

Ferrifuzz Cheat Sheet

02 · Rule Syntax.
ff.Rule.from_string("IF ... THEN ...")

01

Grammar

IF condition THEN clause [AND clause] [WITH w]
clause := var IS [NOT] [hedge] term
Keywords: any case · names: case-sensitive,
one word each (use_underscores)

02

AND · OR · ( )

AND binds tighter than OR; ( ) overrides
IF a IS x AND b IS y OR c IS z THEN out IS w
  ≡ (a IS x AND b IS y) OR (c IS z)
IF (temp IS hot OR hum IS high)
  AND wind IS NOT strong THEN fan IS fast

03

NOT & Hedges

NOT goes right after IS: $\mu \to 1 - \mu$
very μ^2 · extremely μ^3 · plus μ^1.25 · minus μ^0.75
somewhat · more_or_less · slightly → μ^0.5
IS NOT very hot = $1 - \mu^2$ (hedge first, then NOT)

04

Outputs & Weights

THEN fan IS fast AND alarm IS on # multi-output
IF service IS good THEN tip IS medium WITH 0.5
OR not allowed after THEN · weight in [0, 1]

05

Errors & Checks

Bad rule → ff.RuleSyntaxError with a ^ caret
"IF temp hot" → expected IS after variable 'temp'
Parsing ≠ checking: unknown var / term →
system.validate() lists it · compute → ModelError

Next → 03 Membership Functions