artdaq_epics_plugin

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1.1 Namespace List

Here is a list of all documented namespaces with brief descriptions:

Chapter 2

Hierarchical Index

2.1 Class Hierarchy

This inheritance list is sorted roughly, but not completely, alphabetically:

Chapter 3

Class Index

3.1 Class List

Here are the classes, structs, unions and interfaces with brief descriptions:

Chapter 4

Namespace Documentation

4.1 artdaq Namespace Reference

The artdaq namespace.

Classes

- class EpicsMetric

  An instance of the MetricPlugin class that sends metric data using the Channel Access protocol from EPICS.

4.1.1 Detailed Description

The artdaq namespace.

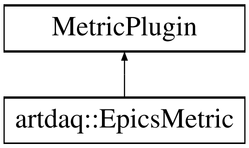
Chapter 5

Class Documentation

5.1 artdaq::EpicsMetric Class Reference

An instance of the MetricPlugin class that sends metric data using the Channel Access protocol from EPICS.

Inheritance diagram for artdaq::EpicsMetric:



Public Member Functions

- EpicsMetric (fhicl::ParameterSet const &pset, std::string const &app_name, std::string const &metric_name)

  Construct an instance of the EpicsMetric plugin.
- std::string getLibName () const override

  Gets the unique library name of this plugin.
- void stopMetrics_ () override

  Clears the registered ChannelAccess channels.
- void startMetrics_ () override

  No initialization is needed to start sending metrics.
- void sendMetric_ (const std::string &name, const std::string &value, const std::string &unit, const std::chrono::system_clock::time_point &) override

  Send a string metric data point to ChannelAccess.
- void sendMetric_ (const std::string &name, const int &value, const std::string &unit, const std::chrono::system_clock::time_point &) override

  Send an integer metric data point to ChannelAccess.
- void sendMetric_ (const std::string &name, const double &value, const std::string &unit, const std::chrono::system_clock::time_point &) override

  Send a double metric data point to ChannelAccess.
- void sendMetric_ (const std::string &name, const float &value, const std::string &unit, const std::chrono::system_clock::time_point &) override

  Send a float metric data point to ChannelAccess.

- void sendMetric_ (const std::string &name, const uint64_t &value, const std::string &unit, const std::chrono::system_clock::time_point &) override

  Send an unsigned integer metric data point to ChannelAccess.

5.1.1 Detailed Description

An instance of the MetricPlugin class that sends metric data using the Channel Access protocol from EPICS.

Definition at line 40 of file epics_metric.cc.

5.1.2 Constructor & Destructor Documentation

5.1.2.1 artdaq::EpicsMetric::EpicsMetric (fhicl::ParameterSet const & *pset,* std::string const & *app_name,* std::string const & *metric_name*) [inline], [explicit]

Construct an instance of the EpicsMetric plugin.

Parameters

pset	Parameter set to configure with. MetricPlugin parameters plus "channel_name_prefix", default "artdaq".
app_name	Name of the application sending metrics
metric_name	Name of this metric instance

Definition at line 105 of file epics_metric.cc.

5.1.3 Member Function Documentation

5.1.3.1 std::string artdaq::EpicsMetric::getLibName ( ) const [inline], [override]

Gets the unique library name of this plugin.

Returns

The library name of this plugin, "epics".

Definition at line 118 of file epics_metric.cc.

5.1.3.2 void artdaq::EpicsMetric::sendMetric_ (const std::string & *name,* const std::string & *value,* const std::string & *unit,* const std::chrono::system_clock::time_point &) [inline], [override]

Send a string metric data point to ChannelAccess.

Parameters

name	Name of the metric
value	Value of the metric
unit	Units used (not really relevant for string metrics)

Send a string metric data point to ChannelAccess. The name will be channel_name_prefix:name. If the named channel is not yet open, it will be opened. If the channel is not registered with an IOC, then the metric data will not be sent and a warning message will be printed the first time.

Definition at line 155 of file epics_metric.cc.

5.1.3.3 void artdaq::EpicsMetric::sendMetric_ (const std::string & *name,* const int & *value,* const std::string & *unit,* const std::chrono::system_clock::time_point &) [inline], [override]

Send an integer metric data point to ChannelAccess.

Parameters

name	Name of the metric
value	Value of the metric
unit	Units used

Send a string metric data point to ChannelAccess. The name will be channel_name_prefix:name. If the named channel is not yet open, it will be opened. If the channel is not registered with an IOC, then the metric data will not be sent and a warning message will be printed the first time.

Definition at line 185 of file epics_metric.cc.

5.1.3.4 void artdaq::EpicsMetric::sendMetric_ (const std::string & *name,* const double & *value,* const std::string & *unit,* const std::chrono::system_clock::time_point &) [inline], [override]

Send a double metric data point to ChannelAccess.

Parameters

name	Name of the metric
value	Value of the metric
unit	Units used

Send a string metric data point to ChannelAccess. The name will be channel_name_prefix:name. If the named channel is not yet open, it will be opened. If the channel is not registered with an IOC, then the metric data will not be sent and a warning message will be printed the first time.

Definition at line 215 of file epics_metric.cc.

5.1.3.5 void artdaq::EpicsMetric::sendMetric_ (const std::string & *name,* const float & *value,* const std::string & *unit,* const std::chrono::system_clock::time_point &) [inline], [override]

Send a float metric data point to ChannelAccess.

Parameters

name	Name of the metric
value	Value of the metric
unit	Units used

Send a string metric data point to ChannelAccess. The name will be channel_name_prefix:name. If the named channel is not yet open, it will be opened. If the channel is not registered with an IOC, then the metric data will not be sent and a warning message will be printed the first time.

Definition at line 245 of file epics_metric.cc.

5.1.3.6 void artdaq::EpicsMetric::sendMetric_ (const std::string & *name,* const uint64_t & *value,* const std::string & *unit,* const std::chrono::system_clock::time_point &) [inline], [override]

Send an unsigned integer metric data point to ChannelAccess.

Parameters

name	Name of the metric

value	Value of the metric. Will be truncated t fit in the size of a dbr_ulong_t, a 32-bit unsigned integer.
unit	Units used

Send a string metric data point to ChannelAccess. The name will be channel_name_prefix:name. If the named channel is not yet open, it will be opened. If the channel is not registered with an IOC, then the metric data will not be sent and a warning message will be printed the first time.

Definition at line 275 of file epics_metric.cc.

The documentation for this class was generated from the following file:

- artdaq_epics_plugin/artdaq-epics-plugin/MetricPlugins/epics_metric.cc

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