

$$r(P,T)$$

$$\pi_{@c_1,...,@c_n,} \\ t(p_1) \rightarrow u_1, ..., t(p_q) \rightarrow u_q, \\ A_1, ..., A_m W_1, ..., W_y, N_1, ..., N_k$$

$$\sigma_{rn \leq t(l)}$$

$$\chi_{@c_1,...,@c_n;t(o_1),...,t(o_j);row_number() \rightarrow rn}$$

$$\alpha_{t(P_1(.)) \rightarrow N_1}$$

...

$$\alpha_{t(P_k(.)) \rightarrow N_k}$$

$$\chi_{@c_1,...,@c_n,x_1^y,...,x_{n_y}^y;t(oc_y);t(w_y(.)) \rightarrow W_y}$$

...

$$\chi_{@c_1,...,@c_n,x_1^1,...,x_{n_1}^1;t(oc_1);t(w_1(.)) \rightarrow W_1}$$

$$\sigma_{t(h)}$$

$$\gamma_{@c_1,...,@c_n,t(g_1),...,t(g_i);t(a_1(.)) \rightarrow A_1,t(a_m(.)) \rightarrow A_m}$$

$$\sigma_{t(w)}$$

$$rf(F,T)$$

$$G$$

$$\pi_{z_1,...,z_{q'},N' \rightarrow N}$$

$$\bowtie$$

$$c_1 \stackrel{id}{=} @c_1, ..., c_n \stackrel{id}{=} @c_n$$

$$Scan_{T \rightarrow t_1}$$

$$\gamma_{@c_1,...,@c_n;NEST(.) \rightarrow N}$$

$$r(P,T)$$

$$E \rightarrow T$$