



INTER-OPERABILITY MADE EASY



MapuSoft is the global leader in software interoperability & reusability solutions that provide freedom, protection and stability to embedded applications





FREEDOM

Don't confine your
code to one platform



PROTECTION

Protect software
investment



STABILITY

Robust and
optimized platform





OSCHANGER®

Easily migrate your code to a new OS

C/C++ Applications

Current OS Platform

VxWorks	FreeRTOS
Nucleus	µC/OS
pSOS	µITRON
RTLinux	ThreadX
VRTX	QNX
Windows	Linux/POSIX

New OS Platform

Linux	NetBSD	RT Linux
Android	Nucleus	VxWorks
eCOS	Freescale MQX	ThreadX
LynxOS	Windows	FreeRTOS
Solaris	µC/OS III	Unix
µITRON	QNX	In-house



ROI: Cost of Porting – Manual vs. OS Changer

	Small	Medium	Large
	<u>10K LOC</u>	<u>100K LOC</u>	<u>1M LOC</u>
Manual Porting of Single Application *	\$ 95,338	\$ 953,380	\$ 9,533,800
OS Changer License Fees	\$ 12,000 ¹	\$ 43,200 ²	\$ 72,000 ³
<u>Estimated Labor to use OS Changer</u>	<u>\$ 8,000</u>	<u>\$ 16,000</u>	<u>\$ 64,000</u>
Cost of Porting with OS Changer	\$ 20,000	\$ 59,200	\$ 136,000

(¹ = Single Seat License, ² = 10 seat License, ³ = Source Code Site License)

Savings (Manual minus OS Changer)	\$ 75,338	\$ 918,780	\$ 9,397,800
Return on Investment	377 %	2,436 %	6,910 %

* Source: Software Engineering Institute, Carnegie Mellon, 2008 Bureau of Labor Statistics, 2006. Porting estimated at half the cost of new development.



OS Changer Porting Kit

- OS Changer Porting Kit enables automated migration of C/C++ software to a new OS or RTOS. It saves time and money because the C/C++ code remains unchanged and the tedious and error-prone porting work is no longer required.
- It includes one OS Changer Interface for the OS you are moving from and an **OS Abstractor** Target Specific Module for the target OS you are porting to. [OS Abstractor Info](#)
- OS Changer Porting Kit includes **RTOS Simulator** for host application development for your chosen Operating System. [RTOS Simulator Info](#)
- OS Changer Porting Kit is integrated with **AppCOE**, an Eclipse-based framework, providing a state-of-the-art IDE for development and testing. [AppCOE Info](#)



OS Changer Porting Kit includes:

- **Library Package Generator**
 - Full library source code of the OS Changer Interface and OS Abstractor Target Specific Module for your target platform
 - Sample demo applications
 - Project build files for supported tools & IDEs for your target environment
- **Optimized Target Code Generator**
 - Generates the OS Changer Porting Interface and OS Abstractor Target Specific Module source code, specifically optimized for your application and target environment
 - Creates project files for your target IDE
 - Includes the system settings you chose in the GUI-based Wizard
- **Application-OS Profiler** to view performance data of your application and OS Changer Interface for your target. [Application-OS Profiler Info](#)

STEP ONE • Choose an option

STEP TWO

Option One Optimized Code Generation

Your Legacy App:
Import using the legacy
porting tool in AppCOE

Porting steps:
Replace headers, Combine main ()

Run/debug application
using emulator on host

Configure target OS, Profiler,
Interface Optimizer & system settings

Generate code
for target OS

Output:
• Unmodified application source
• Legacy Interface source

Native compiler

Output:
• OS Abstractor API objects/library
• Legacy API objects/library
• Application objects/libraries

Option Two Full Source Package Generation

Your
Legacy App

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

Native
compiler

Generate source
package from AppCOE
and perform manual
configuration

Output:
• OS Abstractor API library
• Legacy API library
• Application objects/libraries

Continue to STEP TWO

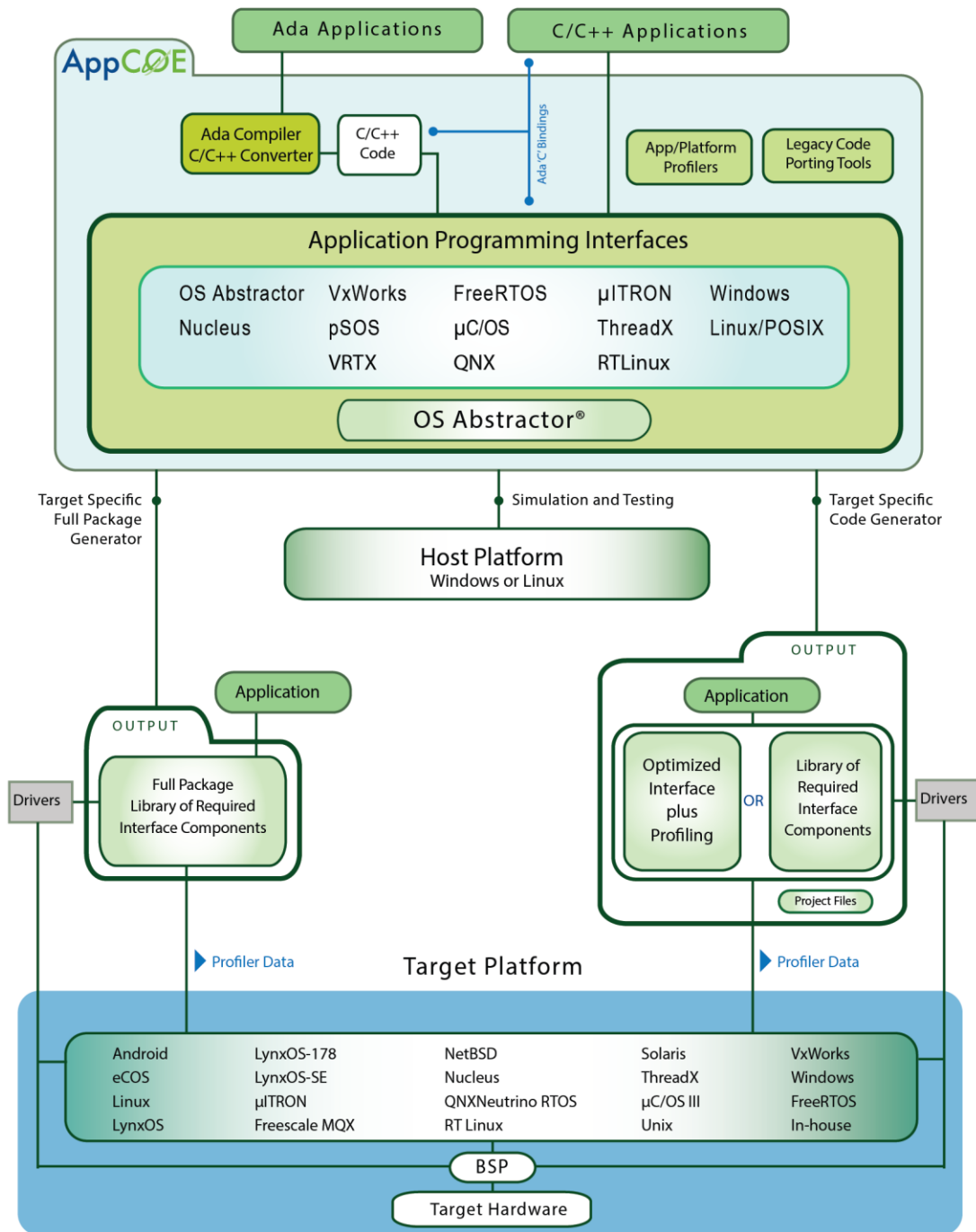
Linker

Your
Legacy App
executable

Download/run
on your target OS

Generated Profiler
data (optional)

View data using
AppCOE Profiler



AppCOE™

Application Common
Operating Environment



For More Information

- To download MapuSoft's free software evaluation visit:
<https://mapusoft.com/downloads>
- For any additional information please contact MapuSoft at:
<https://mapusoft.com/contact>
- Toll Free: 1-877-MAPUSOFT
- Email: sales@mapusoft.com