**Data Processing Service (SED) Division**

**Division Manager**: Paolo Bronzoni

**Staff**:
- Planning and Development: Francesco Carreras
- Data Transmission: Decio Basili
- Users: Emilio Stefanelli

The Division is composed of five Sections:

- **Operations**: Manager - Giuseppe Severino
  Concerned with the operation of both local and remote computer systems and the service procedures.

- **Systems**: Manager - Riccardo Medves
  Concerned with the study, setting up, installation, maintenance and development of the basic software, operating systems, languages and programs.

- **Applications**: Manager - Stefano Trumy
  Concerned with the study and development of applications in order to stimulate and to satisfy the user demand.

- **Advising and Programming**: Manager - Umberto Mammini
  Concerned with the supplying of advice and assistance to the user and in writing programs upon user's request.

- **Didactics**: Manager - Alberto Fuci
  Concerned with the organization of courses and seminars both internally and upon user's request.

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**Offices for the Users**

- **WHY (requests)**
  - Requests for the transfer of data to be paid for by the SED computer systems and programs.
  - Requests for advice on the preparation of programs and procedures on the use of the computer systems, assistance in solving technical and programming problems.
  - Requests for manuals or publications necessary for using the computer systems.
  - Requests for writing of programs and procedures.

- **WHERE (rooms)**
  - **008 (Office)**
    - **008**
    - **010**
    - **011**

- **WHEN (times)**
  - **Monday**
    - 10.00 - 12.00
    - 15.00 - 17.00
  - **Tuesday**
    - 10.00 - 12.00
  - **Wednesday**
    - 10.00 - 12.00
  - **Thursday**
    - 10.00 - 12.00
  - **Friday**
    - 15.00 - 17.00

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**CNUCE**

CNUCE, an Institute of the Italian National Research Council (C.N.R.), is directed by Prof. G. Torrigiani. It provides, as is laid down in its Statutes, a data processing service for all the Institutes and Departments of the C.N.R., for Universities and also for various other organisations. The Data Processing Service is controlled by a Division of the same name and uses a central computer system with a distributed network.

This central structure consists of two IBM computers, a 370/168 and a 370/158, which are connected by a high-speed line in order to allow the exchange of information, data, and programs between them. The characteristics of this integrated computing system, which CNUCE offers to its users, are flexibility and high potentiality.

The central nucleus of the two computers is surrounded by a distributed computing structure with batch and conversational components. This structure is made up of a group of specialised Satellite Centers and by a data transmission network which connects the terminals of individual users and the Remote Stations, (points of access to the service available to all users), to the central units.

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**LETIZIA GORI / RICCARDO MEDVES**

April 1976
## Hardware

<table>
<thead>
<tr>
<th></th>
<th>370/158</th>
<th>370/168</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Main Storage</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.5 MB</td>
<td>4.0 MB</td>
<td></td>
</tr>
<tr>
<td><strong>Disks</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6'3330/1 (600MB)</td>
<td>4'3330/1 (400MB)</td>
<td></td>
</tr>
<tr>
<td>12'3340 (1200MB)</td>
<td>11'2305 (1100MB)</td>
<td></td>
</tr>
<tr>
<td>2'3330/1 (200MB)</td>
<td>4'3330/11 (900MB)</td>
<td></td>
</tr>
<tr>
<td><strong>Tapes</strong></td>
<td>5'2401/2 (9T8000BPI)</td>
<td>1'2812 (7T200/556/800BPI)</td>
</tr>
<tr>
<td></td>
<td>7'3420/3 (9T600/1650BPI)</td>
<td>2'3420/4 (9T1650/6250BPI)</td>
</tr>
<tr>
<td><strong>Special Units</strong></td>
<td>1404</td>
<td>3211</td>
</tr>
<tr>
<td></td>
<td>Calcomp 3525 Interpreter Plotter</td>
<td></td>
</tr>
</tbody>
</table>

## Software

**370/158**: OS/VSE-HASP
- Virtual memory system for batch computing.

**370/168**: VM-CMS-APL
- Virtual memory system for interactive and batch computing.

**CICS-STAIRS**
- Multitask system to manage the BSC lines

**REMODS**
- Remote HASP station, modified to manage the connection between the two computers.

### Maintenance class

<table>
<thead>
<tr>
<th></th>
<th>Assistance from Suppliers</th>
<th>Technical Competence at CNUCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td>B</td>
<td>YES</td>
<td>NO</td>
</tr>
<tr>
<td>C</td>
<td>NO</td>
<td>YES</td>
</tr>
<tr>
<td>D</td>
<td>NO</td>
<td>NO</td>
</tr>
</tbody>
</table>

## Services

**370/158**
- OS/VSE-HASP: local loading by the operator in the Reception Room.
- local loading of the Self-Service reader by the user.
- sending of jobs from a terminal linked to the 168 by means of a virtual machine (REMODS) working under a modified HASP system.

**370/168**
- VM-CMS-APL
  - CICS-STAIRS
  - RSCS-REMODS: connection by means of users' own Start/Stop terminals.
  - connection by means of CNUCE Start/Stop terminals in the Reception Room.
  - remote connection by means of BSC terminals managed by the RSCS system.

The two computers are connected by a high-speed TP line (40,000 bauds) and guarantee the access to all services independently of the user's actual physical location.

### Self-Service
- direct loading of jobs for execution on the 370/158.
- jobs requiring less than 5 minutes of CPU and 3,000 lines of print are printed on the Self-Service printer.
- sending of jobs and files to the 168 by the "SEND card.

### Service Times
- Monday: 09.00-24.00
- Tuesday: 08.00-24.00
- Wednesday: 08.00-24.00
- Thursday: 08.00-24.00
- Friday: 08.00-24.00

### Documentation
- the Center publishes a review, "Rapporto", which appears every two months. This contains an updated list of the documentation on CNUCE, its computers and systems, and a series of technical information, notices and communications from the various Sections of the SED.
- a procedure (INFORM) exists in both OS and CMS for the automatic re-call from disk of the most important information, the system, languages and computers in production.
- urgent information, the "message of the day", is registered directly on the output of every job (under OS) and is also sent to every terminal, on connection (under CMS).