

Microsoft Corporation

Systems Status Review

February 1, 1991 - Microsoft Corporate Campus

IBM ATTENDEES:

Tommy Steele *Director, Boca
Programming Center*
Roy Clauson *Resident Manager,
MS Liaison Office*
Deanne Safford *Manager, DOS & DOS
Extensions Planning*
Shon Saliga *OS/2 Development
Lead*

9:30	DOS and Windows Issues	Brad Silverberg David Cole Eric Straub Brad Chase
11:00	LAN Status and Issues	Mike Murray Jim Allchin Hans Witt Pradeep Singh
12:00 (lunch)	PenWindows Demo	
12:30	Ballpoint Demo	Bridget Cameron
1:00	Multimedia Status	Bob Glaser Victor Chinn Steve Wells
2:00	OS/2 Status and Issues	Bob Muglia
3:00	NT OS/2 Status/Issues	
4:00	2/91 H/W Mtg. Agenda H/W Liaison Proposal	Tony Audino Shen Vail
5:00	Close	

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MS-PCA 2612092

IBM ESD - BPC

MSC 00092800

DSCMS-PCA 00002612092

Plaintiff's Exhibit

9358

Comes V. Microsoft

IBM MICROSOFT DISCUSSION 02/01/91

- INTERFACE ROLES AND RESPONSIBILITIES
- DOS/WINDOWS STATUS AND ISSUES
 - HARDWARE SUPPORT
 - SCHEDULES
 - FUTURE PLANS
- OS/2 STATUS AND ISSUES
 - TECHNICAL ISSUES:
 - LOAD MODULE FORMAT
 - SEAMLESS VDM FOR WINDOWS APPS
 - 32 WINDOW API's

 - LANGUAGE AND TOOLS SUPPORT
 - APPLICATIONS ROLLOUT
 - DELIVERY ALTERNATIVES
 - LAN MANAGER
 - OEM SUPPORT
 - VBASIC SYNTAX/SEMANTICS
- NT OS/2 STATUS AND ISSUES
- MULTIMEDIA STATUS
- ESTABLISH AGENDA FOR 02/91 HARDWARE MEETING
- ESTABLISH SCHEDULE FOR 1991 INTERFACE REVIEWS

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IBM/MS - ISSUE
CRUISER LOAD MODULE FORMAT

IBM IS COMMITTED TO A 04/30 GOLDEN MASTER

IBM IS COMMITTED TO PROVIDING THE BEST PERFORMANCE POSSIBLE
ON THAT SCHEDULE THAT MEETS OR EXCEEDS REQUIREMENTS

PLAN OF RECORD IS TO UTILIZE THE LE FORMAT

REDMOND CLAIMS:

SIGNIFICANT IMPROVEMENTS TO PERFORMANCE UTILIZING THE PE
FORMAT (PROVIDED A PROTOTYPE 01/16/91)

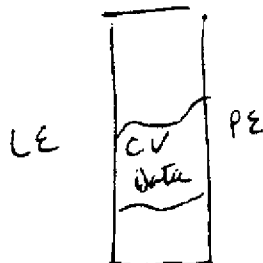
COMPLETED SOFTWARE DATE IS 02/15/91 - FULLY TESTED

IF THE PE WORK IS COMPLETE ON 02/15/91, IBM WILL ACCESS
IT FOR POSSIBLE INCLUSION IN THE CRUISER 04/30 PRODUCT

CRITERIA

- NO DE-STABILIZING EFFECTS
- IMPROVED PERFORMANCE/DASD UTILIZATION
- MINIMAL IMPACT TO OTHER DEPENDENT PRODUCTS
- GUARANTEE THAT CODE-VIEW FORMATS AND DEBUG TABLES
ARE UPWARD COMPATIBLE FROM CURRENT SDK-3

*• would maintain some format as LE otherwise
problems of dependencies for other tools, etc.*



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IBM/MS - ISSUE
CRUISER LOAD MODULE FORMAT

SCHEDULE

02/15/91 REDMOND TO PROVIDE COMPLETED PACKAGE TO
SUPPORT PE ASSESSMENT

03/01/91 IBM TO PROVIDE COMPLETED ASSESSMENT AND
STATEMENT OF INTENT TO REDMOND

03/15/91 IF PE CODE CHANGES ACCEPTED, ALL CODE
MUST BE INTEGRATED INTO PUBLIC BUILD-
NEED MS ASSISTANCE

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IBM/MS - ISSUE
CRUISER LOAD MODULE FORMAT

DEFINITION OF A COMPLETED PACKAGE DUE ON 02/15/91

EXECUTABLE FILES AVAILABLE FOR PERFORMANCE TO MEASURE

SOURCE FILES FOR ALL REQUIRED CHANGES IN ALL REQUIRED
SOFTWARE E.G. RESOURCE COMPILER

FUNCTION TESTING RESULTS

PERFORMANCE TESTING RESULTS

FUNCTION TEST CASES

PERFORMANCE TEST CASES

LIST AND DESCRIPTION OF KNOWN PROBLEMS

CODE REVIEW RESULTS

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CRUISER LOAD MODULE FORMAT

TOPICS FOR DISCUSSION

CONTRACT FOR THE C 7.0 COMPILER/CODE-VIEW

I.E GUARANTEE FOR 08/91 GA

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IBM/MS ISSUE

SEAMLESS VDM FOR WINDOWS APP

IBM POSITION:

WINDOWS APPS NEED TO APPEAR TO RUN IN OS/2 JUST LIKE ANY OTHER APP.

SAME SCREEN GROUP AS OTHER APPS
DDE, DRAG & DROP MUST WORK

PREFERRED SOLUTION IS EACH WIN APP IN ITS OWN VDM

MS POSITION:

- WLO IS PRIMARY SOLUTION FOR SOURCE MIGRATION TO OS/2 05/91 GM
- WILL ALSO DO SINGLE VDM WITH WIN 3.1/DPMI 0.9 IN 2.0 FOR BINARY COMPATIBILITY OF WIN 3.X APPLICATIONS
- DO NOT BELIEVE SEAMLESS, BINARY COMPATIBLE SOLUTION IS NECESSARY

RESPONSIBLE:

IBM: *POWELL
MS: *WELLS

STATUS

- NEED DELIVERY SCHEDULE OF TWO SCREEN GROUP APPROACH

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IBM/MS ISSUE

OS/2 LANGUAGE & TOOLS SUPPORT

IBM POSITION:

IF PE FORMAT NOT IN CRUISER THEN
MS 32 BIT C COMPILER REQUIRED BY 05/91 GA
AND MUST SUPPORT LE+ OMF, LMF

MASM, LINKER AND CODE-VIEW MUST ALSO WORK WITH THIS PRODUCT

MS POSITION:

C6.0/386 AVAILABLE WITH SDK ON 02/91 GM
C7.0 ON 08/91 GA WILL SUPPORT PE

RESPONSIBLE:

IBM: *DEAN
MS: *WELLS

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IBM/MS ISSUE

32 BIT WINDOWS APIS

MS POSITION:

MS WILL DEVELOP NEW 32 BIT APIS FOR WINDOWS
WHICH ARE INCOMPATIBLE WITH THE EXISTING WINDOWS APIS
AS WELL AS THE PM API.

IBM POSITION:

IBM WOULD PREFER NO 32 BIT WINDOWS APIS
IF THERE ARE TO BE 32 BIT WINDOWS APIS
THEY SHOULD BE IDENTICAL TO THE OS/2 PM APIS

RESPONSIBLE:

IBM: *POWELL, SAFFORD
MS: *WELLS

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IBM/MS ISSUE

NT ISSUES

16 BIT OS/2 BINARY APPLICATION MIGRATION PATH
REQUIRED

SEAMLESS INTEGRATION OF WINDOWS AND OS/2
APPLICATIONS REQUIRED

"WIN 32 API'S" SHOULD EQUAL OS/2 2.0 API'S

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IBM/MS INTERLOCK

MULTI-MEDIA

NEED COMMENTS ON REVIEW OF IBM MM PLAN

NEED TO IDENTIFY WHAT MS WILL SUPPORT IN WINDOWS

NEED TO ESTABLISH TIGHTER JOIN CONTROL ON MM API
AND DATA STANDARD DISSEMINATION AND ISV FEEDBACK

• ALSO BROADEN API. in comment

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IBM/MICROSOFT - INTERLOCK

LAN MANAGER

REQUESTER (CRUISER)

REQUIRE FINAL REDIRECTOR DROP 05/91

NEEDS TO CONFORM TO INTER-OPERABILITY DCR (1327)

SERVER (CRUISER)

- NEED A TEST PLAN FOR LM SERVER USING CRUISER WITH PIC ADDITIONS

GENERAL

- NEED CONTINUOUS SERVICE SUPPORT FOR LM 2.0 BASED IBM PRODUCTS
- NEED TO KNOW ANY CHANGES THAT WILL BE REQUIRED TO LS AS A RESULT OF WINDOWS 3.1

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IBM/MS INTERLOCK

OS/2 APPLICATION ROLLOUT:

IBM POSITION:

IBM DESIRES THAT ALL MS APPLICATION BE AVAILABLE ON OS/2
AS SOON AS ON WINDOWS AND EXPLOIT OS/2 FUNCTION FOR MAXIMUM
PERFORMANCE

MS POSITION:

RESPONSIBLE:

MS: *RUSS WARNER

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IBM/MS ISSUE

OEM SUPPORT

MS POSITION:

1.3.1

- IBM HAD DESCRIBED THIS AS "IBM HARDWARE ONLY"
- MS HAS NO RESOURCES ALLOCATED FOR AN OAK

2.0

- MS CAN SUPPORT NO MORE THAN TWO OAK RELEASES

IBM POSITION:

- MS MUST PROVIDE REASONABLE OAK SUPPORT FOR ALL 16-BIT AND 32-BIT RELEASES OF OS/2

STATUS

1.3.1

- MS IS ASSESSING RESOURCES TO SUPPORT
 - PUBLICATIONS, ETC.
 - OUTLOOK IS GOOD

2.0

- MS IS ASSESSING CAPACITY TO SUPPORT AN OAK SCHEDULE TO MATCH EEP (*Early Evaluation Prog.*)
- MS OS/2 SUPPORT STATEMENT - OPEN FORUM

RESPONSIBLE:

IBM: ^{Jelly}*DEAN, ERDMAN
MS: *WELLS

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IBM/MS
INTERFACE ROLES AND RESPONSIBILITIES

- AGREE WITH PROPOSAL IN T.M. AUDINO MEMO OF 12/06/90

I. STRUCTURE

- IBM COORDINATOR IS R. A. CLAUSON
- IBM ESCALATION PATH IS TO T. D. STEELE,
DIRECTOR OF BOCA PROGRAMMING CENTER
- ASSUME MS COORDINATOR IS T. M. AUDINO
- ASSUME MS ESCALATION PATH IS S. BALLMER
SR. VICE PRESIDENT SYSTEM SOFTWARE

II. PROCESS

- A) SPEC AND OTHER DOCUMENTATION
COORDINATED BY R. A. CLAUSON
- B) ONGOING DISCLOSURES
COORDINATED BY R. A. CLAUSON
- C) NOTIFICATION OF SHIPMENT
COORDINATED BY W. E. DWINELL, BOCA
- D) INSTALLATION OF EVT/DVT SYSTEMS
COORDINATED BY R. A. CLAUSON
- E) SUBSEQUENT CONVERSATIONS
COORDINATED BY R. A. CLAUSON
- F) PRODUCTION LEVEL SYSTEMS
COORDINATED BY R. A. CLAUSON
QUANTITIES TO BE DETERMINED

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CRUISER - 67B

PLAN 67B ASSUMPTIONS

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GR: 12/90 → 4/91
 SA: X/91 → 10/91
 MA: X/91 → 12/91

CONTENT PRESSURE:
 CARY CONTROLS II
 LAN CONNECT FROM SHELL
 CODEPAGE 819
 SINGLE SYSTEM TRADE ENABLE
 WIN APP BIN COMPAT CODE
 APPLETS (USER TOOLS)
 LAN CONNECT FROM SHELL
 USABILITY ENHANCEMENTS
 MULTI VOL SUPPORT
 PAPER DRAM SELECTION
 ROTATED PRINTING
 AUTO CONFIG
 GREEK KEYBOARDS
 DBCS CONVERGENCE
 HSM HOOKS
 FAST API
 COMMON CODE PAGE TRANS
 BACKUP/RESTORE
 PM SPOOLER JOB RESUBMIT
 PM BIDI
 DD INSTALL ENHANCEMENTS
 OPERATIONAL INSTALL

67A/67B C Enhance
 From 67A/67B/67C/67D/67E

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KCSI	497.9
KSSI	

BASE OPERATING SYSTEM	415.0K
32BIT DOSCALLS (NO VIO/KBD/MOU)	37.0K
32BIT API ENHANCING	80.0K
PERFORMANCE TOOL HOOKS	8.5K
PERF IMPROVEMENTS	20.0K
DUAL BOOT	1.0K
DIET 4/MBN REDUCTION	14.0K
NLS: KOSB-ICELND, TRKY, LTN2	17.0K
FULL SCREEN BIDI	17.0K
HYDM & HYDM ENHANCEMENTS	75.0K
SPECIAL NEWS	4.5K
PERFORMANCE/LIMITS	13.0K
RAS: BA DMP, DYN TRC PTB	22.0K
HARDWARE: SCB/DASD EXPLOIT, DMA ASYNC	15.0K
HARDWARE: CORDM, ENH FAN 3DD	15.7K
ENH FAN 1 & 2 (HAYES)	
ERTM: ALOHA, CHAMP, TORTUGAS	
> 18 MB	4.0K
KEYBOARD HOTPLUG	1.3K
40X UPGRADER	15.0K
SLDOP ROLLOVER DCR	2.0K
MULTI LANG MSG SUPPORT	1.0K
8514 VDD	0.2K
ABIOS SELECTIVE INSTALL	0.2K
SECURITY HOOKS	15.0K
INTELLIGENT FONTS	1.0K
FILE MIRRORING HOOKS	1.0K
3270 EMULATION VDD	13.0K
BIDI INSTALL/FIXTOOL, INST SPT FOR DD	15.0K
REXX	6.0K
GENERIC HWK	4.0K
MULTI BOOT	1.0K
FDISK CMD LINE	3.1K
DOS WINDOW GRAPHICS	2.0K
NOVELL IFS	6.0K
LAN REDIRECTOR	4.0K
XGA VDD	4.0K
MM STREAM MGR	3.0K
DOS 5.0 COMPATIBILITY	4.0K
SHELL	0.3K
PROGRAM PROPERTIES	4.0K
HYDM LANMAN, DCRB SHELL FIXES	12.0K
HELP MGR	56.0K
PRESENTATION MANAGER	5.0K
NLS: KOSB (ICELANDIC, TURKEY, LATIN2)	7.0K
32 BIT API	11.0K
PERFORMANCE/LIMITS/VISUAL APPRND	7.0K
HYDM & HYDM ENHANCEMENTS	2.0K
PRINTER INSTALL UTILITY	6.0K
MEMORY REDUCTION	7.0K
LAN MAN SPOOLER	1.0K
PALETTE MANAGER	1.0K
DCAF	1.0K
REMOVE WINDOW LIMITS	0.2K
VIO WINDOW PASTE	0.5K
DRAG DROP API	3.3K
FILE & FONT DIALOG & SPIN BUTTON	1.0K
PORTABLE HOOKS	1.0K
DOE ENHANCEMENTS	1.0K

67A → 67B

ADD: X
 REXX
 PALETTE MANAGER
 DCAF
 > 18 MB
 KEYBOARD HOTPLUG
 ADX UPGRADE
 GENERIC HW.
 XGA
 MM STREAM MGR
 MULTI BOOT
 FDISK CMD LINE
 DOS WINDOW GRAPHICS
 NOVELL IFS
 DOS 5.0 COMPATIBILITY
 LAN REDIRECTOR

DELETE:
 PRINT SURGERY
 PM PRINT SCREEN

FULFILLMENT:
 GBASIC

MSC 00092816

1/1/91

DSCMS-PCA 000002612107

CRUISER HISTORY

- 6/4/90 CRUISER STATUS

- PLAN 66
 - * CURRENT ESTIMATE : 416.5
 - * PBE : 384.7
 - * TO GO : 31.8
- ACTUAL KCSI : 472.0
- SVT STATUS: 77% SUCCESS
- CT / FVT STATUS: 90% SUCCESS

- 7/90 CP MERGE W/ MS DRIVER 6.83

- 7/90 TRANSITIONED PM TO BOCA

- 9/90 PM MERGE W/ MS DRIVER 6.86

- 9/28/90 PRE-MERGE IBM/MS CRUISER STATUS

- PLAN 67A
 - * CURRENT ESTIMATE : 454.4
 - * PBE : 408.5
 - * TO GO : 45.9
- ACTUAL KCSI : 633.0
- 11,886 PTRs CLOSED
- 6,597 PRODUCT DEFECTS FIXED
- MS
 - * 96% FVT SUCCESSFUL
 - * FIXED >1000 PTRS SINCE 4/2
 - * CURRENTLY 600 OUTSTANDING PTRs

- 12/03 COMPLETED MERGE W/ MS DRIVER 6.109

- 1/14 COMPLETED FVT RUN

- 95.2% ATTEMPTED
- 91.2% SUCCESS/ATTEMPTS
- 85.8% SUCCESS

- 1/14 STARTED PVT (Product Verification Test) 1st phase of SVT

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CRUISER MERGE CONTENT

- MS BASE

- MVDM
- VDDs
- OS/2 KERNEL
- DOS KERNEL
- PM SUBSYSTEMS
- MAJORITY OF FAMILY 1 DDs
- PMSHELL/CONTROL PANEL

- IBM BASE

- MOUSE DDs (FAMILY 1/2)
- KEYBOARD DDs (FAMILY 1/2)
- BASE SUBSYSTEMS (EXEC PT DOSCALL1)
- INSTALL
- UTILITIES

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CRUISER

EARLY RELEASE PROGRAMS MARKETING MESSAGES

- IBM IS FULLY COMMITTED TO OS/2
- SINGLE - SITE DEVELOPMENT IS ON COURSE
- IBM WILL BE AS OPEN WITH THEM AS MICROSOFT
- CRUISER DEVELOPMENT TOOLS WILL BE MADE AVAILABLE
- 16 BIT APPLICATIONS WILL RUN UNCHANGED
- IMPROVEMENTS IN CUTTER WILL BE CARRIED OVER TO CRUISER
 - PERFORMANCE
 - MEMORY/DASD
 - INSTALLATION
 - PRINTER INSTALLATION AND SET-UP
 - PRINTER DEVICE DRIVERS
 - PRINT SPOOLER
 - AUTOSTART SUPPORT
 - FONT SUPPORT
- MVDM WILL PROVIDE SMOOTH MIGRATION PATH
- POSITION OS/2
 - SE AS BEST-OF-BREED CLIENT
 - DATABASE AND COMMUNICATIONS MANAGER AS INDUSTRY LEADER

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CRUISER 6.117 APP SURVEY

OS/2 PROTECT MODE		MVDM				
OS/2 APPs/PMAPPs/TOOLS		RUNS	FAILS	APPs	RUNS	FAILS
DEV. APP. SUITE: (INCLUDES OSTOOLS) (FAT SYSTEM)	SLICK 2.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	PE2	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	SIDEKICK 2.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	TOGAI FUZZY LOGIC	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	EPM	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NEUROSCAN	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	PM DIARY	<input checked="" type="checkbox"/>	<input type="checkbox"/>	PRODIGY 8.19.6	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	PM FILE SEARCH	<input checked="" type="checkbox"/>	<input type="checkbox"/>	MICROSOFT WORKS 2.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	SUPERC2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	MICROSOFT PAINTBRUSH	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	GREP	<input checked="" type="checkbox"/>	<input type="checkbox"/>	FILEMAN/FM	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	SMALLTALK V/PM	<input type="checkbox"/>	<input checked="" type="checkbox"/>	SHOW	<input checked="" type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	BROOKLYN BRIDGE 3.0 (PARALLEL)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	CARBON COPY + 5.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	LAPLINK 3.0 (PARALLEL)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	ATTACHMENT EXTRA	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	PERF. USER SUITE: (HPFS SYSTEM)	LOTUS 1-2-3G	<input checked="" type="checkbox"/>	<input type="checkbox"/>	RBASE	<input checked="" type="checkbox"/>
EXCEL		<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
WORDPERFECT		<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
PAGEMAKER		<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
SIDEKICK		<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
COREL DRAW		<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
COMP. MINI-SUITE: (HPFS SYSTEM)	THINKTANK	<input checked="" type="checkbox"/>	<input type="checkbox"/>	THINKTANK	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	PARADOX	<input checked="" type="checkbox"/>	<input type="checkbox"/>	dBASE IV	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	SUPERPROJECT	<input checked="" type="checkbox"/>	<input type="checkbox"/>	LUCID 3D	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	WORDPERFECT	<input checked="" type="checkbox"/>	<input type="checkbox"/>	CHARTMASTER	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	DSPLYWRT 4/2	<input type="checkbox"/>	<input checked="" type="checkbox"/>	WORKS 2.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	LOTUS 1-2-3	<input checked="" type="checkbox"/>	<input type="checkbox"/>	WORDPERF 5.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	AUTOCAD	<input checked="" type="checkbox"/>	<input type="checkbox"/>	PGMAKER	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	SIDEKICK	<input checked="" type="checkbox"/>	<input type="checkbox"/>	QUATTRO	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	EXCEL	<input checked="" type="checkbox"/>	<input type="checkbox"/>	MSCHRT	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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CRUISER 6.117 APP SURVEY

OS/2 PROTECT MODE

MYDM

OS/2 APPs/PMAPPs/TOOLS		RUNS	FAILS	APPs	RUNS	FAILS	
COMP. MINI-SUITE (FAT SYSTEM)	THINKTANK	<input checked="" type="checkbox"/>	<input type="checkbox"/>	THINKTANK	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	PARADOX	<input checked="" type="checkbox"/>	<input type="checkbox"/>	DBASE IV	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
	SUPERPROJECT	<input checked="" type="checkbox"/>	<input type="checkbox"/>	EXCEL	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
	MS WORD	<input checked="" type="checkbox"/>	<input type="checkbox"/>	LUCID 3D	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
	WORDPERFECT	<input checked="" type="checkbox"/>	<input type="checkbox"/>	CHARTMASTER	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
	DSPLYWRT 4.2	<input type="checkbox"/>	<input checked="" type="checkbox"/>	WORKS 2.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
	LOTUS 1-2-3	<input checked="" type="checkbox"/>	<input type="checkbox"/>	MS WORD 5.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
	AUTOCAD	<input checked="" type="checkbox"/>	<input type="checkbox"/>	WORDPERF 5.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
	SIDEKICK	<input checked="" type="checkbox"/>	<input type="checkbox"/>	PGMAKER	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	EXCEL	<input checked="" type="checkbox"/>	<input type="checkbox"/>	QUATTRO	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	CHIPCHAT	<input type="checkbox"/>	<input checked="" type="checkbox"/>	MS CHART	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
		<input type="checkbox"/>	<input type="checkbox"/>	PFS 1st PUB	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
	PRODUCT SUPPORT & OPERATIONS DEMO		<input type="checkbox"/>	<input type="checkbox"/>	FREELANCE	<input checked="" type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	FLIGHT SIMULATOR	<input checked="" type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	LOTUS V2.2 (UNDO PERF)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
		<input type="checkbox"/>	<input type="checkbox"/>	MS WORD	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
		<input type="checkbox"/>	<input type="checkbox"/>	STORY BOARD	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
		<input type="checkbox"/>	<input type="checkbox"/>	PROFESSIONAL WIRTE	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

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CRUISER BUILD PLAN

ITEM	TOTAL	WORK REMAINING	PBE	STATUS
POR				
- INTELLIGENT FONTS	15.0	0	12/08	COMPLETE
- ALOHA	.2	0	12/12	COMPLETE
- LAN REDIRECTOR	5.0	0	01/18	COMPLETE
- REXX	5.0	0	12/18	COMPLETE
- 3270 EMULATION			REPLACED by GEN HW	
- FAMILY 1/2 HAYES	4.0	0	01/09	COMPLETE
- 1.3 DCR ROLLOVER	2.5	0	01/29	COMPLETE
- DDE ENHANCEMENTS	1.0	.2	02/05	
- DCAF	1.0	1.0	02/12	IMPROVED DESIGN
- PERFORMANCE HOOKS	10.0	5.0	03/01	
- DEKKO HOOKS			03/01	
- PERFORMANCE	10.0	10.0		ON-GOING
- > 16MB UTILIZATION	6.0	.7	02/26	FILESYST
RAS		.5	03/31	RAS ONLY
- KEYBOARD HOTPLUG	1.3	.7	03/01	HW IMPACT
- AOX UPGRADE	2.1	.5	02/26	
- NOVELL REQUESTER	2.0	2.0	02/26	IMPROVED DESIGN
- GENERIC HARDWARE	8.0	0	01/31	COMPLETE
- PARTIAL MULTI BOOT	4.0	.5	02/26	
FDISK CMMND LINE SPPRT				
- MM SUPPORT	4.0	4.0	04/23	NEW DESIGN
(STREAM MGR SUPPORT)				
- DOS 5.0 COMPATIBILITY	7.0	4.0	02/28	
- XGA	4.0	3.2	03/31	
- XGA DCL			03/31	
- 8514 VDD	1.0	0	03/01	TESTING
- REMOTE INSTALL	3.0	2.5	04/30	NOT SHIPPED
- FIXTOOL	10.0	5.0	04/30	NOT SHIPPED
- CD ROM	17.7	0	01/15	COMPLETE
<hr/>				
TOTAL	123.8	39.8		

not shipped of Cruiser (part of CSB)

01/31/91

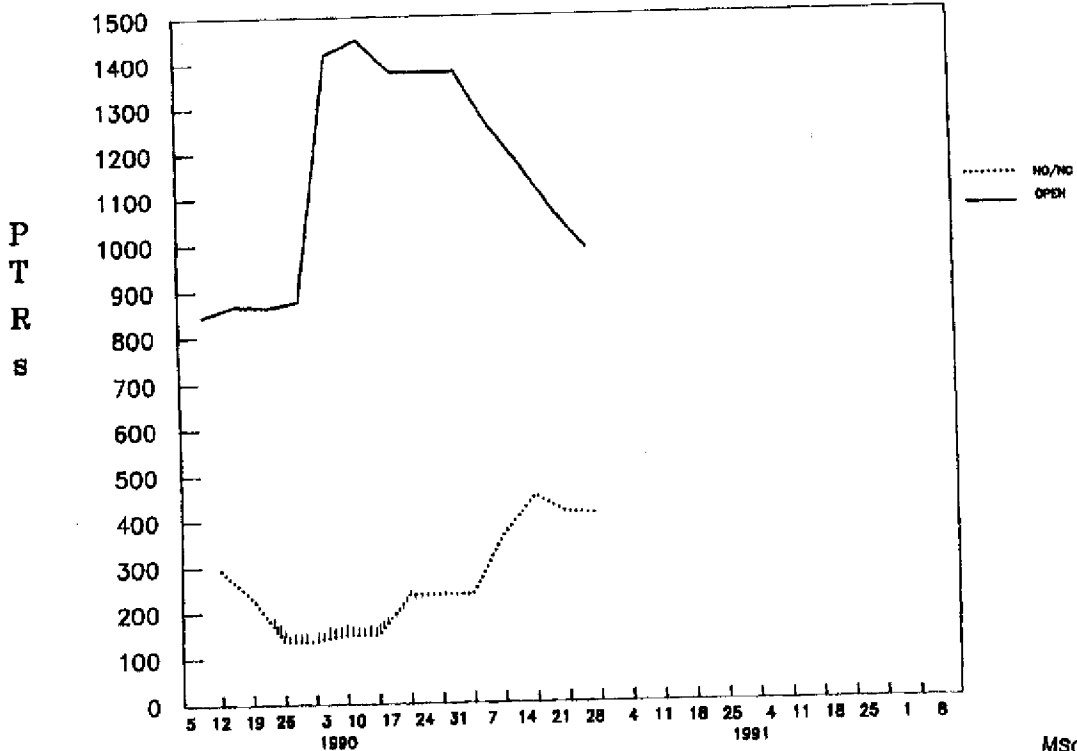
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SHI/CRUSCHE/ahb

**HIGHLY
CONFIDENTIAL**

MS-PCA 2612113

CRUISER PTR STATUS



HIGHLY
CONFIDENTIAL MS-PCA 2612114

OPEN 842 865 881 874 1428 1489 1386 1366 1386 1265 1170 1088 986
NO/NO 291 229 134 133 148 148 234 234 234 364 448 411 408

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MSC 00092822

CRUPTST3/ahb

DSCMS-PCA 000002612114

CRUISER

OPEN PTRs

CP DEV	328
PM DEV	530
PM TK	68
ID	36
MISC (B&I, SPEC, PIA, ...)	<u>24</u>
	986

01/31/91

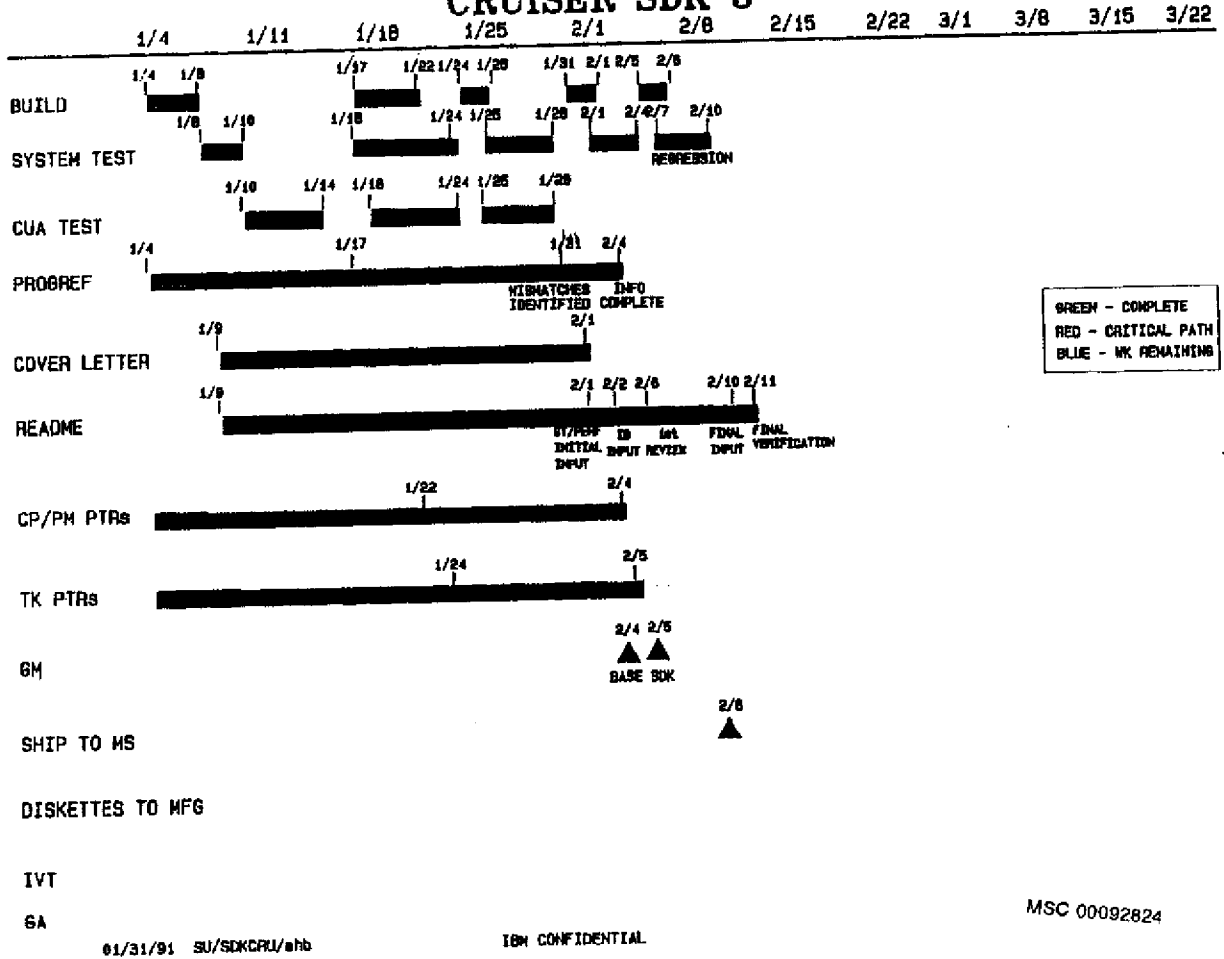
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CONFIDENTIAL** MS-PCA 2612115

DSCMS-PCA 000002612115

CRUISER SDK 3



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MS-PCA 2612116

01/31/91 SU/SDKCRU/ahb

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MSC 00092824

DSCMS-PCA 000002612116

SHIP CRITERIA

PERFORMANCE

- BETTER THAN CUTTER FOR 16 BIT APPS
- 20% - 30% BETTER THAN CUTTER FOR ALL 16 BIT APPS CONVERTED TO 32 BIT APPS (START-TO-FINISH PERFORMANCE - TIME REDUCED 20% - 30%)
- BETTER THAN WINDOWS 3.0 ENHANCED MODE IN DESKTOP MULTI-TASKING SCENARIOS
- EQUAL TO WINDOWS 3.0 ENHANCED MODE IN SINGLE-TASKING SCENARIOS USING 16 BIT APPS
- BETTER THAN DOS 5.0 RUNNING DOS APPLICATIONS

MEMORY UTILIZATION

- STAY WITHIN 1MB OF WINDOWS (AND CUTTER) IN ALL SCENARIOS FOR MAIN MEMORY UTILIZATION
- MORE MEMORY AVAILABLE BELOW 640KB THAN DOS 5.0
- NO MORE THAN 20% GREATER THAN CUTTER DASD UTILIZATION INCLUDING NEW CRUISER FUNCTION

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GM Performance Expectation

- 16-Bit Application
 - Performance
 - Better Than OS/2 SE 1.3

- 32-Bit Application
 - Performance
 - Up To 30% Better Than 16-Bit Versions
 - REXX is a "Showcase" 32 Bit Application

- MVDM Application
 - Performance
 - Equivalent to Windows 3.0 for Single App
 - Better Than Windows 3.0 for Multitasking

- System
 - Performance
 - Better Than OS/2 SE 1.3
 - Memory
 - All Scenarios within 1M of OS/2 SE 1.3

- Meet Ship Criteria
 - NO Known Show Stoppers

**HIGHLY
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MS-PCA 2612118

Performance Status

- 16-Bit Application
 - Performance
 - Up to 50% Degradation Compared to Cutter
 - Average 20%
- 32-Bit Application
 - Performance
 - 32-Bit App's will be 0 - 30% Faster Than 16-Bit Versions
 - Average Improvement Expected 15 - 25%
 - Reduced Segment Changes
 - Flat Memory Model
 - 32-Bit Arithmetic
 - 32-Bit Data Transfers
- MVDM Application
 - Multitasking Application Performance
 - Compared to Windows 3.0 Enhanced Mode
 - 0 - 5% Avg. Degradation
 - Stand Alone Application Performance
 - Compared to Windows 3.0 Enhanced Mode
 - 35% Avg. Degradation
 - 30% File System
 - 5% other
 - Compared to DOS 4.0
 - 20% Avg. Degradation

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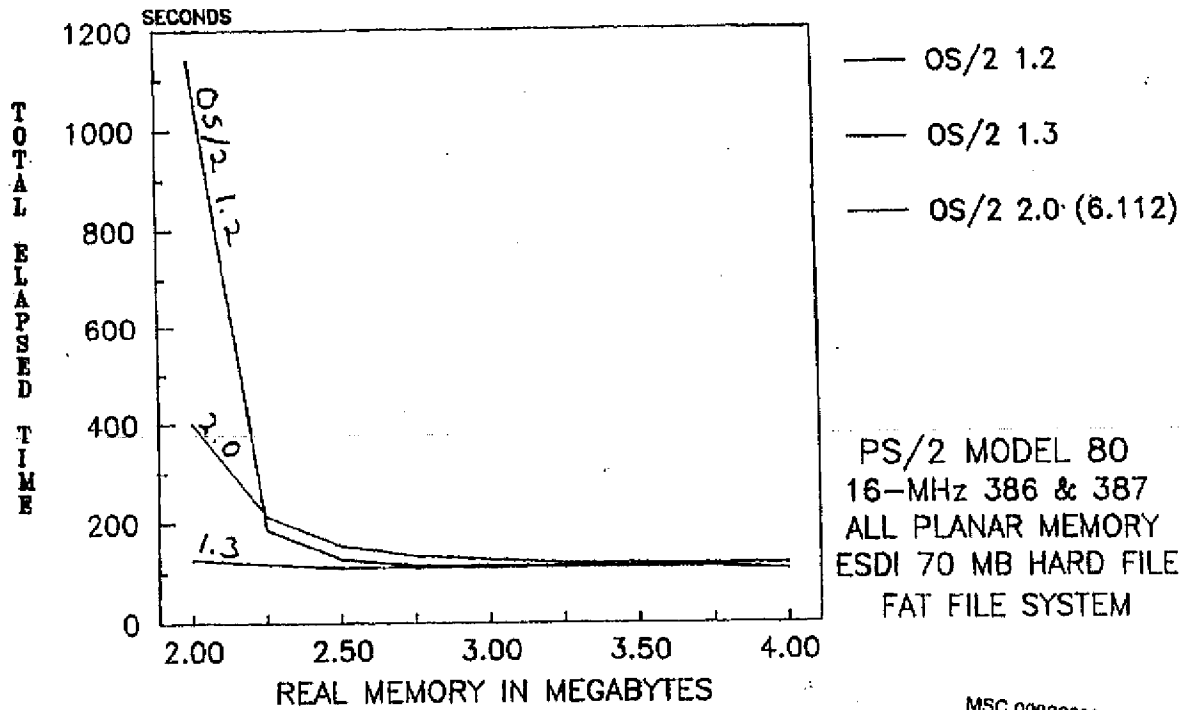
3

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Performance Status

- System
 - Performance
 - 28% Avg. Degradation (15 - 50% Range)
 - 15% Hardware
 - 13% Software
 - 10% 16-Bit Seg. Env. to 32-Bit OS
 - 3% Misc. (Thinking, Memory Growth)
 - Memory
 - 0.5M to 1.5M Larger Than Cutter

KNEE CURVE DATA CONCURRENT EXECUTION OF EXCEL and WORD PERFECT



PS/2 MODEL 80
 16-MHz 386 & 387
 ALL PLANAR MEMORY
 ESDI 70 MB HARD FILE
 FAT FILE SYSTEM

FEB 1 15:12 FROM IBM 80CR 812-8KB
 MS-PCA 2612121
 HIGHLY CONFIDENTIAL

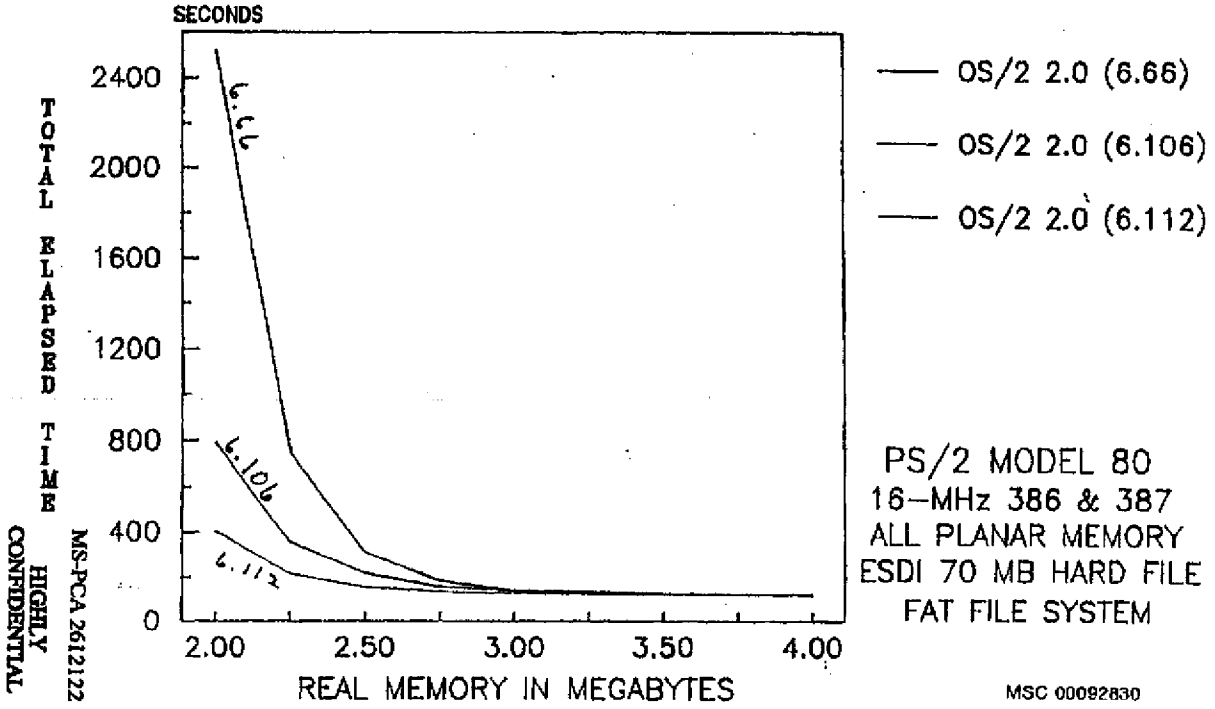
KDH

MSC 00092829

DSCMS-PCA 000002612121

KNEE CURVE DATA

CONCURRENT EXECUTION OF EXCEL and WORD PERFECT



TOTAL ELAPSED TIME
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MS-PCA 2612122
KDH

MSC 00092830