PROCEDURE FOR SUBMISSION OF JOBS

The following documents will be required in submitting jobs:

1) Project sheet
2) Data preparation request
3) Job request

(1) PROJECT SHEET. The user must first define a specific project by filling in a project sheet, which must be submitted to the most convenient C.S.I.R.O. computing centre. This would be done either directly, or through some intermediate group if such exists. (For example, University users would first approach their own computation centre). Items on this form are intended as estimates only, and it is appreciated that as the project proceeds, considerable amendment may be necessary. The blank forms will eventually be supplied with attached duplicates, and the top copy will be returned to the programmer when the project has been accepted. For the present, however, the programmer will be asked to fill in two copies.

(2) DATA PREPARATION REQUEST. Prior to running a program the user will usually require data and/or program recorded on to computer-acceptable medium, although some of his needs might well be already met, such as the availability of pre-punched card files, automatically recorded data on paper tape and so on, (standard subroutine decks could also be supplied during data preparation). The user will define his data preparation requirements by means of a data preparation request form which will be of standard card size. The user must complete two copies of this and send it to the local C.S.I.R.O. staff with his data and program sheets. The date and time of receipt by the data preparation staff will be entered on the request form.

Following preparation of the user's data as requested, the sheets and data are returned to the user with one copy of his request marked with the date and time of completion and initialled by the data preparation supervisor. The other copy of the request is filed. If modifications to the data are required a fresh DATA PREPARATION REQUEST is made, and so on until ready for a computer run.

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The formal REQUEST is not required if only a few cards (say 15 or less) are to be punched or corrected.

(3) JOB REQUEST. A computer run is obtained by filling out a JOB REQUEST (again in duplicate), and sending this with the program and data to the local computing centre.

The local centre's staff will check the job sheet against the data provided which may include cards, paper tape and magnetic tape. It may be decided to send the job to Canberra. If the request calls for a programmer magnetic tape, this will be withdrawn from the reserved tape file or, if to be sent to Canberra, it may call for a programmer tape held there.

After running on the computer, the program, input data and output will be returned to the user via the local centre, together with one copy of the JOB REQUEST. The JOB REQUEST will be marked by the operator to show the time at which it was done, while the actual quantity of computer time used will appear at the bottom of the results output from the printer.

Job Charge Code _ _ _ _ _ _

Checked _ _ _ _ _ _ _ _ _ _

Date _ _ _ _ _ _ _ _ _ _

PROJECT SHEET

CSIRO COMPUTING NETWORK

PROJECT NAME _

ACCOUNTING

    CSIRO/C'wealth Dept. or Agency/University *
    Division, Department (Agency), University _ _ _ _ _ _ _ _ _ _ _
      Section or Subsection (if applicable) _ _ _ _ _ _ _ _ _ _

ORIGINATOR

    Originator or programmer's NAME _ _ _ _ _ _ _ _ _ _ _ _ _
        Address _
                 _
        'phone _ _ _ _ _ _ _ _

ASSISTANCE REQUIRED

    Card punching, estimated quantity _ _ _ _ _ _ _ _ _
    Paper tape punching, estimated quantity _ _ _ _ _ _ _
    Numerical analysis   Yes/No *
    Programming   Yes/No *

PROGRAM USE ESTIMATED   Continuous   Sporadic   One-Off *

PROBLEM DESCRIPTION (including mathematical method & references)

Signature _ _ _ _ _ _ _ _ _ _   Date _ _ _ _ _ _ _ _

JOB REQUEST

<table>
<tr><td rowspan="10">CSIRO COMPUTING NETWORK
COMPUTER JOB REQUEST</td><td colspan="2">NAME</td><td colspan="2">CHARGE CODE</td><td colspan="2">IDENT.</td><td colspan="2">TIME LIMIT</td><td colspan="3">OPERATOR USE ONLY
LOADED</td></tr>
<tr><td colspan="2">ADDRESS/PHONE</td><td colspan="2">SOURCE LANGUAGE</td><td colspan="2">PRINT LIMIT</td><td colspan="2">3200/3600</td><td colspan="3">RUN</td></tr>
<tr><td colspan="2"></td><td colspan="2">DATE & TIME SUBMITTED</td><td colspan="2">CHECKOUT/PRODUCTION</td><td colspan="2">No. SCRATCH TAPES</td><td colspan="3">UNLOADED</td></tr>
<tr><td rowspan="7">I
N
P
U
T</td><td colspan="5">DATA-PAPER TAPE/CARDS NOT WITH PROGRAM</td><td rowspan="7">O
U
T
P
U
T</td><td colspan="2">12" PLOTTER</td><td colspan="2">PAPER TAPE</td><td></td></tr>
<tr><td colspan="5"></td><td colspan="2">36" PLOTTER</td><td colspan="2">CARD PUNCH</td><td></td></tr>
<tr><td rowspan="2">SERIAL</td><td colspan="2">PROGRAMMER TAPES</td><td rowspan="2">LOG.UNIT</td><td rowspan="2">WRITE ENABLE</td><td colspan="3">SAVE TAPES</td><td rowspan="2">LOG. UNIT</td><td rowspan="2">MODE/
DENSITY</td></tr>
<tr><td colspan="2">NAME</td><td colspan="3">NAME</td></tr>
<tr><td></td><td colspan="2"></td><td></td><td></td><td colspan="3"></td><td></td><td></td></tr>
<tr><td></td><td colspan="2"></td><td></td><td></td><td colspan="3"></td><td></td><td></td></tr>
<tr><td colspan="5">COMMENTS AND OTHER INSTRUCTIONS</td><td colspan="5"></td></tr>
</table>

EXPLANATION

* Charge Code   : 8 characters as described for DATA PREPARATION
                    REQUEST.

* Ident.   : 4 characters as described for DATA PREPARATION
                    REQUEST.

* Time Limit: : The expected maximum number of minutes required
                    for the whole job, including program translation.
                    Unless the 3600 is specifically required (see
                    below), this should be an estimate for the 3200.
                    If in doubt for a first estimate,

                    $(P/800 + D/1000 + L/300 + 1.0)$ mins for the 3200 and
                    $(P/800 + D/1000 + L/800 + 0.3)$ mins for the 3600,

                    rounded upwards to the nearest minute should be
                    used, where

                         P = No. of program cards
                         D = No. of data cards
                         (or their equivalent in paper tape)
                         L = No. of output records (see below under
                                                           Output).

                    After the first run on the computer, a better
                    estimate may be substituted.

Address / Phone   : If the user wishes his job to be returned on
                    completion via some established delivery service,
                    an adequate address should be written here.
                    If a phone number appears, notification will be
                    made on completion. If blank, the job will be
                    held at the local centre until called for.

Source Language   : The specific language should be indicated if
                    the program is being supplied by the user (e.g.
                    FII, F32, F36, etc.). Eventually a number of
                    standard routines will be available at the
                    centre, and these may be requested by writing
                    the appropriate identifying mnemonic in this
                    space.

* All these quantities appear also on the JOB card of the program deck.

DATA PREPARATION REQUEST

CSIRO COMPUTING NETWORK DATA PREPARATION REQUEST	CHARGE CODE		IDENT.		PHONE No.	STD. PROG. No.	NAME OF PROGRAMMER		DATE & TIME SUBMITTED		
	OPERATION	EST.QTY.	PROG/DATA	SPECIAL INSTRUCTIONS					DATE	TIME	INIT.
	CARDS						O P E R A T O R O N L Y				
	PUNCH										
	VERIFY										
	SORT										
	LIST										
	PAPER TAPE										
	PUNCH										
	LIST										
	EDIT										
	COPY										
	CHART READ										

EXPLANATION:

Charge Code:

8 Characters. This identifies the account to which services are to be charged, and will be supplied on top of the project sheet copy returned to the user.

The 8 characters making up the charge code have a definite meaning, viz:

C_1 : C.S.I.R.O. Subsidiary of origin

C : CANBERRA
A : ADELAIDE
M : MELBOURNE
S : SYDNEY

C_2 : Geographical location of origin. This is to facilitate distribution of completed work.

C_3 : Accounting Division

C : C.S.I.R.O.
D : Commonwealth Department
U : University

C_4-C_6 : Sub-division A mnemonic defining the particular C.S.I.R.O. Division, Commonwealth Government or University Department.

C_7-C_8 : User identification. This would generally be the user's own initials.

Ident:

Up to 4 characters. This identifies the particular job, and is at the discretion of the user.

Phone:

If a number is written here, the user will be contacted when his work is completed.

Standard Prog.No.

If the data is intended for a standard routine whose punching format is on record at the centre, it may be referred to here.

Prog./Data:

If the material is program, the specific language should be stated, e.g. (FII, F32, F36, etc.).

JOB REQUEST (contd.)

Print Limit : This is the expected maximum total number of output records, where an output record may be a printed line (of program listing, results from program etc.), a plot vector, card punch image or paper tape record. This equals the limit on the RUN card, plus the number of lines required for program listing.

3200 / 3600 : This should be indicated where it is possible to run the job on only one or the other.

Scratch Tapes : The number of tapes, if any, required by the program as backing storage (as distinct from input, output and file tapes) should be indicated here.

Input Data : If there is input data on paper tape, the names of tapes and their order for input should be shown. If there are date cards which cannot be held with the program in a single standard deck, these should also be itemised here.

Output : If output is required on the 12" plotter, on paper tape, 36" plotter (3600 only) or on cards (3600 only) this should be shown. If the expected quantity is considerable (say in excess of 5 minutes), the approximate quantity should be shown.

Magnetic Tapes : Information on use of magnetic tapes for file work or to be saved, including labelling procedures, will be found in a separate Technical Note.

Comments & Other
Instructions : If the operation of the job will be non-standard, instructions must be written here for the operator. The operator may also write comments here on the behaviour of the job for the information of the user.

J.P. Penny
(22/6/64)

Column headers (left to right):
Day No. | Rain | Tank Evap. | Min. Temp. | Max. Temp. | Wet Bulb Temp. | Dry Bulb Temp. | Wind Drn. | Wind Run | Total Rad'n | Net Rad'n | Sunshine Cloud | Dew Pt. | Rel. Hum. | Reserved | Rain Dys. Per. Lngth | Day Month Year

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0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
1 2 3 4 5 6 7 8 9 ...                                                                                                                    ... 78 79 80
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1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80
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Programs prepared within Climatology Section to date

1. Linear regression – Correlation analysis.

2. Fourier analysis: A (Evaluation of constants, variance
   analysis and significance test).

3. Fourier analysis: B (Evaluation of points on curve for
   specified harmonics and differences between these
   points and observed values. Input = Output from 2).

4. Reduction of soil moisture observations to volumetric
   equivalents (For gravimetric, gypsum block or neutron
   sampling).

5. Water storage changes within the soil profile (Input =
   Output from 4).

6. Water balance evaluation according to an adopted
   evapotranspiration model.

7. Simulation of hydrographs according to an adopted
   recession model (Input = Output from 6).

8. Computation of precipitable water in the atmosphere
   from radiosonde observations.

9. Computation of Penman evaporation and related estimates
   from standard meteorological data.

10. Sunshine, cloudiness and daylength relationships with
    total radiation.