

EventMask Objects

Introduction

The **EventMask** determines which event types will be sent from the controller to the Notify object. By setting bits in the EventMask, specific events can be sent to the Notify object when they occur or by clearing specific bits, the events can be ignored. By default, no Events will occur until the EventMask is set.

The Event, EventMgr, and Notify objects are used with the EventMask to handle controller events.

Data Types

[MPIEventMask](#)

An array of unsigned longs

Macros

[mpiEventMaskALL](#) / [meiEventMaskALL](#)

Set all events within the event mask.

[mpiEventMaskAND_ASSIGN](#)

Assign dst all events masked by both *src* and *dst*.

[mpiEventMaskASSIGN](#)

Assign the value of event mask *src* to the event mask *dst*.

[mpiEventMaskAXIS](#) / [meiEventMaskAXIS](#)

Set all MPIAxis events within the event mask.

[mpiEventMaskBIT](#)

Set mask to only handle events of type *type*.

[mpiEventMaskBitGET](#)

Reports if a mask is set to handle events of type *type*.

[mpiEventMaskBitSET](#)

Sets mask to handle events of type *type*.

[mpiEventMaskBIT_POSITION](#)

Returns the bit number that is associated with MPI/MEI event type.

[mpiEventMaskBIT_POSITION_MASK](#)

Returns an element's bit-mask for the specified event type.

[meiEventMaskCAN](#)

Set all MPICan events within the event mask.

[mpiEventMaskCLEAR](#)

Set mask to handle no events.

[mpiEventMaskCOMPLEMENT](#)

Change the value of every bit within the event mask.

[mpiEventMaskCONTROL](#)

[mpiEventMaskEXTERNAL](#)

Set external events within the event mask.

[mpiEventMaskGET](#)

Reports if a mask is set to handle events of type *type*.

[mpiEventMaskIS_CLEAR](#)

[mpiEventMaskIS_EQUAL](#)

Tests the equality of two event masks.

[mpiEventMaskMOTION](#) / [meiEventMaskMOTION](#)

Set all MPIMotion events within the event mask.

[mpiEventMaskMOTOR](#) / [meiEventMaskMOTOR](#)

Set all MPIMotor events within the event mask.

[mpiEventMaskOR_ASSIGN](#)

Add all events masked by src to the event mask dst.

[mpiEventMaskRECORDER](#)

Sets all MPIRecorder events within the event mask.

[mpiEventMaskSET](#)

Set mask to handle events of type *type*.

[mpiEventMaskSET_ALL](#)

Set mask to handle all events whose type is enumerated less than *type*.

[meiEventMaskSYNQNET](#)

Set all MEISynqNet events within the event mask.

[meiEventMaskSQNODE](#)

Set all MEISqNode events within the event mask.

[mpiEventMaskWORD](#)

Constants

[MEIEventMaskBITS_IN_ELEMENT](#)

Define the number of bits in each data element of MPIEventMask.

[MPIEventMaskELEMENTS](#)

Define the number of data elements in a MPIEventMask.

[MPIEventMaskELEMENT_TYPE](#)

Define what the data type MPIEventMask is comprised of.

MPIEventMask

Definition

```
#define MPIEventMaskELEMENTS      ( 2 )  
typedef unsigned long MPIEventMaskELEMENT\_TYPE ;  
typedef MPIEventMaskELEMENT\_TYPE MPIEventMask[MPIEventMaskELEMENTS ] ;
```

Description

MPIEventMask is an array of unsigned longs, with a length defined by `MPIEventMaskELEMENTS`. Each bit in the array represents a mask for a particular event. Be sure to always use the `mpiEventMask(...)` macros to set or clear the event masks.

See Also

[MPIEventType](#)

[MPI EventMask Objects](#)

mpiEventMaskALL / meiEventMaskALL

Declaration: mpiEventMaskALL

```
#define mpiEventMaskALL(mask)
```

Required Header: stdmpi.h

Description

mpiEventMaskALL is a macro that sets all the bits associated with MPI events in the event mask. The MPI event types are defined in the MPIEventType enumeration. After the event mask bits are initialized, the mask can be passed to a mpiXxxxxEventNotifySet(...) method which configures the controller to generate events.

mask	An array of unsigned longs. Use MPIEventMask to declare the mask. Each bit in the array represents a mask for a particular event.
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Declaration: meiEventMaskALL

```
#define meiEventMaskALL(mask)
```

Required Header: stdmei.h

Change History: Modified in the 03.02.00

Description

meiEventMaskALL is a macro that sets all the bits associated with MEI events in the event mask. The MEI event types are defined in the MEIEventType enumeration. After the event mask bits are initialized, the mask can be passed to a mpiObjectEventNotifySet(...) method which configures the controller to generate events.

mask	An array of unsigned longs. Use MPIEventMask to declare the mask. Each bit in the array represents a mask for a particular event.
-------------	---

See Also

[MPIEventType](#) | [MPIEventMask](#)

mpiEventMaskAND_ASSIGN

Declaration

```
#define mpiEventMaskAND_ASSIGN(dst, src)
```

Required Header: stdmpi.h

Description

mpiEventMaskAND_ASSIGN is a macro that bitwise ANDs all the bits associated with MPI/MEI events in the event mask *src* with *dst* and assigns the result to *dst*. After the event mask bits are initialized, the mask can be passed to a mpiObjectEventNotifySet(...) method, which configures the controller to generate events.

dst	An array of unsigned longs. Use MPIEventMask to declare the dst. Each bit in the array represents a mask for a particular event.
src	An array of unsigned longs. Use MPIEventMask to declare the src. Each bit in the array represents a mask for a particular event.

See Also

[MPIEventMask](#) | [MPIEventMaskASSIGN](#) | [MPIEventMaskOR_ASSIGN](#)

mpiEventMaskASSIGN

Declaration

```
#define mpiEventMaskASSIGN(dst, src)
```

Required Header: stdmpi.h

Description

mpiEventMaskASSIGN is a macro that assigns all the bits associated with MPI/MEI events in the event mask **src** to the event mask **dst**. After the event mask bits are initialized, the mask can be passed to a `mpiObjectEventNotifySet(...)` method, which configures the controller to generate events.

dst	An array of unsigned longs. Use <code>MPIEventMask</code> to declare the <code>dst</code> . Each bit in the array represents a mask for a particular event.
src	An array of unsigned longs. Use <code>MPIEventMask</code> to declare the <code>src</code> . Each bit in the array represents a mask for a particular event.

See Also

[MPIEventMask](#) | [mpiEventMaskOR_ASSIGN](#) | [mpiEventMaskAND_ASSIGN](#)

mpiEventMaskOR_ASSIGN

Declaration

```
#define mpiEventMaskOR_ASSIGN(dst,src)
```

Required Header: stdmpi.h

Description

mpiEventMaskOR_ASSIGN is a macro that bitwise ORs all the bits associated with MPI/MEI events in the event mask **src** with **dst** and assigns the result to **dst**. After the event mask bits are initialized, the mask can be passed to a `mpiObjectEventNotifySet(...)` method, which configures the controller to generate events.

dst	An array of unsigned longs. Use <code>MPIEventMask</code> to declare the <code>dst</code> . Each bit in the array represents a mask for a particular event.
src	An array of unsigned longs. Use <code>MPIEventMask</code> to declare the <code>src</code> . Each bit in the array represents a mask for a particular event.

See Also

[MPIEventMask](#) | [MPIEventMaskASSIGN](#) | [MPIEventMaskAND_ASSIGN](#)

mpiEventMaskAXIS / meiEventMaskAXIS

Declaration: mpiEventMaskAXIS

```
#define mpiEventMaskAXIS(mask)
```

Required Header: stdmpi.h

Description

mpiEventMaskAXIS is a macro that assigns all the bits associated with MPI Axis object events to the event **mask**. The MPI event types are defined in the MPIEventType enumeration. After the event mask bits are initialized, the mask can be passed to a mpiObjectEventNotifySet(...) method, which configures the controller to generate events.

mask	An array of unsigned longs. Use MPIEventMask to declare the mask. Each bit in the array represents a mask for a particular event.
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Declaration: meiEventMaskAXIS

```
#define meiEventMaskAXIS(mask)
```

Required Header: stdmei.h

Description

meiEventMaskAXIS is a macro that assigns all the bits associated with MEI Axis object events to the event **mask**. The MEI event types are defined in the MEIEventType enumeration. After the event mask bits are initialized, the mask can be passed to a mpiObjectEventNotifySet(...) method, which configures the controller to generate events.

mask	An array of unsigned longs. Use MPIEventMask to declare the mask. Each bit in the array represents a mask for a particular event.
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See Also

[MPIEventMask](#) | [MEIEventType](#)

mpiEventMaskBIT

Declaration

```
#define mpiEventMaskBIT(mask, type)
```

Required Header: stdmpi.h

Description

mpiEventMaskBIT is a macro that assigns a bit associated with MPI/MEI event type in the event mask. The event types are defined in the MPIEventType and MEIEventType enumerations. After the event mask bits are initialized, the mask can be passed to a mpiObjectEventNotifySet(...) method which configures the controller to generate events.

mask	An array of unsigned longs. Use MPIEventMask to declare the mask. Each bit in the array represents a mask for a particular event.
type	An enumerated event type. Use an enumerated value from MPIEventType or MEIEventType.

See Also

[MPIEventMask](#) | [MPIEventType](#) | [MEIEventType](#) | [mpiEventMaskBitGET](#) | [mpiEventMaskBitSET](#)

mpiEventMaskBitGET

Declaration

```
#define mpiEventMaskBitGET(mask,bit)
```

Required Header: stdmpi.h

Description

mpiEventMaskBitGET is a macro that returns TRUE if the **bit** associated with a MPI/MEI event in the event **mask** is TRUE. After the event mask bits are initialized, the mask can be passed to a mpiObjectEventNotifySet(...) method which configures the controller to generate events.

mask	An array of unsigned longs. Use MPIEventMask to declare the mask. Each bit in the array represents a mask for a particular event.
bit	A bit number associated with an event type in an event mask.

Returns

TRUE if the specified bit is TRUE in the event mask.
FALSE if the specified bit is FALSE in the event mask.

See Also

[MPIEventMask](#) | [mpiEventMaskBIT](#) | [mpiEventMaskBitSET](#)

mpiEventMaskBitSET

Declaration

```
#define mpiEventMaskBitSET(mask,bit,value)
```

Required Header: stdmpi.h

Description

mpiEventMaskBitSET is a macro that sets (value = TRUE) or clears (value = FALSE) the *bit* associated with a MPI/MEI event in the event *mask*. After the event mask bits are initialized, the mask can be passed to a mpiObjectEventNotifySet(...) method which configures the controller to generate events.

mask	An array of unsigned longs. Use MPIEventMask to declare the mask. Each bit in the array represents a mask for a particular event.
bit	A bit number associated with an event type in an event mask.
value	TRUE to set a bit, FALSE to clear a bit.

See Also

[MPIEventMask](#) | [mpiEventMaskBitGET](#) | [mpiEventMaskBIT](#)

mpiEventMaskBIT_POSITION

Declaration

```
#define mpiEventMaskBIT_POSITION ( type )
```

Required Header: stdmpi.h

Description

mpiEventMaskBIT_POSITION is a macro that returns the bit number that is associated with MPI/MEI event *type*. The event types are defined in the MPIEventType and MEIEventType enumerations.

type	An enumerated event type. Use an enumerated value from MPIEventType or MEIEventType.
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Returns

A bit number associated with the event type.

See Also

[MPIEventMask](#) | [MPIEventType](#) | [MEIEventType](#) | [mpiEventMaskBIT](#) | [mpiEventMaskBitGET](#) | [mpiEventMaskBitSET](#)

mpiEventMaskBIT_POSITION_MASK

Declaration

```
#define mpiEventMaskBIT_POSITION_MASK ( type )
```

Required Header: stdmpi.h

Description

mpiEventMaskBIT_POSITION_MASK is a macro that returns an event mask with a bit set that is associated with MPI/MEI event **type**. The event types are defined in the MPIEventType and MEIEventType enumerations. After the event mask bits are initialized, the mask can be passed to a mpiObjectEventNotifySet(...) method which configures the controller to generate events.

type	An enumerated event type. Use an enumerated value from MPIEventType or MEIEventType.
-------------	--

Returns

An event mask. Use MPIEventMask to declare the mask. Each bit in the array represents a mask for a particular event.

See Also

[MPIEventMask](#) | [MPIEventType](#) | [MEIEventType](#) | [mpiEventMaskBIT](#) | [mpiEventMaskBitGET](#) | [mpiEventMaskBitSET](#)

meiEventMaskCAN

Declaration

```
#define meiEventMaskCAN(mask)
```

Required Header: stdmei.h

Change History: Added in the 03.02.00

Description

meiEventMaskCAN is a macro that assigns all the bits associated with MEI Can Object events through the event *mask*.

mask	An array of unsigned longs. Use MPIEventMask to declare the mask. Each bit in the array represents a mask for a particular event.
-------------	---

Returns

TRUE if the specified bit is TRUE in the event mask.
FALSE if the specified bit is FALSE in the event mask.

See Also

[Handling Can Events](#) | [MPIEventMask](#)

mpiEventMaskCLEAR

Declaration

```
#define mpiEventMaskCLEAR(mask)
```

Required Header: stdmpi.h

Description

mpiEventMaskCLEAR is a macro that clears all the bits in an event *mask*.

mask	An array of unsigned longs. Use MPIEventMask to declare the mask. Each bit in the array represents a mask for a particular event.
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See Also

[MPIEventMask](#) | [mpiEventMaskIS_CLEAR](#) | [mpiEventMaskSET_ALL](#)

mpiEventMaskIS_CLEAR

Declaration

```
#define mpiEventMaskIS_CLEAR(mask)
```

Required Header: stdmpi.h

Description

mpiEventMaskIS_CLEAR is a macro that returns TRUE if all the bits in an event *mask* are FALSE.

mask	An array of unsigned longs. Use MPIEventMask to declare the mask. Each bit in the array represents a mask for a particular event.
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Returns

TRUE if all the bits in an event mask are FALSE.
FALSE if any bit in an event mask is TRUE.

See Also

[MPIEventMask](#) | [mpiEventMaskCLEAR](#) | [mpiEventMaskSET_ALL](#)

mpiEventMaskSET_ALL

Declaration

```
#define mpiEventMaskSET_ALL(mask, type)
```

Required Header: stdmpi.h

Description

mpiEventMaskSET_ALL is a macro that sets all the *bits* associated with MPI/MEI event types that are less than the specified event *type*. The event types are defined in the MPIEventType and MEIEventType enumerations. After the event mask bits are initialized, the mask can be passed to a mpiObjectEventNotifySet(...) method which configures the controller to generate events.

mask	An array of unsigned longs. Use MPIEventMask to declare the mask. Each bit in the array represents a mask for a particular event.
type	An enumerated event type. Use an enumerated value from MPIEventType or MEIEventType.

See Also

[MPIEventMask](#) | [MPIEventType](#) | [MEIEventType](#) | [mpiEventMaskGET](#) | [mpiEventMaskSET](#)

mpiEventMaskCOMPLEMENT

Declaration

```
#define mpiEventMaskCOMPLEMENT(mask)
```

Required Header: stdmpi.h

Description

mpiEventMaskCOMPLEMENT is a macro that inverts all the bits in an event *mask*. If a bit associated with an event type is TRUE, EventMaskCOMPLEMENT will set the bit to FALSE. And likewise, if a bit associated with an event type is FALSE, EventMaskCOMPLEMENT will set the bit to TRUE.

mask

An array of unsigned longs. Use MPIEventMask to declare the mask. Each bit in the array represents a mask for a particular event.

See Also

[MPIEventMask](#) | [mpiEventMaskCLEAR](#) | [mpiEventMaskSET_ALL](#)

meiEventMaskCONTROL

Declaration

```
#define meiEventMaskCONTROL(mask)
```

Required Header: stdmei.h

Change History: Added in the 03.02.00

Description

meiEventMaskCONTROL is a macro that assigns all the bits associated with MPI Control object events to the event **mask**. The MPI event types are defined in the MPIEventType enumeration. After the event mask bits are initialized, the mask can be passed to a mpiControlEventNotifySet(...) method, which configures the controller to generate events.

mask	An array of unsigned longs. Use MPIEventMask to declare the mask. Each bit in the array represents a mask for a particular event.
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See Also

[mpiControlEventNotifyGet](#) | [mpiControlEventNotifySet](#) | [mpiControlEventReset](#) | [MPIEventMask](#)

mpiEventMaskEXTERNAL

Declaration

```
#define mpiEventMaskEXTERNAL(mask)
```

Required Header: stdmpi.h

Description

mpiEventMaskEXTERNAL is a macro that assigns all the bits associated with MPI External events to the event **mask**. After the event mask bits are initialized, the mask can be passed to a `mpiObjectEventNotifySet(...)` method, which configures the controller to generate events.

mask	An array of unsigned longs. Use <code>MPIEventMask</code> to declare the mask. Each bit in the array represents a mask for a particular event.
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See Also

[MPIEventMask](#)

mpiEventMaskGET

Declaration

```
#define mpiEventMaskGET(mask, type)
```

Required Header: stdmpi.h

Description

mpiEventMaskGET is a macro that returns TRUE if the bit associated with the event **type** in the event **mask** is TRUE. The event types are defined in the MPIEventType and MEIEventType enumerations. After the event mask bits are initialized, the mask can be passed to a mpiObjectEventNotifySet(...) method, which configures the controller to generate events.

mask	An array of unsigned longs. Use MPIEventMask to declare the mask. Each bit in the array represents a mask for a particular event.
type	An enumerated event type. Use an enumerated value from MPIEventType or MEIEventType.

Returns

TRUE if the bit associated with the event type is TRUE in the event mask.
FALSE if the bit associated with the event type is FALSE in the event mask.

See Also

[MPIEventMask](#) | [MPIEventType](#) | [MEIEventType](#) | [mpiEventMaskSET](#) | [mpiEventMaskSET_ALL](#)

mpiEventMaskSET

Declaration

```
#define mpiEventMaskSET(mask, type)
```

Required Header: stdmpi.h

Description

mpiEventMaskSET is a macro that sets the *bit* associated with MPI event type in the event *mask*. The event types are defined in the MPIEventType and MEIEventType enumerations. After the event mask bits are initialized, the mask can be passed to a mpiObjectEventNotifySet(...) method which configures the controller to generate events.

mask	An array of unsigned longs. Use MPIEventMask to declare the mask. Each bit in the array represents a mask for a particular event.
type	An enumerated event type. Use an enumerated value from MPIEventType or MEIEventType.

See Also

[MPIEventMask](#) | [mpiEventMaskGET](#) | [MPIEventType](#) | [MEIEventType](#) | [mpiEventMaskSET_ALL](#)

mpiEventMaskIS_EQUAL

Declaration

```
#define mpiEventMaskIS_EQUAL(mask1 , mask2 )
```

Required Header: stdmpi.h

Description

mpiEventMaskIS_EQUAL is a macro that returns TRUE if event ***mask1*** is the same as event ***mask2***. The MPI event types are defined in the MPIEventType enumeration. After the event mask bits are initialized, the mask can be passed to a mpiObjectEventNotifySet(...) method which configures the controller to generate events.

mask1	An array of unsigned longs. Use MPIEventMask to declare the mask. Each bit in the array represents a mask for a particular event.
mask2	An array of unsigned longs. Use MPIEventMask to declare the mask. Each bit in the array represents a mask for a particular event.

Returns

TRUE if event mask1 is the same as event mask2.
FALSE if event mask1 is different from event mask2.

See Also

[MPIEventMask](#) | [mpiEventMaskGET](#) | [mpiEventMaskSET](#)

mpiEventMaskMOTION / meiEventMaskMOTION

Declaration: mpiEventMaskMOTION

```
#define mpiEventMaskMOTION(mask)
```

Required Header: stdmpi.h

Description

mpiEventMaskMOTION is a macro that assigns all the bits associated with MPI Motion object events to the event **mask**. The MPI event types are defined in the MPIEventType enumeration. After the event mask bits are initialized, the mask can be passed to a mpiObjectEventNotifySet(...) method, which configures the controller to generate events.

mask	An array of unsigned longs. Use MPIEventMask to declare the mask. Each bit in the array represents a mask for a particular event.
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Declaration: meiEventMaskMOTION

```
#define meiEventMaskMOTION(mask)
```

Required Header: stdmei.h

Description

meiEventMaskMOTION is a macro that assigns all the bits associated with MPI Motion object events to the event **mask**. The MPI event types are defined in the MPIEventType enumeration. After the event mask bits are initialized, the mask can be passed to a mpiObjectEventNotifySet(...) method, which configures the controller to generate events.

mask	An array of unsigned longs. Use MPIEventMask to declare the mask. Each bit in the array represents a mask for a particular event.
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See Also

[MPIEventMask](#) | [MEIEventType](#)

mpiEventMaskMOTOR / meiEventMaskMOTOR

Declaration: mpiEventMaskMOTOR

```
#define mpiEventMaskMOTOR(mask)
    mpiEventMaskBitSET((mask), MPIEventTypeAMP_FAULT, 1), \
    mpiEventMaskBitSET((mask), MPIEventTypeHOME, 1), \
    mpiEventMaskBitSET((mask), MPIEventTypeLIMIT_ERROR, 1), \
    mpiEventMaskBitSET((mask), MPIEventTypeLIMIT_HW_NEG, 1), \
    mpiEventMaskBitSET((mask), MPIEventTypeLIMIT_HW_POS, 1), \
    mpiEventMaskBitSET((mask), MPIEventTypeLIMIT_SW_NEG, 1), \
    mpiEventMaskBitSET((mask), MPIEventTypeLIMIT_SW_POS, 1), \
    mpiEventMaskBitSET((mask), MPIEventTypeENCODER_FAULT, 1), \
    mpiEventMaskBitSET((mask), MPIEventTypeAMP_WARNING, 1)
```

Required Header: stdmpi.h

Declaration

mpiEventMaskMOTOR is a macro that assigns all the bits associated with MPI Motor object events to the event *mask*. The MPI event types are defined in the MPIEventType enumeration. After the event mask bits are initialized, the mask can be passed to a mpiObjectEventNotifySet(...) method, which configures the controller to generate events.

mask	An array of unsigned longs. Use MPIEventMask to declare the mask. Each bit in the array represents a mask for a particular event.
-------------	---

Definition: meiEventMaskMOTOR

```
#define meiEventMaskMOTOR(mask)
```

Required Header: stdmei.h

Description

meiEventMaskMOTOR is a macro that assigns all the bits associated with MEI Motor object events to the event *mask*. The MEI event types are defined in the MEIEventType enumeration. After the event mask bits are initialized, the mask can be passed to a mpiObjectEventNotifySet(...) method which configures the controller to generate events.

mask	An array of unsigned longs. Use MPIEventMask to declare the mask. Each bit in the array represents a mask for a particular event.
-------------	---

See Also

[MPIEventMask](#) | [MEIEventType](#)

mpiEventMaskRECORDER

Declaration

```
#define mpiEventMaskRECORDER(mask)  mpiEventMaskBitSET((mask),  
                                     MPIEventTypeRECORDER_HIGH, 1), \  
                                     mpiEventMaskBitSET((mask),  
                                     MPIEventTypeRECORDER_FULL, 1), \  
                                     mpiEventMaskBitSET((mask),  
                                     MPIEventTypeRECORDER_DONE, 1)
```

Required Header: stdmpi.h

Description

mpiEventMaskRECORDER is a macro that assigns all the bits associated with MPI Recorder object events to the event **mask**. The MPI event types are defined in the MPIEventType enumeration. After the event mask bits are initialized, the mask can be passed to a mpiObjectEventNotifySet(...) method, which configures the controller to generate events.

mask	An array of unsigned longs. Use MPIEventMask to declare the mask. Each bit in the array represents a mask for a particular event.
-------------	---

See Also

[MPIEventMask](#) | [MPIEventType](#)

meiEventMaskSYNQNET

Declaration

```
#define meiEventMaskSYNQNET(mask)
```

Required Header: stdmei.h

Description

meiEventMaskSYNQNET is a macro that assigns all the bits associated with MEI SynqNet object events to the event mask. The MEI event types are defined in the MEIEventType enumeration. After the event mask bits are initialized, the mask can be passed to a mpiObjectEventNotifySet(...) method, which configures the controller to generate events.

mask	An array of unsigned longs. Use MPIEventMask to declare the mask. Each bit in the array represents a mask for a particular event.
-------------	---

See Also

[MPIEventMask](#) | [MEIEventType](#)

meiEventMaskSQNODE

Declaration

```
#define meiEventMaskSQNODE(mask)
```

Required Header: stdmei.h

Description

meiEventMaskSQNODE is a macro that assigns all the bits associated with MEI SqNode object events to the event **mask**. The MEI event types are defined in the MEIEventType enumeration. After the event mask bits are initialized, the mask can be passed to a mpiObjectEventNotifySet(...) method, which configures the controller to generate events.

mask	An array of unsigned longs. Use MPIEventMask to declare the mask. Each bit in the array represents a mask for a particular event.
-------------	---

See Also

[MPIEventMask](#) | [MEIEventType](#)

mpiEventMaskWORD

Declaration

```
#define mpiEventMaskWORD(type)
```

Required Header: stdmpi.h

Description

mpiEventMaskWORD is a macro that returns the word number that is associated with MPI/MEI event **type**. The event types are defined in the MPIEventType and MEIEventType enumerations.

type	An enumerated event type. Use an enumerated value from MPIEventType or MEIEventType.
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Returns

The word number associated with the event type.

See Also

[MPIEventMask](#) | [MPIEventType](#) | [MEIEventType](#) | [mpiEventMaskBIT_POSITION](#)

MEIEventMaskBITS_IN_ELEMENT

Definition

```
#define MEIEventMaskBITS_IN_ELEMENT ((unsigned long)  
                                     (sizeof(MPIEventMaskELEMENT_TYPE) * 8))
```

Description

MEIEventMaskBITS_IN_ELEMENT defines the number of bits in each data element of MPIEventMask.

NOTE: MEIEventMaskBITS_IN_ELEMENT replaced mpiEventMaskBITS_IN_ELEMENT.

See Also

[MPIEventMask](#) | [mpiEventMaskBIT](#) | [mpiEventMaskBitGET](#) | [mpiEventMaskBitSET](#) | [mpiEventMaskBIT_POSITION_MASK](#)

MPIEventMaskELEMENTS

Definition

```
#define MPIEventMaskELEMENTS (2)
```

Description

MPIEventMaskELEMENTS defines the number of data elements in a MPIEventMask.

See Also

[MPIEventMask](#)

MPIEventMaskELEMENT_TYPE

Definition

```
typedef unsigned long MPIEventMaskELEMENT_TYPE
```

Description

MPIEventMaskELEMENT_TYPE defines what the data type MPIEventMask is comprised of.

See Also

[MPIEventMask](#)