LogiCal

A screenshot of a social media post

Description automatically generated

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|  |  |
| --- | --- |
| Supported input | ASCII |
| ¬A | ~(A), NOT(A) |
| A ⇒ B | >(A,B), =>(A,B) |
| A ⇔ B | =(A,B), <=>(A,B) |
| A ⋀ B | &(A,B) |
| A ⋁ B | |(A,B) |
| False | 0 |
| True | 1 |
| A | A |
| ↑ | %(A,B) |
| ∀x.(F) | @x.(F) |
| ∃x.(F) | !x.(F) |
| P(x,y) | P(x,y) |

**Parser:**

* Input validation (input characters, white-space strip, missing brackets validation, check bounding, check predicate mismatch, check if proposition), extract proposition and object variables

**Interface:**

* Show whether an input expression is a proposition or predicate logic, show whether the expression is a tautology, easy comparing of hex values
* Parse any infix expression by right click context menu

**Propositions**

* Parsed in prefix notation, shown in infix notation, generate binary tree, truth tables, generate semantic tableau, simplify, DNF prefix and infix, NAND prefix and infix, binary/hex hash values, show if it is a tautology, nandifying

**Predicate logic**

* Parsed in prefix notation, shown in infix notation, generate binary tree, generate semantic tableau, show if it is a tautology
* **Useful features:**
* User-friendly UI
* Exporting graphs and binary trees to PNG
* Right-click quick parsing
* Input validation
* Parser input shortcuts