

$$\frac{\frac{\frac{}{x:\text{GHC.Base.String}\rightarrow(\text{GHC.Types.IO}()) \vdash_e e:\text{GHC.Base.String}\rightarrow(\text{GHC.Types.IO}())}{}{\text{Var}}}{}{\text{App}} \quad \frac{\frac{\frac{}{x:\text{GHC.Prim.Addr}\#\rightarrow([\text{GHC.Types.Char}] \vdash_e e:\text{GHC.Prim.Addr}\#\rightarrow([\text{GHC.Types.Char}])}{}{\text{Var}}}{}{\text{App}} \quad \frac{}{\vdash_e e:\text{GHC.Prim.Addr}\#}{}{\text{Lit}}}{\frac{}{x:\text{GHC.Prim.Addr}\#\rightarrow([\text{GHC.Types.Char}] \vdash_e e:[\text{GHC.Types.Char}]}{}{\text{App}}}}{\frac{}{x:\text{GHC.Base.String}\rightarrow(\text{GHC.Types.IO}()) , y:\text{GHC.Prim.Addr}\#\rightarrow([\text{GHC.Types.Char}] \vdash_e e:\text{GHC.Types.IO}())}{}{\text{App}}}$$

$$\frac{\frac{\frac{}{x:(\forall\alpha:\star)(\text{GHC.Types.IO}\alpha)\rightarrow(\text{GHC.Types.IO}\alpha) \vdash_e e:(\forall\alpha:\star)(\text{GHC.Types.IO}\alpha)\rightarrow(\text{GHC.Types.IO}\alpha)}{}{\text{Var}}}{}{\text{AppT}} \quad \frac{}{x:\text{GHC.Types.IO}() \vdash_e e:\text{GHC.Types.IO}()}{}{\text{Var}}}{\frac{}{x:(\forall\alpha:\star)(\text{GHC.Types.IO}\alpha)\rightarrow(\text{GHC.Types.IO}\alpha) , y:\text{GHC.Types.IO}() \vdash_e e:\text{GHC.Types.IO}()}{}{\text{App}}}$$