

xSCOPE Library API

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1 Functions

```
void xscope_bytes(unsigned char id,  
                 unsigned int size,  
                 const unsigned char data[])
```

Send a trace event for the specified XSCOPE probe with a byte array.

This function has the following parameters:

<code>id</code>	XSCOPE probe id.
<code>size</code>	User data size.
<code>data</code>	User data bytes (char[]).

```
void xscope_char(unsigned char id, unsigned char data)
```

Send a trace event for the specified XSCOPE probe of type char.

This function has the following parameters:

<code>id</code>	XSCOPE probe id.
<code>data</code>	User data value (char).

```
void xscope_config_io(xscope_IORedirectionMode mode)
```

Configures XScope I/O redirection.

This function has the following parameters:

<code>mode</code>	I/O redirection mode.
-------------------	-----------------------

```
void xscope_core_bytes(unsigned char id,  
                      unsigned int size,  
                      const unsigned char data[])
```

Send a trace event for the specified XSCOPE probe with a byte array with logical core info.

This function has the following parameters:

id XSCOPE probe id.

size User data size.

data User data bytes (char[]).

void xscope_core_char(unsigned char id, unsigned char data)

Send a trace event for the specified XSCOPE probe of type char with logical core info.

This function has the following parameters:

id XSCOPE probe id.

data User data value (char).

void xscope_core_double(unsigned char id, double data)

Send a trace event for the specified XSCOPE probe of type double with logical core info.

This function has the following parameters:

id XSCOPE probe id.

data User data value (double).

void xscope_core_float(unsigned char id, float data)

Send a trace event for the specified XSCOPE probe of type float with logical core info.

This function has the following parameters:

id XSCOPE probe id.

data User data value (float).

void xscope_core_int(unsigned char id, unsigned int data)

Send a trace event for the specified XSCOPE probe of type int with logical core info.

This function has the following parameters:

id XSCOPE probe id.

data User data value (int).

void xscope_core_longlong(unsigned char id, unsigned long long data)

Send a trace event for the specified XSCOPE probe of type long long with logical core info.

This function has the following parameters:

id XSCOPE probe id.

data User data value (long long).

void xscope_core_short(unsigned char id, unsigned short data)

Send a trace event for the specified XSCOPE probe of type short with logical core info.

This function has the following parameters:

id XSCOPE probe id.

data User data value (short).

void xscope_core_start(unsigned char id)

Start a trace block for the specified XSCOPE probe with logical core info.

This function has the following parameters:

id XSCOPE probe id.

void xscope_core_start_int(unsigned char id, unsigned int data)

Start a trace block for the specified XSCOPE probe with logical core info and capture a value of type int.

This function has the following parameters:

id XSCOPE probe id.

data User data value (int).

void xscope_core_stop(unsigned char id)

Stop a trace block for the specified XSCOPE probe with logical core info.

This function has the following parameters:

id XSCOPE probe id.

void xscope_core_stop_int(unsigned char id, unsigned int data)

Stop a trace block for the specified XSCOPE probe with logical core info and capture a value of type int.

This function has the following parameters:

id XSCOPE probe id.

data User data value (int).

void xscope_disable()

Disable the XSCOPE event capture on the local xCORE tile.

void xscope_double(unsigned char id, double data)

Send a trace event for the specified XSCOPE probe of type double.

This function has the following parameters:

id XSCOPE probe id.

data User data value (double).

void xscope_enable()

Enable the XSCOPE event capture on the local xCORE tile.

void xscope_float(unsigned char id, float data)

Send a trace event for the specified XSCOPE probe of type float.

This function has the following parameters:

id XSCOPE probe id.

data User data value (float).

void xscope_int(unsigned char id, unsigned int data)

Send a trace event for the specified XSCOPE probe of type int.

This function has the following parameters:

id XSCOPE probe id.

data User data value (int).

void xscope_longlong(unsigned char id, unsigned long long data)

Send a trace event for the specified XSCOPE probe of type long long.

This function has the following parameters:

id XSCOPE probe id.

data User data value (long long).

void xscope_ping()

Generate an XSCOPE ping system timestamp event.

void xscope_register(int num_probes, ...)

Registers the trace probes with the host system.

First parameter is the number of probes that will be registered. Further parameters are in groups of four.

Examples:

```
xscope_register(1, XSCOPE_DISCRETE, "A probe", XSCOPE_UINT, "value");  
xscope_register(2, XSCOPE_CONTINUOUS, "Probe", XSCOPE_FLOAT, "Level",  
                XSCOPE_STATEMACHINE, "State machine", XSCOPE_NONE, "  
                ↳ no name");
```

This function has the following parameters:

num_probes Number of probes that will be specified.

void xscope_short(unsigned char id, unsigned short data)

Send a trace event for the specified XSCOPE probe of type short.

This function has the following parameters:

id XSCOPE probe id.

data User data value (short).

void xscope_start(unsigned char id)

Start a trace block for the specified XSCOPE probe.

This function has the following parameters:

id XSCOPE probe id.

void xscope_start_int(unsigned char id, unsigned int data)

Start a trace block for the specified XSCOPE probe and capture a value of type int.

This function has the following parameters:

id XSCOPE probe id.

data User data value (int).

void xscope_stop(unsigned char id)

Stop a trace block for the specified XSCOPE probe.

This function has the following parameters:

id XSCOPE probe id.

void xscope_stop_int(unsigned char id, unsigned int data)

Stop a trace block for the specified XSCOPE probe and capture a value of type int.

This function has the following parameters:

id XSCOPE probe id.

data User data value (int).

2 Enumerations

xscope_IORedirectionMode

Enum of all I/O redirection modes.

This type has the following values:

XSCOPE_IO_NONE
I/O is not redirected.

XSCOPE_IO_BASIC
Basic I/O redirection.

XSCOPE_IO_TIMED
Timed I/O redirection.

XSCOPE_IO_NONE
I/O is not redirected.

XSCOPE_IO_BASIC
Basic I/O redirection.

XSCOPE_IO_TIMED
Timed I/O redirection.

XSCOPE_IO_NONE
I/O is not redirected.

XSCOPE_IO_BASIC
Basic I/O redirection.

XSCOPE_IO_TIMED
Timed I/O redirection.

xscope_UserDataType

Enum for all user data types.

This type has the following values:

XSCOPE_NONE No user data.

XSCOPE_UINT Unsigned int user data.

XSCOPE_INT Signed int user data.

XSCOPE_FLOAT
Floating point user data.

XSCOPE_NONE No user data.

XSCOPE_UINT	Unsigned int user data.
XSCOPE_INT	Signed int user data.
XSCOPE_FLOAT	Floating point user data.
XSCOPE_NONE	No user data.
XSCOPE_UINT	Unsigned int user data.
XSCOPE_INT	Signed int user data.
XSCOPE_FLOAT	Floating point user data.

xscope_EventType

Enum for all types of xscope events.

This type has the following values:

XSCOPE_STARTSTOP	Start/Stop - Event gets a start and stop value representing a block of execution.
XSCOPE_CONTINUOUS	Continuous - Only gets an event start, single timestamped "ping".
XSCOPE_DISCRETE	Discrete - Event generates a discrete block following on from the previous event.
XSCOPE_STATEMACHINE	State Machine - Create a new event state for every new data value.
XSCOPE_STARTSTOP	Start/Stop - Event gets a start and stop value representing a block of execution.
XSCOPE_CONTINUOUS	Continuous - Only gets an event start, single timestamped "ping".
XSCOPE_DISCRETE	Discrete - Event generates a discrete block following on from the previous event.

XSCOPE_STATEMACHINE

State Machine - Create a new event state for every new data value.

XSCOPE_HISTOGRAM

XSCOPE_STARTSTOP

Start/Stop - Event gets a start and stop value representing a block of execution.

XSCOPE_CONTINUOUS

Continuous - Only gets an event start, single timestamped "ping".

XSCOPE_DISCRETE

Discrete - Event generates a discrete block following on from the previous event.

XSCOPE_STATEMACHINE

State Machine - Create a new event state for every new data value.

XSCOPE_HISTOGRAM



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