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Series 980/100, 980/200, 980/300, and 980/400

General System Configuration Information

Maximum Supported Hardware Configuration

	980/100	980/200	980/300	980/400
Supported as of MPE/iX release	Rel 2.2	Rel 3.0	Rel 3.0[1]	Rel 4.0
Typical users	175-450	250-600	325-725	400-800
Maximum connected workstations[2]	1250	1250	1250	1250
Performance relative to Series 950	3.4	5.3	6.9	8.5
Standard memory (Mbytes)	192	256	320	384
Maximum memory (Mbytes)	512	1024	1024	1024
Maximum disk (Gbytes)	300	300	300	300
Maximum disk drive total[2]	96	96	96	96
Maximum tape drive total	8	8	8	8
Maximum system printers	12	12	12	12
Maximum serial printers	104	156	156	156
Maximum DTC48s supported	48	48	48	48
Maximum number of I/O channels	12	12	12	12
Maximum number of disk I/O channels	12	12	12	12
Maximum number of HP-IB channels	12	12	12	12
Maximum number of SCSI cards	12	12	12	12
Maximum number of CIB-FL (HP-FL) channels	12	12	12	12
Maximum number of 802.3 LAN cards	2	2	2	2
Maximum number of PSI links	8	8	8	8
Maximum number of disk drives per HP-IB channel	6	6	6	6
Maximum number of disk drives per HP-FL channel	8	8	8	8
Maximum number of disk drives per SCSI channel[3]	7	7	7	7

[1]The Series 980/300 is supported on Release 3.0 plus patches
[2]Effective with MPE/iX Release 4.0
[3]Supported in 3Q92

Unique Supplied Hardware

- Dual Channel I/O Busses (CIBs)
- Two CTB adapters and 10 I/O card slots
- Two HP-IB device adapters for HP-IB devices
- One 802.3 LAN interface channel for network and data communications and terminals controller (DTC) communications
- 6 meter AUI cable, ThickLAN Transceiver and tap for SPU attachment for ThickLAN cable; ThinLAN Transceiver with integrated AUI cable for attachment to ThinLAN cable
- SPU Bay including card cages and power supplies for CPU, cache, up to four CIB adapters, up to 20 I/O card slots and up to 512 Mbytes of main memory (Series 980/100), or 1024 Mbytes (Series 980/200, 980/300, 980/400).

Memory Expansion

Memory consists of 1 Mbit RAM Error Correcting Memory configured on 16 Mbyte memory cards or 4 Mbit memory configured on 64 Mbyte cards. The Series 980 supports both 16 Mbyte (A1104A) and 64 Mbyte (A1152A) memory cards. Memory cards may be obtained by ordering multiple option 50x with the system or as stand-alone products.

Note

Series 980 systems and upgrades are provided two memory controllers which support up to 512 Mbytes each.

Interleaving is recommended for 980 memory array cards, particularly for the 980 symmetric multiprocessing systems. To achieve interleaving, memory array cards must be installed in equal amounts in each memory controller. If memory interleaving is not enabled, alternative memory configuration rules are required. Refer to "HP 3000 Series 980 / HP 9000 Model 870s Familiarization Guide" for memory configuration details with and without memory interleaving.

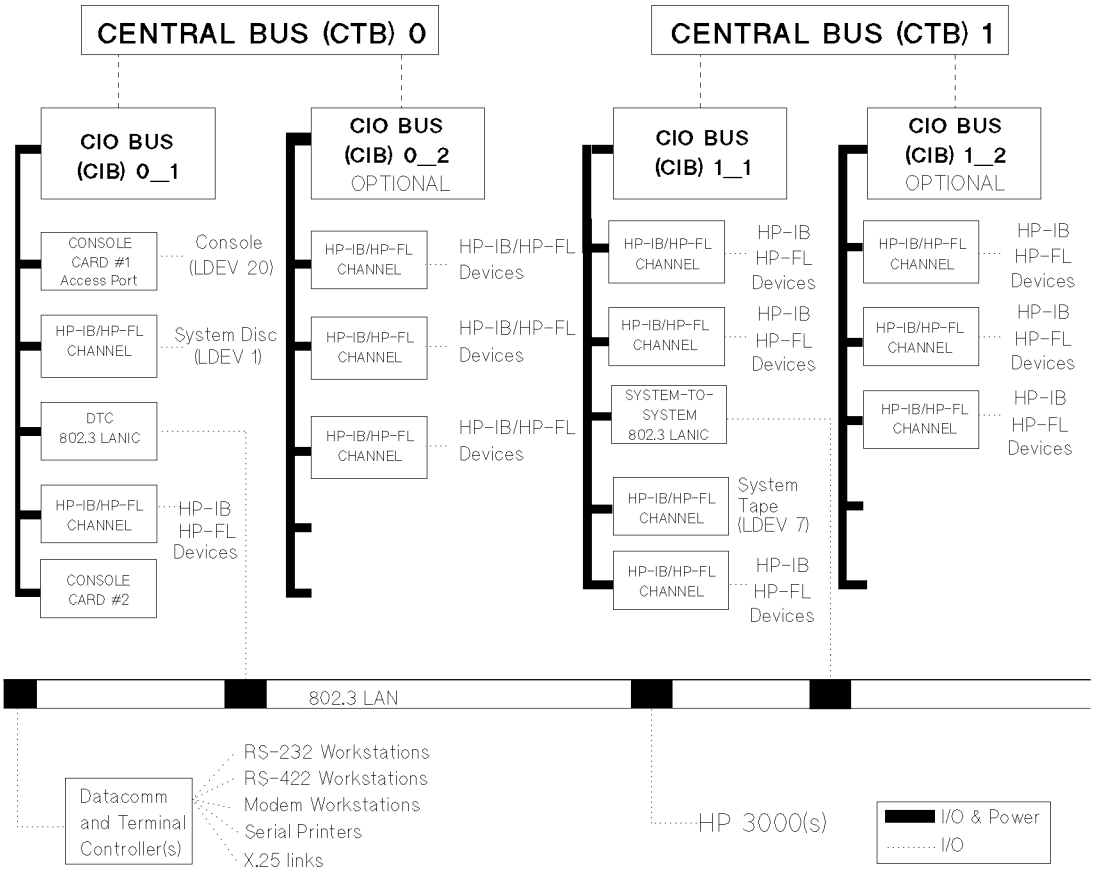
As of MPE/iX 4.0, AutoRestart/XL is supported on all system configurations containing greater than 512 Mbytes of memory. AutoRestart/XL is not supported on prior releases to MPE/iX 4.0 in certain system configurations containing greater than 512 Mbytes of memory. Consult your HP Representative before using AutoRestart/XL to determine whether or not it is supported in your configuration. In addition, AutoRestart/XL requires a separate dedicated volume set containing 1 or more volumes for dump file storage. *Refer to page 6-7 for dump file space recommendations.*

I/O Channel Configuration Information

Channel I/O Bus (CIB)

The Series 980/100, 980/200, 980/300, and 980/400 are shipped standard with two CIBs, a third and fourth are optional. They are connected to the CPU via a CIB adapter (A1101A). CIB adapters have reserved slots in the SPU, so they do not affect I/O slot configuration. Each CIB can be configured with up to 5 I/O expansion cards. Up to four CIBs may be configured in a 980/100, 980/200, 980/300, and 980/400 providing a maximum of 20 I/O expansion slots.

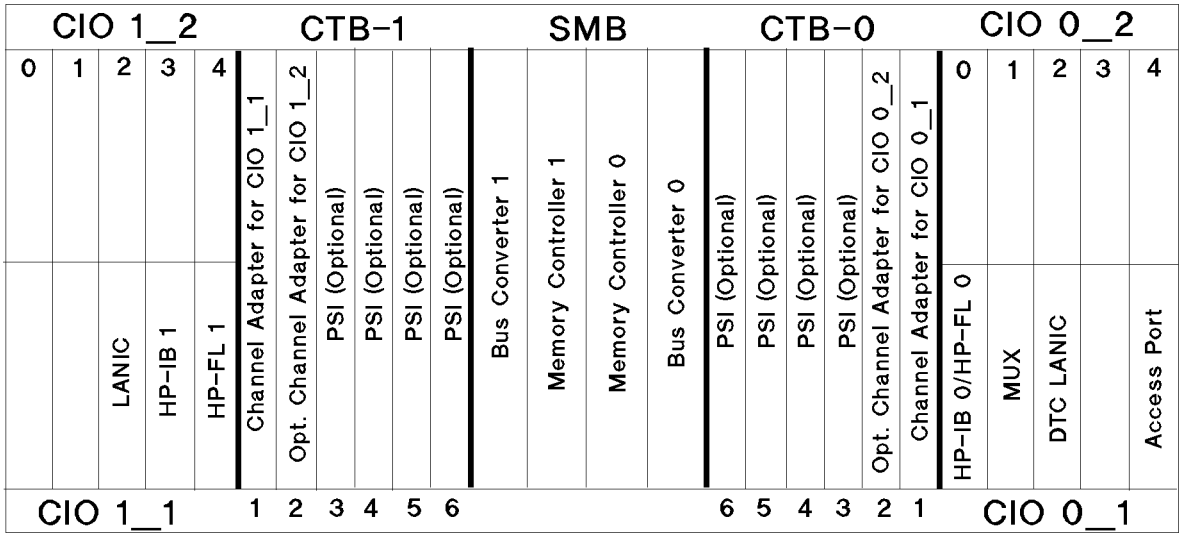
In general, the third CIB is appropriate for systems which have more than six channels installed (HP-IB, HP-FL and LAN cards), or which have more than 24 disk drives attached. A fourth CIB is appropriate for systems which have more than nine channels installed (HP-IB, HP-FL and LAN cards), or which have more than 36 disk drives attached.



Conceptual Schematic: Series 980 I/O Configuration

Slot Availability

Two VLSI CIB Adapters are included with each system. Each CIB adapter creates 5 available I/O slots. Five I/O cards are included with each system, occupying five I/O slots. Two VLSI CIB Adapters each connect the Channel I/O Bus. Two boards are supplied on the CIB for console attachment and system diagnostic support. One 802.3 LANIC board is included on the CIB for workstation attachment. Two HP-IB channel cards are supplied for peripheral connections. This leaves five I/O slots for additional HP-IB, HP-FL or LANIC cards. A third and fourth CIB adapter (A1101A) are optional. Each provides an additional 5 I/O slots.



HP 3000 Series 980 SPU (Back)

CIB Card Cage Rules

Console card #1 (Access Port PCA) must be in slot 4 of the CIB 0_1 card cage (factory installed). Console card #2 (MUX PCA) must be in slot 1 of the CIB 0_1 card cage (factory installed). Factory installed HP-IB channels are positioned for MPE/iX auto-boot capability.

The factory installed 802.3 LANIC (for DTC communication) and required second 802.3 LANIC (for system-to-system traffic) are shown in slot 2 of CIB 0_1 and slot 2 of CIB 1_1 respectively. There is a maximum of four HP-IB channels per CIB. There is a maximum of three HP-FL channels per CIB and a combined maximum of five HP-IB, HP-FL and 802.3 LANIC boards per CIB.

Note

Series 980/100, 980/200, 980/300, and 980/400 come standard with Memory Controller 0 and Memory Controller 1.

Product Summary

The Series 980/100, 980/200, 980/300, and 980/400 all share a common product option structure. The following tables represent information for all of the products and should be used with the specific Series 9xx configuration rules. They are intended as a general reference for configuring systems and some common sense should be exercised when using these product structure tables.

Common Product Structure Base Configuration

Product Number	Description
A1134A	Series 980/100 preconfigured system w/192 Mbyte memory[1]
A1149A	Series 980/200 preconfigured system w/256 Mbyte memory[1]
A1150A	Series 980/300 preconfigured system w/320 Mbyte memory[1]
A1151A	Series 980/400 preconfigured system w/384 Mbyte memory[1]
Option Number	
015	380V/50Hz System Operation
016	415V/50Hz System Operation
0E3	200 – 240 VAC operation
500	Add-on 16 Mbyte memory
502	Add-on 64 Mbyte memory
550	Substitute 1 HP-FL for 1 HP-IB
910	SQL only system (deletes TurboIMAGE)
915	TurboIMAGE - only system (deletes SQL)
920	MPE only system (deletes TurboIMAGE and SQL)

[1]All preconfigured systems include software and a class license to use MPE/iX FOS, TurboIMAGE/XL, and SQL software on the specified HP 3000 computer system.

Upgrade Options

Use the specific Series 9xx product number with the following option numbers for the appropriate upgrade, consult the *HP 3000 Computer Systems Price Guide* or CPL for pricing information.

Common Upgrade Option Structure

Option Number	Description
700	Return credit 4 Mbyte memory w/MICRO LX/GX/RX
701	Return credit 81 Mbyte disk w/MICRO LX
702	Return credit 152 Mbyte disk w/MICRO LX/GX/RX
703	Return credit 304 Mbyte disk w/MICRO LX/GX/RX
704	Upgrade MICRO 3000 or 3000LX w/2 Mbyte
705	Upgrade MICRO 3000 w/4 Mbyte 3000GX/RX w/2 Mbyte
706	Upgrade MICRO 3000XE
707	Upgrade pre-Series II/30/33, HP 2000
708	Upgrade from Series III
709	Upgrade from HP 250
710	Upgrade from HP 260
711	Upgrade Series 37,37XE,39,40 w/no memory
712	Upgrade from Series 39HP, 42, 44
713	Upgrade from Series 48 with 1 Mbyte
714	Upgrade from 42XP, 52 with 4 Mbyte
715	Upgrade from 58 with 4 Mbyte
716	Upgrade from Series 64 with 2 Mbyte
717	Upgrade from Series 68 with 2 Mbyte
718	Upgrade from Series 70 with 4 Mbyte
719	Upgrade from Series 925LX with 24 Mbyte
720	Upgrade from Series 925 with 32 Mbyte
721	Upgrade from Series 935 with 48 Mbyte
722	Upgrade from Series 949 with 64 Mbyte
723	Upgrade from Series 922LX
724	Upgrade from Series 922RX
725	Upgrade from Series 922
726	Upgrade from Series 932
727	Return 304 Mbyte disk mechanism
728	Return 670 Mbyte disk mechanism
729	Return Series 948
730	Return Series 958
731	Return Series 920

Field Upgrades

Product/Option	Description
A1137A[1]	Field upgrade to Series 980/100
871	Upgrade from Series 950, includes 128 Mbyte memory
872	Upgrade from Series 955, includes 96 Mbyte memory
873	Upgrade from Series 960, includes 64 Mbyte memory
A1138A[1]	Field upgrade to Series 980/200
020	Power option for Series 980/100 SPU with serial code prefix of 2844 or less
021	Power option for Series 980/100 SPU with serial code prefix of 2845 or greater
874[2]	Upgrade from Series 980/100, includes 64 Mbyte memory
875[3]	Upgrade from Series 980/100, includes 64 Mbyte memory
A1139A[1]	Field upgrade to Series 980/300
020	Power option for Series 980/100 SPU with serial code prefix of 2844 or less
021	Power option for Series 980/100 SPU with serial code prefix of 2845 or greater
875	Upgrade from Series 980/200, includes 64 Mbyte memory
876[2]	Upgrade from Series 980/100, includes 128 Mbyte memory
877[3]	Upgrade from Series 980/100, includes 128 Mbyte memory
A1140A[1]	Field upgrade to Series 980/400
020	Power option for Series 980/100 SPU with serial code prefix of 2844 or less
021	Power option for Series 980/100 SPU with serial code prefix of 2845 or greater
252	Card cage upgrade option for system serial number prefix $\leq$3006
253	Card cage upgrade option for system serial number prefix $\geq$3007
878	Upgrade from Series 980/300, includes 64 Mbyte memory
879	Upgrade from Series 980/200, includes 128 Mbyte memory
880	Upgrade from Series 980/100, includes 192 Mbyte memory
503	Delete 16 Mbyte memory
509	Delete 64 Mbyte memory
704	Return of MICRO 3000,3000LX with 2 Mbyte
705	Return of MICRO 3000 with 4 Mbyte, MICRO 3000GX,RX with 2 Mbyte
706	Return of MICRO 3000XE
707	Return of pre Series II,30,33,HP 2000
708	Return of Series III
709	Return of HP 250
710	Return of HP 260
711	Return of Series 37,37XE,30,40 with 0 Mbyte
712	Return of Series 39HP,42,44 with 0 Mbyte
713	Return of Series 48 with 1 Mbyte
714	Return of Series 42XP,52 with 4 Mbyte
715	Return of Series 58 with 4 Mbyte
716	Return of Series 64 with 2 Mbyte
717	Return of Series 68 with 2 Mbyte
718	Return of Series 70 with 4 Mbyte

[1]The field upgrade requires the return of the original processor board. With the 950, 955 and 960, the return of the PDH board is also required.

[2]Required option if the Processor Reference Label, PRL-V2, does not exist on the Series 980/100.

[3]Required option if the Processor Reference Label, PRL-V2, does exist on the Series 980/100. This would be located near the SPU serial number.

Note

HP's policy for upgrading HP 3000 systems mandates that systems must be returned for credit and must have been installed at customer's site at least 6 months. Customer must provide documentation of installation date or proof of support for at least 6 months.