

Inference at *
of proof for Lemma p-conditional-domain:

$\vdash \forall A, B:\text{Type}, f, g:(A \rightarrow (B + \text{Top})), x:A.$
 $(\uparrow \text{can-apply}([f?g];x)) \iff ((\uparrow \text{can-apply}(f;x)) \vee (\uparrow \text{can-apply}(g;x)))$
by ((RepUR “p-conditional can-apply“ (0).)
CollapseTHEN (MaAuto.)).

1:

1. $A : \text{Type}$
 2. $B : \text{Type}$
 3. $f : A \rightarrow (B + \text{Top})$
 4. $g : A \rightarrow (B + \text{Top})$
 5. $x : A$
 6. $\uparrow \text{isl}(\text{if } \text{isl}(f(x)) \text{ then } f(x) \text{ else } g(x) \text{ fi})$
 7. $\neg(\uparrow \text{isl}(f(x)))$
- $\vdash \uparrow \text{isl}(g(x))$

2:

1. $A : \text{Type}$
 2. $B : \text{Type}$
 3. $f : A \rightarrow (B + \text{Top})$
 4. $g : A \rightarrow (B + \text{Top})$
 5. $x : A$
 6. $(\uparrow \text{isl}(f(x))) \vee (\uparrow \text{isl}(g(x)))$
- $\vdash \uparrow \text{isl}(\text{if } \text{isl}(f(x)) \text{ then } f(x) \text{ else } g(x) \text{ fi})$
- .