General Information and Overview-

What are the Mellon Bank Shared Spool mods, and what can they do for you?

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The shared spool mods enhance the JES2's job selection algorithms by providing additional requirements for job scheduling when running in a JES2 MAS, or Multiple Access Spool configuration. By coding one or more new JCL statements we can now restrict which system a job runs on to those systems that have a particular resource assigned to them. For instance, assuming you have some number of jobs that can only run where a particular resource exists - a CICS region, a vendor program, or maybe where extra tape drives attached, and assuming those resources may be available on different systems in the MAS configuration each time your jobs are submitted, you can still ensure your job is only initiated on the correct systems, by using the shared spool mods. Another enhancement allows jobs to execute only on the LPAR that they are submitted from. Still other enhancements allow job execution, only while other job names are in execution, or only after other job names have completed.

A final further extension used in many shops allows you to create an arbitrary resource name and have any jobs you wish coordinate their execution of based on the need for exclusive or shared access, of that arbitrary resource name before selecting it for execution. No previous resource name setup is required to use this feature; only agreement among the participating jobs on the resource name you wish to co-ordinate your job execution on. An example of this feature is to serialize SMP/e jobs, by local agreement all systems programmers could use the CSI name as their arbitrary resource name to serialize their SMP/e jobs. For instance, I could serialize exclusively for an apply job using a "/*CNTL csi-zone-name,EXC" statement, or I could hold as shared, the same name as shared, by using a "/*CNTL csi-zone-name,SHR" statement for reporting jobs. Another example would be to create an arbitrary name and have all participating jobs enque on the name exclusively using a "/*CNTL resource name,EXC" to prevent more than one of the participating jobs from running at the same time. This technique could replace the use of dummy DD statements with a DISP of OLD, solely to single thread a sequence of jobs.

- History of the Mellon Mods, at least as I know it. -

I must say at the outset, that we are not, nor have we ever been MELLON BANK. That being said, my company has maintained the Mellon Mods, and provided updates for the CBT tape for many years now, I have maintained them personally for the past ten years, and they were

maintained by others at this company for several years prior to my arriving on the scene. Around the turn of the millennium, I completely rewrote the mods with some help from others, Bob Break of St. Louis, (check the CBT tape for his JES2 module reload exit), and Judy Runt, and the other good folks over at Wisconson Light. The intent of the rewrite was to incorporate the new JES2 functions that make use of WLM resource names and scheduling environments, and to repackage the mods such that they were all contained in standard JES2 exits, and made no direct changes to the JES2 source code. Further, the older version of the mods was in a word, HUGE, and was primarily straight mods to the JES2 source - no exits, so it required a great deal of maintenance with each new version of JES2. While in their current state, they are not simple exits, they are all exits, and are quite manageable.

- Interaction with WLM Resources and Scheduling Environments -

One of the primary job selection criterions available through the Mellon Shared Spool mods is the availability of a particular resource name being available on a particular system. In the past, we maintained these names in a table within the Mellon Mods code; and provided JES2 commands that would alter the state of the resources, either on or off. We now use WLM Scheduling Environment names instead. The scheduling environment names are the same ones displayed on the SDSF SE panel. The scheduling environments are on, when all of the resource names that make up each environment are also on. WLM resource names are the same ones displayed on the SDSF RES panel. The WLM scheduling environment names are what are matched on the "/*ROUTE XEQ scheduling environment name" JECL statements. This function is virtually identical to the new SCHENV parameter on the jobcard. In fact, we substitute the internal value of the SCHENV with what we find in the /*ROUTE XEQ card only if there is no current value. These mods supported the function long before JES2 adopted the facility, which appears to have been modeled after the mellon mods, and arose out of a long standing SHARE requirement. While these mods continue to support the older style /*ROUTE XEQ statements to route jobs for execution based on resource locations, we suggest that the older /*ROUTE XEQ statements; for Mellon Mods job selection, be replaced by the new IBM supported SCHENV parm on the jobcard.

- Compatability and Support of the Mellon Mods -

The Mellon Shared Spool mods, as they exist today, do not modify any JES2 source directly, and only make use of fully supported and documented exits; I see no reason why they may become unsupportable in the future.

I will create updates to the Mellon Mods, and make those updates available through the CBT tape web site, as we get new versions of the

operating system installed in my shop. I cannot guarantee to provide support for problems associated with this code. If you do however have problems, please let me know the details and I will do all that I can, working on my own time to provide corrective fixes. My name is Stephen McColley and you can send me the documentation concerning any problems you have with the code, via e-mail at SGMCCOLLEY@ALLTEL.NET. I check my e-mail regularly and any messages will not normally go more than a day or two before I see them.

If any of you have any suggestions for new features or changes to the mods, you can send them to my e-mail address, and I will be happy to give each of them due consideration.

One final item, if you could drop me a simple line or two at SGMCCOLLEY@ALLTEL.NET to let me know you are using the software, I will be able to contact you - hopefully via e-mail, when and if any significant problems are found, or when new versions of the code are made available. I will also be able to forward you a WORD formated document for the overview, user documentation, and installation instructions.

- end of overview -