

New Reporting Documentation

This section covers the following topics:

- General Information
 - Job Logs
 - Network and Job Accounting Data
 - Network Description
 - Network Job Flow Display
 - Schedule of Jobs
 - Network Start Summary
 - Network Schedule Overview
 - Activation Overview
 - Producing Reports in Batch
 - Cross-References
-

General Information

- Selection
- Special PF Keys
- Security
- Batch Execution

This section applies to all reporting options.

Selection

Selection of data is handled in a similar way for all reports. After selecting the report option, (and for Network Schedule Overview and Activation Overview, the report-specific selection criteria), you receive the following selection window:

```

06.11.01          *** Entire Operations 4.1.1 ***          17:07:43
Owner EXAMPLE +-----+
----- !
! Log - Terminated Jobs !
Reportin !
! Owner.....: _____ (Blank for all, * for selection !
1 Log - Te ! Network....: _____ or * and PF4 to process all !
2 Log - Ab ! Job.....: _____ matching objects) !
3 Log - Jo ! !
4 Accounti ! !
5 Network ! Destination: 1 !
6 Network ! 1 - Screen 2 - Printer 3 - PC 4 - PC-CSV !
7 Network ! !
8 Network ! Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9--- !
9 Schedule ! Help End Apply Accpt !
10 Network +-----+
11 Network Schedule Overview
12 Activation Overview

Command => 1_____
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
Help End Old Menu
    
```

Where you can select:

- Owner
- Network
- Job (only reports 1, 2, 3 and 4)
- Report Destination

Owner, Network and Job may be terminated with wildcard characters:

Wildcard Character	Meaning
*	Only select objects for which the name begins with the given prefix.
>	Only select objects with a name greater than the given value.
<	Only select objects with a name less than the given value.

This allows extremely flexible reporting. On the other hand, it allows you to formulate requests that will cause very many Adabas calls. For this reason, it is possible to disallow wildcard report selection for non-administrator users (see User Profiles). By default, users of type A and O are allowed to use wildcard selection; users of type G are not. It is not possible to disallow it for users of type A.

You can also choose where the report is to be directed:

1. (the default) will write the results to the screen
2. will write the results to Printer 1 (which must be defined appropriately)
3. will write the results to the PC (using Entire Connection and Printer 7)
4. will write the results to a PC work file (using Entire Connection and Work File 7) in comma-separated-variable format, suitable for importing into a spreadsheet package. This destination is only allowed for reports 1, 2, 3, 4, 9, 11 and 12.

When you are satisfied with your selection, press PF5 to move on to the date/time/run range selection window (where applicable) or to produce the report. If you have used the * wildcard for Owner, Network or Job you will then be prompted to select which Owner/Network/Job you are interested in. However, if you press PF4 rather than PF5, you will not be prompted instead the report will include all objects which match your selection criteria.

Special PF Keys

Key	Name	Function
PF3	End	Return to Reporting Menu.
PF4	Apply	Confirm selection criteria, including * wildcards.
PF5	Acpt	Confirm selection criteria. If any object name has an *, you will be prompted with a list of matching objects, from which you may select one and press PF5 again.

Security

Administrator users (and reports run in batch) may report on any network in any owner. Non-administrator users, however, will only receive information on networks to which they have read access. A user is considered to have read access if:

1. The user is linked to owner SYSDBA.
2. The user is linked to the Network owner.
3. Access to the network has been explicitly granted to the user.

Batch Execution

All new reports may be executed in batch, as well as online. In batch, there are no security restrictions and the only supported destination is Printer 1. Batch execution is described in more detail below.

(Explanations of individual reports are mostly the same as the old reporting descriptions, except for the screens.)

Job Logs

First screen:

```

06.11.01          *** Entire Operations 4.1.1 ***          17:53:53
Owner UKSJU  +-----+
----- !
          ! Log - Terminated Jobs !
      Reportin !
          ! Owner.....: Example___ (Blank for all, * for selection !
1 Log - Te ! Network....: E5*_____ or * and PF4 to process all !
2 Log - Ab ! Job.....: _____ matching objects) !
3 Log - Jo !
4 Accounti !
5 Network ! Destination: 1 !
6 Network ! 1 - Screen 2 - Printer 3 - PC 4 - PC-CSV !
7 Network !
8 Network ! Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9--- !
9 Schedule ! Help End Apply Acppt !
10 Network +-----+
11 Network Schedule Overview
12 Activation Overview

Command => 1_____
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
      Help End Old Menu
    
```

Will produce a list of all terminated jobs for Networks beginning E5 in owner EXAMPLE.

Second screen:

```

06.11.01          *** Entire Operations 4.1.1 ***          17:53:53
Owner UKSJU      +-----+
-----+
!
! Log - Terminated Jobs
!
Reportin !
! Owner.....: Example___ (Blank for all, * for selection !
1 Log - Te ! Network....: E5*_____ or * and PF4 to process all !
2 Log - Ab ! Job.....: _____ matching objects) !
3 Log - Jo !
4 Accounti !
5 Network ! Destination: 1 !
6 Network ! 1 - Screen 2 - Printer 3 - PC 4 - PC-CSV !
7 Network +-----+
8 Network ! ! -PF9--- !
9 Schedule ! Log - Terminated Jobs ! !
10 Network ! Date / Run Number Selection ! -----+
11 Network ! !
12 Activati ! From Date 06.11.01 00:00 to 06.11.01 23:59 !
! From Run 1_____ to 99999 !
! !
Command => 1_ ! PF3 End ! _
Enter-PF1---PF +-----+ --PF12---
Help End Old Menu
    
```

Here you may select date, time and run number ranges.

The reporting program gives a running total of how many log records it has had to read to satisfy your request and displays the results:

Entire Operations Log Report						
Owner	Network	Job	Run	Date	Time	Message
EXAMPLE	E52-LOGRES	E52-J01	205	06.11.01	01:00	Ended ok
***** Bottom of Data *****						
Enter-PF1---	PF2---	PF3---	PF4---	PF5---	PF6---	PF7---
	End				Left	Right Menu

Note:
Column headings and PF keys have the same meanings as for the old reports.

Network and Job Accounting Data

- Column Headings
- Special PF Keys
- Detail and Summary Displays

First screen:

```

14.11.01          *** Entire Operations 4.1.1 ***          10:59:31
Owner EXAMPLE +-----+
-----+
!
! Job Accounting Data: Selection
!
Reportin !
! Owner.....: UKSJU_____ (Blank for all, * for selection
1 Log - Te ! Network....: W>_____ or * and PF4 to process all
2 Log - Ab ! Job.....: _____ matching objects)
3 Log - Jo !
4 Accounti !
5 Network ! Destination: 1
6 Network ! 1 - Screen 2 - Printer 3 - PC 4 - PC-CSV
7 Network !
8 Network ! Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---
9 Schedule ! Help End Apply Accpt
10 Network +-----+
11 Network Schedule Overview
12 Activation Overview

Command => 4_____
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10---PF11---PF12---
Help End Old Menu
    
```

This example will display accounting data for all jobs in networks with names greater than W, under owner UKSJU. Press PF4 or PF5 to select the date, time and run number ranges:

```

14.11.01          *** Entire Operations 4.1.1 ***          10:59:31
Owner EXAMPLE +-----+
-----+
!
! Job Accounting Data: Selection
!
Reportin !
! Owner.....: UKSJU_____ (Blank for all, * for selection
1 Log - Te ! Network....: W>_____ or * and PF4 to process all
2 Log - Ab ! Job.....: _____ matching objects)
3 Log - Jo !
4 Accounti !
5 Network ! Destination: 1
6 Network ! 1 - Screen 2 - Printer 3 - PC 4 - PC-CSV
7 Network +-----+
8 Network ! ! -PF9--- !
9 Schedule ! Job Accounting Data: Selection !
10 Network ! Date / Run Number Selection ! -----+
11 Network !
12 Activati ! From Date 01.11.01 00:00 to 14.11.01 23:59 !
! From Run 1_____ to 99999 !
!
Command => 4_ ! PF3 End !
Enter-PF1---PF +-----+
Help End Old Menu
    
```

The historical elapsed and cpu times for the selected objects are displayed:

```

14.11.01          *** Entire Operations 4.1.1 ***          11:09:10
Owner UKSJU          Job Accounting Data          Network WLSJOBS
-----
Job      Run      JobId Date      Start      Stop      Elapsed min CPU Tm sec
WLS-JOB01  89      52937 02.11.01  16:05:50  16:06:33      0.71      1.74
WLS-JOB02  89      52938          16:05:50  16:06:51      1.01      1.75
WLS-JOB03  89      52939          16:05:50  16:06:31      0.68      1.73
WLS-JOB04  89      52940          16:05:50  16:06:31      0.68      1.75
WLS-JOB05  89      52941          16:05:50  16:06:31      0.68      1.74
WLS-JOB06  89      52942          16:05:50  16:06:31      0.68      1.74
WLS-JOB07  89      52943          16:06:31  16:07:10      0.65      1.71
WLS-JOB08  89      52944          16:06:31  16:07:09      0.63      1.70
WLS-JOB09  89      52945          16:06:31  16:07:09      0.63      1.70
WLS-JOB10  89      52946          16:06:31  16:07:09      0.63      1.71
WLS-JOB11  89      52947          16:06:33  16:07:10      0.61      1.69
WLS-JOB12  89      52948          16:06:51  16:07:13      0.36      1.54
WLS-JOB01  89      52978          16:11:43  16:12:31      0.80      15.61
(Network)  89          16:05:50  16:12:31      6.68      36.11
-----
Averages from 02.11.01 16:05 to 02.11.01 16:12 are          0.68      2.78
***** More *****
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
          End Net          Up Down          Menu
    
```

The screen shows the Owner and Network in the title.

Column Headings

Column Name	Explanation
Job	Job name as defined to Entire Operations.
Run	Run number of the job.
JobId	Operating system job identifier.
Date	Date when the job started.
Start	Time when the job started.
Stop	Time when the job stopped.
Elapsed min	Elapsed time in minutes, to two decimal places.
CPU Tm sec	CPU time in seconds, to two decimal places.

When the job name is (Network), this shows the start time of the first job in the network, the end time of the last job and the sum of elapsed and cpu times for all jobs in the network.

Averages fromtoare shows the average values of elapsed and cpu times for all jobs in the network.

Special PF Keys

Key	Name	Function
PF3	End	Return to the Job Accounting Data: Selection window.
PF4	Net	Toggle between job accounting data and network summary accounting data (see below).
PF7	Up	Display previous screen of data for this network.
PF8	Down	Display next screen of data for this network. If the last screen is already displayed (Bottom of Data shows instead of More), PF8 is named Next and displays the first screen for the next network. If there are no more networks matching the selection criteria, you are returned to the Job Accounting Data: Selection window.
PF12	Menu	Return to the Entire Operations main menu.

Detail and Summary Displays

The initial display for each selected network shows accounting data for each job and a summary for each network. Assuming you have not made any job selection (that is, on the Job Accounting Data: Selection window, you left the Job field blank, or specified *), you may restrict the information to network summary data only, by pressing PF4:

```

14.11.01          *** Entire Operations 4.1.1 ***          11:46:26
Owner UKSJU          Job Accounting Data          Network WLSJOBS
-----
Job      Run      JobId Date      Start      Stop      Elapsed min CPU Tm sec
(Network) 89      02.11.01 16:05:50 16:12:31 6.68      36.11
(Network) 90      16:19:35 16:21:29 1.90      34.31
(Network) 91      16:27:28 16:38:39 11.18     194.08
(Network) 92      17:25:54 17:41:21 15.45     189.62
(Network) 94      06.11.01 11:08:24 15:27:29 259.08    44.76

Averages from 02.11.01 16:05 to 06.11.01 15:27 are          58.86      99.78
***** Bottom of Data *****
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10---PF11---PF12---
              End Job              Up Next              Menu
    
```

Pressing PF4 again, will return to the detailed job accounting display.

Network Description

- Network Description (with JCL)
- Example 1
- Example 2

Screens:

```

06.11.01          *** Entire Operations 4.1.1 ***          18:47:39
Owner UKSJU  +-----+
----- !
! Network Description (short) !
Reportin !
! Owner.....: EXAMPLE____ (Blank for all, * for selection !
1 Log - Te ! Network....: _____ or * and PF4 to process all !
2 Log - Ab ! matching objects) !
3 Log - Jo !
4 Accounti !
5 Network ! Destination: 1 !
6 Network ! 1 - Screen 2 - Printer 3 - PC 4 - PC-CSV !
7 Network !
8 Network ! Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9--- !
9 Schedule ! Help End Apply Acppt !
10 Network +-----+
11 Network Schedule Overview
12 Activation Overview

Command => 5_____
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
Help End Old Menu

```

Note:

Job is not a selection criterion.

```

14.11.01          *** Entire Operations 4.1.1 ***          11:52:50
Owner EXAMPLE +-----+
----- !
! Network Description (detailed) !
Reportin !
! Owner.....: EXAMPLE____ (Blank for all, * for selection !
1 Log - Te ! Network....: _____ or * and PF4 to process all !
2 Log - Ab ! matching objects) !
3 Log - Jo !
4 Accounti !
5 Network ! Destination: 1 !
6 Network ! 1 - Screen 2 - Printer 3 - PC 4 - PC-CSV !
7 Network !
8 Network ! Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9--- !
9 Schedule ! Help End Apply Acppt !
10 Network +-----+
11 Network Schedule Overview
12 Activation Overview

Command => 6_____
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
Help End Old Menu

```

There is now a 3rd Network Description option.

Network Description (with JCL)

Displays the same information as the detailed report and additionally prints out the JCL of each job with JCL location BS2, LMS, NAT, PDS, LIB or VSE. Please note that, for security reasons, no Entire System Server logons are performed. This means that the user must already have logged on to each node containing JCL (or the node must be started with the AUTOLOG=YES parameter).

```

14.11.01                *** Entire Operations 4.1.1 ***                11:53:56
Owner EXAMPLE +-----+
----- !
! Network Description (with JCL) !
! Reportin !
! Owner.....: EXAMPLE_____ (Blank for all, * for selection !
1 Log - Te ! Network....: _____ or * and PF4 to process all !
2 Log - Ab ! matching objects) !
3 Log - Jo !
4 Accounti !
5 Network ! Destination: 1 !
6 Network ! 1 - Screen 2 - Printer 3 - PC 4 - PC-CSV !
7 Network !
8 Network ! Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9--- !
9 Schedule ! Help End Apply Accpt !
10 Network +-----+
11 Network Schedule Overview
12 Activation Overview

Command => 7 _____
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
Help End Old Menu

```

Example screens for JCL:

Example 1

```

14/11/01                Entire Operations                12:07:04
Network  E10-PAR-01      Network Documentation          Owner  EXAMPLE
Job      E10-J01

-----

Job: E10-J01      Type JOB PDS      Description: 1st sequential job
Location   : NAT
DSN/Library: EOR-T321                Member: E10-J01
Node      : 146

Schedule Parameters      Send Late Message To
-----

Earliest Start:
Latest Start  :
Deadline     :
Elapsed Time  : 0.04

JCL for E10-J01 follows

Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
                        End                                Menu
    
```

Example 2

```
14/11/01                Entire Operations                12:07:44
Network  E10-PAR-01      Network Documentation           Owner  EXAMPLE
Job      E10-J01
-----
//EORE10J1 JOB @UID,CLASS=@CLASS,MSGCLASS=@MSGCLASS,MSGLEVEL=(1,1)
//* *****
//* JOB ENDED OK COND CODE 0000
//* *****
//JOBLIB DD DSN=@JOBLIB,DISP=SHR
//STEP01 EXEC PGM=NOPCONTI
//
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
                        End                                Menu
```

Network Job Flow Display

Screen:

```

06.11.01          *** Entire Operations 4.1.1 ***          18:48:35
Owner UKSJU  +-----+
----- !
! Network Job Flow Display !
Reportin !
! Owner.....: UKSJU_____ (Blank for all, * for selection !
1 Log - Te ! Network....: _____ or * and PF4 to process all !
2 Log - Ab ! matching objects) !
3 Log - Jo !
4 Accounti !
5 Network ! Destination: 1 !
6 Network ! 1 - Screen 2 - Printer 3 - PC 4 - PC-CSV !
7 Network !
8 Network ! Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9--- !
9 Schedule ! Help End Apply Acppt !
10 Network +-----+
11 Network Schedule Overview
12 Activation Overview

Command => 8_____
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
Help End Old Menu

```

Again, Job is not a selection criterion.

Schedule of Jobs

Screens:

```

06.11.01          *** Entire Operations 4.1.1 ***          18:49:50
Owner UKSJU  +-----+
----- !
! Schedule of Jobs !
Reportin !
! Owner.....: UKSJU_____ (Blank for all, * for selection !
1 Log - Te ! Network....: _____ or * and PF4 to process all !
2 Log - Ab ! matching objects) !
3 Log - Jo !
4 Accounti !
5 Network ! Destination: 1 !
6 Network ! 1 - Screen 2 - Printer 3 - PC 4 - PC-CSV !
7 Network !
8 Network ! Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9--- !
9 Schedule ! Help End Apply Acppt !
10 Network +-----+
11 Network Schedule Overview
12 Activation Overview

Command => 9_____
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
Help End Old Menu

```

Again, Job is not a selection criterion. After selecting Owner and Network, you can select a date range:

```

06.11.01          *** Entire Operations 4.1.1 ***          18:49:50
Owner UKSJU      +-----+
-----+
!
! Schedule of Jobs
!
Reportin !
! Owner.....: UKSJU_____ (Blank for all, * for selection
1 Log - Te ! Network....: _____ or * and PF4 to process all
2 Log - Ab ! matching objects)
3 Log - Jo !
4 Accounti !
5 Network ! Destination: 1
6 Network ! 1 - Screen 2 - Printer 3 - PC 4 - PC-CSV
7 Network ! +-----+
8 Network ! Enter-PF1---PF !
9 Schedule ! Help ! Schedule of Jobs
10 Network +-----+
11 Network Schedule Overview ! Start Date ==> 06.11.01
12 Activation Overview ! End Date ==> 06.11.01
!
!
Command => 9_____ ! Enter PF3 End
Enter-PF1---PF2---PF3---PF4---P +-----+ 12---
Help End Old Menu
    
```

The date range may not exceed 31 days.

Network Start Summary

Screens:

```

06.11.01          *** Entire Operations 4.1.1 ***          18:57:58
Owner UKSJU  +-----+
----- !
          ! Network Start Summary !
Reportin !
          ! Owner.....: UKSJU_____ (Blank for all, * for selection !
1 Log - Te ! Network....: _____ or * and PF4 to process all !
2 Log - Ab !                               matching objects) !
3 Log - Jo !
4 Accounti !
5 Network ! Destination: 1 !
6 Network ! 1 - Screen 2 - Printer 3 - PC 4 - PC-CSV !
7 Network !
8 Network ! Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9--- !
9 Schedule ! Help End Apply Acppt !
10 Network +-----+
11 Network Schedule Overview
12 Activation Overview

Command => 10_____
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
Help End Old Menu
    
```

Again, Job is not a selection criterion. After selecting Owner and Network, you can select a date range:

```

06.11.01          *** Entire Operations 4.1.1 ***          18:57:58
Owner UKSJU      +-----+
-----+
!
! Network Start Summary
!
! Reportin
!
! Owner.....: UKSJU_____ (Blank for all, * for selection
1 Log - Te ! Network....: _____ or * and PF4 to process all
2 Log - Ab ! matching objects)
3 Log - Jo !
4 Accounti !
5 Network ! Destination: 1
6 Network ! 1 - Screen 2 - Printer 3 - PC 4 - PC-CSV
7 Network ! +-----+
8 Network ! Enter-PF1---PF !
9 Schedule ! Help ! Network Start Summary
10 Network +-----+
11 Network Schedule Overview ! Start Date ==> 01.11.01
12 Activation Overview ! End Date ==> 06.11.01
!
!
Command => 10_____ ! Enter PF3 End
Enter-PF1---PF2---PF3---PF4---P +-----+ 12---
Help End Old Menu
    
```

Results:

```

06.11.01                Entire Operations                19:22:09
                        Network Start Summary for 01.11.01 thru 06.11.01      Page 1
-----
UKSJU      WLSJOBS
-----
( 89) 02.11 16:00      Network Activation
      02.11 16:00      EOR2941 - Network Act. sched. on 02.11.01 at 16
      02.11 16:00      Symbol Prompting in Progress
      02.11 16:00      Symbol Prompting by UKSJU
      02.11 16:00      Symbol Table WLS activated
      02.11 16:00      Symbol Prompt Standard Routine used
      02.11 16:00      Symbol Prompting finished
      02.11 16:01      Act.Symbols modified by SYPG-SN1
      02.11 16:01      Activation Net 02.11 16:00
      02.11 16:01 WLS-JOB01 Awaiting JCL Load
      02.11 16:01 WLS-JOB02 Awaiting JCL Load
      02.11 16:01 WLS-JOB03 Awaiting JCL Load
      02.11 16:01 WLS-JOB04 Awaiting JCL Load
      02.11 16:01 WLS-JOB05 Awaiting JCL Load

MORE
    
```

Network Schedule Overview

Screens:

1. Select report type (description same as on page 481):

```

14.11.01          *** Entire Operations 4.1.1 ***          12:19:35
Owner EXAMPLE          Reporting Menu          User ID UKSJU
-----+-----+-----+
          !
      Reporting Men !   Network Schedule Overview: Type          !
          !
1  Log - Termina !   A Extractions + Schedule, sorted by network, time !
2  Log - Abended !   B Extractions only,          sorted by network, time !
3  Log - Jobs no !   C Extractions only,          sorted by time          !
4  Accounting Da !
5  Network Descr !   Type      ==> A          !
6  Network Descr !
7  Network Descr !   Enter-----PF3----- !
8  Network Job F !           End          !
9  Schedule of J +-----+
10 Network Start Summary
11 Network Schedule Overview
12 Activation Overview

Command => 11
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
      Help      End   Old                                Menu
    
```

2. Select Owner, Network, Destination:

```

14.11.01          *** Entire Operations 4.1.1 ***          12:19:35
Owner EXAMPLE +-----+
----- !
          ! Network Schedule Overview !
Reportin !
          ! Owner.....: EXAMPLE___ (Blank for all, * for selection !
1 Log - Te ! Network....: _____ or * and PF4 to process all !
2 Log - Ab !                               matching objects) !
3 Log - Jo !
4 Accounti !
5 Network ! Destination: 1 !
6 Network ! 1 - Screen 2 - Printer 3 - PC 4 - PC-CSV !
7 Network !
8 Network ! Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9--- !
9 Schedule ! Help End Apply Accpt !
10 Network +-----+
11 Network Schedule Overview
12 Activation Overview

Command => 11_____
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
Help End Old Menu
    
```

3. Select date range:

```

14.11.01          *** Entire Operations 4.1.1 ***          12:23:59
Owner EXAMPLE +-----+
-----+
! Network Schedule Overview !
Reportin !
! Owner.....: EXAMPLE____ (Blank for all, * for selection !
1 Log - Te ! Network....: _____ or * and PF4 to process all !
2 Log - Ab ! matching objects) !
3 Log - Jo !
4 Accounti !
5 Network ! Destination: 1 !
6 Network ! 1 - Screen 2 - Printer 3 - PC 4 - PC-CSV !
7 Network ! +-----+ !
8 Network ! Enter-PF1---PF ! ! --- !
9 Schedule ! Help ! Network Schedule Overview ! !
10 Network +-----+ ! ! ----+
11 Network Schedule Overview ! Start Date ==> 14.11.01 !
12 Activation Overview ! End Date ==> 21.11.01 !
! !
Command => 11_____ ! Enter PF3 End !
Enter-PF1---PF2---PF3---PF4---P +-----+ 12---
Help End Old Menu
    
```

4. Resulting screen:

14.11.01	Entire Operations					12:24:44
Owner	EXAMPLE					
Network	E52-LOGRES	Schedule from 14.11.01 thru 21.11.01			Page	1
	Date	Time	Owner	Network	Run	Type

Wednesday	14.11.01	08:00	EXAMPLE	E52-LOGRES		Schedule, periodic
Thursday	15.11.01	08:00	EXAMPLE	E52-LOGRES		Schedule, periodic
Friday	16.11.01	08:00	EXAMPLE	E52-LOGRES		Schedule, periodic
Saturday	17.11.01	08:00	EXAMPLE	E52-LOGRES		Schedule, periodic
Sunday	18.11.01	08:00	EXAMPLE	E52-LOGRES		Schedule, periodic
Monday	19.11.01	08:00	EXAMPLE	E52-LOGRES		Schedule, periodic
Tuesday	20.11.01	08:00	EXAMPLE	E52-LOGRES		Schedule, periodic
Wednesday	21.11.01	08:00	EXAMPLE	E52-LOGRES		Schedule, periodic

MORE						

Activation Overview

- Column Headings
- Special PF Keys
- Left and Right Scrolling

1. Select activation types:

```

14.11.01          *** Entire Operations 4.1.1 ***          14:30:29
Owner UKSJU      +-----+ KSJU
-----+-----+
!
!              Activation Overview: Type
!
!  Reportin !
!
!  Select one or more of these Activation Types:
!
1 Log - Te ! * All types          A API
2 Log - Ab ! M Manual          O EOJ
3 Log - Jo ! R Recovery        S Scheduled
4 Accounti !
5 Network ! Type ==> *_____
6 Network !
7 Network ! Enter-----PF3-----
8 Network ! End
9 Schedule +-----+
10 Network Start Summary
11 Network Schedule Overview
12 Activation Overview

Command => 12
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
      Help      End   Old

```

2. Select Owner, Network and destination:

```

14.11.01          *** Entire Operations 4.1.1 ***          14:33:48
Owner UKSJU  +-----+
----- !
          ! Activation Overview !
      Reportin !
          ! Owner.....: UKSJU_____ (Blank for all, * for selection !
1 Log - Te ! Network....: _____ or * and PF4 to process all !
2 Log - Ab !                               matching objects) !
3 Log - Jo !
4 Accounti !
5 Network ! Destination: 1 !
6 Network !      1 - Screen  2 - Printer  3 - PC  4 - PC-CSV !
7 Network !
8 Network ! Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9--- !
9 Schedule !      Help      End  Apply Accpt !
10 Network +-----+
11 Network Schedule Overview
12 Activation Overview

Command => 12_____
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
      Help      End  Old                               Menu
    
```

3. Select date, time and run number ranges:

```

14.11.01          *** Entire Operations 4.1.1 ***          14:33:48
Owner UKSJU  +-----+
----- !
          ! Activation Overview !
      Reportin !
          ! Owner.....: UKSJU_____ (Blank for all, * for selection !
1 Log - Te ! Network....: _____ or * and PF4 to process all !
2 Log - Ab !                               matching objects) !
3 Log - Jo !
4 Accounti !
5 Network ! Destination: 1 !
6 Network !      1 - Screen  2 - Printer  3 - PC  4 - PC-CSV !
7 Network +-----+ !
8 Network !                               ! -PF9--- !
9 Schedule ! Activation Overview !
10 Network !           Date / Run Number Selection ! -----+
11 Network !
12 Activati ! From Date 02.11.01  00:00  to 14.11.01  23:59 !
          ! From Run  1_____ to 99999 !
          !
Command => 12 ! PF3  End !
Enter-PF1---PF +-----+ --PF12---
      Help      End  Old      Menu
    
```

4. Resulting screen:

Entire Operations: Activation Ov						

Date: 02.11.01						
Owner	Network	Job	Run	Time	Type	Message

UKSJU	WLSJOBS	-	88	00:00	Scheduled	Activation Net 02.11
UKSJU	AAAA-NET	NAT-SYMBOL	44	15:14	Manual	Job Act. sched. on 02
UKSJU	AAAA-NET	NAT-SYMBOL	45	15:15	Manual	Job Act. sched. on 02
UKSJU	AAAA-NET	NAT-SYMBOL	46	15:16	Manual	Job Act. sched. on 02
UKSJU	AAAA-NET	NAT-SYMBOL	47	15:17	Manual	Job Act. sched. on 02
UKSJU	AAAA-NET	NAT-SYMBOL	48	15:26	Manual	Job Act. sched. on 02
UKSJU	AAAA-NET	NAT-SYMBOL	49	15:38	Manual	Job Act. sched. on 02
UKSJU	AAAA-NET	QQQQQQQQ	50	15:43	Manual	Job Act. sched. on 02
UKSJU	WLSJOBS	-	89	16:00	Manual	Network Act. sched. o
UKSJU	WLSJOBS	-	89	16:01	Scheduled	Activation Net 02.11
UKSJU	TEST-REP1	-	74	16:07	EOJ	Activated by UKSJU/WL
UKSJU	TEST-REP1	REALJOB1	75	16:07	EOJ	Activated by UKSJU/WL
UKSJU	TEST-REP1	-	74	16:07	Scheduled	Activation Net 02.11
***** m o r e *****						
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---						
End			Down		Left Right Menu	

This screen shows, for each date in the selected range:

Column Headings

Column	Explanation
Owner	Owner name.
Network	Network name.
Job	Job name for a single job activation or for a network activation.
Run	Run number.
Time	Time job or network was activated.
Type	Type of activation: Scheduled - activated because of schedule. Manual - activated manually. EOJ - activated by an EOJ action. API - activated via NOPUAC4N. Recovery - activated by EOJ recovery processing.
Message	Log message associated with activation.

Special PF Keys

Key	Name	Function
PF3	End	Returns to Activation Type selection.
PF8	Down	Scrolls down.
PF10	Left	Scrolls left.
PF11	Right	Scrolls right.
PF12	Menu	Returns to the Entire Operations main menu.

Left and Right Scrolling

You can scroll right (twice) by pressing PF11:

1. First scroll right:

Entire Operations: Activation Overview				
Job	Run	Time	Type	Message
-	88	00:00	Scheduled	Activation Net 02.11 09:30
T	NAT-SYMBOL	44 15:14	Manual	Job Act. sched. on 02.11.01 at 15:14 Run
T	NAT-SYMBOL	45 15:15	Manual	Job Act. sched. on 02.11.01 at 15:15 Run
T	NAT-SYMBOL	46 15:16	Manual	Job Act. sched. on 02.11.01 at 15:16 Run
T	NAT-SYMBOL	47 15:17	Manual	Job Act. sched. on 02.11.01 at 15:17 Run
T	NAT-SYMBOL	48 15:26	Manual	Job Act. sched. on 02.11.01 at 15:26 Run
T	NAT-SYMBOL	49 15:38	Manual	Job Act. sched. on 02.11.01 at 15:38 Run
T	QQQQQQQQ	50 15:43	Manual	Job Act. sched. on 02.11.01 at 15:43 Run
-	89	16:00	Manual	Network Act. sched. on 02.11.01 at 16:00
-	89	16:01	Scheduled	Activation Net 02.11 16:00
P1	-	74 16:07	EOJ	Activated by UKSJU/WLSJOBS/WLS-JOB01 Run
P1	REALJOB1	75 16:07	EOJ	Activated by UKSJU/WLSJOBS/WLS-JOB02 Run
P1	-	74 16:07	Scheduled	Activation Net 02.11 16:07
***** m o r e *****				
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---				
End			Down	Left Right Menu

2. Second scroll right:

Entire Operations: Activation Overview		
Time	Type	Message
00:00	Scheduled	Activation Net 02.11 09:30
15:14	Manual	Job Act. sched. on 02.11.01 at 15:14 Run 44
15:15	Manual	Job Act. sched. on 02.11.01 at 15:15 Run 45
15:16	Manual	Job Act. sched. on 02.11.01 at 15:16 Run 46
15:17	Manual	Job Act. sched. on 02.11.01 at 15:17 Run 47
15:26	Manual	Job Act. sched. on 02.11.01 at 15:26 Run 48
15:38	Manual	Job Act. sched. on 02.11.01 at 15:38 Run 49
15:43	Manual	Job Act. sched. on 02.11.01 at 15:43 Run 50
16:00	Manual	Network Act. sched. on 02.11.01 at 16:00 Run 89
16:01	Scheduled	Activation Net 02.11 16:00
16:07	EOJ	Activated by UKSJU/WLSJOBS/WLS-JOB01 Run 89
16:07	EOJ	Activated by UKSJU/WLSJOBS/WLS-JOB02 Run 89
16:07	Scheduled	Activation Net 02.11 16:07
o r e *****		
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---		
	End	Down Left Right Menu

3. Use PF10 to scroll left.

Producing Reports in Batch

- Log Reports
- Accounting Data
- Network Information
- Network Job Flow
- Schedule of Jobs
- Network Start Summary
- Network Schedule Overview
- Activation Overview
- Extended Log Report

All of the above reports can also be run in batch. As noted above, no security or wildcard restrictions apply in batch.

Batch reports are printed on Natural printer 1, which must be allocated correctly in the job control. The Natural batch session must have the necessary LFILEs (131 and 216) correctly set and should run in delimiter input mode (IM=D). The examples below assume that input delimiter is set to ,.

The batch reporting programs input their parameters in several steps. This is described separately for each program.

Log Reports

Log reports (equivalent to online options 1, 2 and 3) are produced by program RE-LOG-P. It does 3 INPUTs:

1. Options

- Report type
 - A** all events in log
 - B** abended jobs
 - T** terminated jobs
 - X** not started jobs
- Count Jobs
 - Y** produce a count of jobs (Warning: this requires a rereading of the whole log and therefore will greatly increase the elapsed and cpu times and the number of Adabas calls for the batch job)
 - N** do not produce a count of jobs

2. Owner/Network/Job

- Owner name. *, > and < wildcards are allowed. Use * for all owners.
- Network name. *, > and < wildcards are allowed. Use * for all networks.
- Job name. *, > and < wildcards are allowed. Use * for all jobs.

3. Date, time, run number ranges

- From date (format YYYYMMDD)
- From time (format HH:II:SS)
- From run (maximum 999999999)
- To date (format YYYYMMDD)
- To time (format HH:II:SS)
- To run (maximum 999999999)

Examples

Below are examples of Natural CMSYNIN data for producing various log reports:

```
RE-LOG-P T,Y
```

```
EX*,E10>
```

```
20011101,,,20011130,23:59:59,999999999
```

will produce a report of all terminated jobs in networks with names greater than E10 under owners beginning EX, starting at 00:00:00 on 1st November 2001 and ending at 23:59:59 on 30th November 2001, for run numbers in the range 0 to 999999999. A count of jobs will be produced.

```
RE-LOG-P A,N
```

```
*,*,*
```

```
20011114,09:00:00,51,20011114,17:30:00,60
```

will produce a report of all events between 09:00:00 and 17:30:00 on 14th November 2001 for all owners, networks and jobs with run numbers between 51 and 60. A count of jobs will not be produced.

Accounting Data

Accounting data (equivalent to online option 4) is produced by program RE-ACC-P. It does 2 INPUTs:

1. Owner/Network/Job
 - Owner name. *, > and < wildcards are allowed. Use * for all owners.
 - Network name. *, > and < wildcards are allowed. Use * for all networks.
 - Job name. *, > and < wildcards are allowed. Use * for all jobs.
2. Date, time, run number ranges
 - From date (format YYYYMMDD)
 - From time (format HH:II:SS)
 - From run (maximum 999999999)
 - To date (format YYYYMMDD)
 - To time (format HH:II:SS)
 - To run (maximum 999999999)

Examples

Below are examples of Natural CMSYNIN data for producing various accounting reports:

```
RE-ACC-P
```

```
EXAMPLE, E01-CONTI
```

```
20011101, , , 20011130, 23:59:59, 999999999
```

will produce accounting data for all jobs in network E01-CONTI under owner EXAMPLE, starting at 00:00:00 on 1st November 2001 and ending at 23:59:59 on 30th November 2001, for run numbers in the range 0 to 999999999.

```
RE-ACC-P
```

```
EXAMPLE, *, E10*
```

```
20011101, 09:00:00, 51, 20011231, 23:59:59, 60
```

will produce accounting data for for all jobs beginning E10 in all networks under owner EXAMPLE, starting it 09:00:00 on 1st November 2001 ending at 23:59:59 on 31st December 2001, with run numbers between 51 and 60.

Network Information

Network reports (equivalent to online options 5, 6 and 7) are produced by program RE-NET-P. It does 2 INPUTs:

1. Report type
 - S summary
 - D detailed
 - J detailed, with JCL
2. Owner/Network
 - Owner name. *, > and < wildcards are allowed. Use * for all owners.
 - Network name. *, > and < wildcards are allowed. Use * for all networks.

Examples

Below are examples of Natural CMSYNIN data for producing various network reports:

RE-NET-P S

,

will produce a summary report for all networks.

RE-NET-P J

SYS*,W>

will produce a detailed report, including JCL for all networks with names greater than W in owners beginning SYS.

Network Job Flow

Network job flow (equivalent to online option 8) is produced by program RE-FLW-P. It does 1 INPUT:

1. Owner/Network
 - Owner name. *,> and < wildcards are allowed. Use * for all owners.
 - Network name. *,> and < wildcards are allowed. Use * for all networks.

Examples

Below are examples of Natural CMSYNIN data for producing various network job flow reports:

RE-FLW-P

EXAMPLE,E60-FLOW

will produce a report for E60-FLOW in owner EXAMPLE.

RE-FLW-P

SYS*,W>

will produce a report for all networks with names greater than W in owners beginning SYS.

Schedule of Jobs

Job schedules (equivalent to online option 9) are produced by program RE-JSC-P. It does 2 INPUTS:

1. Owner/Network
 - Owner name. *,> and < wildcards are allowed. Use * for all owners.
 - Network name. *,> and < wildcards are allowed. Use * for all networks.
2. Date range
 - From date (format YYYYMMDD)
 - To date (format YYYYMMDD)

Examples

Below are examples of Natural CMSYNIN data for producing various job schedule reports:

RE-JSC-P

EXAMPLE,E01-CONTI

20011101,20011130

will produce a schedule of jobs in network E01-CONTI under owner EXAMPLE, between 1st and 30th November 2001.

```
RE-JSC-P
*,*
20011101,20011231
```

will produce a schedule of all jobs, between 1st and 30th November 2001.

Network Start Summary

The network start summary (equivalent to online option 10) is produced by program RE-ACT-P. It does 2 INPUTs:

1. Owner/Network
 - Owner name. *,> and < wildcards are allowed. Use * for all owners.
 - Network name. *,> and < wildcards are allowed. Use * for all networks.
2. Date range
 - From date (format YYYYMMDD)
 - To date (format YYYYMMDD)

Examples

Below are examples of Natural CMSYNIN data for producing various network start summary reports:

```
RE-ACT-P
EXAMPLE,*
20011101,20011130
```

will produce a summary of all networks under owner EXAMPLE, between 1st and 30th November 2001.

```
RE-ACT-P
E*,M<
20011101,20011231
```

will produce a summary of all networks with names less than M under owners beginning with E between 1st November and 31st December 2001.

Network Schedule Overview

The network schedule overview (equivalent to online option 11) is produced by program RE-NSC-P. It does 3 INPUTs:

1. Report Type
 - A with schedule.
 - B to activate, sorted by network.
 - C to activate, sorted by time.
2. Owner/Network
 - Owner name. *,> and < wildcards are allowed. Use * for all owners.
 - Network name. *,> and < wildcards are allowed. Use * for all networks.
3. Date range
 - From date (format YYYYMMDD).
 - To date (format YYYYMMDD).

Examples

Below are examples of Natural CMSYNIN data for producing various schedule overview reports:

```
RE-NSC-P A
EXAMPLE,*
20011101,20011130
```

will produce an overview of all networks under owner EXAMPLE, scheduled to run between 1st and 30th November 2001.

```
RE-NSC-P B
E*,M<
20011101,20011231
```

will produce an overview of schedule extractions (activations) of all networks with names less than M under owners beginning with E between 1st November and 31st December 2001.

Activation Overview

The activation overview (equivalent to online option 12) is produced by program RE-ACO-P. It does 3 INPUTs:

1. Activation Types to be included in report
 - * all network activations
 - **A** networks activated via NOPUAC4N API
 - **M** networks activated manually
 - **O** networks activated as a result of EOJ checking
 - **R** networks activated as part of recovery processing for an abended job
 - **S** networks activated according to schedule

You can either specify * or any combination of **A, M, O, R, S**
2. Owner/Network
 - Owner name. *,> and < wildcards are allowed. Use * for all owners.
 - Network name. *,> and < wildcards are allowed. Use * for all networks.
3. Date, time, run number ranges
 - From date (format YYYYMMDD)
 - From time (format HH:II:SS)
 - From run (maximum 999999999)
 - To date (format YYYYMMDD)
 - To time (format HH:II:SS)
 - To run (maximum 999999999)

Examples

Below are examples of Natural CMSYNIN data for producing various activation overview reports:

```
RE-ACO-P AM
EXAMPLE,*
20011101,,,20011130 (equivalent to 20011101,00:00:00,1,20011130,23:59:59,999999999)
```

will produce an overview of all networks under owner EXAMPLE, activated manually or by API between 1st and 30th November 2001.

```
RE-ACO-P *
*,*
20011115,14:00:00,71,20011115,22:00:00,99
```

will produce an overview of all activations between 14:00:00 and 22:00:00 on 15th November 2001, with run numbers between 71 and 99.

Extended Log Report

This report is only available in batch and can be used to print the following:

- log records
- job output written to the log
- active JCL changes written to the log
- active JCL

The report program is NOPLP01P and it does one input to receive these parameters:

Parameter	Explanation		
FROM-DATE-TIME	Format YYYYMMDDHHIIS, starting time for log report.		
THRU-DATE-TIME	Format YYYYMMDDHHIIS, ending time for log report.		
LANG	Language in which log records will be printed, either 1 for English (the default) or 2 for German.		
OWNER	Owner(s) to be included in the report. The wildcards *, > and < are allowed.		
NETWORK	Network(s) to be included in the report. The wildcards *, > and < are allowed.		
DBENV	Reserved for future use. Do not specify this parameter.		
RUN-FROM	Starting run number.		
RUN-THRU	Ending run number.		
JOB	Job(s) to be included in the report. The wildcards *, > and < are allowed.		
ACTJCL	Y or N. If Y, any active JCL for jobs matching the owner/network/job/run criteria is printed after the log information.		
SYSOUT	Y or N. If Y, any logged sysout for jobs matching the owner/network/run/job/date/time criteria is printed.		
CHGJCL	Y or N. If Y, any active JCL modifications for jobs matching the owner/network/run/job/date/time criteria are printed.	EXTLOG	Y or N. Specify a default value for ACTJCL, SYSOUT and CHGJCL.

Because of the large number of parameters, you are recommended to use keyword mode for specifying them. NOPLP01P can be executed in a standard batch Natural, with LFILES 131 and 216 set. The output is written to the Natural system print dataset (CMPRINT).

The following example assumes the Natural parameters IM=D,IA==,CF=%.

NOPLP01P

```
FROM-DATE-TIME=20011101000000%  
THRU-DATE-TIME=20011115163000%  
RUN-FROM=1%  
RUN-THRU=999%  
OWNER=UKSJ*%  
NETWORK=TEST-2>%  
JOB=L<%  
LANG=2%  
EXTLOG=Y
```

Will print all log records as well as logged sysout, logged active JCL modifications and active JCL for jobs with names less than L in networks with names greater than TEST-2 under owners beginning with UKSJ, with run numbers in the range 1 to 999 between 00:00 on 1st November 2001 and 16:30 on 15th November 2001. The log records will be printed in German.

Note:

The date/time range has no influence on printing of active JCL.

Cross-References

(new cross-reference option)

Page 489, new screen shot:

```
15.11.01          *** Entire Operations 4.1.1 ***          17:03:15
Owner UKSJU              Cross References Menu              User ID UKSJU
-----
          Cross References Menu

1  User Routine Usage
2  Symbol Table Usage
3  JCL Usage

Command => _____
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
          Help          End                                Menu
```

(Description of JCL Usage.)

You can use option 3 JCL Usage to find out which JCL files are used in which networks. Entering 3 on the command line, causes this screen to be shown:

```

15.11.01          *** Entire Operations 4.1.1 ***          17:03:15
Owne +-----+-----+-----+-----+-----+-----+-----+-----+
---- !                                     ! -----
!                                     !
!                                     !
!   Enter selection criteria (with * Wildcard) or blank for all !
1 !                                     !
2 !   File/Natlib      : _____ !
3 !   Member          : _____ !
!   JCL Location     : _____ !
!                                     !
!   Enter-----PF3----- !
!           End           !
+-----+-----+-----+-----+-----+-----+

Command => 3_____
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
      Help           End                               Menu
    
```

Field Description

Field	Explanation
File/Natlib	You can restrict the cross reference to an individual file or Natural library (or a set of files with the same prefix) by using an * wildcard.
Member	You can restrict the cross reference to an individual member (or a set of members with the same prefix) by using an * wildcard.
JCL Location	You can restrict the cross reference to any one of the supported JCL locations, or leave blank to include any location.

Make your selection and press Enter to move on to the next screen:

```

15.11.01          *** Entire Operations 4.1.1 ***          17:23:04
Owne +-----+-----+-----+-----+-----+-----+-----+
---- !       !       !       !       !       !       !       !
      !       !       !       !       !       !       !       !
      ! Enter ! Owner.....: _____ (Blank for all, * for selection !
1    !       ! Network....: _____ or * and PF4 to process all !
2    ! File/  !                               matching objects) !
3    ! Membe  !                               !
      ! JCL L !                               !
      !       ! Destination: 1 !
      !       !   1 - Screen 2 - Printer 3 - PC 4 - PC-CSV !
      ! Enter !                               !
      !       ! Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9--- !
+----- !       Help      End    Apply Accpt !
      +-----+-----+-----+-----+-----+-----+-----+

Command => 3_____
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10---PF11---PF12---
      Help      End                                Menu

```

Here you can restrict the cross-reference to particular owners and networks, using the *, < and > wildcard characters. You can also choose any of the 4 destinations. Fields and PF keys are the same as for the reporting system, described above.

To produce the cross-reference listing in batch

- Run XRJCL--P in a standard batch Natural job with LFILEs 131 and 216 assigned and printer file 1 correctly defined.

The program does 2 inputs:

1. File/Natlib, Member, JCL Location
2. Owner, Network

The following examples assume the Natural parameters IM=D,ID=,:

```

XRJCL--P
PROD1.JOBLIB,IEB*
SYS*,W

```

Will produce a list of all jobs in networks with names less than W under owners beginning with SYS that use JCL members beginning with IEB in dataset PROD1.JOBLIB.

```

XRJCLP
SYS*,*,NAT
*,*

```

Will produce a list of all jobs which use JCL in Natural libraries beginning with SYS.