H. Colum

CUC

COMPUTER USAGE DEVELOPMENT CORPORATION

Corporate Headquarters-40 00 00 00

TO: Office Managers/ Principal Analysts

FROM: Eleanor Crouse-Technical Information Service

DATE: 28 March 1968

SUBJECT: Highlights of SHARE XXX
prepared by CUC SHARE representatives
Bill Won and Bill Rohlsen, New York office.

Please post this informative paper in your office, and/or distribute it to interested persons.

The proceedings of the SHARE meeting will be available in TIS, as are all other publications distributed by SHARE.

EC:ce
encl.
cc: C. Reynolds.

MEMO TO: Analysis and Programming Staff

FROM: Bill Rohlsen
Bill Won

DATE: March 22, 1968

SUBJECT: SHARE XXX

SHARE XXX was held at the Shamrock Hilton Hotel in Houston, Texas during the week of February 26 through March 1, 1968. Over 1700 persons were registered, resulting in overflow attendance at many sessions. A digest of the meetings attended by CUC will be found in the following pages. The full SHARE XXX Proceedings will be available at a later date.

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I. SHARE General Session

A. IBM Model 360/85 Presentation

A lecture was given by IBM on its newly announced 360/85. Some of the interesting thoughts conveyed by them were:

1. it took over 30 months to design the machine

2. the operating system will be OS/360, with MVT

3. there is a high speed multiply feature

4. it is 4 times faster than the 360/65

B. Discussion on the possible merger between SHARE and GUIDE

An outline of the pros and cons, concerning the proposed SHARE/GUIDE merger was given. The audience reactions to the discussion revealed that the SHARE membership was divided on this issue. Nonetheless, a formal announcement was made, that there would be a joint SHARE/GUIDE meeting in October, 1968.

II. PL/I Project

A. PL/I-Fortran Program Linkage and Data Interchange

1. A joint meeting was held by the PL/I and Fortran projects to explore the problems of linking together programs written in these two languages. Some of the difficulties are:

PL/I usage of dope vectors
Data handling differences

Aid has been requested from IBM, but IBM has not made any product announcements in this area.

2. SHARE has available a routine for linking Fortran and PL/I programs.

3. Johns Hopkins University has a program for converting Fortran programs to PL/I programs.

B. Project Activity

1. Users reported satisfaction with release 3 of the F-level compiler.

2. IBM will implement a SORT capability in PL/I; no announced date of availability.

3. IBM is aware of, and is actively studying the problems of converting non-PL/I programs to PL/I.

4. Several sub-committees are exploring language/compiler improvements and extensions. Some of the areas under study are:

   (a) macro capability

   (b) user defined pseudo variables

   (c) improved array and handling

   (d) graphics and teleprocessing

C. Current Dialects of PL/I

This session was devoted to non-IBM PL/I compilers. Several users described their own implementation of PL/I language. A speaker from RCA described this company's efforts in producing a conversational PL/I compiler. RCA's announced date of availability for their compiler is mid-summer 1969.

III. COBOL Project

A. The SORT Verb in COBOL

1. A tutorial on the usage of the COBOL SORT verb was given by IBM.

2. The COBOL Project submitted the following resolutions to IBM:

   Incorporating a CHECKPOINT/RESTART capability for the COBOL SORT

   Ability to alter the default core allocation for the SORT.

B. Programming Standards in a COBOL Shop

A panel of COBOL users discussed programming standards in their respective shops. Some of the areas covered were:

1. a dictionary of standard names to be used in coding COBOL programs

2. starting and ending all COBOL working storage sections with a special double word field

3. standardization of job control language (JCL) facilities.

IV. DOS/TOS Project

A number of resolutions were submitted to IBM. The following is a listing of the resolutions, and its status.

A. Not Acceptable (by IBM)

1. cataloging of job control language

2. relocatable cataloging for core image library

B. Development State (by IBM)

1. additional core image library

2. a new linkage editor

3. buffered SYSLOG capability

C. No Response (by IBM)

1. relocatable core image library

2. job accounting facilities

D. Implementation by other IBM Users

1. catalogued procedures

2. full FORTRAN IV

IBM also made the following product announcements:

- a full ASSEMBLER for DOS; design level is 44K bytes; 65% faster than the present assembler; date of availability is July 1968; the present and new assembler will be compatible

- a full FORTRAN IV compiler, same as OS/360 Fortran G; design level is 40K bytes; target date is the first quarter of 1969; more information will be available in June 1968

- interfacing QTAM/BTAM with PL/I under DOS; no announced date of availability

V. MVT Considerations

A panel of users (NASA Space Center, Lear Siegler, Celanese) discussed their usage and the effectiveness of MVT. Some of the thoughts expressed were:

A. significant increase (up to 25%) in throughput

B. efficient and fast, due to the fetching SVC's

C. there is a problem with the warm start capability -- it is effective only 80% of the time

D. Varying region requirements, often resulted in core fragmentation

E. I/O errors in system tasks often resulted in system abends

The session was well attended, although a large majority of the attendees were not MVT users. IBM acknowledged that it was aware of the overall fragility of MVT, and that efforts are underway to resolve these problems.

VI. QTAM/BTAM

A. OS/360 QTAM/BTAM Tutorial

IBM gave a presentation on the capabilities and differences of these two telecommunication access methods

FUNCTION	BTAM	QTAM
full polling/addressing of terminals	x	x
receive and transmit messages	x	x
dynamic buffering	x	x
code translation	x	x
header analysis		x
header synthesis		x
error checking/retransmission		x
message queueing and logging		x

B. QTAM Report and On-Line Programming via 2260's

Several users described their development of an on-line programming system utilizing local IBM 2260 terminals. The system will support 8 IBM 2260 terminals (in local mode), and operates under OS/360 -- MVT.

C. Extensions to Telecommunication Support in OS/360

1. Remote Job Entry (RJE) under OS/360

MVT -- July 1968
MFT-II -- April 1969

Operating under either environment of OS/360, RJE will be completely transparent to the user.

2. BSC support for 360/20, 360/85, 360/25, 1130 -- enabling it to operate as RJE terminal under OS/360 -- MVT or MFT-II.

VII. Model 65 Multi-Processing Support

A formal presentation was given by IBM on the 360/65 Shared Main Storage Multi-Processing System.

A. Hardware Features

1. dual 360/65, hooked side by side, both sharing the same core and the same channels

2. total shared main storage is 1 million bytes

3. multi-system feature

4. 2 I/O channels per 360/65

5. 24 control units with mode switches

B. Software Features

1. system support is OS/360 -- MVT

2. single primary control program (requires an additional 32K bytes, than the normal MVT system)

3. intercommunication between CPU's

4. can vary a CPU offline/online

5. can vary channels offline/online

6. can vary core offline/online (2K bytes at a time)

7. during IPL, storage checking is done in both 360/65

8. can operate multi-processing system as a uni-system, however, can get 1.95 more throughput using multi-processor over uni-system

9. lockout feature - (two CPU's, only one control program)

VIII. HASP

IBM presented a brief talk on HASP.

A. The HASP Project submitted the following resolutions to IBM:

1. continued support of HASP is requested, until

2. IBM develops a HASP-II, which would be capable of running under MVT or MFT-II

B. IBM's responses to the above proposals were:

1. maintenance of HASP will continue for a limited period of time

2. HASP will be "frozen" as of OS/360, release 14

3. IBM is currently studying the feasability of a HASP-II; if there is to be a HASP-II, it will be a type III product, and will contain no extensions.

C. The most current release of HASP is version 2.3

IX. MFT-II

An in-depth description of the recently announced MFT-II (under OS/360) was given by IBM.

A. Minimum core storage is 128K bytes; date of availability is July 1968.

B. Software features:

1. minimum control program is 32K bytes

2. multiple input readers

3. multiple output writers

4. independent partition scheduling

5. priority scheduling within each partition

6. partition job class facility

7. system re-start capabilities

8. remote job entry (RJE) -- April 1969

9. partition sizes and definitions can be altered after IPL