

TRIOZ OSEK RTOS VS OSEK STANDARDS

| OSEK Standard | Feature | TRIOZ OSEK RTOS | OSEK RTOS |
|----------------------------------|------------------------|-----------------|-----------|
| Conformance Class | BCC1 | ✓ | ✓ |
| | ECC1 | ✓ | ✓ |
| | BCC2 | ✓ | ✓ |
| | ECC2 | ✓ | ✓ |
| Task Management | | | |
| Task Concept | Basic | ✓ | ✓ |
| | Extended | ✓ | ✓ |
| Basic Task State | Ready | ✓ | ✓ |
| | Running | ✓ | ✓ |
| | Suspended | ✓ | ✓ |
| Extended Task State | Ready | ✓ | ✓ |
| | Running | ✓ | ✓ |
| | Suspended | ✓ | ✓ |
| | Waiting | ✓ | ✓ |
| Activating a task | Single | ✓ | ✓ |
| | Multiple | ✓ | ✓ |
| Task Switching Mechanism | Multitasking | ✓ | ✓ |
| Task Priority | One Task per priority | ✓ | ✓ |
| | More Task per Priority | ✓ | ✓ |
| Scheduling Policy | Fully Preemptive | ✓ | ✓ |
| | Non Preemptive | ✓ | ✓ |
| | Mixed Preemptive | ✓ | ✓ |
| Termination of a Task | TerminateTask() | ✓ | ✓ |
| | ChainTask() | ✓ | ✓ |
| Application Mode | | X | ✓ |
| Interrupt Management | | | |
| Interrupt Processing | Interrupt Category 1 | ✓ | ✓ |
| | Interrupt Category 2 | ✓ | ✓ |
| Event Management | | | |
| Event Mechanism | | ✓ | ✓ |
| Resource Management | | | |
| RES_SCHEDULAR | | ✓ | ✓ |
| Priority Ceiling Protocol | | ✓ | ✓ |

| Alarm Management | | | | |
|--|---|---|--------------------|---|
| Counter | | ✓ | ✓ | |
| Alarm | | ✓ | ✓ | |
| Message | | | | |
| State Message | | ✓ | ✓ | |
| Event Message | | X | ✓ | |
| Error Management | | | | |
| Hook Routines | | ✓ | ✓ | |
| Error Handling | | ✓ | ✓ | |
| System Start up | | X | ✓ | |
| System Shut down | | X | ✓ | |
| Debugging | | X | ✓ | |
| Foot Print and Timings | | | | |
| Number of Tasks | OS Task | | 2 | - |
| | User Task (Max) | | 256 | - |
| | User Tasks (32 Resources used) | | 32 | - |
| Context Switching Time | 150 Micro Seconds For PIC 18F452 having 4Mhz Clock Frequency | | | |
| Minimum Memory Usage for 62 Tasks | Code Memory | | 10834 bytes | |
| | Data Memory | | 1057 bytes | |