Multi-Worm Tracker XML Tag descriptions

Version 1.3.0

The settings for the MultiWorm Tracker are stored in an XML format created by National Instruments for their LabView development suite.

The set of all settings for the MWT is a <Cluster> of 60 elements. This <Cluster> contains the 54 individual settings and six <Array>s for Regions of Interest, Arbitrary Function Generator settings, and Tap, Puff, Custom 1, and Custom 2 timings.

Individual settings are stored as <Cluster>s of two elements. The first element is always of type <String>, and stores the label for that setting as depicted on the MWT instrument. The second element is of the type specific to that setting, such as <I32> or <DBL>.

Tags Descriptions:

Organizational Tags:
There are three organizational structures used to store the settings data. These are <LVData>, <Cluster>, and <Array>.

Name: <LVData>
Description: This is the root of the heirarchy, and contains all of the other tags.
Subtags: <Version>

Name: <Version>
Description: The version number of the LabView software used to generate the file.

Name: <Cluster>
Description: An organizing element
Subtags: <Name>, <NumElts>

Name: <Cluster>.<Name>
Description: A text string automatically generated by LabView.

Name: Cluster>.<NumElts>
Description: A count of the number of data elements contained within the <Cluster>.

Name: <Array>
Description: XML representation of an array.
Subtags: <Name>, <Dimsize>

The most recent version of this document is available at https://sourceforge.net/projects/mwt/files/mwt/1.2.0%20Release/documentation/MWT_xml_settings_description.pdf/download

Name: <Array>.<Name>
Description: Automatically generated by LabView, its data is always “Value”, “outy3”, or “element”, depending on the context of the value.

Name: <Array>.<Dimsize>
Description: Integer representation of the number of elements in that dimension of the array. The number of times this tag occurs is the dimensionality of the represented array. Thus, a single instance of this tag indicates a 1d array, while two instances of this tag indicates a 2d array, with the first tag referring to the number of elements in the X-dimension and the second tag referring to the number of elements in the Y-dimension.

Data Tags:
Name: <String>
Description: String data.
Subtags: <Name>, <Val>

Name: <String>.<Name>
Description: Automatically generated by LabView, it contains the description of the source of this string and always reads “Label.Text”.

Name: <String>.<Val>
Description: The string value in ASCII format.

Name: <Path>
Description: Stores filesystem path information in plain text.
Subtags: <Name>,<Val>

Name: <Path>.<Name>
Description: Automatically generated by LabView, its data is always “Value”, “outy3”, or “element”, depending on the context of the value.

Name: <Path>.<Val>
Description: Stores the absolute path in plaintext.

Name: <Boolean>
Description: Stores a boolean value in the form of 0 for false or 1 for true.
Subtags: <Name>, <Val>

Name: <Boolean>.<Name>
Description: Automatically generated by LabView, its data is always “Value”, “outy3”, or “element”, depending on the context of the value.

Name: <Boolean>.<Val>
Description: Actual data, restricted to either 0 or 1 for false or true.

Name: <DBL>
Description: Stores a double-precision floating point value in decimal format.
Subtags: <Name>, <Val>

Name: <DBL>.<Name>
Description: Automatically generated by LabView, its data is always “Value”, “outy3”, or “element”, depending on the context of the value.

Name: <DBL>.<Val>
Description: The double-precision floating point value in decimal format. It is always stored to at least 5 decimal places.

Name: <I32>
Description: Stores a 32 bit integer value.
Subtags: <Name>, <Val>

Name: <I32>.<Name>
Description: Automatically generated by LabView, its data is always “Value”, “outy3”, or “element”, depending on the context of the value.

Name: <I32>.<Val>
Description: The integer value in decimal format.

Name: <U16>
Description: Stores a 16 bit unsigned integer value.
Subtags: <Name>, <Val>

Name: <U16>.<Name>
Description: Automatically generated by LabView, its data is always “Value”, “outy3”, or “element”, depending on the context of the value.

Name: <U16>.<Val>
Description: The integer value in decimal format.

Name: <U32>
Description: Stores a 32 bit unsigned integer value.
Subtags: <Name>, <Val>

Name: <U32>.<Name>
Description: Automatically generated by LabView, its data is always “Value”, “outy3”, or “element”, depending on the context of the value.

Name: <U32>.<Val>

Description: The integer value in decimal format.

Name: <RefNum>
Description: Stores a hexadecimal representation of a resource identifier.
Subtags: <Name>, <RefKind>, <Val>

Name: <RefNum>.<Name>
Description: Automatically generated by LabView, its data is always “Value”, “outy3”, or “element”, depending on the context of the value.

Name: <RefNum>.<RefKind>
Description: The type of resource identifier this is a reference number for. The only possible value is IVI, as that is the only type of resource described by this tag.

Name: <RefNum>.<Val>
Description: Hexadecimal representation of the reference number, in 0x format.

Name: <SGL>
Description: Stores a single-precision floating point value in decimal format.
Subtags: <Name>, <Val>

Name: <SGL>.<Name>
Description: Automatically generated by LabView, its data is always “Value”, “outy3”, or “element”, depending on the context of the value.

Name: <SGL>.<Val>
Description: The single-precision floating point value in decimal format. It is always stored to at least 5 decimal places.

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