

Identification

Dedicated Console List
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Purpose

Certain consoles at an installation may be dedicated to a certain user, i.e. that user is identified merely by dialing up the computer from that console. Such a user may be either

- a) a very special user who is known to be the only user who has access to this console (e.g., the console is in a vault in his private office and only he has access to the console);
- b) an unknowable person working on a project which allows him only restricted access to the system (e.g., a transient such as a student in a large class using the system for a short time, or a random person using a demonstration console or even a pay console - like a pay phone).

The dedicated console list is a list of all such consoles, and the users to whom they are dedicated. The user identification provided by the dedicated console list is simply the combination of symbolic user name and symbolic project id, used by login. In the case of users in category b) above, only the project id contains real information. The personal name is meaningless and does not appear on the Personnel List (see BQ.4.02).

Discussion

The dedicated console list is immediately inferior to the login directory (login_dir), which is immediately inferior to the root directory. Its path name, thus is

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(root) > login_dir > dedicated_console_list
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The login directory is discussed in BQ.4.00. It is of no interest here.

The dedicated console list is referenced by the user_who procedure which identifies the user when he attempts to log in (see BQ.3.02). Normally a user must type a login

line in order to log in, but a user logging in from a dedicated console only needs to dial up. User_who therefore first ascertains whether the console is on the dedicated console list. If it is, user_who takes the user name and project id from the dedicated console list and does not expect a command line.

Note: Present consoles, specifically Teletype model 37KSR and IBM model 1050 and model 2741, do not provide completely secure console identification; a person with engineering training and a pair of pliers can easily tamper with the console's ID, making some random console indistinguishable from some dedicated console. This is not a serious problem when the dedicated console is dedicated to a severely restricted user. However, it is dangerous to identify highly privileged (or even ordinary) users by means of unreliable console ids. Therefore, for such users (defined in category "a" in the beginning of this section) it is at present necessary to combine dedicated consoles with dedicated lines. That is, the user's console is at all times connected to a particular channel of the GIOC. Needless to say, reserving a GIOC channel is expensive and a zealous spy can attempt to tap the telephone line; nevertheless, the dedicated line mechanism is the closest thing currently available to accurate identification of a console. (Another solution not yet available is a telephone exchange which permits automatic call-tracing by the called party. Such an exchange would obviate the need for more reliable console ID's.)

Consoles are identified in the dedicated console list by registry file name. When the user dials up, the Answering Service (see BQ.2.00) finds the registry file name of his console and passes it to the user_who procedure in the User Control Process (see BQ.2.03).

Access Control

The dedicated console list can be referenced by the user_who procedure and by the system administrator. The former must be able to read the list to find dedicated consoles, the latter to write in the list in order to dedicate consoles or "undedicate" them.

Access to the dedicated console list is controlled by means of the file system access control mechanism. It is possible to define the mode of access of a particular

