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San Antonio, Texas 78284  
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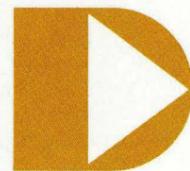
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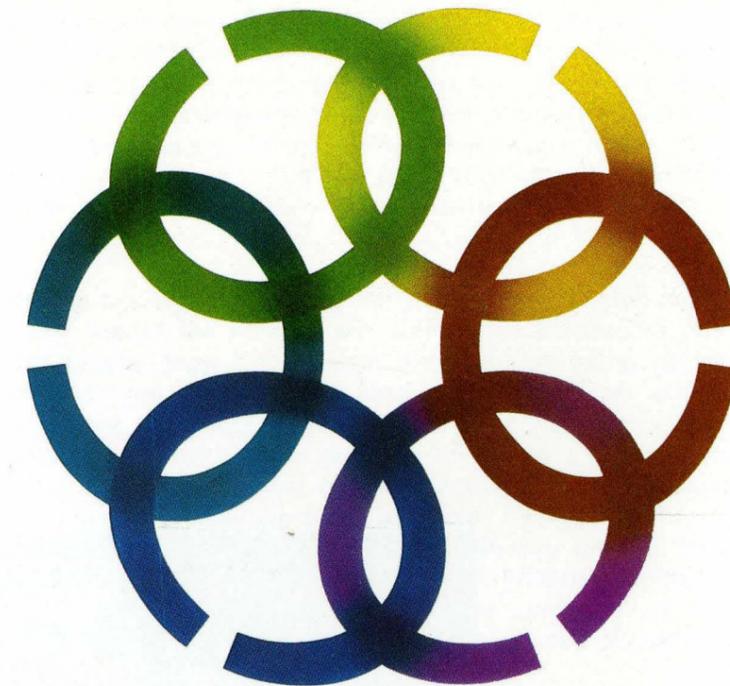
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Israel/Tel-Aviv/(03) 221 874  
Italy/Milano/316 333  
Japan/Tokyo/(03) 264 6131  
New Zealand/Auckland/ 78 543  
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The Philippines/Makati Rizal/877 294  
Singapore/915 822  
South Africa/Johannesburg/724 9301  
Spain/Madrid/242 3905  
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**DATAPOINT CORPORATION**



The leader in dispersed data processing™

# SYSTEMS CATALOG



**The ARC System™**

**DATAPOINT CORPORATION**



The leader in dispersed data processing™

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# introduction

For the systems planner, the executive, or the small businessman alike, the problem of selecting the correct data processing hardware and software can lead to many difficult questions. What level of power do I choose? Will this system be flexible? Will it serve my business needs three years from now as well as it does today?

In response to these questions, Datapoint offers the Attached Resource Computer® system, an innovative approach to systems architecture that combines the processing power and common data base of a large computer with the flexibility and easy growth path of a system of functionally-dispersed smaller computers.

### The Family Concept

As you read through this catalog, notice that the fundamental difference between the ARC® systems pictured lies in the number and size of the processors and disks. From the smallest to the largest, each ARC system is configured using common peripherals and software. (Present owners of Datapoint equipment can use their Advanced Business Processors, peripherals, and software in ARC systems, too.)

This is of great importance to the systems planner, for it offers a simple solution to the complex problem of how to implement a cost-effective computer system that can grow from small to large without a complete redesign.

As an example, the processing power of any ARC system can be upgraded simply by attaching an additional processor. The previous system, including software and peripherals, remains the same. This modular growth pattern applies to all other areas of ARC system performance as well. Precious capital is thus used as needed, not tied up in "future" needs.

### An Alternative to a Central Computer

Each ARC system can be configured as an independent computing facility for business data processing or as part of a network. The inherent ease of upgrading an independent system, coupled with the availability of added communications capabilities, makes this use of ARC systems the logical approach to business data processing.

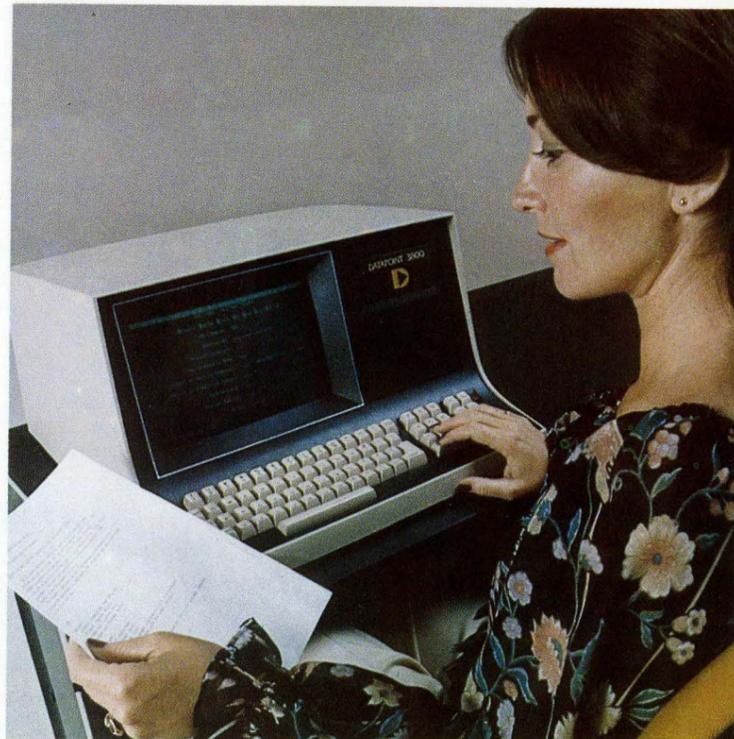
### A System That Grows With Your Business

The compatibility feature of Datapoint's ARC system becomes especially important when a large, geographically dispersed computing network is being considered. Common software, peripherals, and the ready ability to manipulate processing power reduces the risk in planning remote computer installations.

In addition, operator training and system documentation become greatly simplified when all of the network's sites are equipped with systems which behave fundamentally the same.

### Select the System You Need

So keep Datapoint's Attached Resource Computer in mind when selecting your business' next system. We think you'll agree that when it comes to solving the rapidly changing problems of business data processing, Datapoint's ARC system is the answer.



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# Legend

## Symbols

The systems shown in this catalog are represented schematically. In an effort to make this information as clear as possible, the same symbols have been used throughout. (These same symbols are used in the Datapoint Systems Catalog, which describes Datapoint's DATASHARE® batch and timesharing systems.) These symbols are shown below, together with a description of the different machines which each symbol can represent.

## Peripherals

ARC systems support a wide variety of peripherals. Individual systems have their own specifications for these devices. For instance, when the symbol says "disk" but only a certain type of disk may be used, the type of disk will be specified; otherwise, any Datapoint disk may be used. This information is contained in the following pages.

## Systems

The systems pictured here are sample configurations. ARC systems may be configured in nearly any manner the user desires (within a few basic configuration rules, explained below); configurational possibilities are not limited to what is presented here.

## Where to Learn More

This catalog is current as of the publication date. However, technical details relating to systems designations and components are subject to change. Consult the ARC User's Guide or contact your local Datapoint sales office for the latest information about ARC systems.

The legend below displays the symbols used throughout this catalog, together with a description of all the devices falling into each category. Refer to the Datapoint Equipment Catalog for a full description of these components.

## Applications Processors:

The applications processors perform the actual computing in an ARC system. Applications processors execute programs, allow for data entry and communications, and direct printer operations. Disk drives may be attached directly to some applications processors to provide for a local, restricted data base.

Applications processors may be any 4000 series system (except the 4220; see the Datapoint Systems Catalog for more information) and include:

Datapoint 6600 Advanced Business Processor; 120K user memory, 8K system memory, supports local disks and up to 24 DATASHARE 3600 workstations.

Datapoint 6010 Attached Processor; 60K user memory, 8K system memory, RIM, supports local disks and up to 16 DATASHARE 3600 workstations.

Datapoint 6020 Attached Processor; 120K user memory, 8K system memory, RIM, supports local disks and up to 24 DATASHARE 3600 workstations.

Datapoint 5500 Advanced Business Processor; 48K user memory, 8K system memory, supports local disks and up to 16 DATASHARE 3600 workstations.

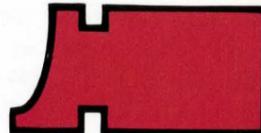
Datapoint 3810 Attached Processor; 60K user memory, 8K system memory, RIM.

Datapoint 3820 Attached Processor; 120K user memory, 8K system memory, RIM.

Datapoint 1170 Dispersed Processor; 48K user memory, 8K system memory, supports up to 4 DATASHARE 3600 workstations.\*

Datapoint 1150 Dispersed Processor; 24K user memory, 4K system memory, supports up to 2 MULTIFORM 3610 workstations.\*

\* Diskettes are not supported by ARC systems but can be used for file transfer to and from ARC system disks.



## File Processors:

The file processors manage the common data base of ARC systems. Managing files, servicing and controlling data movement requests, buffering the data, coordinating data base updates, and controlling data base security, the file processors are dedicated to data base management. File processors may be used to execute programs or enter data only when not operating as part of the ARC system.

File processors may be any 4000 series system (excluding the 4220) and include:

Datapoint 6600 Advanced Business Processor; 120K user memory, 8K system memory.

Datapoint 5500 Advanced Business Processor; 48K user memory, 8K system memory.



## Interprocessor Bus:

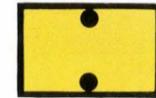
The interprocessor bus, a sophisticated electronic pathway, provides for the transfer of data between the file and applications processors at extremely high speeds.

Resource Interface Module (RIM); attached to the I/O bus of each ARC system processor, the RIM uses a small, high speed processor to monitor, control, and buffer data moving through the interprocessor bus. The RIM manages the interprocessor communications, freeing the processors for more efficient performance. Up to 6 RIMs may be attached to any single processor to allow it to be a part of several different ARC systems. Model 9483.

Active Hub; allows up to 8 (16 with Hub Expander Card) RIMs or additional Active Hubs to be part of an ARC system. The Active Hub has an integral power supply and provides signal amplification and conditioning. Model 9484.

Passive Hub; allows up to four RIMs to be linked as an ARC system. Requires no power supply. (The sum of the longest two lengths of cable attached to a passive hub may not exceed 200 feet.) May not be used in conjunction with 9484 Active Hub, above. Model 9485.

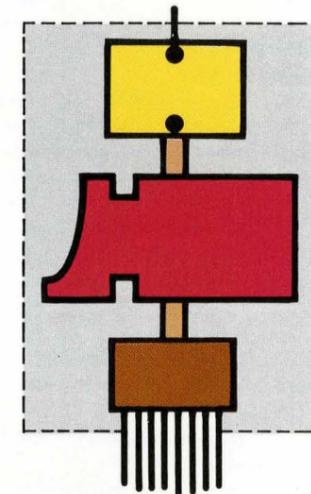
Bus; inexpensive coaxial cable provides the necessary connections between RIMs and Active (or Passive) Hubs. No run of cable in an ARC system may be longer than 2,000 feet without requiring a 9484 Active Hub for signal amplification.



## Direct Channel Interface Option

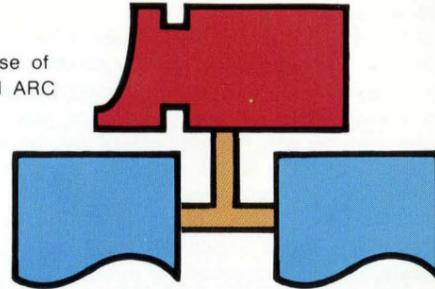
The Direct Channel Interface Option allows the use of an IBM System/360 or System/370 mainframe computer as part of an ARC system. The mainframe may perform tasks in COBOL, BASIC, RPG, PL1, and other languages. Operation is completely transparent to the end user.

The Direct Channel Interface Option consists of a dedicated 6010 processor, a RIM, and channel adapter, and operates on the byte multiplexer channel of the IBM machine.

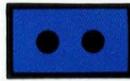


**Print Spooler Package**

Consisting of a software package executing in a dedicated applications processor, the print spooler allows for the efficient use of expensive printing peripherals. Queueing the printing tasks of all ARC system users, the print spooler software supports the concurrent operation of multiple printers (see the section on printers for descriptions). The Print Spooler is operator-oriented and easy to use.

**Cassette Tapes:**

Dual cassette drives featured on non-diskette model processors.  
0.12 megabyte capacity per side.  
7.5 inch per second speed, completely processor-controlled.

**Disks:****Local Storage:**

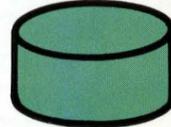
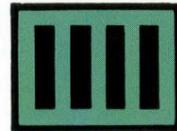
0.25 megabyte Diskette (available with 2, 3, or 4 drives). Models 9382, 9383, 9384. Diskettes are not supported by ARC Systems, but can be used for data transfer to and from ARC Disks.

5 megabyte Cartridge Disk (2.5 megabyte fixed disk, 2.5 megabyte removable disk). 5 megabyte extensions available. Models 9367, 9368.

**Common Data Base:**

20 megabyte Cartridge Disk (10 megabyte fixed disk, 10 megabyte removable disk). 20 or 40 megabyte extensions available, up to 160 megabytes. Models 9374, 9375, 9376.

50 megabyte Mass Storage Disk. Console-mounted controller and two drives of 25 megabyte capacity each. 25 megabyte extensions available, up to 200 megabytes. Models 9370, 9371, 9373.

**Magnetic Tapes:**

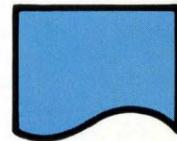
8.5 inch reel:	7-track,	556 bpi density (model 9557); 800 bpi density (models 9552/9553);
	9-track	800 bpi (models 9550/9551); 1600 bpi (models 9580/9581).
10.5 inch reel:	7-track,	800 bpi density (model 9555);
	9-track,	800 bpi density (model 9554); 1600 bpi (model 9583).

**Printers:****System Printers:**

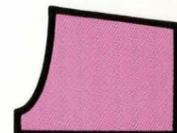
30 character-per-second Servo, typewriter quality (models 9250/9251).  
80 character-per-second matrix Freedom Printer (models 9232/9234).  
160 character-per-second matrix Freedom Printer (models 9235/9236).  
60 line-per-minute, 120-column Belt Printer (model 9291).  
120 line-per-minute, 120-column Belt Printer (model 9294).  
240 line-per-minute, 132-column Belt Printer (models 9212/9214).  
340 line-per-minute, 132-column option for Model 9212/9214 printers.  
(Model 9213, upper-case only).  
300 line-per-minute Line Printer (models 9280/9281).  
600 line-per-minute Line Printer (models 9260/9261).

**Terminal Printers (for use with DATASHARE terminals):**

60 line-per-minute, 120-column Belt Printer with serial interface (model 9292).  
80 character-per-second matrix Freedom Printer with serial interface (model 9231).

**User Terminals:**

3601 Datastation; standard typewriter keyboard, numeric pad. 24-line by 80-column screen. For use with DATASHARE systems.  
3608 version Datastation; upper-case alphabetic and keypunch-type numeric cluster only.  
3610 version Datastation; same as 3601, but with special cursor-control function keys designed for use with MULTIFORM™ data entry language.

**Card Reader:**

300 card-per-minute reader, 550-card capacity hoppers; standard 80-column format (model 9504). This model is not displayed in this Catalog as part of any system; however, it is an optional peripheral on all Datapoint processors.

**Communications Interfaces and Modems:****Multiport Communications Interface:**

accommodates up to eight serial asynchronous ports (up to 9600 baud). For use with DATASHARE or MULTIFORM terminals (model 9462).

**Communications Interfaces:**

Asynchronous, 110-4800 baud (model 9400).  
Synchronous, 4800 baud (model 9404). 0-4800 (model 9404/9405).  
Synchronous, 9600 baud (model 9481). 0-9600

**Communications Interfaces with Modems:**

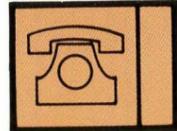
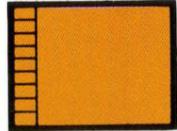
Bell 103 compatible, 110-300 baud (model 9401).  
Bell 202 compatible, 300-1200 baud (model 9402).  
Current loop keyer, 110-300 baud (model 9403).

**Asynchronous Modems:**

for use with DATASHARE remote terminals. Full duplex modems with 1200 baud transmit, 150 baud receive (model 9408), or 150 baud transmit, 1200 baud receive (model 9409). Connects directly to 9462 Multiport Interface.

**Auxiliary Power Supply:**

for use when the number of communications interfaces or modems on a single I/O Bus exceeds two. Required on any 24-port DATASHARE system (model 9022). Supports up to four additional communications interfaces and modems.

**Communications Lines:****I/O Bus:**

connects parallel peripherals directly to Datapoint processor.

**Hard-wired communications:**

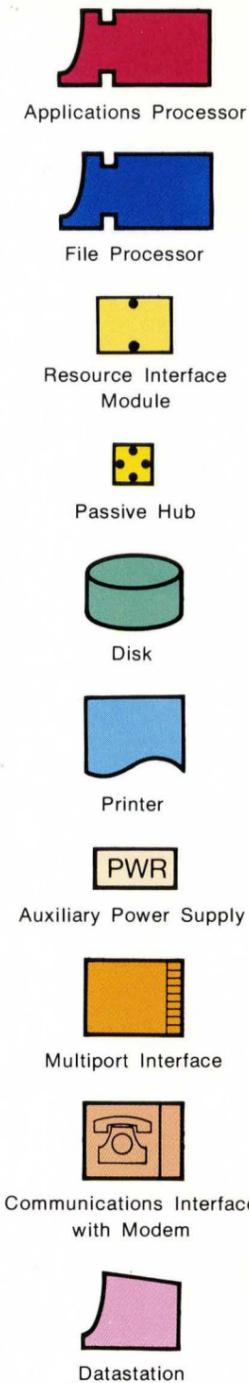
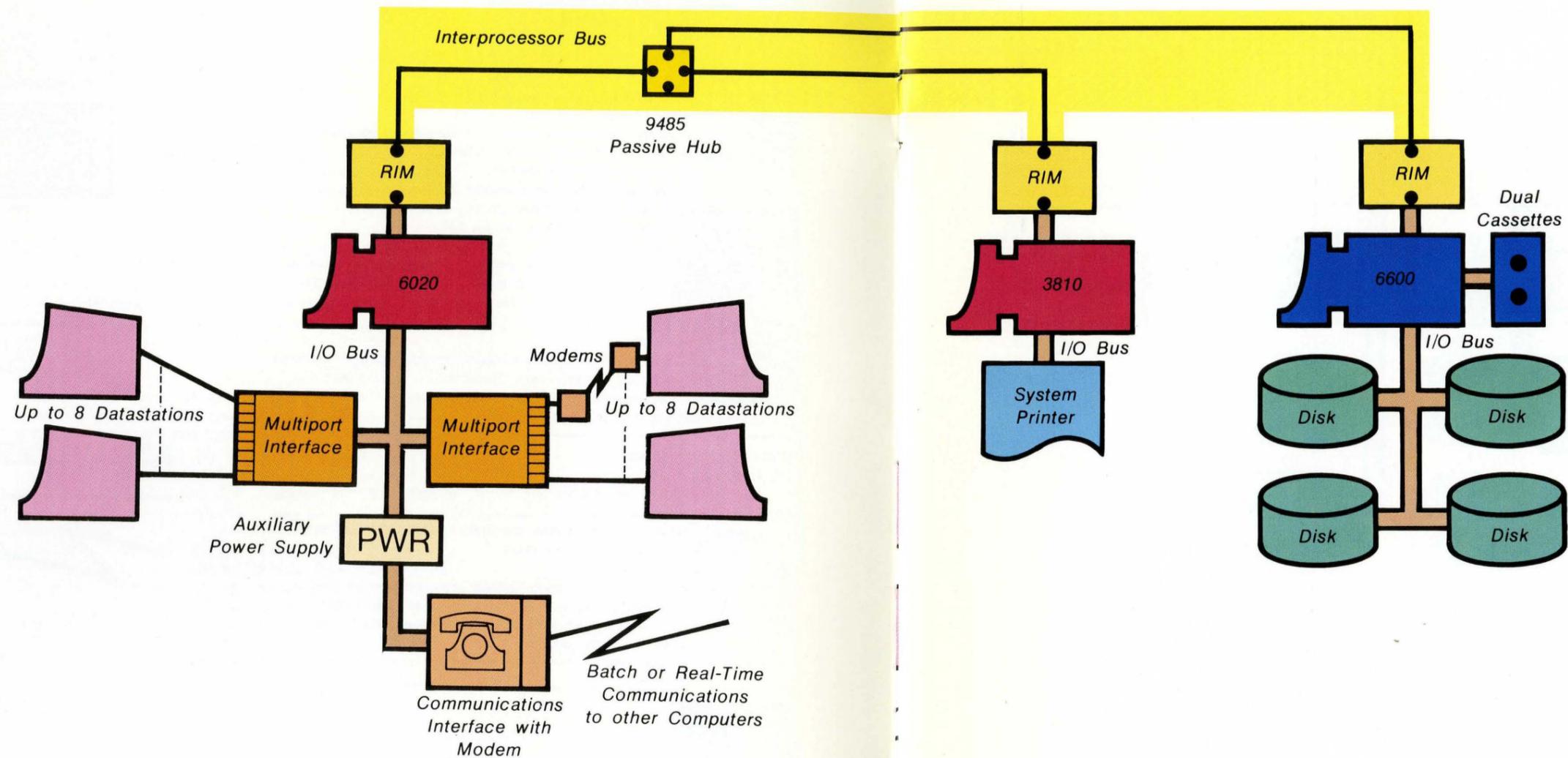
connects serial communications terminals to interfaces, or each other via "twisted wire" connection.

**Telephone lines:**

Standard, dial-up or conditioned, leased two-wire circuits for low-speed interactive communications or medium-speed data collection; four-wire leased circuits for high-speed interactive communications or data collection.



# BASIC ARC CONFIGURATION



This small ARC system could be considered the next logical growth step up from a 4630 DATASHARE system. The DATASHARE equipment, programs, and software can be used in this ARC system without modification.

The 6020 processor is configured to execute DATASHARE, Datapoint's business timesharing system. Up to 24 concurrent users may enter data or execute programs in batch or timesharing modes.

The 3810 processor is configured for the generation and execution of COBOL programs (BASICPLUS, RPGPLUS, and DATABUS® programs may be generated and executed also). The single-user 3810 processor may be used for DATASHARE program generation, too, as well as performing DOS utility functions such as SORT and EDIT.

The 3810 processor can also be configured as a Print Spooler, queuing and executing print jobs requested by the users on the DATASHARE system. This eliminates overhead on the DATASHARE system to provide for greater throughput and

assures that printers are efficiently used.

The file processor is a 6600 with 160 million characters of data storage attached (larger disks may be substituted for a total of 200 million characters). Dual cassette tapes are used for program loading and transfer.

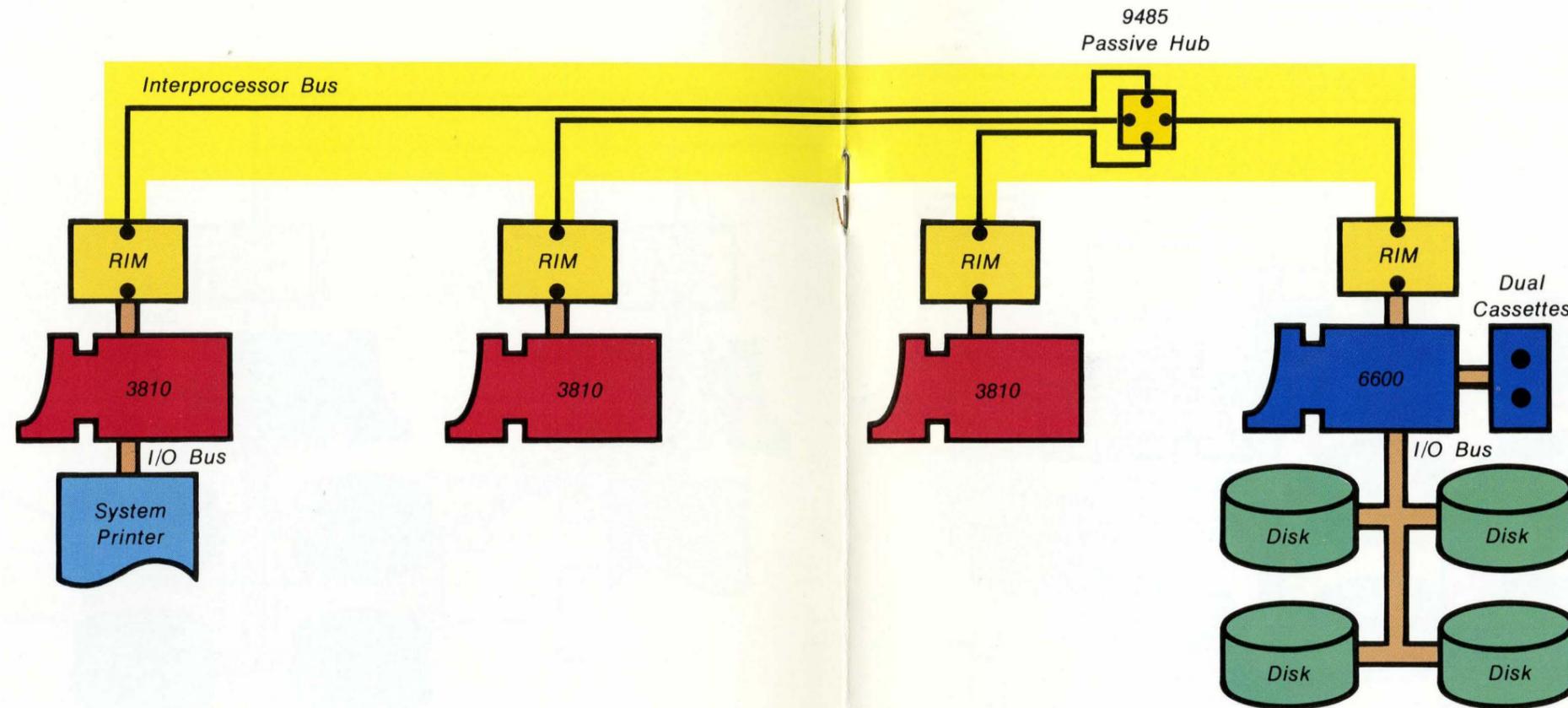
The Passive Hub is used to interconnect an ARC system when the number of RIMs present is less than five. The sum of the length of the two longest cables attached to a Passive Hub may not exceed 200 feet.

*Operating System:* DOS.D and utilities.

*Languages:* DATABUS, DATASHARE, DATAFORM®, COBOL, BASICPLUS, RPGPLUS, Assembler.

*Communications Options:* MULTILINK™, DSNET™, DATAPOLL™, and IBM, Univac, and Honeywell Batch Terminal Emulators.

# BATCH-ORIENTED ARC SYSTEM



Composed of a 6600 acting as file processor and three 3810's assigned to the generation and execution of programs in BASICPLUS, COBOL, RPGPLUS, and DATABUS, this ARC system can handle the batch processing needs of a business easily and efficiently.

The 3810 processors may additionally be assigned data entry tasks, using DATAFORM, a business language designed for forms generation and completion. Other functions, such as DOS file management utilities, may also be completed.

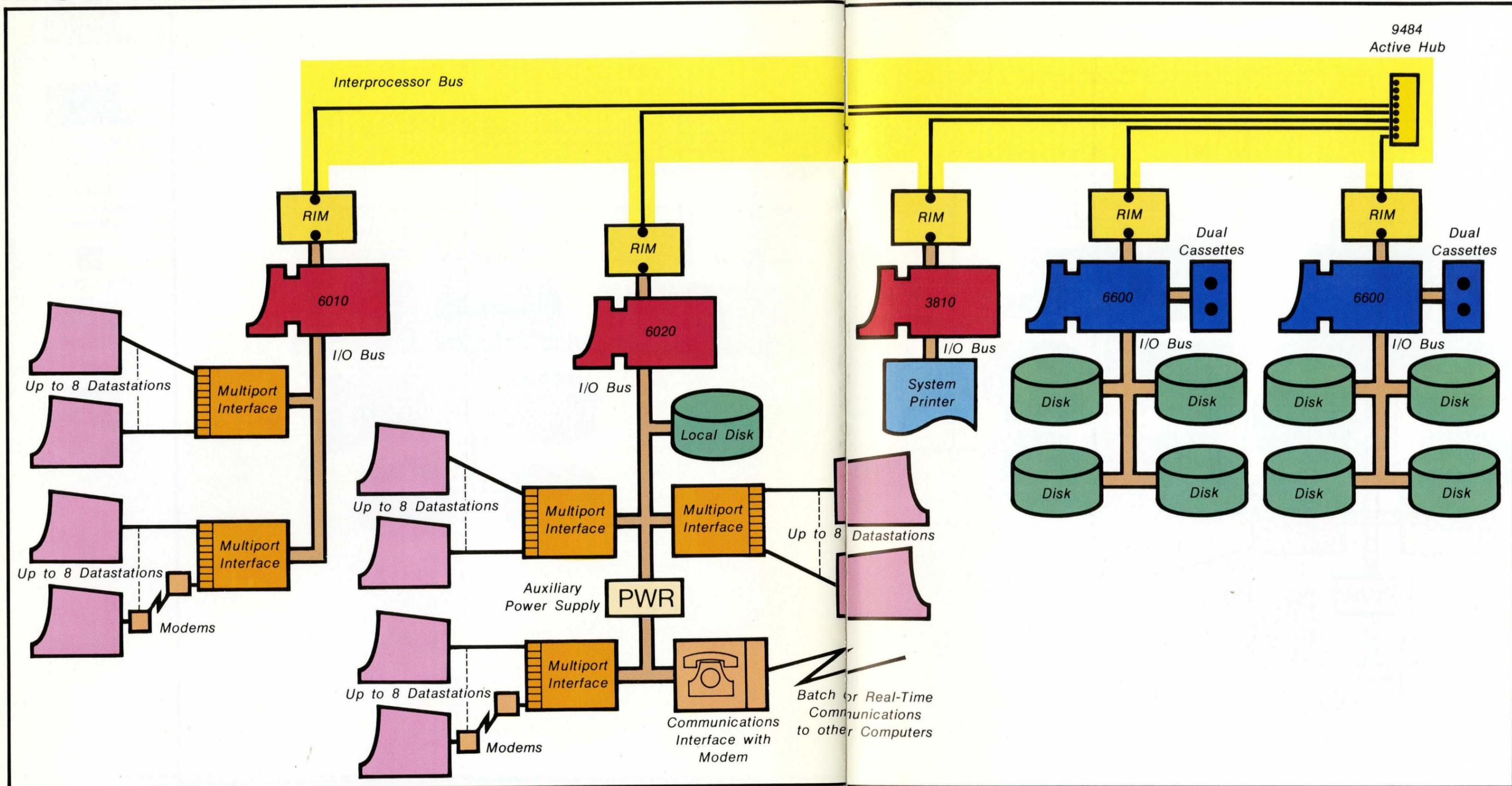
The 6600 file processor here stores and manages access to 160 million characters of data (expandable to 200 million characters).

*Operating System:* DOS.D and utilities.

*Languages:* DATABUS, DATASHARE, DATAFORM, COBOL, BASICPLUS, RPGPLUS, Assembler.

*Communications Options:* MULTILINK, DSNET, DATAPOLL, and IBM, Univac, and Honeywell Batch Terminal Emulators.

# MULTIFUNCTION BATCH AND TRANSACTION ARC SYSTEM



The business currently operating two separate DATASHARE systems can upgrade to this ARC system, gaining the advantages of a common data base (on two 6600 file processors) and greater throughput while maintaining its present operations. A multifunction batch and transaction processing system, this ARC system expands the business's capability to enter, process, and store data without requiring software revision.

The two 6600 file processors store and manage access to 320 million characters of data (expandable to 400 million characters). All system users may access this common data base.

A local, restricted data base is pictured attached to the 24 user 6020 DATASHARE applications processor. This data base can be accessed only by the processor (and the accompanying workstations) to which it is attached. Data requiring restricted access, such as payroll information, for instance, can thus be easily protected.

The 3810 processor shares its time between program generation (COBOL, RPGPLUS, BASICPLUS, and DATABUS) and hard-copy output. Equipped with the necessary print spooler software, the 3810 can support concurrent operation of multiple printers, queueing and executing print jobs requested by system users.

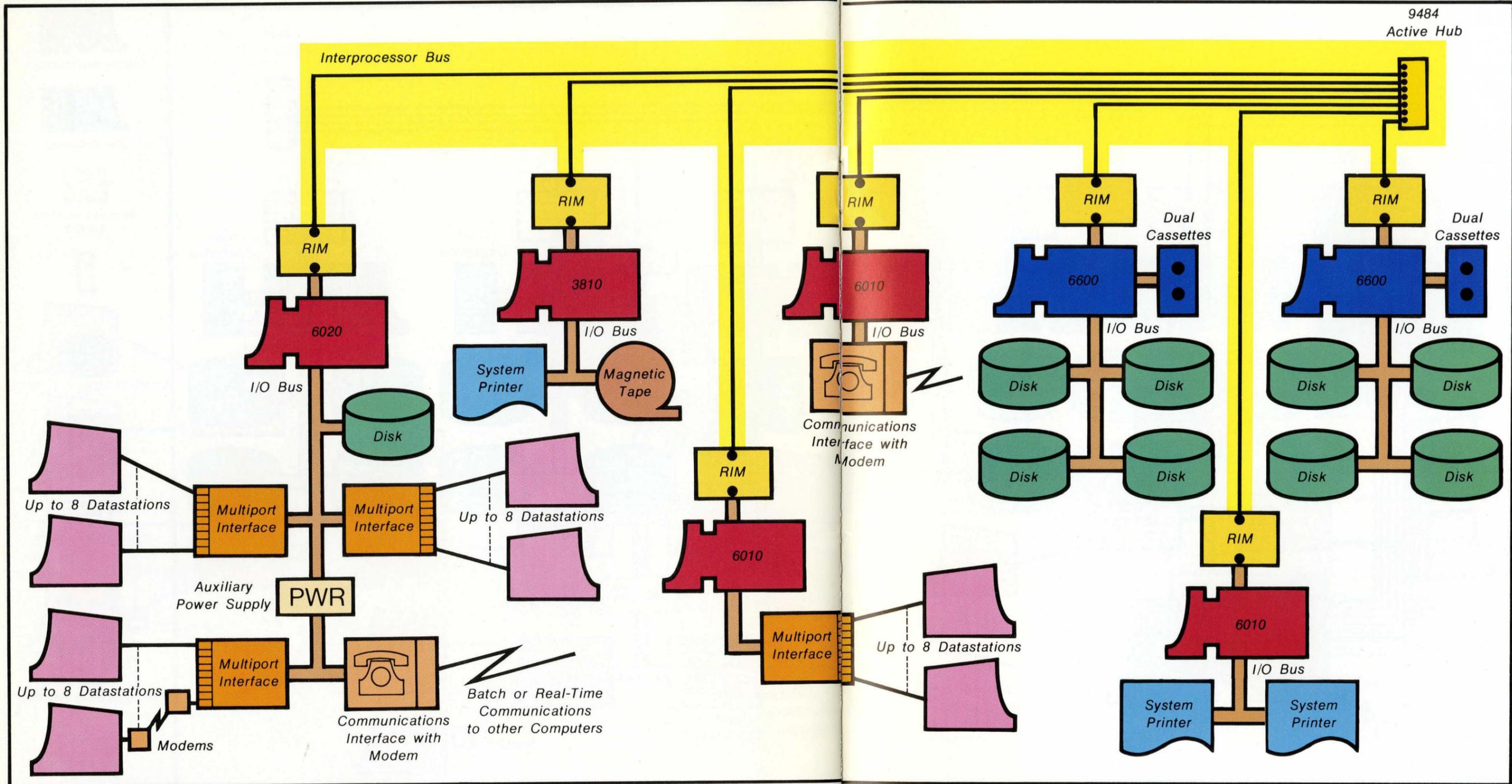
An Active Hub is required in this system since more than four RIMs are attached. Cable length between any RIM and Active Hub is restricted to 2,000 feet; multiple Active Hubs may expand the length of the interprocessor bus to up to four miles total.

**Operating System:** DOS.D and utilities.

**Languages:** DATABUS, DATASHARE, DATAFORM, COBOL, BASICPLUS, RPGPLUS, Assembler.

**Communications Options:** MULTILINK, DSNET, DATAPOLL, and IBM, Univac, and Honeywell Batch Terminal Emulators.

# MULTIFUNCTION ARC SYSTEM WITH COMMUNICATIONS



More data storage space, real-time and batch communications capabilities, and processing power expand the previous ARC system into one suited for the larger, more functionally dispersed business operation.

A communications interface is added to the 24 user DATASHARE processor to permit real-time communications to other ARC systems (or other dispersed processing systems). A 6010 processor with a communications interface is added to perform Remote Job Entry functions in connection with a remote host computer (such as a mainframe).

Another 6010 processor is added to the system along with two high-speed printers and print spooler software to perform printing tasks for all system users.

A magnetic tape drive is added to the 3810 processor performing program generation. Both printer and magnetic tape operation may be spooled.

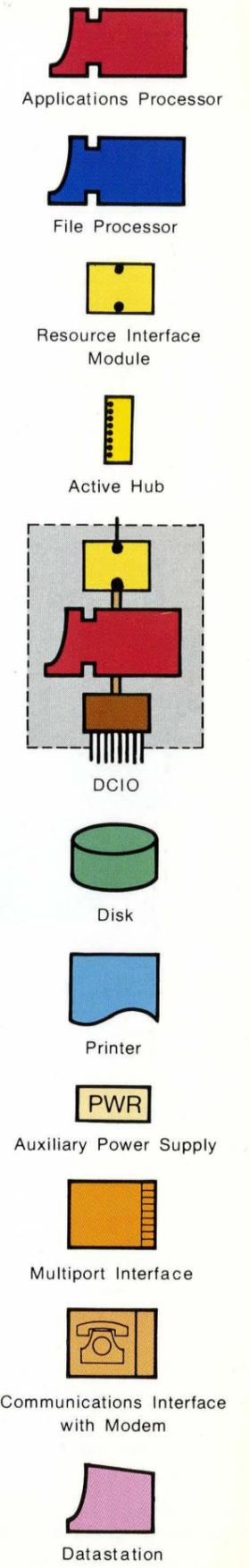
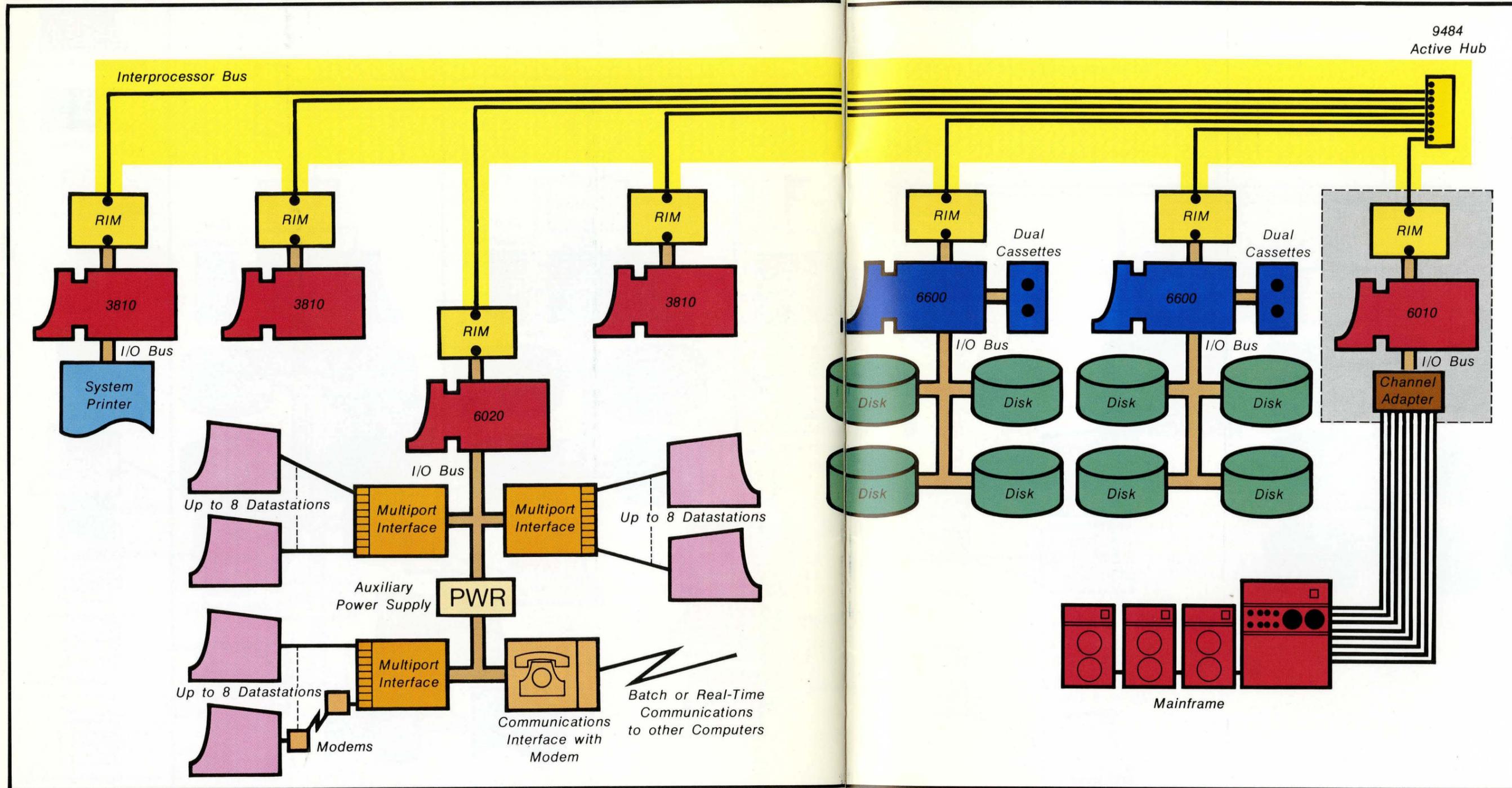
Larger capacity disk drives are substituted on the two 6600 file processors to enlarge the common data base to 400 million characters.

*Operating System:* DOS.D and utilities

*Languages:* DATABUS, DATASHARE, DATAFORM, COBOL, BASICPLUS, RPGPLUS, Assembler.

*Communications Options:* MULTILINK, DSNET, DATAPOLL, and IBM, Univac, and Honeywell Batch Terminal Emulators.

# BATCH AND TRANSACTION ARC SYSTEM WITH DCIO



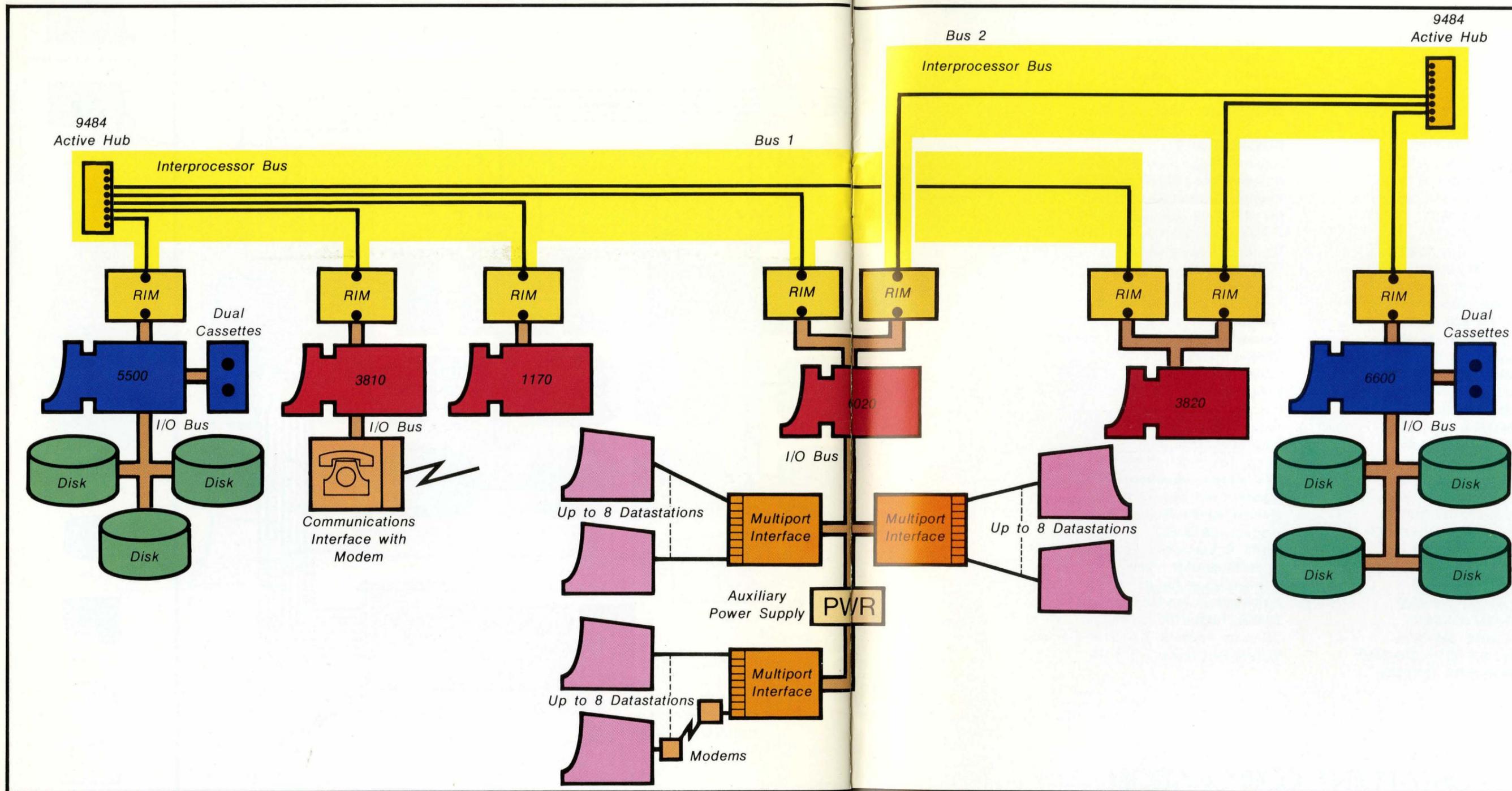
The Direct Channel Interface Option (DCIO) pictured here allows an IBM System/360 or System/370 mainframe computer to operate as an applications processor in the ARC system. Composed of a dedicated 6010 processor, a RIM, and a channel adaptor, the DCIO operates on the byte multiplexer channel of the IBM machines.

The IBM machine may run jobs in BASIC, COBOL, RPG, FORTRAN, PL1, and other languages using the ARC system common data base. Program results may then be stored in the ARC data base for use by other applications processors if necessary.

Operation of the DCIO is completely transparent to the user. Software revision, on the Datapoint and IBM members of the ARC system, is not necessary.

**Operating System:** DOS.D and utilities  
**Languages:** DATABUS, DATASHARE, DATAFORM, COBOL, BASICPLUS, RPGPLUS, Assembler.  
**Communications Options:** MULTILINK, DSNET, DATAPOLL, and IBM, Univac, and Honeywell Batch Terminal Emulators.

# ARC SYSTEM WITH RESTRICTED DATA BASE



More than one RIM may be attached to an ARC system processor to place hard-wired restrictions on certain portions of the data base.

While the 24 user DATASHARE system and the 3820 assigned to program generation can access all of the common data base, the other ARC system users may access only the data on the 5500 file processor.

Up to six RIMs may be attached to any processor, allowing an ARC system to be divided into up to six distinct subsystems.

Active Hubs are used to link this ARC system since more than four RIMs are necessary.

*Operating System:* DOS.D and utilities

*Languages:* DATABUS, DATASHARE, DATAFORM, COBOL, BASICPLUS, RPGPLUS, Assembler.

*Communications Options:* MULTILINK, DSNET, DATAPOLL, and IBM, Univac, and Honeywell Batch Terminal Emulators.