

OM99-0120-4

OMCS/MVS

Operations Management and Control System for IBM MVS environments

THE OMCS/MVS PRODUCT FAMILY

CONCEPTS AND FACILITIES

OMCS Version 2.8

July 2004

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Manual and Product identifiers.

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The licenced software product, of which this manual is a part, is identified by a **Product Name** or **Product Acronym** and an **Edition Number**. Edition numbers are made up of a **Version number** and a **Release number** within that version.

The material in this manual is intended to be used with **OMCS/MVS Version 2 Release 8** and later editions of that product. The edition number may appear in licenced material in abbreviated forms like the following: **V2R8** , **V28** and **V2**.

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Related Publications

OM88-1020 - OMCS/MVS Installation and Quickstart guide

OM88-1021 - OMCS/MVS Utilities Reference

OM88-1022 - OMCS/MVS General Operations Guide

OM88-1023 - OMCS/ACF Access Control Facility Guide

OM88-1024 - OMCS/AMF Archive Management Facility Guide

OM88-1025 - OMCS/IRM Interactive Report Management Guide.

OM88-1026 - OMCS/JSF Job Scheduling Facility Guide.

OM88-1027 - OMCS/ECL ECL Language Reference.

OM88-1029 - OMCS/MVS Messages and Codes.

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OMCS/MVS Product Family Overview

Output management is a major target for OS/390 datacenter automation.

Tired of user complaints like *lost output*, *wrong output* and *late output*?

OS/390 systems are factories that process text. Big systems capture, organize and then output gigabytes of critical business information daily. End-users rate the effectiveness of their corporate computing resource almost entirely by how well it delivers this text product.

OMCS is an OS/390 output management platform offering a wide range of services to computer operations staff. Now you can automate many processes that formerly defied any but a manual approach.

OMCS/V2 the base product - captures, archives and checks output and notifies relevant users about errors, provides online job output viewing and includes the powerful ECL scripting language.

OMCS/IRM the report distribution option - identifies, splits and distributes reports and provides online report viewing for end users.

OMCS/SRF the statement reprint option - archives and handles reprint requests for customer statements. Designed for organisations with millions of accounts who need overnight turnaround for thousands of requests each day.

OMCS/JSF the job scheduling option - automatically schedules batch work. A basic scheduler that is very simple to configure and use.

Fast, Powerful and Precise

Designed to be fast and flexible, OMCS delivers reliable automation in computer operations. Capturing, checking and archiving output, distributing reports, scheduling jobs - OMCS operates automatically. When OMCS finds an error the appropriate staff can be automatically notified. By concentrating people's attention where it's needed OMCS helps make them more effective.

Online facilities let people select just the jobs or reports that they need to see. Automatic processes can be controlled by setting parameters. Unique installation and user requirements can be met using the exciting ECL scripting language that comes as part of the base product.

Let's show you how OMCS facilities are used to deal with some typical operational problems:

- **failing jobs not detected soon enough**
- **staff can't find JCL listings**
- **support staff not notified about problems**
- **paper and printer costs increasing rapidly**
- **too many paper handlers**
- **reports delivered late to users**
- **costly reruns done to recreate lost reports**
- **users want online report viewing**
- **an existing report package is too much work**
- **overnight batch window shrinking**
- **jobs run at the wrong time or in the wrong order**
- **people can't find out what happened**

Y2K Compliance

OMCS has been Y2K compliant since November 1997. The latest level is Version 2.10.

Problems and Solutions

Failing jobs are not detected soon enough

"We printed the statements on time but ... they seem to be the same as last weeks ... it was a NOT CAT 2 that caused it"

An earlier job created a statement print input file but OS/390 couldn't catalog it because there was already a catalog entry for that dataset name (message IEF287I ... NOT CATLGD 2). The statement print job read some other version of the file, probably the previous cycles data. Wasted time, wasted stationery. If you're lucky, the error was discovered before the statements were mailed out.

OMCS Basic Checking automatically detects OS/390 error messages

If OMCS had been used to capture, check and file production JCL listings this problem would have been discovered as soon as the first job finished execution (if OMCS/JSF was the scheduler being used then the statement print job would not even have begun execution). Even used with other scheduling packages, (many of which can't catch these catalog errors when they do occur) OMCS would still have contained the damage by alerting operators or schedulers within seconds of the first job completing.

```
OMCS/V2 BROWSE .JOBAUDT LOGFILE                                F -----
COMMAND ==>>>                                           SCROLL ==>> CSR
                                                           LINE 17744 OF 17753 COLS 1:76
                                                           LINE 17744 OF 17753 COLS 1:79
-----
OMCXW330I TASEBR14 J3653 09:49:56 MON 26JAN 98026 SDS=#0000000 JPR=*
OMCXW507I TASEBR14 J3653 BASIC CHECKING LOG-----
MSGR  30 IEF287I TASE.OMCS200.CNTL                                NOT CATLGD 2
...   31 IEF287I VOL SER NOS= DV5006.
OMCXW512I TASEBR14 J3653 EXECUTION CHECK FAILURE : IEF287I
```

OMCS automatically detects all such catalog failure messages plus a myriad other possible symptoms of job failure that can appear in OS/390 JCL listings.

OMCS automatically checks COND CODES

OMCS can automatically detect steps that end incorrectly. A supplied ECL proc, OMCSJBCK, allows checking details to be defined in CHECKLIB members. As a default OMCSJBCK will assume that every step must end with COND CODE 0000 -or- be bypassed due to condition codes. Just put the exceptions in a CHECKLIB member with the same name as the job. The following example shows a CHECKLIB member for a five step job where step1 and step4 can both return more than one acceptable COND CODE:

```
/* exception steps in job PINV200B
prexname pgexname COND CODEs etc
      STEP1      0000          /* normal execution
              0004          /* ok, but step2 will be bypassed
              0008          /* ok, but dont run the rest of the job
      STEP4      0000          /* normal execution
              0004          /* ok, but dont run step5
```

Define your own exotic checking with ECL procedures

Unique to OMCS, simple ECL procedures can be created by support staff to automatically analyse output, detecting error messages and doing more complex problem analysis.

```
/*----- LOOK FOR A "BAD DATE CARD" MESSAGE IN THE JOBLIST
FIND 'BAD DATE CARD' LINES(&DFMPFSAF) EOF(EXIT4) /* search joblog for message
SET MSG=&XJOBNAME &XJOBID &ZDATE &ZTIME &LTX /* build a message about this
SEND '&MSG',U=(OPSSUP1),LOGON /* send it to support

logonids
WTO PLEASE CALL SUPPORT FOR &MSG /* ask ops to call support
EXIT 8,BADDATECARD /* tell OMCS job has failed and why ("BADDATECARD")
EXIT4: EXIT 4 /* tell OMCS this ECL proc didn't find a problem
```

Staff can't find JCL listings

"I can't find out what happened to last month's run because I can't find the JCL listing. They purge the held output after 2 days ..."

With jobs that run each day, most of the references to JCL listings will occur within a few days, but with weekly jobs it becomes more like 10 days, and what about monthly, quarterly, six-monthly, yearly? Your JCL listing archiver must be able to keep track of output material for the different periods appropriate to different jobs. You can specify details like this through the [job processing rules](#) which automatically control much of what OMCS does with each job it captures.

OMCS can easily keep the summary details of 100,000 production jobs online.

Just see the jobs you need to

OMCS keeps **job detail summaries** online for periods that you can vary by jobname. These are displayed on selection lists built to satisfy your criteria. For example, you can ask for a list of all those jobs captured during the last 30 days whose names begin "P" or "HSKP", used more than five minutes CPU time and had any system abend.

```
OMCS/V2 Job Selection Criteria -----
COMMAND ==>                               ? for field-level help

primary commands ACF,AMF,JSF,IRM,JAL,DBI,DIR,SI,JPR,DDR,X
Enter Job Selection Criteria and press ENTER-----
jobnames      ,=> P,HSKP
not before    ,=> -30          yyyyymmdd, mmdd, dd, tue, 25oct, -10, etc
not after     ,=>           yyyyymmdd, mmdd, dd, tue, 25oct, -15, etc
symptoms      ,=> ABS
COND codes    ,=>           >4 .. =16,24 .. <12 .. ì' '
assignees     ,=>
programmer    ,=>
lines         ,=>           (like >5000 or >5k or <500 etc)
form codes    ,=>
cpu time      ,=> >5m
other ...     ,=>
sort by       ,=>
other ...     ,=>
latest @ top  ,=>           (Y if selection list is to have latest job at top)
conf delete   ,=>           (N if confirmation not required)
prt destid    ,=>           (system printer destid)
prt class     ,=>           (output classcode)
```

You can browse, search, sort and select from the list to view the captured output. If you need adhoc hardcopy you can print all or part of anything you can view to any JES printer.

```
OMCS/V2 JOBS P,HSKP -30 -0 ABS ASE.TESTDBAS 45% 16:11 THU 20010315
COMMAND ==>                               Scroll ==> CSR
                                                Line 1 of 61
S browse Y summar H hardcop P purge D delete U update T test A analyz R restore
lc JOBNAME- JOBID- RUNON DAY STAR STOP ELAPS CPUSEC LINES- MXCC SYMPTOM--- SYST
  PINV0220 J06664 DEC15 TUE 1721 1743 :22 900.0 15,042 0000 ABS322 MSY2
s PGLG5523 J00543 DEC16 WED 2336_0051 1:15 715.1 3,042 0000 ABS813 CPUA
r HSKP0100|J09417 DEC17 THU 1051 1122 :31 1098.2 206 0000 ABS80A CPUA
```

When output is no longer online you can recover it with an "r" line command. You will be notified when it is online. Jobs remain in the secondary archive for times specified in job processing rules.

Microfiche archive support

OMCS can also create and maintain an indexed microfiche archive with fiche index information both on fiche and in the OMCS database. This is a typical choice for a very long term reference repository. Output is still available online even after it has been fished.

Support staff are not notified about problems

"We didn't notice the job had failed. I was snowed under with other problems, the phone wouldn't stop ringing, ..."

When jobs fail the right people need to be told so that corrections can be made. Often it's "yesterday, if not sooner please" with critical production work. OMCS will automatically send a message, including a failure symptom code, to one or more TSO logon-id's associated with a job. The same message will be written to appropriate OS/390 consoles if desired.

```
OMCXW512I TASEBR14 J3653 EXECUTION CHECK FAILURE : IEF287I CN(0)
```

Again, simple ECL procedures can be created to extract information from the output and send it to any logon-ids, or to system consoles, or print it to any JES local or remote printer. ECL also lets you read and write OMCS database files and/or OS/390 sequential and partitioned datasets, it even lets you build and submit new jobs. You can perform almost any conceivable processing at job capture time using simple ECL procedures.

```
/*----- LOOK FOR APPLICATION-SPECIFIC ERRORS
CHK1:  FIND (BAD DATE CARD)  FIRST  EOF(CHK2)
        SET SYMPTOM=DATECARD
        SET ERR=YES
CHK2:  FIND (HASH CHECK ERROR)  FIRST  EOF(CHK3)
        SET SYMPTOM=HASHCHECK
        SET ERR=YES
CHK3:  ..

/*----- NOTIFY LOGONS AND WORK OUT IF WE PAGE SUPPORT OR NOT
NOTIFY: IF &ERR=YES                /* IF WE DETECTED ANY ERROR
        SEND '&MSG',LOGON,U=(&SUPLIST) /* NOTIFY SUPPORT LOGONS
        IF &ZDAYNM^=(SAT,SUN) /* AND IF ITS NOT A WEEKEND...
            IF &ZHHMMSS>180000 /* AND ITS LATER THAN 6PM
                IF &ZHHMMSS<080000 /* AND BEFORE 8AM...
                    WTO 'PLEASE PAGE AFTER HOURS SUPPORT, &MSG' /* GET OPS TO PAGE
                    LOG OPS REQUESTED TO PAGE SUPPORT &ZDATE &ZTIME
                EXIT 8,&SYMPTOM /* TELL OMCS THERE'S A PROBLEM
            EXIT 4 /* ELSE TELL OMCS WE CAN'T FIND A PROBLEM
```

Most OMCS sites are using ECL procedures to automatically perform processes that would otherwise involve manual activity. Examples include opening incidents for failing jobs in problem recording and tracking systems, using file transfer facilities to send report data to other systems, notifying the appropriate technical staff when critical systems tasks terminate with errors or at unexpected times and scanning SYSLOG for traces of noteworthy events. A huge number of tasks that revolve around output inspection can be readily automated in this way.

Paper and printer costs are increasing rapidly

"Our paper bill is over \$20,000 per month and climbing fast."

OMCS significantly reduces the quantity of paper you need to print. It is difficult for one person to comprehend the full range of output from one system in a single day. Laser printers, colour printers, remote network printers, faster printers, all make it easier and more attractive to print things on paper. The average OS/390 installation prints at least a million pages of production reports each month.

How OMCS reduces the need to print.

First, OMCS is a well organised, reliable and friendly online filing system for JCL listings and other housekeeping output, (like SYSLOG) that your schedulers and technical support staff need every day. OMCS files captured job output by jobname, automatically checks it for errors and keeps it available for the time you say is most appropriate for each job. Jobs are easy to locate, COND CODE and error summaries are immediately available and output can be searched or selectively printed at will. OMCS can keep summary detail available for the last hundred or more executions of each job if required.

Second, with OMCS/IRM you can ensure that you print only the reports, or sections of reports, that your users actually want to see. You don't have to print all of a detailed report when some branches or departments want only their sections of it on paper and others are happy to see theirs online. Another common situation, where a user wants only the summary pages that are scattered through a large report, is easily handled by IRM.

Third, OMCS/IRM can provide online access by users to some or all of their reports. When reports are easily and reliably locatable online, the need for hardcopy and its distribution can fall dramatically.

```
OMCS/IRM ---- REPORT selection list -----
COMMAND ==>                               Scroll ==> CSR
please make a selection                      line 1    of 2
lc REPORT Identifier and Title
s  CPCW030 0002          WEEKLY SALES BY TERRITORY
   CPCW020 0002          MONTHLY SALES BY TERRITORY
```

IRM uses report key masking to control which users have what sort of access to online reports. Generic user groups can be defined and each definition is allowed multiple report key masks.

```
OMCS/IRM ---- REPORT VIEW FACILITY USER ACCESS FOR ACP0252 -----
COMMAND ==>

TYPE          ==> R ( R eport or J ob )

ACCESS MASK ==> ???????ACP*          <-
ACCESS MODE ==> I ( I nclude or E xclude Mask)

AUTHORITY
VIEW          ==> Y ( Y or blank)
PRINT         ==> Y ( Y or blank)
RESTORE       ==> Y ( Y or blank)
DELETE        ==> ( Y or blank)
```

Too many paper handlers

"I need two more people in the print room now Tom has left. He was the only one who understood how to split all those Sales reports."

Distributing printed reports

OMCS/IRM lets you capture that expertise in Tom's head and retain it as a corporate asset. IRM eliminates the time-consuming and error-prone activity of identifying, splitting and collating reports for distribution to end users. IRM does these things automatically, creating bundles for users according to a variety of trigger mechanisms. Each bundle is complete with a block-letter banner page containing address details and a manifest listing its contents. At the bottom of each block letter page there is a box containing a mailing address and other information.

F A S T B U C K F A C T O R I N G R E P O R T S	
RECIPIENT ID : MGR A/C RECV	LAST SEQ# : 117
DESCRIPTION : MR A. JONES	PRINTER ID: OAKB16
TITLE : MANAGER, A/C RECEIVABLE	
MAILING : FASTBUCK FACTORING INC	BNDL DATE : 09/07/98 THU
ADDRESS : 12TH FLOOR, SUITE 1201	BNDL TIME : 04:22:15
: 600 PARKWAY DRIVE, BUILDING 16	BNDL NO. : 4250
: OAKLAND CA 94612	BNDL WGHT : 1.220 KG EST

Each IRM bundle has a manifest on the page immediately following the banner page. This is essentially a list of the bundles contents. A typical manifest for a recipient bundle is illustrated here.

MANIFEST FOR RECIPIENT MGR A/C RECV						PAGE 1 OF 1	
MAILING ADDR: FASTBUCK FACTORING INC							
: 12TH FLOOR, SUITE 1201							
: 600 PARKWAY DRV, BLDG 16							
: OAKLAND CA 94612							
REPORT ID	JOBNAME	JOBID	FILENAME	FILETYPE	DATE	LINES	PAGES
-----	-----	-----	-----	-----	-----	-----	-----
INVDB005-A	PINV200A	J2216	PINV_	#0000546	19980721-180121-TUE	28	1
INVDB120	PINV205	J2560	PINV_	#0000548	19980721-191006-TUE	6570	208
WROFD001	PACP1010	J2872	PACP_	#0000116	19980721-192236-TUE	178	18
WROFD001 B	PACP1020	J2899	PACP_	#0000117	19980721-200501-TUE	254	11
END OF MANIFEST FOR RECIPIENT MGR A/C RECV						TOTAL PAGES	238

By reducing both the number and difficulty of print room tasks, IRM makes your existing staff much more effective. This effect continues down the distribution path as people only have to handle one item, the pre-labelled, self-identifying IRM bundle. This way the only people who need consciously handle "reports" are the end users who receive them.

Reducing the quantity of printed reports

Again, the online report viewing facility of OMCS/IRM can significantly reduce the quantity of paper printed and therefore the need to handle it.

Reports delivered late to users

"Bob is on the phone again, they're missing some of last night's reports, what will I tell him?"

When a bundle fails to arrive, or is lost after it does arrive, IRM provides the mechanisms to easily track its original creation and to allow fast reprints. When a user needs an extra copy of a report already received then selective reprints can be performed by any authorised user.

Often it will be sufficient to authorise the user to browse the report online to get them out of trouble until the paper arrives. IRM user viewing allows you to give a user access to reports retrospectively.

All IRM activity is audit trailed. Bundle history and manifest detail is available by recipient, by distribution node and by date-time. Selective bundle reprint is available for a user, or for any distribution node. Bundles are archived for periods chosen by you, to best help you meet your service level commitments.

Costly reruns are done to recreate lost reports

"They want Wednesday's reports again, but we've run two more cycles since, it will take hours to reload from backups and rerun."

This is still a common response when a user has lost, or never received, a report that's now two days old. If those reports had been captured by OMCS they would have been archived by OMCS backup procedures. The Archive Management Facility (AMF) integrated into the OMCS base product keeps track of job output for whatever time period is specified for that job. Chances are that within one or two days of initial capture the output might still be in the database. Beyond that it can be restored from the secondary archive with a single line command and browsed or printed in whole or in part to suit the user's requirements.

OMCS/IRM has a selective bundle reprint facility. IRM uses AMF to archive and track bundles and it will automatically request bundle recovery to support various IRM functions such as bundle reprint. AMF is entirely compatible with the common tape management systems and current SMS concepts.

Users want online report viewing

IRM includes a user viewing facility for reports. This facility offers an important alternative to printing reports on paper and physically delivering them.

All reports discovered by IRM can be made available to users through the online report viewing facility. To access reports in this way user logons must be registered using an option of IRM. This registration process defines what reports the user has access to and what sort of access (for example, whether a user can recall a report from archive).

To ease the burden of definition it is possible to define generic user groups. IRM will always use the definition which provides the best match for the users actual logonid.

IRM uses report key masking to control which users have what sort of access to online reports. Generic user groups can be defined and each definition is allowed multiple report key masks.

```
OMCS/IRM ---- REPORT VIEW FACILITY USER ACCESS FOR ACP0252 -----
COMMAND ==>

      TYPE          ==> R ( R eport or J ob )

ACCESS MASK ==> ???????ACP*      <-
ACCESS MODE ==> I ( I nclude or E xclude Mask)

AUTHORITY
VIEW          ==> Y ( Y or blank)
PRINT         ==> Y ( Y or blank)
RESTORE       ==> Y ( Y or blank)
DELETE        ==> Y ( Y or blank)
```

The selection lists that users see are tailored according to the report key masks that control their access to reports.

```
OMCS/IRM ---- REPORT selection list -----
COMMAND ==>
please make a selection
lc REPORT Identifier and Title
s  CPCW030 0002      WEEKLY SALES BY TERRITORY
   CPCW020 0002      MONTHLY SALES BY TERRITORY

                                Scroll ==> CSR
                                line 1   of 2
```

End users are more interested in the effective dates for reports than they are in the dates on which reports were actually produced or printed. IRM allows this information to be extracted from the report pages themselves. This is then presented on the selection lists that users see.

```
OMCS/IRM ---- CPCW030 0002 - WEEKLY SALES BY TERRITORY -----
COMMAND ==>
please make a selection
lc user-version---- #lines #pages creation---- avail-until jobname- filety
W/E 08/12/98        6,332  189 19981209:0942 19990110  PCW001  #00000
s_ W/E 15/12/98     7,643  221 19981216:1015 19990117  PCW001  #00000
W/E 22/12/98       8,287  247 19981222:0856 19990124  PCW001  #00000

                                Scroll ==> CSR
                                line 1   of 3
```

An existing report package is too much work.

"No way, it will take at least two days to make the distribution changes."

"We can't put the package in until we get approval for two more people."

Perhaps you already have a report distribution package. Is it making you work too hard to cope with the inevitable changes that occur in reports and distribution requirements? You may have actually bought a package which is still on the shelf because it requires too much effort by too many people to get it working effectively. Have you caught a glimpse of the ongoing workload that normal maintenance of your current package will represent and shuddered in anticipation?

OMCS/IRM incorporates a number of design features that can significantly reduce both the initial startup workload and the ongoing maintenance.

Generic rules and generic splitting

IRM lets you define a single rule to analyse anything from a single SYSOUT dataset through to all the output from all your reporting jobs. This means that you can take advantage of common report formats that may occur in different jobs to minimise the total number of analysis rules you need to define and maintain.

```
OMCS/IRM ---- REPORT ANALYSIS STRUCTURES SELECTION LIST -----
COMMAND ==> s A*                                     SCROLL ==> CSR
                                                    LINE 1   OF 7
LC JOB ---- KEY ----- ECP ---- ABT -DESCRIPTION LAST MODIFICATION -----
*
AE145*          AE145   A   default entry for otherwise undefined jobs
AE145*  CPX900*  AE145   A   rules for CPX900.. reports
AN*            ANXXX   A   rules for all AN... jobs
P*             PXXXX   A   rules for all P... jobs
PGL*           PGLXX   A   rules for all PGL... jobs
SO110A20      REPDEF   AB   rules for job SO110A20
```

When a report is to be split in some way you can usually build a single rule that defines where the splitting data is to be found on each page. Even if it floats around a bit on the line or appears on different lines of the page. We all have reports like this in some application and its nice not to have to get application mods done to allow your report distribution system to handle them.

```
OMCS/IRM ---- REPORT ANALYSIS STRUCTURE AE145* CP900*
COMMAND ==>                                     KEY SECTION RICK
                                                    LINE 1   OF 4

SECTION LENGTH  ==> 8   (Number of characters in key segment: 1-40)
LINE NO. ON PAGE ==> 2   (Line number on page: -512 -> 512 -or- KEY)
AREA START      ==> 88  (Inspection Area Starting Column: 1-999)
AREA LENGTH     ==> 16  (Inspection Area Length in chars: 1-999)
FILL CHARACTER  ==>    (A single char. -or- a hex.digit pair)
ALIGNMENT       ==> L   (L/R=LEFT/RIGHT alignment of data in section)
END ON CHANGE?  ==> N   (Y=Analysis terminates on a change in this section)
SECT. REDEFINED? ==> N   (Y=Next defn. redefines this key section)

  search argument list          action list
  ***TOP OF DATA***
  'DEPT '                       6,4
  'DEP '                          5,4
  'DEPARTMENT '                   11,4
```

Generic splitting capability also means that IRM can "discover" multiple reports in the same sysout dataset and split each of them in different ways. The payoff comes when, having just put 50 branches online over the weekend, the application people tell you on Monday morning that these new branches will be represented in about 40 different reports in tonight's output! No problem, just define the new users and how they hang off IRM's distribution network. The report discovery rules that you already have in place will automatically discover the page sets that are to go to the new branches.

Generic users

IRM lets you link a report to a single generic representation of the users who actually get their own corresponding sections of it. Imagine that you have 100 reports that are split by branch code for distribution to 200 branches. With IRM you define the 100 reports and the analysis rules that will split them, define the 200 branches as users who can receive reports and define one generic user which represents these 200 branches. You then link each of the 100 reports to that generic user, and that's it; about 300 definitions instead of the theoretical 20,000-odd that you might be up for with conventional packages. If you need to handle odd requirements, such as some branches not wanting particular reports, or wanting different numbers of copies, then you can specify just those things as exceptions and IRM will do it for you.

Report redirection

What about the user who goes on holiday for a few weeks, or is temporarily re-assigned for a few months? IRM lets you redirect some or all of one user's reports to another user, or several other users if you wish. This feature can also be used to give a manager or an associate an extra copy of a report that a specific staff member is receiving.

Unload/reload control data to/from flat files

In some situations its nice to be able to unload IRM control data to a flat file and get in amongst it with your favourite editor and then reload. This could potentially save quite a few hours of online maintenance when somebody decides to make sweeping changes that affect your report distribution system. You can load up initially from flat files too.

Copying existing definitions

When you are creating a new definition, whether it be of a user, a report, an analysis rule, a distribution printer or whatever, IRM always lets you copy an existing definition and then change it. This can save hours of tedious manual entry.

Handling exceptional printing requirements

With IRM you can define print attributes like forms code, copy count, pagedef and formdef, etc, at the report definition level. This is efficient if all recipients of a report want the same attributes. When some recipients want something different, like a different number of copies, a different formdef, etc, then IRM lets you specify print attribute override at the recipient level and also at the IRM printer definition level. IRM supports mixed print attributes within a single bundle.

Lets imagine there's a laser printer in your corporate head office and management wants a default overlay (Flash) which puts the company logon on each page for reports printed through this printer. Easy. Just add the name of the relevant overlay to the corresponding IRM printer definition and that's it.

Another common requirement with laser printers is to use a pagedef/formdef combination which prints all output two-up and/or duplex to save paper and speed the print throughput. Again, simply add the relevant entries to the print attribute section of the IRM printer definition. Attributes specified at the IRM printer level are overridden by specifications coming from the report or report/recipient levels.

The overnight batch window is shrinking

"The backups started later than usual, then we had a problem with a page dataset, and there wasn't enough time left to run..."

Jobs run at the wrong time or in the wrong order

"Oh, I thought that tick on the schedule meant the job had already been run, sorry, I was fixing a printer problem at the time."

People can't find out what happened

"Well, night shift has gone home, the first lot of JCL was purged and I can't find out what the actual sequence of events was."

The unique facilities of OMCS make it one of the most powerful OS/390 job checking tools available today. We have harnessed this high-quality checker and made it a prime element in the sequencing and control of job executions in OS/390. People are only human after all but the OMCS Job Scheduling Facility, (JSF), combines simple scheduling rules (day-of-week or calendar based) with early start times, multiple pre-reqs, online status displays and line-command based manual intervention capability to produce performance beyond that achievable by human schedulers.

```
OMCS/JSF Schedule group JSFDEMO rule DAILY -----
COMMAND ==>                                     Scroll ==> CSR
                                                line 1   of 6
lc jobname--- p mtwtfss/m hhmm/map  fr-date  to-date  h
TASEJOB1      YYYYY      1630      19980801
prereq =>

TASEJOB2.1    YYYYY      1700
prereq => TASEJOB1

TASEJOB2.2    YYYYY
prereq => TASEJOB2.1

TASEJOB3      Y  Y
prereq => TASEJOB1

TASEJOB4      %CALDEMO
prereq => TASEJOB1,?TASEJOB3

TASEJOB5      Y  Y                               H
prereq => TASEJOB3

TASEJOB6      YYYYY
prereq => ?TASEJOB5,?TASEJOB4,TASEJOB2.1,TASEJOB2.2
```

No JCL modifications are required. Schedules are generated to start on specific target days but each can run for up to a week or more as necessary. Jobs of the same name can be scheduled more than once per day. All activity is audit trailed so you can find out what did happen, when, and in what order. JSF is designed to be really easy to use. JSF is ideal for both centralised DP production and for those separate groups of people, departments, etc, who want to manage their own independent application schedules.

```

OMCS/JSF Job Scheduling Facility Audit Log
COMMAND ==> prt *,10 dest=r25 rel
place cursor on line and press enter to select
SCROLL ==> CSR
line 26863 of 28213
hhmmss job/user event----- filename filetype misc-information-----
234046 OMCSV2 AUTO JOB RELEASE JSFDEMO @V990125 PWAP48 05036 AI
234931 OMCSV2 JOB RUN OK JSFDEMO @V990125 PDCW09A 04938 OK
234933 OMCSV2 AUTO JOB RELEASE JSFDEMO @V990125 PDMF84 04938 AI
235245 OMCSV2 JOB FAIL ABS002 JSFDEMO @V990125 PDMF84 04938 XF
DAY MON 25 JAN 19990125 025 -----
000001 OMCSV2 TIME EVENT JSFDEMO @V990124 4800 .T
000002 OMCSV2 TIME EVENT JSFDEMO @V990125 2400 .T
000002 OMCSV2 AUTO JOB RELEASE JSFDEMO @V990125 PIRMSUBA 03212 AP

```

OMCS/MVS Product Family Summary

Major Components of the OMCS product family

The OMCS/V2 base product (Y2K compliant)

OMCS/V2 captures output from OS/390 SPOOL (JES2 or JES3) and files it in OMCS databases.

TSO users may view captured output through a command processor that operates either under ISPF or without it (like SDSF can, for example). Also like SDSF, users can print anything they can view to whatever JES destination they choose.

If the output being captured contains a JCL listing, then OMCS will automatically check for basic errors such as ABENDs, JCL errors, etc.

An Execution Checking Language (ECL) is provided as an integral part of the product to allow users to develop their own checking procedures. These procedures (ECPs) will be automatically executed when a job is captured. Development of such procedures is simplified by an online ECL testbed facility within the TSO component. ECL makes OMCS the most powerful OS/390 output management package available today.

OMCS can automatically notify relevant TSO logons about errors or other items of interest found either by basic checking or by user procedures.

Database space is reclaimed by a sophisticated process of selective deletion or compression of output that has already been captured into the offline archive (that is, it will only be deleted if it has been backed up). Users recover output from the archive via simple "r" line commands.

The entire OMCS product is controlled by an integrated security facility, OMCS/ACF, which allows easy integration with your system-wide security package. Sample integration exits are provided for ACF2 and RACF.

A suite of database utilities provides backup, restore, export, import, space reclaim, verification and repair, etc.

OMCS/V2 base product goes beyond Y2K compliance to actually tolerate the disordered timestreams typically encountered on Y2K testing LPARS where system clocks are being reset frequently. This important feature allows development teams to archive SYSLOG and job output from various IPLs within the same database for easy comparison.

The OMCS/IRM optional extension product (Y2K compliant)

Many installations produce large quantities of reports on a daily basis. These reports typically need to be split up by some logical internal division, such as department number, warehouse code, branch name, etc. These split report sections are then typically combined through some sort of pigeon hole mechanism into bundles intended for the same user, branch, department, etc and these bundles are eventually transported there accordingly. Done manually, this process is highly error prone.

IRM provides all of the facilities necessary to allow this process to be highly automated. Shorter delivery times, staff reduction, increased accuracy and reliability are just a few of the benefits that flow from its use. An important collateral benefit is that there is no longer a need to re-run jobs to recreate reports as these can simply be reprinted using standard features of IRM.

IRM also provides the Report Viewing Facility to allow full online distribution of reports to users.

The OMCS/JSF optional extension product (Y2K compliant)

The OMCS/V2 base product provides facilities that allow the highest quality answer to that deceptively simple question: "did that job complete correctly?" Given that this is one of the most important items of information that a scheduling system needs it should be no surprise that we developed such an optional facility for OMCS.

JSF development commenced in 1987 with a survey of 10 sites that were using existing scheduling packages. The survey was used to identify the features that were most used and most important. Two that we added ourselves were: It should be able to be used by different unrelated user groups and, of course, that it should be easy to use.

JSF at the 2.10 level is a very cost effective package which is deceptively easy to use. Typically JSF will cut several hours from the time needed to run the overnight batch work for an average commercial installation compared with operators manually checking and releasing jobs.

The OMCS/CICS optional extension product (Y2K compliant)

OMCS/CICS provides full access to the IRM Report Viewing Facility for CICS users.

The OMCS/SRF optional extension product (Y2K compliant)

OMCS/SRF meets the needs of one of Australia's largest banks. Managing a multi-terabyte archive, SRF can handle tens of thousands of reprint requests daily with overnight response times.

OMCS/MVS Product family technical summary

Installation

OMCS/MVS is easy for technical support staff to install.

- Operates with OS/390 MVS/SP, MVS/XA or MVS/ESA or MSP.
- Operates with JES2, JES3 or MSP JES
- No OS/390 or MVS exits to install
- A started task is required for SPOOL capture functions
- One type 3/4 user SVC (source supplied) is required for certain functions
- An authorised library is required for certain modules
- OMCS internal security integrates with your system security package via exits, samples are supplied
- The SMPE install version requires SMPE Release 5 or later
- A non-SMP install version is available
- A single manual, the Install and Quickstart Guide, covers installation and startup of the base product.
- Approximately 10 megabytes of dasd space are required for modules, panels, etc.

Support

OMCS support is available world-wide 24 hours per day every day of the year.. (Entitlement to support in each case is governed by the terms of the particular licence agreement). You deal directly, via email or phone, with the developers at the Collingwood labs, the people who write the code.

Problem management methodology is by APAR, agreed severity level (1-4), PTF, APAR fix (SRC/ZAP/etc). All customer contact is tracked and satisfaction levels are periodically reviewed.

Maintenance

OMCS maintenance is shipped in SMP/E format. APAR fixes are packaged in SMP/E format and are typically emailed for customer convenience. For the convenience of technical staff ASE supplies several Service Refresh levels each year.

OS/390, MVS/SP, MVS/XA, MVS/ESA, and SMPE are trademarks of International Business Machines. MSP is a trademark of Fujitsu Computers.

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