

CONTEXT Core_SW_context

REFINES TCTM_flow_context

CONSTANTS

TC_SERVICES
TM_SERVICES
TC_SUBSERVICES
TM_SUBSERVICES
TC_TYPES
TM_TYPES
MODE_CHANGING_TC
HK_on_TC
HK_off_TC
SCI_on_TC
SCI_off_TC
TM_Buffer_Reset_TC
Check_ok_TM
Check_fail_TM
Exec_ok_TM
Exec_fail_TM
HK_data_TM
SCI_data_TM
Type_of_TC
Type_of_TM

AXIOMS

axm1 : *TC_SERVICES* $\in \mathbb{P}_1(\mathbb{N}_1)$
axm2 : *TM_SERVICES* $\in \mathbb{P}_1(\mathbb{N}_1)$
axm3 : *TC_SUBSERVICES* $\in \mathbb{P}_1(\mathbb{N}_1)$
axm4 : *TM_SUBSERVICES* $\in \mathbb{P}_1(\mathbb{N}_1)$
axm5 : *TC_SERVICES* \cap *TM_SERVICES* = \emptyset
axm6 : *TC_TYPES* $\in \mathbb{P}_1(\textit{TC_SERVICES} \times \textit{TC_SUBSERVICES})$
axm7 : *TM_TYPES* $\in \mathbb{P}_1(\textit{TM_SERVICES} \times \textit{TM_SUBSERVICES})$
axm8 : *MODE_CHANGING_TC* \subseteq *TC_TYPES*
axm9 : *MODE_CHANGING_TC* $\neq \emptyset$
axm10 : *HK_on_TC* \in *TC_TYPES*
axm11 : *HK_off_TC* \in *TC_TYPES*
axm12 : *SCI_on_TC* \in *TC_TYPES*
axm13 : *SCI_off_TC* \in *TC_TYPES*
axm14 : *TM_Buffer_Reset_TC* \in *TC_TYPES*
axm15 : *Check_ok_TM* \in *TM_TYPES*
axm16 : *Check_fail_TM* \in *TM_TYPES*
axm17 : *Exec_ok_TM* \in *TM_TYPES*
axm18 : *Exec_fail_TM* \in *TM_TYPES*
axm19 : *HK_data_TM* \in *TM_TYPES*
axm20 : *SCI_data_TM* \in *TM_TYPES*
axm21 : *HK_on_TC* \notin *MODE_CHANGING_TC*
axm22 : *HK_off_TC* \notin *MODE_CHANGING_TC*
axm23 : *SCI_on_TC* \notin *MODE_CHANGING_TC*
axm24 : *SCI_off_TC* \notin *MODE_CHANGING_TC*

$axm25 : TM_Buffer_Reset_TC \notin MODE_CHANGING_TC$
 $axm26 : Type_of_TC \in TC_SET \leftrightarrow TC_TYPES$
 $axm27 : Type_of_TM \in TM_SET \rightarrow TM_TYPES$
 $axm28 : \forall tc. (tc \in TC_SET \Rightarrow Valid_TC(tc) = bool(tc \in dom(Type_of_TC)))$

END