

HONEYWELL INTEROFFICE CORRESPONDENCE

JERRY SALTZER

DATE: 30 January 1973

TO: FORUM

FROM: R.E. Hoffman

DIVISION: DSO

SUBJECT: THE "MASTER PLAN" (revised 30 Jan 73)

YOUR NAME APPEARS IN A
FEW PLACES HERE. PLEASE
GIVE ME A CALL AFTER YOU'VE
HAD A CHANCE TO REVIEW.

Bob Hoffman

Attached is the revision of the "Master Plan" which we generated in the FORUM today. The person responsible for each activity should submit his targeted completion dates to me by Monday, February 5th, so that we can discuss the timing interrelationships at the 2/6/73 FORUM.

REH

R.E. Hoffman
Account Manager, MIT

REH/s

A. Practice Service

- system programmers being moved
- library services being moved
- run 10 to 16 hours per day with unscheduled shutdowns (weekdays)
- run 6 to 8 hours per day with unscheduled shutdowns (weekends)
- subsystem writers get access to 6180
- sufficient facilities to support software development
- training activities
- Development System available in addition to Service System
- partial Operations support

B. Trial Service

- starts at acceptance, runs for one month
- no need for System Programmers on 645
- no need for library maintenance on 645
- users and user files being moved from 645 to 6180
- FED headquartered in Building 39
- run 16 hours per day with scheduled shutdowns
- user conversion consulting available
- Trial Service also supported on Development System
- all services of Operations available
- scheduled full configuration

C. Real Service

- all 645 service functions on 6180 (with agreed-upon exceptions)
- starts one month after acceptance
- 6180 rental charges apply
- no System Programmers on 645
- run "7-day, 24-hour" schedule
- Development Service supported via "Bootload Time"

ACTIVITY
SUMMARY

MASTER PLAN
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(revised 30Jan73)

| <u>Person Responsible</u> | <u>Target Completion</u> | <u>* Activity</u> |
|-----------------------------|--------------------------|---|
| <u>A. Communications</u> | | |
| Ryan | | -- dataset and telephone schedule |
| Ohlin | | * -- terminals for Development Machine |
| Ryan | | -- coordinate equipment transfer |
| Burner | | -- communication to ARPANET |
| Ryan | | -- publish telephone numbers |
| Roach | | -- incorporate high-speed lines (ARDS) |
| <u>B. Field Engineering</u> | | |
| Gross | | -- FED training schedule |
| Ohlin | | -- FED schedules for both buildings |
| Kleinow | | -- move all parts and tools and documentation from 545TS to B39 |
| Kleinow | | -- space planning in B39 |
| Kleinow | | -- move HQ to B39 |
| Burner | | -- FED parking facilities |
| Ryan/Ohlin | | -- establish PM schedule on 6180 |
| Steinberg | | -- agree to 6180/645 priority |
| <u>C. Hardware</u> | | |
| Ohlin | | -- coordinate Processor updates |
| Ohlin | | -- coordinate Bulk Store updates |
| Ohlin | | -- move Bulk Store from 545TS to B39 |
| Steinberg | | -- move printers |
| Huffman | | -- model-E card reader |
| Ohlin | COMPLETE | -- 7/9-track conversion schedule |
| Huffman | | -- MTS500 installations and MTS400 phase-out |
| Ohlin | | -- install Development-355 |
| Gintell | | -- Peripheral switch installations |

| <u>Person Responsible</u> | <u>Target Completion</u> | <u>Activity</u> |
|---------------------------|--------------------------|---|
| Ryan | | -- DSS181 (move 3 DSU181) |
| Hoffman | | * -- DSS190 installations |
| Gintell | | -- Development System channels (PSIA & HSC) |
| Ohlin | | -- review power distribution |
| Burner | | -- ARPANET hardware (Gumpertz GISMO) |
| Hoffman | | -- removal of dual-645 system |
| Gintell | | -- high-speed communications hardware (Bisynch, etc.) |
| Hoffman | | -- improved PRT300 font |
| <u>D. Operations</u> | | |
| Ryan | | -- operator training |
| Ryan | | -- operator schedules for both 545TS and B39 |
| Ryan | | * -- recorded telephone message |
| Ryan | | -- new reporting forms and logs |
| Roach | | -- carry tape service (incl. 7/9-track tape coordination) |
| Ryan | | -- backup tapes for both systems |
| Ryan | | -- unit-record equipment management |
| Roach | | -- support tasks for Development System |
| Ryan | | * -- establish signup procedures |
| Ryan | | -- record keeping for Development System |
| Ryan | | * -- distribution of output |
| Ryan | | -- placement of operator consoles and Daemon consoles |
| Clingen | | -- special arrangements for Tech Square users |

| <u>Person Responsible</u> | <u>Target Completion</u> | * * <u>Activity</u> |
|-----------------------------|--------------------------|--|
| <u>E. Software</u> | | |
| Gintell | | -- EIS integration |
| Gintell | | -- IOM/355 software |
| Gintell | | * -- non-hardcore conversion (GCOS, debug, runoff, etc.) |
| Gintell | | -- dynamic reconfiguration |
| Gintell | | -- DSS190 |
| Gintell | | -- MTS500 |
| Roach | | -- wrap-up 645 installations |
| Saltzer | | -- LISP |
| Daley | | -- BASIC |
| Saltzer | | -- ARPANET |
| Roach | | -- library installation tools |
| Steinberg | | -- AML/IML |
| <u>F. System Acceptance</u> | | |
| Daley | | -- reliability test |
| Daley | | -- performance test |
| <u>G. System Assurance</u> | | |
| Roach | | -- establish system performance base-line |
| Roach | | -- train people |
| Roach | | -- dump analysis and reporting |
| Roach | | -- system testing |
| Roach | | -- hardcore installations |
| Roach | | -- non-hardcore installations |
| Roach | | -- expand quality assurance |
| Roach | | -- make installation tools operational |
| Roach | | -- review installation procedures |

| <u>Person Responsible</u> | <u>Target Completion</u> | <u>* Activity</u> |
|------------------------------|--------------------------|---|
| <u>H. System Programmers</u> | | |
| Gintell | | * -- schedule individual moves |
| Clingen | | -- resolve criteria for usage of Multics Project |
| <u>I. Move the Users</u> | | |
| Daley | | * -- make user documentation available |
| Daley | | -- establish conversion consulting service |
| Burner | | -- recompilation service |
| Burner | | -- establish rates |
| Burner | | -- establish two-system pricing strategy |
| Daley | | * -- give subsystem writers early access to 6180 |
| Roach | | * -- install check object and other tools |
| Burner | | -- register and move users onto 6180 |
| Daley | | -- implement two-system pricing strategy |
| Burner | | -- plan for pulling the plug on the 645 (remember CTSS?) |
| Daley | | -- user tapes (operator interface, etc.) |
| Daley | | -- detailed <u>cooperative</u> move plan for big projects |
| Saltzer | | -- network users |
| Burner | | -- non-paying users |
| Roach | | -- non-transfer of obsolete software |
| Steinberg | | -- document user/operations interface changes |
| Hoffman | | -- make 6180 manuals available |

Hardware Activities

(revised 30Jan73)

Operational in B39

CPU-A
 CPU-B
 Mem-A (incl. SCU+128K)
 Mem-B (incl. SCU+128K)
 Mem-C (incl. SCU+128K)
 IOM-A (incl. 7-CPC+Console)
 IOM-B (incl. 8-CPC+Console)
 355-A (incl. TN-A + PFP-A)
 BSS-A (incl. BSC+2CSM)
 MT400 (6) (incl. 2x16 MTC)
 DS181 (3)
 DS190 (3)
 CR201 PRT202-A
 CP201 PRT202-B
 Tuck-A

On-site in B39, make operational ASAP

355-B (waiting on phone lines)
 MGC (waiting on power shutdown)
 CPC-8 and GISMO
 FCO's for CPU-B
 TN-B and PFP-B (needs adapter)

On-site in B39, to be relocated

Tester and CR-10
 DS181 (incl. MPC181 and 3-DSU)
 CR201 (to second floor)
 CP201 (to second floor)

Operational in 545TS

Dual-645 System
 PRT300-A
 PRT300-B
 BSC-B
 BSU-3 (reworked 256K CSM)
 BSU-4 (reworked 256K CSM)
 Tuck-B,C,D

To-come from Honeywell to 545TS

BSU-7 (reworked 256K CSM)
 BSU-8 (reworked 256K CSM)

To-come from 545TS to B39

PRT300-A (replaces PRT202-B)
 BSS-B (incl. BSC+4CSM)
 Tuck-B

To-come from Honeywell (or Phone Company) to Building 39

BSU-5 (reworked 256K CSM)
 BSU-6 (reworked 256K CSM)
 190-4
 190-5
 190-6
 190-7
 190-8 (not yet on-order)
 190-Dev (+ EDE)
 DCH + 2EDE + 8DAD190
 Comm-cables (short)
 Bisynch-A
 Bisynch-B
 HSS and HSA (both Dev)
 EIS-A
 EIS-B
 Pedestal + Adapter + cable for TN-B
 MT500(3) (incl. 1x8 MTC)
 DCH501
 MT500(5) (3/MIT+2/Dev)
 Switch 4,5,6,7,8
 Datasets
 Phone Lines

Return from Building 39 to Honeywell

PRT202-B
 ASR-33
 PTC300 (non-ASCII train)
 4-HSC355 (from 355-B)
 Comm-cables (139 @ 50-ft)
 MT400 (6) (incl. 2x16 MTC)

Remove from 545TS

Dual-645 System
 PRT300-B
 Tuck-C,D

Software Activities by Multics Development Project

EIS

- PL/1 using all 8 pointer registers
- Implement EIS Tester
- Implement EIS in Phoenix
- Checkout EIS in Phoenix
- Define PL/1 EIS Operators
- Install EIS at MIT
- Some PL/1 operators using EIS
- All PL/1 operators using EIS
- In-Line PL/1 code using EIS

IOM/355

- Card Reader
- Card Punch
- HSLA Software
- BLAST
- Firmware loading by BOS
- 355 loading by Multics
- 355 Dynamic Reconfiguration
- PIM in Ring-Ø

Other

- GCOS with BAR mode
- Debugger
- No-console Deemons
- Runoff/BCPL
- Move portion of AML to Development Library
- FDUMP (Fast Dump onto Disk) and on-line dumper
- Dynamic reconfiguration of Memory and Processor
- Bulk Store and Page Multi-level
- ALM: new instructions

Development

- Second MPC channel to Development System
- Dynamic reconfiguration of Bulk Store

DSS190

- Error correction by software
- Dual-channel on one system

MTS500

- BOS software
- Multics software
- Dual-channel on one system

645 Installation Software Activities

Check object

Initial ACL's etc.

Storage system performance enhancements (also used on 6180)

Area stuff

Cheaper process (low-cost service)

Faster PL/1 v2 items

New link type

Fix certain outstanding bugs

Special Software Activities

Person Responsible

LISP

Saltzer

BASIC

Daley

AML (less Honeywell stuff)

Steinberg

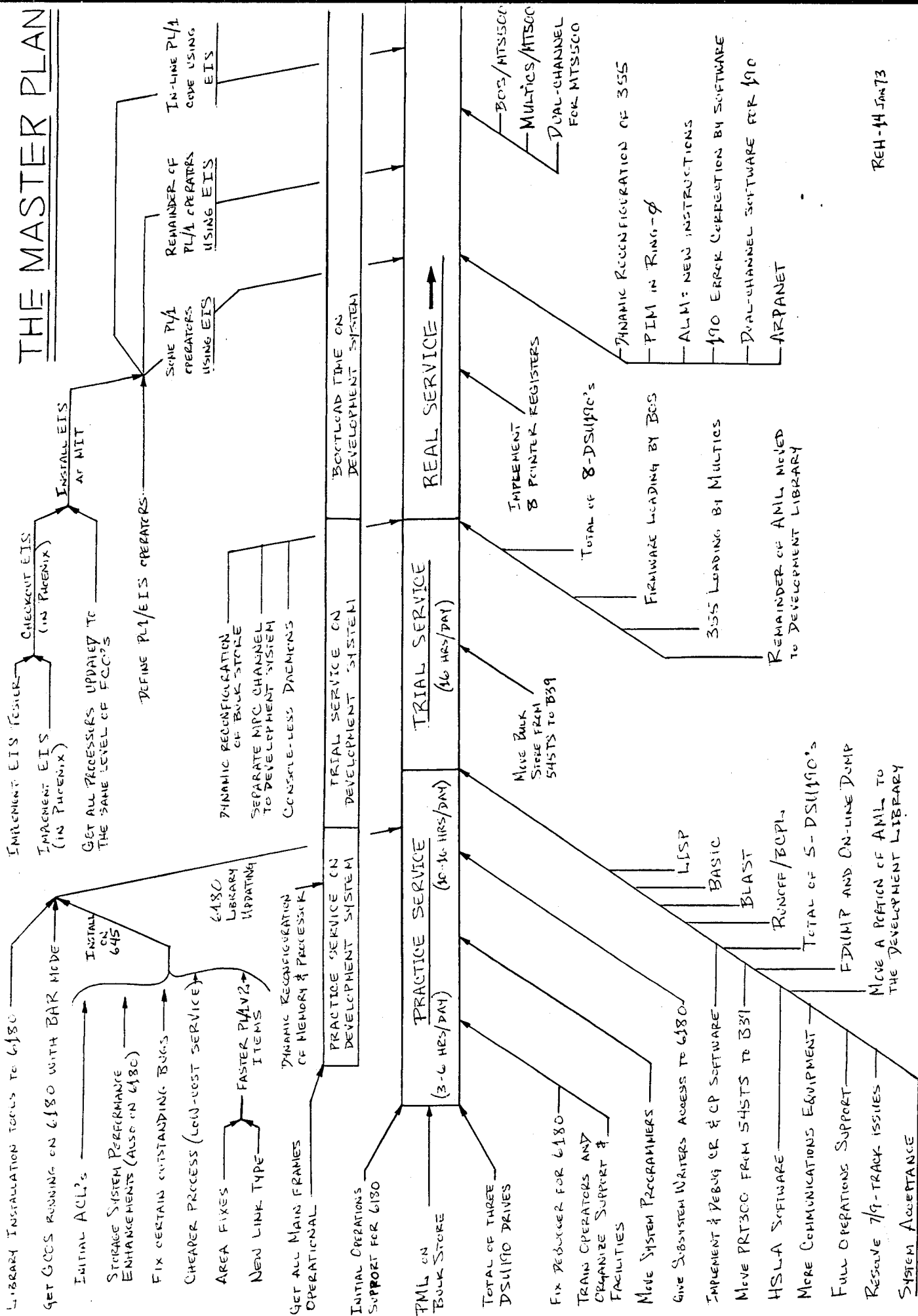
ARPANET

Saltzer

Library Installation Tools

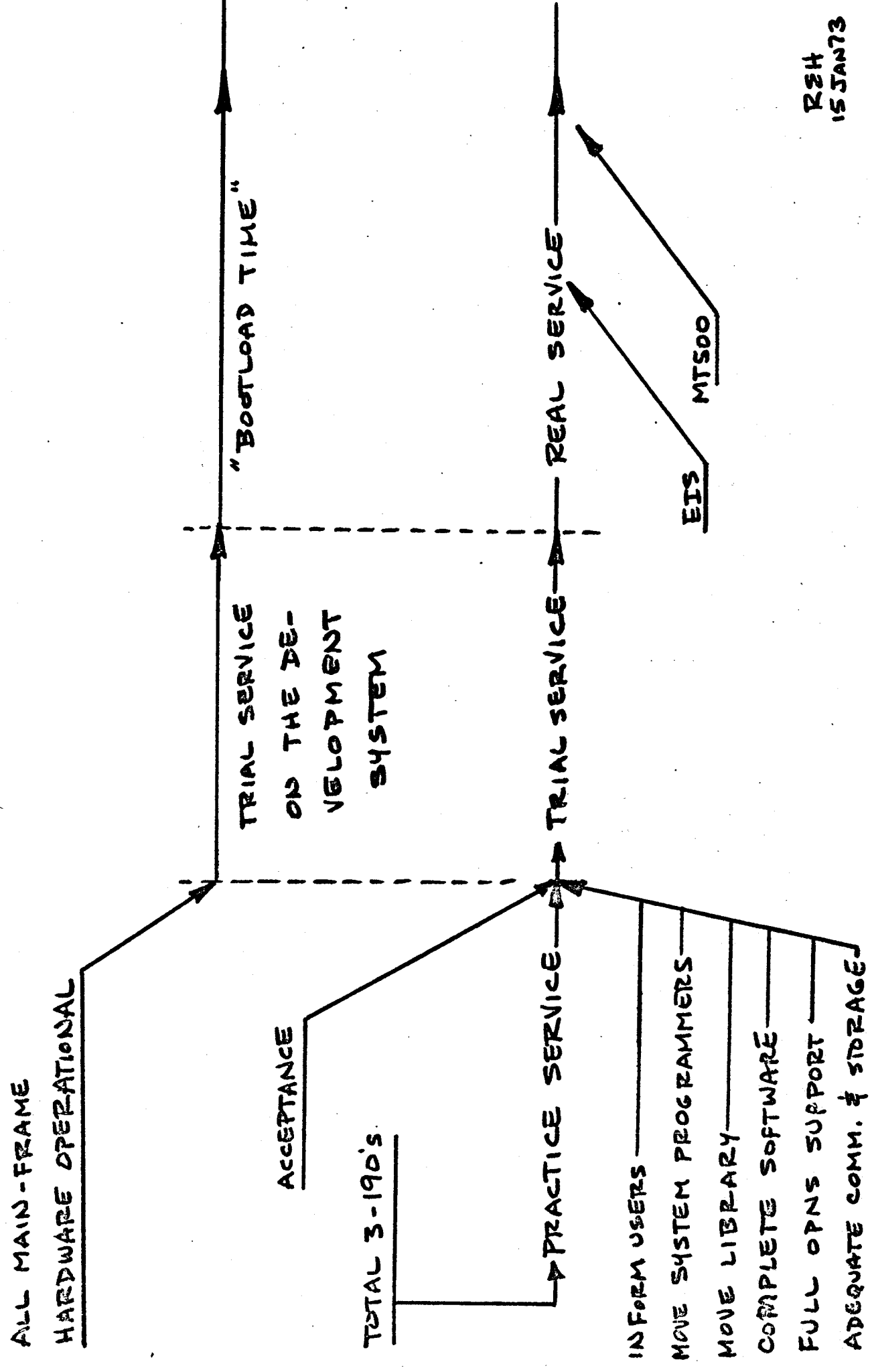
Daley

THE MASTER PLAN



REV-14 JAN 73

Most-Critical Activities



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