

# Aspect-Oriented Programming with AspectC++

## Part V – Summary



# Pros and Cons

- + A powerful AO language combining aspects with C++ concepts
- + Easy to learn
- + No overhead at runtime
- + Suitable for embedded and cross-platform development
- + IDE support available
  
- special tool (ac++/ag++) required
- longer compilation times

# Summary – This Tutorial ...

- introduced the AspectC++ language extension for C++
  - AspectJ-like language extension
  - ac++ transforms AspectC++ into C++
  - supports AOP even in resource constrained environments
- demonstrated the AspectC++ tools
- discussed the pros and cons of the approach

# Future Work – Roadmap

- Language design
  - consider/support/exploit new features of C++  $\geq 11$
  - control flow patterns
  - free variables in pointcut expressions
- Aspect weaver
  - attributes for parameters
  - weaving in templates
  - aspect/advice templates
- Tools
  - file dependency handling (faster incremental builds)
  - acmake and whole-program analysis



Thank you for your attention!