From: Benson I. Margulies
To: MTB Distribution
Subject: A Fully Controllable start_up.ec.
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The implementation of the search for start_up.ec and the project start_up facility added flexibility made it much easier to supply useful exec_com's to be run at the beginning of processes. The search provides defaults, and project start_up's allow the project administrator to force the project's users to execute a set of commands on each login. Only one function is lacking, the ability to force a particular user to execute a particular exec_com. If a project start_up is used, then the same exec_com is applied to all the users on the project who execute that process overseer. Using the existing facilities, the command language in a project_start_up.ec can check the user name and branch appropriately. This is clumsy to maintain. A relatively simple extension to the existing PMF syntax would allow the full control desired.

All that we need do is to define the following syntax:

initproc: >udd>m>ec_for_anon,exec_com;

The proposed definition is that the tag ",exec_com" on the initproc statement will cause the preceding pathname to be interpreted as that of an exec_com to be executed under the same conditions as a project_start_up.ec: no quits unless explicitly enabled, and fatal error on even command_error. This would allow administrators to say "run THAT for her" directly.

The implementation is simple. user_init_admin_ need only check for the presence of the special string ",exec_com" at the end, and call a special overseer to run that exec_com. A version has been made of user_init_admin_ (actually real_init_admin_) that made this check, and there was no significant performance degradation. Actually, the measurement was to generally clean up the code in that program, remove the alm front end and replace it with a non_quick internal procedure, and add this check for ",exec_com", and the whole thing ran noticably faster than the original program. Even the page faults were a bit smaller, in spite of the fact that it was not bound in with the rest of bound_command_loop_.

This proposal can be implemented with minimal effort, several hours of programming at most. User_init_admin_ (and friends) must make the check, and a new program must be written to execute the ec and call the listener if it returns. This could be an entrypoint in project_start_up_, which already has most of the neccessary code.