

RMAILER: The Next Generation

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At the Eleventh Computer Networking Conference, RMAILER an add-on server for the remote ad hoc mailing list protocol known as RMAIL (Remote MAILer) was introduced. RMAILER has evolved since that time taking some at times interesting turns in development.

1. Background

RMAIL briefly works as follows: a single **RMAIL** message, including addressing information for the intended recipients, will traverse the network to a point closer to final delivery. Upon reaching that point, the single message will expand into multiple messages, one for each named recipient.

Those wishing further details on the RMAIL protocol should refer to the Author's previous paper.

At the time of the original paper, the only "RMAIL aware" centralized distribution server was **ROSEDIST**, then an integral part of the ROSErver/PRMBS PBBS package now ironically replaced by **RMAILER**.

2. Developments Over the Past Year

In the current release, **RMAILER** supports the use of **RFC-822** style continuation lines for the "To:" line, as envisioned at the time the original **RMAIL** paper was published.

The intended companion centralized distribution list server was never developed as a separate program. Instead, it became a trivial alternate case of providing for continuation lines. The development of this "Next Generation" RMAILER caused a distinct easing of workload for a number of sysops in the Northeastern US as yet another feature, the archiving of "R:" headers to the log upon expansion and re-origination of messages, reduced the load from apparent duplicate messages generated by the Star Trek discussion list (TREKML@KB4CYC.NJ.USA.NA) the author hosts.

The most dramatic performance improvement of the "Next Generation" RMAILER is the ability to process embedded RMAIL, RMAILs composed of other RMAILs, allowing multiple levels of nesting for optimizing distribution lists.

In addition to being a direct optional replacement for the ROSErver/PRMBS RMAILER.EXE distributed with releases 1.79 and later (code derived from the author's 2.03/2.04 release), the current RMAILER can act as a "sewer" under the F6FBB BBS system when the .EXE file

is given a name that includes "FBB" (e.g., FBBMAIL.EXE). Used in the ROSErver/PRMBS environment, **RMAILER** also provides loop indication avoidance re-addressing and Address Correction Notification services.

The most recent releases of RMAILER add maintenance services for "fixed" mailing lists (e.g., TREKML or **ASKRAT**) by automatically processing subscription requests (i.e., ADD, SUBSCRIBE, DELETE or UNSUBSCRIBE) in addition to list content requests (**LIST**, SENDLIST) all via the subject line. List maintainers are given control of how open a list they choose to operate through a set of "*" directives (***CONFIRM**, ***NOLIST** and ***RESTRICT**) included in the list.

3. Creation of Embedded RMAIL

Embedded RMAIL messages use the inner **RMAIL@<bbs>** address and a pseudo-address of *****EOF** to set off the included list. If the embedded list includes all remaining addresses the *****EOF** may be omitted. An example would be:

```
To: rmail@kb4cyc, kb4cyc, rmail@kb7uv, kb7uv, rmail@wb2gtx, ka2usu,
      n2irz, ***EOF, wb2ibo@wb2ibo
```

This message will first go to **KB4CYC** where a copy is dropped for **KB4CYC**. A message to **RMAIL@KB7UV** including the remainder of the list is created. At **KB7UV** messages to **KB7UV**, **RMAIL@WB2GTX** and **WB2IBO@WB2IBO** are created and processed as needed. The **RMAIL@WB2GTX** will expand on arrival there for **KA2USU** and **N2IRZ**.

4. Distribution (Mailing List) Files

The distribution list files (<listName>.DST ex., askrat.dst) contain lists of addresses, one per line, plus any needed "*" directives. The files may also contain comments either in lines beginning with a pound sign ("#") or following addresses separated by white space (space or tab). A distribution file that would produce the embedded **RMAIL** above might read as follows:

```
# SAMPLE Distribution
*CONFIRM Send confirmation to message originator
rmail@kb4cyc
kb4cyc
rmail@kb7uv
kb7uv
rmail@wb2gtx
ka2usu
n2irz
***EOF
wb2ibo@wb2ibo
***EOF
# End of SAMPLE list
```

The type of a non-RMAIL message created by a distribution list may be forced by preceding the address with either "p/" or "b/" (ex., p/kb4cyc or b/sample@njnet).

5. Distribution

RMAILER is available at no charge for non-commercial use within the Amateur Radio, MARS, RACES, and CAP services.

RMAILER is distributed as a PK Zip-ed archive **RMAILxxx.ZIP** (where xxx [currently 213] is the version number * 100) containing files **RMAILER.EXE** (the executable) and **RMAILER.MAN** (a UNIX style "manual page") in addition to other useful utilities by the author.

RMAILER can be downloaded from CompuServe **HamNet** Forum, the **KB7UV Landline ROSErver/PRMBS** (see below), "HIRAM" (the ARRL multi-user telephone BBS), and other telephone **BBSs**.

Those desiring RMAILER on MS-DOS magnetic media should send pre-formatted diskettes and return postage to the Radio Amateur Telecommunications **Society** (see below).

Requests for the code via the Internet should be directed to kb4cyc@kb2ear.ampr.org.

The author may be contacted via packet as kb4cyc@kb4cyc.nj.usa.na.

6. The RATS Open Systems Environment

RMAILER is an element of the RATS Open Systems Environment (ROSE), a project of the Radio Amateur Telecommunications Society (RATS).

Other elements of ROSE include the ROSE X.25 Packet Switch by Tom Moulton, **W2VY**; the **ROSE/OCS** On-line Callbook Server by Keith Sproul, **WU2Z**, and Mark Sproul, **KB2ICI**; **ROSErver/PRMBS**, the Packet Radio MailBox System by Brian Riley, **KA2BQE**; and STS Station Traffic System by Frank Warren, **KB4CYC**.

Correspondence may be sent to: RATS
 PO Box 93
 Park Ridge, NJ 07656-0093

The RATS **KB7UV Landline ROSErver/PRMBS** supports data rates of 1200 to 14400 bps (**V.32bis**, **V.42bis**), and J-, X-, Y-, and Zmodem binary protocols. It can be reached at 718-956-7133.

7. Acknowledgments

RMAILER still would not be possible were it not for the pioneering RMAIL development included within the **ROSErver/PRMBS PBBS** package by Brian Riley, **KA2BQE**.

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