MSPM0 EVENT module introduction
—- MSPM0 peripheral training series

Presented by Sal Ye
MSPM0 EVENT module introduction

Key Features

- The event manager can transfer digital events from one entity (IRQ / DMA_TRIG / FPUB) to another (WUC IRQ / DMA TRIG / FSUB).

<table>
<thead>
<tr>
<th>Event Type</th>
<th>Publisher</th>
<th>Subscriber</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Peripheral</td>
<td>CPU</td>
</tr>
<tr>
<td>2</td>
<td>Peripheral</td>
<td>DMA</td>
</tr>
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<td>3</td>
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Some Use Cases

- RTC interrupt is sent to the CPU (CPU IRQs)
- UART triggers DMA transfer (DMA TRIGs)
- TIM triggers ADC sampling (GEN CHANs)
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A Combination of Flexible Matrix

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DMA Source

<table>
<thead>
<tr>
<th>Source</th>
<th>DMA input Channel</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
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<tbody>
<tr>
<td>ADC</td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>I2C</td>
<td>Selectable</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>SPI</td>
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<td></td>
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</tr>
<tr>
<td>Timer</td>
<td>Selectable</td>
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GEN Source

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<tr>
<th>Source</th>
<th>Timer</th>
<th>ADC</th>
<th>GPIO</th>
<th>DMA</th>
<th>CPU</th>
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<tbody>
<tr>
<td>Timer</td>
<td>Selectable</td>
<td></td>
<td></td>
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</tr>
<tr>
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<td></td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>WTD</td>
<td>Selectable</td>
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Note: The tables only list partial of EVENT module, and full information please refer to TRM.
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EVENT module quick start

Academy
Event introduction lab

Driverlib Examples
MSPM0L13xx :
- comp_dac_to_timer_event
- adc12_triggered_by_timer_event
- event_input_triggers_output
- adc12_triggered_by_timer_event_stop
- adc12_simultaneous_trigger_event
- adc12_simultaneous_trigger_event_stop
- adc12_triggered_by_timer_event
- adc12_triggered_by_timer_event_stop
- comp_dac_to_timer_event
- dac12_fifo_timer_event
- event_input_triggers_output

MSPM0G350x :

Related Links
MSPM0 online resource
MSPM0 Quick start guide
MSPM0 Sysconfig user’s guide
MSPM0G350x datasheet
MSPM0L13xx datasheet
MSPM0Gxx technical reference manual
MSPM0Lxx technical reference manual

Launchpad
LP-MSPM0G3507
LP-MSPM0L1306

Sysconfig Entrance for Event Setting

Step 1: Sampling Mode Configuration
Conversion Mode
Enable Repeat Mode

Step 2: Trigger Source
Conversion Data Format
Binary unsigned, right signed

Step 3: Event Configuration
Event Publisher Channel ID
Event Publisher Channel Disable

TEXAS INSTRUMENTS
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