## RiverWare Software Maintenance Software updates New Linux Server

CADSWES bug tracking system (for RiverWare, RiverWISE and RiverSMART) is a collection of home grown Perl scripts running from an Apache web server on the front end and the Gnats bug tracking system on the back end. The Perl scripts:

1. Create web pages containing forms for users to fill out.
2. Use the information provided by users to invoke Gnats commands.
3. Gather the output from the Gnats commands.
4. Parse the output and create web pages displaying the output.

The Perl scripts are intended to be run from a web server but can be run from the command line, provided the forms they’re creating are relatively simple.

The bug tracking system is being ported from the current Linux server, Alamosa, to the new Linux server, Animas. The port includes four components:

* The Perl scripts
* Perl, which is being upgraded to a new version
* Gnats, which being upgraded from 4.1.0 to 4.2.0
* Linux, which is being upgraded from “stock” Linux to “Security Enhanced” Linux, or SELinux.

All four components have been problematic during the port, unfortunately the first component is the only one where we can fix problems. The others require that we email the CU Office of Information Technology (OIT) and wait – sometimes hours, sometimes days – for the current problem to be fixed.

In October we were able to accomplish the following in this difficult environment:

* Verify Perl scripts which query the Gnats database work from both the web server and the command line. (These are scripts which display either a list of bugs based on search criteria or a single bug).
* Verify Perl scripts which modify the Gnats database don’t work from the web server but do work from the command line. (These are scripts which either submit a new bug report or modify and existing bug report.)

The discrepancy in the second bullet item is because from the web server scripts run as the pseudo-user “apache” while from the command line scripts run as the currently logged in user. SELinux has different access control security policies for the different users, hence the different behaviors.

## RiverWare Software Maintenance Bug fixes (not associated with new development)

In June the following bugs were fixed:

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| **5866** | DSS paired data |
| **6018** | Excel and table series slot row labels |
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