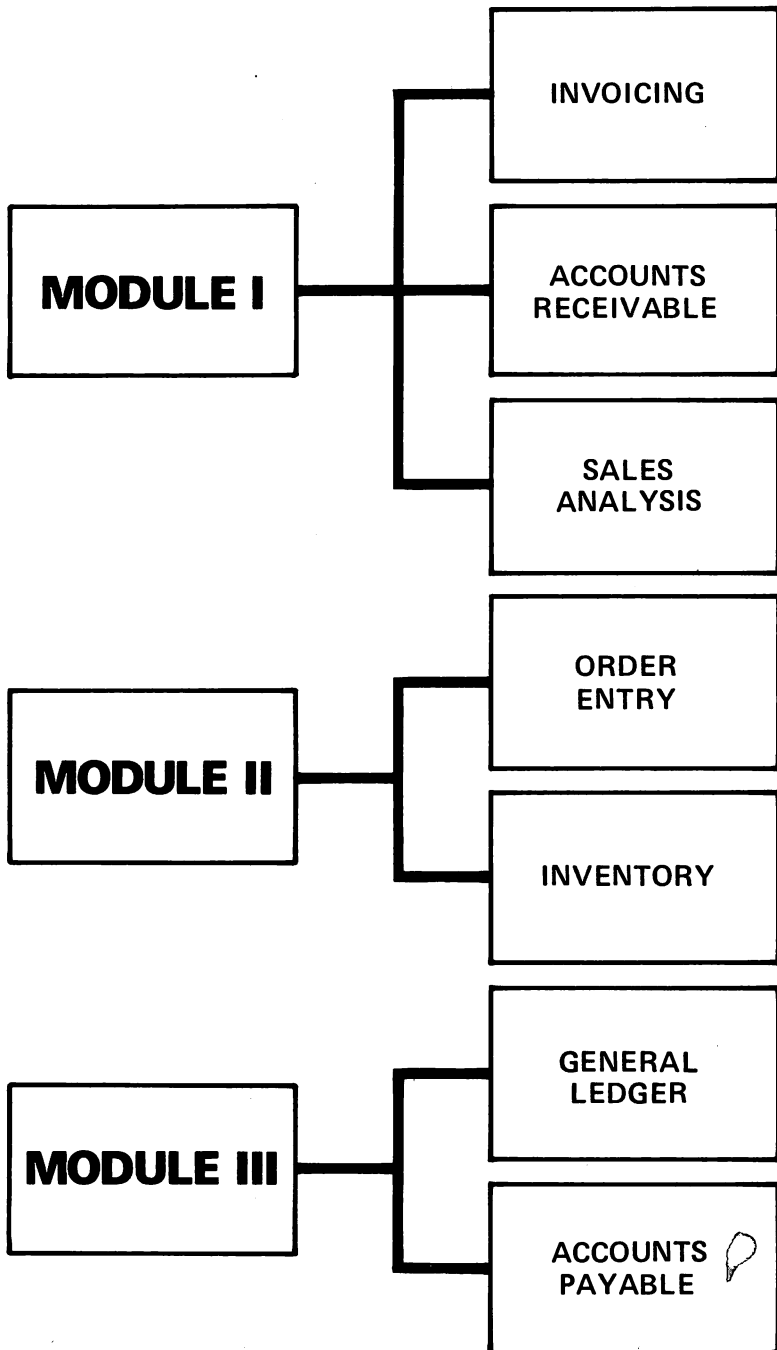
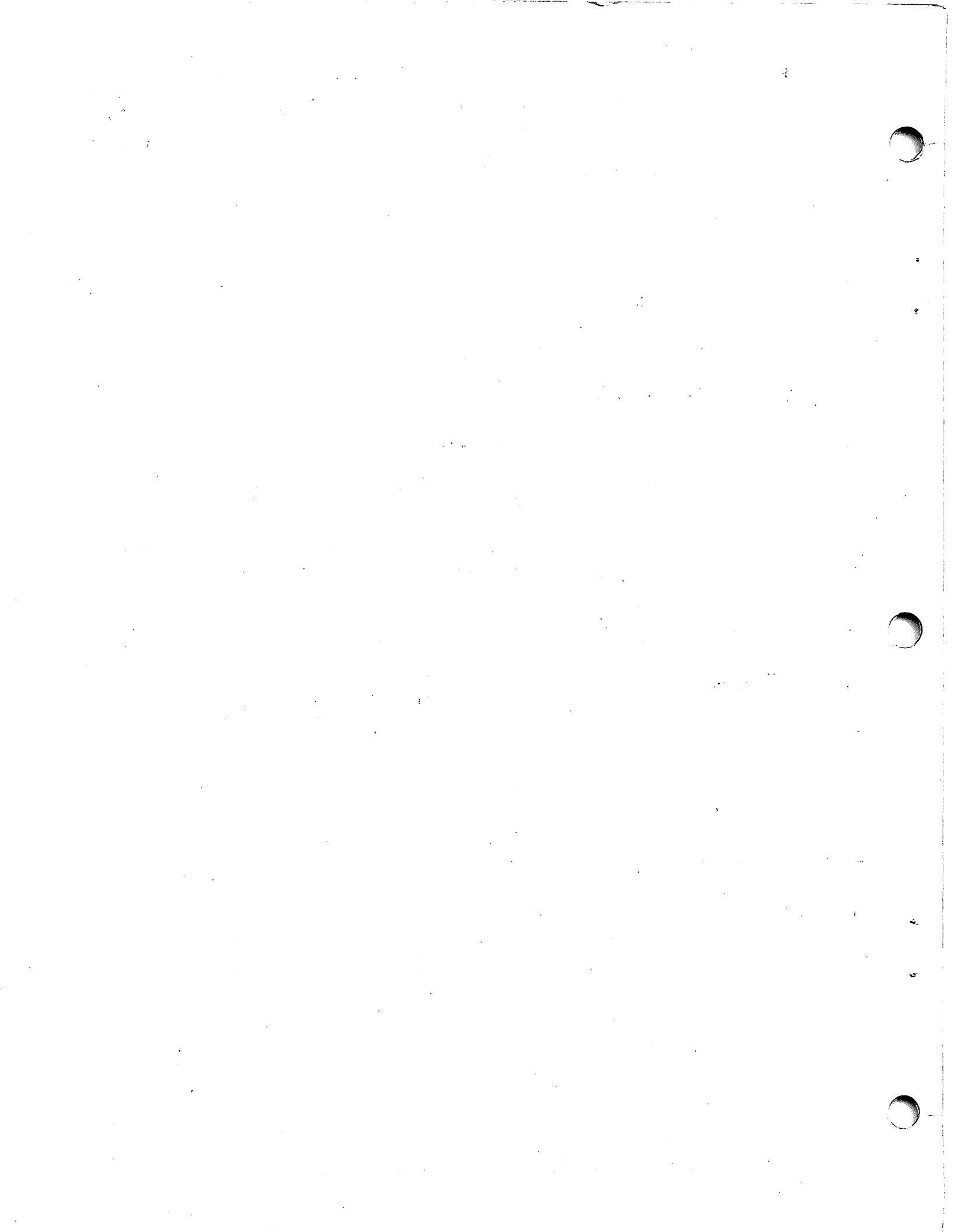


INTRODUCING GBS





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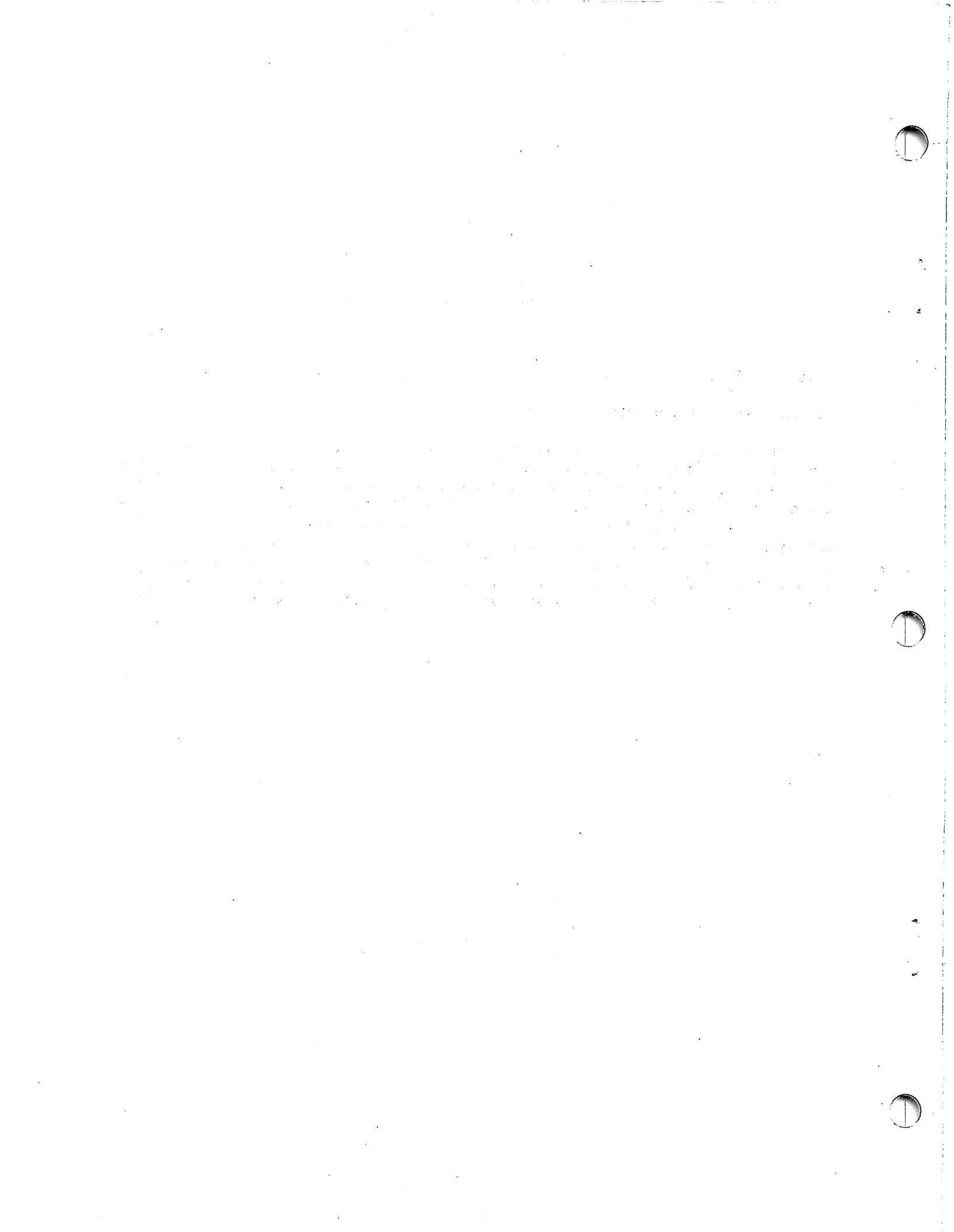


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What is GBS?

The Application Program Tool General Business System (GBS) has been designed to assist software vendors in the development of business application software for end-users. GBS is designed primarily for use on our WCS/20 and WCS/30 hardware. Because of its large size, GBS has been divided into four modules:

- . MOD I Invoicing, Accounts Receivable, Sales Analysis
- . MOD II Order Entry, Inventory
(MOD I is a prerequisite for Mod II)
- . MOD III Accounts Payable, General Ledger
- . MOD IV Payroll

MODS I and II are intended to be used together; MOD I can be used alone but the user of MOD II must have MOD I programs and documentation. MOD III and MOD IV are stand-alone modules.

Is GBS a turnkey system?

GBS is not intended to be a turnkey system; it has been designed to include these applications judged most common to the largest population of users, in particular the small and medium sized business. It is expected that software vendors will perform all installations and make the appropriate modifications to the system for the user. GBS has specifically been designed with vendor modifications in mind to provide the most comprehensive business-application package which can be modified with the minimum effort by the vendor. At minimum, the vendor must decide on file allocations and set up the system on the user's hardware. If necessary, the vendor can make important modifications to the system.

What is the overall design of GBS like?

A number of important standards and principals have been adhered to throughout the development of GBS:

- . common utilities and subroutines have been used throughout the system for similar repetitive tasks.
- . Wang's KFAM (Keyed File Access Method) has been extensively used for file handling.
- . Wang's latest SORT utility has been used for file sorting and rearrangement.
- . file I/O routines have been modularized to minimize potential program changes in read/write routines.
- . I.S.S. utilities have been included in the package to simplify program modifications and maintenance.
- . the Report Generator Utility program has been included to simplify report programming.
- . a strict set of rules for naming variables and numbering program line numbers has been established and maintained.
- . efficient field layouts have been utilized to optimize file usage.
- . file handling and updating has been optimized with diskette and hard disk random access capabilities.
- . most critical files are updated on-line in the diskette system. All files in the disk system are updated on-line.
- . time consuming merge operations are completely eliminated in the disk system.
- . file backup procedures are provided as part of the standard operating system.
- . upgrade ability from diskette to disk system is ensured by keeping file layouts identical.

What computers are required to run GBS?

GBS exists in two forms, a 'junior' and a 'senior' version. The 'junior' version runs on a WCS/20 and uses diskettes for all programs and files. The 'senior' version runs on a WCS/30 and uses hard disks for programs and data files. Both versions require 24K RAM and a printer, either a 2221W or a 2231W-2. GBS programs were originally written for the 2221W; however all programs which produce printed output on pre-printed forms have been modified to print on the 2231W-2 which has a shorter line length. These modified programs are available from the home office.

What computer is required to set up a GBS installation?

All GBS modules for either disk or diskette systems are distributed to vendors on diskettes. It is up to the vendor to perform the transfer of program files to hard disks if he is installing a hard disk system. If a vendor is making a diskette installation on a WCS/20, the diskette drives are available for accessing the GBS diskette-based routines. If he is making a disk installation on a WCS/30, he must have available at least one diskette unit to read the diskette-based disk routines.

How do the diskette and disk versions of GBS differ?

The diskette version of GBS is merely a subset of the disk version. It includes all of the important program capabilities and is principally limited by the size of data files which can be accommodated. Additionally, the GBS control file, which is available as a potential catch-all and audit trail on the disk system, has been reduced to a single sector containing A/R balance, next invoice number, etc., in the diskette system. Since diskettes have significantly smaller file capacity than disks, files have been segregated onto several diskettes in the diskette system although they all reside on the fixed and removable disks in the disk system. Established programming rules have ensured that file formats are identical in the two versions.

In detail, what is in MOD I?

MOD I contains Invoicing, Accounts Receivable and Sales Analysis. The invoicing system is a post-billing system which has automatic access to pre-established customer, salesman and inventory files. The customer file contains:

- . customer number
- . customer name and address
- . ship-to-code
- . location code
- . discount class
- . credit limit
- . salesman number
- . service charge code
- . phone number
- . price code (which of three inventory prices to use)
- . A/R code (open item or balance forward)
- . partial shipment code
- . current balance
- . current month cost
- . YTD cost
- . current month sales
- . YTD sales
- . date of last payment
- . date of last transaction
- . ship-to-address

The inventory file contains:

- . product ID with expandable grouping feature
- . product description
- . unit of shipment (ea., qt., lb., etc.)
- . date of last sale
- . vendor lead time (for ordering)
- . alternate ID for substitute product
- . quantity on hand
- . quantity on order
- . reorder point
- . units sold in current month
- . YTD units sold
- . average unit cost
- . last purchase unit cost
- . total cost (average unit cost times quantity on hand)
- . month-to-date total units sold
- . month-to-date total sales dollars of units sold
- . YTD cost of all units sold
- . YTD total sales dollars of units sold
- . three unit sale prices

The salesman file contains:

- . salesman number
- . salesman name
- . territory covered
- . month-to-date sales dollars of units sold
- . YTD sales dollars of units sold
- . current month cost of units sold
- . YTD cost of units sold

The accounts receivable system interfaces automatically with the invoicing system through the invoice transaction file and updates the open item file and the control file as needed. The open item file carries all the information needed for keeping track of accounts and sending out the appropriate statements.

The open item file contains:

- . customer number
- . invoice number
- . transaction code to specify transaction type:
 - . balance forward
 - . unapplied payment
 - . debit memo
 - . credit memo
 - . previous month service charge
 - . invoice
 - . payment
 - . current month service charge

- . aging code:
 - . current
 - . 31 to 60 days
 - . 61 to 90 days
 - . over 90 days
- . dispute code
- . referenced invoice number (for credit, debit memos)
- . invoice amount
- . discount and allowance amount
- . amount paid
- . check reference number
- . transaction date
- . current amount due
- . past amounts due (31 to 60, 61 to 90, over 90) for balance forward customer
- . service charge amounts (current, 31 to 60, 61 to 90, over 90) due

What about MOD II?

MOD II contains order-entry invoicing, inventory reporting and programs for the reporting of physical inventory. The order-entry system uses the master files created in MOD I, updating them as appropriate to maintain accurate records and keep the open item file up-to-date. MOD I is thus a prerequisite for MOD II. MOD II additionally contains the open order file in which the following information is stored:

- . order date
- . terms description
- . terms discount
- . terms due date
- . three sales tax indicators
- . invoice discount (percentage)
- . partial shipment code
- . price code
- . order number
- . sequence number
- . product number
- . product description
- . location code
- . price override
- . taxable code
- . unit of measure
- . quantity ordered
- . quantity released
- . discount percent
- . unit price
- . net amount

What forms and reports are prepared by GBS MODS I and II?

MOD I prepares the following documents on prepared forms:

- . invoices
- . statements

It also prepares the following reports:

- . invoice register
- . A/R transaction report
- . aging and service charge report
- . aged trial balance
- . purge audit report
- . customer credit report
- . customer list
- . customer maintenance audit report
- . control file list (disk only)
- . open item list
- . inventory transaction report
- . inventory maintenance audit report
- . inventory list
- . salesman list
- . salesman maintenance audit report
- . sales analysis by product, customer and salesman

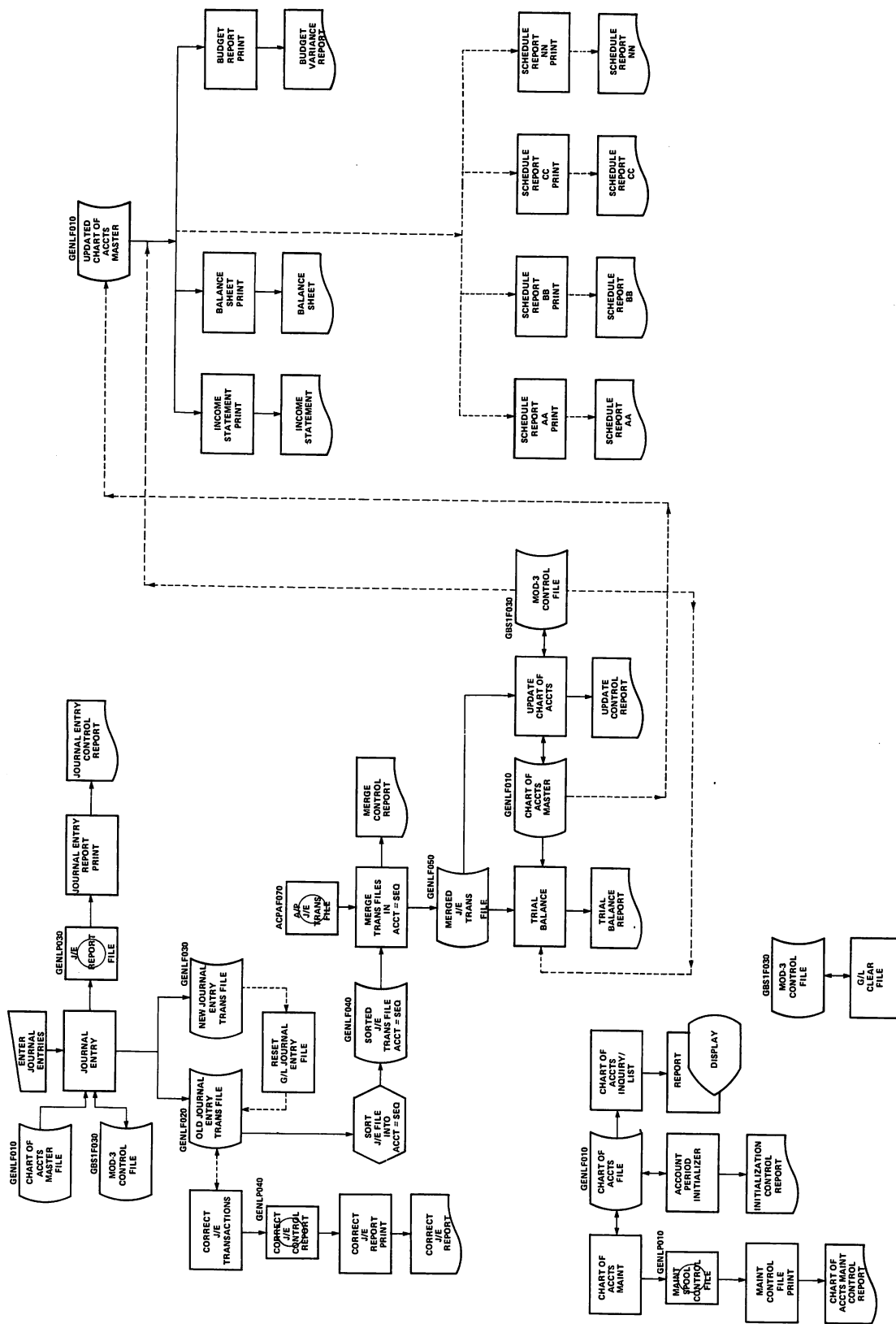
MOD II prepares the following documents:

- . shipping papers
- . detail order register
- . summary order register
- . detail lost sale/estimated shortage report
- . summary lost sale/estimated shortage report
- . adjustment report
- . shipping confirmation invoices
- . detail shipping register
- . summary shipping register
- . detail shipping shortage report
- . summary shipping shortage report
- . open order file list
- . low stock report
- . inventory maintenance report
- . inventory transaction report
- . stock status report
- . inactive item report
- . inventory file report
- . physical inventory sheets
- . inventory variance report

What about MOD III?

MOD III prepares the accounts payable and general ledger reports as follows:

- . chart of accounts list (detail or summary)
- . A/P open item list
- . A/P distribution report
- . journal entry correction report
- . A/P transaction report
- . open item maintenance report
- . check register
- . checks
- . check control report
- . A/P update report
- . vendor maintenance report
- . vendor list
- . journal entry control report
- . merge journal entry control report
- . update control report
- . chart of accounts maintenance report
- . account period initialization report
- . trial balance report
- . income statement
- . balance sheet
- . budget variance report
- . schedule reports



GBS - GENERAL LEDGER

WHAT KIND OF THROUGHPUT CAN BE ACHIEVED WITH EACH CONFIGURATION?

On the average, there is a significant difference between the number of invoices, statements and shipping confirmations which can be output with each different equipment configuration.

For example, with a 2200 diskette system:

To run Invoice Create, Print, and Update: approx 11* invoices/hour.

To run A/R Aging, ATB, Statements and Purge: approx 277 statements/hour.

To run Shipping Confirmation with Invoice Print and Update: approx 12* invoices/hour.

To run Order Entry, with Print and Update: approx. 10* invoices/hour.

With a 2200 hard disk system:

To run Invoice Create, Print and Update: approx 12* invoices/hour.

To run A/R Aging, ATB, Statements and Purge: approx 356* statements/hour.

To run Shipping Confirmation with Invoice Print and Update: approx 16* invoices/hour.

To run Order Entry, with Print and Update: approx. 11* invoices/hour.

With a 2200 VP diskette system:

To run Invoice Create, Print and Update: approx. 27* invoices/hour.

To run A/R Aging, ATB, Statements and Purge: approx. 923* statements/hour.

To run Shipping Confirmation with Invoice Print and Update: approx. 41* invoices/hour.

To run Order Entry, with Print and Update: approx. 28* invoices/hour.

*Average 15 lines per invoice

With a 2200 VP hard disk system:

To run Invoice Create, Print and Update: approx. 32* invoices/hour.

To run A/R Aging, ATB, Statements and Purge: approx. 1241* statements/hour.

To run Shipping Confirmation with Invoice Print and Update: approx. 84* invoices/hour.

To run Order Entry, with Print and Update: approx. 33* invoices/hour.

Detailed timing information for the programs of MODs I and II is provided on the next few pages.

*Average 15 lines per invoice

All times are in seconds.

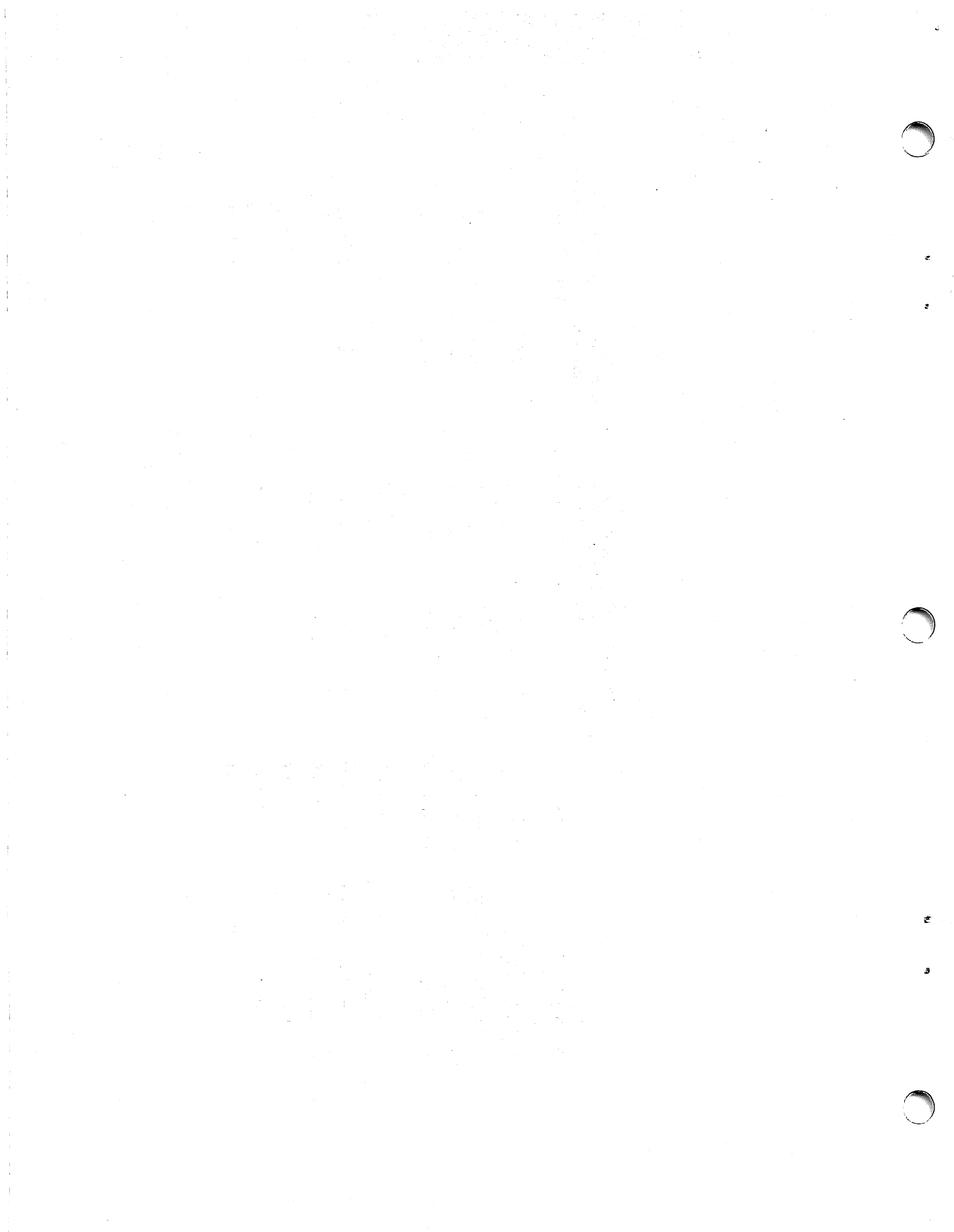
		2200T				2200VP			
		DKT		DK		DKT		DK	
		PER UNIT	UNITS/ HR	PER UNIT	UNITS/ HR	PER UNIT	UNITS/ HR	PER UNIT	UNITS/ HR
Invoicing	5 lines	180	20	178	20	75	48	63	57
	10	254	14	239	15	102	35	87	41
	15	325	11	309	12	133	27	114	32
(Invoice Create, Print & Update)									
Order Entry	5	165	22	154	23	62	58	54	67
	10	263	14	244	15	96	38	79	46
	15	356	10	323	11	127	28	108	33
(Order Entry, Print, Update)									
Shipping	5	194	19	142	25	65	55	28	129
Conf	10	239	15	180	20	71	51	32	113
	15	293	12	224	16	87	41	43	84
(Shipping Confirmation Entry, Print & Update)									
Month End (Aging, ATB, Stmts, Purge)		13	277	10.1	356	3.9	923	2.9	1241

FUNCTION	UNIT	2200 DISKETTE		VP DISKETTE		VP DISK	
		TIME PER UNIT	NO. OF UNITS/HR.	TIME PER UNIT	NO. OF UNITS/HR.	TIME PER UNIT	NO. OF UNITS/HR.
1. CUSTOMER FILE MAINTENANCE (ADD CUSTOMER TO FILE)	CUSTOMER	71	51	68	53	49	74
2. INVENTORY FILE MAINTENANCE (ADD PRODUCT TO FILE)	PRODUCT	62	58	58	62	40	100
3. SALESMAN FILE (ADD SALESMAN TO FILE)	SALESMAN	27	133	16	225	18	360
4. INVENTORY TRANSACTION ENTRY	ENTRY	10	360	9	400	6	600
5. INVOICE CREATE (NO PRINT) (5 LINE ITEMS PER INVOICE)	INVOICE	108	33	116	31	49	78
6. INVOICE PRINT (5 LINE ITEMS PER INVOICE)	INVOICE	17	212	17	212	11	327
7. INVOICE UPDATE (5 LINE ITEMS PER INVOICE)	INVOICE	55	65	45	80	15	600
8. INVOICE CREATE (NO PRINT) (10 LINE ITEMS PER INVOICE)	INVOICE	157	23	158	23	69	55
9. INVOICE PRINT (10 LINE ITEMS PER INVOICE)	INVOICE	22	164	21	171	14	257
10. INVOICE UPDATE (10 LINE ITEMS PER INVOICE)	INVOICE	75	48	60	60	19	514
11. INVOICE CREATE (NO PRINT) (15 LINE ITEMS PER INVOICE)	INVOICE	198	18	200	18	88	43
12. INVOICE PRINT (15 LINE ITEMS PER INVOICE)	INVOICE	34	106	32	113	23	164
13. INVOICE UPDATE (15 LINE ITEMS PER INVOICE)	INVOICE	93	39	77	47	22	400
14. ORDER ENTRY (NO PRINT) (5 LINE ITEMS PER ORDER)	ORDER	121	30	116	31	46	86

FUNCTION	UNIT	2200 DISKETTE		2200 DISK		VP DISKETTE		VP DISK	
		TIME PER UNIT	NO. OF UNITS/HR.	TIME PER UNIT	NO. OF UNITS/HR.	TIME PER UNIT	NO. OF UNITS/HR.	TIME PER UNIT	NO. OF UNITS/HR.
15. ORDER ENTRY PRINT (5 LINE ITEMS PER ORDER)	ORDER	17	212	17	212	9	400	9	400
16. ORDER ENTRY UPDATE (5 LINE ITEMS PER ORDER)	ORDER	27	133	21	171	7	514	3	1200
17. ORDER ENTRY (NO PRINT) (10 LINE ITEMS PER ORDER)	ORDER	197	18	188	19	74	49	65	55
18. ORDER ENTRY PRINT (10 LINE ITEMS PER ORDER)	ORDER	23	157	23	157	12	300	12	300
19. ORDER ENTRY UPDATE (10 LINE ITEMS PER ORDER)	ORDER	43	84	33	109	10	360	2	1800
20. ORDER ENTRY (NO PRINT) (15 LINE ITEMS PER ORDER)	ORDER	268	13	249	14	99	36	88	41
21. ORDER ENTRY PRINT (15 LINE ITEMS PER ORDER)	ORDER	30	120	29	124	15	240	15	240
22. ORDER ENTRY UPDATE (15 LINE ITEMS PER ORDER)	ORDER	58	62	45	80	13	277	5	720
23. SHIPPING CONFIRMATION (5 LINE ITEMS PER ORDER)	INVOICE	75	48	54	67	18	200	9	400
24. SHIPPING CONFIRMATION PRINT (5 LINE ITEMS PER ORDER)	INVOICE	20	180	19	189	11	327	11	327
25. SHIPPING CONFIRMATION UPDATE (5 LINE ITEMS PER ORDER)	INVOICE	99	36	69	52	36	100	8	450
26. SHIPPING CONFIRMATION (10 LINE ITEMS PER ORDER)	INVOICE	89	40	60	60	22	164	8	450
27. SHIPPING CONFIRMATION PRINT (10 LINE ITEMS PER ORDER)	INVOICE	25	144	24	150	14	257	14	257
28. SHIPPING CONFIRMATION UPDATE (10 LINE ITEMS PER ORDER)	INVOICE	125	29	96	38	35	103	10	360

FUNCTION	UNIT	2200 DISKETTE		2200 DISK		VP DISKETTE		VP DISK	
		TIME PER UNIT	NO. OF UNITS/HR.	TIME PER UNIT	NO. OF UNITS/HR.	TIME PER UNIT	NO. OF UNITS/HR.	TIME PER UNIT	NO. OF UNITS/HR.
29. SHIPPING CONFIRMATION (15 LINE ITEMS PER ORDER)	INVOICE	105	34	67	54	28	129	9	400
30. SHIPPING CONFIRMATION PRINT (15 LINE ITEMS PER ORDER)	INVOICE	37	97	34	106	23	157	22	164
31. SHIPPING CONFIRMATION UPDATE (15 LINE ITEMS PER ORDER)	INVOICE	151	24	123	29	36	100	12	300
32. INVENTORY STOCK STATUS REPORT	PRODUCT	2	1800	1.6	2250	1.4	2571	1.3	2769
33. A/R TRANSACTION ENTRY	TRANSACTION	24	150	23	157	11	327	10	360
34. A/R AGING WITH SVC. CHG. CALC.	ITEM	4	900	3	1200	.8	4500	.4	9000
35. A/R AGED TRIAL BALANCE	ITEM	2	1800	1.6	2250	.5	7200	.4	9000
36. A/R STATEMENTS	ITEM	4	900	3	1200	1.8	2000	1.7	2118
37. A/R PURGE	ITEM	3	1200	2.5	1440	.8	4500	.4	9000
38. A/R FILE BUILD	ITEM	17	212	15.6	231	10	360	10	360
39. VENDOR FILE MAINTENANCE (ADD VENDOR TO FILE)	VENDOR	50	72	43	84	32	113	29	124
40. CHART OF ACCTS. MAINTENANCE (ADD ACCT. WITH BUDGET FIGURES)	ACCOUNT	76	47	83	43	40	90	42	86
41. CHART OF ACCTS. MAINTENANCE (ADD ACCT. WITHOUT BUDGET FIGURES)	ACCOUNT	44	82	41	88	23	157	20	180
42. A/P TRANSACTION ENTRY	TRANSACTION	77	47	60	60	42	86	28	129
43. A/P OPEN ITEM PRINT	OPEN ITEM	8	450	7	514	2.3	1565	1.8	2000
44. PAYMENT SELECTION	OPEN ITEM	7	514	6	600	1.4	2571	.6	6000
45. CHECK PRINT	CHECK	12	300	12	300	6	600	5	720
46. SORT FOR CHECK REGISTER (INCLUDES MANUAL AND AUTOMATIC CHECKS)	CHECK	4	900	2.2	1636	2.1	1714	.5	7200
47. CHECK REGISTER PRINT	CHECK	1.6	2250	1.4	2571	1.2	3000	1.2	3000
48. OPEN ITEM AND VENDOR UPDATE	TRANSACTION	12	300	9	400	4	900	1.3	2769
49. DISTRIBUTION SORT	JOURNAL ENTRY	3	1200	1.9	1894	1.3	2769	.4	9000

FUNCTION	2200 DISKETTE		2200 DISK		VP DISKETTE		VP DISK		
	UNIT	NO. OF UNITS/HR.	UNIT	NO. OF UNITS/HR.	UNIT	NO. OF UNITS/HR.	UNIT	NO. OF UNITS/HR.	
50. DISTRIBUTION REPORT (DETAIL)	JOURNAL ENTRY	5	720	5	720	3	1200	2.9	1241
51. JOURNAL ENTRY TRANSACTIONS	JOURNAL ENTRY	26	138	25	144	16	225	15	240
52. SORT JOURNAL ENTRIES	JOURNAL ENTRY	3	1200	1.5	2400	1.3	2769	.3	12000
53. MERGE JOURNAL ENTRIES	JOURNAL ENTRY	1	3600	.9	4000	.4	9000	.3	12000
54. TRIAL BALANCE (DETAIL)	JOURNAL ENTRY	7	514	7	514	3	1200	2.7	1333
55. TRIAL BALANCE (SUMMARY)	JOURNAL ENTRY	7	514	6	600	2.8	1286	1.2	3000
56. CHART OF ACCTS. UPDATE	JOURNAL ENTRY	3	1200	2.3	1565	1.5	2400	.3	12000
57. INCOME STATEMENT	ACCOUNT	3	1200	3	1200	.9	4000	.8	4500
58. BALANCE SHEET	ACCOUNT	2	1800	1.7	2117	.9	4000	.5	7200
59. BUDGET REPORT	ACCOUNT	4	900	3	1200	1.5	2400	1.5	2400
60. ACCT. PERIOD INITIALIZER	ACCOUNT	1.6	2250	1.3	2769	.4	9000	.2	18000



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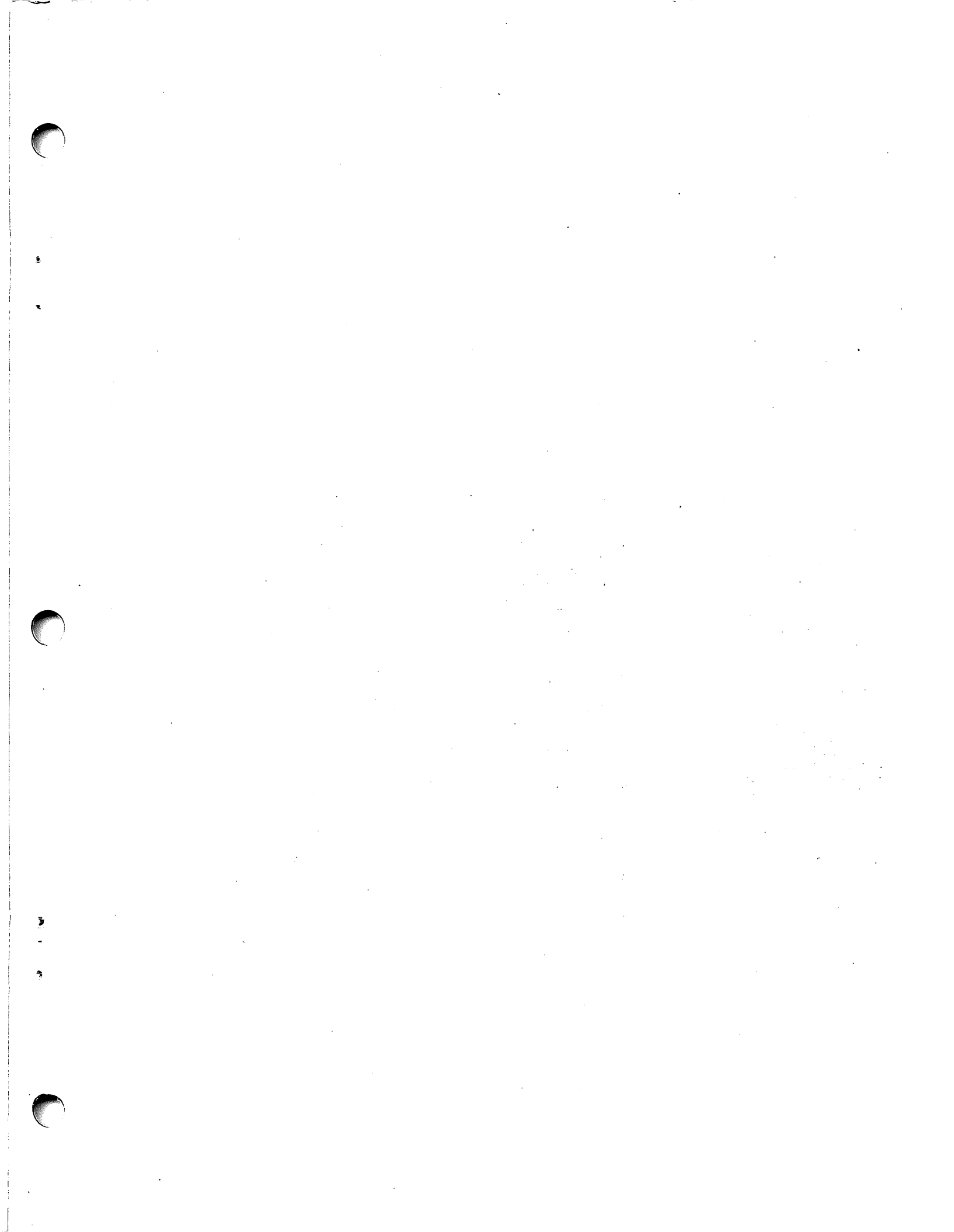
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