

Work despoiled during the evening/night will normally be processed the following morning and catch the lunchtime courier and the afternoon post. However, when the workload justifies it, the camera may be mounted the same night in which case the work will be available for distribution before midday the following morning.

Microfiche

Work despoiled overnight and at 0800 will normally be processed in the morning and be available for collection from the central computer by midday. It will normally catch the lunchtime courier for R1, the afternoon courier for Oxford and the afternoon post.

Work despoiled at 1200 will normally be processed during the afternoon except Thursdays and should be available for collection by 1600. It will not necessarily catch the afternoon courier to R1, nor will it necessarily be posted the same day.

Black and White Film

BW35 is normally run during the morning and occasionally in the afternoon. PR16 and BW16 are normally run in the afternoon. It should be noted that PR16 has priority over BW16 which should only be used for debugging work eventually requiring colour 16mm.

Colour

This camera is mounted at least once per week, usually Wednesday afternoon/evening. The critical time is the Wednesday midday despool. Colour processing is operationally more involved and the work will not be ready for distribution until Thursday afternoon. If the amount of work is large ie. more than 2000 frames of 16mm or more than 500 frames of 35 mm, the final processing has to be contracted out, requiring 7 - 10 days. Hence it is important to debug colour films using black and white film before involving the lengthy expensive colour processing. Long jobs on other than microfiche and hardcopy will normally be run during the evening or night.

Use of Private Tapes with the FR80

Users writing a substantial amount of output to the FR80 may need to use a private tape to avoid overloading the spool. Another reason for using a private tape is if the FR80 output is to be

preserved, although generally it is much cheaper to have film or microfiche copied using standard services than to process it on the FR80. Details of the system for using private tapes are available from RL PAO.

It is not necessarily true that a large quantity of FR80 output means more FR80 processing time - it depends on the commands being generated. Work may be accommodated within the normal camera schedule along with the despoiled output if the operators have reason to think it will use little FR80 time. Other work will be processed when time is available.

SECTION 4 OPEN DAY TECHNICAL LEAFLETS

TECHNICAL LEAFLET TITLES

Copies of the Technical Leaflets listed below are available on request from Mrs J Scholes, Ext 272, Rutherford and Appleton Laboratory, Chilton.

- C1 STELLA - Satellite Transmission Experiment Linking Laboratories
- C2 SRC Network
- C3 Local Area Networks
- C4 Central Computing Facilities
- C5 SRC Computer Assisted Grants Administration
- C6 Achieving Delivery Targets in Industry
- C7 ICF Terminal Pool
- C8 The SRC Interactive Computing Facility
- C9 SRC Support for Finite Element Software
- C10 Digital and Analogue Systems
- C11 The POPEYE Program Analysing a Picture
- C12 Information Retrieval on a Mini Computer
- C13 Computer Aided Text Processing for Science
- C14 Crystal Structure Search and Retrieval
- C16 The STARLINK Project
- C17 Robot Simulation using SAMMIE Software
- C18 HORACE - Mobile Robot
- C19 Slide Generating Program
- C20 Distributed Computing Systems
- C21 A Personal Graphics Computer System
- C22 Input of Line Drawings and Other Figures
- C23 GABLE 80 - Modular Computer Software System
- C24 Computer Aided Design of Lift Systems
- C25 Interactive Power Systems Analysis
- C26 Benson Plotters
Industrial Robotics
Queen Mary College Intelligent Robot Project

OPEN DAY Leaflets

SECTION 5 COMMANDS AVAILABLE FROM X25 2050 WORKSTATIONS

General Commands Interpreted by the 2050

!!BROADCAST text
Broadcasts text to all terminals attached to 2050

!!INFORM text
As for BROADCAST but also stores the message, which is given when subsequent terminal calls are made

!!INFORM Responds with stored INFORM text

!!QUIET Removes stored INFORM text.

!!SEND devn text
Sends text to device devn

!!TIME hh.mm Sets time of day on 2050

!!TIME Reads time of day

!!EOF devn Endfiles device (input device if devn omitted)

!!RESET devn Resets device (input device if devn omitted)

!!STOP appn Stops application name; appn=name of call (application attached to input device if appn omitted)

!!ECHO Reverses echo on/off performed by 2050 for this terminal

!!ROUTE n Defines standard route for printed output when ELEC calls made from this terminal

!!DEVTYPE n Defines ELECTRIC device type for ELEC calls made from this terminal

!!NULLS n Defines number of nulls output following CR,LF sequence on this terminal

!!CONNECT appn devl devp
Connects the logical stream devl of the call appn to physical device devp. While this connect is in force no other logical stream can use the physical device unless a similar connect has been issued.

!!DISCONNECT appn devl devp
Removes the corresponding connection.

n.b. devn is device name:-

TT0, TT1, ..., TT6 Console, terminals 1 to 6
PR1 Printer 1
RD1 Card reader 1

Commands may be input from the card reader, or any terminal. The command may be input in lower or upper case and the shortest non-ambiguous string may be used.

Titles used to make calls or connect input streams to calls

!!ELEC Makes a call to central IBM on-line system at RL
!!EDIT Makes a call to Data Editing 4080 at RL
!!TSO Makes a call to TSO on Daresbury IBM 370/165
!!NETSTATUS Makes a call which gives status of Network
!!LOG Makes a call to Network log machine

!!RLIAH Makes an RJE call to central IBM system at RL
 or connects this input device to the existing call
!!DLIAH Makes an RJE call to central IBM system at DL
 or connects this input device to the existing call

!!RLGBI Makes terminal call to RL ICF 4070
!!GWGAI Makes terminal call to Glasgow ICF 4070
!!CDGAI Makes terminal call to Cranfield ICF 4070
!!NEGAI Makes terminal call to Newcastle ICF 4070
!!BRGAI Makes terminal call to Bristol ICF 4070
!!CAGAI Makes terminal call to Cambridge ICF machine

Titles which make calls (to be available soon)

!!RLGCI Makes a terminal call to RL Development 4080
!!REGAI Makes terminal call to ROE 4082
!!BDGAI Makes terminal call to Bradford 4082
!!CFGAI Makes terminal call to Cardiff ICF m/c.
!!BHGAI Makes terminal call to Birmingham 4080
!!RLVAI Makes terminal call to HEP VAX 11/780
!!HQGAI Makes terminal call to NERC 4070 at Swindon
!!APGAI Makes terminal call to Appleton 4070
!!ZUGAI Makes terminal call to UCL 4085

Current Software Developments

The software is currently being modified so that:-

- 1) Calls can be made to any host on the Network by specifying the SRC address as a number and specifying the protocol required. (ITP or HASP Multileaving protocol.)
- 2) At system generation time, there will be conditional inclusion of the standard set of 2050 commands and titles available. (A title may translate to an SRC Network address, or to the address with more information; each title may or may not imply a protocol for the call.) New titles not in the standard set may be included at system generation time.

1. Computer connection via PACX

- 1.1 Press 'break' for one second, then press 'carriage return' once every second until the PACX responds with *. If you do not get an asterisk, press 'break' and several 'carriage returns' again.
- 1.2 When you receive *, type the required service code followed by 'carriage return'. If you take longer than 20 secs you will be disconnected and have to start again with 'break' etc.
- 1.3 The PACX will respond with one of the following messages:-
- a. 'Service C1 C2 start' indicates that you have been connected to the requested service and may proceed.
 - b. 'Service C1 C2 unavailable' indicates service C1 C2 is not available because:
 - i) All ports allocated to that class are in use
 - ii) The computer has not enabled those ports
 - iii) That service is not allocated to any port.
 - c. 'Service C1 C2 ?' indicates you have asked for a service outside the range 00-77 (octal).

2. Disconnection

If there is no data in either direction for approximately 12 minutes once you have connected to a computer, the PACX will break the computer/terminal connection. There is no message to indicate you have been disconnected.

If you wish to be disconnected from PACX, log off and press 'break' once. You will receive no message from PACX to indicate you have been disconnected.

DO NOT USE BREAK TO INTERRUPT DATA OUTPUT BY THE COMPUTER

3. Services available via PACX

<u>COMPUTER</u>	<u>SPEED</u>	<u>SERVICE CODE</u>
IBM 3032	300	07
	1200	02
DEC 10 network	600	10
	1200	11
	2400	12
Data Edit 4080	Auto	20
Prime 400A	Auto(110/300)	30
	1200	31
	4800	32

PACX

	2400	33
Prime 400B	Auto(110/300)	34
	1200	35
	4800	36
	2400	37
360/195	110	50
	1200	51
	2400(Graphics only)	52
	300	53
Univac 1108	110	55
	300	56
	1200	57
Graphics 516	4800	60
SNS 4070		62
ICF 4070	Auto	67

SECTION 7 FACILITY COMMITTEE FOR COMPUTING

11th Meeting - Sept 1979

The STARLINK project proposal reported in FORUM 7 had received SRC approval. The facility has now been set up with 6 DEC VAX 11/780 computers initially linked by DECnet. The committee suggested that an early shift to X25 protocols would be advisable. The committee agreed to the revised allocations of SRC central facilities to all Boards for 1979/80. The committee set up a Computer Review Working Party to study the replacement of SRC central computers. The committee recommended to Council upgrades to the RL central computer complex.

13th Meeting - Jan 1980

Anticipating some availability of capital funds the committee produced a priority list of approved enhancements which included a director and channels for the 3032 on X25 exchange for the network at Daresbury, 2Mb memory on the 3032, 2 disks and a controller and a PSS gateway/exchange.

14th Meeting - March 1980

The committee discussed a proposal to attach a monitoring/status information computer to the network and agreed to consider a proposal to develop one at Daresbury.