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An Event-B Specification of ASW_modes_context @ Date: 27 Oct 2008 @ Time: 05:31:37
PM
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CONTEXT ASW_modes_context

REFINES SW_modes_context

SETS

MIXSC_MODES
MIXST_MODES
SIXSP_MODES
SIXSX_MODES

CONSTANTS

INITIAL_MIXSC_MODES
INITIAL_MIXST_MODES
INITIAL_SIXSP_MODES
INITIAL_SIXSX_MODES
MIXSC_HK_MODES
MIXSC_SCI_MODES
MIXST_HK_MODES
MIXST_SCI_MODES
SIXSP_HK_MODES
SIXSP_SCI_MODES
SIXSX_HK_MODES
SIXSX_SCI_MODES
ALLOWED_MIXSC_CSW_MODES
ALLOWED_MIXST_CSW_MODES
ALLOWED_SIXSP_CSW_MODES
ALLOWED_SIXSX_CSW_MODES
MIXSC_TC_TRANSITIONS
MIXST_TC_TRANSITIONS
SIXSP_TC_TRANSITIONS
SIXSX_TC_TRANSITIONS
MIXSC_FDIR_TRANSITIONS
MIXST_FDIR_TRANSITIONS
SIXSP_FDIR_TRANSITIONS
SIXSX_FDIR_TRANSITIONS

AXIOMS

axm1 : *INITIAL_MIXSC_MODES* $\in \mathbb{P}_1(MIXSC_MODES)$
axm2 : *INITIAL_MIXST_MODES* $\in \mathbb{P}_1(MIXST_MODES)$
axm3 : *INITIAL_SIXSP_MODES* $\in \mathbb{P}_1(SIXSP_MODES)$
axm4 : *INITIAL_SIXSX_MODES* $\in \mathbb{P}_1(SIXSX_MODES)$
axm5 : *MIXSC_HK_MODES* $\in \mathbb{P}_1(MIXSC_MODES)$
axm6 : *MIXSC_SCI_MODES* $\in \mathbb{P}_1(MIXSC_MODES)$
axm7 : *MIXST_HK_MODES* $\in \mathbb{P}_1(MIXST_MODES)$
axm8 : *MIXST_SCI_MODES* $\in \mathbb{P}_1(MIXST_MODES)$
axm9 : *SIXSP_HK_MODES* $\in \mathbb{P}_1(SIXSP_MODES)$
axm10 : *SIXSP_SCI_MODES* $\in \mathbb{P}_1(SIXSP_MODES)$
axm11 : *SIXSX_HK_MODES* $\in \mathbb{P}_1(SIXSX_MODES)$
axm12 : *SIXSX_SCI_MODES* $\in \mathbb{P}_1(SIXSX_MODES)$

$axm13 : ALLOWED_MIXSC_CSW_MODES \in MIXSC_MODES \rightarrow CSW_MODES$
 $axm14 : ALLOWED_MIXST_CSW_MODES \in MIXST_MODES \rightarrow CSW_MODES$
 $axm15 : ALLOWED_SIXSP_CSW_MODES \in SIXSP_MODES \rightarrow CSW_MODES$
 $axm16 : ALLOWED_SIXSX_CSW_MODES \in SIXSX_MODES \rightarrow CSW_MODES$
 $axm17 : MIXSC_TC_TRANSITIONS \in \mathbb{P}_1(MIXSC_MODES \times MIXSC_MODES)$
 $axm18 : id(MIXSC_MODES) \subseteq MIXSC_TC_TRANSITIONS$
 $axm19 : MIXST_TC_TRANSITIONS \in \mathbb{P}_1(MIXST_MODES \times MIXST_MODES)$
 $axm20 : id(MIXST_MODES) \subseteq MIXST_TC_TRANSITIONS$
 $axm21 : SIXSP_TC_TRANSITIONS \in \mathbb{P}_1(SIXSP_MODES \times SIXSP_MODES)$
 $axm22 : id(SIXSP_MODES) \subseteq SIXSP_TC_TRANSITIONS$
 $axm23 : SIXSX_TC_TRANSITIONS \in \mathbb{P}_1(SIXSX_MODES \times SIXSX_MODES)$
 $axm24 : id(SIXSX_MODES) \subseteq SIXSX_TC_TRANSITIONS$
 $axm25 : MIXSC_FDIR_TRANSITIONS \in \mathbb{P}_1(MIXSC_MODES \times MIXSC_MODES)$
 $axm26 : MIXSC_FDIR_TRANSITIONS \cap id(MIXSC_MODES) = \emptyset$
 $axm27 : MIXST_FDIR_TRANSITIONS \in \mathbb{P}_1(MIXST_MODES \times MIXST_MODES)$
 $axm28 : MIXST_FDIR_TRANSITIONS \cap id(MIXST_MODES) = \emptyset$
 $axm29 : SIXSP_FDIR_TRANSITIONS \in \mathbb{P}_1(SIXSP_MODES \times SIXSP_MODES)$
 $axm30 : SIXSP_FDIR_TRANSITIONS \cap id(SIXSP_MODES) = \emptyset$
 $axm31 : SIXSX_FDIR_TRANSITIONS \in \mathbb{P}_1(SIXSX_MODES \times SIXSX_MODES)$
 $axm32 : SIXSX_FDIR_TRANSITIONS \cap id(SIXSX_MODES) = \emptyset$
 $axm33 : INITIAL_MIXSC_MODES \times \{csw_standby\} \subseteq ALLOWED_MIXSC_CSW_MODES$
 $axm34 : INITIAL_MIXST_MODES \times \{csw_standby\} \subseteq ALLOWED_MIXST_CSW_MODES$
 $axm35 : INITIAL_SIXSP_MODES \times \{csw_standby\} \subseteq ALLOWED_SIXSP_CSW_MODES$
 $axm36 : INITIAL_SIXSX_MODES \times \{csw_standby\} \subseteq ALLOWED_SIXSX_CSW_MODES$

END