Mainframe History and the First User's Groups (SHARE)

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"Programming" (and programming support) was an old data processing concept that originally was broadly defined as the adaptation of general-purpose devices to specific tasks. Programming therefore goes back to Herman Hollerith wiring and rewiring (programming) his equipment to handle specific jobs. By the early 1930s IBM was distributing information about novel (for the time) plugboard wiring diagrams to customers via a publication called *Pointers*. Some of these diagrams were created by IBMers, but more importantly, many were created by customers who were willing to share their solutions with other customers. A culture of programming support and sharing was well in place among IBM and its customers long before the S/360. Actually, it was in place long before the first IBM 701 (the Defense Calculator) computer was installed. Adapting this culture to meet the evolving requirements of its customers proved crucial to IBM's success.

In August 1952, thirty representatives from the prospective customers for the IBM 701 were invited to the IBM facility at Poughkeepsie, NY for a week long training class. This class also gave these pioneering customers their first opportunity to test some programs they had written by running them on an engineering model of the IBM 701. These customers also began sharing their programs amongst themselves. They and their installations took a great deal of professional pride in developing programs and subroutines that were effective and put in use by other installations. Several of the participants at this training class decided to continue discussing programming and mutual problems on an informal basis. They held their first meeting in February 1953 during the AIEE-IRE Computer Conference in Los Angeles, CA. They decided to hold a subsequent meeting, which was hosted by the Douglas Aircraft Company in August 1953 in Santa Monica, CA. This second meeting was attended by representatives from five companies with installed IBM 701s, and six IBM customers who had ordered, but not yet received their 701s. Representatives from IBM also attended.

These informal customer meetings continued. Then, in August, 1955 following an IBM symposium in Los Angeles, the RAND Corporation hosted a meeting consisting of representatives from seventeen installations that had ordered the IBM 704. During this landmark meeting, the computer industry's first "User's organization" was formally created. The name SHARE was chosen as its purpose was to promote the sharing of information and programs among the users of the IBM 704 computer and to influence IBM's future developments in hardware and programming support.   As described in a June 1956 article by F. Jones (entitled SHARE-A Study in the Reduction of Redundant Programming Effort through the Promotion of Inter-Installation Communication), "SHARE is a voluntary, informal organization of the users of the IBM Type 704 electronic data processing machines. It is devoted to 1) the standardization of machine language and certain machine practices, 2) the elimination of redundant effort expended in connection with use of the computer, 3) the promotion of inter-installation communication and 4) the development of a meaningful stream of information between the user and the manufacturer.

By May 1956, SHARE membership was 47 installations, and this included all announced and prospective users the IBM 704. Other user groups formed over the next few years including USE (Univac Scientific

Exchange) and GUIDE (at the time the organization for users of IBM's business oriented computers). The highly cooperative nature of these user groups/organizations is suggested in excerpts from the November 1956 SHARE Conference Proceedings, "Obligations of a SHARE member": "It is expected that each member approach each discussion with an open mind, and having respect for the competence of other members, be willing to accept the opinions of others more frequently than he insists on his own."

Over the last 56 years, the SHARE organization has continued to grow. SHARE has made numerous contributions to not just the initial development of computer programming as a discipline, but to the entire IBM customer install base, and in particular, to the IBM mainframe community around the world. Of particular significance was the pioneering work of several west coast SHARE members on programs that manage and allocate the hardware and software resources of a computer to facilitate the writing and running of application programs (i.e. operating systems). IBM's first operating system, developed for the IBM 709 and introduced in 1959 was a direct outgrowth of this SHARE effort. Hence the name SOS which was an acronym for SHARE Operating System.

The same spirit at SHARE continues today. As SHARE members like to say "SHARE is not an acronym, it's what we do." The next SHARE Conference is in August 2011 in Orlando, FL.