

Object Compression Manager II (OCM II)

For AS/400

Version 1.01

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Table Of Contents

Introduction	1
Overview	1
Installation and Security	2
RISC-ready program code	2
Kisco Software Support	3
World Wide Web Support	3
The Main Menu	5
Run Compression Utility	7
Add Compression Run to System Job Scheduler	10
Review/Update System Schedule	12
Analyze a Library For Compression	13
Installation	14
The Install Menu	15
Display installation status	16
Change installation status	17
Print additional documentation	18
Install Kisco PTF Package	19
Upgrade Considerations from original OCM	21

Introduction

Disk space is a crucial resource on your AS/400. Running out of space can produce catastrophic results. It is imperative for all AS/400 managers to keep constant watch on how much disk space is being used and how much is available for use. When you approach a disk overload situation, OS/400 automatically starts shutting down certain functions. File and object transfers with other computer systems will stop running. Internet E-mail arriving at your system will be refused. And other functions stop as well. So keeping enough working disk space is important to keeping your system functioning smoothly.

Object Compression Manager II (OCM II) from Kisco Information Systems is one tool that will help you with this constant battle to conserve disk space.

OS/400 has several object compression features built into it. When OS/400 is shipped to you from IBM, many of the objects are compressed. OS/400 automatically decompresses these objects as they get used. Even if an object only gets used once and then never gets used again, OS/400 will decompress it and leave it decompressed on your system.

OS/400 also has the ability to compress objects built into it. If you have objects that qualify for compression, and these objects are rarely used, you can conserve disk space by compressing them and keeping them compressed while not in use.

Object Compression Manager II provides you with a set of tools to compress objects on your system and keep them compressed. It works with objects supplied by IBM and with your own program objects. Running the OCM II object compression utility when you first install the product will compress unused and rarely used objects. Using the utility on a scheduled basis will keep rarely used objects compressed on your system.

Overview

OS/400 provides for the following object types to be stored in compressed form:

- *PGM program objects (provided they were compiled after OS/400 Release V2R1M0)
- *PNLGRP panel group objects
- *MENU menu objects
- *FILE objects for display and printer files
- *SRVPRG service program objects
- *MODULE program objects

When OS/400 is shipped to you from IBM, it has these objects stored in compressed form. The objects on your system in your own application libraries can also be compressed.

OCM II gives you the tools necessary to keep rarely used objects compressed on your system. The same tool will let you easily compress your own objects.

The main tool used by OCM II is the CPRLIB Compress Library command. Additional tools provided allow you to add regularly scheduled compression runs to the system job scheduler and to run analysis reports of your existing libraries to see when compression may provide useful additional disk capacity for your system.

This manual will discuss the various utility functions in greater detail in each section.

Installation and Security

Specific installation instructions are covered in the section of this manual titled "Installation". To install your product on trial, follow those instruction. Initial installation will allow OCM II to run on your system for a period of at least thirty days. At the end of the trial period, the software will no longer function.

When you decide to keep OCM II, you must send your payment to Kisco Information Systems. At that time, KIS must know the full serial number for your system. If you are not sure of your serial number, you can display it by using the following command:

```
DSPSYSVAL QSRLNBR
```

When KIS receives your payment and serial number, they will issue a password to you. This password, when applied, will certify your copy of OCM II and will permanently activate the software on your system. The password and certification instructions will be provided in writing (by E-mail, fax or by mail depending on information supplied along with your order).

RISC-ready program code

Your version of OCM II is "RISC-Ready". This means that it can be installed and used on any available AS/400 system. You do not have to do anything to take advantage of using OCM II on a RISC-based system and all functions will work exactly as documented in the user manual.

To keep OCM II in RISC-ready condition, do not run the CHGPGM command to remove program observability information from any OCM II system programs. If program observability is removed from the OCM II program library, it will not migrate correctly onto a RISC-based AS/400. You can remedy this situation, however, by re-installing your OCM II system from the original program distribution media before migrating to the RISC-based system.

Kisco Software Support

Kisco Information Systems provides unlimited software support during your first year of ownership. This includes the time during your free trial. Following the first year of ownership, there is a modest fee structure to maintain support for your software.

The Kisco support policy program works as follows:

1. First year support will continue to be FREE! This will include unlimited telephone support, unlimited E-mail support, free release updates and free license transfers.
2. After the first year, an annual charge will apply for support and software maintenance.
3. The annual fee will be charged at the rate of \$50 per product or 10% of the current selling price, whichever is LOWER.
4. For customers with multiple products from us, there will be a maximum charge of \$100 per year, no matter how many installations or products you own.
5. Support covered by this annual fee includes:
 - a. Unlimited telephone support (914-241-7233)
 - b. Unlimited E-mail support (Support@kisco.com)
 - c. Defect analysis and correction
 - d. Free updates to correct known defects
 - e. Free license transfers
6. Release updates will be available for a modest \$25 fulfillment fee for each update shipped.
7. Customers who are not on maintenance will be charged \$25 for each license transfer.

At the end of your first year of ownership, you will receive an invoice from us for your first year's maintenance charge. Non-payment of this invoice will be taken to mean that you decline maintenance.

World Wide Web Support

You can now use the World Wide Web to reach us and to obtain software support information. Just set your web browser to our URL at:

<http://www.kisco.com>

Support information specifically for OCM II can be found at URL:

<http://www.kisco.com/ocstsup.htm>

At our website, you will find:

- Product information about all Kisco software products for the IBM Midrange market.
- Customer support information including:
 - ▶ Latest release level information for all products
 - ▶ Technical bulletins
 - ▶ Descriptions for recent enhancements to products
 - ▶ E-mail contact information for getting in touch with us
- Information about consulting services available from Kisco Information Systems.
- and more

We invite you to visit our website, use the contact features to let us know what you think. We're always looking for ways to better serve you, our customer.

The Main Menu

The main menu used by OCM II is called MASTER and is found in the library OCMLIB2. There are several ways to display the menu. You can issue the following GO command from any terminal command line:

```
GO OCMLIB2/MASTER
```

This method does not require that the library name be added to your library list. You can also add the library to your library list and display the menu with an easier format. To add the library to your library list, enter the following:

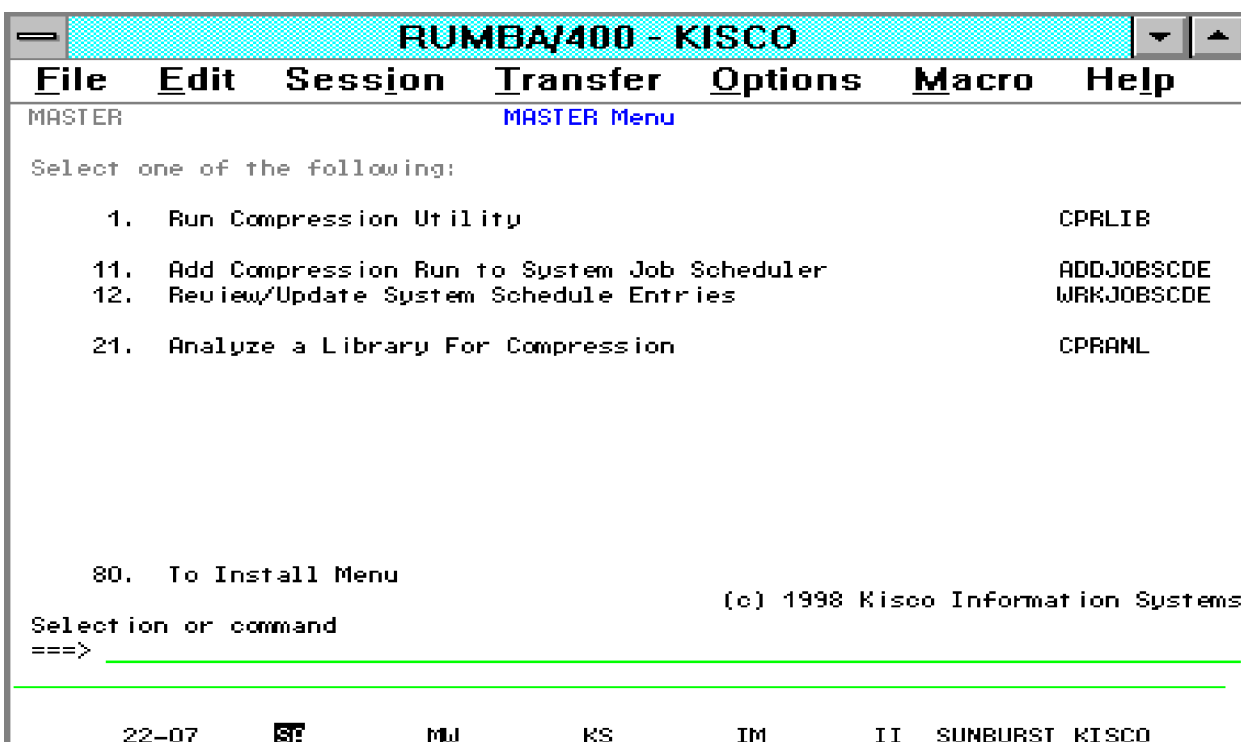
```
ADDLIBLE OCMLIB2
```

Following this add, you can display the menu by keying the following:

```
GO MASTER
```

The main OCM II menu appears as follows:

Menu items perform the following functions. Each function is discussed in greater detail later in



this document:

1. Run Compression Utility The general use compression utility. Allows you to

compress objects in a single library, a group of libraries, all user libraries or all libraries on your system.

11. Add Compression Run ... Adds a compression utility run to the system job scheduler.
 12. Review/Update System ... Allows you to review and change entries in the system job scheduler
 21. Analyze a Library For Prints a report for a specific library showing projected space savings from running the compression utility against the library.
80. To INSTALL Menu - Displays the installation menu.

Run Compression Utility

Menu option #1 will run the compression utility for one or more libraries on your system. When you select this option, the following command prompt screen will be displayed:

```

RUMBA/400 - KISCO
File Edit Session Transfer Options Macro Help
Compress Library (CPRLIB)

Type choices, press Enter.

Library . . . . .
Object(s) to compress . . . . .
Object type(s) . . . . .
Days unused . . . . .
Report option . . . . .
Job Que Name . . . . .
  Library . . . . .

Name, generic*, *ALL, *ALLUSR
Name, *ALL
*ALL, *MENU, *PNLGRP, *PGM...
0-366, *NONE
*DETL, *SUMM
Name
Library Name, *LIBL

*ALL
*ALL
*NONE
*DETL
*LIBL

F3=Exit  F4=Prompt  F5=Refresh  F12=Cancel  F13=How to use this display
F24=More keys

Bottom
05-37  SR  MW  KS  IM  II  SUNBURST KISCO

```

The parameters on the screen can be completed follows:

Library

Enter the name of the library that contains the objects you want to compress. You can enter a specific library name, in which case only one library will be processed. You can also specify one of the following values to process more than one library:

- | | |
|----------|---|
| generic* | Enter a generic library name (ending with '*') and all libraries that start with the letters leading up to the '*' will be processed. |
| *ALL | All libraries on your system, including IBM supplied libraries, will be processed. |
| *ALLUSR | All user libraries on your system will be processed. |

Object(s) to compress

Enter either the specific name of an object in the selected library that you want to compress or the special value '*ALL' to compress all objects that qualify for compression.

Object type(s)	Enter the type of object designator for the objects you want to compress from the following list:
	<p>*ALL All qualified objects will be compressed (this is the default value and is generally recommended for most compression runs)</p> <p>*MENU Just the menu objects will be compressed</p> <p>*PNLGRP Just the panel group objects will be compressed</p> <p>*PGM Just the program objects will be compressed</p> <p>*FILE Just the display file and print file objects will be compressed</p> <p>*MODULE Just the module objects will be compressed</p> <p>*SRVPGM Just the service program objects will be compressed</p>
Days unused	Enter the number of days unused that you want to specify. If you want all qualifying objects to be compressed regardless of their last used date, use the special value '*NONE'. Otherwise, enter a number between 0 and 366. OCM II will check each qualifying objects last used date and bypass objects that have been used within the number of days entered.
Report option	Enter one of the following special values:
	<p>*DETL Both a summary report and a detailed report will be printed at the end of the compression run. The detail report will show which objects were considered for compression and the results of the compression process.</p> <p>*SUMM Only the summary report will be printed. This report will show the total amount of disk space saved in each library that was processed.</p>
Job Que Name	Enter the name of the system jobque that you want to use for compression processing. If you leave this blank, the compression will run interactively.

Once all options have been specified, press ENTER. If you indicate a job que name, the compression job will be sent to run in the indicated jobque. When the compression job completes, a summary report will be issued. If you selected to create a detail report, that report will also be

created.

Add Compression Run to System Job Scheduler

This menu option will perform allow you to add a job to your system job scheduler to run a compression run on a regular basis. If you are using another automated job scheduling system, you may wish to use it instead of the system job scheduler. When you select this option, the following command prompt screen will be displayed:

```

RUMBA/400 - KISCO
File Edit Session Transfer Options Macro Help
Add Job Schedule Entry (ADDJOBSCDE)

Type choices, press Enter.

Job name . . . . . > O2 Name, *JOB0
Command to run . . . . . > OCMLIB2/CPRLIB LIB(*ALL) DAYS(?)

-----

Frequency . . . . . > *WEEKLY *ONCE, *WEEKLY, *MONTHLY
Schedule date, or . . . . . > *NONE Date, *CURRENT, *MONTHSTR...
Schedule day . . . . . > *SUN *NONE, *ALL, *MON, *TUE...
+ for more values
Schedule time . . . . . > 010000 Time, *CURRENT

Bottom
F3=Exit F4=Prompt F5=Refresh F10=Additional parameters F12=Cancel
F13=How to use this display F24=More keys

05-37 02 MW KS IM II SUNBURST KISCO

```

The parameters on the screen can be completed as follows. Please note that this is an OS/400 command supplied by IBM and, as such, is fully supported by IBM help text. The following explains how to easily use this command for OCM II compression purposes. If any of the parameters are difficult to understand or if you would like to use features that are not documented here, you can usually determine how the parameters may be set by using the HELP key:

Job Name	Enter a unique jobname for this regular compression run. The menu option will default to the value shown here of 'O2' but you should change this value to something more meaningful.
Command to run	Place the cursor on this field and press the F4 key. This will prompt the Compress Library (CPRLIB) command so that you can fill in the specific parameters that you want to use.
Frequency	We recommend one of the following two values. Other values are possible for this command:

*WEEKLY Will indicate that you want to run the compression utility once per week.

*MONTHLY Will indicate that you want to run the compression utility once each month.

Schedule date If you are scheduling the compression to run on a weekly basis, enter '*NONE' here. If you want to run the compression on a monthly basis, enter either '*MONTHSTR' to run on the first day of the month or '*MONTHEND' to run on the last day of the month.

Schedule day If you are scheduling the compression to run on a monthly basis, enter '*NONE' here. If you want to run the compression on a weekly basis, enter the day of the week here.

Schedule time Enter the time of day that you want the compression to start here. Time should be entered using military expression (ie: 130000 is 1:00 pm).

This command has additional parameters that you may consider using. Press the F10 key to review the additional parameters. One of these that you may want to use is the USER parameter where you can force the compression job to run under a specific user profile name.

When all parameters have been entered, press enter and the job will be added to your system automatic job scheduler.

After you have scheduled a compression job, you can review the scheduled settings and parameters by using menu option #12.

Review/Update System Schedule

At any time, you can review job schedule entries that you have made by using option #12 from the menu. When you select this option, a display similar to the following will appear:

```

RUMBA/400 - KISCO
File Edit Session Transfer Options Macro Help
Work with Job Schedule Entries KIS
01/19/98 16:42:13

Type options, press Enter.
2=Change 3=Hold 4=Remove 5=Display details 6=Release
8=Work with last submission 10=Submit immediately

-----Schedule-----
Opt Job Status Date Time Frequency Recovery Action Next
  0CMLIB2 SCD *SUN 01:00:00 *WEEKLY *SBMRLS 01/25/98
  02 SCD *SUN 01:00:01 *WEEKLY *SBMRLS 01/25/98

Parameters or command
===>
F3=Exit F4=Prompt F5=Refresh F6=Add F9=Retrieve
F11=Display job queue data F12=Cancel F17=Top F18=Bottom

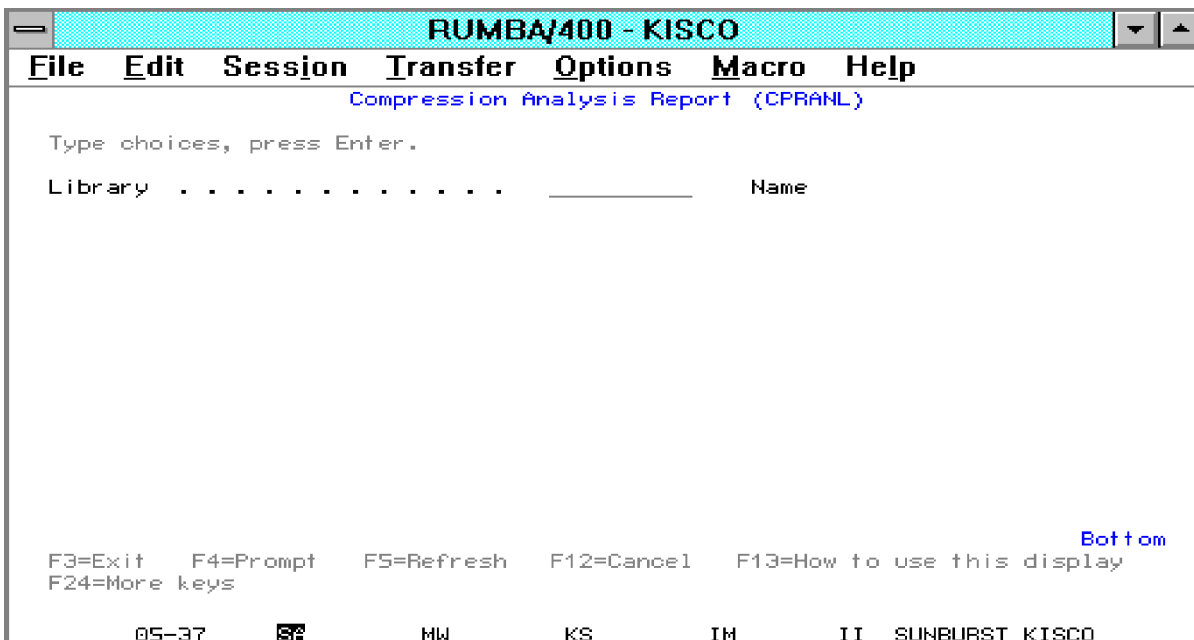
12-02  S2 MW KS IM II SUNBURST KISCO
  
```

If your AS/400 is already using the system job scheduler, additional items may be listed. This display shows all jobs scheduled for your system, listed by job name. You can use the roll keys to browse the entries. To check how a specific entry is set up, place the '5' option under the 'Opt' column on the left and press ENTER. To make changes, use the '2' option. The rules and parameters for changing job schedule entries are similar to those for adding new entries. These were documented in the previous chapter of this manual.

Other options are available from this display. If you want to review the other uses of this display, use the HELP supplied by IBM.

Analyze a Library For Compression

Before compressing any library, you may want to get an idea as to how much disk space might be saved by compression. You can use menu option #21 for this purpose. When you start this option, the following prompt screen will be displayed:



The parameters on the screen can be completed as follows:

Library Name Enter the name of the library to be analyzed.

Once the library has been specified, press ENTER and OCM II will generate an analysis report. The report will show the compressible objects from the library along with compression possibilities and an estimate of the amount of disk storage saving that might be realized as a result of compression. This is just an estimate, actual compression will probably vary.

Installation

Before any Object Compression Manager II functions will work, the initial install procedure must be run. You can install OCM II by following these easy instructions:

1. Sign on using the QSECOFR id.
2. Place the installation tape in your system and key the following command:

LODRUN DEV(XXXX)

where XXXX is the name of your tape drive.

3. During installation, OCM II does the following:
 - Checks to see if this is a new install or an update install.
 - For update installs, the old OCM II program library is saved in library OCMLIB2OLD.
 - For new installs, the software is initialized for the free 30 days trial period.
 - Additional documentation is printed which covers topics that have been added or changed since the user documentation manual was last printed.
4. When the command finishes, the OCM II MASTER Menu will be displayed.

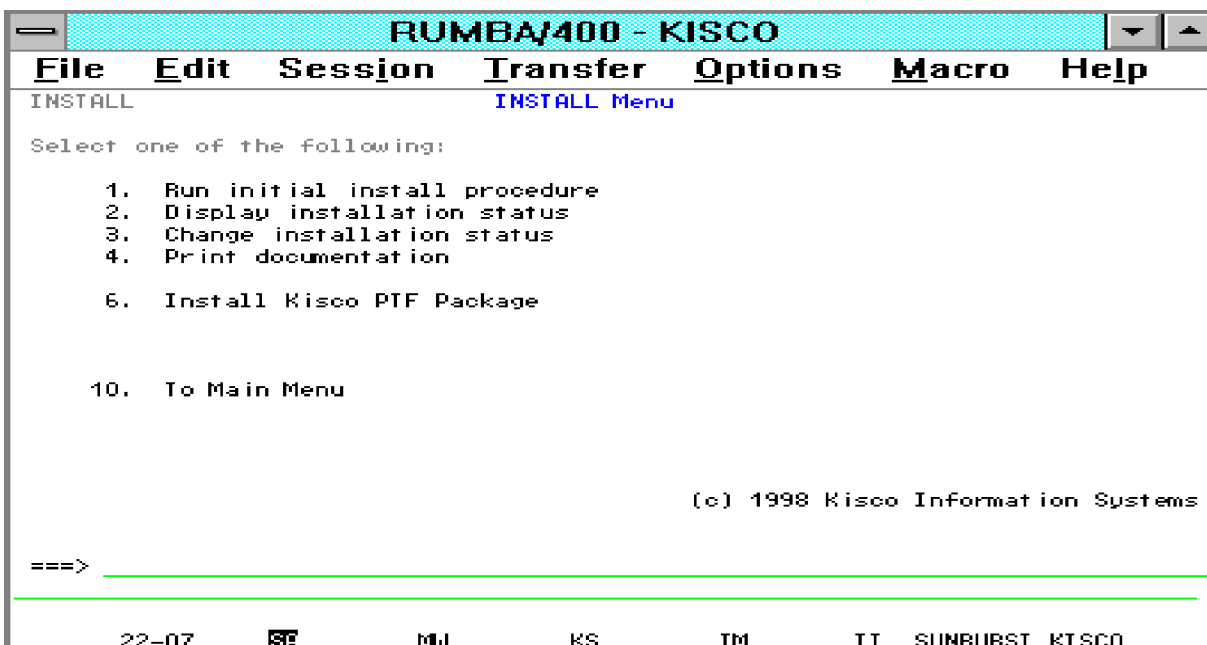
When the procedure finishes, your copy of OCM II will be successfully installed for your thirty day trial period. At the end of the trial period, OCM II will cease functioning until either an extension password or a permanent password is entered. The additional documentation printed during the installation covers features and functions that have been added or changed since your copy of the manual was printed. Before using OCM II, please review this manual and the additional documentation in detail.

NOTE: No objects will be compressed during installation.

If you upgraded from an earlier release of OCM II, you may delete the library named OCMLIB2OLD created during the installation after you are certain that the new release is working to your satisfaction.

The Install Menu

When you select item 10 from the main menu, the installation menu is displayed as follows: Menu items perform the following functions. Each function is discussed in greater detail later in this document:



- | | |
|------------------------------------|--|
| 1. Run initial install procedure - | Do not use this option unless directed to do so by Kisco Support staff. This option is automatically run during normal install processing. |
| 2. Display installation status - | Displays a screen showing the current installation status for the software. |
| 3. Change installation status - | Displays the current software installation status and allows for changes to be made. |
| 4. Print documentation - | Prints this documentation manual to the default print device. |
| 6. Install Kisco PTF package - | Allows you to process a corrective PTF package received from Kisco for program fixes. |
| 10. To Main Menu - | Will display the OCM II main menu. |

Display installation status

At any time, you can check the current installation status of your copy of OCM II by selecting this menu option. You must be signed on with security authority of QSECOFR or equivalent. The following screen will be displayed:

The message at the center of the screen indicates your current installation status. You should also check the Sec.expire date for an expired trial period. OCM II may still show as installed on a trial

```

RUMBA/400 - KISCO
File Edit Session Transfer Options Macro Help
Free Trial -- Dynamic Software Security -- INSTALLATION Procedure

Installation for      OCMLIB2      Developer ID code  KISCO
Machine serial number 10A3241    Current Library   OCMLIB2
                    980205      Sec.serial number 10A3241
Machine run date.... 980205      Sec.install date. 980205
                    Sec.expire date.. 980330

Security Status INSTALLED ON TRIAL.....Z-004

Please enter:
Type of install ..... T for trial, or P for permanent
Install password .... Blank for trial, or permanent password
New expire date..... Blank for trial, or 999999 for permanent

On3,7-Return to menu      HELP          ENTER-process installation

Free Trial (c)1990, 1992 Monahan
17-31  SF      MW      KS      IM      II  SUNBURST KISCO

```

basis but, if the trial is expired, it will no longer function.

The following are the possible status messages that can appear on this display:

<u>Message</u>	<u>Explanation</u>
Z-001 NOT INSTALLED	Trial installation not started
Z-002 TRIAL EXPIRED	Trial period has ended
Z-003 PERMANENTLY INSTALLED	Software is permanently installed
Z-004 INSTALLED ON TRIAL	Software is installed on trial
Z-005 PASSWORD NOT ACCEPTED	Password keyed is not valid
Z-006 WRONG LIBRARY	Programs must run from our library
Z-007 PLEASE RUN TRIAL INSTALL	Must have trial install before perm.
Z-008 INVALID INSTALL REQUEST	Must be P or T
Z-009 INVALID SECURITY (REC#6)	Call Kisco
Z-010 INVALID SECURITY (NO ZZ)	Call Kisco
Z-011 INVALID SECURITY (HASH.)	Call Kisco

Change installation status

To make changes to your installation status, use this menu option. The changes processed can

include both a trial period extension and permanent installation. You must be signed on with QSECOFR security authority or equivalent. When you select this option, the following screen is displayed:

Trial extension

To extend a trial period, contact Kisco Information Systems and request an extension. We will

```

RUMBA/400 - KISCO
File Edit Session Transfer Options Macro Help
Free Trial -- Dynamic Software Security -- INSTALLATION Procedure

Installation for      OCMLIB2      Developer ID code  KISCO
Machine serial number 10A3241    Current Library   OCMLIB2
                      10A3241    Sec.serial number 10A3241
Machine run date.... 980205      Sec.install date. 980205
                      Sec.expire date.. 980330

Security Status INSTALLED ON TRIAL.....Z-004

Please enter:

Type of install ..... T for trial, or P for permanent
Install password .... Blank for trial, or permanent password
New expire date..... Blank for trial, or 999999 for permanent

Om3,7-Return to menu      HELP          ENTER-process installation

Free Trial (c)1990, 1992 Monahon
17-31  SE      MW      KS      IM      II  SUNBURST KISCO

```

provide you with an extension password and new expiration date. On the above screen, enter the following:

Type of install	Enter 'T' for trial
Install password	Enter all six digits of the extension password provided, including any leading zeros
New expire date	Enter the new expiration date in the format YYMMDD (ie: Jan 12, 1998 would be 980112)

When the parameter fields have been completed, press enter to reactivate your software.

Permanent installation

To permanently install your software package, use the permanent password provided by Kisco Information Systems following receipt of payment. On the above screen, enter the following:

Type of install	Enter 'P' for permanent
Install password	Enter all six digits of the extension password provided, including any leading zeros
New expire date	Enter all 9's (ie: 999999)

When the parameter fields have been completed, press enter. Your software is now permanently installed.

Print additional documentation

At any time, you can reproduce the additional documentation by using this menu option. A full copy of the additional documentation topics will be printed.

Install Kisco PTF Package

OCM II supports distribution of program updates remotely via the Internet. When programs in OCM II are updated or program fixes are required, Kisco Information Systems can send the updates directly to you via the Internet. If needed, we will send E-mail to you with an attached PC file. This file, when loaded into a folder on your system, can be used to post program updates and changes to your copy of OCM II.

When you receive a PTF update package from Kisco, you will be given an eight character PTF Package Name. To load and apply the PTF to your system, follow these steps:

Step# Instructions

1. Create a folder on your system named KISCO. You can do this with the following command:

```
CRTFLR FLR(KISCO)
```

Note: If you have received other PTFs from Kisco in the past, this folder may already exist on your system. There is no need to re-create it again at this point.

2. From a PC that is attached to your system, move the PTF Package file that you received from Kisco into this folder. From a Windows or an OS/2 client, you can simply use a copy function to accomplish this. A command similar to the following should work:

```
copy c:\{ptfname} I:\qdl\kisco
```

where **ptfname** is the PTF Package name assigned to the file.

3. Sign on to any terminal or terminal session as QSECOFR.
4. Make sure that no OCM II functions are in use and that no users are logged into any OCM II menu.
5. Type the following command:

```
OCMLIB2/KISPTF
```

and press the F4 prompt key. You can also choose option #6 from the INSTALL menu.

6. The command will prompt for two values. The first is the name of the OCM II application library and should not be changed. The second command must contain the eight character name of the PTF Package File. When both parameters are set, press ENTER and the PTFs will be loaded and applied to your copy of OCM II.

7. All Kisco PTFs are loaded so that the prior version of any program objects is saved. This will allow for the effects of a PTF to be reversed at a later time should a defect be identified in the PTF. This can only be done via direct instruction from a Kisco support representative.

During the PTF installation process, two printouts will be created. One of these will be the PTF Cover Letter Documentation; the other will be a fresh update of the additional documentation topics for all OCM II changes. Kisco recommends that you read both documents before starting to use OCM II again.

Upgrade Considerations from original OCM

If you have installed OCM II as an upgrade and your previous version was the original product known simply as Object Compression Manager, there are a few special considerations you should take into account.

Original OCM contained its own sub-system and job scheduler. Since the new version of OCM uses the system job scheduler, these elements are no longer required. You may have built in some programming on your system to automatically start the old OCM subsystem. Before switching over to the new OCM II, you should disable any attempts to start the old OCM subsystem.

After installing and switching over to using OCM II, you should also delete the application library for the original OCM product. This can be done by deleting the library named OCMLIBR.

You should also note that the new version, OCM II, no longer offers options for removing program observability. This may result in larger compressed *PGM members but the program template will be left in place for use by future hardware and software migration software from IBM (such as CISC to RISC migration). This feature on the earlier version of OCM could leave your installation exposed to significant additional work when migrating programs where the program template (observability) was removed.