

AM

muFS Account Manager
Version 1.0, released on 7.6.94

by Ingolf Koch

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Overview

AM's features

Are you running \uparrow muFS, the Multi User File System for the Commodore Amiga? Then you surely have thought of a program providing an easy way to maintain the users and groups in your system.

Of course such a program should have a graphical user interface which allows doing all necessary operations by a few mouse clicks or key strokes. Additionally, it should be localized i.e. speaking to you in your preferred language.

Then AM is the program you want. It was written to support the system operator's work by supplying an easy-to-use user interface based on \uparrow MUI (Magic User Interface) by Stefan Stuntz.

The following gives you a quick overview on AM's facilities:

- localized (see Section 3.9 [Localization], page 25)
- needs and makes extensive use of MUI 2.0 (`muimaster.library` version 7+)
- supports the following operations on the \uparrow muFS system files
 - create new users/groups
 - edit any characteristics of an existing user/group
 - delete users/groups
 - temporarily ban a user from the system
- automatically creates new \$HOME directories and installs default files there by executing a user supplied script
- checks \$HOME directories (not functional yet)
- searches \uparrow muFS partitions for files with bad owner information and changes them

The files in the archive

The following list shows the contents of the AM 1.0 distribution. Please report differences to the \uparrow Author. If you copy the archive or make it accessible by others, it must contain *exactly* these files and must not be modified in any way.

```
628 29-May-94 23:41:04 am1_0.info
56724 29-May-94 19:47:34 am1_0/am
468 29-May-94 23:41:04 am1_0/am.info
1462 29-May-94 23:49:42 am1_0/am.readme
543 05-Jun-94 23:46:06 am1_0/am.readme.info
628 05-Jun-94 23:47:06 am1_0/Catalogs.info
10848 25-Apr-94 23:54:14 am1_0/Catalogs/am1_0.cd
6795 26-Apr-94 00:59:00 am1_0/Catalogs/am1_0.ct
5360 29-May-94 20:01:28 am1_0/Catalogs/deutsch/am.catalog
5056 29-May-94 20:01:44 am1_0/Catalogs/nederlands/am.catalog
4868 09-Jun-94 19:07:26 am1_0/Catalogs/norsk/am.catalog
5408 09-Jun-94 22:49:09 am1_0/Catalogs/português/am.catalog
4668 29-May-94 20:01:52 am1_0/Catalogs/svenska/am.catalog
628 05-Jun-94 23:44:48 am1_0/docs.info
628 05-Jun-94 23:45:32 am1_0/docs/english.info
100712 09-Jun-94 23:17:01 am1_0/docs/english/am.dvi
523 05-Jun-94 23:45:32 am1_0/docs/english/am.dvi.info
59592 09-Jun-94 23:08:51 am1_0/docs/english/am.guide
504 05-Jun-94 23:45:32 am1_0/docs/english/am.guide.info
1349 19-Nov-93 17:38:02 am1_0/ReadMe.mui
543 05-Jun-94 23:46:12 am1_0/ReadMe.mui.info
```

Legal Stuff

There's not very much to say about this topic:

This program may be freely distributed i.e. without any charge except for a copying fee of maximum USD 5. It may not be included in commercial programs without prior written consent by the author.

This program may be included in shareware or public domain libraries as long as the price per disk does not exceed USD 5.

'AM 1.0' may be stored and made accessible in electronic networks such as the Internet, on anonymous ftp servers and in bulletin board systems.

'AM 1.0' may be stored on CD-ROMs (especially on "Fresh Fish" CD-ROMs and on Walnut Creek's "Aminet" CD-ROM).

Storage and use of this program is only permitted for non military purposes, i.e. this program may not be used by military institutions or by non-military institutions co-operating with military institutions.

Although AM 1.0 has been thoroughly tested on various platforms there might still be some bugs in it. So use this program at your own risk. The author of AM 1.0 may not be made responsible for any damage caused directly or indirectly by AM 1.0.

1 Requirements

There are a few things you should have installed when you want to start **AM**:

- Of course, you need \uparrow muFS (Multi User File System by Geert Uytterhoeven) :—)
- As a result, another requirement (AmigaOS 2.0+) is automatically satisfied.
- **AM** makes extensive use of the new features of \uparrow MUI 2.0. So make sure you have at least version 7 of `muimaster.library`. \uparrow MUI (Magic User Interface) is © by Stefan Stuntz (see the file ‘`ReadMe.mui`’ for more info).
- If you want to use the locale facilities, you need at least AmigaOS 2.1.
- The partition scan function could use a lot of stack if you have a very deep directory tree. The minimal stack for **AM** can be roughly calculated by the formula (only valid for AmigaOS 3.0—might be less for 2.0 and 2.1):

$$\langle \text{min_stack} \rangle = \max(5000, 900 + 500 \cdot \langle \text{max_depth} \rangle) .$$

- To open the Set Actions... window, you need quite a large screen. If you use the `topaz/8` font, the screen should be of size 640×360 . Due to a bug in `muimaster.library` version 7, **AM** will hang if a window cannot be opened.
- Although not required, it is recommended that you have at least a 68020 processor. The GUI would be very slow otherwise ;—)
- **AM** should be owned by `root` and can be made readable and executable for everyone. But *never* set the `u` flag!!!

2 Getting Started

To run `AM` double click its icon or (from shell) type `AM` optionally followed by the name of the language you want to use. Make sure you have enough stack before running `AM`. In this version, `AM` will not check and automatically increase stack size.

If `locale.library` is present in your system, `AM` will try to open the specified catalog (if you start from shell and supply a language name) or the default language (set by Workbench's 'Prefs/Locale').

If there's no `locale.library` or the desired catalog could not be opened, `AM` will talk to you in English (the builtin language).

Please refer to the chapter on [↑Localization](#) for information on which languages are supported or on what to do if you want to translate `AM`.

After opening `locale.library`, `AM` checks if you are `root`. If not, you are prompted to enter `root`'s password. Note that `AM` refuses to work if you supply a wrong password :-)

If you are running `AM` for the first time (i.e. there's no '`ENV:mui/MUFS_AM.cfg`' file) the GUI will open with the default layout. You may want to change the layout and save it permanently (see Section 3.4.3.3 [Edit/Save], page 23 and your 'Prefs/MUI' doc).

`AM` automatically finds your `↑passwd` and `↑MultiUser.group` files and loads them into its memory.

All error messages are localized, so if there's an error during startup, you'll see the reason in your preferred language (if there's a suitable catalog).

Have a look at the [↑Requirements](#) chapter for more information on what is needed to run `AM`.

3 The main window

If the system libraries are opened successfully **AM** opens its main window. This window consists of various areas:

3.1 The Users and Groups listviews and buttons

After loading the `↑passwd` and `↑MultiUser.group` files, the users and groups known to the system are displayed in two listviews. The left listview contains the users whereas you find the groups in the right listview.

For both users and groups, each entry in the according listview shows the `UserID` and `GroupID` as well as the `UID` and `GID`, respectively. The `UID/GID` will only be displayed, if there's enough space in the listview.

You may scroll the listviews via the proggadget or the keyboard. In the latter case, use the `TAB` key to step through the main window's `CycleChain` until the appropriate listview is the active one. To scroll up and down, hit the corresponding cursor key.

Below each of the listviews there are a few buttons which allow modification of the users/groups list. In most cases they operate on the currently activated user/group, so make sure you have an active entry in the corresponding listview.

To activate an entry, click once on the entry in the listview or use the cursor keys.

3.1.1 Creating a new user

Select the `NEW` button to create a new user. The `↑Users Window` will open with most of the entries cleared.

Only the `UID` entry contains a valid number, namely the lowest available `UID` in the system (not currently occupied by another user). In future versions of **AM** this will probably change to make creating new users a bit more comfortable.

You have to supply at least a valid `↑UserID`, a valid `↑UID (User)` and a valid `↑Primary GroupID` to successfully add the new user to the system.

See Section 3.1.2 [Edit (User)], page 7.

3.1.2 Editing a user's characteristics

If you press the **EDIT** button at the bottom of the **Users** listview in the **↑Main Window** the **↑Users Window** opens displaying the present characteristics of the selected user.

You may modify each of them but keep in mind that changing the **↑UserID** automatically clears the user's **↑Password** and that changing the user's **↑UID (User)** makes a **↑Scan** of the whole file system necessary to update.

(You may want to **↑Scan** after changing the **↑Primary GroupID**, too.)

3.1.3 Deleting a user

Pressing the **DELETE** button will automatically remove the selected user from the **Users** listview.

Caution: You are not asked to confirm this action!

If you find it necessary to open a confirmation requester before actually deleting the user, please inform me about that (see Section 3.6 [Author], page 23).

Strictly speaking, the user is not totally removed from the system at all. He remains in the **↑passwd** file until you **↑Save** your configuration. Additionally, the deleted user is kept in AM's internal memory because this information is needed when you **↑Scan** the file system.

3.1.4 Temporarily disabling a user

Sometimes you might find it necessary to forbid a user's access to the system without deleting information on this user. Usually, this is done by changing this user's password.

AM changes the encrypted password string of the selected user to **User_banned**. As it is (nearly) impossible to find a password which will match this magic string after encryption, this is quite a safe way of banning.

If **AM** detects a user whose encrypted password matches **User_banned** during **↑Open** this user will automatically be marked as banned.

Banned users are surrounded by asterisks ***** in the **Users** listview.

Note: If you **↑Clear Password** a banned user's password the ban will be released.

Note: **AM** only remembers the original password until you leave the program or **↑Open** the files. So if you **↑Admit** the user again, the original password can only be restored if you did not leave **AM** or **↑Open** the files before.

3.1.5 Releasing a ban

To permit a banned user to access the system again, click on the **ADMIT** button. In most cases the selected user's password will be cleared, so access is made possible after the next **↑Save** operation.

The only exception of this rule is made if you did not **↑Open** or **↑Quit** between the **↑Ban** and the **Admit** operations. If you by mistake **↑Ban** a user you may safely click on **ADMIT** without destroying the user's password.

Note: Remember that the user should set his password immediately after **↑Save**. You must reload the files to let **AM** know the new password.

3.1.6 The Users Window

The **Users** window is divided into two parts: On the lefthand side there are the user's main characteristics, on the righthand side you find the list of the user's secondary groups.

Let's turn to the **Characteristics** part of this window. You may modify each of the entries as you like. Well, to be honest... nearly as you like (see **↑UserID**, **↑UID (User)**, **↑Clear Password**).

3.1.6.1 The UserID entry

Every user *must* have a valid **UserID**. That's the name you use to login. Of course, the **UserID** must be unique. So **AM** does not allow you to specify a **UserID** which already exists.

Note: If the user has a `↑Password` set and you modify his `UserID` the password will be cleared, as it is dependant on the `UserID`.

Some characters, for example `|`, are not allowed for a `UserID`. These will be rejected automatically by `↑MUI`.

3.1.6.2 The user's password

If the user has a password set it will be displayed in the `password text object`. This is *not* the real password but the encrypted 11 character string (as it is not possible to decrypt it — better say: it's very difficult to decrypt it :-).

There are three ways for you to manipulate the password string:

- Clicking on the `↑Clear Password` button will remove the password. *Now everyone can login as this user!*
- Modifying the `↑UserID` clears the password, too. *Again, everyone can login as this user!*
- If you `↑Ban` a user from the system the password will be set to the magic string `User_banned`. Remember that after clicking on `↑Admit` the password will be cleared!

If there is a user with no password supplied you'll be informed about that in the `↑am.log` when you `↑Save`.

3.1.6.3 The user's UID

The UID is a number in the range `[1..65535]`. You *must* supply a valid (i.e. in the correct range and unique) UID for every user in the system.

If you try to set a wrong UID you'll be informed about that. Currently, the only way to see which UIDs are available is to look at the `Users` listview (see Section 3.1 [Listviews], page 6).

If you change the UID of a user who is already known to the system (i.e. there's an entry for that user in the `↑passwd` file) you should `↑Scan` the `↑muFS` formatted partitions on your hard drive, since the information on the files' owners must be updated.

Modifying a user's UID makes sense if you want to change the users hierarchy in your system imposed by the UIDs.

Unlike `↑UserID`, modifying the UID does not clear the `↑Password`.

3.1.6.4 The user's primary group

Every user belongs to at least one group in the system. The main group is also called **primary group**. You *must* supply a valid GroupID for the user's primary group.

To make this easier the GroupID may be entered by a **popup object**. Just click on the popup button to make a listview of currently available GroupIDs appear. You can then select the GroupID you wish by double clicking on the according entry in the listview.

Of course, you can enter the GroupID "by hand" in the string gadget. If you mistype the GroupID AM will refuse this string and open the listview automatically.

If the new primary group is already in the list of secondary groups it will be automatically removed from that list.

3.1.6.5 The user's real name

In this string gadget, you should supply the user's real name. You may use (nearly) any characters except `|` as this is the separator in the `↑passwd` file.

Note for AmiTCP users: Normally, the **Name** also includes information on the user's office and phone numbers. The current version of AM does not support this in that it does not supply separate string gadgets for these parameters. Please give all information in the **Name** string gadget separated by commas (,):

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3.1.6.6 The user's \$HOME directory

The user's home directory (\$HOME) is specified here. You may enter any syntactically correct path here—in other words: the path needn't exist. If you set the ↑Options/Set up new \$HOMEs menu item non existing \$HOMEs will be created and the necessary files will be installed there.

If you use the ASL file requester to select the \$HOME directory a slash / will be appended automatically to that string. You needn't worry about that as AM removes trailing slashes automatically.

Currently the ↑Options/Check \$HOMEs menu item is disabled. In future versions you'll be informed about \$HOMEs which are not located on ↑muFS partitions.

3.1.6.7 The user's default shell

You may enter the user's default shell here. Future versions of AM will supply a popup object for this.

3.1.6.8 Clear the user's password

Clicking on this button clears the password string. Since a user without a password is in a dangerous state you'll be warned about missing passwords in the ↑am.log.

3.1.6.9 Add a new secondary group

There are two ways of adding a new secondary group to the list:

- Type the group's name in the string gadget and hit RETURN
- Click on the popup button and select the new group by double clicking on the entry in the popup. (This is the more comfortable way.)

If the secondary group is already in the list or if it is the primary group nothing will happen.

If you supply an invalid GroupID a requester pops up and nothing will be added.

3.1.6.10 Delete a secondary group

Click on this button to remove the currently active secondary group from the listview. ‘Active’ means: the selected entry in the listview.

Note: There’s no UNDO button. If you delete a secondary group by mistake, either reenter this GroupID or choose `↑Cancel (User)` and start editing again.

3.1.6.11 Leaving the Users window by clicking on OK

The OK button is one way to leave the Users Window. If all important settings are valid (i.e. `↑UserID`, `↑UID (User)` `↑Primary GroupID`) the new values are stored in AM’s memory.

If AM finds an invalid value it will complain and refuse to close the window.

3.1.6.12 Leaving the Users window by clicking on CANCEL

If you click on CANCEL all changes will be ignored, and the Users window is closed.

3.1.7 Creating a new group

Select the NEW button to create a new group. The `↑Groups Window` will open with most of the entries cleared.

Only the GID entry contains a valid number, namely the lowest available GID in the system (not currently occupied by another group). In future versions of AM this will probably change to make creating new groups a bit more comfortable.

You have to supply at least a valid `↑GroupID`, a valid `↑GID (Group)` and a valid `↑Manager UserID` to successfully add the new group to the system.

See Section 3.1.8 [Edit (Group)], page 13.

3.1.8 Editing a group's characteristics

If you press the `EDIT` button at the bottom of the `Groups` listview in the `↑Main Window` the `↑Groups Window` opens displaying the present characteristics of the selected group.

3.1.9 Deleting a group

Pressing the `DELETE` button will automatically remove the selected group from the `Groups` listview.

Caution: You are not asked to confirm this action!

If you find it necessary to open a confirmation requester before actually deleting the group, please inform me about that (see Section 3.6 [Author], page 23).

Strictly speaking, the group is not totally removed from the system at all. It remains in the `↑MultiUser.group` file until you `↑Save` your configuration. Additionally, the deleted group is kept in `AM`'s internal memory because this information is needed when you `↑Scan` the file system.

3.1.10 The Groups Window

This window displays the group's `Characteristics`. You may modify each of the entries as you like. Well, to be honest... nearly as you like (see `↑GroupID`, `↑GID (Group)`).

3.1.10.1 The GroupID entry

Every group *must* have a valid `GroupID`. That's the group's symbolic name. Of course, the `GroupID` must be unique. So `AM` doesn't allow you to specify a `GroupID` which already exists.

Some characters, such as `|`, are not allowed for a `GroupID`. These will be rejected automatically by `↑MUI`.

3.1.10.2 The group's GID

The GID is a number in the range [0..65535]. You *must* supply a valid (i.e. in the correct range and unique) GID for every group in the system.

If you try to set a wrong GID you'll be informed about that. Currently, the only way to see which GIDs are available is to look at the **Groups** listview (see Section 3.1 [Listviews], page 6).

If you change the GID of a group which is already known to the system (i.e. there's an entry for that group in the `↑MultiUser.group` file) you should `↑Scan` the `↑muFS` formatted partitions on your hard drive, since the information on the files' owners must be updated.

Modifying a group's GID makes sense if you want to change the groups hierarchy in your system imposed by the GIDs.

3.1.10.3 The UserID of the group's manager

Every group needs to have a manager responsible for this group. So you *must* supply a valid UserID for the group's manager.

To make this easier the UserID may be entered by a **popup object**. Just click on the popup button to make a listview of currently available UserIDs appear. You can then select the UserID you wish by double clicking on the according entry in the listview.

Of course, you can enter the UserID "by hand" in the string gadget. If you mistype the UserID **AM** will refuse this string and open the listview automatically.

3.1.10.4 The group's real name

In this string gadget, you should supply the group's real name. You may use (nearly) any characters except `|` as this is the separator in the `↑MultiUser.group` file.

3.1.10.5 Leaving the Groups window by clicking on OK

The OK button is one way to leave the Groups Window. If all important settings are valid (i.e. \uparrow GroupID, \uparrow GID (Group), \uparrow Manager UserID) the new values are stored in AM's memory.

If AM finds an invalid value it will complain and refuse to close the window.

3.1.10.6 Leaving the Groups window by clicking on CANCEL

If you click on CANCEL all changes will be ignored, and the Groups window is closed.

3.2 The Info display

This frame displays information on what AM is doing.

If something has gone wrong you'll be informed about that here. Usually a requester will pop up first in this case, but you are reminded of the error by the error message displayed in the Info display.

3.3 The Files frame

The Files frame consists of three popup objects to select the file names for the \uparrow passwd, \uparrow MultiUser.group, and \uparrow am.log file respectively. After startup they contain the default names for each of the files.

You may alter these files as you want either by entering the name in the string gadget or by popping up the asl requester. *But be careful:* using different names for the \uparrow passwd or \uparrow MultiUser.group file may cause inconsistencies to your system.

3.3.1 The passwd file

This is the file where nearly all information on the users is stored (all but the secondary group information). See the \uparrow muFS doc for more info.

3.3.2 The group file

This is the file where all information on the groups is stored. See the `↑muFS` doc for more info.

3.3.3 The log file

The log file informs you about some important things. The following information appears in the log file:

- The file names when you `↑Save`
- Users who don't have a password set when you `↑Save`
- Files modified by `↑Scan`
- Errors encountered during `↑Save` or `↑Scan`

The default place for the log file is in the same directory as the `passwd` file (determined by a `muGetPasswdDirLock()` call).

Below the file names, there are three buttons which start some of `AM`'s operations:

3.3.4 Load the passwd and group file

If you select the `Open` operation `AM` will check first whether the configuration is modified and should be saved first. If so a requester pops up and you may answer that you really want to load or that you've decided to abort.

All information on users and groups (deleted ones, too) is discarded from the memory.

3.3.5 Save the passwd and group file

`AM` does not just save the files. It checks first if the configuration contains serious errors. `AM` does not save if there was a load error before or if there's no user with UID 65535 (no root!).

In some situations `AM` will warn you (and you are asked if you want to proceed):

- If the user having the root UID has been changed
- If root's primary group's GID is not equal to 65535
- If you have modified one of the file names

In some cases it may be necessary to `↑Scan` after saving—if UIDs or GIDs have been changed. In those cases `AM` informs you about that.

3.3.6 Scan muFS partitions

This is probably the most complex operation provided by `AM`. It is used to update the file system if you change certain settings, for example the UID. In such cases there might exist files on your `↑muFS` formatted partitions which don't have a valid `OwnerUID` or `OwnerGID`.

Therefore `AM` opens a new window (the `Scan` window) and scans the whole directory tree (or better say 'trees' if you have more than one `↑muFS` partition). All files which need to be updated are collected and displayed in the `↑Scan Listview`. You can then select the files you want to modify and tell `AM` what to do with them.

While scanning, `AM` disables some buttons. Don't worry: They'll be enabled again when the scan is finished. The current directory is displayed in the text object surrounded by the "Scanning" frame. So you have an idea of where `AM` currently is and how long it will take to scan the rest. See Chapter 1 [Requirements], page 4.

If you don't want to wait till `AM` has finished the scan you may click on the `ABORT` button. The scan process is aborted but you can modify the files already found.

If you click on the `BACK` button instead, the scan will be aborted as with `ABORT` but additionally the `Scan` window will be closed.

Each file displayed falls into exactly one of five categories which is shown in the `↑Scan Listview`, too:

<code>Nobody:</code>	owned by Nobody (<code>OwnerUID = 0</code>)
<code>Deleted:</code>	owned by a user whom you deleted before
<code>Orphan:</code>	the file's <code>OwnerUID</code> is not known to the system
<code>UID:</code>	the UID of the file's owner was changed
<code>GID:</code>	the file's <code>OwnerGID</code> is different from the owner's primary <code>GID</code>

With the five buttons you can select/deselect the corresponding files in the `↑Scan Listview` all at once. To explicitly select/deselect a single file click on the entry in the `↑Scan Listview`.

Before you **START** modifying the selected files you should click on the `↑Set Actions...` button to tell **AM** what to do with the selected files.

If everything is to your satisfaction use the **START** button to modify the selected files. Correctly processed files are removed from the `↑Scan Listview`.

When the conversion is finished **AM** does not return to the `↑Main Window` but lets you select other files, modify the actions by `↑Set Actions...`, and process the newly selected files in a different way.

At any time you may return to the `↑Main Window` by clicking on the **BACK** button.

3.3.6.1 The listview in the Scan window

All files to be modified found during a scan of the `↑muFS` partitions are displayed in the Scan listview. This listview consists of three columns namely the file name, the file's type, and the directory where the file is located.

The file's type is either `↑Nobody`, `↑Deleted`, `↑Orphan`, `↑UID`, or `↑GID` and tells you about the reason why the file appears in the listview.

This listview is multiselectable, i.e. you may select as many entries at the same time as you like. You may select entries either by using the **File Selection** buttons or by mouse clicking on the corresponding entry. You need not use the multi select qualifier (such as the **SHIFT** key) for this multi selection.

3.3.6.2 The Nobody type

Files of type 'Nobody' are those with an OwnerUID of zero. Usually all files will be owned by Nobody if you've just installed `↑muFS` in your system. So be prepared to have lots of entries if you run **AM** for the first time :-)

There may appear new 'Nobody' files later if someone creates a new file without logging in before.

3.3.6.3 The Deleted type

If you delete a user **AM** does not remove this entry from its internal memory. So **AM** is able to detect files which were owned by this deleted user and therefore don't have a valid owner now.

Note: Of course you must not leave **AM** between deleting the user and scanning. Otherwise **AM** would not be able to remember the deleted user's UID and the deleted user's files would be of type `↑Orphan`.

3.3.6.4 The Orphan type

Orphan files are those files having an OwnerUID not equal to zero but without a user known to the system with this UID.

In most cases these files will appear if you delete a user from the system without scanning directly after that. After leaving **AM** no information about the deleted user can be recovered so files owned by that user are marked as orphan.

3.3.6.5 The UID type

AM allows you to change a user's UID. After doing so, all files owned by that user will no longer have a valid OwnerUID as this must be adjusted to the new value, too.

Note: Although you can give another user the UID 65535 (the root UID), under no circumstances files owned by root will change their OwnerUID as they should be owned by the new root user (i.e. keep the OwnerUID of 65535).

3.3.6.6 The GID type

Usually a file's OwnerGID should match its owner's primary GID. Files having a different OwnerGID will be added to the `↑Scan Listview`, as you might have changed the owner's primary group and want to adjust the OwnerGID.

But there might be situations in which the different OwnerGID is intended to make the file accessible to members of a group different from the owner's primary group. Then you should keep such files deselected.

3.3.6.7 The Actions window

After pressing the `SET ACTIONS...` button a large window will open displaying lots of buttons. They are arranged in three columns entitled `↑Nobody`, `↑Deleted`, and `↑Orphan`, respectively. See Chapter 1 [Requirements], page 4.

For each of these three types you can tell `AM` what to do with files which fall into this category.

Two types of Actions are supported:

- `CHANGE` means that the file's owner is changed to the owner given in the string gadget below, and the file's protection bits are modified as stated in the `Protection` part of this column.
- `DELETE` means that the file will be deleted. The owner string gadget and the `Protection` area are disabled in this case.

If you choose `CHANGE` you must supply the new owner's `UserID` in the string gadget. The most comfortable way is to use the popup. *AM will not close this window if there is an illegal `UserID`.*

In the `Protection` area you state how each of the file's protection flags should be modified. All `↑muFS` supported flags are listed here.

- `U`: Only clearing and keeping is allowed here. *Keeping this flag unmodified is very very dangerous!!!* Default is 'Clear'.
- `SPA`: These flags may either be set, cleared or kept unmodified. Default is 'Keep'.
- `RWED` for owner: These flags may either be set, cleared or kept unmodified. Default is 'Keep'.
- `RWED` for group members or others: You have the choice between 'Set', 'Clear', 'Keep' and 'Owner'. If you select 'Owner' the corresponding flag of the owner's `RWED` part is copied. This is done *after* altering the owner `RWED` flags.

Use the `OK` button to close this window. Please note again that the string gadgets must contain valid `UserIDs` if they are not disabled.

All settings in this window are saved automatically to `ENV`: when you `↑Quit AM`. if you want to store them permanently (of course you want to do so :-)) use the `↑Edit/Save` menu item.

3.4 The main menu

If you are in the `↑Main Window` you can start some of `AM`'s operations by selecting the appropriate menu item. But there's even more in the main menu:

3.4.1 The Project menu

From this menu you can select the `↑Open`, `↑Save`, and `↑Scan` operations (the same as clicking on the corresponding button in the `↑Main Window`), as well as get information about the `↑Author` and the translator (`ABOUT...` item) and `↑Quit` the program.

3.4.2 The Options menu

The following items may be selected (default) or deselected:

3.4.2.1 Set up new \$HOMEs

If a `$HOME` directory does not exist when you `↑Save` it will be created, and the default files will be installed there correctly.

3.4.2.2 Check \$HOME directories

In future releases `AM` will check if the user's `$HOME` directories are located on `↑muFS` partitions, if their size does not exceed a certain maximum, ...

3.4.2.3 Create \$HOME icons

If set, `AM` puts an icon for newly created `$HOME` directories. Its image will be the default drawer icon. Its owner is the corresponding user, so he can adjust the dimensions of the drawer's window.

3.4.2.4 Create icons for the system files

If set, **AM** creates icons for the `↑passwd`, `↑MultiUser.group`, and `↑am.log` files which are owned and only accessible by root. Their image is taken from **AM**'s image, but they are **Project** icons with a default tool of **AM**.

3.4.2.5 Freeze display when doing lots of list operations

This item is intended mostly for those of you who must work with slow machines. To make life a bit easier you can turn off this item. When you `↑Scan` the `↑muFS` partitions the listview is not updated every time a new entry is added to that list.

Of course this will only save reasonable time if there are many files to be added.

Maybe this feature will be improved in future releases.

3.4.3 The Edit menu

This menu is very much like the standard **'Prefs'** menu of the same name. **AM** automatically stores some of your settings in a private configuration file in **ENV**: when you `↑Quit` the program. This file is loaded automatically during startup or explicitly (see below).

You'll find the following items in the **EDIT** menu:

3.4.3.1 Load configuration from ENVARC:

Selecting this item causes **AM** to read the configuration from `'ENVARC:mui/MUFS_AM.cfg'` which usually is somewhere on your hard disk.

3.4.3.2 Load configuration from ENV:

Selecting this item causes **AM** to reread the configuration from `'ENV:mui/MUFS_AM.cfg'` which usually is somewhere on a RAM disk.

This file is automatically loaded at startup and saved on \uparrow Quit.

3.4.3.3 Save configuration To ENVARC:

Selecting this item makes AM permanently save the configuration to ‘ENVARC:mui/MUFS_AM.cfg’ which usually is somewhere on your hard disk.

There’s no need for a menu item which saves to ENV: as this is automatically done on \uparrow Quit.

3.5 Quit the program

Pressing the QUIT button or selecting the QUIT item from the \uparrow Project menu terminates AM. Before really exiting AM checks if the files need to be saved and informs you about that by popping up a requester.

You can still continue to work with all information in AM’s memory at this point. If you decide to terminate AM all information on deleted users is discarded. See Section 3.3.6.3 [Deleted], page 19.

3.6 Short information on the author

AM was written by:

Ingolf Koch
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D-32791 Lage
Germany
Phone: 05232/2700

If you call from other countries replace the leading 0 by the appropriate prefix for Germany. My email address is ingolf@mathematik.uni-bielefeld.de Additionally, I can often be found on IRC. My nick name is **Balin**.

3.7 The development crew

There are quite a few people who had great influence on AM being what it is now. On the one hand, there are the translators:

- **Paul Dolk** (Netherlands catalog)
- **Håkon Enger** (Norwegian catalog)
- **Christofer Kull** (Swedish catalog)
- **Goncalo Valverde** (Portuguese catalog)

They also did a lot of testing (and bug reporting :-). Thank you! (The German ‘translation’ was done by the ↑Author himself.)

On the other hand, there are additional testers who helped me very much with their bug reports, criticism, and suggestions (and the list of suggestions is growing and growing. . .):

- **Walter Francis**
- **Michael Hohmann**
- **Krunoslav Njers**
- **Bernhard Seefeld**
- **Horst Weber**

Thanks again for your work, guys.

3.8 Lots of thanks

Besides the AM development ↑Crew I’d like to thank the following people

- Geert Uytterhoeven for ↑muFS
- Stefan Stuntz for creating ↑MUI, answering lots of questions and bearing my constant (positive and negative) criticism
- Matt Dillon for DICE
- Markus Illenseer (ill) and other people on IRC (#AmigaGER) for their help

- Gaël Marziou for YAK
- Stefan Becker for ToolManager

I'm sure there are many more people I should mention here but they don't come to my mind just now...

3.9 Translating AM to another language

Currently, there are six languages available for AM: English (the builtin), German, Netherlands, Norwegian, Portuguese, and Swedish (see Section 3.7 [Crew], page 24). If you'd like to translate AM to another language, please fill in the translated strings in the blank 'am.ct' file which comes with this distribution.

In many cases, a look at the catalog descriptor ('am.cd') will help you translate the strings in the right way. You can then compile the new catalog using Commodore's CatComp utility (or similar).

But please don't spread your private catalog versions! If you have a new catalog or just want to improve an already existing one, you should contact the \uparrow Author of AM.

3.10 Short information on muFS

muFS is an abbreviation for Multi User File System. It was created by Geert Uytterhoeven for the Commodore Amiga computer. It works with Amiga OS 2.0+ and is implemented as a normal DOS file system. So it works with (nearly) all programs.

For more information see the 'MultiUser.doc' which comes with the muFS distribution.

3.11 Short information on MUI

MUI is an abbreviation for Magic User Interface. It was created by Stefan Stuntz for the Commodore Amiga computer. To utilize MUI at least a 68020 or better is recommended, your computer will be very slow otherwise...

For more information see the 'ReadMe.mui' which comes with this distribution of AM.

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