



Title:

The EMAS Shares and Funds Scheme

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Category:

See Note 15

Synopsis

This Note describes the operation of the FUNDS scheme which is used to control the allocation of EMAS Computing resources during periods when the system is congested.

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Purpose of the FUNDS Scheme

The aim of the FUNDS scheme is to control the allocation of EMAS computing resources during periods when such resources are scarce. If you use the system during periods when few other users attempt to (for example in the evenings) the scheme leaves you free to make as much use of the system as you wish. Use of the system at such times in no way reduces your entitlement to use the system during periods of scarcity.

The FUNDS scheme is not an accounts system. Separate accounts are kept of usage and invoices for computer time are sent to those users who pay according to usage.

Outline of Operation

Each week each user, or group of users, is given some FUNDS by the System Manager. The amount of FUNDS you receive depends on an entry in a Share Register. During the week your FUNDS will be used up if you access the system during periods of scarcity. If you run out of FUNDS you will be unable to log on during periods of scarcity – leaving room for a user who still has some FUNDS. At the end of the week all remaining FUNDS are lost and you are given a new allocation for the next week. FUNDS and shares are specific to a particular computer and cannot be transferred.

The Share Register

The Share Register is maintained by staff of the Administration Group. The Charging and Allocation Committee is responsible for allocating Shares among Faculties and Institutions. Each Faculty distributes its Shares among its Departments and within each Department Shares are distributed among individual users or groups of users. By this means Departments are free to set their own priorities. One Department might choose to allocate all its shares to its research students, whereas another might put a greater emphasis on the use of EMAS in teaching and allocate all its Shares to undergraduates. Departmental Computing Representatives relay the wishes of their Departments to the Administration Group (031-667 1081 ext. 2622).

Relationship between Shares and FUNDS

At the beginning of the week FUNDS are distributed to all users. The amount of FUNDS distributed to each user depends on two things:

- * The user's entry in the Share Register;
- * The dividend or number of pence per share.

The latter figure is set by the System Manager based on experience of recent weeks. A typical value is 75 – i.e. if you have 10 shares you will receive £7.50 FUNDS. The dividend may vary slightly from week to week but your proportion of the total allocation will remain the same (unless the Administration Group has received instructions from your Departmental Representative to alter your share holding. Changes to the register are made each Friday morning).

Group Holdings

In some cases Shares are allocated to a group of users. In this case one user is the Group Holder who holds shares in the normal way (and hence receives FUNDS each week). All the other members hold no Shares of their own (so they receive no FUNDS each week). Instead they have an entry in the Share Register linking them to their Group Holder. When a group member logs on during a period of scarcity the Group Holder's FUNDS are depleted and if they are all used up then no member of the group can log on during periods of scarcity. But group members, like anyone else, can use the system freely at less busy times. (See also DONATEFUNDS below.)

FUNDS Usage

FUNDS are depleted under the following circumstances:

- * If you use the system interactively during a period of scarcity;
- * If a BATCH job which was initiated with a priority of greater than the standard, is run during a period of scarcity.

The rate of depletion is the same as that indicated by, for example, the METER command as Cost. If you are logged on for a session which includes a congested period then your FUNDS will only be depleted in respect of your usage during that period, though if you are a member of a group a colleague may have used some FUNDS over the same period.

FUNDS are not depleted:

- * If you use the system interactively outwith periods of scarcity;
- * If BATCH jobs of standard or lower priority are run - regardless of the loading of the system.

This last point is important since it means you can safely initiate batch jobs at any time (with normal or lower priority) without risk of using up your FUNDS.

Effect of having no FUNDS

If you (or your Group Holder) have no FUNDS:

- * You will not be able to log on during periods of scarcity;
- * If you are logged on when a period of scarcity begins you may be logged off, to make room for a user who still has FUNDS. You will be given an explanatory message and five minutes warning.

Users who run out of FUNDS should make contact with their Departmental and Faculty representatives before contacting the Administration Group.

The FUNDS Command

This command tells you the amount of FUNDS you have left (or the username of your Group Holder and the amount of FUNDS he or she has left). It also tells you whether this is currently a period of scarcity.

The DONATEFUNDS Command

This command can be used to give FUNDS to another user; for example to give FUNDS worth £23.50 to user ERCC86:

Command: DONATEFUNDS 23.50,ERCC86

Note that group members cannot donate FUNDS and further that if FUNDS are donated to a group member they are added to the Group Holder's FUNDS, and hence can be used by any member of the group.

Program Access to FUNDS Information

There are entries in EMAS3UINFI and EMAS3UINFS on EMAS-3 which provide information about the FUNDS scheme. In particular your program can determine:

- * Whether this is a period of scarcity;
- * Current FUNDS;
- * Group Holder's identity.

The first of these might be used to limit the facilities of an interactive package during periods of congestion to those which are not very demanding of computing resources. Full details are contained in User Note 80.

Monitoring the use of FUNDS

At the start of each day the amount of FUNDS held by each user is recorded. This information is retained until the start of the next day. It is stored permanently for the beginning and end of each week. This information is normally only likely to be of interest to Faculty and Departmental representatives who can obtain details from the Administration Group. Similarly the holdings in the Share Register are stored and may be queried.

Acknowledgement

This User Note is based on the text originally written by Roderick McLeod.