Accumulative Index of Publications and Programs

Section 1: Form Numbers of publications included in the 1401/1460 Systems Reference Library are listed below, with the edition suffix of all current editions shown. When more than one edition of a publication is current, the form number is followed by *. Any Technical Newsletter applying to later edition also applies to all prior editions but is only listed once. If the changes released in Technical Newsletter are inserted in their proper place, each current edition will correspond to any of the others. # These items are for World Trade Use Only. Not Available in U.S.A.

Changes since the last edition of this Newsletter are bracketed.

SUBJ CODE	FORM NUMBER	TECHNICAL NEWSLETTERS		TITLE
00 GENERAL INFORMATION				
	A24-1495-3			1401 and 1460 Bibliography
	(A24-3089-5)			SRL Bibliography Supplement - Tele-processing and Data Collection
	A24-1401-1			1401 System Summary
	A24-3165-1			1401 G System Summary
	(A24-3476-0			1401 H System Summary)
	A24-1496-1			1460 System Summary
	A24-1491-2			1401 Configurator
	A24-3164-2*			1401 Model G Configurator
	A24-3164-3*			
	(A24-3494-0			1401 Model H Configurator)
	A24-1497-4			1460 Configurator
01 MACHINE SYSTEM				
	A24-3067-2			1401/60 System Operation Reference Manual
	A24-3070-1*			1401/60 Disk Storage Input/Output Instructions
	A24-3070-2*			
	A24-3068-0*	N24-0195		1401/60 Miscellaneous Input/Output Instructions
	A24-3068-1*	N24-0363		
	A24-3068-2*	N24-0393		
	G24-1477-0			1401 Bulletin - 1401 Data Flow
	A24-6447-1*	N24-0284		1401/60 Instructions and Timing Summary
	A24-6447-2*			
	A24-3144-2			1401 Operator's Guide
	J22-6690-2			1401 1410 7040/44 Bulletin - Standard BCD Interchange Code
	A24-3069-0*	N24-0137		Tape Input/Output Instructions
	A24-3069-1*			
	A24-3069-2*			
03 INPUT/OUTPUT				
	A26-5754-0	N26-0069		1011 Paper Tape Reader
	A26-5776-0*	N26-0059	N26-0074	1012 Tape Punch
	A26-5776-1*			
	A24-1499-2*	N24-0384		1219 Reader Sorter - 1419 Magnetic Character Reader
	A24-1499-3*			
	A21-9012-3*	N21-0047		1231/1232 Optical Mark Page Readers
	A21-9012-4*	N21-0064	N21-0067	
	A21-9012-5*			
	A24-3256-3			1285 Optical Reader Component Description
	A24-3072-1			1402 Card Read-Punch
	A24-3073-3*	N24-0374	N24-0380	1403 Printer Component Description
	A24-3073-4*	N24-0398		
	A24-3041-2			1403 and 1443 Printers Form Design Considerations
	A24-1446-1			1404 Printer
	A24-1421-1*	N24-0253		1412 Magnetic Character Reader Model 1 - Reference Manual
	A24-1421-2*	N24-0316	N24-0354	

Requests for copies of the publications listed herein or for changes to SRL Revision Service subscriptions should be directed to your IBM representative or the IBM Branch Office serving your locality.

PRINTED IN U.S.A.

C24-1489-2*	N24-0200		Input/Output Control System (on Disk) for 1401/60 Specifications
C24-1489-3*			
C24-3237-1	N21-5017		Input/Output Control Program Specifications 1401/40/60 with 1285 Optical Reader
A19-0009-0#			1401-1419 Expanded Codeline Input/Output Control Program
C24-3047-2			Input/Output Control System Specifications 1460 with 1448 (1401/60 Communications Input/Output Control System - 1448 Direct Data Channel)
C24-3025-3			Direct Data Channel Input/Output Control System for 1401/40/60: Specifications (Communications Input/Output Control System)
C24-3298-0			1401/60 Input/Output Control System (on Disk) Operating Procedures
C24-3174-1			Communications Input/Output Control System Operating Procedures for 1401/60 (1401/60 Communications Input/Output Control System - 1448/Direct Data Channel)
C24-3341-0			1401/40/60 ON-Line Testing

32 UTILITY PROGRAMS

C24-3191-1			1401/40/60 - Data Communications Utility Programs for 1009 Specifications and Operating Procedures
J24-1463-0			1401 - 1009 Utility Programs: Preliminary Specifications
C24-1484-2*	N21-0054	N21-5001	1401/40/60 Disk Utility Programs Specifications (with 1301/1311)
	N24-0287		
C24-1484-3*			
J24-1411-1*			Utility Programs for 1401 Tape Systems: Preliminary Specifications
J24-1411-2*	N21-0030		
C24-3156-1	N24-0213		1401/60 Tape Utility Programs with 120-Character Label Capability: Specifications and Operating Procedures 1401-UT-025
J24-1428-2			1401 Multiple Tape Utility Program Specifications and Operating Procedures
C24-3273-0	N24-0215		1401/60 Multiple Tape Utility Program (Incorporating 120-Character Labels) Specifications and Operating Procedures
C24-1439-0			1401 Hypertape Utility Programs: Preliminary Specifications
C24-3105-2*	N24-0296		1401/60 Disk Utility Programs Operating Procedures (with 1301 and 1311)
C24-3105-3*			
C24-3132-0			1401 Hypertape Utility Programs Operating Procedures
J24-1485-0			1401 Data Processing Bulletin - 1012 Tape Punch Routine
J24-0209-2			1401 Card Systems: Preliminary Specifications
J24-1426-2			1405 Disk Storage: Utility Programs
C22-6777-0			Utility Programs for 1401 Equipped with the 7710 Data Communication Unit

33 SORT/MERGE

C24-3345-1*	N24-0294	N24-5019	1401/60 Timing Programs for System/360 Basic Programming Support (1401-LM-078 - Version 2) Sort/Merge Programs (8K Tape) (1401-LM-680 - Version 1)
C24-3345-2*	N21-5039		
C24-3377-0			1401/60 Timing Program for Basic Operating System/360 Sort/Merge Program (1401-LM-079)
C24-3439-1*	N21-5015	N24-5065	IBM 1401/1460 Timing Program for IBM System/360 Disk and Tape Operating Systems Tape Sort/Merge Program (1401-LM-010 (2401-2404) and 1401-LM-012 (2415)
C24-3439-2*			
C24-3445-1	N24-5125		IBM 1401/1460 Timing Program for IBM System/360 Disk Operating System Sort/Merge Program (1401-LM-011)
J24-1422-1*	N24-0162		1401 Sort 1 Specifications
J24-1422-2*			
C24-3038-0			1401/60 Comparison of Sort 2 - Version 2 Timing
C24-3057-0	N24-0079		Sort 3 for 1401: Preliminary Specifications
C24-3077-0*			Sort 3 for 1401: Operating Procedures
C24-3077-1*			
C24-3060-0	N24-0254		Sort 4 for 1401: Preliminary Specifications
C24-3087-0	N24-0189		Sort 4 for 1401: Operating Procedures
C24-1420-4*	N21-0035		Sort Programs for 1401/60 - 1311 Specifications and Operating Procedures Generative Program: Sort 6 Object Programs: Sorts 61, 62, 63, and 64

C24-3053-2			1401/60 Merge 6 Specifications and Operating Procedures (1401-SM-063)
C24-3317-0*	N21-0042	N21-5000	1401/60 Sort 7 Specifications and Operating Procedures
	N24-0279		(1401-SM-060)
C24-3317-1*			
C24-1456-1	N21-5002	N24-0291	1401/60 Sort 7 Timing Specifications and Operating Procedures
C24-3324-1			1401/60 Merge 7 Specifications and Operating Procedures (1401-SM-061)
C24-3311-0			1401/60 Sort 13 and Sort 14 Timing Program Specifications and Operating Procedures (1401-LM-077)
C24-3279-0	N24-0245		1460 Sort 14 Specifications
C24-3289-0			1460 Sort 14 Operating Procedures

34 DISK STORAGE FILE ORGANIZATION

C24-3185-1*	N24-0252		1401/40/60 (1311 and 1301) Disk File Organization Routines Specifications
C24-3185-2*			
C24-3128-4*	N21-0056		1401/60 (1311 and 1301) Disk File Organization Routines – Operating Procedures
C24-3128-5*			
C24-1451-0			1401-1405 Disk File Organization Routines Specifications

36 SUPERVISORS - MONITORS

C26-5859-2	1440/60 - 1070 Process Communication Monitor Specifications
C26-5986-0	1440/60 - 1070 Process Communication Monitor Operating Procedures

37 AUTOMATIC TESTING PROGRAM

C24-3195-0*	N24-0204	Autotest for 1401/60 with 1311: Specifications and Operating Procedures
C24-3195-1*	N24-0272	
C24-3195-2*		
F20-0234-1*	N24-0120	Autotest for 1401 Specifications and Operating Procedures (1401-AT-042)
F20-0234-2*		

48 MISCELLANEOUS PROGRAMS

C24-3384-1			1401/40/60 - 1026 and 1440/1448 Operating Systems Computer Assisted Instruction Author and Proctor Manual
C24-3385-1			1401/40/60 - 1026 and 1440/1448 Operating Systems Computer Assisted Instruction Student Manual
C24-3012-0			Standard Labeling Procedure for 1311 Disk Storage Drive
C24-3253-1			1401/1440 or 1460 Operating System Computer Assisted Instruction
C24-1091-1			Programming for 1418/1428 Optical Readers
J28-6173-0			7000 and 1400 Output Editing System
J28-0238-0			1401 Peripheral Integrated Processing System for Use with 7000 Series Data Processing Systems
C28-8148-1	N27-1232	N28-1151	7740 Assembley Program Using 1401 (1401-SP-156)
	N28-1176	N28-1193	
C28-6259-0*	N28-1097		7750 Assembly Program Using the 1401 – Reference Manual
C28-6259-1*			

80 INSTALLATION SUPPLIES

X20-1702-0	Proportional Record Layout and Format Forms
X20-8011-0	Scheduling Control Form - Programming Progress Chart
X20-8021-2	Autochart Flowcharting Worksheet
X20-8024-0	Decision Logic Coding Form
X20-8040-0	1230-31-32 Spacing Chart-Test Scoring 5 Words per Inch
X20-8041-1	1230-31-32 Spacing Chart - Test Scoring 4 Words per Inch
X20-8042-0	1230-31-32 Spacing Chart - Test Scoring 3 words per Inch
X20-8043-0	1230-31-32 Spacing Chart - Non Test Scoring 5 Words per Inch
X20-8044-0	1230-31-32 Spacing Chart - Non Test Scoring 4 Words per Inch
X20-8045-0	1230-31-32 Spacing Chart - Non Test Scoring 3 Words per Inch
X21-9021-0	1230-31-32 Document Marking Instructions Reference Card
X24-1152-3	1401 Symbolic Programming System Coding Sheet
X24-1336-1	1401/1410 Report Program Generator Input Specifications
X24-1337-2	1401 Report Program Generator Data Specifications
X24-1338-3	1401 Report Program Generator Calculation Specifications
X24-1339-1	1401/1410 Report Program Generator Format Specifications
X24-1350-5	1401/1410/1440 Autocoder Coding Sheet
X24-1527	IBM 1443 Spacing Chart
X24-1709-0	1401 Report Program Generator Reference Card

X24-3039-1	1418/1428 Optical Readers Document Design and Photo Document Sensors Timing Chart
X24-3100-0*	1440/1460 - 1447 Console Status Sheet
X24-3100-1*	
X24-3115-0*	407,408, 409, 1403, 1404, ·1443 and 2203 Printer Spacing Chart (6 Lines per Inch)
X24-3115-1*	
X24-3115-2*	
X24-3140-1	1460 Physical Planning Template
X24-3245-0	Control Card Formats for Sort 2, Merge 2, Sort 4, Sort 7, and Merge 7 with 1401/1460
X24-3336-0	Coursewriter Instruction Sheet
X24-3448-0	1445 Printer Spacing Chart
X24-6436-0	407, 408, 409, 1403, 1404, 1443 and 2203 Printer Spacing Chart (6 Lines per Inch)
X24-6437*	1401/1460/1440 Program Chart
X24-6437-3*	
X24-6438-4*	1401/1460 1410/1440 Storage Layout
X24-6438-5*	
X24-6482-5	1401 Physical Planning Template
X24-6518-0	1011 Paper Tape Reader – Control Panel Diagram
X24-6556-0	FARGO Report Specifications Phases 4 and 1
X24-6557-0	FARGO Report Specifications Phase 1
X24-6558-1	FARGO Report Specifications Phase 2
X24-6559-1	FARGO Report Specifications Phase 3
X24-6562-0	1401 Timing Estimates Sheet
X24-6568-1	1401/1410/1440 Library Coding Form
X24-6587-0*	1401 Console Sheet
X24-6587-1*	
X24-6588-1*	1401/60 1440 Operating Instruction Sheet
X24-6588-2*	
X24-6591-0*	1401/40/60 Report Program Generator Data Specifications
X24-6591-1*	
X26-5983-0	1920 Subsystem Adapter Model 22
X28-0314-0*	1401/1440/1460 Address Translation Card
X28-0314-1*	
X28-1464-1	COBOL Program Sheet
X28-1520-0	COBOL Reference Card
X28-1585-0	1401 Autotest Autocoder Control Card and Patch Card Coding Sheet
X28-1586-0	1401 Autotest Tape and RAMAC File Generation Data Sheet
X28-1625-0	7750 Assembly Program Sheet
X28-7327-4*	FORTRAN Coding Form
X28-7327-5*	

90   EDUCATION LITERATURE

C24-1494-1*	1401 Programmers Guide
C24-1494-2*	
F20-0208-1	1401 – From Control Panel to Stored Program – General Information Manual
R20-9000-0*	1401 Data Processing System Basic Programming Course Description
R20-9000-1*	
R20-9001-1	1401 Accelerated Basic Programming Course Description
R20-9010-3	1401 Data Processing System - Console Operator Course Description
R20-9011-2	1401 Data Processing System - Executive Course – Course Description
R20-9012-0*	1401 Data Processing System FARGO Course Description
R20-9012-1*	
R20-9013-2	1401 Data Processing System – Systems Planning Course Description
R20-9018-1	FORTRAN Course Description
R20-9029-1	1401 Data Processing System – Advanced Training Course Description
R20-9030-1	1401 Data Processing System – Autotest Course Description
R20-9031-1	1401 Data Processing System – Installation Planning Course Description
R20-9032-1	1401 Data Processing System – Programming Systems – Course Description
R20-9033-1	1401 Data Processing System – Report Program Generator Course Description
R20-9034-2	1401/1311 Disk Storage Programming Course Description
R20-9054-3	1401 Data Processing System Basic Programming Symbolic Programming System - Programmed Instruction Course Description

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R20-9055-2*                           1401 Data Processing System Basic Programming Autocoder
                                          Programmed Instruction Course Description
R20-9055-3*
R22-9761-3*  N23-0560                  COBOL Education Guide
R22-9761-4*
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99 OTHER SUPPLEMENTARY INFORMATION

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    F20-0228-0                         Planning For an IBM 1401 Data Processing System General
                                          Information Manual
    F20-8172-2                         Bibliography of Data Processing Techniques
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Note - The following publications are superseded as indicated.

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03   A24-3033-0                              Not Replaced
03   A24-3084-0-1                            Not Replaced - Existing Stock Good
03   A24-3205-1                              Replaced by A24-3073-4
07   A24-3086-0-1-2-3    N24-0144           Replaced by A26-5991-0
                         N24-0171
07   F20-8161-0                              Replaced by C20-1649
13   A22-6721-0    N22-0073                  Not Replaced
13   A26-5884-1    N26-0085                  Not Replaced
13   L24-1454-1                              Not Replaced
15   A21-9013-1                              Replaced by C24-1404-7
15   A24-3287-0                              Replaced by C24-1404-7
20   A22-6806-1                              Not Replaced
22   C24-1434-0    N24-0212   N24-0233       Replaced by C24-3319-0
22   C24-1486-1                              Not Replaced
22   C24-3104-0                              Replaced by C24-3319-0
22   C24-3109-0    N24-0146   N24-0169       Not Replaced
22   C24-3171-0    N24-0184                  Not Replaced
33   C24-3135-2-3*  N24-0164                 Replaced by C24-1420-4
33   C24-3213-0    N24-0217                  Replaced by C24-3053-3
33   J24-1436-1                              Not Replaced
36   C26-5877-1                              Replaced by C26-5859-2
48   C24-3015-1                              Not Replaced
48   J20-0235-0                              Not Replaced
80   X24-1711-1&2*                           Replaced by X20-1702
80   X20-8009-0                              Not Replaced
80   X24-6499-0-1                            Not Replaced
80   X24-6579-0                              Replaced by X24-1527
80   X28-1587-0                              Not Replaced
90   225-1596-1                              Not Replaced
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Section 2: The abstracts which follow will be included in the next edition of the Bibliography.
Entries added to this SRL Newsletter are identified by a vertical line in the left margin.

A19-0004-0   IBM 1219 READER SORTER, MODEL 32   09
              IBM 1419 MAGNETIC CHARACTER READER, MODEL 32
              FOR WORLD TRADE USE ONLY

This publication contains detailed information about the keys, lights, switches, mechanical features,
and special features of the IBM 1219 Reader Sorter, Model 32 and the IBM 1419 Magnetic Character Reader,
Model 32.
    On-line and off-line data-flow and operating theory are fully descussed, with step-by-step pro-
cedures for each reader operation. Programming notes and error-correction routines are also covered
in detail. It should be noted that, in the areas of on-line operation, error-recovery, and program-
ming notes, this manual refers to the 1401 attachment only.
    For additional information readers are referred to the following publications: IBM 1401/1460
Miscellaneous Input/Output Instructions, Form A24-3066; and IBM 1419 Magnetic Character Reader with
IBM 1410 System, Form A22-0536. For information concerning the attachment of the IBM 1219/1419,
Model 32 to the IBM System/360 Models 30 or 40, readers are referred to IBM 1419, Model 32 Attached
to IBM System/360 Model 30 or 40, Form A19-0023-0.

A19-0009-0   IBM 1401-1419 EXPANDED CODELINE INPUT/OUTPUT CONTROL PROGRAM   30
              FOR WORLD TRADE USE ONLY

This publication describes the Input/Output Control Program for the IBM 1419 Magnetic Character Reader
with Expanded Codeline Feature, used online with the IBM 1401 Data Processing System equipped with the
Process Overlap Special Feature.
    It includes machine requirements, descriptions of the IOCP routines and the user's program, and
operating procedures.

This publication should be read in conjunction with IBM 1219 Reader Sorter, Model 34: IBM 1419 Magnetic Character Reader, Model 32, form UK3-1205*.

A knowledge of IBM 1401 Autocoder can be obtained from Autocoder on Tape Specifictions, Form C24-1434.

*Obtainable from IBM United Kinqdon Ltd.
101 Wigmore Street
London, W. 1, England

A21-9012-5   IBM 1231, 1232 OPTICAL MARK PAGE READERS   03

This publication describes the functions, controls, principles of operation, data flow, and programming for the IBM 1231 and 1232 Optical Mark Page Readers. Special features available are explained. Also included is a section on the IBM 534 Model 3 Card Punch.

A21-9065-0   IBM 1232 and 534 CUSTOM FEATURES DESCRIPTIONS   13

This publication describes the effects of eight RPQ (Request for Price Quotation) features on the operations of the IBM 1232 Optical Mark Page Reader and the IBM 534 Card Punch Model 3. To use this publication effectively, the reader must be familiar with the standard operations of these two machines, as described in the SRL manual, IBM 1231, 1232 Optical Mark Page Readers, Form A21-9012.

The eight RPQ features described in this publication are: # 842023 - Punching Sequence and Code Modification; # F13918 - 1232 Alphabetic Feature; # 841-95 - 534 Alphabetic Coding Device; # F15067 - Blank Character Select; # F15704 - Units-Position Overpunching (Numeric Machines); # W18417 - Units-Position Overpunching (Alphabetic Machines); #842042 - 534 Print Feature; # 842024 - Printer Output Protection.

A24-3072-1   IBM 1402 CARD READ-PUNCH SRL BULLETIN   03

This publication, Form #A24-3072-1, presents information about the operator controls, operating procedures, and special features for the IBM 1402 Models 1,2,3,4,5 and N1. For programming information and detailed descriptions of the operation of the 1402 with other components of a data processing system, refer to the appropriate Systems Reference Library Bibliography.

A24-3342-0   BATCH NUMBERING FEATURE FOR IBM 1241 AND 1419 MAGNETIC INK   13
              CHARACTER RECOGNITION READERS

This publication describes the functions and features of the Batch Numbering special feature when used with the IBM 1241 Magnetic Ink Character Recognition Reader and the IBM 1419 Magnetic Character Reader.

The operation of the keys, lights, and switches, as well as the programming information needed to operate the feature, is covered in detail.

A24-3476-0   IBM 1401H SYSTEM SUMMARY   00

This reference publication contains brief descriptions of the machine features, components, and special features. Also included is a section on programming systems available for use on this system. Publications providing detailed information on subjects discussed in this summary are listed in IBM 1401 and 1460 Bibliography, Form A24-1495.

A24-3494-0   IBM 1401 MODEL H CONFIGURATOR   00

NO ABSTRACT AVAILABLE

A26-5713-1   IBM 1311 DISK STORAGE DRIVE OEMI   19

This manual provides information to assist engineers in attaching the IBM 1311 Disk Storage Drive to equipment not manufactured by IBM. Included are lists of applicable publications, engineering documents, and cable interface identification for the 1311, Models 1, 2, 3, 4, and 5.

A26-5989-0   1070 PROCESS COMMUNICATION SYSTEM   09

This publication describes the IBM 1070 Process Communication System, including a guide to the numerous ways in which individual units may be grouped together. The relationship between the computer programming and the operation at the process is explained by means of data transmission diagrams. The timing of transmission operations is considered in detail. Charts showing the coding for data and control characters in the system and the special features required for each function are also included.

A26-5991-0   IBM 1311 DISK STORAGE DRIVE   07

This manual describes the operating principles and features of the IBM 1311 Disk
Storage Drive and the IBM 1316 Disk Pack as they are used with all IBM Systems.
   Included in the manual is a description of the operating keys and lights and of
disk pack operating and handling procedures.
      The information in this manual is intended to supplement the information contained in
the system reference manuals for the following IBM Systems: 1240 Bank Data Processing System;
1401 and 1460 Data Processing Systems; 1410 and 7010 Data Processing Systems; 1440 Data Processing
System;   1620 Data Processing System; 1710 Control System; 7740 Communication Control System.
      Information about addressing disk storage, programming considerations, and special features
is contained in the respective system reference manuals.

C22-6674-0   IBM 7340 HYPERTAPE DRIVE MODEL 2 FOR IBM 1401/60, 1410   15
             SYSTEMS PHYSICAL PLANNING SPECIFICATIONS (TENTATIVE)

This bulletin describes specifications of size, environment, cable lengths, power
consumption, and weight of Hypertape drive and control.

C24-1091-1   PROGRAMMING FOR THE IBM 1418/1428 OPTICAL READERS   48

This publication describes the IBM 1401 and 1460--1418/1428 instructions and the factors that contri-
bute to efficient operation of the system. Also included are: a block diagram illustrating the
instructions used in a sample program, programming for a non-continuous-feed operation, and a
description of a typical batch-balancing procedure at time of conversion.
      The readers of this publication should be familiar with the Systems Reference
Library publications, IBM 1418 Optical Character Reader and IBM 1428 Alphameric
Optical Reader, Form A24-1473. For related publications see IBM 1401 and 1460
Bibliography, Form A24-1495.

C24-1404-7   1401 DATA PROCESSING SYSTEM INSTALLATION MANUAL --   15
             PHYSICAL PLANNING

This publication contains pertinent, detailed physical-planning information for the ibm 1401 Data
Processing System. Dimensions, weights, service clearances, electrical requirements, and environ-
mental specifications are listed separately for each unit of the system. Information on inter-
unit cabling is provided in a cable diagram and cable requirements chart. A summary of specifications
is included for ready reference.

C24-1420-4   SORT PROGRAMS FOR 1401/1311 AND 1460-1311 SPECS AND   33
             OP. PROC. GEN. PROGR.

This reference publication discusses these topics: Sort 6 Specifications describes
the requirements for generating a sort object program.
      Sort 6 Operating Procedures describes the Sort 6 program deck, preparation of the Autocoder
system pack and library for generation, and the operating procedures to be followed when generating
a sort object program.
      Sort Object-Program Specifications describes the characteristics of object
programs generated by Sort 6 and the requirements for executing the object
programs. Sorts 61, 62, 63, and 64 are discussed in this section.
      Sort Object-Program Operating Procedures describes the IBM-supplied
generalized object decks (Sort 61, 62, 63, and 64), the insertion of user-
prepared control cards in the object deck, the operating procedures to be
followed when executing the object program, and the halts and messages that are
associated with the sort object programs.
      For a list of associated publications and abstracts, see the IBM 1401 and
1460 Bibliography, Form A24-1495.

C24-1456-1   SORT-7 TIMING SPECIFICATIONS AND OPERATING PROCEDURES   33
             IBM 1401 AND 1460 DATA PROCESSING SYSTEMS

Program Number 1401-LM-060

This reference publication contains the specifications and operating procedures for the Sort-7
Timing Program, Version 1. The first section discusses the machine requirements, program deck,
control cards, and timing charts. The second section describes system preparation, messages,
and halts.
      Also included are 144 sort-timing comparison tables of the Sort-7 program run on IBM 1401 and
1460 Data Processing Systems. The parameters involved are explained.
      The user should be familiar with Sort 7 Specifications and Operating Procedures for IBM 1401
and 1460, Form C24-3317-0. For a list of associated publications and their abstracts see the
IBM 1401 and 1460 Bibliography, Form A24-1496.

C24-3170-1 BASIC AUTOCODER 2K SPECIFICATIONS IBM 1401 and 1460   22

This publication contains language specifications for the IBM 1401 Basic Autocoder 2K System. Also
included are machine requirements; explanations of the source program, processor program and the
coding sheet; and information requirements necessary to write a Basic Autocoder 2K statement. The
coding sheet used with this Basic Autocoder is the Autocoder Coding Sheet (X24-1350).
     Descriptions of Basic Autocoder 2K statements are presented in a special format that describes the
operation that the statement performs, shows how the statement is written by the programmer, states
the action of the processor program during processing of the symbolic program, describes the effect
(if any) of the statement on the object program, and shows an example that uses the statement.
     The user may find the SRL publication Basic Autocoder 2K Operating Procedures (C24-3262) helpful
in planning and organizing his program. The Operating Procedures manual contains additional infor-
mation concerning the assembly process, instructions for program patching, and instructions for
running the object program.

C24-3377-0   IBM 1401/1460 TIMING PROGRAM FOR IBM BASIC OPERATING SYSTEM/360   33
             SORT/MERGE PROGRAM (8K DISK)

Program 1401-LM-079 - This publication contains the specifications and operating
procedures for the IBM 1401 and 1460 timing program used to estimate the amount of
time required to sort records with the IBM Basic Operating System/360 8K Disk Sort/Merge
program.
     The following information is included in this publication: 1. Minimum machine
requirements for estimating times with this program, 2. A description of the user-prepared
information cards required to define the proposed sort operation, 3. The procedure to
follow for executing the timing program.
     The user of this publication should be familiar with IBM Basic Operating System/360
Sort/Merge Program (8K Disk), C24-3321. For a list of associated 1401/1460 publications,
see IBM 1401/1460 Bibliography, A24-1495. For a list of associated System/360 publications,
see IBM System/360 Bibliography, A22-6822.

C24-3384-1   IBM 1401/1440/1460-1026 AND 1440-1448 OPERATING SYSTEMS COMPUTER   48
             ASSISTED INSTRUCTION AUTHOR AND PROCTOR MANUAL

This reference publication describes the IBM Computer Assisted Instruction program (CAI) for
the IBM 1401/1440/1460-1026 and 1440-1448 Data Processing Systems. It describes: 1. The
capabilities of the CAI program; 2. The minimum machine requirements for CAI; 3. The operating
procedures and related information for the proctor to prepare the systems for CAI; 4. The
operating instructions and information for the author and proctor to enter material into the
computing system via the IBM 1052 Printer-Keyboard.
   For the titles and abstracts of associated publications, see the IBM 1440 Bibliography,
Form A24-3005, the IBM 1401 and 1460 Bibliography, Form A24-1495, and the IBM Tele-processing
Bibliography, Form A24-3089.

C24-3385-0   IBM 1440-1448 OPERATING SYSTEM COMPUTER ASSISTED INSTRUCTION   48
             STUDENT MANUAL

This publication describes the IBM 1052 Printer-Keyboard as used with the Computer
Assisted Instruction Program (CAI). The publication: 1. Contains the information
necessary for the student to use the printer-keyboard to receive course material from
the computer, 2. Describes the standard features, operation, and cautions the student
must exercise while using the printer-keyboard.

C24-3439-0   IBM 1401/1460 TIMING PROGRAM FOR IBM BASIC OPERATING SYSTEM/360   33
             TAPE SORT/MERGE PROGRAM (16K)

Program 360B-SM-095

This publication contains the specifications and operating procedures for the IBM 1401
and 1460 timing programs used to estimate the amount of time required to sort records
with the IBM Basic Operating System/360 Tape Sort/Merge Program (16K).
     The following information is included in this publication: (1) Minimum machine
requirements for estimating times with these programs. (2) A description of the user-
prepared information cards required to define the proposed sort operation. (3) The
procedure to follow for executing the timing programs.
     The user of this publication should be familiar with IBM Basic Operating System/360
Tape Sort/Merge Program (16K), Form C24-3438. For a list of associated 1401/1460
publications, see the IBM 1401/1460 Bibliography, Form A24-1495. For a list of assoc-
ciated System/360 publications, see the IBM System/360 Bibliography, Form A22-6822.

C24-3445-0   IBM 1401/1460 TIMING PROGRAM FOR IBM BASIC OPERATING SYSTEM/360   33
              DISK SORT/MERGE PROGRAM (16K)

This publication contains the specifications and operating procedures for the IBM 1401 and 1460
timing program used to estimate the amount of time required to sort records with the IBM Basic
Operating System/360 16K Disk/Sort/Merge program.
     The following information is included in this publication: 1. Minimum machine requirements for
estimating times with this program. 2. A description of the user-prepared information cards
required to define the proposed sort operation. 3. The procedure to follow for executing the
timeing program.
     The user of this publication should be familiar with IBM Basic Operating System/360 Specifications
Sort/Merge Program (16K Disk), C24-3444. For a list of associated 1401/1460 publications, see
IBM 1401/1460 Bibliography, A24-1495. For a list of associated System/360 publications, see IBM
System/360 Bibliography, A22-6822.

C26-5859-2   1440/1460-1070 PROCESS COMMUNICATION MONITOR SPECIFICATIONS   36

This publication provides the specifications for the IBM 1440/1460-1070 Process Communication
Monitor (PCM). The Monitor, designed to operate in conjunction with user's programs writted in 1440
or 1460 Autocoder language, consists of a monitor routine, several processing subroutines, and an
error locating routine.
     Included in this publication are the macro-instructions and calling sequences used to gain access
to the PCM system, descriptions of the PCM routines, core storage requirements, error procedures,
and a section on programming considerations.

C26-5986-0   IBM 1440/1460-1070 PROCESS COMMUNICATION MONITOR OPERATING PROCEDURES   36

This publication contains the operating procedures for the 1440/1460-1070 Process Communication
Monitor. Detailed descriptions cover the library, pre-assembly, assembly, and loading procedures,
as well as the diagnostic messages related to the object program.

C28-6259-1   REFERENCE MANUAL IBM 7750 ASSEMBLY PROGRAM USING THE IBM 1401   48

This manual contains a description of the 7750 Assembly Program and has been written with a view
to facilitate the preparation of programs for the IBM 7750 Programmed Transmission Control. The
assembly medium is the IBM 1401. That is, the Assembly Program runs on the 1401 and produces
output suitable for loading into the 7750 through the IBM 1410 or 7000 Series Data Processing Systems.

L24-3102-2   MODIFIED CHARACTER SETS FOR 1403 PRINT CHAINS AND PRINT TRAINS   13

This reference publication contains a complete explanation of four modified-character-set
IBM 1403 print chains or trains, available on an RPQ, Request Price Quotation, basis for
the IBM 1403 Printer Models 1, 2, and 3. The physical characteristics, BCD codes, card
codes, IBM 1401 and 1460 programming considerations, printing speed, and synonym codes
are fully discussed for these four print chains, 60-character set, optional format,
80-character set, set format, 80-character set, optional format, and 120-character set,
optional format.
     This publication also covers the ordering procedures for the four print chains
or trains and the prerequisite RPG items.
     For a list of related publications and abstracts, see the IBM Bibliography for the
associated Data Processing System.

X20-1702-0   PROPORTIONAL RECORD LAYOUT AND FORMAT FORMS   80

The front side of this form consists of the Proportional Record Layout Form. It is suitable
for card, tape, and disk records. Positional markings are 00-99 and 01-100.
     The back side of the form is the Record Format Form. This form permits record layouts
to be prepared without the space limitations of positional markings. Space is also provided
for reference data.

X20-8024-0   DECISION LOGIC CODING FORM   80

This Form is a design logic coding aid for users of the 1401 design logic Translator Program.

24-3448-0   IBM 1445 PRINTER SPACING CHART   80

IBM 1445 Printer Spacing Chart is scaled in non-photographic blue and provides 113 printing
positions at 8 characters per inch for carriage spacing of 6 lines per inch. Vertical
rulings are shown for each inch or every 8 characters apart to assist in printing layout.
A carriage-control tape facilitates planning for tape punching. Space is available on the
top of the form to indicate miscellaneous print line formats.

Section 3: Program numbers of programming systems available for the IBM 1401/60 are listed below. The date of the most recent modification is given. Abstracts and ordering instructions are found in Catalog of Programs and Programming Systems, C20-1601.

PROGRAM NAME	NUMBER	VERSION	MOD LEVEL	DATE
Card Systems Error Detection Aids	1401-AT-017	1	1	08/12/63
Auto Test	1401-AT-072	1	8	08/26/65
1401/1311 Autotest 8K	1401-AT-081	1	4	05/11/65
1401/1311 Autotest 16K	1401-AT-082	1	3	12/28/64
1401 Basic Autocoder 2K	1401-AU-005	1	9	07/11/66
1401/1440/1460 Autocoder on Disk	1401-AU-008	1	13	07/11/66
Autocoder Program	1401-AU-037	3	11	12/07/65
COBOL 4K	1401-CB-070	2	11	01/20/66
COBOL Conversion 1401 S/360	1401-CB-701	1	5	03/27/67
FORTRAN	1401-FO-050	3	7	12/13/65
1401 1440 1460 FORTRAN 4, Card	1401-FO-051	2	2	10/10/66
1401 1440 1460 FORTRAN 4, Tape	1401-FO-052	2	2	10/10/66
FORTRAN II Language Conversion Program	1401-FO-702	2	2	02/13/67
Communications IOCS for 1401/1460	1460-IO-011	3	2	06/21/65
1401/60 IOCS	1401-IO-012	1	4	12/13/65
Tape Reading and Writing Subroutines	1401-IO-040	2	2	07/15/63
IOCS	1401-IO-065	2	14	12/29/65
1401 1311 IOCS	1401-IO-068	2	10	10/18/66
1401/1012 Tape Punch Routines	1401-IO-074	1	1	08/20/63
1401/1440/1460-1285 IO CP	1401-IO-077	1	2	08/11/66
7040/7044 Input/Output	1401-IO-152	1	0	09/10/63
Card Systems Subroutine	1401-LM-007	1	2	02/13/63
1401/60 Timing Program BOS/360 16K Disk S/M	1401-LM-011	2	0	08/02/66
1401/60 Timing Prog - TOS/360 S/M	1401-LM-010	1	1	01/18/67
1401/1460 Timing Program IV System/360 Disk and Tape	1401-LM-012	1	0	11/02/66
1401 Sort 7 Timing Program	1401-LM-060	1	0	12/21/64
Programming for Timing Sort 5 & 6	1401-LM-062	1	0	7/28/64
Sort 13-14 Timing Program	1401-LM-077	1	0	12/21/64
1401/60 Timing Program 360 Basic Program Support Sort Merge 8K	1401-LM-078	2	1	01/12/67
1401/60 1440 Timing Program BOS/360 S/M	1401-LM-079	2	0	12/02/65
1401/60 Timing Prog S/360 BPS Sort Merge	1401-LM-080	1	1	11/10/66
1401-1026 OP Sys CAI	1401-OS-092	1	0	07/11/65
1401 Pips	1401-PR-925	1	0	07/09/62
Basic 4K R P G	1401-RG-022	1	7	01/05/66
1401-1311 RPG	1401-RG-032	2	8	01/21/66
2K R P G	1401-RG-033	1	1	02/26/65
FARGO	1401-RG-045	1	3	08/28/63
Report Program Generator	1401-RG-048	1	2	09/06/63
1400 RPG to 1401 0360 RPG Translator	1401-RG-700	1	1	06/01/66
SORT 1	1401-SM-029	2	7	01/24/64
1401 Sort 3	1401-SM-046	1	2	05/12/65
1401 Sort 4	1401-SM-047	1	7	12/23/65
1401 Sort 7	1401-SM-060	2	8	07/11/66
1401 Merge 7	1401-SM-061	3	1	07/11/66
1401-1311 Sort 6	1401-SM-062	2	7	07/11/66
1401 Merge 6	1401-SM-063	1	2	08/25/65
Sort 62	1401-SM-064	1	2	04/19/65
Sort 63	1401-SM-065	1	1	12/04/64
Sort 64	1401-SM-066	1	3	12/27/65
Sort 61	1401-SM-067	1	1	12/04/64
1460 Sort 14	1460-SM-068	1	2	09/23/65
1460 Sort 14	1460-SM-069	1	1	07/06/65
Symbolic Programming System - SPS 1	1401-SP-021	1	3	08/15/63
Symbolic Programming System - SPS 2	1401-SP-030	3	2	08/15/63
7750 Assembly Program Using 1401	1401-SP-133	2	0	11/05/63
7740 Assembly Program	1401-SP-156	4	1	02/03/66
1460-1070 Process Commun Monitor	1460-SV-090	1	0	07/11/66
1460-1070 Process Commun Monitor	1460-SV-091	1	0	07/11/66
Card Systems Utility Programs	1401-UT-001	1	0	10/14/60
Multiple Tape Utility	1401-UT-019	1	0	02/23/65
1401 1460 Tape Utility Programs with 120 Characters Label Capacity	1401-UT-025	1	2	07/08/65

Tape to Printer Program	1401-UT-026	3	0	12/13/61
Card to Tape Utility Program	1401-UT-027	4	1	06/12/64
Tape to Card Utility Program	1401-UT-028	1	2	07/16/62
Multiple Utility Program for Tape Systs	1401-UT-039	3	4	09/14/64
File Utilities	1401-UT-051	1	0	07/01/61
1401/1311 File Organization	1401-UT-052	2	6	07/11/66
1401 1311 Disk Utilities	1401-UT-053	2	4	11/19/65
File Organization Routines	1401-UT-057	1	6	04/23/65
1401-1009 Utility Programs	1401-UT-066	1	0	11/14/61
1401 Hypertape Utility Programs	1401-UT-067	1	0	11/16/64
1401-7710 Tape Utility System	1401-UT-069	1	0	08/28/65
Data Communications Utility Program	1401-UT-076	1	1	04/13/65
7040/7044 Auxiliary Programs	1401-UT-153	5	2	03/16/65
7040/44-1401 Periph. UT. PGM./See PR-154	1401-UT-157	2	1	06/07/65
7090/1401 Auxiliary Programs	1401-UT-158	1	3	12/15/66
Input Program/7090-SI-1621	1401-UT-958	3	0	06/04/65

Note - This SRL Newsletter was prepared on an IBM Magnetic Tape Selectric® Typewriter.