Figures

Actions

Action	Arg's	Description	Example
Move-to	1+	Move message to specified folder. Set message state to *moved.* Optional: specify mailer type.	Move-to inbox Move-to inbox rmail
Copy-to	1+	Copy message to specified folder. Set message state to *copied.* Optional: specify mailer type.	Copy-to inbox Copy-to inbox rmail
Delete	0	Delete message. Set state to *deleted.*	Delete
Remail	1	Forward message to address list.	Remail mackay
Send-me	0	Send message (external server) to me.	Send-me
Runrules	2+	Run specified ruleset on specified folder. Optional: specify mailer type.	Runrules inrules inbox Runrules inrules inbox mh
Stop	0	Stop processing rules in current ruleset.	Stop
Set property	1+	Set user-defined property. Optional: give property a numberical value.	Set important Set important 10
Clear property	1	Clear (remove) specified user property.	Clear important
Add-to	2	Add integer to specified user property.	Add important 3
Subtract-from	2	Subtract integer to specified user property.	Subtract important 3
Permanent	0	Save all user properties on disk.	Permanent
Temporary	0	Delete user properties after running rules.	Temporary
System	1	Execute specified Unix command. Pipe message as standard input.	System zwrite
Systembody	1	Execute specified Unix command. Pipe body of message as standard input.	System lpr
Shell	1	Execute specified shell command. Optional parameters: /n new line /t tab %m message field %u user property %w whole message %b message body %h message header	Shell zwrite "Long Msg: /n %h"

Figure 1: Rule Actions: Definitions and Examples

alcomp

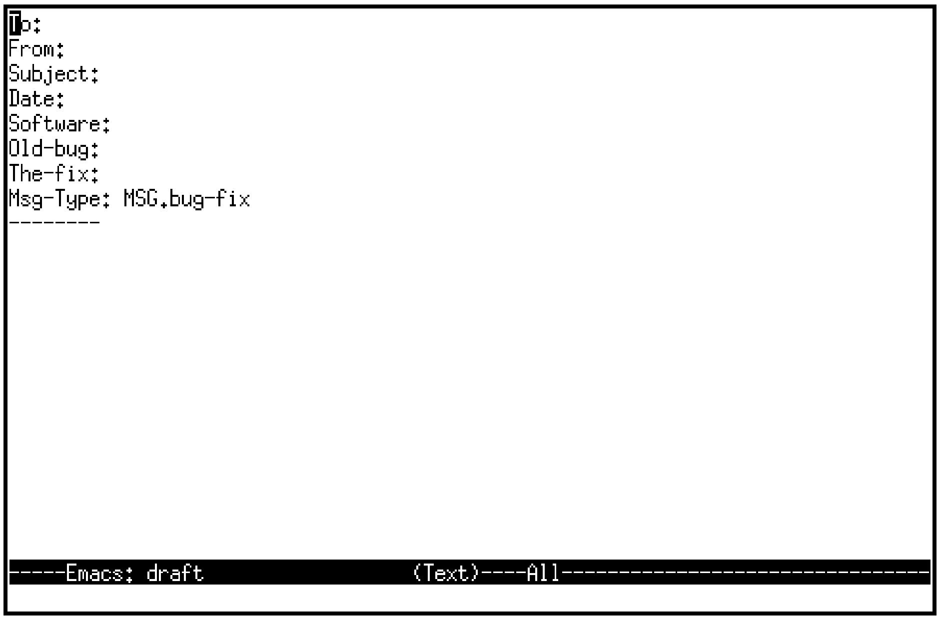

Figure 2: Alcomp: Editing a bug-fix message in Emacs

argusi

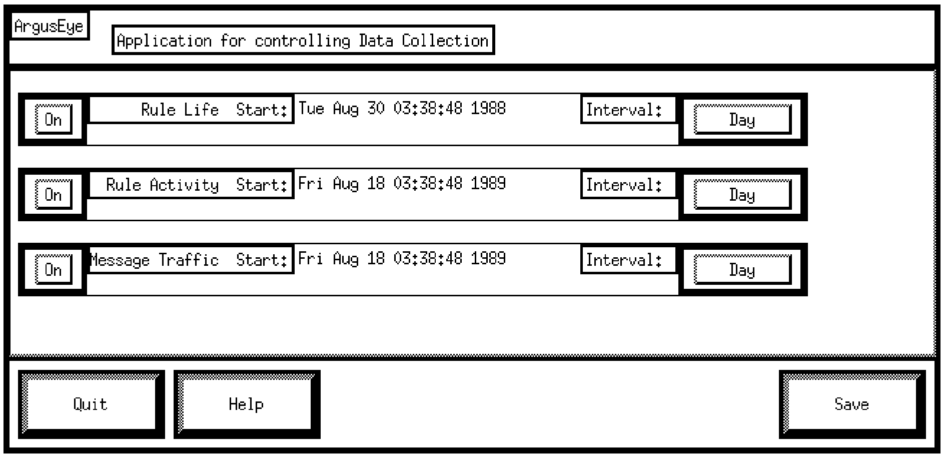

Figure 3: Argusi: User's Control Over Data Collection

Components of message: Fields, States and Properties

Directories used by Argus

Message Fields	User Properties	Message Properties	Processing State	Source Properties
Examples:				
To: staff	Priority: 1	Total lines in msg: 30	Rules fired: 2	Replied-to: True
Alternatives:				
Specified by user	Specified by user	Total fields in msg Total lines in msg Total lines in body Total characters in msg Total characters in body Total unprintables in msg Field count	Moved from Total times moved Copied from Total times copied Deleted Total rules fired Message source Message type	Specified by user
Operators:				
Text strings** Date Time Integer Boolean Exists	Text strings** Date Time Integer Boolean Exists	Integer Boolean Exists	Integer Boolean Exists	Text strings** Date Time Integer Boolean Exists

**Text strings can specify four conditions:
- Case Sensitive, comma = comma
- Case Insensitve, comma = comma
- Case Sensitive, comma = OR
- Case Insensitive, comma = OR

Potential sources:
- mh (xmh)
- Rmail (babyl)
- zephyr
- discuss
- turnin/pickup

Figure 4: Components of a Message: Fields, States and Properties

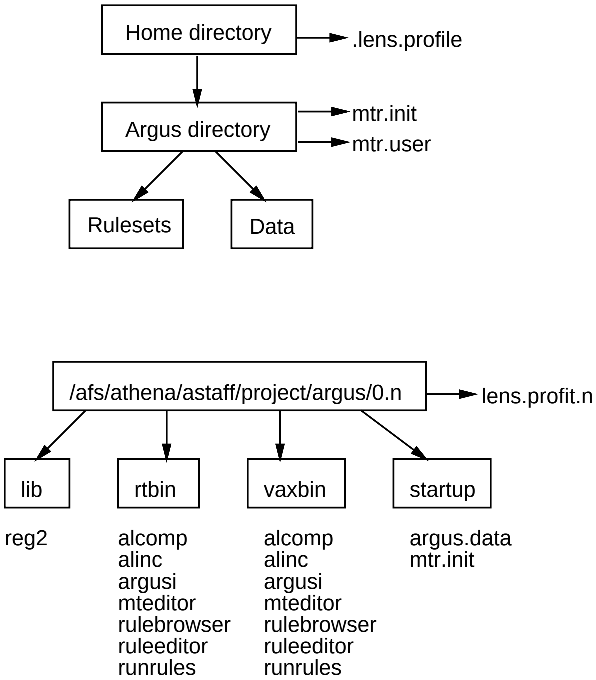

Figure 5: Argus Directories

Message Definition

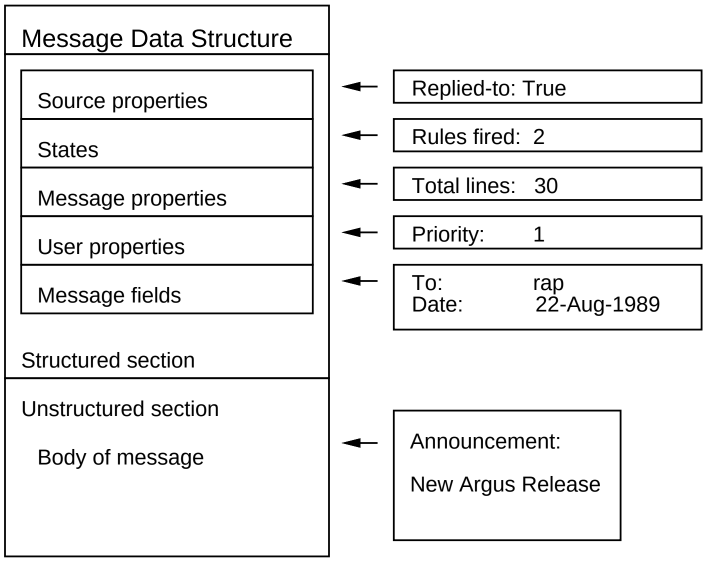

Figure 6: Definition of a message

Message Type Editor

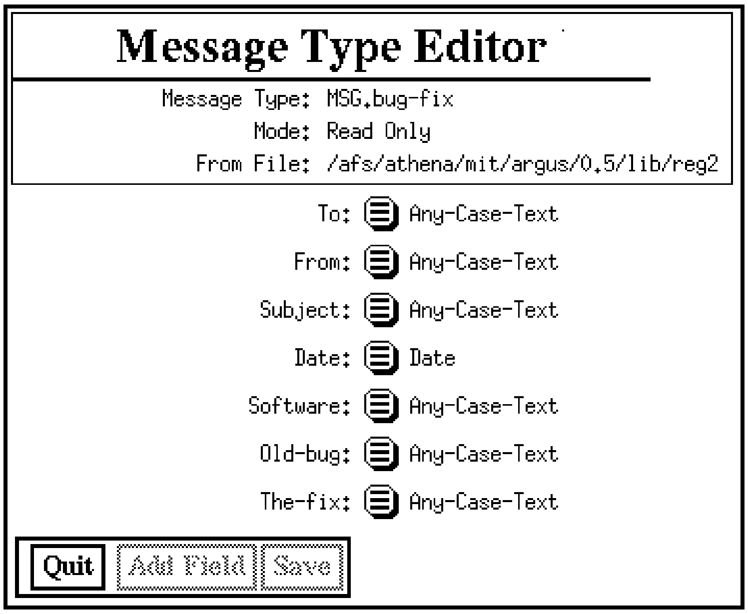

Figure 7: Message Type Editor: Bug-Fix message type

Operators

Overview of Argus

Text String **	Date	Time	Integer	Boolean
Contains word Word = Equals => Greater than =< Less than != Not equals Exists	= Equals != Not Equals < Before > After Exists	= Equals != Not Equals < Before > After Exists	= Equals != Not Equals < Less than > Greater than =< Less than or = => Greater than or = Exists	= Equals != Not Equals Exists

**Text strings can specify four conditions:
Case Sensitive, comma = comma
Case Insensitive, comma = comma
Case Sensitive, comma = OR
Case Insensitive, comma = OR

Figure 8: Types of components and their associated operators

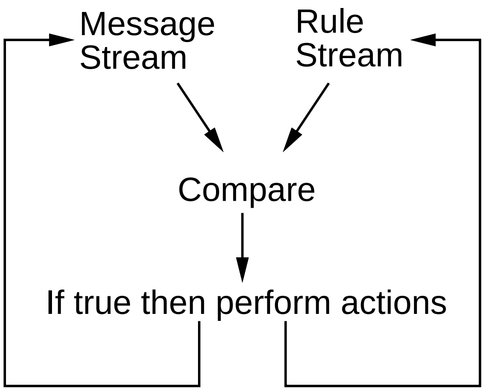

Figure 9: How Argus handles streams of messages and rules

Programs

Data Structures	Modules	Resources
Message Message Type Rule Ruleset Attribute (field) Actions Data	Message Type Editor Alcomp Rule Editor Rule Browser Runrules Alinc (mh) Data Controller Annotator Rule Pretty Printer	Message Type Registry Ruleset Registry Verb Registry Folders Profile Xresources Mailer interface

Figure 10: Argus Programs

Rule Browser

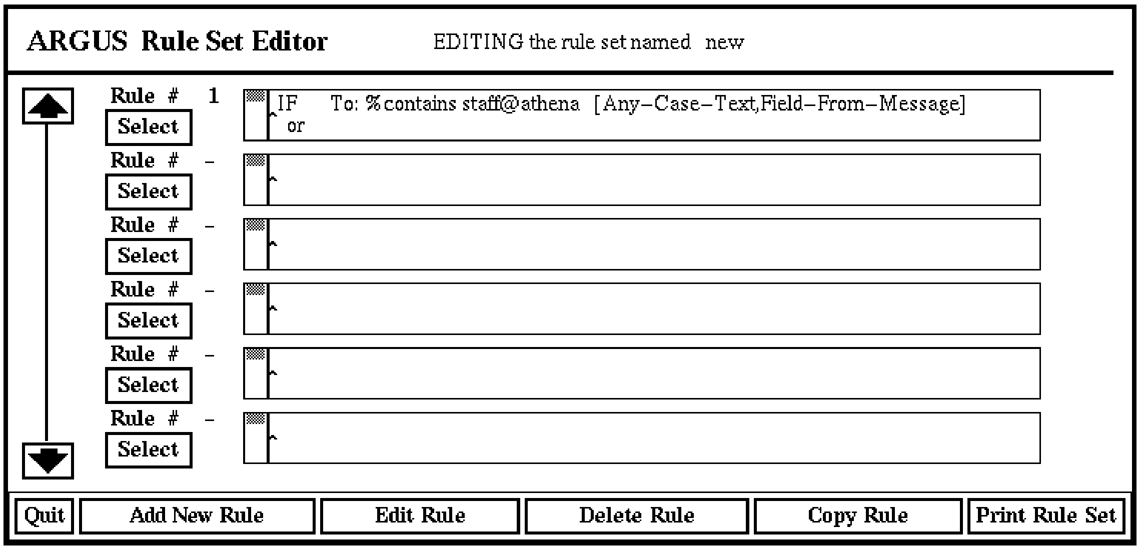

Figure 11: Rule Browser: Display of ruleset New

Ruleeditor

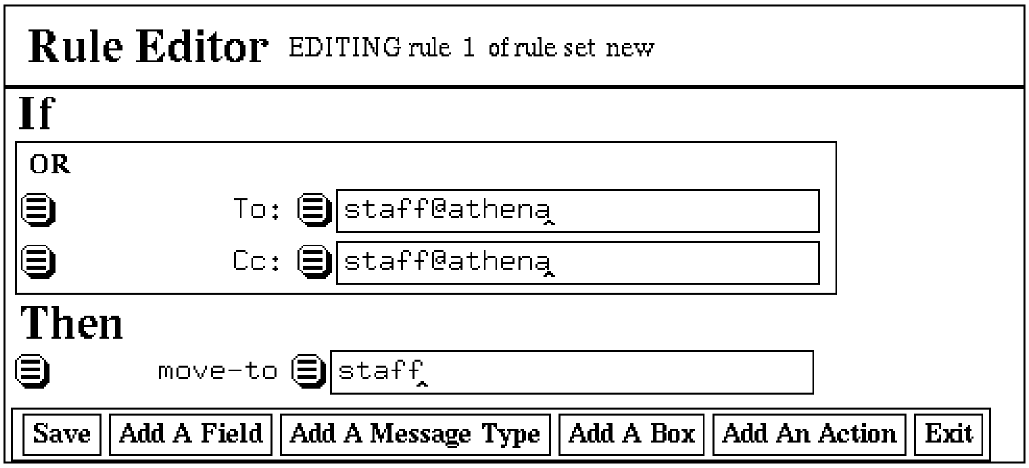

Figure 12: Rule Editor: Sample rule to move messages sent to or copied to staff to a folder called **staff**.

Rule Firing Process

Handling Multiple Rulesets

Structure of Argus

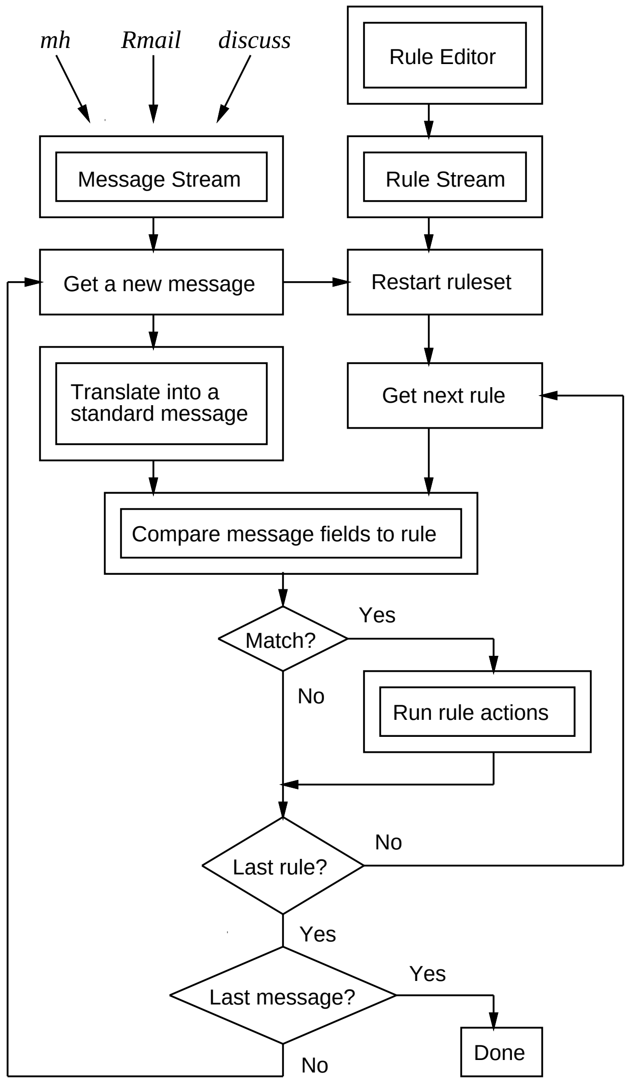

Figure 13: Rule Firing Process
Note: Double boxes indicate a special section in this document.

Turnin/Pickup

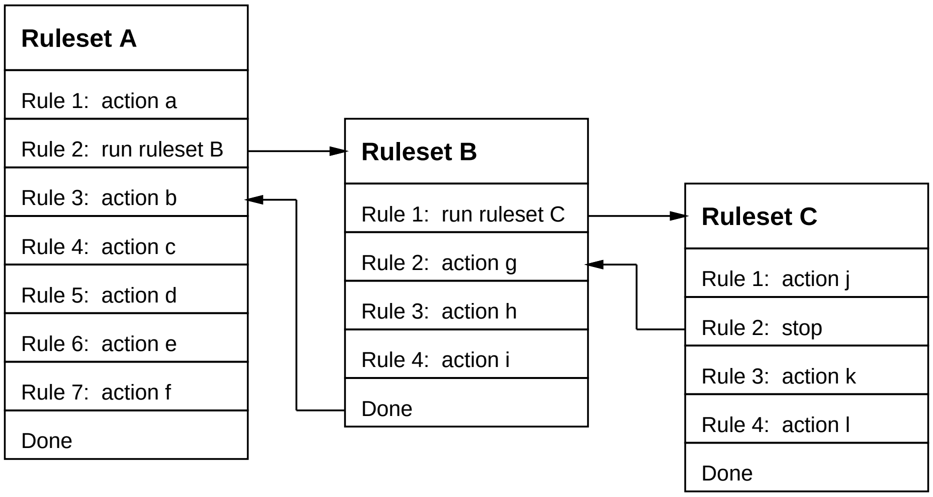

Figure 14: Multiple Rulesets:
Run Ruleset X runs another ruleset.
Stop prevents further firing in current ruleset.

Data Structures	Modules	Resources
Message Message Type Rule Ruleset Attribute (field) Actions Data	Message Type Editor Alcomp Rule Editor Rule Browser Runrules Alinc (mh) Data Controller Annotator Rule Pretty Printer	Message Type Registry Ruleset Registry Verb Registry Folders Profile Xresources Mailer interface

Figure 15: Argus Structure: modules, data structures and resources

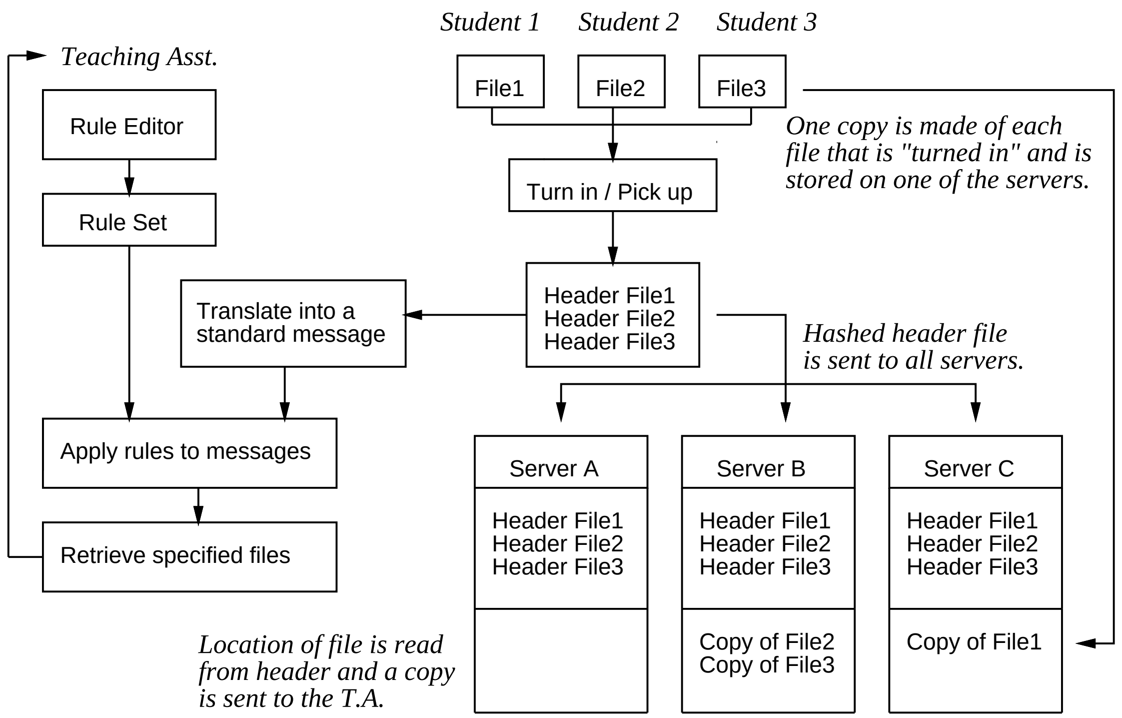

Figure 16: Proposed relationship between Turnin/Pickup and Argus

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