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# Board Support Packages

## 5.1 Introduction

An **RTEMS** Board Support Package (BSP) must be designed to support a particular processor and target board combination. This chapter presents a discussion of PA-RISC specific BSP issues. For more information on developing a BSP, refer to the chapter titled **Board Support Packages** in the **RTEMS C Applications User's Guide**.

## 5.2 System Reset

An **RTEMS** based application is initiated or re-initiated when the PA-RISC processor is reset. The behavior of a PA-RISC upon reset is implementation defined and thus is beyond the scope of this manual.

## 5.3 Processor Initialization

The precise requirements for initialization of a particular implementation of the PA-RISC architecture are implementation defined. Thus it is impossible to provide exact details of this procedure in this manual. However, the requirements of **RTEMS** which must be satisifed by this initialization code can be discussed.

**RTEMS** assumes that interrupts are disabled when the **intialize_executive** directive is invoked. Interrupts are enabled automatically by **RTEMS** as part of the **initialize_executive** directive and device driver initialization occurs after interrupts are enabled. Thus all interrupt sources should be quiescent until the system's device drivers have been initialized and installed their interrupt handlers.

If the processor requires initialization of the cache, then it should be be done during the reset application initialization code.

Finally, the requirements in the **Board Support Packages** chapter of the **C Applications User's Manual** for the reset code which is executed before the call to **initialize_executive** must be satisfied.