



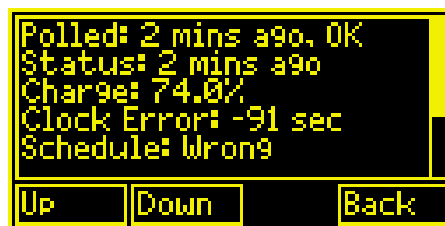
Application Notes

Rev 01.

AN03 - Checking for Schedule Issues using the INC

In a working system, the podlists and schedules have been loaded onto the INC and the schedules have been distributed. Assuming that the time has been correctly sent to the IPCs, then there is a quick and simple way of checking that the IPC has the correct schedule.

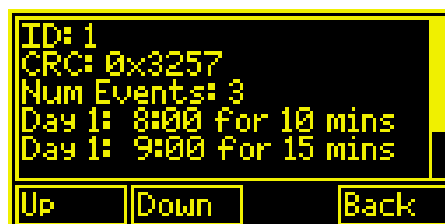
Each time that the INC receives a status message from an IPC, it will update the “**current status**” of that IPC with the status values contained in the message. The current status of an IPC can be viewed by pressing the **Status** button on the **IPC Information** page. To get to the IPC information page, tap **IPC list** on the home screen and then scroll to the IPC of interest. Once you have found the IPC you want, tap **view**.



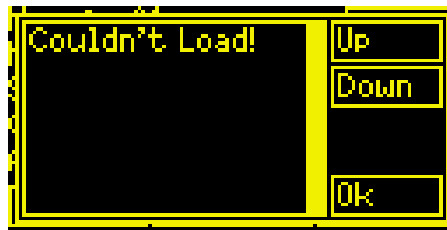
The current status page displays the following information.

- **Polled:** How long ago the INC requested (polled for) the status of the IPC, and whether or not the status request was acknowledged by the IPC.
- **Status:** How long ago the last status message from the IPC was received by the INC.
- **Charge:** The state of the IPCs battery at the time it sent the status message, represented as a percentage between 0% and 100%.
- **Clock Error:** The difference in seconds between the time according to the IPC and that according to the INC. (Note: the value will generally be larger with an increasing number of hops used to send the message.)
- **Schedule:** Whether or not the schedule stored in the IPC matches that specified in the INC.

The schedule of the selected IPC can be viewed by pressing the **Schedule** button in the IPC Information page. The displayed schedule is what the INC has been configured to use for that IPC. *Please note that the IPC may actually have a different schedule loaded, depending on whether or not the current schedule has been sent out to that IPC.*



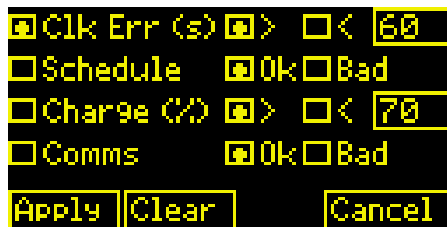
If the INC cannot locate the schedule in its memory for the selected IPC it will display the following:



This might happen if the schedules haven't been loaded to the INCs internal memory, or if the schedules folder doesn't contain a schedule file corresponding to that particular IPC

Sometimes it is useful to simply get a list of all the IPCs where there is a mismatch between what the INC believes the schedule to be and what is reported from the IPC.

For this the Filter option in the IPC list is used. Normally the IPC list will show all the IPCs in the system (as defined by the IPC configuration file generated by the IPC Scheduling software). This list can be filtered to show only a defined subset of the IPCs. An example of why this might be useful would be to get a list all of the IPCs that have low battery voltage.



The filter can operate using any one of the following aspects:

- **Clock Error:** The number of seconds difference between the clock in the INC and that in the IPC (at the time the last status message was received).
- **Schedule:** Whether or not the schedule in the IPC matches that specified in the INC (Ok or Bad respectively).
- **Charge:** The IPC battery voltage is greater or less than the specified charge as a percentage.
- **Comms:** Whether or not the last attempt at communications failed or succeeded (Ok or Bad respectively).

Simply check the box next to schedule then check the box next to bad and then apply and the IPC list will be filtered and reduced to a list of schedule issues.

One thing to watch out for is IPCs that have yet to receive their schedule. When the schedules are sent they are queued for distribution. However if there is a communication failure and the IPC does not receive the schedule a reattempt will be made on the next scheduled status poll. (this is typically once or twice per day). Until the IPC has received the schedule it may show as an incorrect or missing schedule in the IPC status. If the IPC has an ongoing communications problems then the schedule status may not be known at all until the IPC responds to a status poll.

For more information contact Water-Insight support@waterinsight.co.nz

