OS CHANGER® micro-ITRON INTERFACE

TECHNICAL DATASHEET

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

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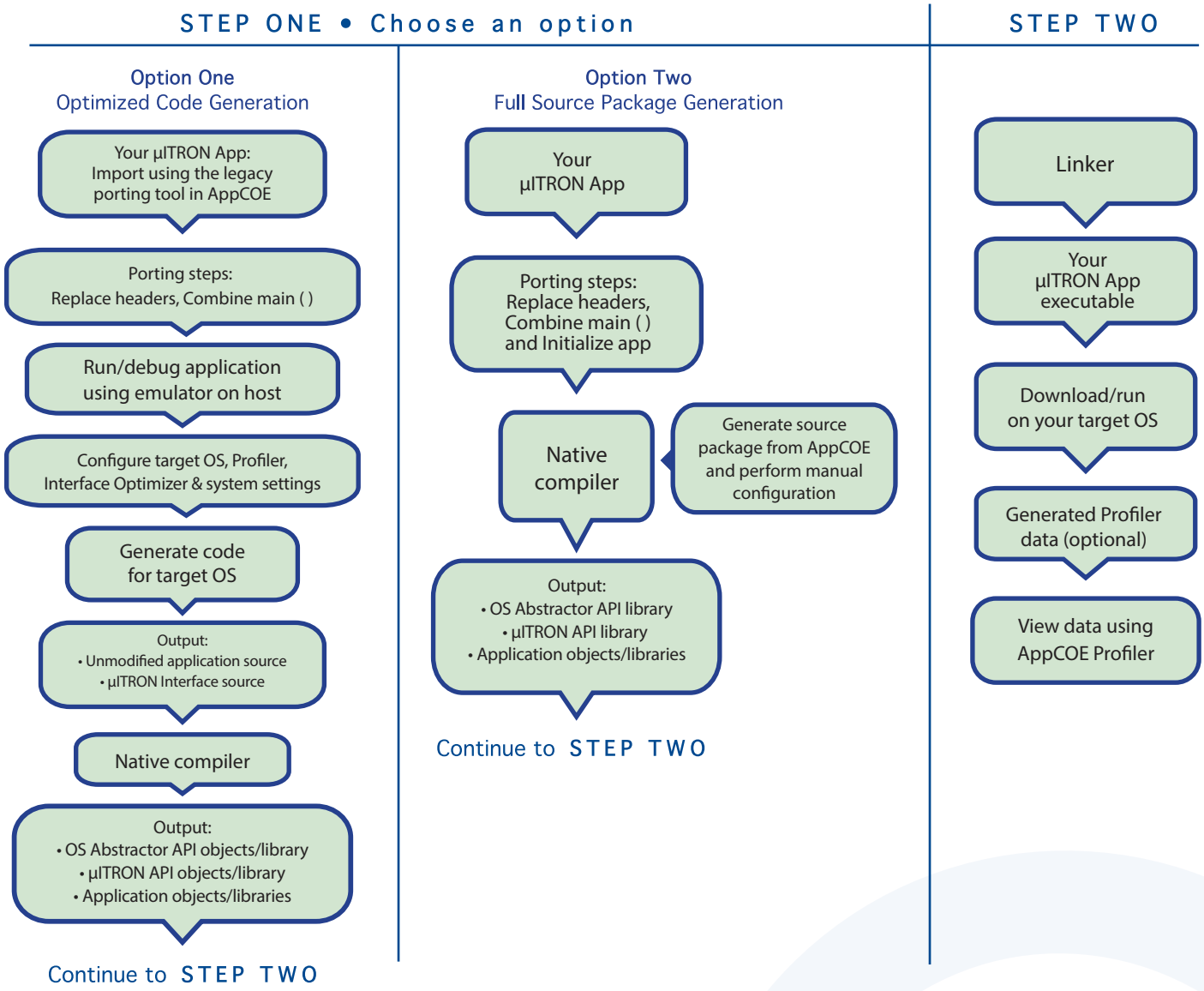

Technical Highlights

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 Abstractor APIs also available for use in your micro-ITRON application
> OS Changer mico-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

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/

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