

Inter-Office Memorandum

To System Software Section Date January 22, 1977

From Wendell Shultz Location Palo Alto

Subject Software Quarterly Report Organization ITG/SDD/SD

XEROX

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INTRODUCTION

There is a great deal of information that people may be interested in that does not get distributed in memos or in regular meetings. Rather than having more meetings (I think most of us have enough meetings already), I would like to put out a periodic information report. This is the first of what will be regular quarterly reports. I will put out special reports between the quarterly reports, as required. I believe that factual information conveyed in this manner will be useful and will aid in communication. There will be frequent group meetings and from time to time we will have a full section or department meeting. Feel free to ask me, or your supervisor, about any items in these quarterly reports or special reports that are not clear or about which you have comments.

ADMINISTRATIVE INFORMATION

We have set up new task numbers under our budget center (0125) to be used for 1977 travel and expense charges. These new numbers are by project, as follows:

<u>Project Name</u>	<u>Task Number</u>	<u>PARC #</u>
Program Management	0125640114	97
Diagnostics	0125645101	25
User Interface	0125645201	26
Tools & Mesa	0125645401	27
Data Mgmt	0125645501	28
Pilot	0125645601	29

Use the *PARC Budget Center #* (e.g. 29 for Pilot) for any charges in the PARC/SDD-Palo Alto administrative system -- such as travel or purchase requisitions. Use the *Task Number* on any time charges. Normally, most of you will not need to use these numbers very often, but the group managers will use them occasionally.

FACILITIES

SDD/SD has signed an agreement for space in the new building going up next door to building 34 (our present building). We will have about half of the second floor, or about 12,000 square feet. This space is scheduled to be ready for us to move in between June 1 and July 31, 1977. Until that time we will begin going to two-person offices in this building as more people join our project. This is unfortunate, but is really for a very limited time and I think we will be able to get by without too much trouble. The SDD people in the A/E building in El Segundo are also faced with a space crunch, and there is no permanent solution worked out for them as yet.

ORGANIZATION

A new organization was announced about a week ago for our section. A copy of this is attached. Ed Stritter, who was shown on that chart, is *not* going to be joining us after all -- his fiancée could not get into a law school in this area, and so he is taking a job in Texas instead, since she is in a good law school there. Bob Ayers will be phasing over during the first quarter to the data management project under Charles Irby. Since Charles Irby had been involved in so many of our projects and has so much experience in a wide range of areas, we will continue to use him to review and comment on many aspects of the tools, Mesa and file management for some time to come, although he will be very busy in the user interface and data management areas. We have one job offer outstanding at this time (for the User Interface project under C. Irby), and are about to make three more job offers for the Pilot area. We are mainly looking for people for file management, data management, or diagnostics. Tell me if you know of any good candidates for these or for other possible system software roles for the section.

The summary organization charts for all of SDD and SD are attached. Also, the organization charts for the Janus (DWP) and RIS/ROS software applications sections are also attached. Many of you will be interfacing with some of these people, or will be receiving calls from them for support of various kinds. So you may be interested in the list of players in these other organizations, as well.

PRODUCT PROGRAMS

There are two Xerox product programs that have been officially approved that affect us and OIS system software. These two programs are:

- Janus -- Formerly called DWP for Display Word Processor
- Adam -- A RIS/ROS copier with EARS-like printing options

It is possible that there will be an earlier ROS (raster output scanner) project approved soon, so I will delay discussion of RIS/ROS products until a later time.

Janus is the first OIS-like product program. (All product dates, and explicit product information, is Xerox sensitive and should not be discussed with people outside Xerox.) This product was given the go-ahead by Souders (Executive VP for all US operations) in early October last year. It will be an advanced soft display word processing system based on the D0 processor and on editing software evolved from Bravo. It will use Pilot as its operating system and will use the user interface facilities and data (object) management software being developed by our common software group. Xerox expects to install tens of thousands of these units through the early 80's. I have several detailed documents which describe the business plan and the technical program goals for this product. All of these documents are very thick and are Xerox Private, but you are welcome to borrow some of them or to go over points of special interest if you wish. (See the references at the end of this memo.)

The organizational responsibilities for the Janus project are as follows:

- . GPM (Group Program Manager) -- Bill Gable, ABC
- . TPM (Technical Program Manager) -- Hal Lazar, SDD/SE
- . ABC -- Business Planning and Product Goals
- . OSD -- Sales and service (Office System Division, Dallas)
- . OSD -- Develop and manufacture display and keyboard
- . Diablo -- Develop and manufacture disks and hytype printer
- . Versatec -- Develop and manufacture electrostatic printer
- . SDD -- Overall architecture and development
- . SD -- Overall architecture, SD in Palo Alto

- System engineering, SE in El Segundo
- D0 processor design in SD in Palo Alto
- System software in SD in Palo Alto
- Applications software in SD in El Segundo
- Prototype software in SD in Palo Alto
- Communications hardware and software, SD in PA

. EOD -- Manufacture D0 processor and power supplies

COMPLETED ACTIVITIES -- 4Q76

The system software section completed several major activities or milestones in the fourth quarter of 1976, such as:

- . Release of Mesa Language Manual in October
- . Release of an improved Alto-based Mesa compiler in early December
- . Release of a smaller (repackaged) Mesa run-time
- . User interface working group has issued several reports
- . Release of a complete draft of software development standards
- . Development of a software simulator of D1 IFU
- . Preliminary source lister and cross reference program
- . Working prototype of the *local* Program Librarian
- . Spinrad review and presentation of all SD projects (in October)
- . Completion of a preliminary draft of Pilot Functional Specification
- . Completion of a draft of the Tools Environment Functional Specification
- . General system design review by all managers (December 13-15)
- . Initial review and response to Janus product goals
- . Specification of disk strategy for Pilot support of Janus and Adam
- . Increase in section staff by 9 people

NEW ACTIVITIES -- 1Q77

Several specific milestones and major activities are planned for this quarter:

- . Release of Pilot Functional Specification (outside Pilot group)
- . Release of the Development Tools Environment Functional Specification
- . Revision and release of all system software work plans
- . Release of approved Software Development Standards
- . Drafts completed in most design areas of Pilot
- . Diagnostic strategy to be published
- . Additional release of Mesa compiler and run-time
- . Completion of training aids or classes for Mesa and tools
- . Release of Cross Reference program
- . Release of initial Program Librarian, using MAXC file system
- . Plans complete for SDD support of Mesa system
- . Draft of User Interface Functional Specification
- . Release of simple Program Analyzer (call tracing)
- . Release of File Utilities Functional Specification

ACTION ITEMS

There are several items worth noting at this time.

Archive: Please give Ode copies of all memos and technical documents as you release them so that she can archive them (after Ode starts on January 31). It will help communication immensely if we have a list of all memos, reports, and other documents that are produced in the section. The archive scheme will not work, especially with everyone producing their own memos, unless you all make an effort to make it work. It is really very important and

should not take very much of your time if you get in the habit of using it. Please go back through your files and give Ode old memos that should be in the archive. Ode will then publish a list of available technical memos and reports on a regular basis (initially, every two weeks).

Teamwork: The new organization emphasizes small, coherent groups. It is important that these groups meet regularly and that all members think of themselves as belonging to a design team. We want to encourage the team approach, and take advantage of the creativity and experience of all members of the group.

Mesa Technical Review: A three man committee (Lynch, Lampson, and Mitchell) has been set up to evaluate problems, issues, and suggestions regarding Mesa. Their recommendations will be given to management for evaluation of priority and resources for changes or additions to the Mesa Compiler or run-time.

Development Standards: As soon as the proposed software development, design, documentation, and coding standards have been approved by all of the software development organizations, they will be used for all software development. Many of these standards are already being used by our section. We will begin to use the rest of them as they are relevant. Many of you have seen and contributed to this effort. This should help the different software groups in SDD communicate more easily with each other.

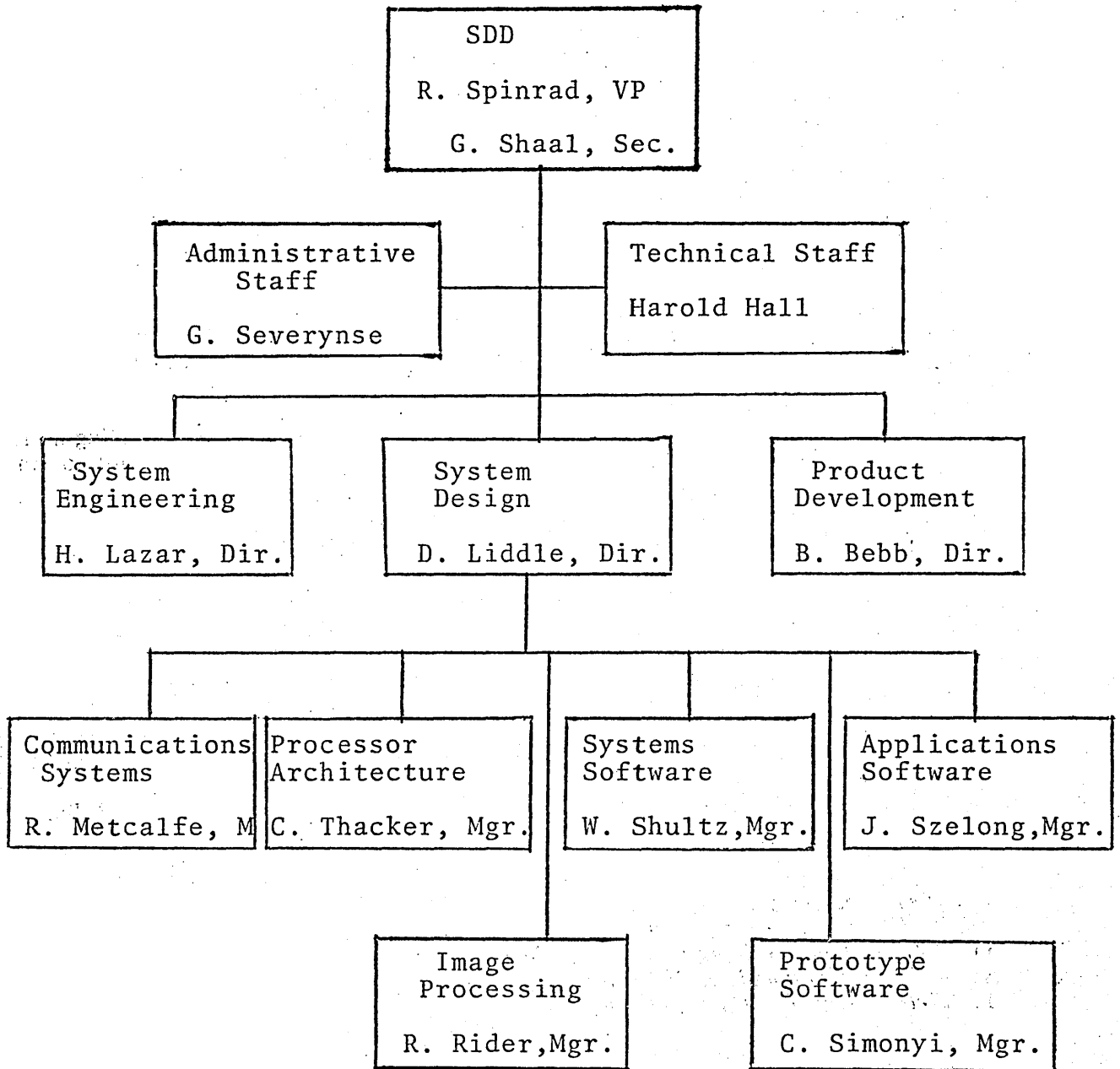
Testing: We will study the question of system testing and Quality Assurance testing-more in the months ahead. The reliability of OIS system software is very important to timely development of the entire OIS program.

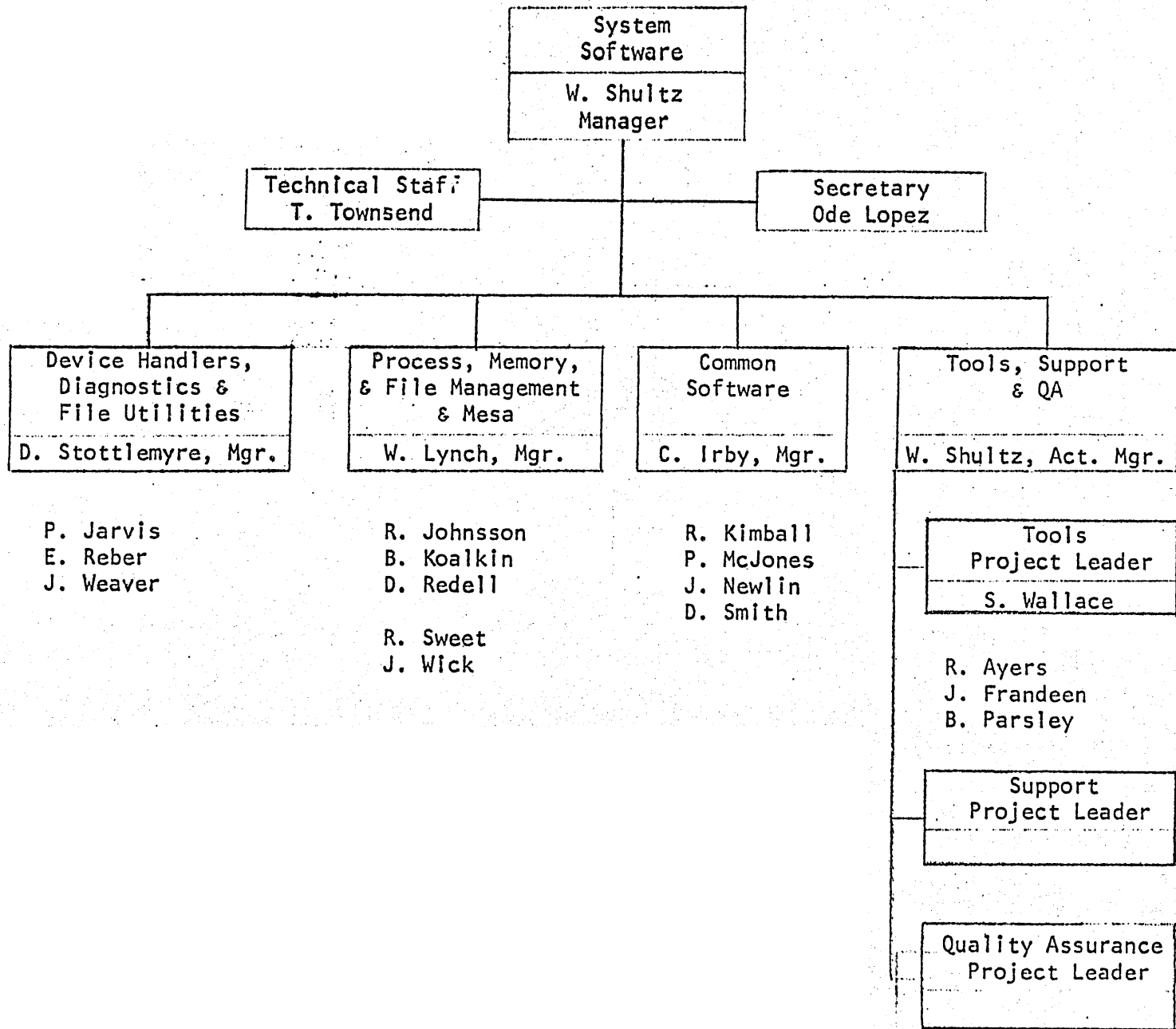
REFERENCES/REPORTS

1. *OIS Architectural Principles*, January 1976. By SDD/SD. (33 pages)
2. *OIS Processor Principles of Operation*, January 1977, version 1.3, by SDD/SD (90 pages)
3. *Pilot: The OIS Control Program Concepts and Facilities*, August 1976, by SDD/SD (86 pages)
4. *Mesa Language Manual*, version 1.0, October 1976 by SDD/SD and PARC (141 pages)
5. *The Elements of Mesa Style*, version 1.0, June 1976 by J. Morris (75 pages)
6. *Mesa Functional Specification*, version 1.0, August 1976 by SDD/SD (41 pages)
7. *Pilot: The OIS Control Program Functional Specification*, December 1976, version 1.0, by SDD/SD (70 pages)
8. "Gypsy", *An Investigation of the Ginn Computer-Assisted Editing System* by B. Burr and R. Kimball, 9-29-76 (50 pages)
9. *OIS Development Tools Environment Functional Specification* by SDD/SD, version 1.0, January 1977
10. *DWP Feasibility/Definition Phase Proposal: Executive Summary* by Bill Gable, 1-6-77 (27 pages) (restricted data)
11. *DWP System Development and Manufacturing Plan* by ITG, 11-22-76 (about 150 pages)
12. *DWP International Goals* by ABC, Revision A, September 1976 (about 50 pages)
13. *Methodology For User Interface Design*, by SDD and PARC, August 1976 (52 pages)

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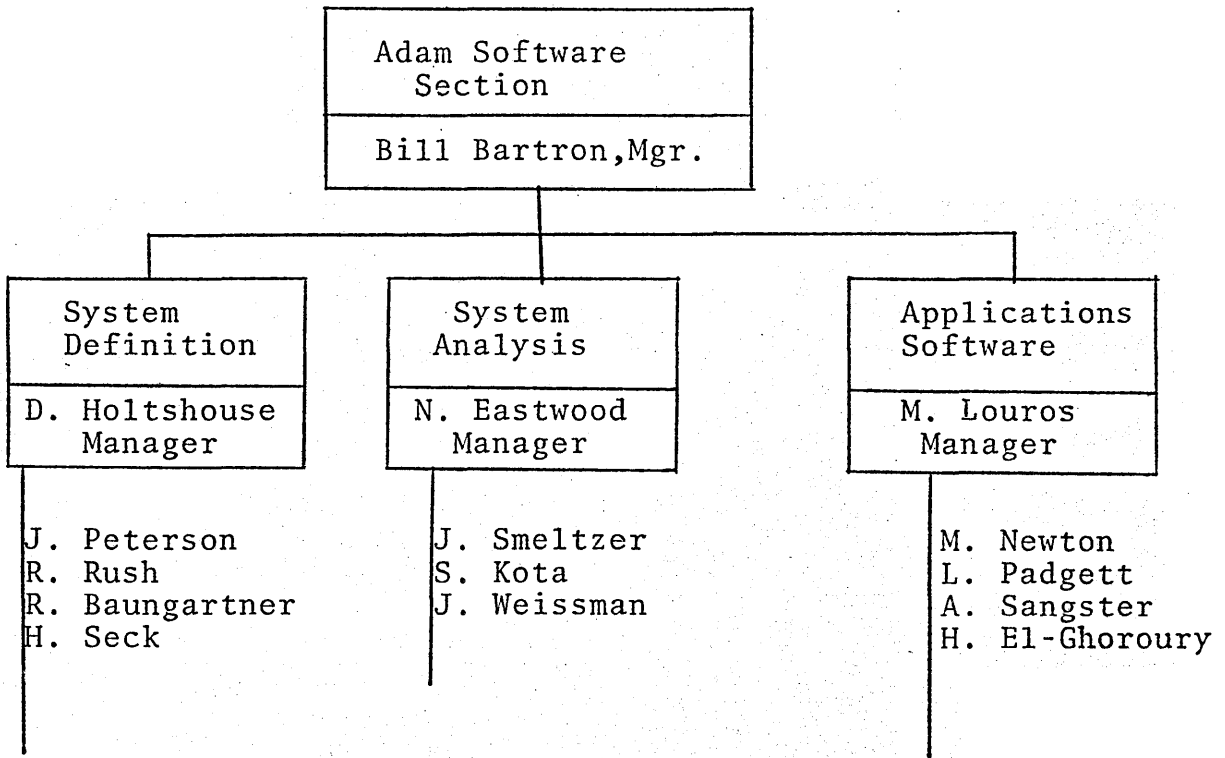
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10/21/76
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Note: This section is in the Product Development Department.