
MODULE *DualChannel*

EXTENDS *Sequences*
 CONSTANT *Message*
 VARIABLES *chan1, chan2, q1, q2*

Chan1 \triangleq INSTANCE *InnerChannel* WITH *chan* \leftarrow *chan1*, *q* \leftarrow *q1*
Chan2 \triangleq INSTANCE *InnerChannel* WITH *chan* \leftarrow *chan2*, *q* \leftarrow *q2*

Init \triangleq \wedge *Chan1!Init*
 \wedge *Chan2!Init*

TypeInvariant \triangleq \wedge *Chan1!TypeInvariant*
 \wedge *Chan2!TypeInvariant*

Send1(m) \triangleq *Chan1!Send(m)*

Rcv1 \triangleq *Chan1!Rcv*

Send2(m) \triangleq *Chan2!Send(m)*

Rcv2 \triangleq *Chan2!Rcv*

Next \triangleq $\vee \exists m \in \text{Message} : \text{Send1}(m)$
 $\vee \text{Rcv1}$
 $\vee \exists m \in \text{Message} : \text{Send2}(m)$
 $\vee \text{Rcv2}$

Spec \triangleq *Init* $\wedge \square[\text{Next}]_{\langle \text{chan1}, \text{chan2} \rangle}$

\ * Modification History
 \ * Last modified *Mon Nov 13 00:53:56 GMT 2017* by *affan*
 \ * Created *Sun Nov 12 23:46:15 GMT 2017* by *affan*