Array 2D Structures

Filling Out the Array 2D Image Data Structure

The `<Array_2D_Image>` is a specialization of the `Array_2D` class. Use it for data that is primarily intended for visual display, or for analysis by image processing tools.

For an `Array_2D_Image`, follow the instructions for Filling Out the Array_2D Data Structure, with the following additional constraints/requirements:

- Use `<Array_2D_Image>` and `</Array_2D>` rather than `<Array_2D>` and `</Array_2D>`.
- In the `<Axis_Array>` classes, one must have an `<axis_name>` of `Line`, and the other must have an `<axis_name>` of `Sample`.
- You absolutely must include a `<Display_Settings>` class for this object in the `<Discipline_Area>` of the label. The `<Display_Settings>` class comes from the Display Discipline Dictionary. See Filling Out the Display Dictionary Class for more information.

Filling Out the Array 2D Spectrum Data Structure

The `<Array_2D_Spectrum>` class is a specialization of the `Array_2D` class. It exists to codify and enable validation of spectrum-specific requirements and hooks for software support that will be able to take advantage of assumptions and structures made for this data type.

For an `Array_2D_Spectrum`, follow the instructions for Filling Out the Array_2D Data Structure, with the following additional constraints/requirements:

- Use `<Array_2D_Spectrum>` and `</Array_2D_Spectrum>` rather than `<Array_2D>` and `</Array_2D>`.
- You must include a `<Display_Settings>` class from the Display Discipline Dictionary in the `Discipline_Area` of your label to describe the proper way to display the spectrum. If you disagree, contact your SBN consultant for an argument. See Filling Out the Display Dictionary Class for more information.
- You absolutely must include the `<Spectral_Characteristics>` class, with the appropriate subclasses, in the `Discipline_Area` of your label to describe the spectral characteristics of your spectrum data object. If you disagree, contact your SBN consultant for an argument. See Filling Out the Spectral Dictionary Class for more information.

Filling Out the Array 2D Map Data Structure

The `<Array_2D_Map>` class is a specialization of the `Array_2D` class. It exists on the assumption that PDS will develop map-specific requirements and software support that will be able to take advantage of assumptions and structures made for this data type.

For an `Array_2D_Map`, follow the instructions for Filling Out the Array_2D Data Structure, with the following additional constraints/requirements:

- Use `<Array_2D_Map>` and `</Array_2D_Map>` rather than `<Array_2D>` and `</Array_2D>`.
• You absolutely must include the `<Display_Settings>` class from the Display Discipline Dictionary in your Discipline_Area to describe the correct way to display your map object. See Filling Out the Display Dictionary Class for more information.

• You should also make use of the Cartography Discipline Dictionary classes, as appropriate.