

Saturation Visualization for Vampire

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Motivation & Goal

Able to answer the following questions *quickly*:

1. Which consequences are derived?
 - ▶ Which of the consequences we anticipated were derived?
 - ▶ Which other interesting consequences were derived?
 - ▶ Which proof did Vampire find?
2. Why didn't we derive a certain clause?
 - ▶ Forgot to add some trivial fact to the encoding
 - ▶ Ordering doesn't allow inference
 - ▶ Weight is too big for clause to be selected
 - ▶ ...
3. How bad is the blowup introduced by a certain clause?
 - ▶ derived X children from the clause
 - ▶ resolves with any clause of form Y
 - ▶ clause generates a lot of never-activated clauses?
 - ▶ ?

DEMO

DEMO

Producing Saturation Output for Visualization

- ▶ `--show_preprocessing on`
- ▶ `--show_new on`
- ▶ `--show_passive on`
- ▶ `--show_active on`
- ▶ `--avatar off`
- ▶ (pipe standard and error output to file using `&>`)

Available at

- ▶ `github.com/Mailea/vampire-proof-visualization`

Future: Integration Vampire Homepage?