# How to migrate from GCC to IAR Embedded Workbench

David Källberg, Field Application Engineer

# Agenda

- Reasons to migrate to IAR Embedded Workbench
- Debug your ELF file with C-SPY
- Migrate to IAR build tools
- Take advantage of the IAR project converter

# Reasons to migrate to IAR Embedded Workbench

# Reasons to migrate to IAR Embedded Workbench

- State-of-the-art debugger
  - Full control of the application in real time
  - Advanced breakpoints
  - Profiling
  - Code coverage
  - Interrupt and power logging

# Reasons to migrate to IAR Embedded Workbench

- Optimize your application
  - Tune towards speed or size
  - Use smaller and cheaper device
  - Industry leading scores
  - Coremark.org

# Reasons to migrate to IAR Embedded Workbench

- Access to first-class support
- Code analysis tools
- Safety certified build tools

# Debug your ELF file with C-SPY

# Debug your ELF file with C-SPY

- ELF object files (.out, .elf)
- DWARF format for debug information
- IAR Embedded Workbench
  - Externally built executable
  - Source level debugging possible

# Demonstration – Debug with C-SPY

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# Migrate to IAR build tools

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- Linker supports AEABI compliant ELF object files.
- Support for 17 GCC attributes
- Syntax: __attribute__ ((attribute-list))

```
__attribute__ ((noinline)) void CopySineWave(uint32_t index)
{
  if(index < 20)
  {
    ++index;
    ++index;
    CopySineWave(index);
  }
}
```

# Take advantage of the IAR project converter

# Project converter

- Included in IAR Embedded Workbench
- Project converters for:
  - TI Code Composer Studio for ARM + MSP430
  - Keil uVision5 for ARM
  - Renesas HEW and e2Studio for RX
  - ST Atollic

# Demonstration – Project converter

# Summary

- Migrate to IAR Embedded Workbench for improved quality
- Debug .elf file with C-SPY
- Reuse GCC attributes
- Project converters

# Want to learn more?

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- Get scanned to have this presentation emailed to you.
- Visit IAR Demo Space to get a demo of our technology.

Thank you for your attention!