

## CPU Tasks

### Introduction

An M580 CPU can execute single-task and multi-task applications. Unlike a single-task application which only executes the MAST task, a multi-task application defines the priorities of each task.

There are four tasks available (see *Application Program Structure* chapter in *Unity Pro Program Languages and Structure Reference Manual*) and two types of event tasks:

- MAST
- FAST
- AUX0
- AUX1
- I/O event in a local rack only
- timer event in a local rack only

**NOTE:** The time to perform an *update init values with current values* operation is not taken into account in the watchdog calculation.

### Task Characteristics

The time model, task period, and maximum number of tasks per CPU are defined according to the standalone or Hot Standby CPU reference.

**Standalone CPUs:**

Task	Time Model	Task Period (ms)		BM58 References					
		Range	Default Value	1020 (H)	20•0 (H)	30•0	40•0	5040	6040
MAST <sup>(1.)</sup>	cyclic <sup>(2.)</sup> or periodic	1...255	20	X	X	X	X	X	X
FAST	periodic	1...255	5	X	X	X	X	X	X
AUX0	periodic	10...2550 by 10	100	X	X	X	X	X	X
AUX1	periodic	10...2550 by 10	200	X	X	X	X	X	X
<ol style="list-style-type: none"> <li>1. MAST task is mandatory.</li> <li>2. When set to cyclic mode, the minimum cycle time is 8 ms if there is a RIO network and 1 ms if there is no RIO network in the system.</li> </ol> <p><b>X</b> This task is supported.</p>									