

MAS

S.Klemola

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Contents

| | | |
|----------|-------------------------------------|----------|
| 1 | MAS | 1 |
| 1.1 | Message Area Scanner 1.50 | 1 |
| 1.2 | Taking MAS into use | 1 |
| 1.3 | Using MAS | 2 |
| 1.4 | Technical details | 3 |
| 1.5 | Contacting the author | 5 |

Chapter 1

MAS

1.1 Message Area Scanner 1.50

User's manual

Taking MAS into use

Using MAS

Technical details

Contacting the author

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1.2 Taking MAS into use

Installing

Run the installation program provided by typing "install" to the shell prompt in any directory. The files that came in the archive must be in the same directory as the install program. You might first want to see what the program will do, before actually performing the installation. If this is the case, click "Fake it", when the second requester appears. Now, the program will not perform any installation, but just show you the commands it would have executed. Next, install for real.

If anything should go wrong, for example the install program should not happen to work for some reason, here is, what it should be doing:

| File | Destination directory |
|------|-----------------------|
|------|-----------------------|

| | |
|-----------------|--|
| mas | BBS:Util |
| mas.guide | BBS:Docs |
| mas.doc | BBS:Text |
| mas.c & sub.asm | BBS:Programmer (optional) |
| mas.dat | Appended to BBS:Menu/MainMenu.dat (optional) |

You will be prompted for each of the files to be copied. You can specify another directory for each file, or press Proceed right away to accept the default directory. You will also be able to change the name of the file as it will appear in the destination directory. You will be prompted, whether you want to install the source code. Click Pass if you do not need it. Then, you will have the option of having the pre-made menu code segment to be appended to one of your menu files. Click Pass if you want to do this by hand or not do it at all, which is not recommended however. Otherwise select an existing menu file (with the dat extension), and press Proceed for magic to be done on it. The menu code will also be compiled if you want, and it is possible. After this, the installation is completed. You may now delete the original MAS directory. Make sure however, that you have read the note (readme) first. Now, you are ready to use MAS.

Note! If you change the program directory, that is the directory where the executable is located, you must also make the change to the menu code. TechnoBBS must know where the executable can be found. It works fine on the console without the full path name, but not on any other node! This is one more peculiarity of TechnoBBS...

1.3 Using MAS

Instructions

Template: SIG/N,ALL/S,NEW/S,FORCE/S,CONT/S,USER/K/N

Format: [<Sig>|ALL] [NEW] [FORCE] [CONT] [USER=<Node>]

Purpose:

Read mas.doc for full description of the purpose and operation. In addition you can also scan all new messages using the CONT option, which is new in v1.50. Put a command such as this in your login program:

```
address command 'BBS:Util/mas ALL NEW CONT USER 'ln' <>TECHIO:'ln
```

To scan all SIGs, you can either use the old way of passing 0 as the number of SIG, or use the new option ALL. This command uses the latter, and the menu code uses the first way.

Note: The NEW and FORCE options are for online use only. They can not be used from the shell. The USER keyword is used to pass MAS the node number when run from online. Do **NOT** use this from the shell. In fact, do not use any of these from the shell. It is only safe to specify the Sig number from the shell.

Note: When run from online, MAS will make log entries stating what it has been doing.

Note: There is an undocumented feature in the menu code. One more option, PLAIN, can be used by the system operator. You will need an access level of at least 1000 to use this option (may be changed, see mas.dat).

PLAIN No direct area-to-area communication between the scanner and TechnoBBS. Runs faster, but does not show the amount of new messages.

Entering for example "Scan 3 PLAIN" when online, will make MAS act as if it were run from the shell. It will show all areas regardless of their protection. Therefore this option is restricted to the use of the SysOp.

Note: The NEW and FORCE options have no meaning when PLAIN is specified. All areas will always be shown, and no new message information will ever be presented.

1.4 Technical details

General information

The full source code to the program is delivered within this distribution. Do not abuse it! You can use parts of it in your own programs, just credit me if you do. You will notice, that I am using the `_main` entry point, and a function set of my own instead of the standard C functions. I changed MAS to use these and the executable shrunk over half! The compiler insists on bringing in an enormous amount of code never used. You will find my substitutions for the standard functions in `sub.asm`, that among other things has been compiled as `sub.lib`.

I rewrote much of the ARexx code by Ville-Pertti Keinonen. Some of the functions operate rather much differently now than they used to. I will make even more enhancements to them in the future, and to this program as well. BTW, the source code for the install program is available at request. You can use it to make installers for your own programs. Oh, one more thing. The header file `sh/sub.h` contains currently only the prototypes for the functions in `sub.asm`. They are here:

```
ULONG rawprint(u_char *);
ULONG print(u_char *,...);
ULONG sprintf(u_char *,u_char *,...);
ULONG strcmp(u_char *,u_char *);
ULONG strcpy(u_char *,u_char *);
ULONG strlen(u_char *);
void clear(APTR,ULONG);
```

There is one more function in the main code that substitutes general code, `strval()`. It operates similarly to `atoi()`, but uses the `dos.library` function `StrToLong()` instead. Remember, that none of the standard C features are available in the code. Instead of `stdin` one must use `Input()`, `rawprint()` for plain `printf()` with no arguments etc. Also, no argument parsing is done, but this doesn't matter, since `ReadArgs()` does this for us in an AmigaDOS compatible way.

Theory of operation

MAS makes a direct contact with TechCon and obtains an access to the SIG list maintained by it. The list is constructed of linked SigDat structures, that are used to access the area lists. Each SigDat has a list of AreaCfg structures bound to it. These structures contain information such as the name and number of the area, and the number of first and last message in the area. The structures are defined in the header file techprg.h.

This is all the information that MAS will need - and present - when run from shell or from online with the PLAIN option given. Normally, information about new messages in each area will also be obtained. This is done by calling the TechnoBBS ARexx function GetHighRead(). The access to each area will be confirmed calling HasMsgAcc(). If the option FORCE has not been given, only areas that the user has joined to, will be scanned. This is checked calling GetAreaMode(). Calling ARexx functions is slow, and this does slow MAS down quite a bit. It would be faster to examine the user data directly, but obtaining the user data is not easy. Perhaps I will implement this later though.

Online running

Here are the ways, the program is operated from shell and from online:

Template: SIG/N,ALL/S,NEW/S,FORCE/S,CONT/S,USER/K/N

Format: SCAN [ALL|<Sig>] [NEW] [FORCE] [CONT] [INTER]

This is the command used to launch MAS:

```
dos("mas \($sig) \($new) \($cont) \($force) USER \($node())
    <>TECHIO:\($node())");
```

You will see, that normally the USER option is always specified, and the node number given as the value of the keyword. The SIG number is the one specified, or the number of current SIG (obtained by calling CurrentSIG()). Since the online format specifies ALL as the option to scan all areas, it will be converted to value 0 before giving it to the command. The menu code also checks for boundaries, but this is not absolutely necessary, because MAS will do that as well.

The variables \$new, \$cont and \$force will either be empty or contain the option names, NEW, CONT and FORCE respectively. If the user didn't specify them, MAS will get nothing but a lot of spaces... This doesn't matter, because the dos.library function ReadArgs() will strip them for us. If the user specified INTER, the menu code will clear the variable \$sig. This means that, there will be no SIG number given to MAS, and therefore it will go to the interactive mode, that can be invoked from the shell by running MAS with no arguments.

You might be tempted to scan for new messages on a user logged in by typing for example "mas 3 NEW USER 1" in the shell. You would get the new message scan for the user and see the results in the shell window, but log entries would be made to the log file of node 1. This might also cause other problems. Imagine for example the user online performing a scan at the same time. It should not cause any collisions, but you never know about TechnoBBS... Anyway, this is highly *UNRECOMMENDED* activity.

1.5 Contacting the author

It would be very nice to hear from you, user of MAS. Send me a postcard, a letter or electronic mail to let me know that you are using my program. I am also always open to suggestions and ideas for improving my software. You can reach me by various means. Try email at one of these addresses:

InterNet shadow@spider.compart.fi

Sakunet Sami Klemola@65:951/1

Or the conventional mail:

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Or call my BBS:

Star Fleet TechnoBBS

Or visit my home page in the World Wide Web:

<http://spider.compart.fi/~shadow/>
