

*C. Larson*

SOFTWARE DEVELOPMENT MEETING #20

Held on August 23, 1967 at NASA/MSC

ATTENDEES

NASA

T. Gibson  
R. Nobles  
J. Williams  
J. Stokes  
L. Dunseith  
W. Ankney

BELLCOM

G. Heffron

MIT/IL

D. Hoag  
E. Copps  
R. Millard

1. Numbering of Meeting Minutes

Minutes of Software Development Meetings will be numbered starting with this meeting which is meeting number 20. Previous minutes were not numbered.

2. SUNDANCE

(a) Earth Orbital Mission

SUNDANCE will be a manned earth orbital LM program using the applicable parts of the 504 GSOP. A method will be devised to indicate this reduced program in the GSOP. This will be discussed on 29 August. SUNDANCE will have first priority after delivery of SUNDISK.

Action Item - NASA to define the reduced program for an earth orbital mission. (To be presented at the August 29th meeting).

(b) DAPs Identification

To eliminate confusion it was suggested that a name be given the various configurations of the LM DAP's. The following names shall be used:

- (1) SUNBURST DAP - DAP in SUNBURST (LM-1)
- (2) Improved SUNBURST DAP - DAP presently in SUNDANCE (LM-2)
- (3) Simplified LM DAP - Simplified DAP proposed for SUNDANCE (LM-2)

3. Level 1 and 2 Test Results

Action Item - MIT/IL is to check on method of shipping test packages and STG Memos to MSC. MIT to assure all required test results are being sent correctly and identifiably.

4. SUNDANCE (Earth Orbital) Development

The steps necessary to plan the SUNDANCE program development on an orderly and priority basis was discussed. Since there is a considerable overlap of people the following items are in series with the detailed planning and implementation on SUNDANCE: -

- (a) Completion of SUNBURST DAP. (31 August)
- (b) Configuration Control of SUNDISK (11 September)
- (c) Erasable load for 501. (1 September)

The elements necessary for a SUNDANCE plan were discussed as follows:

- (a) Chapter 5 of GSOP. The level 1 and 2 tests are scheduled in the development plan by completion dates and documentation delivery dates.
- (b) SUNDANCE must be assembled as a subset of the lunar program; thus the computer storage requirements must be agreed to at the 29 August meeting.
- (c) MSC will specify the sub set of the 504 GSOP which will constitute the earth orbital SUNDANCE rope. (To be presented at the 29 August meeting as a letter of direction).
- (d) Coding work has been done on SUNDANCE however no firm schedule on any mission development plan can be given until Chapter 4 and 5 are approved and a subsequent plan designed. In this case the plan can be expected by 11 October if all the previous assumptions hold true.
- (e) Program Changes (Bugs not MDRB's). MSC expressed the desire for an insight to the progress on clearing the programs of these type of changes. The main problem in reporting these changes is picking a point in the program development where the number is manageable. It appears that at the start of level 4 testing is a logical point to formalize a discrepancy status and to generate a periodic report.
- (f) Wire trace of level 3 and 4 Tests. MSC desires a wire trace of the tests marked in a Section 4 of the GSOP. MIT will try to provide this with the verification plan.

5. Development Plan Format and Content

The following items were discussed as requirements for future development plans.

- (1) Each individual plan should carry a preface which gives the basic assumptions under which the plan was developed.
- (2) A Master Development Plan is required to allow the evaluation of individual program schedule change impact on all programs under

development. In addition this plan should provide the ground rules such as priorities, assumptions, etc. that were used in development of the master plan.

- (3) Break up milestones to show completion of testing and publication of test results.
- (4) Develop contents to show relationships of processors to programs and programs to Verification Tests etc.
- (5) Update and review plans more frequently thus making the development plan a tool for planning and scheduling and not a recording of history.
- (6) MIT presented a proposal that the development plans be sectionalized and only changed sections issued at each update. The title page would indicate the current status of each section.

7. SUNDISK Configuration Control (FACI)

SUNDISK Configuration Control and FACI are scheduled for September 11. The following items will be reviewed at that time.

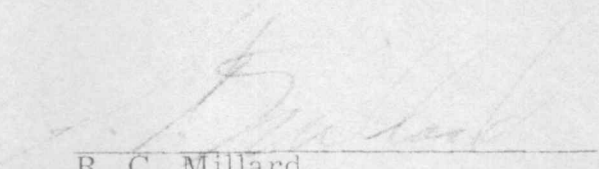
- (1) A review of all changes made to the assembly subsequent to Revision # 235 which was submitted to NASA on August 23, 1967.
- (2) A review of known documentation errors.
- (3) A review of the status of MSC and MIT/IL found discrepancies.
- (4) A review of the Extended Verb and Alarm matrices.
- (5) A review of the informal test results.
- (6) A review of the DAP.
- (7) Review level 3 and 4 test results and evaluate discrepancies.

8. General

- (1) MDRB-278-73 was returned to NASA/MSC for revision of the approval by NASA.
- (2) NASA/MSC is going to request that MDRB 278-79 be revised to make two (2) entry quantities an erasable load.

8. Next Meeting

The next scheduled Software Development Meeting is scheduled for September 6 at MIT/IL.

  
R. C. Millard

RCM/krm

cc: Attendees of Reg. Software Mtgs.  
W. Sturm K. Cox