

effect-rule^{0,22}

$\forall i, x:\text{Id}, k:\text{Knd}, ds:x:\text{Id} \text{ fp} \rightarrow \text{Type}, da:a:\text{Knd} \text{ fp} \rightarrow \text{Type},$
 $f:(\text{State}(ds) \rightarrow \text{Valtype}(da;k) \rightarrow ds(x)?\text{Void}).$

@ i : with declarations

$ds:ds$

$da:da$

effect of $k(v)$ is $x := f \text{ s } v$

realizes es .

$(\forall x:\text{Id}. \text{vartype}(i;x) \subseteq \rho \text{ } ds(x)?\text{Top})$

$\& (\forall e:\text{E}. \text{loc}(e) = i \in \text{Id} \Rightarrow \text{valtype}(e) \subseteq \rho \text{ Valtype}(da;\text{kind}(e)))$

$\& ((\text{isrcv}(k) \Rightarrow \text{destination}(\text{lnk}(k)) = i) \Rightarrow \text{kindtype}(i;k) \subseteq \rho \text{ Valtype}(da;k))$

$\& (\forall e:\text{E}.$

$\text{loc}(e) = i \in \text{Id}$

$\Rightarrow \text{kind}(e) = k \in \text{Knd}$

$\Rightarrow (x \text{ after } e) = f((\text{state when } e), \text{val}(e)) \in ds(x)?\text{Top})$