

# mu tac

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The *mu tac* command applies a proof rule to definite description ( $\mu$ ) expressions. The definite description expressions must be in antecedent or consequent predicates.

$$\frac{\vdash? \exists_1 s \bullet true, p(\mu s \bullet e) \quad | \exists_1 s \bullet true \vdash? \exists s \bullet p[e/(\mu s \bullet e)]}{\vdash? p(\mu s \bullet e)}$$

$$\frac{| p(\mu s \bullet e) \vdash? \exists_1 s \bullet true \quad | \exists_1 s \bullet true, \exists s \bullet p[e/(\mu s \bullet e)] \vdash?}{| p(\mu s \bullet e) \vdash?}$$

The proof rule is not applicable if there are any names in the schema  $s$  that refer to declarations that are in  $p$  but not in  $s$ .

## 1. Tactic example

*“mu tac”*  $e_2 \ e_3$

This example applies the *mu tac* command to definite description expressions  $e_2$  and  $e_3$ .

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