

RCP02 V19 Release Notes

These notes cover changes made to the RCP02 code since release V18 of 24 August 1999. If you are upgrading from an earlier release, please read those notes also.

New Features

1. The RCP02 now supports a Dual/Redundant configuration in which it cooperates with another RCP02 to create a fail-safe system. Please see the extensive write-up in the new Appendix E of the *RCP02 User's Manual*.
2. The Zero-to-Max drive slew rate time has been increased from 1.5 seconds to 15 seconds. This change allows the RCP02 servos to work more gracefully with external motor controllers that incorporate a velocity feedback loop of their own. In such cases, the RCP02 velocity feedback slope should be set to zero, and internal (model based) acceleration limiting should be disabled. Acceleration limiting can be accomplished instead using the RCP02's drive slew rate limiter, which can now work over a longer time span.

Note that the drive filtering and slew rate limiting are both overruled by the detection of shutdown conditions, and the enforcement of soft limits of travel. If the antenna is heading rapidly toward a soft limit, the drive will be immediately adjusted in order to stop before that limit is reached.

3. Two new host computer serial I/O formats are available: XMT05 and RCV05. These are extensions of the existing XMT02 and RCV02 formats. The XMT04 and RCV04 formats are no longer supported, as they have always been identical to their '02 counterparts, at least from IRIS's point of view.
4. The front panel display option "VAR" may be used to show the continuous states of the sixteen local variables V0–V15. This can be handy as a temporary live monitor of states assigned to these variables via logic equations.

Setup Changes

1. The text to display for the two user-induced shutdown conditions can now be selected in the **site display** menu. You may type any 20-character string to pop-up and blink when these shutdowns are triggered.