Goanna is the leading static C/C++ code analysis solution for safety critical embedded software. An essential component for ensuring compliance with safety standards such as DO-178B, ISO 26262, and MISRA, and combining the latest verification research with seamless IDE and build server integration, Goanna is the easiest and most powerful solution for creating code confidence on your desktop.

**Industry Standards**
Goanna verifies compliance of your product with a number of industry safety and security standards:
- CERT
- ISO 26262
- CWE
- MISRA C:2004
- DO-178B
- MISRA C++:2008

**Customizable Checks**
Checks are easily customizable for your company’s standards and requirements.

**Award-Winning Technology**
Goanna incorporates the most advanced Turing award-winning model checking technology, providing complete coverage of all execution paths in even the most complex functions.

**Path-Sensitive Whole Program Analysis**
Goanna’s unique patent pending technology for whole program interprocedural analysis can find defects across call chains that span many function and file boundaries, to any depth.

**Abstract Data Tracking**
Goanna tracks values, sizes, and address calculations at all points in your program, finding bugs that cannot be detected through testing and manual inspection alone.

**Live Incremental Analysis**
Goanna only reanalyzes the parts of your program that have changed since the last run, allowing rapid test/debug cycles that take only seconds, not hours.

**Unique Trace Simulator**
Goanna can “replay” traces of complex bugs directly in your IDE, allowing you to pinpoint the root cause of defects faster.

**Catch Software Defects Before They Get Into Your Product**
Goanna static analysis automatically finds defects in your C/C++ programs using only the source code. No compilation, simulation, or execution required. By detecting bugs at the earliest possible phase of the development cycle, you can:
- Improve product quality
- Reduce cost
- Save development time
- Get your product to market faster

Goanna integrates seamlessly with most IDE’s and build environments, placing the power of deep static analysis at your fingertips with just a single click. No lengthy setup costs or disruption to your existing workflow.

**Customers of Goanna Verification Tools**
Customers of Goanna verification tools include automotive, aerospace, defense, medical, and mission-critical embedded systems companies from around the world.

**Over 250 High-Value Checks**
null pointer bugs
array overruns
string overruns
memory leaks
memory corruption
double frees
security flaws
bad constructs
uninitialized values
dead code
arithmetic errors
portability bugs
division by zero
unsafe libraries
Plus infinite possibilities with user defined checks.
About Red Lizard Software

WHO WE ARE

Red Lizard Software was spun out of National ICT Australia in 2005 to develop and market the Goanna suite of static analysis solutions.

Established in 2002, National ICT Australia is Australia’s premier ICT research and development organization, with laboratories across Australia.

CONTACT US

Red Lizard Software Pty Ltd
National ICT Australia
Locked Bag 6016
Sydney NSW 1466
Australia
+1 408 849 4408
info@redlizards.com
support@redlizards.com

DISTRIBUTORS

Hitex Development Tools GmbH
Greschbachstr. 1276229
Karlsruhe Germany
+49 721 9628-0
goanna@hitex.de

Antycip Technologies
ZA de la Verrière,
14 rue Panicale
78321 La Verrière, France
+33 1 30 51 21 00
jdalderete@antycip.com

Primestone Technology Limited
40 Tintern Abbey
Riverfield, Bedford, MK41 0RW
United Kingdom
+44 77 78 980 420
europe.info@redlizards.com

www.redlizards.com

Productivity

INTEGRATED DASHBOARD AND METRICS

Goanna is bundled with a fully integrated Sonar™-based dashboard, providing:
- additional static analysis
- dynamic testing
- cyclomatic complexity
- code coverage metrics
- unit test metrics
- duplication metrics
- much more

Graphical Reporting and Visualization

Defects can be charted graphically via an easy-to-use web interface, providing an instant visualization of defect history and problem areas.

Color coded charts allow developers to instantly recognize issues and zero in on trouble spots as soon as they arise.

Integration

TWO PRODUCTS, ONE ENGINE

Goanna Studio is the Goanna analysis engine provided as a fully integrated graphical extension to your IDE.

Red Lizard Software partners with IDE vendors to provide seamless integration and unrivalled support for all major desktop and embedded development platforms.

- Atmel®
- Infineon®
- QNX®
- Atollic®
- Kell™/ARM®
- Texas Instruments®
- Eclipse™
- Mentor®
- Instruments®
- IAR®
- Microsoft®
- Wind River®

Goanna Central is the same Goanna analysis engine provided as a standalone product for server deployment. This can be run standalone, or integrated into your build.

Goanna Central is easy to set up for any compiler and build process, and supports most major continuous integration and software quality platforms.

- Make
- SCons
- Sonar™
- CMake
- Jenkins™

PRODUCT MATRIX

<table>
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<tr>
<th>Feature</th>
<th>Goanna Studio</th>
<th>Goanna Central</th>
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<tr>
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