Linux and 64 Bit Ports

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Linux Port

- Unix operating system on Intel hardware – better price/performance ratio, open source environment
- Our Sun Solaris server has reached its “end of life” and we must replace it
- Sun hardware = $$$$ Intel hardware = $
- Linux in 2010!
- Development environment Windows/Linux; Release Windows/Linux/Solaris

Linux Port Tasks

- Hardware
- Development environment “best practices”
  - Compiler and debugger (32 bit and 64 bit)
  - Integrated development environment (Eclipse, Qt Creator)
  - Analysis tools other than Rational Purify and Quantify?
  - Overnight builds, regression tests, release procedures, revision control, bug tracking
- Third party libraries
  - Replace RogueWave (RWCString, which is ubiquitous)
  - License or compile others

64 Bit Port

- Larger address space = larger models
  - No longer necessary to decompose models and run them piecemeal

64 Bit Port Tasks

- Hardware
- Third party libraries
  - Linux port will have replaced RogueWave
  - License or compile others
- RiverWare is not “64 bit clean”
  - Common problems involve *int*, *size_t* and pointer data types:

```
int i1;
size_t i2;
i1 = i2;        // ok in 32 bit, loss of precision in 64 bit
```

  - Effort to make RiverWare “64 bit clean” is unknown