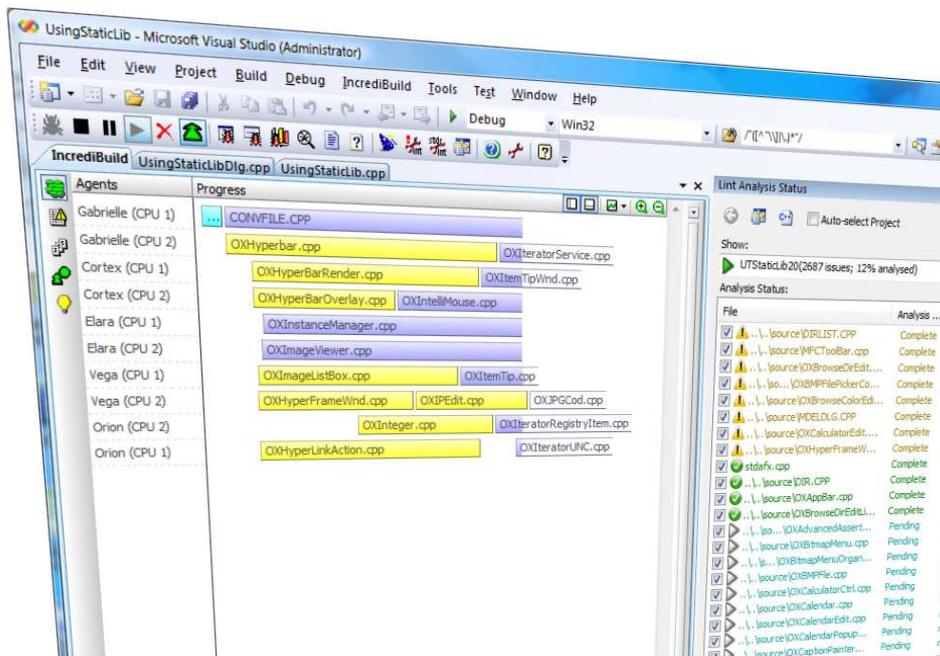


TURBOCHARGED CODE ANALYSIS

with Visual Lint and Xoreax IncrediBuild

Why use one machine to analyse your code, when you have a whole network?



If your code analysis process takes too long to run, you have a problem. After all, the slower a code analysis process is, the less effective it is likely to be in practice.

If you run your code analysis tasks on a single machine, their speed is fundamentally limited by the speed of that machine—and even if you have a brand new 8 core machine on your desk that is likely to be far slower than distributing those tasks among idle machines on your network.

Fortunately, Visual Lint can integrate with the Xoreax IncrediBuild networked build accelerator to accelerate code analysis tasks. By doing so, you can easily speed up your code analysis runs by a factor of 20.



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How does it work?

When you use IncrediBuild with Visual Lint, analysis tasks are run transparently on spare machines on your network.

Visual Lint automatically configures IncrediBuild to run each analysis task, and IncrediBuild decides which CPU cores to allocate tasks to based on their utilisation. Any files needed are cached on each machine in the grid as required, and as each task completes it returns analysis results to the Visual Lint installation which initiated the task.

How fast is it, really?

We recently conducted a number of benchmark tests to quantify just how much of an improvement using IncrediBuild can make to the PC-lint analysis of a representative codebase (178kLOC in 24 projects).

The results of the tests performed using this combination are striking:

Description	Analysis time (178 kLOC codebase)	Speed relative to single threaded analysis
1 Core (2.2 GHz). Single threaded conventional PC-lint analysis	4 hours 25 minutes	x1
2 Cores (aggregate speed 4.4 GHz). Native Visual Lint analysis using 3 parallel analysis threads	2 hours 22 minutes	x1.8
16 Cores (aggregate speed 40 GHz) using IncrediBuild	15 minutes 10 seconds	x17.5
23 Cores (aggregate speed 54.7GHz) using IncrediBuild	12 minutes 20 seconds	x21.5

Using just six agents (four dual and two quad core desktop systems) we were able to complete a complete analysis of this codebase in just over 15 minutes – **a seventeen-fold improvement on the single threaded equivalent**. Adding additional agents brought even this time down by a further 20%!

What do we need to get started?

Distributed code analysis is available in Visual Lint Enterprise Edition, and requires IncrediBuild 3.32 or later with the XGE Interfaces Extension Package.

Please contact us if you require details of the specific IncrediBuild packages required and supported analysis tools.

About Riverblade:

Riverblade is a UK based independent software vendor founded in 2004 and specialising in code analysis tools and development tool integration.

Additional information about Riverblade and our products can be found at www.riverblade.co.uk.

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