          (UNICOM SYSTEMS, INC.)                                (MODEL=3090)
(REPORTING PERIOD=1991/03/17,00:00:00-1991/03/17,23:59:59)
-----
  APPLID    DATE      TIME      MESSAGE
-----
CICSTOR1   1991/03/17   06:01:52  CSH6000I-AUTOMON/CICS SUBTASK ATTACHED.  AIT=TX,LOG=200,VER=C31A420
CICSTOR1   1991/03/17   06:01:52  CSH6019I-AUTOMON/CICS CSHSRP ATTACHED.  MXT=30,STAGE=12345678
CICSTOR1   1991/03/17   06:01:52  CSH6019I-AUTOMON/CICS CSHSCR ATTACHED.
CICSTOR1   1991/03/17   09:19:49  CSH6101A-MXT VALUE ALTERED.  DSA=2048K,FREE=2242K,MXT=999,TASKS=5
CICSTOR1   1991/03/17   09:19:49  CSH6160I-(LOG) MXT NEW=999, OLD=30
CICSTOR1   1991/03/17   09:31:04  CSH6205I-TASK ABENDED.  TRAN=MAST,PROGRAM=MAFI030,TERM=TN96,ABCD=ATNI
CICSTOR1   1991/03/17   09:33:17  CSH6621E-*(SRP)* A STORAGE VERIFICATION FAILED.
CICSTOR1   1991/03/17   09:33:17  CSH6622E-*(SRP)* ADDRESS=0042E0A0,MODULE=DFHFCP,OFFSET=+0124
CICSTOR1   1991/03/17   09:33:17  CSH6623E-*(SRP)* CURRENT:0000000000000000 SHOULD BE:185E47F032C2
CICSTOR1   1991/03/17   09:33:17  CSH6624A-*(SRP)* ACTION IN STORAGE VIOLATION.
CICSTOR1   1991/03/17   09:42:12  CSH6101A-MXT VALUE ALTERED.  DSA=2048K,FREE=2242K,MXT=999,TASKS=5
CICSTOR1   1991/03/17   09:42:12  CSH6160I-(LOG) MXT NEW=999, OLD=30
CICSTOR1   1991/03/17   10:11:02  CSH6303E-STORAGE VIOLATION.  CNT=1,TRN=CA00,TRM=TN76,PGM=BIAD00
CICSTOR1   1991/03/17   10:21:03  CSH6304E-HEAD:A=0008C320-8C000020,TAIL:A=0008C348-F3F40020
CICSTOR1   1991/03/17   10:31:03  CSH6305E-DATA:F1F2F3F4F5F6F7F8F9F000000000 1234567890....
CICSTOR1   1991/03/17   10:49:49  CSH6160I-(LOG) MXT NEW=999, OLD=30
CICSTOR1   1991/03/17   10:51:03  CSH6306A-STORAGE VIOLATION IN PROGRESS.
CICSTOR1   1991/03/17   10:51:04  CSH6205I-TASK ABENDED.  TRAN=MAST,PROGRAM=MAFI030,TERM=TN96,ABCD=ATNI
CICSTOR1   1991/03/17   10:53:39  CSH6307E-STORAGE VIOLATION.  TYPE=FAQE,SP=TASK,ADDR=00032890
CICSTOR1   1991/03/17   11:06:35  CSH6150I-(LOG) AUX. TRACE OFF.
CICSTOR1   1991/03/17   11:19:49  CSH6101A-MXT VALUE ALTERED.  DSA=2048K,FREE=2242K,MXT=999,TASKS=5
CICSTOR1   1991/03/17   11:19:49  CSH6160I-(LOG) MXT NEW=999, OLD=27
CICSTOR1   1991/03/17   11:31:04  CSH6205I-TASK ABENDED.  TRAN=MAST,PROGRAM=MAFI030,TERM=TN96,ABCD=ATNI
CICSTOR1   1991/03/17   11:49:49  CSH6101A-MXT VALUE ALTERED.  DSA=2048K,FREE=2242K,MXT=999,TASKS=5
CICSTOR1   1991/03/17   11:49:49  CSH6160I-(LOG) MXT NEW=999, OLD=30
CICSTOR1   1991/03/17   11:51:04  CSH6205I-TASK ABENDED.  TRAN=MAST,PROGRAM=MAFI030,TERM=TN96,ABCD=ATNI

```

**Figure 5-3. The Detail Report**

The following is a description of each field in the detail report:

**VTAM-APPLID**

VTAM application identification.

**DATE**

Date in the format YYYY/MM/DD.

TIME  
Time in the format HH:MM:SS.

MESSAGE  
AUTOMON/CICS generated messages.

MESSAGE NUMBER  
Accumulated message number.

ACTION  
Selected action messages.

INDICATION  
Selected indication messages.

WARNING  
Selected warning messages.

ERROR  
Selected error messages.

OTHER  
Selected messages other than A,I,W and E.

TOTAL  
Total selected messages.

## 5.7. Summary Report

```

COPYRIGHT (C) 2000. AUTOMON/CICS V420 IS A PROPRIETARY PRODUCT OF UNICOM SYSTEMS, INC. ALL RIGHTS RESERVED.
-----
(
DATE=1996/03/17,
JDATE=1996/185) AUTOMON/CICS HISTORY DATABASE SUMMARY REPORT PAGE= 1
(CPUID=00174234) (UNICOM SYSTEMS, INC.) (MODEL=3090)
(REPORTING PERIOD=1991/03/17,00:00:00-1991/03/17,23:59:59)
APPLID DATE TIME TRAN PROGRAM TERM ABCD DESCRIPTION
-----
CICSTOR1 1991/03/17 07:01:52 MASK CATL004 TN46 AMSB INTERNAL LOGIC ERROR IN DFHMSP
CICSTOR1 1991/03/17 07:01:52 WAKI RKU096T TN91 ATCH DEFERRED RELEASE OF TERMINAL BY MASTER TERMINAL
CICSTOR1 1991/03/17 07:01:52 HEDI HUR638A TN61 AEIA EIP ERROR
CICSTOR1 1991/03/17 07:19:49 SWEI SIRMJLK TN93 ADLA DL/I ABEND ABEND OCCURRED WITH THE ABEND CODE AT TCADLEC
CICSTOR1 1991/03/17 07:19:49 RETA RUID88A TN12 ABM0 REQUESTED BMS MAP COULD NOT BE LOCATED
CICSTOR1 1991/03/17 08:31:34 BOEK BWIEU0A TN25 ASRA TASK TERMINATED DUE TO PROGRAM INTERRUPT
CICSTOR1 1991/03/17 08:43:12 BOEK BWIEU0A TN52 ASRA TASK TERMINATED DUE TO PROGRAM INTERRUPT
CICSTOR1 1991/03/17 08:45:04 BOEK BWIEU0A TN46 ASRA TASK TERMINATED DUE TO PROGRAM INTERRUPT
CICSTOR1 1991/03/17 08:52:31 BOEK BWIEU0A TN72 ASRA TASK TERMINATED DUE TO PROGRAM INTERRUPT
CICSTOR1 1991/03/17 09:01:52 MAST CATL004 TN46 AMSB INTERNAL LOGIC ERROR IN DFHMSP
CICSTOR1 1991/03/17 09:01:52 WAKI RKU096T TN91 ATCH DEFERRED RELEASE OF TERMINAL BY MASTER TERMINAL
CICSTOR1 1991/03/17 09:01:52 HEDI HUR638S TN17 AEIA EIP ERROR
CICSTOR1 1991/03/17 10:19:49 SWEI SIRMJLK TN93 ADLA DL/I ABEND ABEND OCCURRED WITH THE ABEND CODE AT TCADLEC
CICSTOR1 1991/03/17 11:19:49 RETA RUID88A TN65 ABM0 REQUESTED BMS MAP COULD NOT BE LOCATED
CICSTOR1 1991/03/17 12:01:52 MASI CATL004 TN46 AMSB INTERNAL LOGIC ERROR IN DFHMSP
CICSTOR1 1991/03/17 12:01:52 WAKI RKU096T TN91 ATCH DEFERRED RELEASE OF TERMINAL BY MASTER TERMINAL
CICSTOR1 1991/03/17 12:32:52 HEDI HUR638A TN81 AEIA EIP ERROR
CICSTOR1 1991/03/17 13:19:49 SWEI SIRMJLK TN73 ADLA DL/I ABEND ABEND OCCURRED WITH THE ABEND CODE AT TCADLEC
CICSTOR1 1991/03/17 13:19:49 RETA RUID88A TN71 ABM0 REQUESTED BMS MAP COULD NOT BE LOCATED
CICSTOR1 1991/03/17 14:01:52 HEDI HUR638A TN77 AEIA EIP ERROR
CICSTOR1 1991/03/17 14:19:49 SWEL SIRMJLK TN61 ADLA DL/I ABEND ABEND OCCURRED WITH THE ABEND CODE AT TCADLEC
CICSTOR1 1991/03/17 14:19:49 RETA RUID88A TN66 ABM0 REQUESTED BMS MAP COULD NOT BE LOCATED
CICSTOR1 1991/03/17 15:31:34 BOEK BWIEUAA TN92 ASRA TASK TERMINATED DUE TO PROGRAM INTERRUPT
CICSTOR1 1991/03/17 15:43:12 BOEK BWIEU0A TN67 ASRA TASK TERMINATED DUE TO PROGRAM INTERRUPT
CICSTOR1 1991/03/17 16:01:52 MASI CATL00S TN46 AMSB INTERNAL LOGIC ERROR IN DFHMSP
CICSTOR1 1991/03/17 16:01:52 WAKI RKU096S TN69 ATCH DEFERRED RELEASE OF TERMINAL BY MASTER TERMINAL

```

**Figure 5-4. The Summary Report**

The following is a description of each field in the summary report:

**VTAM-APPLID**

VTAM application identification.

**DATE**

Date in the format YYYY/MM/DD.

**TIME** Time in the format HH:MM:SS.

**TRANSID** CICS transaction identification.

**PROGRAM** CICS program identification.

**TERMID** CICS terminal identification.

**ABCD** CICS/USER abend code.

**DESCRIPTION** CICS/USER abend code description.



---

## 5.8. UMON001 System Definition Migration

Figure 5-5 is a sample of JCL to update a newly defined UMON001 file with any user specified definitions which you may have made under previous releases of AUTOMON/CICS. This job will convert records which are specified in any of the seven (7) AUTOMON/CICS permanent tables (APPLID, AIT, XLT, THT, EXC, DEG, and SRT) as well as any logon USERID definitions which may have been created through the security feature of AUTOMON/CICS. UMON001O will be read and converted to the new format, compatible to PTF9601 and above. You will not need to redefine any existing parameters which are defined in your old UMON001 file.

This job will also allow the user to migrate file definitions from one UMON001 file to another providing they are both PTF9601 compatible. This is an easy way to migrate definitions to multiple UMON001 files.

- STEPLIB point to the AUTOMON/CICS loadlib.
- SYSPRINT should be checked for AUTOMON/CICS and operating error messages.
- SYSOUT contains detailed migration processing results.
- AMON001 points to AUTOMON.SYS001 history database.
- UMON001 points to UNIMON.SYS001.NEW file (to file).
- UMON001O points to UNIMON.SYS001.OLD file(from file).
- The SYSIN DD statement points to the AUTOMON/CICS batch utility commands and keyword that specify the utility you wish to use.

```

//CSHLISTM JOB (0,0000),'AUTOMON/CICS, INC.',CLASS=0,MSGCLASS=X,NOTIFY=CSH7
//*****
//*+=====+*
//*]          MIGRATE UMON001 FILE TO NEW FORMAT OR BETWEEN TWO POST      ]*
//*]          PTF9601 UMON001 FILES                                       ]*
//*+=====+*
//*****
//*****
//MIGRATE EXEC  PGM=CSHLIST,REGION=4096K
//*
//STEPLIB DD DISP=SHR,DSN=AUTOMON.V420.CICS410.LOADLIB <== LOADLIB
//AMON001 DD DISP=SHR,DSN=AUTOMON.SYS001          <== HISTORY FILE
//UMON001 DD DISP=SHR,DSN=UNIMON.SYS001.NEW      <== NEW DEFINITION FILE
//UMON001O DD DISP=SHR,DSN=UNIMON.SYS001.OLD    <== OLD DEFINITION FILE
//SYSPRINT DD SYSOUT=*,DCB=BLKSIZE=133
//SYSOUT   DD SYSOUT=*,DCB=BLKSIZE=133
//SYSIN    DD *
WTO(YES), -
MIGRATE(*), -
REPLACE(NO)

```

**Figure 5-5. UMON001 Migration Sample JCL**

---

## 5.9. JCL For Deleting Records

Figure 5-6 is a sample of the job stream that must be submitted to delete records from the AUTOMON/CICS history file (AMON001). In order to delete files the job stream must meet the following requirements:

- STEPLIB must point the AUTOMON/CICS loadlib.
- SYSPRINT must exist and should be checked for AUTOMON/CICS and operating error messages.
- SYSOUT must exist.
- AMON001 must exist and should point to the AUTOMON.SYS001 history database.
- UMON001 must exist and should point to the UNIMON.SYS001 system definition file.
- The SYSIN DD statement points to the AUTOMON/CICS batch utility commands and keyword that specify which records will be kept and which records will be deleted.

```
//CSHLIST JOB H744,'UNICOM SYSTEMS, INC.',CLASS=0,MSFCLASS=X,
//      NOTIFY=CSH7
//*****
//*+=====+*
//*|   DELETE RECORDS FROM AUTOMON/CICS HISTORY DATABASE           |*
//*+=====+*
//*****
//CSHLIST EXEC PGM=CSHLIST,REGION=4096K
//*
//STEPLIB DD DISP=SHR,DSN=CSH.V420.MVS.NEW.CICS410.LOADLIB <=LOADLIB
//AMON001 DD DISP=SHR,DSN=CICS330V.AUTOMON.SYS001 <=HISTORY FILE
//UMON001 DD DISP=SHR,DSN=CICS330V.UNIMON.SYS001 <=MESSAGE FILE
//SYSPRINT DD SYSOUT=*,DCB=BLKSIZE=133
//SYSOUT DD SYSOUT=*,DCB=BLKSIZE=133
//SYSIN DD *
      WTO(YES), -
      RETAIN(1980/01/01)
/*
```

**Figure 5-6. Sample JCL For Deleting Records**

This job will allow you to delete records while both CICS and AUTOMON/CICS are running in your system and the file pointed to by the AMON001 DD card is open and enabled.

The SYSIN parameter, that allows to specify records kept and records to be deleted, may be used in one of two formats.

1. If the date is specified in a YYYY/MM/DD format then records prior to the date specified will be deleted. EXAMPLE: RETAIN(1995/04/29) This example would delete all records prior to April 29, 1995.
2. If a timeframe is specified in the range of 0 to NNNNNNN, this job will delete records more than "N" numbers of days prior to the current date. EXAMPLE: RETAIN(30) If this job were run on March 31 all records prior to March 1st would be deleted. Specifying RETAIN(0) would delete all records prior to the current date.

The SYSIN parameter RETAIN is mutually exclusive with all other SYSIN parameters used with CSHLIST except for the WTO parameters. Do not attempt to code any other SYSIN parameters when the RETAIN parameter is coded as they will be ignored.

**(End of Section)**

---

## **Chapter 6. Messages and Abend Codes**

**This Chapter Describes:**

- Error Message Format
- AUTOMON/CICS Generated Messages
- AUTOMON/CICS Generated Abend Codes

---

This chapter identifies and explains the messages and abend codes associated with AUTOMON/CICS. It can be used to determine the type of message that has been issued, the specific conditions which caused a message to be issued, and the response required.

---

Each message in this chapter is preceded by an alphanumeric identifier or the form:

CSHnnnnt- or CSHnnnnt

- CSH identifies the message as an AUTOMON/CICS diagnostic message.
- nnnn is a unique four-digit number assigned to each message.
- Messages are accompanied by an eighth character, I, W, A or E.

I notifies the user that the message is of an informational nature only; no immediate response or action is required.

W warns the user that AUTOMON/CICS has detected an unusual condition. (W-type message contains a resource-name field which includes information that will help you to determine where the problem is)

A alerts the user that some specific action has been taken by AUTOMON/CICS to alleviate or alter the condition described by the message.

E indicates that the message shows an error condition where problem determination is required.

- describes that the message will be logged onto the operating system console log.

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The documentation for each message in this chapter includes the following information:

#### Message identifier and text

with variable fields separated by commas, for example:  
TRAN=\$FCT,PROGRAM=FCMASTER,TERM=X113

#### Explanation

is the extended description of the condition described by the message text.

#### System Action

describes the state of AUTOMON/CICS as a result of the condition indicated by the message.

#### User Response

is a suggested action which may not be immediate but should be taken by the user to correct the indicated condition.

#### Message Type

CSH30xxxx - UCCF/Server messages.

CSH69xx - AUTOMON/CICS Log Analyzer messages.

CSH6xxx - AUTOMON/CICS Log Analyzer messages.





CSH301020I-UCCF/Server UNRECOGNIZED COMMAND command

Explanation: This is an error message issued from the UCCF/Server. It indicates that the command syntax is wrong.

command - text of unrecognized command.

System Action: Command is not processed.

User Response: Correct the syntax error in the command and resubmit.

CSH301110I-UCCF/Server ERROR DURING INITIALIZATION component name RC=xx

Explanation: This is an error message issued from the UCCF/Server. It indicates that the initialization of UCCF/Server has failed.

xx - return code suffix  
component name - description of failing component

System Action: the UCCF/Server terminates abnormally

User Response: Contact your UNICOM support center for assistance with problem resolution.

CSH301120I-UCCF/Server SPECIFICATION ERROR IN THE parameter START-UP PARAMETER.

Explanation: This is an error message issued from the UCCF/Server. It indicates that the JCL start-up parameter is unrecognized.

parameter - description of unacceptable parameter

System Action: The job terminates abnormally

User Response: Check and replace the parameter with the correct parameter and resubmit.

CSH301210I-UCCF/Server ERROR DURING INITIALIZATION component name RC=xx

Explanation: This is an error message issued from the UCCF/Server. It indicates that the initialization of UCCF/Server has failed.

xx - return code suffix  
component name - description of failing component

System Action: UCCF/Server terminates abnormally

User Response: Contact your UNICOM support center for assistance with problem resolution.

CSH301220I-UCCF/Server AN ACTIVE SERVER NAMED ssss IS RUNNING AS JOB  
jjjjjjj

Explanation: This is an error message issued from the UCCF/Server. It indicates that the user is trying to UCCF/Server with a subsystem name that is already an active subsystem running as job jjjjjjj.

System Action: The UCCF/Server startup process is terminated.

User Response: Validate the name and existence of the running UCCF/Server.

CSH6000I-AUTOMON/CICS SUBTASK ATTACHED. AIT=xx,LOG=nnn,VER=CvvAvvv

Explanation: This is an informational message issued from the AUTOMON/CICS communication TCB. It indicates that the initialization process has been accepted by the AUTOMON/CICS management subtask.

xx - AUTOMON/CICS Initialization Table suffix ID  
nnn - The log table entry size  
Cvv - CICS/VS Version number  
Avvv - AUTOMON/CICS Version number

System Action: None

User Response: None

CSH6001E-AUTOMON/CICS ATTACH FAILED. RC=xx

Explanation: An error has occurred during the OS ATTACH of a communication subtask.

RC=xx - ALREADY ATTACHED	- Already active
CSHCOM	- Communication Vector table
CSHTS	- Temporary storage header
DFHTCA	- Task Control Area
GETMAIN FAILED	- Insufficient virtual storage
TEMP-STOR	- Temporary storage error
TERIMINAL	- Signing on to an AMON or a USAM transaction, disallowed. This task runs in background mode only, please use the UMON transaction.
NOT-LICENSED	- The user is not licensed for this CPU.

System action: AUTOMON/CICS terminates abnormally.

User Response: Check the return code. If the reason is not obvious then contact your UNICOM Support Center for assistance with problem resolution.

CSH6002I-AUTOMON/CICS SUBTASK DETACHED. ELAPSED=hh:mm:ss

Explanation: This is an informational message issued from the AUTOMON/CICS communication TCB. It indicates that the termination process has been completed.

System Action: None.

User Response: None.

CSH6003E-AUTOMON/CICS PROGRAM LOAD FAILED.

Explanation: The AUTOMON/CICS interface program is not available. AUTOMON/CICS cannot find CSHxxxx programs in any dataset concatenated in the DFHRPL DD statement in the CICS start up job stream.

System Action: AUTOMON/CICS terminates abnormally.

User Response: Ensure that the AUTOMON/CICS load library is properly

concatenated in the DFHRPL DD statement.

CSH6004E-AUTOMON/CICS PRODUCT EXPIRED.

Explanation: The AUTOMON/CICS security program could not initialize correctly.

System Action: AUTOMON/CICS terminates abnormally.

User Response: Contact your UNICOM Support Center for assistance with problem resolution.

CSH6005W-**\*WARNING\*** AUTOMON/CICS PRODUCT WILL EXPIRE WITHIN 30 DAYS.

Explanation: A warning condition has occurred during the AUTOMON/CICS security program initialization.

System Action: AUTOMON/CICS initialization continues.

User Response: Contact your UNICOM Support Center for assistance with problem resolution.

CSH6006E-AUTOMON/CICS PRODUCT EXPIRATION DATE VERIFICATION FAILED.

Explanation: The AUTOMON/CICS security program could not initialize correctly.

System Action: AUTOMON/CICS terminates abnormally.

User Response: Contact your UNICOM Support Center for assistance with problem resolution.

CSH6007E-AUTOMON/CICS IS NOT LICENSED FOR THIS CPU.

Explanation: An error condition has occurred during the AUTOMON/CICS security program initialization.

System Action: AUTOMON/CICS terminates abnormally.

User Response: Contact your UNICOM Support Center for assistance with problem resolution.

CSH6008W-**\*WARNING\*** AUTOMON/CICS UNSUPPORTED OPERATING SYSTEM.

Explanation: A warning condition has occurred during the AUTOMON/CICS security program initialization.

System Action: AUTOMON/CICS initialization continues.

User Response: Contact your UNICOM Support Center for assistance with problem resolution.

CSH6009W-**\*WARNING\*** AUTOMON/CICS UNSUPPORTED CICS RELEASE.

Explanation: A warning condition has occurred during the AUTOMON/CICS security program initialization.

System Action: AUTOMON/CICS initialization continues.

User Response: Contact your UNICOM Support Center for assistance with problem resolution.

CSH6010E-AUTOMON/CICS CEDF UNSUPPORTED.

Explanation: This message is sent to a CICS terminal when an operator signs on to UMON using the CEDF facility.

System Action: Sign-on fails.

User Response: Try again with CEDF off.

CSH6011I-AUTOMON/CICS "AMON" INTERFACE ENDED.

Explanation: An AMON CICS interface transaction has ended

System Action: AUTOMON/CICS terminates immediately.

User Response: None.

CSH6012W-AUTOMON/CICS ERROR OCCURRED DURING FC READ. FILE-ID=xxxxxxx.

Explanation: An unexpected error condition has occurred during the file control program (FCP) read. xxxxxxxx is the VSAM file name.

System Action: AUTOMON/CICS processing continues.

User Response: Ensure that the file name is properly defined in the CICS start-up job stream.

CSH6013W-AUTOMON/CICS ESPIE. PSW=xxxxxxx xxxxxx,#=nnn,+mxxxx

Explanation: This is a warning message indicating that an unexpected ESPIE condition has occurred during the OS POST request. CSH6016 message will be followed.

PSW=xxxxxxx xxxxxx           - The program status ward  
#=nnn                         - ESPIE/ESTAE Accumulator  
+mxxxx                        - Offset

System Action: The management subtask will recover the error condition.

User Response: None.

CSH6014W-AUTOMON/CICS ESTAE. PSW=xxxxxxx xxxxxx,#=nnn,+mxxxx

Explanation: This is a warning message indicating that an unexpected ESTAE condition has occurred during the OS POST request. CSH6016 message will be followed.

PSW=xxxxxxx xxxxxx           - The program status ward

#=nnn - ESPIE/ESTAE Accumulator  
+mmmm - Offset

System Action: The management subsystem will recover the error condition.

User Response: None.

CSH6015E-TOO MANY ESPIE/ESTAE. PSW=xxxxxx xxxxxx,#=nnn,+mmmm

Explanation: This is an error message indicating that too many unexpected ESPIE/ESTAE conditions have occurred during an OS POST request.

PSW=xxxxxx xxxxxx - The program status ward  
#=nnn - ESPIE/ESTAE Accumulator  
+mmmm - Offset

System Action: A repair subtask will be attached automatically to correct the problem.

User Response: None.

CSH6016W- (0-5) 00000000 00000000 00000000 00000000 00000000  
(6-B) 00000000 00000000 00000000 00000000 00000000  
(C-F) 00000000 00000000 00000000 00000000 00000000

Explanation: This message contains the general registers contents.  
(0-5) - Register 0 thru 5 at the time of abend  
(6-B) - Register 6 thru 11 at the time of abend  
(C-F) - Register 12 thru 15 at the time of abend

System Action: None.

User Response: None.



CSH6017E-VSAM OPEN/CLOSE ERROR. RC=xx

Explanation: An unexpected error condition has occurred during a file control program (FCP) open/close request.

RC=xx -	DSIDERR	- Dataset ID error
	NOTOPEN	- Dataset is not open
	ILLOGIC	- VSAM internal error
	INVREQ	- Invalid request
	IOERR	- Physical I/O error
	LENGERR	- Length error
	NOSPACE	- No space
	ISCIVREQ	- ISC invalid request
	ERROR	- Error condition

System Action: AUTOMON/CICS processing continues.

User Response: Ensure that the file is properly defined to a CICS system.

CSH6018E-VSAM WRITE ERROR. RC=xx

Explanation: An unexpected error condition has occurred during a file control program (FCP) write request.

RC=xx -	DSIDERR	- dataset id error
	NOTOPEN	- dataset is not open
	ILLOGIC	- VSAM internal error
	INVREQ	- invalid request
	IOERR	- Physical I/O error
	LENGERR	- length error
	NOSPACE	- no space
	ISCIVREQ	- ISC invalid request
	ERROR	- error condition

System Action: AUTOMON/CICS processing continues.

User Response: Ensure that the file is properly defined to a CICS system.

CSH6019I-AUTOMON/CICS aaaaaa ATTACHED. MAX=xxx,STAGES=yyyyyy

Explanation: This is an informational message indicating that an AUTOMON/CICS interface task has been activated normally.

aaaaaa - Program name.  
          CSHSRP                  - System recovery.  
          CSHAXIP                 - CICS Exits.  
          CSH00SIP                - UCCF/Server.  
MAX=xxx                            - Maximum abend recovery retry count. (0 thru  
                                    999)  
STAGES=yyyyyyyyy - Error recovery stages.

System Action: None.

User Response: None.

CSH6020E-AUTOMON/CICS aaaaaa ATTACH FAILED. RC=xx

Explanation: This is an error message indicating that the AUTOMON/CICS repair subtask could not be initialized.

aaaaaa - Program name.  
          CSHSRP                  System recovery.  
          CSHAXIP                 CICS Exits.  
          CSH00SIP -              UCCF/Server.  
  
RC=      ILLOGIC          - An AUTOMON/CICS address space is not active.  
          PGMIDERR         - Not found or disabled.  
          NOT FOUND         - The UCCF/Server is not active.

System Action: AUTOMON/CICS initialization continues.

User Response: Use the RC information to investigate the cause of the attach failure.

CSH6021E-\*ERROR\* INVALID "xxxxxxx". DATA=yyyyyyy

Explanation: The CICS task dispatcher (DFHKCP) has an invalid task chain pointer. This could be a result of a severe storage overlay condition in CICS system areas.

xxxxxxx	-	CSACDTA	-	Current task's TCA
		CSAACTBA	-	Active task's DCA
		CSAACTFA	-	Active task's DCA
		CSASUSBA	-	Suspended task's DCA
		CSASUSFA	-	Suspended task's DCA

yyyyyyy - Data value contained

System Action: The repair subtask will attempt to repair the damaged chains.

User Response: Notify your systems programmer immediately to identify the transaction. Correct the problem using AUTOMON/CICS generated messages. This message indicates a severe storage violation condition exists in your CICS address space.

CSH6022E-AUTOMON/CICS CANCELLED. ABCD=xxxx

Explanation: The AUTOMON/CICS management subtask has had to deactivate the communication subtask. It can also indicate that an unconditional request for recovery has failed, in which case the message indicates a severe storage overlay condition exists in a CICS system.

xxxx =	U998 -	The repair subtask could not perform recovery functions due to the data integrity exposure.
	U999 -	The AUTOMON/CICS subtask encountered an unexpected internal logical failure.

System Action: AUTOMON/CICS will be terminated with a dump.

User Response: Notify your systems programmer. This message indicates a severe storage violation condition exists in your CICS address space.

CSH6023I-A USER EXIT PROGRAM ENABLED. PROGRAM=xxxxxxx

Explanation: This is an informational message indicating that the AUTOMON/CICS user exit program has been activated successfully.

xxxxxxx -	CSHXMGPB	- Message program exit
	CSHXAMPB	- Reserved
	CSHXAMPA	- for
	CSHXSRPB	- future
	CSHXSRPA	- releases

System Action: None.

User Response: None.

CSH6024E-AUTOMON/CICS SUBTASK DETACHED. ELAPSED=hh:mm:ss

Explanation: This is an error message indicating that the user attempted to deactivate AUTOMON/CICS when the program was not active.

System Action: None.

User Response: None.

CSH6025W-**\*WARNING\*** YOU ARE LOADING "TRIAL VERSION" OF AUTOMON/CICS

Explanation: This is a warning message indicating that you are loading the trial version of AUTOMON/CICS.

System Action: None.

User Response: None.

CSH6026I-**\*(LICENCE)\*** LICENSED MATERIAL. EXCLUSIVE USE BY LICENSEE ONLY.

Explanation: This is an informational message indicating that the material used in this product may be used by the licensee only. Use of his material by anyone other than the licensee is prohibited.

System Action: None.

User Response: None.

CSH6027I-\*(LICENSE)\* COMPANY: \*XXXXXXXX\*

Explanation: This is an informational message indicating the company name of the user. If the user is running a trial version company name will indicate "TRIAL\_VERSION".

XXXXXXXX - The company name which this product is licensed to, the length of the company name is 32 characters long.

System Action: None.

User Response: None.

CSH6028I-\*(LICENSE)\* CUST\_ID: \*XXXXXXXX\*

Explanation: This is an informational message indicating the customer ID of the user. This customer ID will be supplied to you by UNICOM. If the user is running a trial version Customer ID will indicate "TRIAL\_VERSION".

XXXXXXXX - The customer ID which this product is licensed to, the length of the customer ID is 16 characters long.

System Action: None.

User Response: None.

CSH6100I-SHORT-ON-STORAGE. DSA=xxxxK,FREE=xxxxK,MXT=yyy,TASKS=zzz

Explanation: This is an informational message indicating that the storage control program has had to release the storage cushion in order to satisfy a GETMAIN request. It can also indicate that a request for storage above 16-megabyte line has failed, in which case the message indicates a short on storage of MVS storage above the line.

DSA=xxxxK - Dynamic storage area in K  
FREE=xxxxK - Available storage in DSA in K  
MXT=yyy - The maximum tasks  
TASKS=zzz - Current tasks in system  
(Note: K = 1000 not 1024)

System Action: The MXT value will be dynamically adjusted to LOW until the cushion has been reacquired or the unconditional request has been satisfied.

User Response: None

CSH6101A-*ACTION\** ADJUSTING SYSTEM PARAMETERS. RC=xxxxxxxx

Explanation: This is an action message indicating that an AUTOMON/CICS subtask is about to adjust CICS system parameters.

Reason Code:

APPROACHING_SOS	- CICS is about to release the storage cushion
EXCESSIVE_DSA_USE	- Excessive DSA utilization condition
AN_SOS_CONDITION	- CICS is in a short on storage condition
NO_MORE_SOS_COND	- No more short on storage condition
ACCPT_MORE_TASKS	- Accept more incoming transactions condition
TRANS_BALANCING	- Transaction balancing condition
MXT_LWM_HIT_COND	- The MXT low water mark hit condition
MXT_HWM_HIT_COND	- The MXT high water mark hit condition

System Action: AUTOMON/CICS processing continues.

User Response: None.

CSH6102I-**\*WARNING\*** MXT REACHED. MXT=xxx,TASKS=yyy

Explanation: This is an informational message indicating that the maximum tasks condition has been detected by the detective mechanism.

MXT=xxx           - The maximum tasks  
TASKS=yyy        - Active maximum tasks

System Action: AUTOMON/CICS processing continues.

User Response: Adjust the MXT threshold value if needed.

CSH6103A-**\*ACTION\*** SOS. MXT=xxx,AMXT=yyy

Explanation: This is an informational message indicating that the repair subtask took appropriate actions to avoid being in a short-on-storage condition.

MXT=xxx           - the maximum tasks  
AMXT=yyy         - the active maximum tasks

System Action: AUTOMON/CICS processing continues.

User Response: Increase the DSA size.

CSH6104E-**\*(HALT)\*** CICS IN A PERMANENT WAIT.

Explanation: No new tasks have been dispatched by DFHKCP during the last AUTOMON/CICS management cycle period. A logical loop or external wait condition has been detected in a CICS service module.

System Action: None.

User Response: Terminate CICS with a dump if needed.

CSH6105I-CICS NO LONGER IN A PERMANENT WAIT.

Explanation: This is an informational message indicating that the task dispatcher has been reactivated.

System Action: None.

User Response: None.

CSH6106W-**\*WARNING\*** TIMER ADJUSTMENT TASK PENDING.

Explanation: This is a warning message indicating that the CICS timer event task has not been dispatched for the last AUTOMON/CICS communication subtask thresholds cycle.

System Action: None.

User Response: None

CSH6107I -CICS IS UNDER STRESS. AREA=XXXXXXXX

Explanation: This is an informational message indicating a shortage of storage in the dynamic storage area(s). This message results from one of two possible conditions. Either the largest free area is less than the cushion size, or there is at least one transaction suspended due to insufficient contiguous free storage.

AREA=XXXXXXXX	- The contents of this field are CICS release dependent.
CICS V3.2.1- DSA	- Dynamic Storage Area below 16M line.
and V3.1.1 EDSA	- Dynamic Storage Area above 16M line.
CICS V3.3.0- CDSA	- CICS Storage below 16M line.
UDSA	- User Storage below 16M line.
ERDSA	- Read-Only Storage above 16M line.
ECDSA	- CICS Storage above 16M line.
EUDSA	- User Storage above 16M line.
CICS V4.1.0- ABV 16MB	- Dynamic Storage Area above 16M line.
BLW 16MB	- Dynamic Storage Area below 16M line.

System Action: None.

User Response: None.

CSH6150I-(LOG) MASTER TRACE ON|OFF.



Explanation: This is an informational message indicating that the CICS trace facility has been activated or inactivated.

System Action: None.

User Response: None.

CSH6151I-(LOG) AUX. TRACE ON|OFF.

Explanation: This is an informational message indicating that the CICS Auxiliary trace facility has been activated or inactivated.

System Action: None.

User Response: None.

CSH6152I-(LOG) CMF ACCOUNT ON|OFF.

Explanation: This is an informational message indicating that the CICS monitoring facility has been activated or inactivated.

System Action: None.

User Response: None.

CSH6153I-(LOG) CMF PERFORMANCE ON|OFF.

Explanation: This is an informational message indicating that the performance function of CICS monitoring facility has been activated or inactivated.

System Action: None.

User Response: None.

CSH6154I-(LOG) CMF EXCEPTION ON|OFF.

Explanation: This is an informational message indicating that the exception function of CICS monitoring facility has been activated or inactivated.

System Action: None.

User Response: None.

CSH6155I-(LOG) ICV NEW=xxxxxxx,OLD=yyyyyyy

Explanation: This is an informational message indicating that the region/partition exit time value has been changed.

NEW=xxxxxxx - new value  
OLD=yyyyyyy - old value

System Action: None.

User Response: None.

CSH6156I-(LOG) ICVR NEW=xxxxxxx,OLD=yyyyyyy

Explanation: This is an informational message indicating that the runaway tasks timeout value has been changed.

NEW=xxxxxxx - new value  
OLD=yyyyyyy - old value

System Action: None.

User Response: None.

CSH6157I-(LOG) ICVS NEW=xxxxxxx,OLD=yyyyyyy

Explanation: This is an informational message indicating that the stall purge timeout value has been changed.

NEW=xxxxxxx - new value  
OLD=yyyyyyy - old value

System Action: None.

User Response: None.

CSH6158I-(LOG) ICVTSD NEW=xxxxxxxx,OLD=yyyyyyyy

Explanation: This is an informational message indicating that the terminal scan delay value has been changed.

NEW=xxxxxxxx - new value  
OLD=yyyyyyyy - old value

System Action: None.

User Response: None.

CSH6159I-(LOG) IOCP NEW=xxxxxxxx,OLD=yyyyyyyy

Explanation: This is an informational message indicating that the short term wait ECB count percent has been changed.

NEW=xxxxxxxx - new value  
OLD=yyyyyyyy - old value

System Action: None.

User Response: None.

CSH6160I-(LOG) MXT NEW=xxx,OLD=yyy

Explanation: This is an information indicating that the maximum tasks value has been changed.

NEW=xxx - new value  
OLD=yyy - old value

System Action: None.

User Response: None.

CSH6161I-(LOG) AMXT NEW=xxx,OLD=yyy

Explanation: This is an informational message indicating that the active maximum tasks value has been changed.

NEW=xxx           - new value  
OLD=yyy           - old value

System Action: None.

User Response: None.

CSH6162I-(LOG) CUSHION NEW=xxxxxxxx,OLD=yyyyyyyyy

Explanation: This is an informational message indicating that the storage cushion size has been changed.

NEW=xxxxxxxx     - new value  
OLD=yyyyyyyyy   - old value

System Action: None.

User Response: None.

CSH6163I-(LOG) AKP NEW=xxxxxxxx,OLD=yyyyyyyyy

Explanation: This is an informational message indicating that the activity keypoint frequency count has been changed.

NEW=xxxxxxxx     - new value  
OLD=yyyyyyyyy   - old value

System Action: None.

User Response: None.

CSH6164I-(LOG) VTAM ACB OPEN|CLOSE.

Explanation: This is an informational message indicating that the VTAM application ID status has been changed.

System Action: None.

User Response: None.

CSH6180I-(DUMP) PROGRAM INTERRUPTS. COUNT=xxxx

Explanation: This is an informational message indicating that a program interrupt in the application program has been detected by AUTOMON/CICS.

COUNT=xxxx - accumulator

System Action: None.

User Response: None.

CSH6181I-(DUMP) STORAGE DUMP. COUNT=xxxx

Explanation: This is an informational message indicating that a CICS transaction storage dump condition has been detected by AUTOMON/CICS.

COUNT=xxxx - accumulator

System Action: None.

User Response: None.

CSH6182I-(DUMP) RUNAWAY TASKS. COUNT=xxxx

Explanation: A runaway task condition (a logical loop) has been detected.

COUNT=xxxx - Accumulator

System Action: None.

User Response: None.

CSH6200W-LOOP/WAIT DETECTION. TRN=xxxx,PGM=yyyyyyyyy,ID= tttt,TERM=zzzz

Explanation: This is a warning message indicating a task has been executing for longer than the notification thresholds value (defined by the LOOP NOTIFY option in the AUTOMON/CICS initialization table) without giving control to the CICS dispatcher. This condition indicates a possible loop within the user's program.

TRN=xxxx	- Transaction ID
PGM=yyyyyyyyy	- Program name
ID= tttt	- Task ID
TERM=zzzz	- Terminal ID

System Action: None.

User Response: Ensure that the task is functioning properly. Adjust the threshold values if needed.

CSH6201A-\*ACTION\* LOOP TRAN=xxxx,PGM=yyyyyyyyy,ID= tttt,TERM=zzzz,ABCD=aaaa

Explanation: This is an action message indicating a task has been executing for longer than the action thresholds value (defined by the LOOP ACTION option on the AUTOMON/CICS initialization table) without giving control to the CICS dispatcher. This condition indicates a possible loop within the user's program. To assist the user in locating the logical loop, TCAPCPSW may contain the PSW at the time of the abend.

TRAN=xxxx	- Transaction ID
PROGRAM=yyyyyyyyy	- Program name
ID= tttt	- Task ID
TERM=zzzz	- Terminal ID
ABCD=aaaa	- Abend code

System Action: The transaction will be purged with a dump.

User Response: Attempt to determine the flow of control within the transaction between the time the abend occurred and the last call to the CICS task control program prior to the abend. A CICS trace will help because it gives a history of the service requests made by the transaction. Look for an unexpected flow of control, a loop, or an excessive large time interval. Check the application logic for a design error that could lead to a loop.

CSH6202E-LOOP/WAIT IN CICS. TRAN=xxxx,PROGRAM=yyyyyyyy,TERM=zzzz

Explanation: This is a warning message indicating a task has been executing for longer than the notification thresholds value (defined by the LOOP NOTIFY option on the AUTOMON/CICS initialization table) without giving control to CICS dispatcher. This condition indicates a possible loop within the CICS service program. To assist the user in locating the logical loop, TCAPCPSW may contain the PSW at the time of the abend.

TRAN=xxxx	- Transaction ID
PROGRAM=yyyyyyyy	- Program name
TERM=zzzz	- Terminal ID

System Action: None.

User Response: Attempt to determine the flow of control within the transaction between the time the abend occurred and the last call to the CICS task control program prior to the abend. A CICS trace will help because it gives a history of the service requests made by the transaction. Look for an unexpected flow of control, or a loop, or an excessive large time interval.

CSH6203I-\*BYPASS\* ABEND IN PROGRESS. TRAN=xxxx,TERM=yyyy,ABCD=zzzz

Explanation: This is an informational message indicating that a task is already being cancelled by the CICS task dispatcher.

TRAN=xxxx	- Transaction ID
TERM=zzzz	- Terminal ID
ABCD=zzzz	- Abend code

System Action: None.

User Response: None.

CSH6204I-\*BYPASS\* LOOP. TRAN=xxxx,PGM=yyyyyyyy,TERM=zzzz

Explanation: This is an informational message indicating a task has been executing for longer than the action thresholds value (defined by the LOOP ACTION option on the AUTOMON/CICS initialization table) without giving control to the CICS dispatcher. However the transaction id and/or program id have been defined in Exclusive list tables (XLTs) electing not to purge the task. This condition indicates a possible loop within the CICS application program.

TRAN=xxxx           - Transaction ID  
PGM=yyyyyyyy       - Program name  
TERM=zzzz           - Terminal ID

System Action: None.

User Response: None.

CSH6205I-TASK ABENDED. TRAN=xxxx,PGM=yyyyyyyy,TERM=zzzz,ABCD=aaaa

Explanation: This is an informational message indicating a CICS transaction has been abended abnormally.

TRAN=xxxx           - Transaction ID  
PGM=yyyyyyyy       - Program name  
TERM=zzzz           - Terminal ID  
ABCD=aaaa           - Abend code

System Action: None.

User Response: None.

CSH6206I-PSW=aaaaaaaa,ENTRY=bbbbbbbb,OFFSET=ccccccc,LAN=dddd

Explanation: A CICS transaction has abended abnormally.

PSW=aaaaaaaa       - The PSW  
ENTRY=bbbbbbbb     - Program name  
OFFSET=ccccccc     - Offset from the entry  
LAN=dddd            - Program Language

System Action: None.



User Response: None.

CSH6207I-OBJ=aaaaaaaa,RC=bb

Explanation: A CICS transaction has abended abnormally.

OBJ=aaaaaaaa - Object code  
RC=bb - Reason Code

System Action: None.

User Response: None.

CSH6208W-\*WARNING\* EXCESSIVE CPU USAGE. TRAN=xxxx,TERM=yyyy,CPU=zzzzz.zz

Explanation: This is a warning message indicating a task is consuming CPU that is higher than the Loop high water mark thresholds value defined in the LOOP-HWM ACTION option in the AUTOMON/CICS thresholds table (THT). This condition indicates a possible application loop or an application design error.

TRAN=xxxx - Transaction ID  
TERM=yyyy - Terminal ID  
CPU=zzzzz.zz - Accumulated CPU time in seconds

System Action: None.

User Response: None.

CSH6209A-\*ACTION\* EXCESSIVE CPU USAGE. TRAN=xxxx,TERM=yyyy,CPU=zzzzz.zz

Explanation: This is an action message indicating a task is consuming CPU that is higher than the Loop high water mark thresholds value defined in the LOOP-HWM NOTIFY option in the AUTOMON/CICS thresholds table (THT). This condition indicates a possible application loop or an application design error. The task will be cancelled by AUTOMON/CICS.

TRAN=xxxx           - Transaction ID  
TERM=yyyy           - Terminal ID  
CPU=zzzzz.zz        - Accumulated CPU time in seconds

System Action: None.

User Response: None.

CSH6210W-XLT\_LOOP REACHED. TRAN=xxxx,PGM=yyyyyyyyy,ID=tttt,XLT=lllllll

Explanation: This is a warning message indicating that the task has reached the looping threshold defined for the transaction/program in the AUTOMON/CICS Exclusion List Table (XLT). The task will be purged by AUTOMON/CICS. This message will be followed by other action messages which will purge the transaction with a transaction dump.

TRAN=xxxx           - Transaction ID  
PGM=yyyyyyyyy       - Program name  
ID= tttt             - Task ID  
XLT=lllllll- XLT Threshold value

System Action: None.

User Response: Ensure that the task is functioning properly adjust the threshold values if necessary.

CSH6211I-\*BYPASS\* EXCESSIVE CPU USAGE. TRAN=xxxx,ID= tttt,CPU=zzzzz.zz

Explanation: This is an informational message indicating a task is consuming CPU that is higher than the Loop threshold value defined in the AUTOMON/CICS threshold table (=0.2). However the transaction ID and/or program ID have been defined in Exclusion list table (XLT) which informs AUTOMON/CICS not to purge the task. This condition indicates a possible loop within the CICS application program.

TRAN=xxxx           - Transaction ID  
ID= tttt             - Task ID  
CPU=zzzzz.zz       - Accumilated CPU time in seconds

System Action: None.

User Response: None.

CSH6212W-XLT\_CPU REACHED. TRAN=xxxx,ID=tttt,CPU=zzzzz.zz,XLT=lllllll

Explanation: This is a warning message indicating that a task is consuming CPU CPU time in excess of the value specified for the transaction/program in the AUTOMON/CICS Exclusion List Table (XLT). This message will be followed by other action messages which will purge the transaction with a transaction dump. This indicates a possible loop or an application error.

TRAN=xxxx           - Transaction ID  
ID=tttt             - Task ID  
CPU=zzzzz.zz       - Accumilated CPU time in seconds  
XLT=lllllll                 - XLT Threshold value

System Action: None.

User Response: Ensure that the task is functioning properly, adjust the XLT threshold if necessary.

CSH6300W-EXCESSIVE STORAGE USAGE. TRAN=xxxx,TERM=yyyy, STOR=zzzzzzzz

Explanation: This is a warning message indicating a task is acquiring storage areas that are larger than the Storage high water mark thresholds value (defined by the STOR-HWM NOTIFY option in the THT AUTOMON/CICS thresholds table) without freeing storage areas. This condition indicates a possible GETMAIN loop or an application design error.

TRAN=xxxx            - Transaction ID  
TERM=yyyy           - Terminal ID  
STOR=zzzzzzzz      - Total acquired storage in bytes

System Action: None.

User Response: None.

CSH6301A-*\*ACTION\** STORAGE USAGE. TRAN=xxxx,TERM=yyyy,STOR=zzzzzzzz

Explanation: This is an action message indicating a task is acquiring storage areas that is more than the Storage high water mark thresholds value (defined by the STOR-HWM ACTION option in the AUTOMON/CICS initialization table) without freeing storage areas. This condition indicates a possible GETMAIN loop or an application design error.

TRAN=xxxx            - Transaction ID  
TERM=yyyy           - Terminal ID  
STOR=zzzzzzzz      - Total acquired storage in bytes

System Action: The transaction will be purged with a dump written to the CICS dump dataset.

User Response: Ensure that the program behaves properly. Adjust action threshold values if needed.

CSH6302I-*\*BYPASS\** STORAGE USAGE. TRAN=xxxx,TERM=yyyy,STOR=zzzzzzzz

Explanation: This is an informational message indicating a task is acquiring storage areas that is more than the Storage high water mark thresholds value (defined by the STOR-HWM ACTION option in the AUTOMON/CICS initialization table) without freeing storage areas. However the transaction id and/or program id have been defined in Exclusive list tables (XLTs) electing not

to purge the task. This condition indicates a possible GETMAIN loop or application design error.

TRAN=xxxx - Transaction ID  
TERM=yyyy - Terminal ID  
STOR=zzzzzzz - Total acquired storage in bytes

System Action: None.

User Response: None.

CSH6303E-STORAGE VIOLATION. TYPE=xx,TRN=yyy,TRM=zzz,PGM=pppp

Explanation: Either there has been a program check in the CICS storage control program, or an error has been discovered in a storage chain. The action taken will depend on the value of the SVD parameter specified in the CICS system initialization table or as an operator override. The error may be one of the following:

TYPE=xx 01 - Invalid chain address (high)  
02 - Invalid chain address (low)  
03 - Invalid class identifier (high)  
04 - Invalid class identifier (low)  
05 - Duplicate SAA not match - class field  
06 - Duplicate SAA not match - length field  
07 - Duplicate SAA not match - chain field  
TRN=yyy - Transaction ID  
TRM=zzz - Terminal ID  
PGM=pppp - Program ID

System Action: A storage violation dump will be taken if SVD=YES was specified, or if SVD=nn was specified and fewer than nn storage violation dumps have been taken so far. The storage recovery program will attempt to recover from the error unless SVD=NO was specified.

User Response: If a dump is produced, give it to the systems programmer for examination.

CSH6304E-HEAD:A=xxxxxxxx-yyyyyyyyy,TAIL:A=xxxxxxxx-yyyyyyyyy

Explanation: An error has been discovered in a Storage Accounting Area (SAA) storage chain. The action taken will depend on the value of the SVD parameter specified in the CICS system initialization table or as an operator override.

HEAD:A=xxxxxxxx	- SAA header address
-yyyyyyyyy	- SAA (type, length and forward chain)
TAIL:A=xxxxxxxx	- SAA trailer address
-yyyyyyyyy	- SAA (type, length and forward chain)
*OUTSIDE OF DSA*	- Invalid storage address

System Action: A storage violation dump will be taken if SVD=YES was specified, or if SVD=nn was specified and fewer than nn storage violation dumps have been taken so far. The storage recovery program will attempt to recover from the error unless SVD=NO was specified.

User Response: If a dump is produced, give it to the systems programmer.

CSH6305E-DATA=aaaaaaaa:xxxxxxxx xxxxxxxx xxxxxxxx xxxxxxxx yyyyyyyyyyyyyyyyyy

Explanation: An error has been discovered in an SAA storage chain.

aaaaaaaa	- Virtual storage address
xxxxxxxx	- Data display in hex format
yyyyyyyyy	- Data display in character format

System Action: None.

User Response: None.

CSH6306I-STORAGE VIOLATION IN PROGRESS.

Explanation: This message is followed by CSH6305E message. The AUTOMON/CICS repair subtask will be attached automatically to recover from the error.

System Action: A storage violation dump will be taken if SVD=YES was specified, or if SVD=nn was specified and fewer than nn storage violation dumps have been taken so far.

User Response: If a dump is produced, give it to the systems programmer.

CSH6307E-STORAGE VIOLATION. TYPE=xxxx,SP=yyy,ADDR=zzzzzzzz

Explanation: An error has been discovered in Dynamic Storage Area (DSA). The action taken will depend on the value of the SVD parameter specified in the CICS system initialization table or as an operator override. The error may be one of the following:

xxxx -    CMF       - CICS Monitoring Facility area  
          DCA       - Dispatch Control Area  
          FAQE      - Free Area Queue Elements  
          LIFO      - Last In First Out save area  
          PGM       - Program storage area  
          TCA       - Task Control Area  
          TIOA      - Terminal In/Out Area  
          USER      - User storage area

yyy -     CON       - Control Subpool  
          TP        - Teleprocessing Subpool  
          SHR       - Shared Subpool  
          TSK       - Task Subpool  
          MIX       - Mixed Subpool  
          ISO       - Isolated Subpool  
          RPL       - RPL Subpool  
          PGM       - Program Subpool

zzzz -     Virtual storage address

System Action: The repair subtask will be attached to perform a recovery function.

User Response: Notify your systems programmer. CICS generated storage violation dump, aux trace and AUTOMON/CICS generated messages can be used to determine the cause of the error.

CSH6308I-\*BYPASS\* SOS CONDITION. TRAN=xxxx,TERM=yyyy,PROG=zzzzzzzz

Explanation: This is an informational message indicating a task was selected for purging due to its resource usage during a short on storage condition. (Defined by the short on storage action threshold in the AUTOMON/CICS Threshold table) This task would have been purged by AUTOMON/CICS in an effort to relieve the stress condition experienced by CICS. However, the transaction id and/or program id have been defined in Exclusive list tables (XLT's) which specify the names of transactions and /or programs which the user does not wish AUTOMON/CICS to purge.

TRAN=xxxx           - Transaction ID  
TERM=yyyy           - Terminal ID  
PROG=zzzzzzzz       - Program ID

System Action: None.

User Response: None.

CSH6309W-XLT\_STGHWM REACHED. TRAN=xxxx,PGM=yyyyyyyyy,ID= tttt,XLT=llllllll

Explanation: This is a warning message indicating that the task has reached in excess of the storage HWM specified for the transaction/program in the AUTOMON/CICS Exclusion List Table (XLT). This message will be followed by other action messages which will purge the transaction with a transaction dump. This indicates a possible application error.

TRAN=xxxx           - Transaction ID  
PGM=yyyyyyyyy       - Terminal ID  
ID= tttt             - task ID  
XLT=llllllll         - XLT threshold value

System Action: None.

User Response: Ensure that the task is running properly adjust the XLT threshold if necessary.



CSH6340W-(EXC) xxx SUBPOOL HWM HIT. DSA=yyyyK,FREE=zzzzK,USED=aaaaK

Explanation: This is a warning message indicating that it has reached the exceptional threshold value (defined by the EXC SUBPOOL option in the AUTOMON/CICS exceptional thresholds table).

xxx	- Storage subpool name
CON	- Control subpool
TP	- Teleprocessing subpool
MIX	- Mixed subpool
ISO	- Isolated subpool
TSK	- Task subpool
SHR	- Shared subpool
RPL	- RPL subpool
PGM	- Program subpool
DSA=yyyyK	- The dynamic storage size in K
FREE=zzzzK	- Available DSA size in K
USED=aaaaK	- Allocated DSA size in K (note: K = 1000 not 1024)

System Action: None.

User Response: None.

CSH6341W-(EXC) AMXT HIT. MXT=xxx,AMXT=yyy,AMXTC=zzz

Explanation: This is a warning message indicating that it has reached the exceptional threshold value (defined by the EXC option in the AUTOMON/CICS exceptional thresholds table)

MXT=xxx	- The maximum tasks
AMXT=yyy	- The maximum active tasks
AMXTC=zzz	- Accumulated AMXT count

System Action: None.

User Response: Adjust the AMXT value if needed.

CSH6342W-(EXC) RUNAWAY TASKS FLUSHED. TOT=xxxx

Explanation: This is a warning message indicating that it has reached the exceptional threshold value (defined by the EXC option in the AUTOMON/CICS exceptional thresholds table).

TOT=xxxx - accumulated runaway tasks

System Action: None.

User Response: Adjust the threshold value if needed.

CSH6343W-(EXC) TOTAL TASKS. TOT=xxxx

Explanation: This is a warning message indicating that it has reached the exceptional threshold value (defined by the EXC option in the AUTOMON/CICS exceptional thresholds table).

TOT=xxxx - accumulated tasks

System Action: None.

User Response: Adjust the threshold value if needed.

CSH6344W-(EXC) GETMAIN REQUESTS. TOT=xxxx

Explanation: This is a warning message indicating that it has reached the exceptional threshold value (defined by the EXC option in the AUTOMON/CICS exceptional thresholds table).

TOT=xxxx - accumulated getmain requests

System Action: None.

User Response: Adjust the threshold value if needed.

CSH6345W-(EXC) FREEMAIN REQUESTS. TOT=xxxx

Explanation: This is a warning message indicating that it has reached the exceptional threshold value (defined by the EXC option in the AUTOMON/CICS exceptional thresholds table).

TOT=xxxx - accumulated freemain requests

System Action: None.

User Response: Adjust the threshold value if needed.

CSH6346W-(EXC) SOS COUNTS. TOT=xxxx

Explanation: This is a warning message indicating that it has reached the exceptional threshold value (defined by the EXC option in the AUTOMON/CICS exceptional thresholds table).

TOT=xxxx - accumulated SOS counts

System Action: None.

User Response: Adjust the threshold value if needed.

CSH6347W-(EXC) GETMAIN DEFERRED. TOT=xxxx

Explanation: This is a warning message indicating that it has reached the exceptional threshold value (defined by the EXC option in the AUTOMON/CICS exceptional thresholds table).

TOT=xxxx - accumulated GETMAIN deferred

System Action: None.

User Response: Adjust the threshold value if needed.

CSH6348W-(EXC) GETMAIN DEFFERED HWM. HWM=xxxx

Explanation: This is a warning message indicating that it has reached the exceptional threshold value (defined by the EXC option in the AUTOMON/CICS exceptional thresholds table).

HWM=xxxx - GETMAIN deferred HIGH WATER MARKS

System Action: None.

User Response: Adjust the threshold value if needed.

CSH6349W-(EXC) GETMAIN DEFERRED EVENTS. TOT=xxxx

Explanation: This is a warning message indicating that it has reached the exceptional threshold value (defined by the EXC option in the AUTOMON/CICS exceptional thresholds table).

TOT=xxxx - accumulated GETMAIN request rechained events

System Action: None.

User Response: Adjust the threshold value if needed.

CSH6360W-(EXC) VTAM RA HWM HIT. HWM=xxxx

Explanation: This is a warning message indicating that it has reached the exceptional threshold value (defined by the EXC option in the AUTOMON/CICS exceptional thresholds table).

HWM=xxxx - VTAM receive any HIGH WATER MARKS

System Action: None.

User Response: Adjust the threshold value if needed.

CSH6361W-(EXC) VTAM CURRENT FREE RPL COUNT. TOT=xxx

Explanation: This is a warning message indicating that it has reached the exceptional threshold value (defined by the EXC option in the AUTOMON/CICS exceptional thresholds table).

TOT=xxxx - accumulated VTAM free RPL Count

System Action: None.

User Response: Adjust the threshold value if needed.

CSH6362W-(EXC) VTAM CURRENT RA RPL COUNT. TOT=xxx

Explanation: This is a warning message indicating that it has reached the exceptional threshold value (defined by the EXC option in the AUTOMON/CICS exceptional thresholds table).

TOT=xxxx - accumulated VTAM active RPL count

System Action: None.

User Response: Adjust the threshold value if needed.

CSH6380W-(DEG) xxxxxxxx. TOT=yyy,THREADS=zzz

Explanation: This is a warning message indicating that it has reached the degradation threshold value (defined by the DEG option in the AUTOMON/CICS degradation thresholds table).

xxxxxxx -	ACTIVE TASKS	- Active CICS tasks
	AUX. TS WAIT	- Aux. temp. stor
	CICS ECB WAIT	- Wait CICS event
	DFHDC REQUESTS	- Dump control
	DFHDI REQUESTS	- Data inter-change
	DFHFC REQUESTS	- File control
	DFHIC REQUESTS	- Interval control
	DFHPC REQUESTS	- Program control
	DFHSC REQUESTS	- Storage control
	DFHTC REQUESTS	- Terminal control
	DFHTD REQUESTS	- Transient data
	DFHTS REQUESTS	- Temp. storage
	DFHBMS REQUESTS	- Basic mapping support
	DISPATCHER WAIT	- Wait for DFHKC
	DL/I REQUESTS	- DL/I calls
	FILE I/O WAIT	- File control
	MULTY ECB WAIT	- Wait events
	NON-DISPATCHABLE	- Non dispatchable task
	SINGLE ECB WAIT	- Wait event
	STORAGE WAIT	- DSA storage
	SUSPENDED TASKS	- Long term wait
	TERMINAL WAIT	- Intervention req
	TOT=yyy	- Accumulator
	THREADS=zzz	- Threshold value

System Action: None.

User Response: Adjust the threshold value if needed.

CSH6400W-VSAM STRING WAIT. STRING=xxx,WAIT=yyy,FILE=zzzzzzzz

Explanation: This is a warning message indicating a VSAM string wait threshold value has been reached. (defined by the VSAM String Wait option in the AUTOMON/CICS initialization thresholds table).

STRING=xxx - Total string count  
WAIT=yyy - Total string wait  
FILE=zzzzzzzz - Dataset name

System Action: None.

User Response: Increase the VSAM string number.

CSH6401W-*\*WARNING\** JOURNAL SWITCH PENDING. RESOURCE=xxxxxxxx

Explanation: This is a warning message indicating a Journal volume switch thresholds value has been reached (defined by the Journal Switch option in the AUTOMON/CICS initialization thresholds table).

RESOURCE=xxxxxxxx - CICS journal ID

System Action: None.

User Response: Mount a new volume.

CSH6402W-VTAM TERMINAL PENDING. TERM=yyyy,NETNAME=nnnnnnnn,TYPE=zzzz

Explanation: This is a warning message indicating a VTAM LU or a MRO/ISC link wait thresholds value has been reached (defined by the Loop notification option in the AUTOMON/CICS thresholds table).

TERM=yyyy - terminal ID  
NETNAME=nnnnnnnn - network name  
TYPE=zzzz - TERM/ISC link

System Action: None.

User Response: Display the status of a unit, and vary activate if device is down.

CSH6403W-EXCESSIVE AUX TEMP STOR USAGE. USED=xxx%

Explanation: This is a warning message indicating an Auxiliary temporary storage usage threshold value has been reached (defined by the AUX notification option in the AUTOMON/CICS thresholds table).

USED=xxx% - currently used

System Action: None.

User Response: Increase the auxiliary temporary storage size.

CSH6404W-*\*WARNING\** TRAN=VVVV,ID=WWWWW,EIBFN=XXXX,DS=YYYYYYYY,RC=ZZZZ

Explanation: This is a warning message message indicating a VSAM string wait threshold value has been reached (defined by the VSAM string wait option in the AUTOMON/CICS initialization threshold table). If the return code equals *\*WAIT\** the named transaction is waiting for one of the file strings. On the other hand, if the return code equals the dataset name, then the transaction is holding one of the strings.

TRAN=VVVV - Transaction  
ID=WWWWW - Task ID  
EIBFN=XXXX - EIB Function Code  
DS=YYYYYYYY - Dataset Name  
RC=ZZZZZZZZ - Return Code

System Action: None.

User Response: Investigate the cause if the contention with the named file.  
Adjust file definition if necessary.



CSH6405W-**\*ERROR\*** VTAM NODE ERROR.  
TERM=XXXX,NETNAME=YYYYYYYYY,TYPE=ZZZZ

Explanation: A VTAM communication error has been detected by the node error program. In general, this type of error is handled by the CICS node error handler (CSNE). CSNE runs as a background task. The node errors are queued and handled individually by a CICS-supplied node abnormal condition program (DFHZNAC). For each node error, DFHZNAC will link to a node error program (DFHZNEP). DFHZNEP may be modified by the user to add to the default actions and recovery actions provided by CICS and VTAM. When control is returned from DFHZNEP, the node abnormal condition program will issue messages and take appropriate actions as necessary.

TERM=XXXX - Terminal  
NETNAME=YYYYYYYYY - Network Name  
TYPE=ZZZZ - Node Type

System Action: None.  
User Response: None.

CSH6600I-**\*(SRP)\*** AUTOMON/CICS RECOVERY IN CONTROL. CNT=xxx,MAX=yyy

Explanation: This is an informational message indicating that the repair subtask has been attached automatically as a result of an abnormal termination condition.

CNT=xxx - Accumulated retry count  
MAX=yyy - Maximum allowable retry count

System Action: The repair subtask will perform it's recovery functions.  
User Response: Give message to systems programmer for review.

CSH6601I-**\*(SRP)\*** STAGE=xxxxxxxx,NOTIFY=yyyyyyyyy,ACTION=zzzzzzz

Explanation: This is an informational message indicating that the repair subtask has detected an abnormal abend in CICS and is about to attempt to recover.

STAGE=xxxxxxxx - System abend recovery stages  
NOTIFY=yyyyyyyyy - Notify flag indicator  
ACTION=zzzzzzzz - Action flag indicator

System Action: None.

User Response: None.

CSH6602I-\*(SRP)\* STAGE (x) RECOVERY IN PROGRESS.

Explanation: This is an informational message indicating that the repair subtask is about to take corrective actions.

x - 1 thru 8 - System abend recovery stage

System Action: None.

User Response: None.

CSH6603E-\*(SRP)\* AUTOMON/CICS RECOVERY HAS FAILED. RC=xx

Explanation: A non-zero return code has been detected following the issue of a ESPIE macro instruction.

RC= AMON INACTIVE - AUTOMON/CICS is not active  
ILLOGIC - Internal logic error  
INTEGRTY - Integrity exposure  
TOO MANY RETRY- Retry count exceeds MAX value

System Action: System will be terminated with a system dump.

User Response: Notify your systems programmer. Use a supplied dump to determine the cause of the original abnormal termination.

CSH6604I-\*(SRP)\* CICS/VS TERMINATION IN PROGRESS. ABCD=xxxx

Explanation: CICS/VS will be terminated abnormally by the repair subtask.

xxxx = U998 - The repair subtask could not perform recovery functions due to the data integrity exposure.  
U999 - The subtask encountered an unexpected internal system failure in nucleus module(s).

System Action: AUTOMON/CICS will be terminated with a dump.

User Response: Notify your systems programmer. Use a supplied dump to determine the cause of the original abnormal termination.

CSH6605I-\*(SRP)\* AUTOMON/CICS RECOVERY HAS BEEN COMPLETED.

Explanation: This is an informational message indicating that the repair subtask has ended normally.

System Action: None.

User Response: None.

CSH6606A-\*(SRP)\* CONTROL IS BEING GIVEN TO CICS/VS.

Explanation: This is an informational message indicating that the repair subtask has now given control back to DFHKCP.

System Action: None.

User Response: None.

CSH6607E-\*(SRP)\* LOG TABLE EXHAUSTED.

Explanation: This is an informational message indicating that the log table size is not large enough to hold all generated messages within a communication subtask macro call cycle.

System Action: Some messages will be lost.

User Response: Increase the LOG table size in the AUTOMON/CICS initialization table. (AIT)

CSH6608I-\*(SRP)\* A SYSTEM DUMP IS IN PROGRESS.

Explanation: This is an informational message indicating that the repair subtask has issued a SNAP dump macro (defined by STAGE 1/8 Action options in the AUTOMON/CICS system recovery table {SRT}).

System Action: A dump will be written onto the AMON002 dataset.

User Response: None.

CSH6609I-\*(SRP)\* A DUMP HAS COMPLETED. RC=xx

Explanation: Informative message indicating that the repair subtask has completed a dump.

xx =	00 -	Successful completion.
	04 -	AMON002 file was not open, or an invalid page reference occurred during the validity check of the data control block (DCB) parameters.
	08 -	Task control block (TCB) was not valid, an invalid page reference occurred during the validity check of the TCB address, sufficient virtual storage was not available, or the READ for JFCB or JFCBE failed. In all cases, the dump is canceled.
	0C -	Data control block type (DSORG, RECFM, MACRF, BLKSIZE, or LRECL) was incorrect, or the DCB's BLKSIZE and/or LRECL were not compatible with the dump format options specified on the AMON002 DD statement.

System Action: AUTOMON/CICS continues its own processing

User Response: Correct the problem, if any.

CSH6610E-\*(SRP)\* PSW=xxxxxxxx,ABCD=yyyy,AREA=zzzzzzzz

Explanation: This is an informational message which contains the PSW, abend code, and the failing area at the time of abend.

xxxx - Program status word  
yyyy - System/user abend code (Sxxx or Uxxx)  
zzzz - INSIDE-OF-DSA - User program  
OUTSIDE-OF-DSA - CICS nucleus  
OUTSIDE-OF-CICS - Operating system

System Action: None.

User Response: None.

CSH6611I-\*(SRP)\* TRAN=xxxx,PGM=yyyyyyyy,TERM=zzzz,TASK=nnn,TCATCDC=mm

Explanation: This is an informational message which contains a transaction ID, program ID, terminal ID, task ID and TCATCDC indicator.

xxxx - Current transaction ID  
yyyyyy - Initial program ID  
zzzz - Current terminal, or MRO/ISC link ID.  
nnn - Current task ID  
mm - Current task's control indicator flag

System Action: None.

User Response: None.

CSH6612A-\*(SRP)\* ACTION IN TASK CONTROL. RC=xx

Explanation: The repair subtask took corrective actions in CICS task control.

xx = DISABLED - A user transaction has been disabled

System Action: A transaction will be disabled.

User Response: You may enable a transaction by entering "CEMT SET  
TRAN(xxxx) ENABLE"

CSH6613A-\*(SRP)\* ACTION IN PROGRAM CONTROL. RC=xx

Explanation: The repair subtask took corrective actions in CICS program control.

xx =       DISABLED -       The user program will be disabled if use-cnt=1  
          NEWCOPY -       The user program will be newcopied if use-cnt>1

System Action: Either a program will be disabled or reloaded. It is possible that a storage violation has occurred in an application program storage area.

User Response: You may enable the program by entering "CEMT SET PROG(xxxx) ENABLE"

CSH6614A-\*(SRP)\* ACTION IN TERMINAL CONTROL. RC=xx

Explanation: The repair subtask took corrective actions in CICS terminal control.

xx =       RELEASED -       The terminal will be released if err-cnt = 1  
          OUTSERVC -       The terminal will be put out of service if  
                              err-count > 1

System Action: Either a terminal will be released or put out of service. It is possible that the terminal entry has been defined incorrectly to CICS or VTAM.

User Response: Examine the status of a terminal.

CSH6620I-\*(SRP)\* xxx=aaaaaa,xxx=aaaaaa,xxx=aaaaaa,xxx=aaaaaa

Explanation: This is an informational message indicating that the repair subtask has detected a storage overlay condition in one of the following areas:

xxx =    CSA -   DFHCSA   OPF -   CSAOPFL  
          SSA -   DFHSSA   PAM -   DFHPAM  
          KCP -   DFHKCP   PCP -   DFHPCP  
          SCA -   DFHSCA   TCP -   DFHTCP  
          FCT -   DFHFCT   PCT -   DFHPCT  
          PPT -   DFHPPT   TCT -   DFHTCT  
          TCX -   DFHTCTFX   TRT -   DFHTRT

TBM - Temporary storage bit map  
TUT - Temporary storage unit table  
DSA - Dynamic Storage Area begin address  
DSE - Dynamic Storage Area end address  
MP1 - Dynamic Storage Area Map 1 address  
MP2 - Dynamic Storage Area Map 2 address  
aaaa = Virtual storage address

System Action: None.

User Response: None.

CSH6621E-\*(SRP)\* A STORAGE VERIFICATION FAILED.

Explanation: The repair subtask has detected a storage violation condition.

System Action: None.

User Response: Examine AUTOMON/CICS generated messages to determine the cause of a storage overlay condition.

CSH6622E-\*(SRP)\* ADDRESS=xxxxxx,MODULE=yyyyyy,OFFSET=+zzzzz

Explanation: This message is followed by CSH6621E message.

xxxxxx - Overlaid virtual storage address  
yyyyyy - System/user program name  
+zzzzz - Offset

System Action: None.

User Response: Examine AUTOMON/CICS generated messages to determine the cause of a storage overlay condition.

CSH6623E-\*(SRP)\* CURRENT: xxxxxxxxxxxx SHOULD BE: yyyyyyyyyy

Explanation: This message is followed by CSH6622E message.

xxxxxxxx - The contents of the bad storage  
yyyyyyyy - AUTOMON/CICS suggested data

System Action: If action flag is on, the repair subtask will attempt to recover.

User Response: Examine AUTOMON/CICS generated messages to determine the cause of a storage overlay condition.

CSH6624I-\*(SRP)\* ACTION IN STORAGE VIOLATION.

Explanation: The repair subtask took corrective actions.

System Action: The repair subtask will attempt to recover.

User Response: Examine AUTOMON/CICS generated messages to determine the cause of a storage overlay condition.

CSH6625E-\*(SRP)\* ACTION FAILED. RC=xx

Explanation: A non zero return code has been detected by the repair subtask.

xx -        ERROR    - Fetch protected storage  
          ILLOGIC - Internal logic error  
          INTGRTY - Integrity exposure

System Action: The repair subtask continues its own processing.

User Response: Examine AUTOMON/CICS generated messages to determine the cause of a storage overlay condition.



CSH6630I-\*(SRP)\* .....XXXXXXXXXXXXX.....

Explanation: This is an informational message indicating the following:

ACTIVE TASKS	- Active tasks in DCA chain
SUSPENDED TASKS	- Suspended tasks in DCA chain
END	- End of DCA task chains

System Action: None.

User Response: None.

CSH6650I-\*(SRP)\* xxxxxxxx VERIFICATION IN PROGRESS.

Explanation: This is an informational message indicating that the repair subtask has been activated to examine CICS/VS system tables and storage control areas.

DFHPCT	- Program control table
DFHPPT	- Processing program table
DFHFCT	- File control table
DFHTCT	- Terminal control table
DFHAID	- Automatic initiator descriptors
DFHICE	- Interval control elements

System Action: None.

User Response: None.

CSH6651E-\*(SRP)\* xxxxxxxx VERIFICATION FAILED.

Explanation: This is an informational message indicating that a non zero return code has been detected by the repair subtask.

DFHPCT	- Program control table
DFHPPT	- Processing program table
DFHFCT	- File control table
DFHTCT	- Terminal control table
DFHAID	- Automatic initiator descriptors
DFHICE	- Interval control elements

System Action: None.

User Response: None.

CSH6680I-\*(SRP)\* .ENTRIES..ENABLED...USED...TOTAL

Explanation: This is an informational message indicating the following:

ENTRIES - PCT - Total transactions in CICS  
PPT - Total programs in CICS  
FCT - Total datasets in CICS  
TCT - Total terminals in CICS

System Action: None.

User Response: None.

CSH6681E-\*(SRP)\* STORAGE VIOLATION IC=aaaa,RC=yyyyyyyyyy

Explanation: A storage violation condition has been detected by the repair subtask.

IC=aaaa - Interrupt Code  
RC=yyyy - Reason Code  
PROGRAM INTERRUPT  
INVALID FREEMAIN ADDRESS  
ERROR IN DFHSCP  
INVALID SAA (ZERO LENGTH)  
INVALID SAA (NOT MATCHING)  
INVALID SAA (TASK SUBPOOL)  
INVALID FAQE (OVERLAP)  
INVALID FAQE (SEARCH)  
INVALID FAQE (INSERT)  
INVALID FAQE (BACK POINTER)  
INVALID FAQE (LENGTH)  
ERROR IN DFHPAM

System Action: The repair subtask will take corrective actions.

User Response: Examine the AUTOMON/CICS generated messages to determine the cause of a storage overlay condition.

CSH6690I-aaaaa|..CURRENT..|..AVERAGE..|...HWM..|..HWMT..|

Explanation: This is an informational message indicating the following:

aaaaaaa - TRANS - Transaction Rate  
FILE I/O - VSAM file I/O Rate  
VTAM I/O - VTAM transmission Rate  
AUX TS - Aux Temporary Storage Rate  
CURRENT - The number of units of work completed  
AVERAGE - The number of units of work completed  
HWM - Highest number of units of work  
HWMT - High Water Mark Time of Day

System Action: None.

User Response: None.

CSH6691I-MAIN TS USAGE. CURRENT=XXXXXXXX,MAXIMUM=YYYYYYYY

Explanation: This is an informational message indicating MAIN Temporary Storage utilization. The frequency of this message is controlled by the value of the Performance Data (PER DATA) Field in the AUTOMON/CICS Threshold Table.

XXXXXXXX - The current virtual storage utilization in bytes, required to satisfy all MAIN Temporary Storage requests.

YYYYYYYY - The high water mark of virtual storage, in bytes, required to satisfy all MAIN Temporary Storage requests.

System Action: None.

User Response: None.

CSH6692I-MAIN TS. QID=XXXXXXXX,HEX=YYYYYYYY,SIZE=ZZZZZZZZ

Explanation: This is an informational message indicating MAIN Temporary Storage utilization of the named queue. AUTOMON/CICS will report the 8 largest MAIN Temporary Storage queues at the time the message is produced. The frequency of this message is controlled by the value of the Performance Data (PER DATA) field in the AUTOMON/CICS Threshold Table.

- XXXXXXXX - The name given to the MAIN Temporary Storage queue in character format.
- YYYYYYYY - The name given to the MAIN Temporary Storage queue in hexadecimal format.
- ZZZZZZZZ - The size of the MAIN Temporary Storage queue, in bytes, at the time this message is produced.

System Action: None.  
User Response: None.

CSH6693I-WWWW: TOT=XXXXXXXX,RATE=YYYYYYYY,UNIT=ZZZZZZZZ

Explanation: This message is designed to provide performance and capacity planning information on an hourly basis in the following areas:

WWW: Type of information being recorded.

- CPU - TOT = Total CPU time accumulated by the CICS address space during the previous hour.  
- RATE= % of total CPU time of the processor used by CICS during the previous hour.
- TRAN - TOT = Total number of transactions processed by CICS during the previous hour.  
- RATE= Number of transactions per second processed by CICS during the previous hour.
- I/O - TOT = Total number of I/Os processed by CICS during the previous hour.  
- RATE= Number of I/Os per second processed by CICS during the previous hour.
- CONN - TOT = Total connect time of the CICS address space during the previous hour.  
- RATE= % of connect time of the processor attributable to CICS during the previous hour.
- ZZZZZZZZ Hour of the CICS run for which the data has

been recorded.

Note: This block of messages is produced once an hour. These messages will not be produced if the master flag for Performance Data is turned off in the AUTOMON/CICS threshold table.

System Action: None.

User Response: None.

#### CSH6700I-CICS IS NO LONGER SHORT-ON-STORAGE.

Explanation: This is an informational message indicating that there is no longer short on storage in the DSA (below 16MB).

System Action: AUTOMON/CICS continues.

User Response: None.

#### CSH6701I-(LOG) CICS IS BEING TERMINATED.

Explanation: This message is an informational message indicating that the CICS has been terminated. This message appears when the user terminates CICS via CEMT SET PERFORM SHUT [IMMEDIATE].

System Action: None.

User Response: None.

#### CSH6702E-STORAGE VIOLATION. TRN=aaaa,TSK=bbbb,TRM=cccc,PGM=dddd

Explanation: A storage violation has been detected by the storage violation trap, which may be enabled via the UMON transaction or the Storage Violation AIT table.

aaaa - Transaction ID  
bbbb - Task ID  
cccc - Terminal ID (CICS)  
dddd - Program Name

System Action: AUTOMON/CICS will attempt to recover the corrupted storage area unless the Storage Violation Action (Stage 4) option has been disabled.

User Response: None.

CSH6703E-STORAGE ERROR DETECTION. SVC=aaa,IC=(bb,ccccccc)

Explanation: A storage violation has been detected by the storage violation trap, which may be enabled via the UMON transaction or the Storage Violation AIT table.

aaa - Storage Violation Count  
bb - Interrupt Code  
ccccccc - Interrupt Reason

Interrupt Code		Description
01	SAA ADDR -	Invalid SAA address
02	TCAS=ZERO -	Invalid TCA systems area
03	TCA=8A -	Invalid TCA class
04	SAA LENGTH -	Invalid SAA length
05	FORWARD SAA -	Invalid forward address
06	DUP SAA -	SAA header/trailer mis-match
07	TCTTE=ZERO -	Invalid TCTTE address
08	TIOA=ZERO -	Invalid TIOA address
09	SAA CLASS -	Invalid SAA class
10	FAQE LENGTH -	Invalid FAQE length
11	FORWARD FAQE -	Invalid FAQE forward address
12	BACKWARD FAQE -	Invalid FAQE backward address
13	ZONE HEADER -	Invalid storage check zone header
14	ZONE TRAILER -	Invalid storage check zone trailer
15	ZONE H+T -	Invalid header & trailer zones

System Action: AUTOMON/CICS will attempt to recover the corrupted storage area unless storage Violation Action (Stage 4) option has been disabled.

User Response: None.

CSH6704A-AUTOMON/CICS CSHASCR/CSHASRP SUBTASK ATTACHED.

Explanation: A CSHASCR subtask has been attached to perform recovery stages. This message has been issued as a result of a storage violation condition.

System Action: AUTOMON/CICS will attempt to recover the corrupted storage area unless the Storage Violation Action (Stage 4) option has been disabled.

User Response: None.

CSH6705A-\*ACTION\* MXT VALUE ALTERED. MXT=aaa,MXTC=bbb,TASKS=cccc

Explanation: This is an action message indicating that the maximum tasks value has been adjusted automatically by AUTOMON/CICS.

aaa - The maximum tasks value  
bbb - The maximum tasks count  
cccc - Current tasks in system

System Action: AUTOMON/CICS processing continues.

User Response: None.

CSH6706A-\*ACTION\* CUSHION SIZE ALTERED. DSA=aaaaa,SCS=bbbbbb

Explanation: This is an action message indicating that the Storage Cushion size has been adjusted automatically by AUTOMON/CICS.

aaaaa - Dynamic storage area size  
bbbbbb - Storage cushion size

System Action: AUTOMON/CICS processing continues.

User Response: None.

CSH6707A-\*ACTION\* AMXT VALUE ALTERED. AMXT=aaa,AMXTC=bbb

Explanation: This is an action message indicating that the maximum active tasks value has been adjusted automatically by AUTOMON/CICS.

aaa - The maximum active tasks value  
bbb - The maximum active tasks count

System Action: AUTOMON/CICS processing continues.

User Response: None.

CSH6708A-\*ACTION\* CSHASRP SUBTASK ATTACHED. RC=SYSTEM FAILURE

Explanation: A CSHASRP subtask has been attached to perform recovery stages. This message has been issued as a result of an abnormal system abend condition.

System Action: AUTOMON/CICS will attempt to recover from the abend condition unless the Abend Recovery Action (Stage 3) option has been disabled.

User Response: None.

CSH6709A-\*ACTION\* REPAIRING A TCA. TCA=aaaaaaaa,NEW=bbbb,OLD=cccc

Explanation: This is an action message indicating that the task control area has been overlaid, and the AUTOMON/CICS repair subtask has been invoked to repair the damaged storage accounting area.

aaaaaaaa - TCA address  
bbbb - TCA's new accounting area  
cccc - TCA's damaged accounting area

System Action: AUTOMON/CICS processing continues.

User Response: None.



CSH6710E-\*ERROR\* IRRECOVERABLE aaaa. ADDR=bbbbbbb,DATA=ccccccc

Explanation: This is an error message indicating that the AUTOMON/CICS repair subtask has been invoked to repair the damaged storage area. However, the damaged area has been marked "non-recoverable" by the AUTOMON/CICS integrity validation program.

aaa - Storage Type (TCA, SAA, FAQE, etc.)  
bbbbbbb - Address  
ccccccc - Contents

System Action: AUTOMON/CICS processing continues.

User Response: None.

CSH6711E-\*ERROR\* INVALID FAQE. A=aaaaaaaa,F=bbbbbbb

Explanation: This is an error message indicating that the failing FAQE has been successfully identified by the AUTOMON/CICS detective mechanism.

aaaaaaaa - FAQE address  
bbbbbbb - FAQE contents

System Action: AUTOMON/CICS processing continues.

User Response: None.

CSH6712A-\*ACTION\* REPAIR FAQE. A=aaaaaaaa,F=bbbbbbb

Explanation: This is an action message indicating that the failing FAQE has been successfully repaired by the AUTOMON/CICS repair subtask.

aaaaaaaa - FAQE address  
bbbbbbb - FAQE contents

System Action: AUTOMON/CICS processing continues.

User Response: None.

CSH6713E-**\*ERROR\*** INVALID SAA. A=aaaaaaaa,H=bbbbbbbb,T=cccccccc

Explanation: This is an error message indicating that the failing SAA has been successfully identified by the AUTOMON/CICS detective mechanism.

aaaaaaaa - Storage Accounting Area (SAA) address  
bbbbbbbb - Header contents  
cccccccc - Trailer contents

System Action: AUTOMON/CICS processing continues.

User Response: None.

CSH6714A-**\*ACTION\*** REPAIR SAA. A=aaaaaaaa,H=bbbbbbbb,T=cccccccc

Explanation: This is an action message indicating that the failing SAA has been successfully repaired by the AUTOMON/CICS repair subtask.

aaaaaaaa - Storage Accounting Area (SAA) Address  
bbbbbbbb - Header Contents  
cccccccc - Trailer Contents

System Action: AUTOMON/CICS processing continues.

User Response: None.

CSH6715E-**\*ERROR\*** TOO MANY STORAGE VIOLATIONS. SVC=aaa

Explanation: This is an error message indicating that the AUTOMON/CICS repair subtask has discovered that there are too many storage violation conditions. The storage violation recovery will be ignored.

aaa - Total storage violation count

System Action: AUTOMON/CICS processing continues.

User Response: None.

CSH6716A-**\*ACTION\*** SELF DISABLING A STAGE 4 "ACTION" FLAG.

Explanation: This is an action message indicating that the AUTOMON/CICS repair subtask has been notified by the control subtask to disable a stage 4 storage violation action flag at once. This message has been issued due to a severe storage violation condition existing or existed in CICS internal logic.

System Action: AUTOMON/CICS processing continues.

User Response: None.

CSH6717E-**\*ERROR\*** ACTION FAILED. RC=xxxxxxxx

Explanation: This is an error message indicating that the AUTOMON/CICS action subtask has failed to set CICS system parameter value(s).

xxxxxxxx INVREQ: Invalid Request  
NOTAUTH: Not Authorized  
NOSTG: Not Enough Storage in the (E)DSA

System Action: AUTOMON/CICS processing continues. An AUTOMON/CICS action subtask will try again later.

User Response: None.

CSH6718W-**\*WARNING\*** EXCESSIVE OSCOR STORAGE USAGE.  
USED=xx%,AREA=yyyy

Explanation: This is a warning message indicating that the AUTOMON/CICS detective mechanism has detected an excessive OSCOR storage usage condition.

USED=xx%	Utilization
AREA=yyyy	LSQA/SWA/SP0/ELSQA/ESP0

System Action: AUTOMON/CICS processing continues.

User Response: None.

CSH6719W-\*WARNING\* TOTAL=aaaaaaaa,FREE=xxxxxxx,LARGEST=yyyyyyyy

Explanation: This is a warning message indicating that the AUTOMON/CICS detective mechanism has detected an excessive OSCOR storage usage condition.

TOTAL=aaaaaaaa Total storage at the time of the system start-up  
FREE=xxxxxxx Available storage in bytes  
LARGEST=yyyyyy Largest available storage size in bytes

System Action: AUTOMON/CICS processing continues.

User Response: None.

CSH6720E-\*ERROR\* CICS IS RUNNING IN KEYZERO MODE.

Explanation: This is an error message indicating that the AUTOMON/CICS detective mechanism has detected that the CICS DFHSIP TCB is currently running in Keyzero mode.

System Action: AUTOMON/CICS processing continues.

User Response: Determine why the CICS DFHSIP TCB is running in Keyzero mode.

CSH6721E-\*WARNING\* PROGRAM COMPRESSION. TOTAL=nnnnnnnn

Explanation: This is a warning message indicating that the AUTOMON/CICS detective mechanism has detected a program compression.

TOTAL=nnnnnnnn Accumulated program compression count

System Action: AUTOMON/CICS processing continues.

User Response: Please refer to CICS Performance Guide for directions.

CSH6722A-\*ACTION LOOP KILL.TRN=xxxx,ID=yyyyyyyy,PSW=zzzzzzzz,ABCD=aaaa

Explanation: This is an action message indicating that AUTOMON/CICS has killed a transaction which has been executing for longer than 3 times the action threshold value (defined by the loop action option in the AUTOMON/CICS threshold table) without giving control to the CICS dispatcher. This condition indicates a possible loop within the user's program. To assist the user in locating the logical loop, TCAPCPSW may contain the PSW at the time of the abend.

TRAN=xxxx	-Transaction ID
ID=yyyyyyyy	-Task ID
PSW=zzzzzzzz	-Program Status Word
ABCD=aaaa	-Abend Code

System Action: The transaction will be purged by forcing an OC1 or OC6 abend by manipulating the PSW of the looping transaction.

User Response: Attempt to determine the flow of control within the transaction between the time the abend accrued and the last call to the CICS task control program prior to the abend. A CICS trace will help, because it gives a history of the service requests made by the transaction. Look for an unexpected flow of control, a loop, or an excessive large time interval. Check the application logic for a design error that could lead to a loop.

CSH6723E-\*ERROR\*LOOP KILL FAILED TRN=xxxx,PSW=yyyyyyyy, RC=zzzzz

Explanation: This is an error message indicating that AUTOMON/CICS failed in its attempt to KILL the looping transaction. The task has been executing for longer than 3 times the action threshold value (defined by the loop action option in the AUTOMON/CICS threshold table) without giving control to the CICS task dispatcher. This condition indicates a possible loop within the user's program. To assist the user in locating the logical loop, TCAPCPSW may contain the PSW at the time of the abend.

TRAN=xxxx	-Transaction ID
PSW=yyyyyyyy	-Program Status Word
RC=zzzzz	-Reason for the loop kill failure.
=OPSYS_ ARE	-Looping in Operating System Area
=OUTSIDE_OF_CICS	-Looping outside of CICS
=KEY_ZERO_AREA	-Looping in Key 0 Storage

=VALIDATION\_CHECK -The UCCF/Server fails to validate the looping Task ID.

System Action: The value in "RC=" will indicate the reason that AUTOMON/CICS was unable to kill the transaction. If RC = VALIDATION\_CHECK, AUTOMON/CICS will attempt to kill the looping transaction by forcing an S0C1 abend.

User Response: Attempt to determine the flow of control within the transaction between the time the abend accrued and the last call to the CICS task control program prior to the abend. A CICS trace will help, because it gives a history of the service requests made by the transaction. Look for an unexpected flow of control, a loop, or an excessive large time interval. Check the application logic for a design error that could lead to a loop.

CSH6724W-\*WARNING\* A UCCF/SERVER IS NOT LICENSED/ACTIVE.

Explanation: This is a warning message indicating that AUTOMON/CICS was unable to issue an authorized command to the UCCF/Server. This message indicates that the Universal Command Control Facility Server is not available to kill the looping transaction. There are three possible reasons for the generation of this message:

1. The user has not licensed UCCF/Server for their system. UCCF/Server is a proprietary product which must be licensed separately from AUTOMON/CICS.
2. The user has elected to run AUTOMON/CICS without the UCCF/Server by not starting the job to initiate UCCF/Server (The JCL for this job may be found in member CSH00SIP of the AUTOMON/CICS Installation Library). In this case AUTOMON/CICS will still function, however AUTOMON/CICS will be restricted to only non-authorized means when attempting to kill the looping transaction.
3. The AUTOMON/CICS library UCCF.V420.AUTHLIB has not been included in the APF link list.

System Action: AUTOMON/CICS attempts to kill the looping transaction through the use of non-authorized functions.

User Response: If the user wishes to utilize the UCCF/Server to issue various authorized MVS action commands, follow the instructions provided in the AUTOMON/CICS Installation Summary which pertain to the UCCF/Server.

CSH6800I-UCCF/SERVER INQUIRY SUCCESSFUL. SUBSYS=xxxx,ADDR=00000000

Explanation: This is an informational message indicating that the UCCF/Server has been started in the MVS system.

Subsys=xxxx -Subsystem name.

ADDR=00000000 -SSCVT address.

System Action: -AUTOMON/CICS processing continues.

User Response: -None.

CSH6801E-UCCF/SERVER INQUIRY FAILED. RC=xx

Explanation: This is an error message indicating that the UCCF/Server is not available in the system.

RC=xx - Reason for Subsystem Inquiry Fail.  
= NOT\_FOUND

System Action: AUTOMON/CICS processing continues.

User Response: If the authorized subsystem is desired, please start it in the MVS system.

CSH6802A-*\*ACTION\** TASK PURGE. TRAN=xxxx,ID=yyyyy,RC=zzzzzzzzzz

Explanation: This is an action message indicating a task has exceeded the user defined limits specified in the AUTOMON/CICS task exit program CSHXTSKB.

TRAN=xxxx	- Transaction ID
ID=tttt	- Task ID
RC=zzzzzzzzzz	- RETURN CODE
=CEMT_PURGE	- AUTOMON/CICS has issued a CEMT purge
=CEMT_FORCE	- AUTOMON/CICS has issued a CEMT force purge

System Action: The transaction will be purged with a dump.

User Response: If the task is being purged unexpectedly, modify the task exit program CSHXTSKB to produce the desired results. Once the modification have been made, recompile the AUTOMON/CICS task exit program and recycle the AUTOMON/CICS session, then verify that the exit is functioning properly.

CSH6803E-*\*ERROR\** TASK PURGE ERROR. TRAN=xxxx,ID=yyyyy,RC=zzzzzzzzzz

Explanation: This is an action message indicating a task has exceeded the user defined limits specified in the AUTOMON/CICS task exit program CSHXTSKB. However, AUTOMON/CICS was unable to purge the offending task. The message indicates the reason for the failure.

TRAN=xxxx	- Transaction ID
ID=tttt	- Task ID
RC=zzzzzzzzzz	- RETURN CODE
=SUBSYSTEM_INQUIRE	- A compatible UCCF/Server is not active.
=MGCR_COMMAND_ERR	- A command was issued by the UNICOM UCCF/Server but the command received a non-zero return code.

System Action: None.

User Response: Investigate the cause of the failure. If the reason for the failure is not apparent contact UNICOM Systems Technical Support for assistance with problem resolution.



CSH6804I-XLT\_ID=vvvvvvvv,TRAN=www,FLAG=xxx,WARNING=yyyyyy,ACTION=zz  
zzzzzz

Explanation: This is an informational message which is will be produced whenever action is taken by AUTOMON/CICS as the result of definitions specified in the user AUTOMON/CICS exclusion list tables.

XLT_ID=vvvvvvvv	- Transaction or Program specified in the XLT
TRAN=www	- Transaction ID being purged
FLAG=xxx	- State of Master/Warning/Action XLT flags.
WARNING=yyyyyy	- Warning threshold in XLT entry.
ACTION=zzzzzzzz	- Action threshold in XLT entry.

System Action: None.

User Response: Modify the XLT entry if the AUTOMON/CICS action is no longer desired.

CSH6805E-\*ERROR\* SECURITY CHECK FAILURE. RC=zzzzzzzzzzzz

Explanation: This is an error message indicating that an attempt to validate the AUTOMON/CICS internal security has failed. The message indicates the reason for the security check failure.

RC=zzzzzzzzzz	- Reason for security check failure
=AMON501_FC_ERROR	- Unable to access security definition file.
=CHECKSUM_ERROR	- Invalid authorization code entered.
=NOT_LICENSED	- User is not licensed for use of AUTOMON/CICS.
=INVALID_REQUEST	- Invalid security record passed.
=PRODUCT_EXPIRED	- Authorization code is no longer valid.
=CPU_ID_ERROR	- Product not licensed for CPU.
=PRODUCT_ERROR	- Product code invalid.
=LOADLIB_OPEN_ERR	- Unable to find AUTOMON/CICS load library.
=CSH00XSP_MISSING	- Security Program unavailable.
=????????	- Internal security error.

System Action: Initialization of the AUTOMON/CICS subtask fails.

User Response: Verify the AUTOMON/CICS security definition and investigate the reason code associated with this message. If the reason for the failure is not

apparent, contact UNICOM Systems Technical Support for assistance with problem resolution.

CSH6900E-UNRECOGNIZABLE KEYWORD OR CONT-CHAR "-" MISSING.

Explanation: An error has occurred in the coding of the batch utility command language. Check for a misspelled keyword or a missing continuation character.

System action: The batch utility job terminates processing.

User Response: Find and correct the syntax error in the command language then resubmit the batch utility job.

CSH6901E-SYSIN DATA ENTERED AFTER THE DELIMITER.

Explanation: A subkeyword or other data has been entered after the closing parenthesis ")" and before the continuation character "-" .

System action: The batch utility job terminates processing.

User Response: Find and correct the syntax error in the command language then resubmit the batch utility job.

CSH6903E-CSHLIST PROGRAM LOAD FAILED.

Explanation: CSHLIST is unable to load one of its sub-modules. The Data Set Name may be mis-spelled or the job is pointing to a wrong DSN.

System action: The batch utility job terminates processing.

User Response: Check if the correct load library is specified in the job and resubmit the job again. If the problem persists, please report the problem to the UNICOM technical support center.

CSH6910E-"APPLID" SYNTAX ERROR OR INVALID VALUE.

Explanation: An error was encountered while processing the subkeyword string of VTAM application ids. Check to make sure that all applids in the string are separated by commas. Also check the length of each applid to ensure that it is no longer than 8 characters.

System action: The batch utility job terminates processing.

User Response: Find and correct the syntax error in the command language then resubmit the batch utility job.

CSH6911E-"DETAIL" SYNTAX ERROR OR INVALID VALUE.

Explanation: An error was encountered while processing the subkeyword string for the detail report parameter. YES or NO are the only valid subkeywords for this parameter and only one of them may be coded.

System action: The batch utility job terminates processing.

User Response: Find and correct the syntax error in the command language then resubmit the batch utility job.

CSH6912E-"FROM" SYNTAX ERROR OR INVALID VALUE.

Explanation: An error was encountered while processing the subkeyword string for the from date and time report parameter. The date subparameter must be valid and of the format MM/DD/YY. The time subparameter must be valid and of the format hh:mm:ss. These fields must be separated by a comma.

System action: The batch utility job terminates processing.

User Response: Find and correct the syntax error in the command language then resubmit the batch utility job.

CSH6913E-"TO" SYNTAX ERROR OR INVALID VALUE.

Explanation: An error was encountered while processing the subkeyword string for the to date and time report parameter. The date subparameter must be valid and of the format MM/DD/YY. The time subparameter must be valid and of the format hh:mm:ss. These fields must be separated by a comma.

System action: The batch utility job terminates processing.

User Response: Find and correct the syntax error in the command language then resubmit the batch utility job.

CSH6914E-"PAGESIZE" SYNTAX ERROR OR INVALID VALUE.

Explanation: An error was encountered while processing PAGESIZE parameter. The PAGESIZE parameter must contain a value not lower than ten(10), and not higher than 999.

System action: The batch utility job terminates processing.

User Response: Find and correct the syntax error in the command language then resubmit the batch utility job.

CSH6915E-"COUNT" SYNTAX ERROR OR INVALID VALUE.

Explanation: An error was encountered while processing the subkeyword string for the count report parameter. The count subparameter must be a non-negative numeric value not greater than 9999999.

System action: The batch utility job terminates processing.

User Response: Find and correct the syntax error in the command language then resubmit the batch utility job.

CSH6916E-"SCAN" SYNTAX ERROR OR INVALID VALUE.

Explanation: An error was encountered while processing the subkeyword string for the scan report parameter. FORWARD or BACKWARD are the only valid subkeywords for this parameter and only one of them may be coded.

System action: The batch utility job terminates processing.

User Response: Find and correct the syntax error in the command language then submit the batch utility job.

CSH6917E-"SKIP" SYNTAX ERROR OR INVALID VALUE.

Explanation: An error was encountered while processing the subkeyword string for the skip report parameter. The skip subparameter must be a non-negative numeric value not greater than 9999999.

System action: The batch utility job terminates processing.

User Response: Find and correct the syntax error in the command language then resubmit the batch utility job.

#### CSH6918E-"SUMMARY" SYNTAX ERROR OR INVALID VALUE.

Explanation: An error was encountered while processing the subkeyword string for the summary report parameter. YES or NO are the only valid subkeywords for this parameter and only one of them may be coded.

System action: The batch utility job terminates processing.

User Response: Find and correct the syntax error in the command language then resubmit the batch utility job.

#### CSH6919E-"TYPE" SYNTAX ERROR OR INVALID VALUE.

Explanation: An error was encountered while processing the subkeyword string for the type report parameter. A,E,I,W, and O are the only valid subkeywords for this parameter and may be coded in any combination.

System action: The batch utility job terminates processing.

User Response: Find and correct the syntax error in the command language then resubmit the batch utility job.

#### CSH6920E-GETMAIN REQUEST FAILED.

Explanation: Operating system GETMAIN failure. During the processing of the job, a GETMAIN request failed.

System action: The batch utility job terminates processing.

User Response: Resubmit the job again. If the problem persists, please report the problem to the UNICOM technical support center.

CSH6921E-VSAM POINT ERROR OCCURRED. FILE-ID=AMON001

Explanation: The VSAM POINT macro failed during the job processing.

System action: The batch utility job terminates processing.

User Response: Check the AMON001 file and resubmit the job again. If the problem persists, please report the problem to the UNICOM technical support center.

CSH6922E-"WTO" SYNTAX ERROR OR INVALID VALUE.

Explanation: An error was encountered while processing the subkeyword string for the WTO option. YES or NO are the only valid subkeywords for this parameter and only one of them may be coded.

System action: The batch utility job terminates processing.

User Response: Find and correct the syntax error in the command language then resubmit the batch utility job.

CSH6923E-"COMPANY" SYNTAX ERROR OR INVALID TEXT.

Explanation: An error was encountered while processing the COMPANY parameter.

System action: The batch utility job terminates processing.

User Response: Find and correct the syntax error in the command language then resubmit the batch utility job.

CSH6924E-"EXCLUDE" SYNTAX ERROR OR INVALID TEXT.

Explanation: An error was encountered while processing the subkeyword string for the EXCLUDE option. You may enter up to eight(8) messages to exclude. The EXCLUDE parameter is mutually exclusive with the INCLUDE parameter.

System action: The batch utility job terminates processing.

User Response: Find and correct the syntax error in the command language then resubmit the batch utility job.

CSH6925E-"RETAIN" SYNTAX ERROR OR INVALID TEXT.

Explanation: An error was encountered while processing the subkeyword string for the RETAIN option. The two formats allowed with the RETAIN parameter are either a valid date MM/DD/YY, or a numeric value specifying the number of days. This parameter is mutually exclusive to all other CSHLIST parameters except for the WTO parameter.

System action: The batch utility job terminates processing.

User Response: Find and correct the syntax error in the command language then resubmit the batch utility job.

CSH6926E-ERROR DELETING RECORDS IN AMON001.

Explanation: While trying to delete a record in the AUTOMON/CICS history log AMON001 an error occurred.

System action: The batch utility job terminates processing.

User Response: resubmit the job. If the problem persists, please report the problem to the UNICOM technical support center.

CSH6929E-\*ERROR\* INCLUDE/EXCLUDE ARE MUTUALLY EXCLUSIVE.

Explanation: An error was encountered while processing the subkeyword string for the INCLUDE/EXCLUDE option. The error has occurred while both options were specified in the job. These options are mutually exclusive.

System action: The batch utility job terminates processing.

User Response: Remove either the INCLUDE or EXCLUDE in the command language then resubmit the batch utility job.

CSH6930E-"MIGRATE" SYNTAX ERROR OR INVALID VALUE.

Explanation: An error was encountered while processing the subkeyword string for the MIGRATE option. The syntax of the command line has been entered incorrectly.



System action: The batch utility job terminates processing.

User Response: Find and correct the syntax error in the command language then resubmit the batch utility job.

#### CSH6931E-INCORRECT KEY LENGTH. FILE-ID=UMON001

Explanation: An error was encountered while updating the UMON001 file. the key length of the file being updated is invalid.

System action: The batch utility job terminates processing.

User Response: Check the UMON001 file and resubmit the job again. If the problem persists, please report the problem to the UNICOM technical support center.

#### CSH6932E-"REPLACE" SYNTAX ERROR OR INVALID VALUE.

Explanation: An error was encountered while processing the subkeyword string for the REPLACE option. YES or NO are the only valid subkeywords for this parameter and only one of them may be coded.

System action: The batch utility job terminates processing.

User Response: Find and correct the syntax error in the command language then resubmit the batch utility job.

#### CSH6933E-INVALID MIGRATION TABLE SPECIFIED.

Explanation: An error was encountered while processing the subkeyword string for the MIGRATE option. A wrong table ID has been specified. The valid values for the MIGRATE parameter are (\*), APPLID, AIT, XLT, THT, DEG, EXC, SRT, USERID. When asterix(\*) is coded, no other tables can be specified.

System action: The batch utility job terminates processing.

User Response: Find and correct the table name error in the command language then resubmit the batch utility job.

CSH6934E-UPDATE FAILURE. FILE-ID=UMON001.

Explanation: An error was encountered while updating the UMON001 file.

System action: The batch utility job terminates processing.

User Response: Check the UMON001 file and resubmit the job again. If the problem persists, please report the problem to the UNICOM technical support center.

CSH6935I-iiiiiii WAS INSERTED IN AUTOMON/CICS tttttt TABLE.

Explanation: This is an informational message indicating where an item has been inserted.

iiiiiii - either name of program, transaction, APPLID, or USERID to be inserted.

tttttt - Table where item was inserted to.

System Action: None.

User Response: None.

CSH6936I-iiiiiii WAS REPLACED IN AUTOMON/CICS tttttt TABLE.

Explanation: This is an informational message indicating the item that has been replaced.

iiiiiii - either name of program, transaction, APPLID, or USERID to be replaced.

tttttt - Table where item was replaced in.

System Action: None.

User Response: None.

CSH6937I-iiiiiii NOT REPLACED IN AUTOMON/CICS ttttttt TABLE.

Explanation: This is an informational message indicating the item that has not been replaced.

iiiiiii - either name of program, transaction, APPLID, or USERID not replaced.

ttttttt - Table where item was not replaced.

System Action: None.

User Response: None.

---

## 6.2. Abend Codes

### UAMA

Explanation: A logical loop condition has been detected by AUTOMON/CICS and the task is being abnormally terminated with a dump written to the CICS dump dataset. The condition indicates a possible logical loop in a user's program. (note: AUTOMON/CICS may terminate a task without a dump if 1) CICS is experiencing a slow-down; 2) CICS is experiencing a stress condition and/or a MXT condition; or 3) too many UAMA/UAMB/UAMK abends)

System Action: The task is abnormally terminated with a transaction dump.

User Response: Take corrective action within the program being executed. The CICS auxiliary trace can be used to determine if a true loop condition has been detected.

### UAMB

Explanation: A loop condition has been detected by AUTOMON/CICS and a task is being abnormally terminated with a dump written to the CICS dump dataset. The condition indicates a possible loop in a user's program. (note: AUTOMON/CICS may terminate a task without a dump if 1) CICS is experiencing a slow-down; 2) CICS is experiencing a stress condition and/or a MXT condition; or 3) too many UAMA/UAMB/UAMK abends)

System Action: The task is abnormally terminated.

User Response: TCAATAC contains the contents of register 14 and TCAPCPSW contains the PSW at the time the loop action threshold value expired. If the application program is using the command level interface, TCAATAC and TCAPCPSW may contain an address that is within DFHEIP. In this case, the point at which the application code called DFHEIP is pointed to by register 14, saved at offset X'C' in the save area pointed to by TCAPCHS.

## **UAMC**

**Explanation:** An excessive storage usage condition has been detected by AUTOMON/CICS and a task is being abnormally terminated with a dump written to the CICS dump dataset. The condition indicates a possible program design error. The programmer should examine the use of storage by the task carefully.

**System Action:** The task is abnormally terminated with a transaction dump.

**User Response:** The trace in the dump and the dumped user related storage areas should be used to analyze the problem further.

## **UAMD**

**Explanation:** A short on storage condition has been detected by AUTOMON/CICS and a task is being abnormally terminated with a dump written to the CICS dump dataset. The task is cancelled by AUTOMON in an attempt to relieve the dynamic storage area shortage and the system stress condition.

**System Action:** The suspended task is cancelled with a transaction dump.

**User Response:** This indicates that a shortage of Dynamic Storage Area (DSA) has occurred. Frequent occurrence of this condition indicates a need to enlarge the DSA. Please refer CICS/VS Performance Guide for more information.

## **UAME**

**Explanation:** AUTOMON/CICS has been force started but an "AMON" AUTOMON/CICS interface transaction is already active. This is a normal condition.

**System Action:** The original "AMON" transaction will be purged with a transaction dump.

**User Response:** None.

## **UAMF**

**Explanation:** Either an operating system abend has occurred or CICS has been abended abnormally. The repair subtask has been entered as a result of ESPIE/ESTAE operating system abends and a transaction has been abnormally terminated with a dump.

**System Action:** The repair subtask has been able to identify and abend a current transaction with a dump written to the CICS dump dataset.

**User Response:** The registers as they were at the time of the abend are produced as well as the PSW. TCAPCPSW contains the PSW, TCAATAC contains the System/user abend code. (a 4-byte code)

## **UAMG**

**Explanation:** The AMON transaction is abended after it has encountered the maximum allowable retry count. This abend indicates that the AMON transaction was abended automatically due to erroneous conditions.

**System Action:** The task is abnormally terminated. A transaction abend dump is written to the CICS dump dataset.

**User Response:** Verify that the AMON001 history file is available to the CICS system experiencing the problem. If the reason for the file error is not apparent, send the DUMP to UNICOM to determine the cause of the problem.

## **UAMK**

**Explanation:** A logical loop condition has been detected by AUTOMON/CICS. AUTOMON/CICS issues an authorized command to a UCCF/Server to cancel the detected Loop/Wait condition. The task is being abnormally terminated with a dump written to the CICS dump dataset. The condition indicates a possible logical loop in a user's program. (note: AUTOMON/CICS may terminate a task without a dump if 1) CICS is experiencing a slow-down; 2) CICS is experiencing a stress condition and/or a MXT condition; or 3) too many UAMA/UAMB/UAMK abends)

**System Action:** The task is abnormally terminated with an S0C6/S0C1/ASRA and a transaction dump.

**User Response:** Take corrective action within the program being executed. The CICS auxiliary trace can be used to determine if a true loop condition has been detected. The PSW will point to an instruction within the looping instruction set.

## U998

Explanation: An error return code has been detected by the repair subtask. Either the data integrity exposure or the maximum allowable system/user abend recovery threshold has reached.

System Action: AUTOMON/CICS will terminate CICS/VS abnormally with a dump.

User Response: Notify your systems programmer. Identify the problem by examining the dump. Increase the MAX abend retry count in the AUTOMON/CICS initialization table (AIT) if needed.

## U999

Explanation: A system recovery TCB subtask (CSHSRP) in a CICS address space encountered an unexpected internal system failure condition. Either the common communications vector table (CCVT) pointer is invalid or the subtask scheduler vector table (SSVT) pointer is invalid.

System Action: CICS will be operated without a system recovery TCB subtask.

User Response: Notify your systems programmer. Restart AUTOMON/CICS manually using a "UMON" transaction. (Menu selection 0 Sub-menu option 1.)





---

## **Appendices**

**This Appendix Describe:**

- Default Thresholds Values

# APPENDIX A. DEFAULT THRESHOLDS

## Menu Selection 0 Submenu Option 2

AUTOMON/CICS Threshold Values

```

ENTER COMMAND =>                                     ***AUTOMON/CICS THRESHOLDS***   UNIMON/CICS V420
APPLID=CICS410 ,CICS=410,DATE=07/13/96,TIME=12:01:40,TERM=R002,NAME=UNICOM
-----
|          ITEM          | ACTIVE INDICATOR | CYCLE | THRESHOLDS | DESCRIPTION |
|          |          | FLAG NOTFY ACT | (SEC) | NOTIFY ACTION |
|-----|-----|-----|-----|-----|
| LOOP DETECTION      | ON   ON   ON   | --- | 20   180 | IN SECONDS |
| STORAGE HWM         | ON   ON   ON   | 30 | 300000 750000 | IN BYTES |
| SHORT ON STORAGE    | ON   ON   ON   | --- | 1     60 | IN SECONDS |
| PERFORMANCE DATA   | ON   --- --- | --- | 32000   --- | IN SECONDS |
| VSAM STRING WAIT    | ON   --- --- | 60 | 1     --- | 1ST CONDITION |
| VTAM TERMNL WAIT    | ON   --- --- | 60 | 1     --- | 1ST CONDITION |
| JOURNAL SWITCH      | ON   --- --- | 60 | 1     --- | 1ST CONDITION |
| AUX TEMP STORAGE    | ON   --- --- | 60 | 98 %   --- | PERCENTAGE |
| EXCEPTIONAL         | ON   --- --- | 60 | 1     --- | 1ST CONDITION |
| DEGRADATIONAL       | ON   --- --- | 60 | 1     --- | 1ST CONDITION |
|-----|-----|-----|-----|-----|
|          | FLAG  LOW HIGH | CYCLE | LOW  HIGH |
|-----|-----|-----|-----|-----|
| MXT      | ON   ON   ON   | 30 | 32   490 | NUMBER OF TASK |
|-----|-----|-----|-----|-----|
PF1=N/A  PF2=PRINT  PF3=RETURN  PF4=MENU  PF6=CHANGE  PF9=REFRESH  PA1/CLEAR=EXIT

```





---

## Menu Selection 0 Submenu Option 5

### AUTOMON/CICS System Recovery Table Values

```
ENTER COMMAND => _____ ***SYSTEM RECOVERY TABLE*** UNIMON/CICS V420
APPLID=CICS410 ,CICS=410,DATE=07/13/96,TIME=11:26:15,TERM=R002,NAME=UNICOM
+-----+-----+-----+-----+-----+
| STAGE | MASTER | NOTIFY | ACTION | DESCRIPTION |
+-----+-----+-----+-----+-----+
| 1 | ON | ON | OFF | DISPLAY PSW/PRODUCE A SYSTEM DUMP |
| 2 | ON | ON | ON | VERIFY/REPAIR CICS/VS FOUNDATION |
| 3 | ON | ON | ON | VERIFY/DISABLE A TRANSACTION |
| 4 | ON | ON | ON | VERIFY/REPAIR DYNAMIC STORAGE AREA |
| 5 | ON | ON | ON | VERIFY/REPAIR CICS/VS PROGRAMS |
| 6 | ON | ON | ON | VERIFY/REPAIR CICS/VS TABLES |
| 7 | ON | ON | ON | VERIFY/REPAIR CICS/VS CNTL BLOCKS |
| 8 | ON | ON | OFF | SUMMARY REPORT/PRODUCE A DUMP |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
+-----+-----+-----+-----+-----+
PF1=N/A PF2=PRINT PF3=RETURN PF4=MENU PF6=CHANGE PF9=REFRESH PA1/CLEAR=EXIT
```

---

## Menu Selection 0 Submenu Option 6

AUTOMON/CICS System/User Abend Codes

```
ENTER COMMAND => _____ ***SYSTEM/USER ABEND CODES*** UNIMON/CICS V420
APPLID=CICS410 ,CICS=410,DATE=07/13/96,TIME=11:38:23,TERM=R002,NAME=UNICOM
+-----+
| ABCD STAT | ABCD STAT | ABCD STAT | ABCD STAT | ABCD STAT | ABCD STAT |
+-----+-----+-----+-----+-----+-----+
| U0001 ON | U0002 ON | U0003 ON | U0004 ON | U0005 ON | U0006 ON |
| U0007 ON | U0008 ON | U0009 ON | U0010 ON | U0108 ON | U0111 ON |
| U0112 ON | U0113 ON | U0114 ON | U0115 ON | U0117 ON | U0118 ON |
| U0119 ON | U0161 ON | U0162 ON | U0170 ON | U0180 ON | U0182 ON |
| U0183 ON | U0184 ON | U0185 ON | U0190 ON | U0191 ON | U0192 ON |
| U0193 ON | U0194 ON | U0195 ON | U0196 ON | U0197 ON | U0198 ON |
| U0200 ON | U0201 ON | U0202 ON | U0203 ON | U0204 ON | U0205 ON |
| U0206 ON | U0207 ON | U0208 ON | U0209 ON | U0210 ON | U0211 ON |
| U0212 ON | U0213 ON | U0214 ON | U0220 ON | U0221 ON | U0222 ON |
| U0223 ON | U0405 ON | U0601 ON | U0602 ON | U0603 ON | U0615 ON |
| U0301 ON | U0305 ON | U0308 ON | U0401 ON | U0403 ON | U0405 ON |
| U0409 ON | U0501 ON | U0504 ON | U0505 ON | U0519 ON | U0601 ON |
| U0602 ON | U0603 ON | U0608 ON | U0612 ON | U0613 ON | U0615 ON |
| U0845 ON | U0900 ON | U0902 ON | U1600 ON | U1800 ON | U2304 ON |
| U2307 ON | U2308 ON | U2309 ON | U4032 ON | S0047 ON | S004D ON |
| S0052 ON | S0053 ON | S00C1 ON | S00C2 ON | S00C3 ON | S00C4 ON |
+-----+-----+-----+-----+-----+-----+
PF1=N/A PF2=PRINT PF3=RETURN PF4=MENU PF6=CHANGE PF9=REFRESH PA1/CLEAR=EXIT
```

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## Reader's Comments

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