

STEP ONE • Choose an option

STEP TWO

Option One Optimized Code Generation

Your μ ITRON App:
Import using the
legacy porting tool

Porting steps:
Replace headers, Combine main ()

Run/debug application
using emulator on host

Configure target OS, Profiler,
Interface Optimizer & system settings

Generate Interface
code for target OS

Output:
Unmodified application code
Optimized interface files

Native compiler

Output:
Cross-OS Interface object
Existing OS Interface object
Application objects

Continue to STEP TWO

Option Two Full Source Package Generation

Your μ ITRON App

Porting steps:
Replace headers,
Combine main ()
and Initialize app

Native
compiler

Generate source
package from OS PAL
and perform manual
configuration

Output:
Cross-OS Interface library
Existing OS Interface library
Application object code

Continue to STEP TWO

Linker

Your μ ITRON App
executable

Download/run
on your target OS

Generated Profiler
data (optional)

View data using
OS PAL Profiler

OPTIMIZED CODE GENERATION: OPTION ONE

- Legacy Porting Tool to easily import your application into OS PAL
- Perform your porting work on an Eclipse-based Windows or Linux host machine with provided GNU tools for x86
- Generate optimized μ ITRON Interface code for your target, specific to your μ ITRON application
- Generate project files for your target IDE/tools environment
- Enable target profiling of the μ ITRON Interface and of the application functions to collect valuable performance data and generate comparative performance reports
- Selectively optimize each μ ITRON Interface function for performance based on its usage in your application
- Automatically generate initialization & configuration code based on the settings you chose in the GUI-based wizard

FULL SOURCE PACKAGE GENERATION: OPTION TWO

- Suitable for applications that link with other libraries which also needed to be ported
- Use with your preferred IDE/tools instead of the provided OS PAL Eclipse-based environment
- Provides a Porting Kit in a source code library format which contains all the μ ITRON Interface functions for a specific target OS
- Requires manual configuration and initialization instead of using the OS PAL GUI-based wizard

Technical Highlights

It's Not Your Typical Wrapper

- > Provides most of the OS features by itself and does not depend on the OS, except for a few features such as priority scheduling, semaphore, messaging and thread suspend/resume

Includes a Process Feature

- > Port your application to a single or to multiple processes utilizing the user shared region provided for your global variables
- > Create a new process by compiling the application separately or by launching it from your main application
- > Provides software-based process features, even if the underlying target OS does not offer support
- > Applications can pre-allocate heap memory during process creation
 - * Also set maximum limits regarding the amount of heap memory each application can use to prevent applications from using up all of the system memory and impacting other applications

API Flexibility

- > Use the same OS Changer Interface APIs within a single or across multiple processes

Thread Pooling

- > Applications can pool threads to increase platform robustness & performance by eliminating the overhead associated with actual task creation & task deletion at run-time

Mission Critical Features

- > Applications have the ability to asynchronously recover from fatal software errors through a soft reset by rolling the stack back to the start of the application

Highly Scalability

- > The OS PAL GUI-based wizard reads your application to custom generate optimized μ ITRON Interface code that is specific to your application resulting in increased performance and reduction of memory footprint

Target Independence

- > Products support any target hardware supported by your target OS Architecture
- > Support for 16/32/64 bit architectures

Processor

- > SMP and UP modes are supported

μ ITRON

- > Supports version 4.0 standard

μ ITRON Interface API Coverage & Target OS Support

Please refer to the latest release notes for the μ ITRON API coverage offered by the OS Changer Interface, found at the link below:

http://mapusoft.com/admin/wp-content/uploads/Release_Notes_1.3.6.pdf

Below are the target operating systems supported by the OS Changer - μ ITRON Porting Kit:

Android®	MQX®	ThreadX®	Solaris®	VxWorks® 6x/5x
eCOS®	NetBSD®	T-Kernel®	Windows® XP/Vista/7/CE	
Linux® 2.4/2.6	Nucleus®	uCos®	LynxOS-SE®	
LynxOS®	QNX®	Unix®	RT Linux®	

- A free evaluation can be downloaded here: <http://mapusoft.com/downloads/downloads/>
- You can request an evaluation license key or quote here: <http://mapusoft.com/downloads/freelicense/>
- For user manual & technical documentation visit this link: <http://mapusoft.com/products/techdata/>
- For any technical or sales questions please submit a ticket at the MapuSoft support site at this link: <http://mapusoft.com/support/>