1 Appendix B: SSM for SimpleSAT SRDB

Now we would like to organize the data objects that we have identified in Appendix A and put them in their corresponding system elements.

1.1 System element definitions for SSM

Figure 1 depicts the SSM structure which is composed of system element definitions. At this level, each system element handles the data as they are defined in the corresponding ICDs. Data is neither renamed nor tailored at this level.

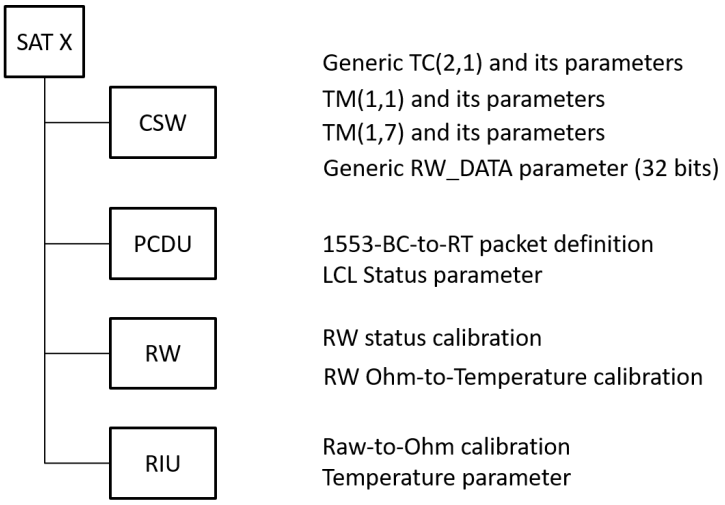

Figure 1: System element definitions in a space system model along with the data put in each system element

1.2 System element configurations for SSM

Figure 2 depicts the SSM structure which is composed of system element configurations. At this level, data is missionized and tailored to take into account the harness impacts on connected OBHW components. Morover, we illustrate the data that is added in system element configuration:

- The defintion of the housekeeping packet.
- the calibration $C00012$ that aims to transform raw values into temperature values.
- The calibration $C00003$ that aims to transform text into a hexadecimal encoding of Mil-Std-1553 TC instance.

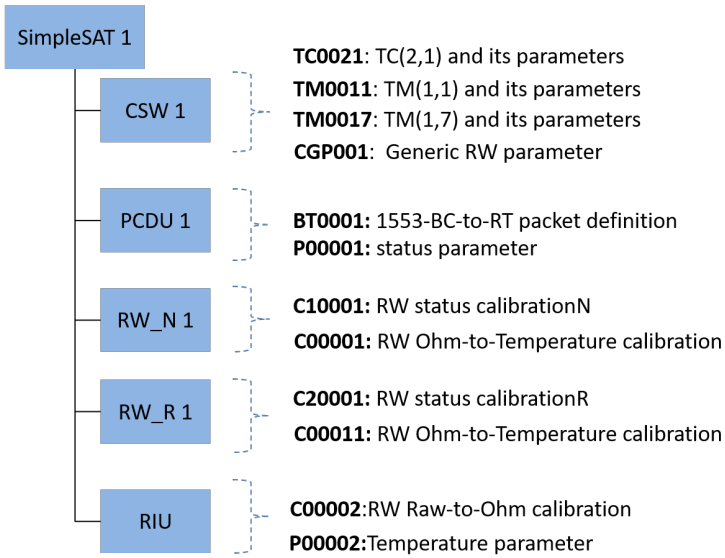

Figure 2: System element configurations in a space system model along with the data put in each system element

1.3 System element occurrences for SSM

Figure 3 depicts the SSM structure which is composed of system element occurrences.

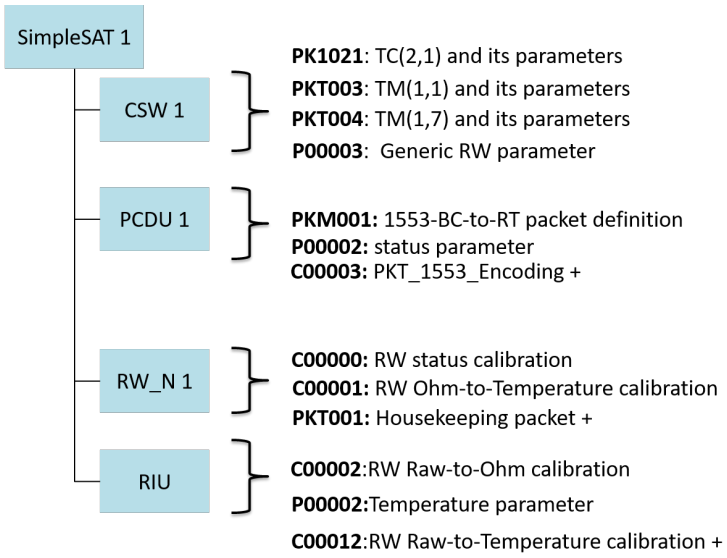

Figure 3: System element occurrences in a space system model along with the data put in each system element

1.4 System element realization for RW

We suppose that we already have a RW with its serial number. Thus we override the calibration of this RW. Figure 4 depicts the SSM structure which is composed of system element occurrences and the **RW_N1** occurrence overriden with **RW XYZ** realization.

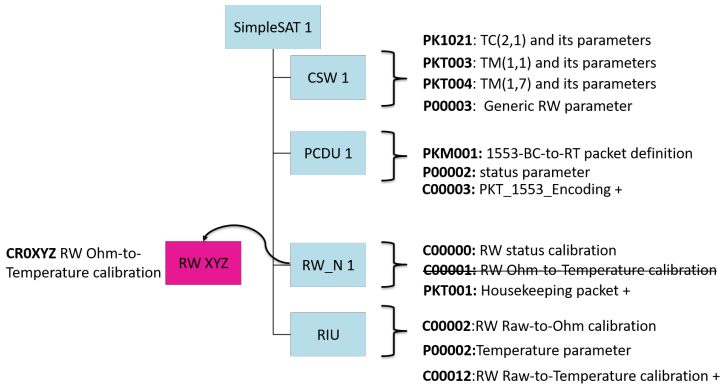

Figure 4: System element realization used in a space system model