HowToDebug

Here are some simple steps in debugging your SpamAssassin installation:

- Run **'spamassassin --lint**', especially if you just added anything to your *.cf files or a user_prefs file. Often times you might have something slightly wrong and either a) SpamAssassin stops parsing the file or b) it's just plain wrong and causing the error.
- Run with **'-D'**. The debug output from spamassassin, sa-learn, spamd is sometimes very verbose, but it also gives you a large amount of data that can be very helpful. Often times debug is the only place to see what exactly is causing your error. When running *spamd* with *-D* you will see some initial startup activity, you can ignore this, it is just scanning a test message to help do the initial load of the perl modules.
- Sometimes its necessary to output the SpamAssassin debug information to a file. This can be done by redirecting stdout to a file and then redirecting stderr to the same location. Run **'spamassassin -D --lint > test.log 2>&1'**.
- Speed issues: * spamassassin -D --lint 2>&1 | less* and look for any gaps in time
- Failures: * spamassassin -D --lint 2>&1 | grep failed*
- DNS related: * spamassassin -D --lint 2>&1 | grep dns:*
- Shortciruit: * spamassassin -D --lint 2>&1 | grep shortcircuit:*
- Bayes: * spamassassin -D --lint 2>&1 | grep bayes:*
  - If you are not seeing any BAYES rules hit in your logs/headers, make sure you have at least 200 ham and 200 spam tokens: * sa-learn --dump magic*

```
   0.000          0          3        0  non-token data: bayes db version
   0.000          0    2944470        0  non-token data: nspam
   0.000          0   12169738        0  non-token data: nham
```