

PS/AA/VC/ed

PS/AA/Note 87-2/Rev.
19.2.1987USING PS MODELLING FACILITIES FROM THE AA COMPUTER

V. Chohan

This note is written as a matter for general information because of the recent interest shown in using modelling-like tools in the AA Group.

What exists

The LPI group's extensive usage of MAD (C. Iselin's Methodical Accelerator Design) program on-line has been possible because of the implementation by F. Perriollat of MAD on the PRDEV^{*} computer and the provision of necessary software on the standard PS consoles for transferring on-line data to the N-500 and starting the execution. In simplest terms, the consoles acquire the machine data from the front-end^{**} computer (for example the AA NORD-100) and submit a data-file to the N-500. Similarly, the results file comes back to the calling console after the successful execution. Each standard PS console is controlled by a NORD-100 itself. The treatment of the results file is upto the user; the results could be treated in Nodal using the PS console graphics facilities, as in the case for LPI.

For the acquisition and control of the machine parameters, the consoles use the standard tools involving working sets, Trees N-100, etc.

Besides MAD, COMFORT and ORBCAR are also available; they all use the standard MAD format for files.

(It is implicit from the above that the LPI application does not involve Macintosh or any other intelligent terminal for the display purposes.)

* PRDEV = N-500 = NORD 500 = 32 bit Norsk Data Computer

** Front-end = N-100 = NORD 100 = 16 bit Norsk Data Computer Connected to a process like the AA.

PS/AA/VC/ed

PS/AA/Note 87-2
17.2.1987USING PS MODELLING FACILITIES FROM THE AA COMPUTER

V. Chohan

This note is written as a matter for general information because of the recent interest shown in using modelling-like tools in the AA Group.

What exists

The LPI group's extensive usage of MAD (C. Iselin's Methodical Accelerator Design) program on-line has been possible because of the implementation by F. Perriollat of MAD on the PRDEV^{*} computer and the provision of necessary software on the standard PS consoles for transferring on-line data to the N-500 and starting the execution. In simplest terms, the consoles acquire the machine data from the front-end^{**} computer (for example the AA NORD-100) and submit a data-file to the N-500. Similarly, the results file comes back to the calling console after the successful execution. The treatment of the results file is upto the user; the results could be treated in Nodal using the PS console graphics facilities, as in the case for LPI.

For the acquisition and control of the machine parameters, the consoles use the standard tools involving working sets, Trees N-100, etc.

Besides MAD, COMFORT and ORBCAR are also available; they all use the standard MAD format for files.

(It is implicit from the above that the LPI application does not involve Macintosh or any other intelligent terminal for the display purposes.)

* PRDEV = N-500 = NORD 500 = 32 bit Norsk Data Computer

** Front-end = N-100 = NORD 100 = 16 bit Norsk Data Computer Connected to a process like the AA.

What needs to be done and implications:

- (1) The remote job request initiation in N-500 from the front-end computer (i.e. AA) is not possible since the necessary tools were only implemented on the standard PS consoles; the same applies for the file transfer protocol for the submission of data and the return of the results. The LPI local control room has a fully-fledged, standard PS console and so there was no need for a front-end implementation. In the AA case, the ACR consoles are directly on the AA N-100 and therefore, we need the additional software implementation on it to be able to run MAD in N-500. It has been agreed that this will be done by A. Gagnaire/F. Perriollat by end of March 1987.
- (2) The responsibility for acquiring the machine data (mostly magnet currents) falls on the AA user wanting to use MAD; having acquired the data, the necessary file conversion to correct format for submission to MAD is again the user's responsibility.
- (3) The results file, after successful execution, will be sent by N-500 to the AA N-100; the treatment of this data is again the user's responsibility, working on the AA computer directly. The ACR consoles do permit some graphics on the colour TV monitors using the DICO/DIME facilities. The hardcopy aspects remain unchanged if we use the ACR consoles. For any other solution like a specialized graphics oriented terminal (or a PC) connected to the AA directly via the PACX line in ACR, the hardcopy means have to be provided in addition to the intelligent graphics terminal (the PACX line in ACR already exists).

Distribution

AA Group

R. Billinge

A. Gagnaire

F. Perriollat

/ed