ecl-halt[11,40]

ecl-halt(ds; da; x)
$\equiv_{\text{def}}$ ecl_ind(x;
k,$test$.(λn,L. $(n = 0)$
$\wedge$ ($\exists L'$:event-info(ds;da) List
$\exists s$:decl-state(ds)
$\exists v$:ma-valtype(da; k)
(((L = append(L'; cons(<k, s, v>; []))) $\wedge$ ($\uparrow$($test$(s,v))))
$\wedge$ l_all(L';
event-info(ds;da);
t.($\neg$spreadn(t; k',s,v.(($k = k'$) c$\wedge$ ($\uparrow$($test$(s,v)))))))));
a,b,ha,hb.(λn,L. (($0 < n$) $\wedge$ (ha(n,L)))
$\vee$ ($\exists L_1$,L_2:event-info(ds;da) List
((L = append(L_1; L_2)) $\wedge$ (ha(0,L_1)) $\wedge$ (hb(n,L_2)))));
a,b,ha,hb.(λn,L. (($n = 0$)
$\Rightarrow$ (((ha(0,L))
$\wedge$ ($\exists L'$:event-info(ds;da) List
(iseg(event-info(ds;da); L'; L) $\wedge$ (hb(0,L')))))
$\vee$ ((hb(0,L))
$\wedge$ ($\exists L'$:event-info(ds;da) List
(iseg(event-info(ds;da); L'; L) $\wedge$ (ha(0,L')))))))
$\wedge$ (($0 < n$)
$\Rightarrow$ (((ha(n,L))
$\wedge$ ($\forall m$:$\mathbb{N}$, L':(event-info(ds;da) List).
iseg(event-info(ds;da); L'; L) $\Rightarrow$ (hb(m,L')) $\Rightarrow$ ((L' = L) $\wedge$ ($n \leq m$))))
$\vee$ ((hb(n,L))
$\wedge$ ($\forall m$:$\mathbb{N}$, L':(event-info(ds;da) List).
iseg(event-info(ds;da); L'; L)
$\Rightarrow$ (ha(m,L'))
$\Rightarrow$ ((L' = L) $\wedge$ ($n \leq m$)))))));
a,b,ha,hb.(λn,L. ((ha(n,L))
$\wedge$ ($\forall m$:$\mathbb{N}$, L':(event-info(ds;da) List).
iseg(event-info(ds;da); L'; L) $\Rightarrow$ (hb(m,L')) $\Rightarrow$ ((L' = L) $\wedge$ ($n \leq m$))))
$\vee$ ((hb(n,L))
$\wedge$ ($\forall m$:$\mathbb{N}$, L':(event-info(ds;da) List).
iseg(event-info(ds;da); L'; L) $\Rightarrow$ (ha(m,L')) $\Rightarrow$ ((L' = L) $\wedge$ ($n \leq m$)))));
a,ha.(λn,L. $(0 < n)$ $\wedge$ (star-append(event-info(ds;da); (ha(0)); (ha(n)))(L)));
a,m,ha.ha;
a,m,ha.(λn,L. (($0 < n$) $\wedge$ (ha(n,L))) $\vee$ (($n = m$) $\wedge$ (ha(0,L))));
a,l,ha.(λn,L. ((ha(n,L)) $\wedge$ ($\neg$($n \in l$)))
$\vee$ (($n = 0$) $\wedge$ l_exists(l; $\mathbb{N}$; m.(ha(m,L))))))

clarification:

ecl-halt(ds; da; x)
$\equiv_{\text{def}}$ ecl_ind(x;
k,$test$.(λn,L. ($n = 0 \in \mathbb{Z}$)
$\wedge$ ($\exists L'$:event-info(ds;da) List
$\exists s$:decl-state(ds)
$\exists v$:ma-valtype(da; k)
(((L = append(L'; cons(<k, s, v>; [])) $\in$ (event-info(ds;da) List))
$\wedge$ ($\uparrow$($test$(s,v))))
$\wedge$ l_all(L';
event-info(ds;da);
t.($\neg$spreadn(t; k',s,v.(($k = k' \in$ Knd) c$\wedge$ ($\uparrow$($test$(s,v)))))))));
a,b,ha,hb.(λn,L. (($0 < n$) $\wedge$ (ha(n,L)))
$\vee$ ($\exists L_1$:event-info(ds;da) List
$\exists L_2$:event-info(ds;da) List
((L = append(L_1; L_2) $\in$ (event-info(ds;da) List))
$\wedge$ (ha(0,L_1))
$\wedge$ (hb(n,L_2)))));
a,b,ha,hb.(λn,L. (($n = 0 \in \mathbb{Z}$)
$\Rightarrow$ (((ha(0,L))
$\wedge$ ($\exists L'$:event-info(ds;da) List
(iseg(event-info(ds;da); L'; L) $\wedge$ (hb(0,L')))))
$\vee$ ((hb(0,L))
$\wedge$ ($\exists L'$:event-info(ds;da) List
(iseg(event-info(ds;da); L'; L) $\wedge$ (ha(0,L')))))))
$\wedge$ (($0 < n$)
$\Rightarrow$ (((ha(n,L))
$\wedge$ ($\forall m$:$\mathbb{N}$, L':(event-info(ds;da) List).
iseg(event-info(ds;da); L'; L)
$\Rightarrow$ (hb(m,L'))
$\Rightarrow$ ((L' = $L \in$ (event-info(ds;da) List)) $\wedge$ ($n \leq m$))))
$\vee$ ((hb(n,L))
$\wedge$ ($\forall m$:$\mathbb{N}$, L':(event-info(ds;da) List).
iseg(event-info(ds;da); L'; L)
$\Rightarrow$ (ha(m,L'))
$\Rightarrow$ ((L' = $L \in$ (event-info(ds;da) List)) $\wedge$ ($n \leq m$)))));
a,b,ha,hb.(λn,L. ((ha(n,L))
$\wedge$ ($\forall m$:$\mathbb{N}$, L':(event-info(ds;da) List).
iseg(event-info(ds;da); L'; L)
$\Rightarrow$ (hb(m,L'))
$\Rightarrow$ ((L' = $L \in$ (event-info(ds;da) List)) $\wedge$ ($n \leq m$))))
$\vee$ ((hb(n,L))
$\wedge$ ($\forall m$:$\mathbb{N}$, L':(event-info(ds;da) List).
iseg(event-info(ds;da); L'; L)
$\Rightarrow$ (ha(m,L'))
$\Rightarrow$ ((L' = $L \in$ (event-info(ds;da) List)) $\wedge$ ($n \leq m$)))));

a,ha.(λn,L. $(0 < n) \wedge$ (star-append(event-info(ds;da); (ha(0)); (ha(n)))(L)));
a,m,ha.ha;
a,m,ha.(λn,L. $((0 < n) \wedge (ha(n,L))) \vee ((n = m \in \mathbb{Z}) \wedge (ha(0,L))))$;
a,l,ha.(λn,L. $((ha(n,L)) \wedge (\neg(n \in l \in \mathbb{N})))$
$\vee ((n = 0 \in \mathbb{Z}) \wedge$ l_exists(l; $\mathbb{N}$; m.(ha(m,L))))))

http://www.nuprl.org/FDLcontent/p0_963683_/p51_57264_{ecl-halt}.html