

With OS Porting and Abstraction Lab (OS PAL) you can easily port, abstract and optimize your code on a host machine and run the application on multiple target platforms. OS PAL leverages on the existing OS Changer and OS Abstractor technologies while adding advanced code optimization capacities on multiple OS environments. OS PAL provides users an easy-to-use graphical user interface that is integrated with the Eclipse based CDT environment.

OS PAL Highlights:

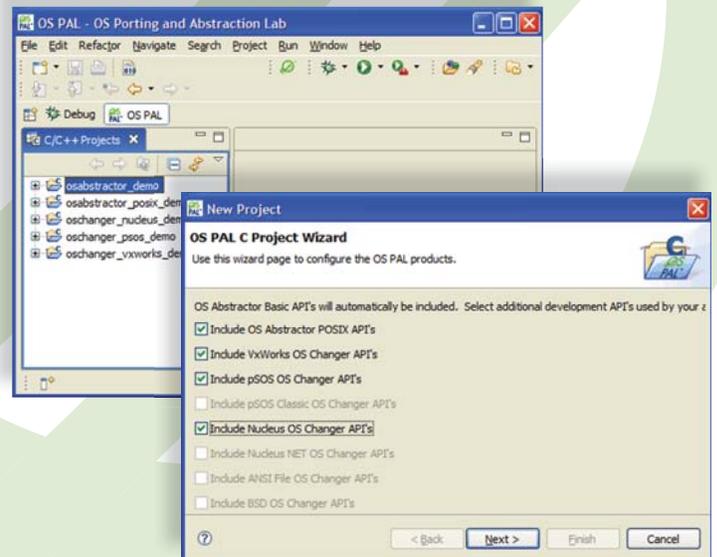
- OS PAL provides various OS APIs, such as VxWorks®, pSOS®, POSIX and Nucleus®, on various host development environments enabling development and porting of embedded code without the target hardware to improve your time to market
- BASE OS Abstractor APIs are available to provide a standard real-time OS interface architecture for developing new and highly portable embedded applications
- POSIX OS Abstractor APIs are available to leverage re-usable open source Linux/POSIX code to effectively add feature-rich services to your design in a cost efficient manner
- OS PAL's state-of-the-art Eclipse based IDE offers seamless integration into existing development flows enabling a high degree of usability and productivity
- OS PAL reads application source code to determine the services used by your application and produces OS specific interface code optimized for your specific application and for each target OS
- OS PAL generates project files for many target IDEs

Unified Architecture with OS PAL

OS PAL integrates OS Changer and OS Abstractor with Eclipse's CDT to offer a host IDE for developing, porting and generating code to run on multiple target operating systems.

- Develop new code on a host
- Port legacy code on a host
- Simulate and debug your application on a host
- Generate code for multiple target operating systems
- OS PAL Project Wizard customizes your C or C++ project for the OS interfaces you wish to use
 - Automatically includes the proper header paths, library includes and pre-compiler symbols
 - Automatically configures the OS Changer & OS Abstractor APIs needed by the application
 - GUI configuration of OS resources specific to your applications needs
 - Custom configuration of OS Abstractor for single or multi-application development with the Process Feature
 - OS PAL comes integrated with mingw and msys from the Eclipse foundation so that you can compile and debug your application without any tool configuration

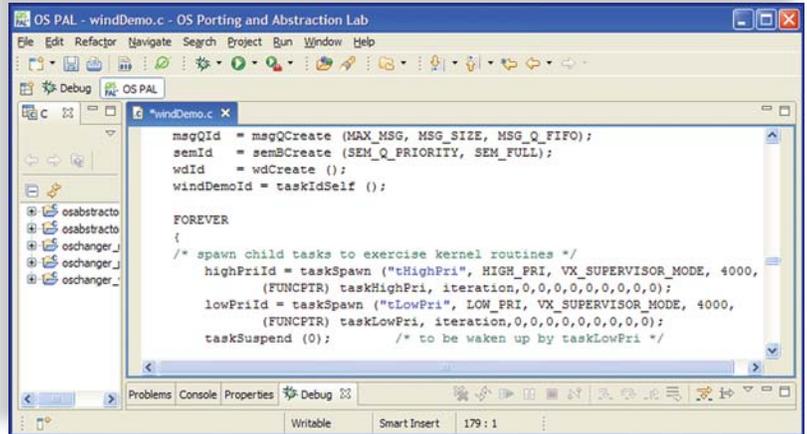
Develop Applications on a Host for Many Target OS Platforms



Select APIs in Your Application

Develop New Code With OS PAL

- Begin developing the application before the hardware is available to improve your time to market
- Choose from the following supported development APIs
 - BASE OS Abstractor
 - POSIX OS Abstractor
 - VxWorks
 - pSOS
 - Nucleus



Develop New Code With OS PAL

Port Legacy Code With OS PAL

- Import legacy applications written in multiple OS APIs to port to different operating systems or for further development
- Import code written for
 - BASE OS Abstractor
 - POSIX OS Abstractor
 - VxWorks
 - pSOS
 - Nucleus



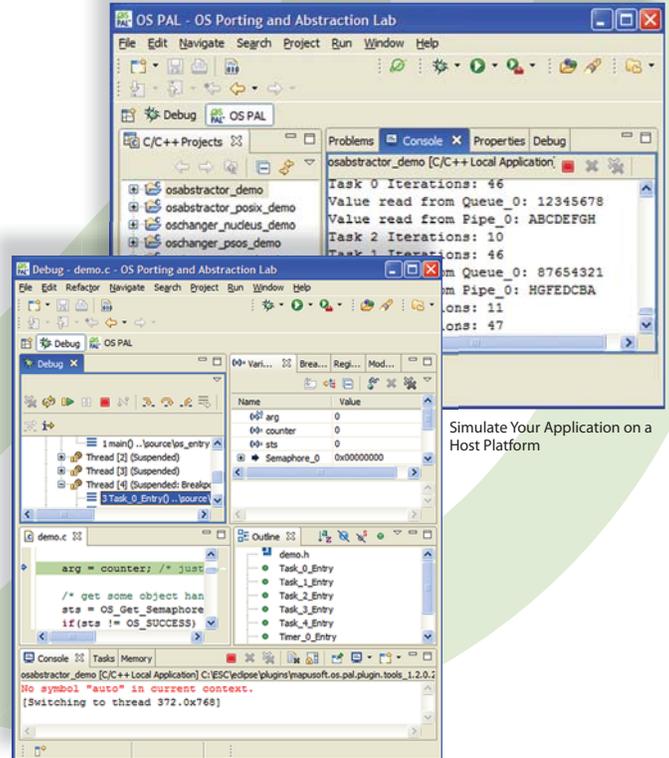
Import Legacy Code

Simulate and Debug Your Application on a Host with OS PAL

- Don't be constrained by limited availability of your target hardware
- Simulate your application on a host for easy testing, verification and presentation
- Run and debug your embedded application on a host computer
- Supported host platforms
 - Windows
 - Linux
 - Solaris*
- *Available soon

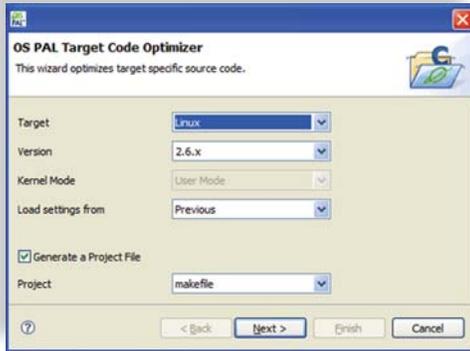
Optimize and Generate Target Code with OS PAL

- Re-use same code base across multiple OS to reduce time consuming maintenance and eliminate manual updates to applications when upgrading to newer versions of OS
- Easily switch your OS platform for more cost effective development
- Generate code for multiple IDEs and tools
- OEM vendors can expand market share and opportunities by supporting multiple operating systems and providing customers the flexibility to use your software on their preferred OS platform

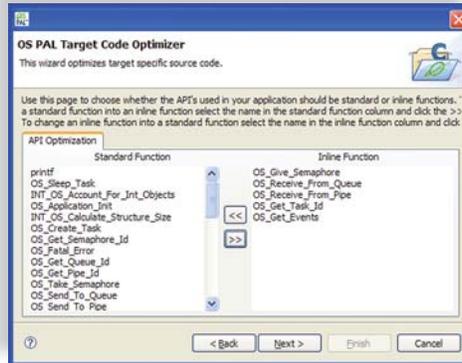


Debug Your Application on a Host Platform

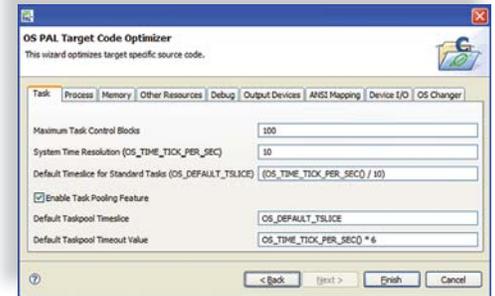
- Target selection and configuration tabs to optimize the target code specific to your application



Easy GUI Target Configuration

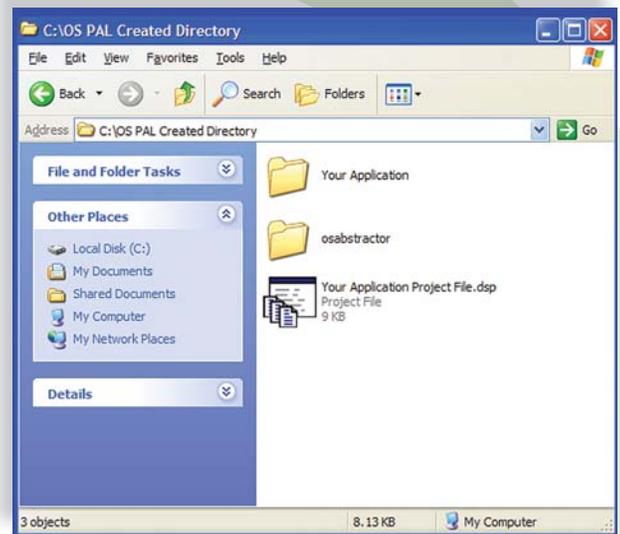


In-line Selected APIs to Decrease Code Size and Increase Performance



Target OS and IDE Selection

- The OS PAL Target Code Optimizer will search your code, and according to the settings you specified in the wizard, it will create a directory. This directory includes your application, the OS Abtractor library customized and optimized for your application and all the project files which will be needed by your target operating system's build tools.



OS PAL Optimized Code Generation

Run the Generated Code on Your New OS

- Using a cross-compiler, compile, link and download the OS PAL generated code to your target
- Port low level drivers and hardware interrupt code as required (refer to OS Abtractor I/O & device driver APIs sections in the reference manual)
- Resolve any run time errors

Supported Target Platforms

By leveraging existing MapuSoft products, OS PAL offers support for all target operating systems supported by OS Changer and OS Abtractor. [Visit our website for a complete listing.](#)

FREE OS PAL Trial Software

Go to: www.mapusoft.com/downloads to download FREE OS PAL Trial Software and receive 30 days of FREE technical support!

MapuSoft Technologies, Inc., 1301 Azalea Road, Mobile, AL
36693 USA Toll Free: 1-877-MAPUSOFT (1-877-627-8763)
Tel: 251-665-0280, Fax: 251-665-0288