context Ctx_PartProc_Trans

//* ***

//   *The Event-B model of ARINC 653 Part 1*

//   *Created by Yongwang Zhao (zhaoyongwang@gmail.com)*

//   *National Key Laboratory of Software Development Environment (NLSDE)*

//   *School of Computer and Engineering, Beihang University, Beijing, China*

//   **/

sets PARTITIONS PROCESSES PARTITION_MODES PROCESS_STATES

constants PM_IDLE PM_NORMAL PM_WARM_START

   PM_COLD_START // *partition operating mode, according to ARINC653*

   PS_Dormant PS_Ready PS_Waiting PS_Suspend PS_WaitandSuspend

   PS_Running

axioms

   @axm_part_finite finite(PARTITIONS)

   @axm_processes_finite finite(PROCESSES)

   @axm_partition_partitionmodes partition(PARTITION_MODES,{PM_IDLE},

{**PM_NORMAL**},{**PM_COLD_START**},{**PM_WARM_START**})

  @axm_partition_procstates partition(**PROCESS_STATES**,{**PS_Dormant**}, {**PS_Ready**}, {**PS_Waiting**},

{**PS_Suspend**}, {**PS_WaitandSuspend**}, {**PS_Running**})

  @axm_partition_nums card(**PARTITIONS**) >0 ∧ card(**PARTITIONS**) < 256

end