

1 Network

section *NetworkChannels* **parents** *scj_prelude, MissionId, MissionIds, SchedulableId, SchedulableIds, MissionChan, SchedulableChan, TopLevelMissionSequencerFWChan, FrameworkChan, SafeletChan*

channelset *TerminateSync* ==
 {*schedulables_terminated, schedulables_stopped, get_activeSchedulables*}

channelset *ControlTierSync* ==
 {*start_toplevel_sequencer, done_toplevel_sequencer, done_safeletFW*}

channelset *TierSync* ==
 {*start_mission . MainMission, done_mission . MainMission, done_safeletFW, done_toplevel_sequencer*}

channelset *MissionSync* ==
 {*done_safeletFW, done_toplevel_sequencer, register, signalTerminationCall, signalTerminationRet, activate_schedulables, done_schedulable, cleanupSchedulableCall, cleanupSchedulableRet*}

channelset *SchedulablesSync* ==
 {*activate_schedulables, done_safeletFW, done_toplevel_sequencer*}

channelset *ClusterSync* ==
 {*done_toplevel_sequencer, done_safeletFW*}

channelset *AppSync* ==
 {*SafeltAppSync, MissionSequencerAppSync, MissionAppSync, MTAAppSync, OSEHSync, APEHSync, getSequencer, end_mission_app, end_managedThread_app, setCeilingPriority, requestTerminationCall, requestTerminationRet, terminationPendingCall, terminationPendingRet, handleAsyncEventCall, handleAsyncEventRet*}

channelset *Tier0Sync* ==
 {*done_toplevel_sequencer, done_safeletFW, start_mission . LaunchMission, done_mission . LaunchMission, initializeRet . LaunchMission, requestTermination . LaunchMission . MainMissionSequencer, start_mission . CruiseMission, done_mission . CruiseMission, initializeRet . CruiseMission, requestTermination . CruiseMission . MainMissionSequencer, start_mission . LandMission, done_mission . LandMission, initializeRet . LandMission, requestTermination . LandMission . MainMissionSequencer*}

section *Program parents* $scj_prelude, MissionId, MissionIds,$
SchedulableId, SchedulableIds, MissionChan, SchedulableMethChan, MissionFW,
SafeletFW, TopLevelMissionSequencerFW, NetworkChannels, ManagedThreadFW,
SchedulableMissionSequencerFW, PeriodicEventHandlerFW, OneShotEventHandlerFW,
AperiodicEventHandlerFW, SPSafeletApp, MainMissionSequencerApp,
MainMissionApp, SPModeChangerApp, ControlHandlerApp, EnvironmentMonitorApp, AperiodicSimulatorApp, LaunchMissionApp,

process *ControlTier* $\hat{=}$

$$\left(\begin{array}{l} SafeletFW \\ \llbracket ControlTierSync \rrbracket \\ TopLevelMissionSequencerFW(MainMissionSequencer) \end{array} \right)$$

process *Tier0* $\hat{=}$

$$\left(\begin{array}{l} MissionFW(MainMission) \\ \llbracket MissionSync \rrbracket \\ \left(\begin{array}{l} SchedulableMissionSequencerFW(SPModeChanger) \\ \llbracket SchedulablesSync \rrbracket \\ AperiodicEventHandlerFW(ControlHandler) \\ \llbracket SchedulablesSync \rrbracket \\ \left(\begin{array}{l} PeriodicEventHandlerFW(EnvironmentMonitor) \\ \llbracket SchedulablesSync \rrbracket \\ PeriodicEventHandlerFW(AperiodicSimulator) \end{array} \right) \end{array} \right) \end{array} \right)$$

process *Tier1* $\hat{=}$

$$\left(\begin{array}{l} MissionFW(LaunchMission) \\ \llbracket MissionSync \rrbracket \\ \left(\begin{array}{l} AperiodicEventHandlerFW(LaunchHandler) \\ \llbracket SchedulablesSync \rrbracket \\ PeriodicEventHandlerFW(LaunchCountdown) \end{array} \right) \\ \llbracket ClusterSync \rrbracket \\ \left(\begin{array}{l} MissionFW(CruiseMission) \\ \llbracket MissionSync \rrbracket \\ \left(\begin{array}{l} AperiodicEventHandlerFW(BurnActivationHandler) \\ \llbracket SchedulablesSync \rrbracket \\ AperiodicEventHandlerFW(BurnDurationHandler) \\ \llbracket SchedulablesSync \rrbracket \\ \left(\begin{array}{l} PeriodicEventHandlerFW(CruiseConditionsMonitor) \\ \llbracket SchedulablesSync \rrbracket \\ PeriodicEventHandlerFW(AperiodicSimulator) \end{array} \right) \end{array} \right) \\ \llbracket ClusterSync \rrbracket \\ \left(\begin{array}{l} MissionFW(LandMission) \\ \llbracket MissionSync \rrbracket \\ \left(\begin{array}{l} AperiodicEventHandlerFW(LandingGearHandler) \\ \llbracket SchedulablesSync \rrbracket \\ AperiodicEventHandlerFW(ParachuteHandler) \\ \llbracket SchedulablesSync \rrbracket \\ \left(\begin{array}{l} PeriodicEventHandlerFW(AirSpeedMonitor) \\ \llbracket SchedulablesSync \rrbracket \\ PeriodicEventHandlerFW(GroundDistanceMonitor) \end{array} \right) \end{array} \right) \end{array} \right) \end{array} \right)$$

process *Framework* $\hat{=}$

$$\left(\begin{array}{l} ControlTier \\ \llbracket TierSync \rrbracket \\ \left(\begin{array}{l} Tier0 \\ \llbracket Tier0Sync \rrbracket \\ Tier1 \end{array} \right) \end{array} \right)$$

$$\text{process } \textit{Application} \hat{=} \left(\begin{array}{l} \textit{SPSafeletApp} \\ ||| \\ \textit{MainMissionSequencerApp} \\ ||| \\ \textit{MainMissionApp} \\ ||| \\ \textit{SPModeChangerApp} \\ ||| \\ \textit{ControlHandlerApp} \\ ||| \\ \textit{EnvironmentMonitorApp} \\ ||| \\ \textit{AperiodicSimulatorApp} \\ ||| \\ \textit{LaunchMissionApp} \\ ||| \\ \textit{LaunchHandlerApp} \\ ||| \\ \textit{LaunchCountdownApp} \\ ||| \\ \textit{CruiseMissionApp} \\ ||| \\ \textit{BurnActivationHandlerApp} \\ ||| \\ \textit{BurnDurationHandlerApp} \\ ||| \\ \textit{CruiseConditionsMonitorApp} \\ ||| \\ \textit{AperiodicSimulatorApp} \\ ||| \\ \textit{LandMissionApp} \\ ||| \\ \textit{LandingGearHandlerApp} \\ ||| \\ \textit{ParachuteHandlerApp} \\ ||| \\ \textit{AirSpeedMonitorApp} \\ ||| \\ \textit{GroundDistanceMonitorApp} \end{array} \right)$$

$$\text{process } \textit{Program} \hat{=} \textit{Framework} \llbracket \textit{AppSync} \rrbracket \textit{Application}$$

2 ID Files

2.1 MissionIds

section *MissionIds* **parents** *scj_prelude, MissionId*

MainMission : *MissionID*
LaunchMission : *MissionID*
CruiseMission : *MissionID*
LandMission : *MissionID*

distinct(*nullMissionId, MainMission,*
LaunchMission,
CruiseMission,
LandMission)

2.2 SchedulablesIds

section *SchedulableIds* **parents** *scj_prelude, SchedulableId*

MainMissionSequencer : *SchedulableID*
SPModeChanger : *SchedulableID*
EnvironmentMonitor : *SchedulableID*
ControlHandler : *SchedulableID*
AperiodicSimulator : *SchedulableID*
LaunchHandler : *SchedulableID*
LaunchCountdown : *SchedulableID*
CruiseConditionsMonitor : *SchedulableID*
BurnActivationHandler : *SchedulableID*
BurnDurationHandler : *SchedulableID*
AperiodicSimulator : *SchedulableID*
AirSpeedMonitor : *SchedulableID*
LandingGearHandler : *SchedulableID*
ParachuteHandler : *SchedulableID*
GroundDistanceMonitor : *SchedulableID*

distinct(*nullSequencerId, nullSchedulableId, SPModeChanger,*
EnvironmentMonitor,
ControlHandler,
AperiodicSimulator,
LaunchHandler,
LaunchCountdown,
CruiseConditionsMonitor,
BurnActivationHandler,
BurnDurationHandler,
AperiodicSimulator,
AirSpeedMonitor,
LandingGearHandler,
ParachuteHandler,
GroundDistanceMonitor)

3 Safelet

section *SPSafeletApp* **parents** *scj_prelude, SchedulableId, SchedulableIds, SafeletChan*

process *SPSafeletApp* $\hat{=}$ **begin**

InitializeApplication $\hat{=}$
 $\left(\begin{array}{l} \textit{initializeApplicationCall} \longrightarrow \\ \textit{initializeApplicationRet} \longrightarrow \\ \mathbf{Skip} \end{array} \right)$

GetSequencer $\hat{=}$
 $\left(\begin{array}{l} \textit{getSequencerCall} \longrightarrow \\ \textit{getSequencerRet} ! \textit{MainMissionSequencer} \longrightarrow \\ \mathbf{Skip} \end{array} \right)$

Methods $\hat{=}$
 $\left(\begin{array}{l} \textit{GetSequencer} \\ \square \\ \textit{InitializeApplication} \end{array} \right); \textit{Methods}$

• $(\textit{Methods}) \triangle (\textit{end_safelet_app} \longrightarrow \mathbf{Skip})$

end

4 Top Level Mission Sequencer

section *MainMissionSequencerApp* **parents** *TopLevelMissionSequencerChan*,
MissionId, *MissionIds*, *SchedulableId*

process *MainMissionSequencerApp* $\hat{=}$ **begin**

GetNextMission $\hat{=}$
 $\left(\begin{array}{l} \text{getNextMissionCall} . \text{MainMissionSequencer} \longrightarrow \\ \text{getNextMissionRet} . \text{MainMissionSequencer} ! \text{MainMission} \longrightarrow \\ \mathbf{Skip} \end{array} \right)$

Methods $\hat{=}$
 $(\text{GetNextMission}) ; \text{Methods}$

$\bullet (\text{Methods}) \triangle (\text{end_sequencer_app} . \text{MainMissionSequencer} \longrightarrow \mathbf{Skip})$

end

5 Missions

5.1 MainMission

section *MainMissionApp* **parents** *scj_prelude*, *MissionId*, *MissionIds*,
SchedulableId, *SchedulableIds*, *MissionChan*, *SchedulableMethChan*

process *MainMissionApp* $\hat{=}$ **begin**

InitializePhase $\hat{=}$
$$\left(\begin{array}{l} \text{initializeCall} . \text{MainMission} \longrightarrow \\ \text{register} ! \text{SPModeChanger} ! \text{MainMission} \longrightarrow \\ \text{register} ! \text{EnvironmentMonitor} ! \text{MainMission} \longrightarrow \\ \text{register} ! \text{ControlHandler} ! \text{MainMission} \longrightarrow \\ \text{register} ! \text{AperiodicSimulator} ! \text{MainMission} \longrightarrow \\ \text{initializeRet} . \text{MainMission} \longrightarrow \\ \text{Skip} \end{array} \right)$$

CleanupPhase $\hat{=}$
$$\left(\begin{array}{l} \text{cleanupMissionCall} . \text{MainMission} \longrightarrow \\ \text{cleanupMissionRet} . \text{MainMission} ? \text{False} \longrightarrow \\ \text{Skip} \end{array} \right)$$

Methods $\hat{=}$
$$\left(\begin{array}{l} \text{InitializePhase} \\ \square \\ \text{CleanupPhase} \end{array} \right) ; \text{Methods}$$

• $(\text{Methods}) \triangle (\text{end_mission_app} . \text{MainMission} \longrightarrow \text{Skip})$

end

5.2 Schedulables of MainMission

section *SPModeChangerApp* **parents** *TopLevelMissionSequencerChan*,
MissionId, *MissionIds*, *SchedulableId*

process *SPModeChangerApp* $\hat{=}$ **begin**

GetNextMission $\hat{=}$
 $\left(\begin{array}{l} \textit{getNextMissionCall} . \textit{SPModeChanger} \longrightarrow \\ \textit{getNextMissionRet} . \textit{SPModeChanger} ! \textit{LandMission} \longrightarrow \\ \mathbf{Skip} \end{array} \right)$

Methods $\hat{=}$
 $(\textit{GetNextMission}) ; \textit{Methods}$

• $(\textit{Methods}) \triangle (\textit{end_sequencer_app} . \textit{SPModeChanger} \longrightarrow \mathbf{Skip})$

end

section *ControlHandlerApp* **parents** *AperiodicEventHandlerChan*, *SchedulableId*, *SchedulableIds*

process *ControlHandlerApp* $\hat{=}$ **begin**

Methods $\hat{=}$
handlerAsyncEvent ; *Methods*

handlerAsyncEvent $\hat{=}$
 $\left(\begin{array}{l} \textit{handleAsyncEventCall} . \textit{ControlHandler} \longrightarrow \\ \textit{handleAsyncEventRet} . \textit{ControlHandler} \longrightarrow \\ \mathbf{Skip} \end{array} \right)$

• $(\textit{Methods}) \triangle (\textit{end_aperiodic_app} . \textit{ControlHandler} \longrightarrow \mathbf{Skip})$

end

section *EnvironmentMonitorApp* **parents** *PeriodicEventHandlerChan*, *SchedulableId*, *SchedulableIds*

process *EnvironmentMonitorApp* $\hat{=}$ **begin**

Methods $\hat{=}$
handlerAsyncEvent ; *Methods*

handlerAsyncEvent $\hat{=}$
 $\left(\begin{array}{l} \text{handleAsyncEventCall} . \text{EnvironmentMonitor} \longrightarrow \\ \text{handleAsyncEventRet} . \text{EnvironmentMonitor} \longrightarrow \\ \mathbf{Skip} \end{array} \right)$

• $(\text{Methods}) \triangle (\text{end_periodic_app} . \text{EnvironmentMonitor} \longrightarrow \mathbf{Skip})$

end

section *AperiodicSimulatorApp* **parents** *PeriodicEventHandlerChan*, *SchedulableId*, *SchedulableIds*

process *AperiodicSimulatorApp* $\hat{=}$ **begin**

Methods $\hat{=}$
handlerAsyncEvent ; *Methods*

handlerAsyncEvent $\hat{=}$
 $\left(\begin{array}{l} \text{handleAsyncEventCall} . \text{AperiodicSimulator} \longrightarrow \\ \text{handleAsyncEventRet} . \text{AperiodicSimulator} \longrightarrow \\ \mathbf{Skip} \end{array} \right)$

• (*Methods*) \triangle (*end_periodic_app* . *AperiodicSimulator* \longrightarrow **Skip**)

end

5.3 LaunchMission

section *LaunchMissionApp* **parents** *scj_prelude*, *MissionId*, *MissionIds*,
SchedulableId, *SchedulableIds*, *MissionChan*, *SchedulableMethChan*

process *LaunchMissionApp* $\hat{=}$ **begin**

InitializePhase $\hat{=}$
 $\left(\begin{array}{l} \text{initializeCall} . \text{LaunchMission} \longrightarrow \\ \text{register} ! \text{LaunchHandler} ! \text{LaunchMission} \longrightarrow \\ \text{register} ! \text{LaunchCountdown} ! \text{LaunchMission} \longrightarrow \\ \text{initializeRet} . \text{LaunchMission} \longrightarrow \\ \mathbf{Skip} \end{array} \right)$

CleanupPhase $\hat{=}$
 $\left(\begin{array}{l} \text{cleanupMissionCall} . \text{LaunchMission} \longrightarrow \\ \text{cleanupMissionRet} . \text{LaunchMission} ? \mathbf{False} \longrightarrow \\ \mathbf{Skip} \end{array} \right)$

Methods $\hat{=}$
 $\left(\begin{array}{l} \text{InitializePhase} \\ \square \\ \text{CleanupPhase} \end{array} \right) ; \text{Methods}$

• (*Methods*) \triangle (*end_mission_app* . *LaunchMission* \longrightarrow **Skip**)

end

5.4 Schedulables of LaunchMission

section *LaunchHandlerApp* **parents** *AperiodicEventHandlerChan*, *SchedulableId*, *SchedulableIds*

process *LaunchHandlerApp* $\hat{=}$ **begin**

Methods $\hat{=}$
handlerAsyncEvent ; *Methods*

handlerAsyncEvent $\hat{=}$
 $\left(\begin{array}{l} \text{handleAsyncEventCall} . \text{LaunchHandler} \longrightarrow \\ \text{handleAsyncEventRet} . \text{LaunchHandler} \longrightarrow \\ \mathbf{Skip} \end{array} \right)$

• $(\text{Methods}) \triangle (\text{end_aperiodic_app} . \text{LaunchHandler} \longrightarrow \mathbf{Skip})$

end

section *LaunchCountdownApp* **parents** *PeriodicEventHandlerChan, SchedulableId, SchedulableIds*

process *LaunchCountdownApp* $\hat{=}$ **begin**

Methods $\hat{=}$
handlerAsyncEvent ; *Methods*

handlerAsyncEvent $\hat{=}$
 $\left(\begin{array}{l} \text{handleAsyncEventCall} . \text{LaunchCountdown} \longrightarrow \\ \text{handleAsyncEventRet} . \text{LaunchCountdown} \longrightarrow \\ \mathbf{Skip} \end{array} \right)$

• (*Methods*) Δ (*end_periodic_app* . *LaunchCountdown* \longrightarrow **Skip**)

end

5.5 CruiseMission

section *CruiseMissionApp* **parents** *scj_prelude, MissionId, MissionIds, SchedulableId, SchedulableIds, MissionChan, SchedulableMethChan*

process *CruiseMissionApp* $\hat{=}$ **begin**

InitializePhase $\hat{=}$
 $\left(\begin{array}{l} \text{initializeCall} . \text{CruiseMission} \longrightarrow \\ \text{register} ! \text{CruiseConditionsMonitor} ! \text{CruiseMission} \longrightarrow \\ \text{register} ! \text{BurnActivationHandler} ! \text{CruiseMission} \longrightarrow \\ \text{register} ! \text{BurnDurationHandler} ! \text{CruiseMission} \longrightarrow \\ \text{register} ! \text{AperiodicSimulator} ! \text{CruiseMission} \longrightarrow \\ \text{initializeRet} . \text{CruiseMission} \longrightarrow \\ \mathbf{Skip} \end{array} \right)$

CleanupPhase $\hat{=}$
 $\left(\begin{array}{l} \text{cleanupMissionCall} . \text{CruiseMission} \longrightarrow \\ \text{cleanupMissionRet} . \text{CruiseMission} ? \mathbf{False} \longrightarrow \\ \mathbf{Skip} \end{array} \right)$

Methods $\hat{=}$
 $\left(\begin{array}{l} \text{InitializePhase} \\ \square \\ \text{CleanupPhase} \end{array} \right) ; \text{Methods}$

• (*Methods*) Δ (*end_mission_app* . *CruiseMission* \longrightarrow **Skip**)

end

5.6 Schedulables of CruiseMission

section *BurnActivationHandlerApp* **parents** *AperiodicEventHandlerChan*, *SchedulableId*, *SchedulableIds*

process *BurnActivationHandlerApp* $\hat{=}$ **begin**

Methods $\hat{=}$
handlerAsyncEvent ; *Methods*

handlerAsyncEvent $\hat{=}$
$$\left(\begin{array}{l} \text{handleAsyncEventCall} . \text{BurnActivationHandler} \longrightarrow \\ \text{handleAsyncEventRet} . \text{BurnActivationHandler} \longrightarrow \\ \mathbf{Skip} \end{array} \right)$$

• $(\text{Methods}) \triangle (\text{end_aperiodic_app} . \text{BurnActivationHandler} \longrightarrow \mathbf{Skip})$

end

section *BurnDurationHandlerApp* **parents** *AperiodicEventHandlerChan*, *SchedulableId*, *SchedulableIds*

process *BurnDurationHandlerApp* $\hat{=}$ **begin**

Methods $\hat{=}$
handlerAsyncEvent ; *Methods*

handlerAsyncEvent $\hat{=}$
 $\left(\begin{array}{l} \textit{handleAsyncEventCall} . \textit{BurnDurationHandler} \longrightarrow \\ \textit{handleAsyncEventRet} . \textit{BurnDurationHandler} \longrightarrow \\ \mathbf{Skip} \end{array} \right)$

• $(\textit{Methods}) \triangle (\textit{end_aperiodic_app} . \textit{BurnDurationHandler} \longrightarrow \mathbf{Skip})$

end

section *CruiseConditionsMonitorApp* **parents** *PeriodicEventHandlerChan*, *SchedulableId*, *SchedulableIds*

process *CruiseConditionsMonitorApp* $\hat{=}$ **begin**

Methods $\hat{=}$
handlerAsyncEvent ; *Methods*

handlerAsyncEvent $\hat{=}$
 $\left(\begin{array}{l} \textit{handleAsyncEventCall} . \textit{CruiseConditionsMonitor} \longrightarrow \\ \textit{handleAsyncEventRet} . \textit{CruiseConditionsMonitor} \longrightarrow \\ \mathbf{Skip} \end{array} \right)$

• $(\textit{Methods}) \triangle (\textit{end_periodic_app} . \textit{CruiseConditionsMonitor} \longrightarrow \mathbf{Skip})$

end

section *AperiodicSimulatorApp* **parents** *PeriodicEventHandlerChan*, *SchedulableId*, *SchedulableIds*

process *AperiodicSimulatorApp* $\hat{=}$ **begin**

Methods $\hat{=}$
handlerAsyncEvent ; *Methods*

handlerAsyncEvent $\hat{=}$
 $\left(\begin{array}{l} \text{handleAsyncEventCall} . \text{AperiodicSimulator} \longrightarrow \\ \text{handleAsyncEventRet} . \text{AperiodicSimulator} \longrightarrow \\ \mathbf{Skip} \end{array} \right)$

• (*Methods*) \triangle (*end_periodic_app* . *AperiodicSimulator* \longrightarrow **Skip**)

end

5.7 LandMission

section *LandMissionApp* **parents** *scj_prelude*, *MissionId*, *MissionIds*,
SchedulableId, *SchedulableIds*, *MissionChan*, *SchedulableMethChan*

process *LandMissionApp* $\hat{=}$ **begin**

InitializePhase $\hat{=}$
 $\left(\begin{array}{l} \text{initializeCall} . \text{LandMission} \longrightarrow \\ \text{register} ! \text{AirSpeedMonitor} ! \text{LandMission} \longrightarrow \\ \text{register} ! \text{LandingGearHandler} ! \text{LandMission} \longrightarrow \\ \text{register} ! \text{ParachuteHandler} ! \text{LandMission} \longrightarrow \\ \text{register} ! \text{GroundDistanceMonitor} ! \text{LandMission} \longrightarrow \\ \text{initializeRet} . \text{LandMission} \longrightarrow \\ \mathbf{Skip} \end{array} \right)$

CleanupPhase $\hat{=}$
 $\left(\begin{array}{l} \text{cleanupMissionCall} . \text{LandMission} \longrightarrow \\ \text{cleanupMissionRet} . \text{LandMission} ? \mathbf{False} \longrightarrow \\ \mathbf{Skip} \end{array} \right)$

Methods $\hat{=}$
 $\left(\begin{array}{l} \text{InitializePhase} \\ \square \\ \text{CleanupPhase} \end{array} \right)$; *Methods*

• (*Methods*) \triangle (*end_mission_app* . *LandMission* \longrightarrow **Skip**)

end

5.8 Schedulables of LandMission

section *LandingGearHandlerApp* **parents** *AperiodicEventHandlerChan*, *SchedulableId*, *SchedulableIds*

process *LandingGearHandlerApp* $\hat{=}$ **begin**

Methods $\hat{=}$
handlerAsyncEvent ; *Methods*

handlerAsyncEvent $\hat{=}$
$$\left(\begin{array}{l} \textit{handleAsyncEventCall} . \textit{LandingGearHandler} \longrightarrow \\ \textit{handleAsyncEventRet} . \textit{LandingGearHandler} \longrightarrow \\ \mathbf{Skip} \end{array} \right)$$

• $(\textit{Methods}) \triangle (\textit{end_aperiodic_app} . \textit{LandingGearHandler} \longrightarrow \mathbf{Skip})$

end

section *ParachuteHandlerApp* **parents** *AperiodicEventHandlerChan*, *SchedulableId*, *SchedulableIds*

process *ParachuteHandlerApp* $\hat{=}$ **begin**

Methods $\hat{=}$
handlerAsyncEvent ; *Methods*

handlerAsyncEvent $\hat{=}$
 $\left(\begin{array}{l} \textit{handleAsyncEventCall} . \textit{ParachuteHandler} \longrightarrow \\ \textit{handleAsyncEventRet} . \textit{ParachuteHandler} \longrightarrow \\ \mathbf{Skip} \end{array} \right)$

• $(\textit{Methods}) \triangle (\textit{end_aperiodic_app} . \textit{ParachuteHandler} \longrightarrow \mathbf{Skip})$

end

section *AirSpeedMonitorApp* **parents** *PeriodicEventHandlerChan*, *SchedulableId*, *SchedulableIds*

process *AirSpeedMonitorApp* $\hat{=}$ **begin**

Methods $\hat{=}$
handlerAsyncEvent ; *Methods*

handlerAsyncEvent $\hat{=}$
 $\left(\begin{array}{l} \textit{handleAsyncEventCall} . \textit{AirSpeedMonitor} \longrightarrow \\ \textit{handleAsyncEventRet} . \textit{AirSpeedMonitor} \longrightarrow \\ \mathbf{Skip} \end{array} \right)$

• $(\textit{Methods}) \triangle (\textit{end_periodic_app} . \textit{AirSpeedMonitor} \longrightarrow \mathbf{Skip})$

end

section *GroundDistanceMonitorApp* **parents** *PeriodicEventHandlerChan*, *SchedulableId*, *SchedulableIds*

process *GroundDistanceMonitorApp* $\hat{=}$ **begin**

Methods $\hat{=}$
handlerAsyncEvent ; *Methods*

handlerAsyncEvent $\hat{=}$
 $\left(\begin{array}{l} \textit{handleAsyncEventCall} . \textit{GroundDistanceMonitor} \longrightarrow \\ \textit{handleAsyncEventRet} . \textit{GroundDistanceMonitor} \longrightarrow \\ \mathbf{Skip} \end{array} \right)$

• $(\textit{Methods}) \triangle (\textit{end_periodic_app} . \textit{GroundDistanceMonitor} \longrightarrow \mathbf{Skip})$

end