LAUTERBACH
DEVELOPMENT TOOLS

General Commands Reference Guide N

MANUAL

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NAME

Logical names for physical connections

The **NAME** command group is used to assign logical names to general measurement lines. These names are used by the display and select functions.

See also

- NAME.Combi
- NAME.Delete
- NAME.Group
- NAME.list
- NAME.RESet
- NAME.SELect
- NAME.Set
- NAME.User
- NAME.Word

▲ 'Release Information' in 'Legacy Release History'

NAME.Combi

Create virtual signal for trace events

Format: **NAME.Combi** *<name> <item> …*

Creates a virtual signal based on trace events, which then can be shown in a **<trace>.Timing** window. The trace event is defined using a filter defined by items, the same method as used for **<trace>.Find** or **<trace>.FindAll**.

The name of a virtual signal must start with “c.”.

The resulting signal will become HIGH starting with the trace record that matches the filter, and remaining HIGH until the next trace record which does not match the filter. This creates the illusion that the event took a certain time, but in reality it only means that nothing else was recorded during that time. It is recommended to add the item SAMPLE to the item list. Doing so, **<trace>.Timing** will show each filter match as a singular “tick”, instead of the default time span.

Example (Power Architecture MPC5XXX): A DMA controller copies data from address A to address B. We define four filters.

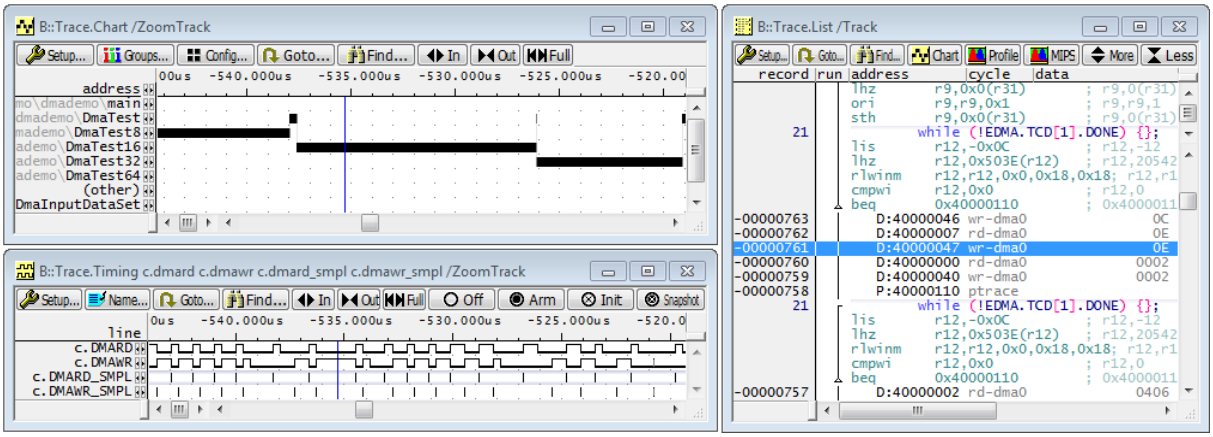
```
;enable DMA trace
NEXUS.CLIENT1.SELECT DMA_0
NEXUS.CLIENT1.MODE ReadWrite

;move DmaTest functions to top for better visibility
Trace.STATistic.Sort sYmbol main DmaTest DmaTest8 DmaTest*

;define virtual signal for timing chart (as time span)
NAME.Combi c.dmard      ADDRess Var.RANGE(DmaSrcArray)
NAME.Combi c.dmawr      ADDRess Var.RANGE(DmaDstArray)

;define virtual signal for timing chart (as singular event, recommended)
NAME.Combi c.dmard_smpl ADDRess Var.RANGE(DmaSrcArray) SAMPLE
NAME.Combi c.dmawr_smpl ADDRess Var.RANGE(DmaDstArray) SAMPLE

;show timing of defined events, track windows for time correlation
Trace.Timing c.dmard c.dmawr c.dmard_smpl c.dmawr_smpl /ZoomTrack
Trace.Chart /ZoomTrack
Trace.List /Track
```



See also

- NAME
- NAME.list

Format:	**NAME.Delete** [*<pname>* [*<lname>* [*<polarity>*]]
<pname>:	**E0** … **E7** **T0** … **T15** **B0** … **B7** **Port.***<port_channel>*
<lname>:	*<name>* **Port.***<name>*
<polarity>:	**+** | **-**

If no logical name is deleted, the signal can be accessed by physical name.

Example:

```
NAME.Delete flag1              ; deletes logical name flag1
```

See also

- NAME
- NAME.list

Format:	**NAME.Group** [**g.**<*group_name*> [<*signal_name*>]

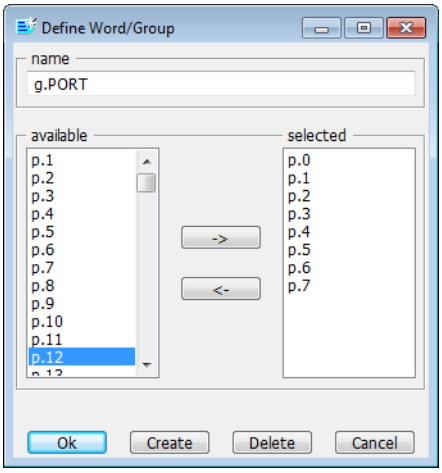
Collects signals to form groups. Without parameters, the command opens the **Define Word/Group** window, where you can create groups with a few mouse clicks.

Examples:

```
;open the window
NAME.Group
```

```
;collect signals to form a group named g.PORT
NAME.Group g.PORT p.0 p.1 p.2 p.3 p.4 p.5 p.6 p.7

;open the window for the group g.PORT
NAME.Group g.PORT
```

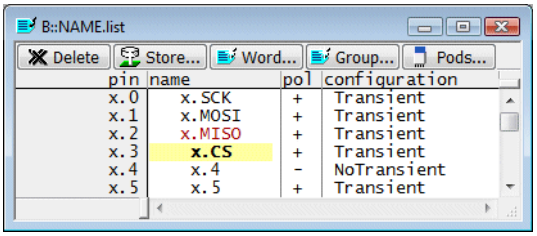


See also

- NAME
- NAME.list

Format: **NAME.list**

Displays all channels with free definable names. Names and channel attributes can be modified by clicking to it (left mouse button).



See also

- NAME
- NAME.Combi
- NAME.Delete
- NAME.Group
- NAME.RESet
- NAME.SELect
- NAME.Set
- NAME.User
- NAME.Word

NAME.RESet Delete all names

Format: **NAME.RESet** [*<pname>* | *<lname>*]

Erases all names or Individual names.

Example:

```
NAME.RESet t0     ;erase the name 't0'

NAME.RESet        ;erase all names
```

See also

- NAME
- NAME.list

Format:	**NAME.SELect** [*<pname>* [*<lname>* [*<polarity>*]]
<pname>:	**E0** … **E7** **T0** … **T15** **B0** … **B7** **Port.***<port_channel>*
<lname>:	*<name>* **Port.***<name>*
<polarity>:	**+** | **-**

See also

- NAME
- NAME.list

Format:	**NAME.Set** *<item> <name>* [*<polarity>*] [*<config>*] [*<view>*]
<item>:	**E0** … **E7** **T0** … **T15** **B0** … **B7** **Port.***<port_channel>* **X0** … **X63**
<polarity>:	**+** | **-**
<config>:	**Transient** | **NoTransient** | **Sync**
<view>:	**Normal** | **Red** | **Mark**

If no logical name is defined, no modifications will be made.

```
NAME.Set X.1 X.sck              ; assign a name to input X.1
```

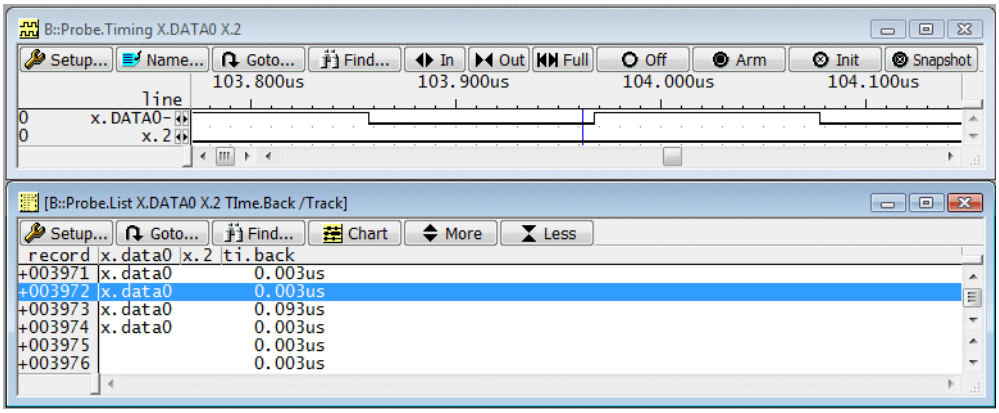
<polarity> allows to distinguish high-active from low-active channels.

```
NAME.Set X.0 DATA0 -                    ; specify the name DATA0 for input
                                        ; X.1, DATA0 is low-active
```

All displays and commands that process a channel with regards to its ON/OFF status, treat the channel status as ON if the channel is low.

Transient	The channel is involved in the transient detection.
NoTransient	The channel is not involved in the transient detection.
Sync	The channel is synchronized with an external signal.
Normal	Standard channel display.
Red	The channel is displayed in red in all timing displays.
Mark	The channel is displayed with a yellow background in all timing displays.

Examples for the PowerProbe:




```
Probe.List X.DATA0 X.2 TIme.Back /Track

Probe.FindAll , X.MOSI ON                    ; find all record where the
                                             ; channel X.MOSI is active
```

See also

- NAME
- NAME.list

Format:	**NAME.User** *<name> <channel1> <operation>*[*<channel2>* |*<constant>* | *<trace>*]
<channel1>:	Any existing channel.
<operation>	**+** | **-** | ***** | **/** | **i**
<channel2>	Any existing channel.
<trace>	Any **<trace>**.

User channels allow you to combine (trace) channels via mathematical operations. The resulting new channel *<name>* can then be referenced in any **<trace>** command by 'User.<name>'.

+	Adds *<channel1>* and *<channel2>* or *<constant>.*
-	Subtracts *<channel2>* or *<constant>* from *<channel1>*.
*****	Multiplies *<channel1>* and *<channel2>* or *<constant>*.
/	Divides *<channel1>* by *<channe2>* or *<constant>*.
i	Import channel from <trace>. See example #2.

NOTE:	*<operation>* and *<channel2>* must be separated by a space character, while a *<constant>* must directly follow the *<operation>* without a space.

Example 1:

```
NAME.User DATAADD data.B0 + data.B1     ; Add lower 2 data bytes
NAME.User DATAPLUS data.B0 +1           ; Increment lowest byte by 1
Trace.List User.DATAADD User.DATAPLUS   ; Output new channels in listing
```

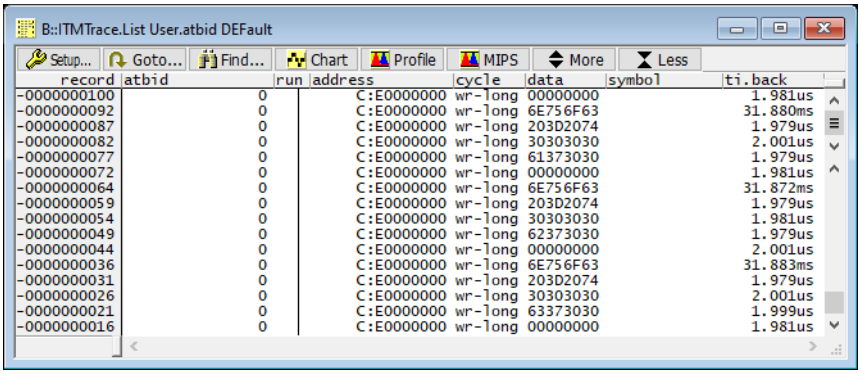
Example 2: In this example there are two trace windows: **CoreSightTrace.List** and **ITMTrace.List**. To import column 'address' from **CoreSightTrace.List** to **ITMTrace.List**:

1. Create a new user channel using the import channel 'i' operation:

```
; NAME.User <name> <channel> i <trace>
NAME.User atbid address i CoreSightTrace
```

2. Show the selected channel in the **<trace>.List** window using:

```
; <trace>.List User.<channel> default
ITMTrace.List User.atbid DEFault
; the column "atbid" will be shown inside the ITMTrace.List window.
```



record	atbid	run	address	cycle	data	symbol	ti.back
-0000000100	0		C:E0000000	wr-long	00000000		1.981us
-0000000092	0		C:E0000000	wr-long	6E756F63		31.880ms
-0000000087	0		C:E0000000	wr-long	203D2074		1.979us
-0000000082	0		C:E0000000	wr-long	30303030		2.001us
-0000000077	0		C:E0000000	wr-long	61373030		1.979us
-0000000072	0		C:E0000000	wr-long	00000000		1.981us
-0000000064	0		C:E0000000	wr-long	6E756F63		31.872ms
-0000000059	0		C:E0000000	wr-long	203D2074		1.979us
-0000000054	0		C:E0000000	wr-long	30303030		1.981us
-0000000049	0		C:E0000000	wr-long	62373030		1.979us
-0000000044	0		C:E0000000	wr-long	00000000		2.001us
-0000000036	0		C:E0000000	wr-long	6E756F63		31.883ms
-0000000031	0		C:E0000000	wr-long	203D2074		1.979us
-0000000026	0		C:E0000000	wr-long	30303030		2.001us
-0000000021	0		C:E0000000	wr-long	63373030		1.999us
-0000000016	0		C:E0000000	wr-long	00000000		1.981us

NOTE:	The option /Track can help to track the exact location of a particular record in different **<trace>.list** windows.

Please refer to the chapter **"List of <trace> Command Groups consisting of <trace_source><trace_method>"** in General Commands Reference Guide T, page 127 (general_ref_t.pdf), to get the list of all/almost possible replacements for the <trace> placeholder.

See also

- NAME
- NAME.list

▲ 'Release Information' in 'Legacy Release History'

Format: **NAME.Word** [**w.**<*wordname*> [<*signal_name*>]]

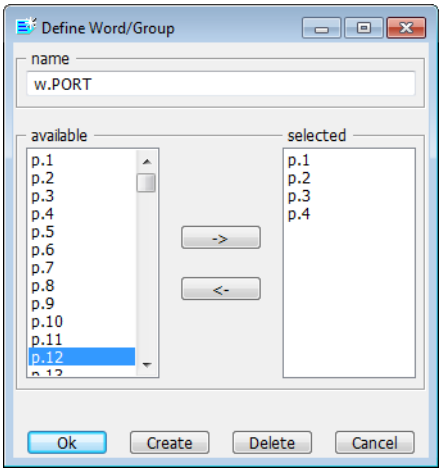
Groups signals as a word. A word is a set of bits that will be displayed in hex, binary or decimal. Without parameters, the command opens the **Define Word/Group** window, where you can group signals as a word with a few mouse clicks.

Examples:

```
;open the window
NAME.Word
```

```
;collect signals to form a group named w.PORT
NAME.Word w.PORT p.1 p.2 p.3 p.4

;open the window for the group w.PORT
NAME.Word w.PORT
```



See also

- NAME
- NAME.list

NEXUS — NEXUS trace

NEXUS trace command group. Please refer for more details to your **Processor Architecture Manual**.