

TPT 18 Severe Issues

Introduction

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The following document contains a list of known severe issues of TPT. By severe issues we mean issues/bugs in particular versions of TPT that:

1. might cause malfunctions in the behavior of TPT
2. are hard or even impossible to find by the TPT user herself/himself
3. cause the risk that bugs/defects in a SUT (system under test) are not detected by TPT in cases where TPT would have been able to reveal these bugs/defects in the SUT without the aforementioned malfunction in the behavior of TPT.

Usually these severe issues address the situations where the problem might appear and have well-defined workarounds.

ISSUE # 33174

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TITLE:

TPT trigger rule, implausible interval discarding, when using "t" in 'Abort'/'Ignore intervals if' conditions.

ISSUE DETECTION:

02-May-2022

AFFECTED VERSIONS OF TPT:

TPT 13 to TPT 18

PRECONDITIONS:

The TPT project contains Trigger Rule assesslets using "t" in 'Abort'/'Ignore intervals if' conditions.

DETAILS:

In general, abort conditions influence whether an interval is used for analyzing THEN/ELSE-checks or not.

If an 'Abort'/'Ignore intervals if' condition is true within such an interval, the interval is discarded and no THEN/ELSE checks take place in this particular interval.

The inconsistency arises from the use of "t" in the 'Abort condition' of "Trigger condition"-checks because "t" refers for THEN-intervals to the *global*

time (time elapsed since the trigger rule evaluation started), but for ELSE-intervals to the *local* time (time since the beginning of the respective interval). Furthermore, in the 'Ignore intervals if' condition of "While condition is true"-checks "t" refers for both, THEN- and ELSE-intervals, to the *local* time (time since the beginning of the respective interval). Since "t" in the START/STOP conditions always refer to the global time, this should also be uniformly corrected to the *global* time in all 'Abort'/'Ignore intervals if' conditions. To avoid incompatibility for existing models, this behavior shall be able to explicitly be turned on/off in the TPT Tool Preferences (settings per model).

EFFECT OF THE ISSUE:

The intervals discarded according to 'Abort'/'Ignore intervals if' conditions containing "t" might be discarded or retained under implausible (but deterministic and well-defined) conditions.

WORKAROUND:

There is no real workaround, since the old behavior is not wrong! It is simply implausible or inconsistent and should therefore be adjusted to avoid misunderstandings. For this reason, the behavior was only adjusted via a preference option (configurable via TPT Tool Preferences): As long as this option is not selected in old TPT models, the behavior remains unchanged even after the fix to maintain compatibility. In new TPT models, however, the TPT Tool Preference option is automatically preset.

RESOLVED IN:

TPT 18u1