

OS Abstraction offers Robustness, Stability and Enhanced Performance

Top 10 Features:

1. It Is Not A Wrapper

OS Abstraction platform provides most of the OS features by itself and does not depend on the OS, except for a few features (priority scheduling, binary semaphore, simple messaging, manual thread suspend/resume).

2. Support For New OS

Since OS Abstraction depends little on the OS APIs, it is easy for MapuSoft to quickly add a new OS support normally within 2 week timeframe.

3. Task Pooling

Applications unknowingly re-use tasks from a pool containing variety of tasks to eliminate run-time performance impact that goes with actual task creation and deletion at run-time.

4. Safety Critical Features

Applications have the ability to recover from most fatal errors by calling OS Abstraction to perform a soft reset. OS Abstraction automatically frees all the OS resources used by the application and does a soft reset by automatically rolling the stack pointer back to the application entry point.

5. Process Features

OS Abstraction provide software process envelopes to allow each application modules run independently. OS Abstraction allows each process to set a limit for it's heap memory use.

6. Simplicity & Flexibility

Applications can continue to use the same OS Abstractor and/or OS Changer APIs to communicate within a process and also across multiple processes as long as the resources that are created by each application is Global.

7. Zero Copy Message Queues & Pipes

Base OS Abstractor APIs does not introduce a layer of data read/copy to send messages across queues and pipes.

8. Multiple API Use Within A Single Application

OS PAL framework allows applications to use multiple API within a single application. This allows an application to combine code base (e.g. VxWorks & Linux application code).

9. Advanced Profiler & API Optimization

Profile your application code as well as OS Abstractor and OS Changer API usage by your application on target and individually optimize selected APIs by making them wrapper-less macro calls.

10. Scalability Specific To Your Application

OS PAL reads your application to custom generate optimized API interface code that is specific to your application to increase the performance and reduce footprint.