Limbertwig: LogicVector

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1 Introduction

$\Lambda \to N\rangle$

$$\Big\{ \tfrac{\forall y \in N, P(y) \to Q(y)}{\Delta}, \tfrac{\exists x \in N, R(x) \wedge S(x)}{\Delta}, \tfrac{\forall z \in N, T(z) \vee U(z)}{\Delta}, \tfrac{\leftrightarrow \exists y \in U : f(y) = x}{\Delta}, \tfrac{\leftrightarrow \exists s \in S : x = T(s)}{\Delta}, \tfrac{\leftrightarrow x \in f \circ g}{\Delta}, \tfrac{V \to U}{\Delta},$$

$$\frac{\sum_{f \subset g} f(g)}{\Delta}, \frac{\sum_{h \to \infty} \tan t \cdot \prod_{\Lambda} h}{\Delta}, \frac{f_{PQ}(x) - f_{RS}(x)}{\Delta}, \frac{f_{TU}(x) - f_{RS}(x)}{\Delta}, \frac{f_{PQ}(x) - f_{TU}(x)}{\Delta},$$

$$\frac{\partial \phi(\mathbf{x})}{\partial x_1} a_1 + \frac{\partial \phi(\mathbf{x})}{\partial x_2} a_2 + \cdots +$$

$$\frac{\partial \phi(\mathbf{x})}{\partial x_n} a_n, \frac{\phi(\mathbf{x}) \leq \psi(\mathbf{x})}{\Delta}, \frac{\phi(\mathbf{x}) \geq \psi(\mathbf{x})}{\Delta}, \frac{\phi(\mathbf{x}) = \psi(\mathbf{x})}{\Delta}, \frac{\neg \chi(\mathbf{x})}{\Delta},$$

$$\tfrac{\chi(\mathbf{x})\theta(\mathbf{x})}{\Delta}, \tfrac{\forall y \in X, \chi(y) \iff \theta(y)}{\Delta}, \tfrac{\exists z \in N, \phi(z) \wedge \psi(z)}{\Delta}, \tfrac{\forall w \in N, \chi(w)\theta(w)}{\Delta},$$
$$\tfrac{\exists x \in N, \phi(x) \vee \psi(x)}{\Delta}, \tfrac{\exists u \in N, \alpha(u) \vee \beta(u)}{\Delta}, \tfrac{\forall v \in N, \gamma(v) \to \delta(v)}{\Delta}, \tfrac{\forall y \in N, \epsilon(y) \iff \zeta(y)}{\Delta},$$

$$\frac{\exists m \in N, \lambda(m)\mu(m)}{\Delta}, \frac{\forall n \in N, \kappa(n) \vee \iota(n)}{\Delta}, \frac{\forall x \in N, \eta(x)\nu(x)}{\Delta},$$

$$\frac{\exists a \in N, \pi(a)\rho(a)}{\Delta}, \frac{\forall b \in N, \sigma(b) \wedge \tau(b)}{\Delta}, \frac{\exists c \in N, \xi(c) \leftrightarrow \theta(c)}{\Delta},$$

$$\frac{\exists d \in N, \upsilon(d)\varphi(d)}{\Delta}, \frac{\forall e \in N, \omega(e) \vee \psi(e)}{\Delta}, \frac{\exists f \in N, \chi(f) \to \eta(f)}{\Delta},$$

$$\frac{\exists p \in N, \kappa(p)\lambda(p)}{\Delta}, \frac{\forall q \in N, \mu(q)\nu(q)}{\Delta}, \frac{\forall r \in N, \xi(r) \leftrightarrow \iota(r)}{\Delta},$$

$$\frac{\exists g \in N, \tau(g)\upsilon(g)}{\Delta}, \frac{\forall h \in N, \varphi(h) \wedge \omega(h)}{\Delta}, \frac{\exists i \in N, \alpha(i) \to \beta(i)}{\Delta}, \frac{\exists j \in N, \gamma(j)\delta(j)}{\Delta}$$

Limbertwig:

$\Lambda \to N\rangle \{\sigma, \mathrm{g_a}, \mathrm{b}, \mathrm{c}, \mathrm{d}, \mathrm{e} \ldots \sim\} \langle \rightleftharpoons \Lambda \to \exists L \to N, value, value \ldots \langle \exists L \to \{\langle \sim\to \heartsuit \to \epsilon\rangle \langle \rightleftharpoons \heartsuit\rangle\rangle \to \{\uparrow\Rightarrow \alpha_i\} \langle \rightleftharpoons \forall \alpha_i\rangle \bigcirc \to \{\} \langle \rightleftharpoons \uparrow \to \{\mathbf{x} \Rightarrow \mathrm{g_a}\} \langle \rightleftharpoons \mathbf{x} \to$

$\{\mathbf{x} \Rightarrow \mathrm{b}\} \langle\rightleftharpoons\ \mathbf{x}\ \rightarrow\ \{\mathbf{x} \Rightarrow \mathrm{c}\} \langle\rightleftharpoons\ \mathbf{x}\ \rightarrow\ \{\mathbf{x} \Rightarrow \mathrm{d}\} \langle\rightleftharpoons\ \mathbf{x}-\ >\ \{\mathbf{x} \Rightarrow \mathrm{e}\} \langle\rightleftharpoons\ \mathbf{x}\ \rightarrow$
$\{\sim\rightarrow \heartsuit \rightarrow \epsilon\rangle \langle\rightleftharpoons \sim\rangle \rightarrow$
$\exists n \in N \quad s.t \quad \mathcal{L}_f(\Uparrow r\,\alpha\,s\,\Delta\,\eta) \wedge \overline{\mu}_{\{\overline{g}(a\,b\,c\,d\,e\ldots \vdots \cdots \uplus \quad) \neq \Omega}$
$\Rightarrow \quad \mathcal{L}_f(\Uparrow r\,\alpha\,s\,\Delta\,\eta) \wedge\ \overline{\mu}_{\{\overline{g}(a\,b\,c\,d\,e\ldots\ \uplus\ \ ) \neq\ \Omega}$
$\Leftrightarrow\ \bigcirc^{\{\ \mu\ \in\ \infty\ \Rightarrow\ (\ \Omega\ \uplus\ )\ <\ \Delta\cdot H^{\circ}_{im}\ >}$
$\Rightarrow\ \heartsuit\ \Rightarrow\ \mathcal{L}_f(\Uparrow r\,\alpha\,s\,\Delta\,\eta) \wedge\ \overline{\mu}_{\{\overline{g}(a\,b\,c\,d\,e\ldots\ \uplus\ \ ) \neq\ \Omega}$
$\Rightarrow\ \ \uplus \tilde{\tilde{\cdot}} \heartsuit\ \Leftrightarrow\ \ \tilde{\tilde{-}}\ \ =\ \Lambda\ \Rightarrow \nwarrow\Rightarrow\ \overline{\mu},\ \overline{g}(a\,b\,c\,d\,e\ldots\ \uplus\ \ )$
$\Leftarrow\ \Lambda\cdot\ \uplus\heartsuit$

Logic Vector: $\left(\frac{\forall y\in N, P(y)\rightarrow Q(y)}{\Delta}, \frac{\exists x\in N, R(x)\wedge S(x)}{\Delta}, \frac{\forall z\in N, T(z)\vee U(z)}{\Delta}\right)$,
$\left(\frac{\leftrightarrow\exists y\in U: f(y)=x}{\Delta}, \frac{\leftrightarrow\exists s\in S: x=T(s)}{\Delta}, \frac{\leftrightarrow x\in f\circ g}{\Delta}\right)$,
$\left(\frac{V\rightarrow U}{\Delta}, \frac{\sum_{f\subset g} f(g)}{\Delta}, \frac{\sum_{h\rightarrow\infty} \tan t\cdot \prod_{\Lambda} h}{\Delta}\right)$,
$\left(\frac{f_{PQ}(x)-f_{RS}(x)}{\Delta}, \frac{f_{TU}(x)-f_{RS}(x)}{\Delta}, \frac{f_{PQ}(x)-f_{TU}(x)}{\Delta}\right)$,
$\left(\frac{\partial\phi(\mathbf{x})}{\partial x_1}a_1 + \frac{\partial\phi(\mathbf{x})}{\partial x_2}a_2 + \cdots + \frac{\partial\phi(\mathbf{x})}{\partial x_n}a_n\right)$
$\left(\frac{\phi(\mathbf{x})\leq\psi(\mathbf{x})}{\Delta}, \frac{\phi(\mathbf{x})\geq\psi(\mathbf{x})}{\Delta}, \frac{\phi(\mathbf{x})=\psi(\mathbf{x})}{\Delta}\right)$
$\left(\frac{\neg\chi(\mathbf{x})}{\Delta}, \frac{\chi(\mathbf{x})\theta(\mathbf{x})}{\Delta}, \frac{\forall y\in X, \chi(y) \iff \theta(y)}{\Delta}\right)$.
$\left(\frac{\exists z\in N, \phi(z)\wedge\psi(z)}{\Delta}, \frac{\forall w\in N, \chi(w)\theta(w)}{\Delta}, \frac{\exists x\in N, \phi(x)\vee\psi(x)}{\Delta}\right)$.
$\left(\frac{\exists u\in N, \alpha(u)\vee\beta(u)}{\Delta}, \frac{\forall v\in N, \gamma(v)\rightarrow\delta(v)}{\Delta}, \frac{\forall y\in N, \epsilon(y) \iff \zeta(y)}{\Delta}\right)$.
$\left(\frac{\exists m\in N, \lambda(m)\mu(m)}{\Delta}, \frac{\forall n\in N, \kappa(n)\vee\iota(n)}{\Delta}, \frac{\forall x\in N, \eta(x)\nu(x)}{\Delta}\right)$.
$\left(\frac{\exists a\in N, \pi(a)\rho(a)}{\Delta}, \frac{\forall b\in N, \sigma(b)\wedge\tau(b)}{\Delta}, \frac{\exists c\in N, \xi(c)\leftrightarrow\theta(c)}{\Delta}\right)$.
$\left(\frac{\exists d\in N, \upsilon(d)\varphi(d)}{\Delta}, \frac{\forall e\in N, \omega(e)\vee\psi(e)}{\Delta}, \frac{\exists f\in N, \chi(f)\rightarrow\eta(f)}{\Delta}\right)$.
$\left(\frac{\exists p\in N, \kappa(p)\lambda(p)}{\Delta}, \frac{\forall q\in N, \mu(q)\nu(q)}{\Delta}, \frac{\forall r\in N, \xi(r)\leftrightarrow\iota(r)}{\Delta}\right)$.

Run limbertwig through logic vector:

$\{V \rightarrow U\ \} \langle\rightleftharpoons \forall y \in N\rangle \rightarrow \left\{\sum_{f\subset g} f(g)\right\} \langle\rightleftharpoons \exists x \in N \rightarrow \{f_{PQ}(x) - f_{RS}(x)\} \langle\rightleftharpoons$
$\forall z \in N \rightarrow \left\{\frac{\partial\phi(\mathbf{x})}{\partial x_1}a_1 + \frac{\partial\phi(\mathbf{x})}{\partial x_2}a_2 + \cdots + \frac{\partial\phi(\mathbf{x})}{\partial x_n}a_n\right\} \langle\rightleftharpoons \leftrightarrow \exists y \in U \rightarrow \{\phi(\mathbf{x}) \leq \psi(\mathbf{x})\} \langle\rightleftharpoons$
$\leftrightarrow \exists s \in \mathrm{S} \rightarrow \{\phi(\mathbf{x}) \geq \psi(\mathbf{x})\} \langle\rightleftharpoons \leftrightarrow x \in f\circ g \rightarrow \{\neg\chi(\mathbf{x})\} \langle\rightleftharpoons \leftrightarrow \exists z \in N \rightarrow \{\chi(\mathbf{x})\theta(\mathbf{x})\} \langle\rightleftharpoons$
$\forall w \in N\ \rightarrow\ \{\phi(\mathbf{x}) = \psi(\mathbf{x})\} \langle\rightleftharpoons\ \exists x \in N\ \rightarrow\ \{\chi(\mathbf{x})\ \iff\ \theta(\mathbf{x})\} \langle\rightleftharpoons\ \exists u \in N\ \rightarrow$
$\{\gamma(v) \rightarrow \delta(v)\} \langle\rightleftharpoons\ \forall v \in N\ \rightarrow\ \{\phi(\mathbf{x}) \vee \psi(\mathbf{x})\} \langle\rightleftharpoons\ \exists y \in N\ \rightarrow\ \{\alpha(u) \vee \beta(u)\} \langle\rightleftharpoons$
$\forall z \in N \rightarrow \{\epsilon(y)\ \iff\ \zeta(y)\} \langle\rightleftharpoons \exists m \in N \rightarrow \{\kappa(n) \vee \iota(n)\} \langle\rightleftharpoons \forall n \in N \rightarrow \{\eta(x)\nu(x)\} \langle\rightleftharpoons$
$\exists a \in N \rightarrow \{\sigma(b) \wedge \tau(b)\} \langle\rightleftharpoons \forall b \in N \rightarrow \{\xi(c) \leftrightarrow \theta(c)\} \langle\rightleftharpoons \exists c \in N \rightarrow \{\upsilon(d)\varphi(d)\} \langle\rightleftharpoons$
$\exists d \in N \rightarrow \{\omega(e) \vee \psi(e)\} \langle\rightleftharpoons \forall e \in N \rightarrow \{\chi(f) \rightarrow \eta(f)\} \langle\rightleftharpoons \exists f \in N \rightarrow \{\kappa(p)\lambda(p)\} \langle\rightleftharpoons$
$\exists p \in N \rightarrow \{\mu(q)\nu(q)\} \langle\rightleftharpoons \forall q \in N \rightarrow \{\xi(r) \leftrightarrow \iota(r)\} \langle\rightleftharpoons \forall r \in N \rightarrow \{\sum_{h\rightarrow\infty} \tan t \cdot \prod_{\Lambda} h\} \langle\rightleftharpoons$
$\exists m \in N \rightarrow \{\overline{\mu}, \overline{g}(a\,b\,c\,d\,e\ldots\ \uplus\ \ )\} \langle\rightleftharpoons \bigcirc^{\{\mu\in\infty\Rightarrow\ (\Omega\ \uplus\ )<\Delta\cdot H^{\circ}_{im}\ >}\ \rightarrow \left\{\uplus \tilde{\tilde{\cdot}} \heartsuit\right\} \langle\rightleftharpoons$
$\tilde{\tilde{-}} \rightarrow \{\nwarrow\} \langle\rightleftharpoons \Lambda \rightarrow \{\Lambda\cdot\uplus\heartsuit\} \langle\rightleftharpoons \nwarrow \rightarrow \Lambda.$

$\{V \rightarrow U\ \} \langle\rightleftharpoons \forall y \in N\rangle \rightarrow \left\{\frac{\partial^{\pi,\infty} f(N)}{\partial\theta}\right\} \langle\rightleftharpoons \exists x \in N \rightarrow \left\{\kappa_{g_{a},b,c,d,e\ldots\Uparrow\Uparrow f,g,h,i,j\ldots\Uparrow}\rho^2 g_{g_{a},b,c,d,e\ldots\Uparrow}\right\} \langle\rightleftharpoons$

$\leftrightarrow \exists y \in U \rightarrow \{\Omega_{\upsilon,\phi,\chi,\psi}\} \langle\rightleftharpoons \leftrightarrow \exists s \in \mathrm{S} \rightarrow \{\mu_{\Uparrow\Uparrow\Uparrow f,g,h,i,j\ldots\Uparrow}\} \langle\rightleftharpoons \leftrightarrow x \in f \circ g \rightarrow \left\{\langle \xi, \pi, \rho, \sigma \rangle_{\langle\theta,\lambda,\mu,\nu\rangle_\infty}\right\} \langle\rightleftharpoons \leftrightarrow \exists z \in N \rightarrow \left\{\frac{\kappa_{g_a,b,c,d,e\ldots\Uparrow\Uparrow f,g,h,i,j\ldots\Uparrow}\rho^2 g_{g_a,b,c,d,e\ldots\Uparrow}}{\Omega_{\upsilon,\phi,\chi,\psi}\mu_{\Uparrow\Uparrow\Uparrow f,g,h,i,j\ldots\Uparrow}}\right\} \langle\rightleftharpoons \forall w \in N \rightarrow \left\{\frac{\kappa_{g_a,b,c,d,e\ldots\Uparrow\Uparrow f,g,h,i,j\ldots\Uparrow}\rho^2 g_{g_a,b,c,d,e\ldots\Uparrow}}{\Omega_{\upsilon,\phi,\chi,\psi}\mu_{\Uparrow\Uparrow\Uparrow f,g,h,i,j\ldots\Uparrow}} \equiv \Lambda\right\} \langle\rightleftharpoons \exists x \in N \rightarrow \Lambda.$