

Filling Out the Field Statistics Class

The `<Field_Statistics_Class>` groups together a number of statistics calculated across all values that occur in the file for the associated field.

N.B.: What constitutes the "values that occur in the file for the associated field" is ambiguous when this class is used in a Field within a Group_Field. If you must use both grouped fields and field statistics, use the `<description>` attribute in the `<Field_Statistics_Class>` to define specifically what values are included in the calculations.

For additional explanation, see the *PDS4 Standards Reference*, or contact your PDS node consultant.

Following are the attributes and subclasses you'll find in the `<Field_Statistics>` class.

Note that in the PDS4 master schema, all classes have capitalized names; attributes never do.

`<local_identifier>`

OPTIONAL

If you need to refer to this particular set of *Field_Statistics* from elsewhere in the label, you can give it an identifier here. If you stick to something that looks like a variable name from a typical programming language, you should be OK syntactically.

Note: The following fields refer to values "physically stored" in the data object. While this is not clearly defined in the data dictionary, we take this to mean that any bit mask *is* applied to the bytes read from the file, but no scaling factor or offset is applied prior to performing the calculation involved in deriving the statistical value. Also, all flag values defined in any associated `<Special_Constants>` are ignored and excluded from the calculations.

`<maximum>`

OPTIONAL

This is the maximum value that is physically stored in the file for the associated field.

`<minimum>`

OPTIONAL

This is the minimum value that is physically stored in the file for the associated field.

`<mean>`

OPTIONAL

This is the arithmetic mean of the values physically stored in the file.

`<standard_deviation>`

OPTIONAL

This is the statistical standard deviation of the values physically stored in the file.

<median>

OPTIONAL

This is the median of the values physically stored in the file.

<description>

OPTIONAL

Use this free-format text field to provide any relevant explanatory notes or caveats.