

GstStreams

A `GstStream` ([gstreamer/gststreams.html#GstStream](https://gstreamer.freedesktop.org/documentation/gstreamer/gststreams.html#GstStream)) is a high-level object defining a stream of data which is, or can be, present in a `GstPipeline` ([gstreamer/gstpipeline.html#GstPipeline](https://gstreamer.freedesktop.org/documentation/gstreamer/gstpipeline.html#GstPipeline)).

It is defined by a unique identifier, a "Stream ID". A `GstStream` ([gstreamer/gststreams.html#GstStream](https://gstreamer.freedesktop.org/documentation/gstreamer/gststreams.html#GstStream)) does not automatically imply the stream is present within a pipeline or element.

Any element that can introduce new streams in a pipeline should create the appropriate `GstStream` ([gstreamer/gststreams.html#GstStream](https://gstreamer.freedesktop.org/documentation/gstreamer/gststreams.html#GstStream)) object, and can convey that object via the `GST_EVENT_STREAM_START` ([gstreamer/gstevent.html#GST_EVENT_STREAM_START](https://gstreamer.freedesktop.org/documentation/gstreamer/gstevent.html#GST_EVENT_STREAM_START)) event and/or the `GstStreamCollection` ([gstreamer/gststreamcollection.html#GstStreamCollection](https://gstreamer.freedesktop.org/documentation/gstreamer/gststreamcollection.html#GstStreamCollection)).

Elements that do not modify the nature of the stream can add extra information on it (such as enrich the `GstCaps` ([gstreamer/gstcaps.html#GstCaps](https://gstreamer.freedesktop.org/documentation/gstreamer/gstcaps.html#GstCaps)), or `GstTagList` ([gstreamer/gsttaglist.html#GstTagList](https://gstreamer.freedesktop.org/documentation/gstreamer/gsttaglist.html#GstTagList))). This is typically done by parsing elements.

GstStream

```
GObject (https://docs.gtk.org/gobject/class.Object.html)
├─GInitiallyUnowned (https://docs.gtk.org/gobject/class.InitiallyUnowned.html)
│   └─GstObject (gstreamer/gstobject.html#GstObject)
│       └─GstStream
```

A high-level object representing a single stream. It might be backed, or not, by an actual flow of data in a pipeline (`#GstPad`).

A `GstStream` ([gstreamer/gststreams.html#GstStream](https://gstreamer.freedesktop.org/documentation/gstreamer/gststreams.html#GstStream)) does not care about data changes (such as decoding, encoding, parsing,...) as long as the underlying data flow corresponds to the same high-level flow (ex: a certain audio track).

A `GstStream` ([gstreamer/gststreams.html#GstStream](https://gstreamer.freedesktop.org/documentation/gstreamer/gststreams.html#GstStream)) contains all the information pertinent to a stream, such as stream-id, tags, caps, type, ...

Elements can subclass a `GstStream` ([gstreamer/gststreams.html#GstStream](https://gstreamer.freedesktop.org/documentation/gstreamer/gststreams.html#GstStream)) for internal usage (to contain information pertinent to streams of data).

Members

`stream_id` (`const gchar` (<https://docs.gtk.org/glib/types.html#gchar>) *) – The Stream Identifier for this `GstStream` ([gstreamer/gststreams.html#GstStream](https://gstreamer.freedesktop.org/documentation/gstreamer/gststreams.html#GstStream))

Since : 1.10

Class structure

GstStreamClass

GstStream class structure

Fields

parent_class (GstObjectClass (GstObjectClass)) – the parent class structure

Constructors

gst_stream_new

```
GstStream (gststreamer/gststreams.html#GstStream) *
gst_stream_new (const gchar (https://docs.gtk.org/glib/types.html#gchar) * stream_id,
               GstCaps (gststreamer/gstcaps.html#GstCaps) * caps,
               GstStreamType (gststreamer/gststreams.html#GstStreamType) type,
               GstStreamFlags (gststreamer/gstevent.html#GstStreamFlags) flags)
```

Create a new GstStream (gststreamer/gststreams.html#GstStream) for the given *stream_id*, *caps*, *type* and *flags*

Parameters:

stream_id ([allow-none (NULL is OK, both for passing and returning)]) – the id for the new stream. If NULL (https://web.mit.edu/barnowl/share/gtk-doc/html/glib/glib-Standard-Macros.html#NULL:CAPS), a new one will be automatically generated

caps ([allow-none (NULL is OK, both for passing and returning)][transfer: none (Don't free data after the code is done)]) – the GstCaps (gststreamer/gstcaps.html#GstCaps) of the stream

type – the GstStreamType (gststreamer/gststreams.html#GstStreamType) of the stream

flags – the GstStreamFlags (gststreamer/gstevent.html#GstStreamFlags) of the stream

Returns ([transfer: full (Free data after the code is done)]) – The new GstStream (gststreamer/gststreams.html#GstStream)

Since : 1.10

Methods

gst_stream_get_caps

```
GstCaps (gststreamer/gstcaps.html#GstCaps) *
gst_stream_get_caps (GstStream (gststreamer/gststreams.html#GstStream) * stream)
```

Retrieve the caps for *stream*, if any

Parameters:

stream – a GstStream (gststreamer/gststreams.html#GstStream)

Returns ([transfer: full (Free data after the code is done)][nullable (NULL may be passed to the value)]) – The GstCaps (gststreamer/gstcaps.html#GstCaps) for *stream*

Since : 1.10

gst_stream_get_stream_flags

```
GstStreamFlags (gststreamer/gstevent.html#GstStreamFlags)
gst_stream_get_stream_flags (GstStream (gststreamer/gststreams.html#GstStream) * stream)
```

Retrieve the current stream flags for *stream*

Parameters:

stream – a GstStream (gststreamer/gststreams.html#GstStream)

Returns – The GstStreamFlags (gststreamer/gstevent.html#GstStreamFlags) for *stream*

Since : 1.10

gst_stream_get_stream_id

```
const gchar (https://docs.gtk.org/glib/types.html#gchar) *
gst_stream_get_stream_id (GstStream (gststreamer/gststreams.html#GstStream) * stream)
```

Returns the stream ID of *stream*.

Parameters:

stream – a GstStream (gststreamer/gststreams.html#GstStream)

Returns ([transfer: none (Don't free data after the code is done)][nullable (NULL may be passed to the value)]) – the stream ID of *stream*. Only valid during the lifetime of *stream*.

Since : 1.10

gst_stream_get_stream_type

```
GstStreamType (gststreamer/gststreams.html#GstStreamType)
gst_stream_get_stream_type (GstStream (gststreamer/gststreams.html#GstStream) * stream)
```

Retrieve the stream type for *stream*

Parameters:

stream – a GstStream (gststreamer/gststreams.html#GstStream)

Returns – The GstStreamType (gststreamer/gststreams.html#GstStreamType) for *stream*

Since : 1.10

gst_stream_get_tags

```
GstTagList (gststreamer/gsttaglist.html#GstTagList) *
gst_stream_get_tags (GstStream (gststreamer/gststreams.html#GstStream) * stream)
```

Retrieve the tags for *stream*, if any

Parameters:

stream – a GstStream (gststreamer/gststreams.html#GstStream)

Returns ([transfer: full (Free data after the code is done)][nullable (NULL may be passed to the value)]) – The GstTagList (gststreamer/gsttaglist.html#GstTagList) for *stream*

Since : 1.10

gst_stream_set_caps

```
gst_stream_set_caps (GstStream (gststreamer/gststreams.html#GstStream) * stream,
                    GstCaps (gststreamer/gstcaps.html#GstCaps) * caps)
```

Set the caps for the GstStream (gststreamer/gststreams.html#GstStream)

Parameters:

stream – a GstStream (gststreamer/gststreams.html#GstStream)

caps ([transfer: none (Don't free data after the code is done)][allow-none (NULL is OK, both for passing and returning)]) – a GstCaps (gststreamer/gstcaps.html#GstCaps)

Since : 1.10

gst_stream_set_stream_flags

```
gst_stream_set_stream_flags (GstStream (gststreamer/gststreams.html#GstStream) * stream,
                             GstStreamFlags (gststreamer/gstevent.html#GstStreamFlags) flags)
```

Set the *flags* for the *stream*.

Parameters:

stream – a GstStream (gststreamer/gststreams.html#GstStream)

flags – the flags to set on *stream*

Since : 1.10

gst_stream_set_stream_type

```
gst_stream_set_stream_type (GstStream (gststreamer/gststreams.html#GstStream) * stream,
                           GstStreamType (gststreamer/gststreams.html#GstStreamType) stream_type)
```

Set the stream type of *stream*

Parameters:

stream – a GstStream (gststreamer/gststreams.html#GstStream)

stream_type – the type to set on *stream*

Since : 1.10

gst_stream_set_tags

```
gst_stream_set_tags (GstStream (gststreamer/gststreams.html#GstStream) * stream,
                    GstTagList (gststreamer/gsttaglist.html#GstTagList) * tags)
```

Set the tags for the GstStream (gststreamer/gststreams.html#GstStream)

Parameters:

stream – a GstStream (gststreamer/gststreams.html#GstStream)

tags ([transfer: none (Don't free data after the code is done)][allow-none (NULL is OK, both for passing and returning)]) – a GstTagList (gststreamer/gsttaglist.html#GstTagList)

Since : 1.10

Properties

caps

```
"caps" GstCaps (gststreamer/gstcaps.html#GstCaps) *
```

The GstCaps (gststreamer/gstcaps.html#GstCaps) of the GstStream (gststreamer/gststreams.html#GstStream).

Flags : Read / Write

stream-flags

```
“stream-flags” GstStreamFlags (gststreamer/gstevent.html#GstStreamFlags) *
```

Flags : Read / Write / Construct

stream-id

```
“stream-id” gchar (https://docs.gtk.org/glib/types.html#gchar) *
```

The unique identifier of the GstStream (gststreamer/gststreams.html#GstStream). Can only be set at construction time.

Flags : Read / Write / Construct Only

stream-type

```
“stream-type” GstStreamType (gststreamer/gststreams.html#GstStreamType) *
```

The GstStreamType (gststreamer/gststreams.html#GstStreamType) of the GstStream (gststreamer/gststreams.html#GstStream). Can only be set at construction time.

Flags : Read / Write / Construct

tags

```
“tags” GstTagList (gststreamer/gsttaglist.html#GstTagList) *
```

The GstTagList (gststreamer/gsttaglist.html#GstTagList) of the GstStream (gststreamer/gststreams.html#GstStream).

Flags : Read / Write

Functions

gst_stream_type_get_name

```
const gchar (https://docs.gtk.org/glib/types.html#gchar) *  
gst_stream_type_get_name (GstStreamType (gststreamer/gststreams.html#GstStreamType) stype)
```

Get a descriptive string for a given GstStreamType (gststreamer/gststreams.html#GstStreamType)

Parameters:

stype – a GstStreamType (gststreamer/gststreams.html#GstStreamType)

Returns – A string describing the stream type

Since : 1.10

Function Macros

GST_STREAM_CAST

```
#define GST_STREAM_CAST(obj) ((GstStream*)(obj))
```

Enumerations

GstStreamType

GstStreamType ([gststreamer/gststreams.html#GstStreamType](#)) describes a high level classification set for flows of data in *GstStream* ([gststreamer/gststreams.html#GstStream](#)) objects.

Note that this is a flag, and therefore users should not assume it will be a single value. Do not use the equality operator for checking whether a stream is of a certain type.

Members

GST_STREAM_TYPE_UNKNOWN (1) – The stream is of unknown (unclassified) type.

GST_STREAM_TYPE_AUDIO (2) – The stream is of audio data

GST_STREAM_TYPE_VIDEO (4) – The stream carries video data

GST_STREAM_TYPE_CONTAINER (8) – The stream is a muxed container type

GST_STREAM_TYPE_TEXT (16) – The stream contains subtitle / subpicture data.

GST_STREAM_TYPE_METADATA (32) – The stream contains metadata. (Since: 1.28)

Since : 1.10
