tbaMUD Mail System
Manual

Mail System and Manual created by Jamdog

Mail System,
tbaMUD Codebase
tbamud.com

tbaMUD Mail System is more advanced than any other codebase. It has the following features:
* Send, receive, reply-to and forward mails in a handy menu interface.
* Attach objects or gold to mudmails
* Builders can add post rooms without the need for code changes.
* Mobiles can send mails to players using DG-Scripts
* Automatic reply mails can be sent (read receipts, paying for received goods, etc...)
* Send mails to multiple recipients, or even to all players
* Mark mails as urgent
* Save draft mails, for sending later.

This manual is designed for use by players, but also has a section for MUD Staff.

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What are mudmails?

Mudmails are like emails, except that they only exist within a MUD. You can only send mudmails to other MUD players. The recipient of a mudmail does not need to be logged into the MUD, and will receive a message informing of new mudmails when logging in.

How is tbaMUD Mail different?

The tbaMUD Mail system allows messages to be sent between players, as with any mudmail system, but it also has the following features not normally found in a MUD.

- Players can view their inbox, and choose whether to receive or delete a mail before it's delivered.
- Multiple objects can be attached to one mail..
- Gold can be attached, to send payments to other players.
- You can reply to or forward mails,
- Send COD requests, where player pays to receive the mail, and you automatically get the money by return mail.
- Mark mails as deleted, before purging all marked mails (so that mails aren't accidentally deleted).
- Mobiles can send mails using scripts.
- Imps can view mails in the system (but not the actual body text) and remove undelivered or undeliverable mails.
- Players can use an optional menu-based 'editor' for even easier viewing, sending and editing of mails.

All interaction with the mail system is done through the 'mail' command

How do I send mudmails?

To send or receive a mudmail, you must be standing within a post-office room, and the postmaster must be present. Depending on the configuration of your MUD, free mailing (from any location) may be enabled, but this is generally reserved for MUD staff.

If free mailing is allowed, the MUD owner must set up one mailman in one mailroom (usually in the God Zone), which will be used for mailing.

The command interface

Mudmails can be sent to another player using a simple command. This allows players who haven't used the tbaMUD mail system to send mails in a familiar way, The following commands are used for using the tbaMUD mail system. All of these are covered in more detail on the following pages.

mail	Enter the menu interface (see below)
mail *<player>*	Send a quick-mail to the specified player, with no subject.
mail check	Simply see if your have any unread mail.
mail inbox	View a numbered list of received mails (without receiving them)
mail view *<num>*	Display the contents of the specified mail, marking it as 'read' in the inbox.
mail receive *<num>*	Save the mail into your inventory, removing it from your inbox.
mail delete *<num>*	Mark the specified mail to be deleted next time the mailbox is purged.
mail purge	Permanently remove all mails that have been flagged for deletion.
mail reply *<num>*	Create a reply mail that will be sent back to the sender of the specified mail.
mail forward *<num>* *<player>*	Forward a copy of the specified mail to the specified player (without editing it).

mail <player>

To send a mudmail to another player, you can use the old-style mail command. You will pay the standard rate for mails, and the mail you send will have no subject.

After typing the command, you will enter writing mode, exactly as you would if posting on bulletin boards.

When you use /s to save your message, it is sent and the stamp cost is taken from your gold.

You can also abort your mail with /a, and the stamp cost will not be taken.

mail inbox

This shows your current inbox, which looks something like this:

```
tbaMUD Mail System                                                  Inbox
Flags Num From              Subject                      Date/Time
        1 Ramada            Testing mudmail              15 Feb 2008 12:56
 ! O    2 RabidCarrot       Have my old sword            17 Feb 2008 17:36
   +    3 Rango             I have a little spare cash for y... 19 Feb 2008 05:12
*!      4 Rax               A matter of life or death    19 Feb 2008 05:12
* -O    5 Ratsbane          Thanks for your business. Here i... 19 Feb 2008 16:02
    X   6 Rankol            Some random spam!            20 Feb 2008 10:52
* -     7 RabidCarrot       Request for cash             19 Feb 2008 05:12
```

It is important to note the 'Num' column, which displays the mail number used to interact with other mail subcommands.

Below is a key to symbols and colors used.

```
Flags                          Line Colors
*  New, Unread Mail            New, Unread Mail
!  Mail is marked Urgent       New, Urgent Unread Mail
+  Gold is Attached            Normal Mail, has been read
-  COD Payment is required     Urgent Mail, has been read
O  Object is attached          Marked for deletion
X  Marked for deletion
```

mail view <num>

mail read <num>

The 'view' and 'read' commands will show the content of any mail in your inbox. It also marks the mail as 'read'. Below is an example of how this might look. When the new mail patch is installed, or a new tbaMUD is installed, this mail is sent to the MUD owner, as a 'test' mail.

```
tbaMUD Mail System                                              View Mail
-------------------------------------------------------------------------
From        : TbaMUD Mail System
Sent        : Sat Feb 23 2008 00:20  (2 days 17 hours ago)
Subject     : Welcome to tbaMUD Mail!
Urgency     : Normal
Status      : Read
-------------------------------------------------------------------------
Welcome to tbaMUD Mail
----------------------
This is the new tbaMUD Mail system, which allows for much greater flexibility
than the old circle MUDmail.

A manual on usage is available at:
http://www.tbamud.com/


-------------------------------------------------------------------------
```

mail check

This command will simply tell you if you have any new mail. The same information is shown to you when you log in, and you can just check your inbox anyway, but the old mail system had this function, so it was kept.

mail receive <num>

Receiving your mail gives you an actual MUD object, that can be examined to read the text on it (which it just the same as the 'view/read' text). You can then pass this object to other players to show them your mail.

When you receive your mail, it is removed from your inbox, but you can still read it by examining the mail in your inventory.

If you have any mails in your inbox that contain attached objects or gold, then you must receive the mail in order to receive the attachments.

If you have any COD request mails, then you must receive these to pay the amount due. An automatic reply mail will be sent back to the player that requested gold.

mail delete <num>

This marks a mail for deletion, but does not remove it permanently from your inbox. You can repeat the command to 'undelete' the mail.

It will remain in your inbox until you 'purge' your inbox of mail that has been marked.

mail purge

To get rid of 'deleted' mails, you need to purge them. This will remove all items marked for deletion in both your inbox and your outbox.

mail reply <num>

If someone has sent you a mail, and you wish to send a quick reply, you can do so with this command. You will be shown the text editor, where you can add your reply, and use /s to send it.

mail forward <num> <player>

To forward a mail you have received to another player.

This does not allow you to edit the text before sending. The player you forward it to, will receive an identical copy of the mail you received, except it will have "FW: " on the front of the subject.

The inbox mail menu

The 'mail' command takes you to a menu-based system, providing the simplest possible interface for sending and receiving mails. The first screen you see will be the inbox editor.

By default, while using the editor, you will be safe from aggressive attacks by mobiles, and from thief mobs, although the MUD owners do have the ability to turn the safety option off, so don't assume it to be on.

When you enter the inbox editor, you are presented with a view of your inbox, just like using the 'mail inbox' command, except that you have a number of options showing below it…

```
tbaMUD Mail Editor
tbaMUD Mail System                                              Inbox
Flags Num From                  Date/Time              Subject
      1    TbaMUD Mail System Sat Feb 23 2008 00:20  - No Subject -
  !   2    BigDave            Mon Feb 25 2008 22:47  here is your mail!
2 mudmails in your inbox
(C) Create       (V) View       (R) Reply      (F) Forward
(E) Receive      (D) Delete      (O) Outbox      (Q) Quit
Enter Selection:
```

To select one of the options, just type the letter shown before it, and press enter. The available options are:

Create   Create a new mail, to be sent to another player (or players).

View   Read one of your mails

Reply   Create and edit a reply mail.

Forward   Edit and forward a mail to another player

Receive   Create a copy of a mail in your inventory.

Delete   Mark a mail to be deleted

Outbox   View unsent draft mails

Quit   Purge deleted mails and exit from the menu system

The mail editor

When you create, reply to, forward or edit a mail, you are taken to the 'mail editor' screen.

This is where you set up all the mail information before sending, including adding attachments and multiple recipients.

```
tbaMUD Mail Editor
Current cost to send this mail: 150 coins
A) Recipients  : <None>
B) Subject     : - No Subject -
C) Urgency     : Normal
D) Attachments : <None>
E) Gold        : <None>
F) Gold Mode   : Send Gold
G) Body Text   :
No Text
S) Send Mail
X) Clear Mail data
Q) Quit without sending
Enter Selection:
```

At the top of the mail, you will always see the current cost of the mail. As you add attachments, this may increase. The cost may vary from one MUD to another.

The editor options are:

Recipients   Takes you to the recipients menu, where you can add or remove recipient names. Recipients must be other players or immortals. It is not possible to send mail to mobiles. If the mail has attachments (objects or gold), then you will not be able to add more than one recipient.

Subject   This is the subject line for your mail, which the recipient will see in their inbox. It should be short, but informative. You can leave it blank to send a mail with no subject.

Urgency   Urgent mails are highlighted in red in the recipients' inbox, to draw attention to them. Mails should only be flagged urgent if they contain important information.

Attachments   Opens the attachments menu. You can add any object in your inventory as an attachment. Attachments are sent with the mail, and received by the mail recipient. You cannot send attachments to more than one recipient. Adding attachments will affect the total cost of the mail, but if you run out of gold, you won't be allowed to add any more attachments..

Gold   You can attach gold to a mail, and send some of your spare money to someone else. You also use this to enter a gold amount for Cash-on-Delivery (COD) mails, to request gold from someone else.

Gold Mode   Toggles between "Cash-on-Delivery" (COD) and "Send Money". COD mails must be 'received' by the recipient for you to get the gold attached to a reply mail. If you with to send or request money, you must enter a value for the gold amount.

Body Text   This is the message that you wish to send in your mail. It is possible to send a mail with no text, but it is considered polite to at least put a few words in the mail.

Send Mail   When you choose the 'send mail' option, your mail is instantly sent to your chosen recipients. If they are playing, then they will receive a notification, telling them that a new mail has arrived in their inbox.

Clear Data   Erases ALL the information in the mail currently being edited, so that you can start with a fresh new mail.

Quit   When you quit from the mail editor, depending on whether the MUD's setup allows draft mails, you will either be asked to confirm you wish to lose your changes, or if you wish to save the mail as a draft. If you save it as a draft, it is transferred to your outbox for later editing and sending.

You are not charged for the mail cost until you actually send the mail, so if you decide that you can't afford to send this mail, then just quit and save it as a draft, then send it later when you have more gold.

When you send or quit, you will be returned to the inbox menu.

Scripted Mailing

One major advantage of the new mail system is that mobiles can send mail to players using scripts. This can be used in a variety of ways:
- Scripted shopkeeper mobs can send objects to players, with a COD request for payment.
- Rewards for performing actions can be mailed to the player.
- Mails can be sent to all the immortals every time a player enters a zone
- An auction house could be scripted to mail 'won' items, with a COD request, to players, and the gold payment mailed to the seller.
- Many more ideas… See what you can come up with!

The %mail% command

Because objects and rooms cannot send mails, the **%mail%** script command will only work in scripts for mobiles. Below is a list of all the allowed subcommands for the %mail% command.

%mail% new   Creates a clean, new mail, with all blank data. This step is not actually necessary, as all other subcommands ensure that the 'mail' exists first, but it does ensure all fields are cleared from previous mails sent by this mobile.

%mail% recipient Adds a new recipient to the mail's list. It is not possible to remove recipients, so ensure you only add recipients that you really want to receive the mail. You will get an error message if the mail has attachments and you attempt to add more than one recipient.
Usage: **%mail% recipient %actor%** or **%mail% recipient <name>**

%mail% subject   Sets the subject for the mail.
Usage: **%mail% subject <text>**

%mail% body   Sets the body text for the mail
Usage: **%mail% body <text>**

%mail% object   Adds an object attachment to the mail. The command can be repeated to add multiple attachments. Currently, it is not possible to add an existing (loaded) object to the mail.
Usage: **%mail% object <vnum>**

%mail% gold   Sets the number of coins attached to the mail. The coins are not taken from the mobile. If you wish for such realism, it must be done in the script.
Usage: **%mail% gold <num>**

%mail% urgent   Flag the mail as 'urgent'
Usage: **%mail% urgent**

%mail% cod   Flag the mail as Cash-on-delivery. If this flag is set, then the gold
value should also be set.
Usage: **%mail% cod**

%mail% send   Sends the constructed mail. Before sending, ensure that your mail is
fully constructed, with a subject, body text and recipients.
Usage: **%mail% send**

%mail% view   Purely a handy debugging tool for builders and scripters. It outputs
the mail and recipients list to everyone in the current room.
Usage **%mail% [view | show | echo | list]**

A script example

The script below will send a test mail to a user when they type the mailme command.

```
Name: 'Mob Mail Example',
Trigger Intended Assignment: Mobiles
Trigger Type: Command , Numeric Arg: 100, Arg list: mailme
Commands:
* By Jamdog to demonstrate how mob mailing works
* Unused mail commands are:
*    %mail% cod              (toggle COD mode)
*    %mail% gold %amount%     (set the gold value)
*    %mail% object %obj_vnum% (add an attachment)
*

* Start with a new blank mail (not actually necessary, but for completeness)
%mail% new

* send mail to player that typed the command
%mail% recipient %actor%

* send mail to Jamdog too
%mail% recipient Jamdog

* set the mail subject
%mail% subject Here is your mail!

* turn on the 'urgent' flag
%mail% urgent

* set the mail body text
%mail% body This is a mail from %self.name%

* and finally, send the mail
%mail% send
```

Fixing a Broken Index

The most disastrous fault with the mail system is loss or corruption of the mail index. The index tracks all mails in the system, and therefore if the index is lost, all mails in the system are also lost.

TbaMUD comes with a solution to this problem, in the form of a mail index rebuilding tool.

This should be used from the **lib/mudmail** folder, using the following shell command:

```
bash ~
$ cd tbamud/lib/mudmail

bash ~/tbamud/lib/mudmail
$ mv index index.bak

bash ~/tbamud/lib/mudmail
$ ../../bin/rebuildMailIndex index

bash ~/tbamud/lib/mudmail
$
```

Note that a backup of the old index was made before rebuilding. This should be done even when the old index is corrupted, just in case...

The rebuildMailIndex tool creates (or overwrites) a file with the specified name. The filename should be **index** for tbaMUD to recognise it.

When running the rebuildMailIndex tool, your MUD should be offline. If your MUD is running, then when you shut it down or reboot it, the corrupted index in it's memory may be rewritten over your newly built index.

The new index will not necessarily be in numerical order, but should be functional. If you wish, you can load the index into a text editor and manually sort the entries by mail ID number.

Acknowledgements

This mail system, although coded by Jamdog, followed a discussion between several people, and without these people, this mail system would never have been possible:

Jeremy Osborne   The man who kicked off the original idea to create a new mail system by saying "*I've never really been happy with the legacy circle mudmail system, but I think the entire board and mail system could use a good overhaul, perhaps sometime this year.* " Jeremy then kept the ball rolling.

Rumble   The owner of tbaMUD, into which this mail system has been incorporated. Without Rumble's hard work and patience, the MUD community could have died out years ago.

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Welcor   The owner of the TBA server, Welcor is also a great coder. He made some great suggestions for this project, and attachments were made possible thanks to his expert insight in suggesting they save just like rent files, and are stored like container objects. Welcor also did some testing on the incomplete system.

Laoris   Provided the 'inbox' idea, which led to the OLC and players being able to read and delete mails without needing to receive them.

Drefs   The first person to bravely fully incorporate the new tbaMUD mail system into his own live MUD. This put Drefs in the perfect postion to post plenty of bug-fixes, making the current version of mudmail far more stable.

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