ALC.thy (~/chris/trunk/tex/talks/2015-Erlangen/)

```
abbreviation top ::"τ"        ("⊤")        where "⊤     ≡ λx. True"
abbreviation neg              ("∼")        where "∼A    ≡ λx. ¬A(x)"
abbreviation disj             (infixr "⊔" 40)  where "A⊔B   ≡ λx. A(x) ∨ B(x)"
abbreviation conj             (infixr "⊓" 41)  where "A⊓B   ≡ λx. A(x) ∧ B(x)"
abbreviation exi_r            ("∃")        where "∃r A  ≡ λx. ∃y. r x y ∧ A(y)"
abbreviation all_r            ("∀")        where "∀r A  ≡ λx. ∀y. r x y ⟶ A(y)"


abbreviation sub (infixr "⊑" 39)          where "A⊑B   ≡ ∀x. A(x) ⟶ B(x)"
abbreviation eq  (infixr "≐" 38)          where "A ≐ B ≡ A ⊑ B ∧ B ⊑ A"


(* ALC: Einfache Meta-Theorie; Lemmata aus Vortrag *)
lemma L1: "⊤ ≐ ∼⊥"                        by metis
lemma L2: "A⊓B ≐ ∼(∼A⊔∼B)"                by metis
lemma L3: "∃r C ≐ ∼(∀r (∼C))"             by metis
lemma L4: "(A ⊑ B) ≡ ∃X.(A ≐ (X ⊓ B))"    sledgehammer [remote_leo2] oops
lemma L5: "(A ⊑ B) ≡ ((A ⊓ ∼B) ≐ ⊥)"      sledgehammer [remote_leo2] oops


(* ALC: Beispiel Signatur *)
```

Sledgehammering...

100% ▾ ☑ Auto update   Update   Detach

Output README Symbols

20,62 (1063/2440)   Input/output complete   (isabelle,sidekick,UTF-8-Isabelle) N m r o UG 67/123MB 16:51