

Logic Nomenclature

' \doteq ' is read "designates."

$X^\uparrow \doteq$ property X is increasing.

$X^\downarrow \doteq$ property X is decreasing.

$X^c \doteq$ property X is constant.

$X^{\min} \doteq$ the value of property X is minimum.

$X^{\max} \doteq$ the value of property X is maximum.

$\approx \doteq$ approximate value.

$X^{\approx\min} \doteq$ the value of property X is approximately at minimum value.

$X^{\approx\max} \doteq$ the value of property X is approximately at maximum value.

$X^{\rightarrow\max} \doteq$ the value of property X approaches maximum value.

$X^{\rightarrow\min} \doteq$ the value of property X approaches minimum value.

$X^{\rightarrow 0} \doteq$ the value of property X approaches zero.

$\Delta X \doteq$ change in property X.

$X^{\uparrow\alpha;t(1)} \doteq$ X increases to α at time 1.

t_1 or $t(1) \doteq$ time at point one.

$\wedge \doteq$ logical "and."

$\vee \doteq$ logical "or."

$\supset \doteq$ logical "implies."

$\equiv \doteq$ logical "if and only if," or equivalence of sets.

$\sim \doteq$ logical "not."

$\forall \doteq$ logical universal quantifier "for all."

$\exists \doteq$ logical existential quantifier "there exists."

$\exists^1 \doteq$ logical existential quantifier "there exists exactly one."

$\exists^n \doteq$ logical existential quantifier "there exist n."

$\sim\exists^{n+1} \doteq$ logical existential quantifier "there exist at most n."

$\hat{w}F(w) \doteq$ "the class of w determined by $F(w)$."

$\iota \doteq$ logical description quantifier "that" or "the."

$\iota xF(x) \doteq$ the name of the unique object that makes $F(x)$ true.

$(X | y) \doteq$ property X is qualified by y, and is read "X given y" or "X restricted by y."

$X_{\mathcal{A}} \doteq$ referent family of affect relations of system X.

$P(y)\mathcal{A} \doteq$ affect relation set defined by P(y).

$\iota_{P(y)}\mathcal{A} \doteq$ The unique affect relation set defined by P(y).

$\mathcal{A} \doteq$ *ATIS* quantifier.

Typographical Nomenclature

The following type fonts and letters of those fonts have been chosen to represent various aspects for the formalizing of *ATIS*.

Ambiente DB

\mathcal{D} (Degeneration) \mathcal{G} (Growth) \mathcal{X} (Complexity) \mathcal{Z} (Size)

Andy (Element and Set Designations)

a, b, c, \dots, x, y, z A, B, C, \dots, X, Y, Z

Ariane Extra Bold DB

e (Constraint) \mathcal{C} (Connected) \mathcal{D} (Dynamic Teleological System)
 \mathcal{I} (Intentional System) \mathcal{S} (State)

Arkansas DB (Warden^{3rd} System Properties & Specialized Properties)

Warden^{3rd} System Properties: \mathcal{C} (Communication System)
 \mathcal{F} (Fielded Military System) \mathcal{I} (Intelligence System) \mathcal{L} (Control System)
 \mathcal{O} (Organic System) $\sim\mathcal{O}$ (Inorganic System) \mathcal{P} (Paralyzed Strategic System)
 \mathcal{S} (Strategic System) \mathcal{W} (Warden^{3rd} Properties)
Specialized Properties: \mathcal{A} (APT&C Value) \mathcal{G} (Goal [of System])
 \mathcal{M} (Measure)

Benjamin (Sets)

A, B, C, ..., X, Y, Z

Best DB (Best DB)

\mathcal{C} (Compatibility)

\mathcal{I} (Inhibiting Process)

\mathcal{L} (Linearly-Ordered Function)

\mathcal{P} (Property)

Blackadder JTC (Morphisms and Specialized Properties)

Morphisms:

$\underline{\mathcal{A}}$ (Automorphism)

$\underline{\mathcal{C}}$ (Commensalmorphism)

$\underline{\mathcal{E}}$ (Endomorphism)

$\underline{\mathcal{H}}$ (Homeomorphism)

$\underline{\mathcal{I}}$ (Isomorphism)

$\underline{\mathcal{M}}$ (Homomorphism)

$\underline{\mathcal{N}}$ (Monomorphism)

$\underline{\mathcal{S}}$ (Symbiomorphism)

Specialized Properties:

$\underline{\mathcal{G}}$ (Growth)

$\underline{\mathcal{P}}$ (Predicted State)

$\underline{\mathcal{U}}$ (Universe)

$\underline{\mathcal{V}}$ (Vector)

Brush Script (Behavior Qualifiers)

\mathcal{I} (Information)

\mathcal{G} (Lagged [Behavior])

\mathcal{L} (Leading [Behavior])

\mathcal{V} (Converging [Behavior])

Calima \mathcal{DB} (Behavioral Affect Relations)

\mathcal{C} (Control Affect Relations)

\mathcal{D} (Development Inquiry Affect Relations)

\mathcal{F} (Facilitating Affect Relations)

\mathcal{L} (Legitimate Affect Relations)

\mathcal{Q} (Inquiry Affect Relations)

\mathcal{S} (Research Inquiry Affect Relations)

\mathcal{U} (Support Affect Relations)

\mathcal{E} (Expert Affect Relations)

\mathcal{J} (Instructional Affect Relations)

\mathcal{P} (Punishment Affect Relations)

\mathcal{R} (Referent Affect Relations)

\mathcal{T} (Support Affect Relations)

\mathcal{W} (Reward Affect Relations)

French Script \mathcal{MS} (Warden^{3rd} Systems, Specialized Properties, and Set Designations)

Warden^{3rd} System Properties:

\mathcal{I} (Infrastructure System)

\mathcal{L} (Leadership System)

\mathcal{C} (Command System)

\mathcal{O} (Organic-Essentials System)

\mathcal{P} (Population System)

Specialized Properties:

\mathcal{B} (Behavior)

\mathcal{D} (Dispositional [Behavior])

\mathcal{f} (Feed Functions)

\mathcal{F} (Family of Systems)

\mathcal{R} (Reals; i.e., Real Numbers)

\mathcal{S} (System)

\mathcal{S}^u (Subsystem)

Set Designations:

$\mathcal{U}, \mathcal{V}, \mathcal{W}, \mathcal{X}, \mathcal{Y}, \mathcal{Z}$ (Set Designations)

Lucida Calligraphy

\mathcal{A} (Affect Relations Set) C (Component Qualifier) \mathcal{E} (Event)
 \mathcal{G} (General System) I (Information Qualifier) \mathcal{M} (Model)
 \mathcal{p} (Put Functions [subscript, p]) \mathcal{P} (Partitioning Set) \mathcal{T} (Transition Function Set)
 \mathcal{W} (Wholeness)

MS Reference Sans A (ATIS quantifier)

Vladimir Script

t (Time; i.e., at a given time) \mathcal{F} (Filtration)
 \mathcal{L} (Logisticians; i.e., System Qualifiers) \mathcal{S} (General System State)
 \mathcal{T} (Time Set, Linearly Ordered)