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Example Application

```
--  example.ada
--
--  This file contains an example of a simple RTEMS
--  application.  It contains a Configuration Table, a
--  user initialization task, and a simple task.
--
--  This example assumes that a board support package exists
--  and invokes the initialize_executive() directive.
--

with rtems;

package example is

procedure init_task(
  argument : in     rtems.task_argument
);

procedure user_application(
  argument : in     rtems.task_argument
);

initialization_tasks : rtems.initialization_tasks_table ( 1 .. 1 ) :=
( 1 =>
  ( rtems.build_name( 'A', 'B', 'C', ' ' ),
                                -- init task name  "ABC"
    1024,                       -- init task stack size
    1,                          -- init task priority
    rtems.default_attributes,   -- init task attributes
    init_task'address,          -- init task entry point
    rtems.timeslice,            -- init task initial mode
    0                           -- init task argument
  )
);
```

```
configuration : rtems.configuration_table := (
  rtems.null_address,    -- exective RAM work area
                         --   NOTE: BSP allocates the memory
  65536,                 -- exective RAM size
  2,                     -- maximum tasks
  0,                     -- maximum semaphores
  0,                     -- maximum timers
  0,                     -- maximum message queues
  0,                     -- maximum messages
  0,                     -- maximum partitions
  0,                     -- maximum regions
  0,                     -- maximum dp memory areas
  0,                     -- maximum periods
  0,                     -- maximum user extensions
  RTEMS.MILLISECONDS_TO_MICROSECONDS(10), -- microseconds in a tick
  1                      -- num of ticks in a timeslice
);

user_app_name : constant rtems.name := rtems.build_name( 'A', 'P', 'P', 'L'
);

end example;

with rtems;

package body example is

procedure init_task(
  argument : in     rtems.task_argument
) is
  tid    : rtems.id;
  status : rtems.status_code;
begin

  -- example assumes SUCCESSFUL return value
  rtems.task_create( user_app_name, 1, 1024,
                        rtems.no_preempt, rtems.floating_point, tid, status
);
  rtems.task_start( tid, user_application'address, 0, status );
  rtems.task_delete( SELF, status );

end init_task;

procedure user_application(
  argument : in     rtems.task_argument
)is
begin

  -- application specific initialization goes here

  loop               -- infinite loop
    --  APPLICATION CODE GOES HERE
    --
    --  This code will typically include at least one
    --  directive which causes the calling task to
    --  give up the processor.
    --
  end loop;

end user_application;
```

```
end example;
```