

OS Changer micro-ITRON Porting Kit is a C/C++ source-level virtualization technology that allows you to easily re-use your software developed for micro-ITRON on another OS, while providing real-time performance. It eliminates the manual porting effort, saves money and shortens the time to market. OS Changer can also be used to simulate the micro-ITRON Interface on a host machine. OS Changer Interface connects to your existing application that was developed on micro-ITRON, while the OS Abstractor Target Specific Module (specific to your target OS) provides the connection to the OS you are moving to.

### OPTIMIZED CODE GENERATION: OPTION ONE

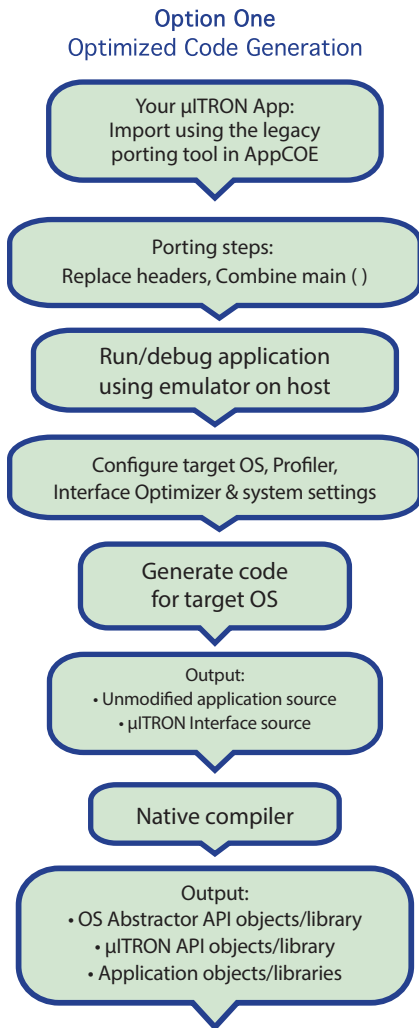
- Legacy porting tool to easily import your application into AppCOE
- Perform your porting work on an Eclipse-based Windows or Linux host machine with provided GNU tools for x86
- Generate optimized micro-ITRON Interface code for your target, specific to your micro-ITRON application
- Generate project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

### FULL SOURCE PACKAGE GENERATION: OPTION TWO

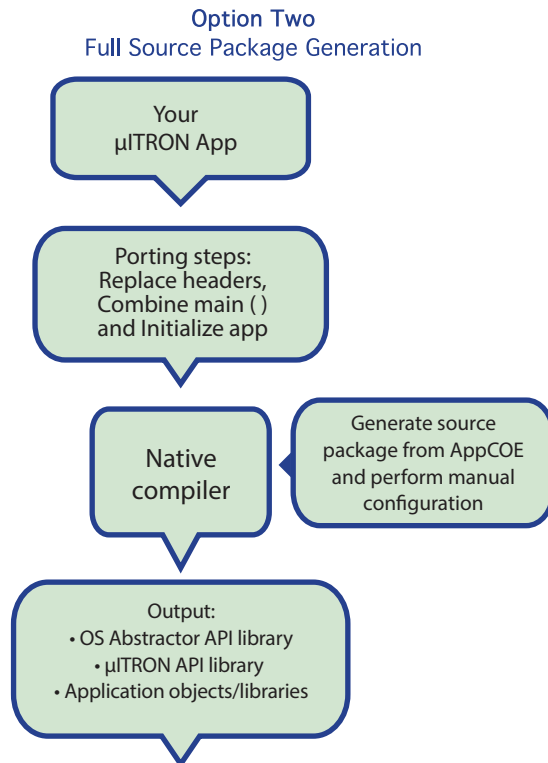
- Suitable for applications that link with other libraries which also needed to be ported
- Use with your preferred IDE/tools instead of the provided AppCOE Eclipse-based environment
- Provides a Porting Kit in a source code library format which contains all the micro-ITRON Interface functions for a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

## micro-ITRON INTERFACE

### STEP ONE • Choose an option

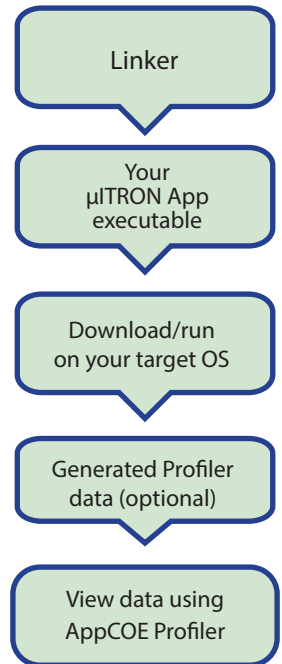


Continue to STEP TWO



Continue to STEP TWO

### STEP TWO



## Technical Highlights

### 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

- > OS Abtractor APIs also available for use in your micro-ITRON application
- > OS Changer micro-ITRON Interface can be used within a single or across multiple applications

### 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 Scalable

- > The OS PAL GUI-based wizard reads your application to custom generate optimized micro-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, including 32/64 bit & SMP/UP architectures

### In-house OS Support

- > Can easily be extended to support your in-house OS

### micro-ITRON

- > Supports version 4.0 standard

## micro-ITRON Interface API Coverage & Target OS Support

You can find the supported micro-ITRON APIs here:

[http://www.mapusoft.com//wp-content/uploads/documents/release\\_notes-micro-ITRON-APIs.pdf](http://www.mapusoft.com//wp-content/uploads/documents/release_notes-micro-ITRON-APIs.pdf)

Below are the target operating systems supported by the micro-ITRON Interface:

Android®	LynxOS-SE®	QNX Neutrino RTOS®	Unix®
eCOS®	Freescale MQX®	RT Linux®	VxWorks®
Linux®	NetBSD®	Solaris®	Windows®
LynxOS®	Nucleus®	ThreadX®	In-house
LynxOS-178	µC/OS III™	FreeRTOS™	

- A free evaluation can be downloaded here:  
<http://mapusoft.com/downloads/>
- You can contact MapuSoft to request a license key for evaluation here:  
<http://mapusoft.com/contact>
- User manuals & technical documentation can be found here:  
<http://www.mapusoft.com/techdata/>
- For any technical or sales questions please submit a ticket at the MapuSoft support site here:  
<http://mapusoft.com/support/>

