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Identification

The Process Wait Table

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Purpose

The Process Wait Table (PWT) is a table containing a group of relative pointers to a collection of event-threads running through the APT. It is in this table that an association is made between an event name and an event thread.

Description

The PWT is declared as follows:

```
declare 1 pwt(n) based (pwt_ptr),  
        2 thread bit(18), /* to a list of APT entries */  
        2 flag bit(1),    /* activation flag */  
        2 filler bit(17);
```

The PWT is n entries long, where n is set to be a prime number which is considerably larger than the maximum number of loaded processes. Each PWT entry is the head of an event thread; a mapping is done from the set of all possible event names into the set of integers from 1 to n, by dividing the event name into n and by using the remainder as index into the PWT.

A PWT entry is said to be inactive when both thread and flag are reset to zero. The setting of either thread or flag to a non-zero value "activates" the PWT entry.

The Traffic Controller subroutine addevent activates an event by setting its flag to "1"b. Subroutine wait may set the thread to non-zero and subroutine notify always resets the whole entry to zero (deactivates the event).

By convention, event number 0 (zero) is known to the system supervisor and is used by it for internal purposes (see Interprocess Communication Facility, destroy_proc).