



S E R V I C E S

Fix HDL bugs before they even exist

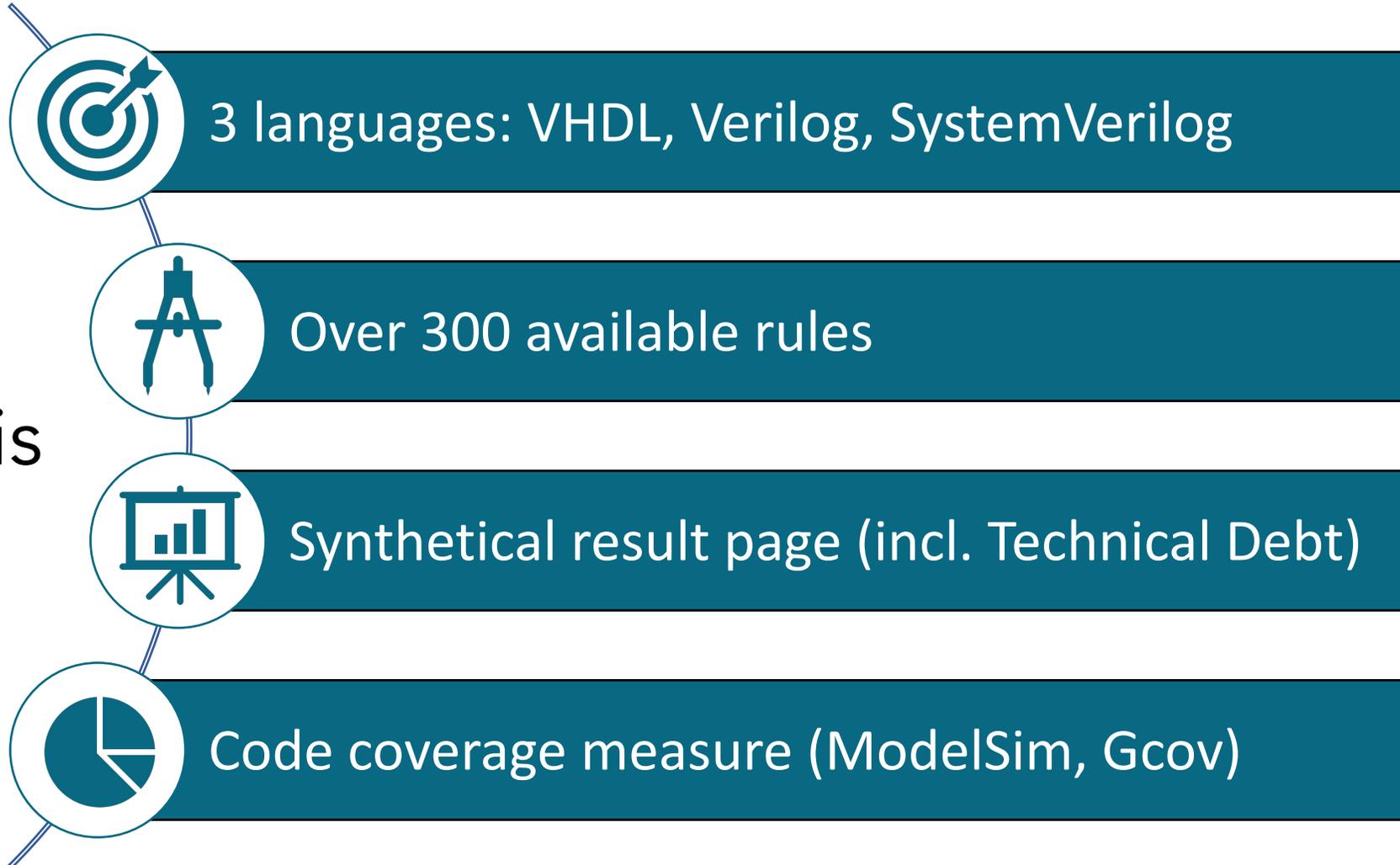


esa

European Space Agency

What is Linty?

Static Analysis Tool



Demo

<https://sonar.linty-services.com>



SCAN ME

Linty Screenshots

- Synthetic dashboard

The screenshot displays the Linty dashboard interface. At the top, there is a navigation bar with tabs for Projects, Issues, Rules, Quality Profiles, Quality Gates, and Administration. A search bar for projects is located on the right. Below the navigation bar, the main content area is divided into a left sidebar and a main project list.

Filters:

- Quality Gate:** Passed (0), Failed (3)
- Reliability (Bugs):** A (0), B (0), C (1), D (1), E (1)
- Security (Vulnerabilities):** A (3), B (0), C (0), D (0), E (0)
- Security Review (Security Hotspots):** A (≥ 80%: 2), B (70% - 80%: 0), C (50% - 70%: 0)

Project List:

- ModelSim Coverage:** Failed. Last analysis: 1 year ago. Metrics: Bugs (31, D), Vulnerabilities (0, A), Hotspots Reviewed (-, A), Code Smells (229, A), Coverage (53.0%), Duplications (7.9%), Lines (2.6k, S) VHDL.
- NEORV32:** Failed. Last analysis: 1 month ago. Metrics: Bugs (3k, E), Vulnerabilities (0, A), Hotspots Reviewed (-, A), Code Smells (11k, C), Coverage (-), Duplications (7.6%), Lines (13k, M) VHDL.
- SonarQube Linty VHDL:** Failed. Last analysis: 1 month ago. Metrics: Bugs (5, C), Vulnerabilities (0, A), Hotspots Reviewed (0.0%, E), Code Smells (486, A), Coverage (67.3%), Duplications (1.6%), Lines (29k, M) Java, XML.

3 of 3 shown

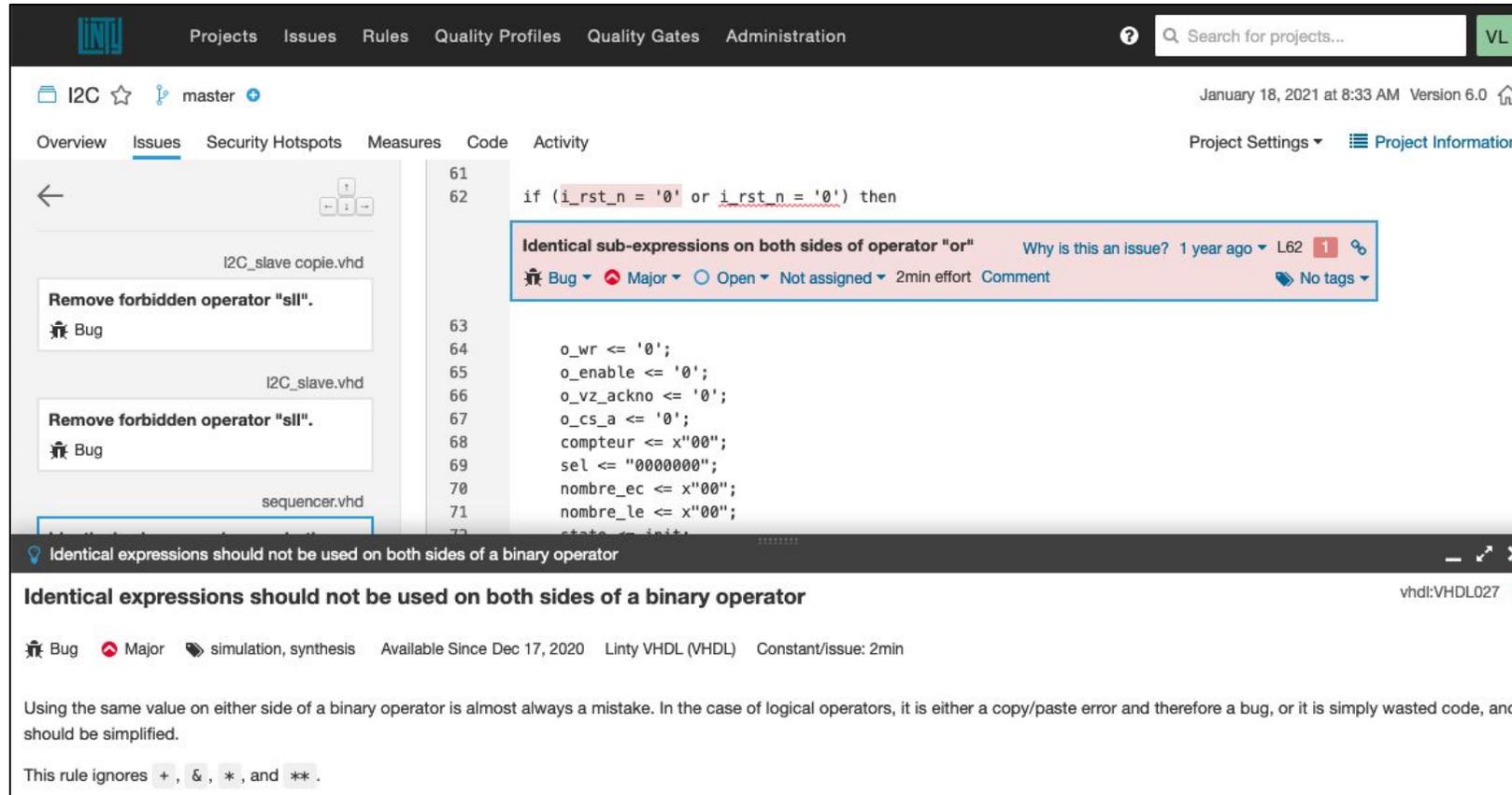
Linty Screenshots

- Synthetic dashboard



Linty Screenshots

- Issues detection



The screenshot displays the Linty web application interface. At the top, there are navigation tabs for Projects, Issues, Rules, Quality Profiles, Quality Gates, and Administration. A search bar and a 'VL' button are also present. The main content area shows a project named 'I2C' with a 'master' branch. The 'Issues' tab is active, displaying a list of issues on the left and a code editor on the right. The code editor shows a VHDL snippet with a linting issue highlighted in a red box. The issue is titled 'Identical sub-expressions on both sides of operator "or"' and is categorized as a 'Bug' with a 'Major' severity. A detailed modal window is open, providing more information about the issue. The modal title is 'Identical expressions should not be used on both sides of a binary operator' and it includes a description of the rule and its purpose.

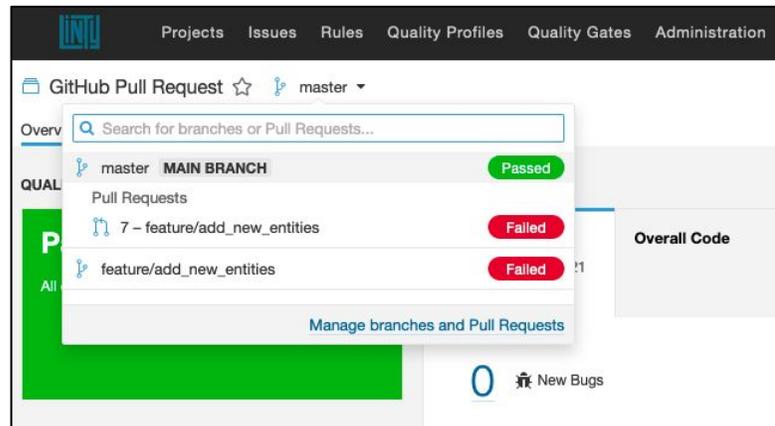
Identical expressions should not be used on both sides of a binary operator

Using the same value on either side of a binary operator is almost always a mistake. In the case of logical operators, it is either a copy/paste error and therefore a bug, or it is simply wasted code, and should be simplified.

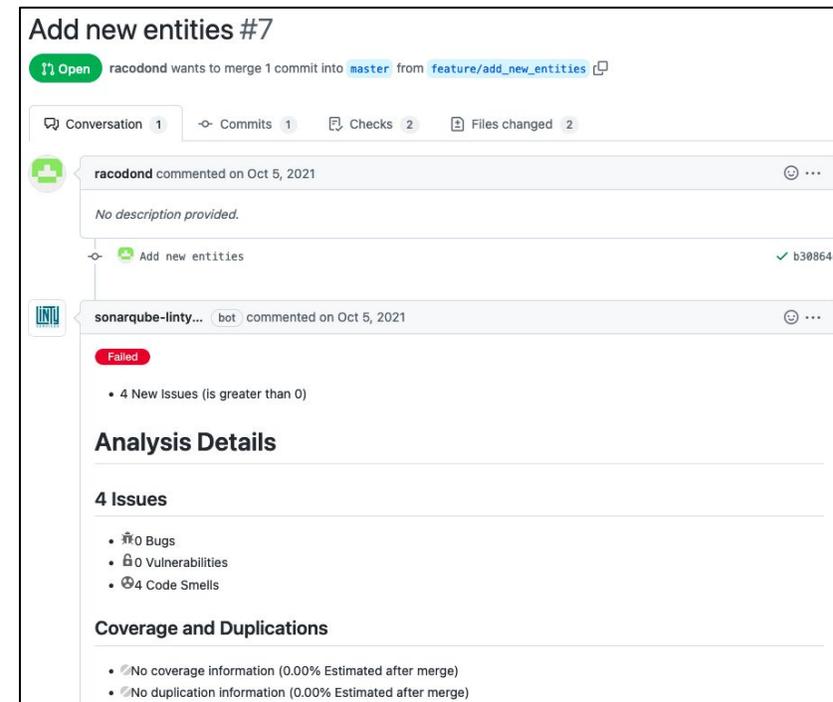
This rule ignores `+`, `&`, `*`, and `**`.

Linty DevOps - Continuous Integration

- Multi-branch analysis - Pull request decoration
 - You would get the most added value from Linty while it is fully integrated in your DevOps / Continuous Integration process



Multi-branch analysis



Pull request decoration

Your New Code Review Assistant

Upgrade
to your need
(on-demand)



Custom rules

- Enrichment of Linty rules (after feasibility analysis)
- Exclusive set of custom rules, upon request



Qualification/Certification kit

- Set of required documents
- Certification support

Support
(optional)



On-site annual training

- Discover new features and learn best practices



Hotline

- Resolve issues on Linty deployment
- Find specific solutions for your use cases

5 Reasons Why You Should Use Linty

Code quality, reliability and maintainability

Increase productivity

Immediate ROI

Improve the skills of your team

Rework less and innovate more



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Website:

<https://www.linty-services.com/>

Demo platform:

<https://sonar.linty-services.com/projects>

VHDL checks:

https://sonar.linty-services.com/coding_rules?languages=vhdl

Verilog/SystemVerilog checks:

https://sonar.linty-services.com/coding_rules?languages=verilog

Coverage of DO254 and CNES Handbook standards:

<https://linty-services.atlassian.net/wiki/spaces/STANDARDS/overview>