Correction: Ternary Propagation-Based Local Search for more Bit-Precise Reasoning

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Correction to:

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The original publication of this article unfortunately contained a mistake in Table II. The invertibility condition for bit-vector predicate $(x <_u s) \approx t$ was incorrectly given as $(t \Rightarrow s \not\approx 0 \wedge x^{lo} <_u s) \wedge (\sim t \Rightarrow (s \geq_u x) \approx t)$.

The correct invertibility condition for bit-vector predicate $(x <_u s) \approx t$ is

$$\boxed{(t \Rightarrow s \not\approx 0 \wedge x^{lo} <_u s) \wedge (\sim t \Rightarrow x^{hi} \geq_u s)}$$

This mistake was a misprint in the publication only. The corresponding implementation in Bitwuzla (commit d1984ee8cb37, from August 10, 2020) and the verification of the condition presented in this publication used the correct invertibility condition. See also the condition as implemented in Bitwuzla at commit d1984ee8cb37 in function `bzla_is_inv_ult_const`, and the definition of condition `IC` in the corresponding verification conditions `verify/benchmarks/verify_ic_bvuge_x_s_*.smt2` in the artifact of this publication, available at https://bitwuzla.github.io/papers/fmcad2020 (published on August 24, 2020 in commit 41cdf4221afb).

The publication has since been corrected and is available at https://doi.org/10.34727/2020/isbn.978-3-85448-042-6_29.