<document classification>

ListEx1

Sistema de Controle de Trem de Pouso

Summary:
<summary>

Company: <company>
Authors: <authors>
Reference: <reference>
Index: <index>
Date: <date>

Distribution List: <distribution list>

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1. General Project Description

<description>

2. Software Architecture

2.1. Project Architecture

This section displays the package hierarchy of projects.

Project LandingGear

2.2. Call Graph

This Call Graph displays the dependency tree of model operators.

1. LandingGear
    1.1. Switch [2]

2.3. SCADE Display Integration

This section lists the SCADE Display projects linked to the SCADE Suite model, as well as the SCADE Suite operators connected with SCADE Display graphics.

Linked SCADE Display projects:

- landing_gear.etp

Connected SCADE Suite operator(s):
None

3. LandingGear Project

3.1. Root Elements

3.1.1. Types

Table 1: Public Types of LandingGear

Name	Definition	Comments and Information
T_String	char ^STR_SIZE	

3.1.2. Constants

Table 2: Public Constants of LandingGear

Name	Type	Value	Comments and Information
AMBAR	uint8	31	
BLACK	uint8	0	
GREEN	uint8	51	
LG_BTN_EMPTY_TEXT	T_String	[' ', ' ', ' ', ' ', ' ']	
LG_BTN_FAIL_TEXT	T_String	['F', 'A', 'I', 'L', ' ']	
LG_BTN_NORM_TEXT	T_String	['N', 'O', 'R', 'M', ' ']	
LG_DOWN_TEXT	T_String	['D', 'N', ' ', ' ', ' ']	
LG_UP_TEXT	T_String	['U', 'P', ' ', ' ', ' ']	
RED	uint8	21	
STR_SIZE	uint16	5	
WHITE	uint8	1	

3.1.3. LandingGear Operator

Declared as **`public node`**

3.1.3.1. Interface

Table 3: Inputs of LandingGear

Name	Type	Comments and Information
LG_UpBtn	bool	
LG_FailBtn	bool	

Table 4: Outputs of LandingGear

Name	Type	Comments and Information
LG_UpBtnTextString	T_String	
LG_FailBtnTextString	T_String	
Layer1Active	bool	
Layer1Visible	bool	
NoseSquareBorderColor	uint8	

Name	Type	Comments and Information
LeftSquareBorderColor	uint8	
RightSquareBorderColor	uint8	
NoseSquareFillColor	uint8	
LeftSquareFillColor	uint8	
RightSquareFillColor	uint8	
NoseTextColorIndex	uint8	
LeftTextColorIndex	uint8	
RightTextColorIndex	uint8	
NoseTextString	T_String	
LeftTextString	T_String	
RightTextString	T_String	
StringSize	uint16	
Emit2CDS	bool	

3.1.3.2. Locals

Table 5: Locals of LandingGear

Name	Type	Comments and Information
LG_Fail	bool	
LG_Up	bool	
Tr2Dn	bool	
Tr2Up	bool	

3.1.3.3. Operator Hierarchy

diagram : LandingGear_1
    state-machine : SM1
        state : DOWN
            diagram : DOWN_1
                activate if : IfBlock3
                    branch : then
                    branch : else
        state : TRANSITION
            diagram : TRANSITION_1
                activate if : IfBlock1
                    branch : then
                    branch : else
                activate if : IfBlock2
                    branch : then
                    branch : else
        state : UP
            diagram : UP_1
                activate if : IfBlock4
                    branch : then
                    branch : else

3.1.3.4. Graphical and Textual Diagrams

3.1.3.4.1. View of LandingGear_1 (LandingGear)

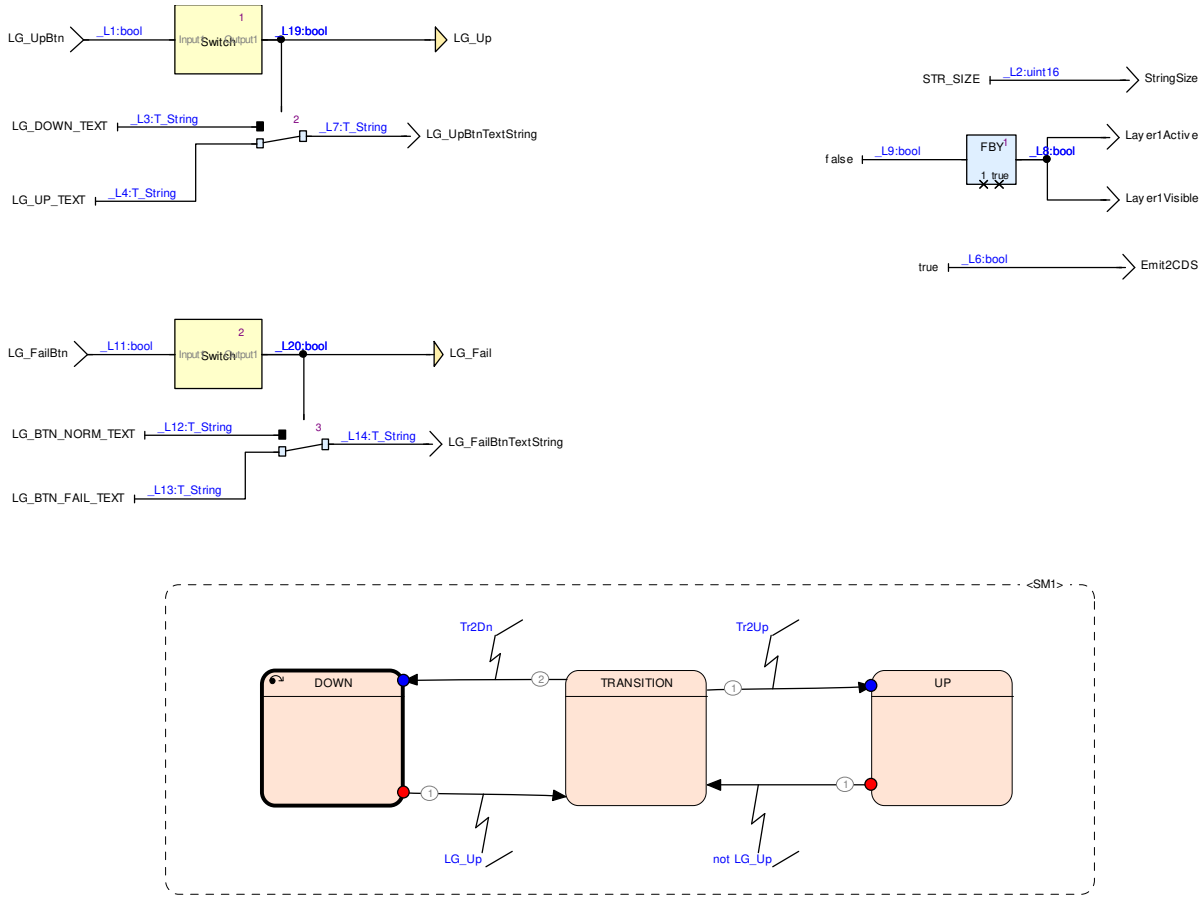


Figure 1: View of LandingGear_1 (LandingGear)

Table 6: Locals of LandingGear_1

Name	Type	Comments and Information
SM1:TRANSITION:ResetDelay	bool	

Table 7: State Machines of LandingGear_1

State Machine	Comments and Information
SM1	

Table 8: States of LandingGear_1

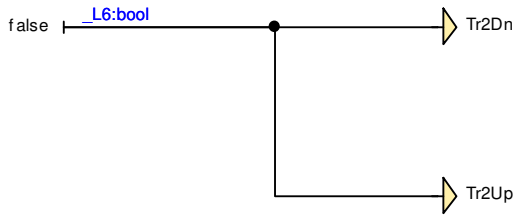
State	Comments and Information
SM1:DOWN	
SM1:TRANSITION	
SM1:UP	

Table 9: Transitions of LandingGear_1

Source/Target	#	Conditions/Actions	Comments and Information
Source: SM1:DOWN **Target:** SM1:TRANSITION	1	**Condition:** LG_Up	
Source: SM1:TRANSITION **Target:** SM1:UP	1	**Condition:** Tr2Up **Actions:**	
Source: SM1:TRANSITION **Target:** SM1:DOWN	2	**Condition:** Tr2Dn **Actions:**	
Source: SM1:UP **Target:** SM1:TRANSITION	1	**Condition:** not LG_Up	

3.1.3.4.2. View of DOWN_1 (LandingGear/SM1:DOWN:)

Owner diagram: LandingGear_1



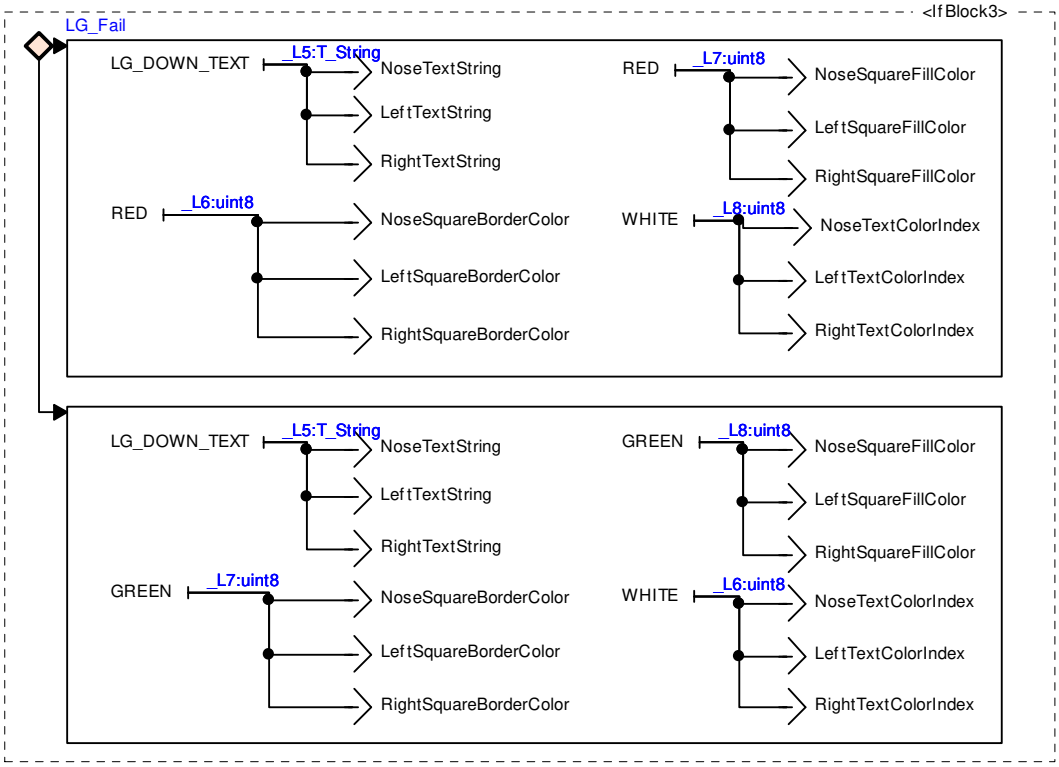


Figure 2: View of DOWN_1 (LandingGear/SM1:DOWN:)

Table 10: Conditional Blocks of DOWN_1

Conditional Block	Comments and Information
IfBlock3	

Table 11: Actions of DOWN_1

Conditional Block Action	Comments and Information
IfBlock3:then	
IfBlock3:else	

3.1.3.4.3. View of TRANSITION_1 (LandingGear/SM1:TRANSITION:)

Owner diagram: LandingGear_1

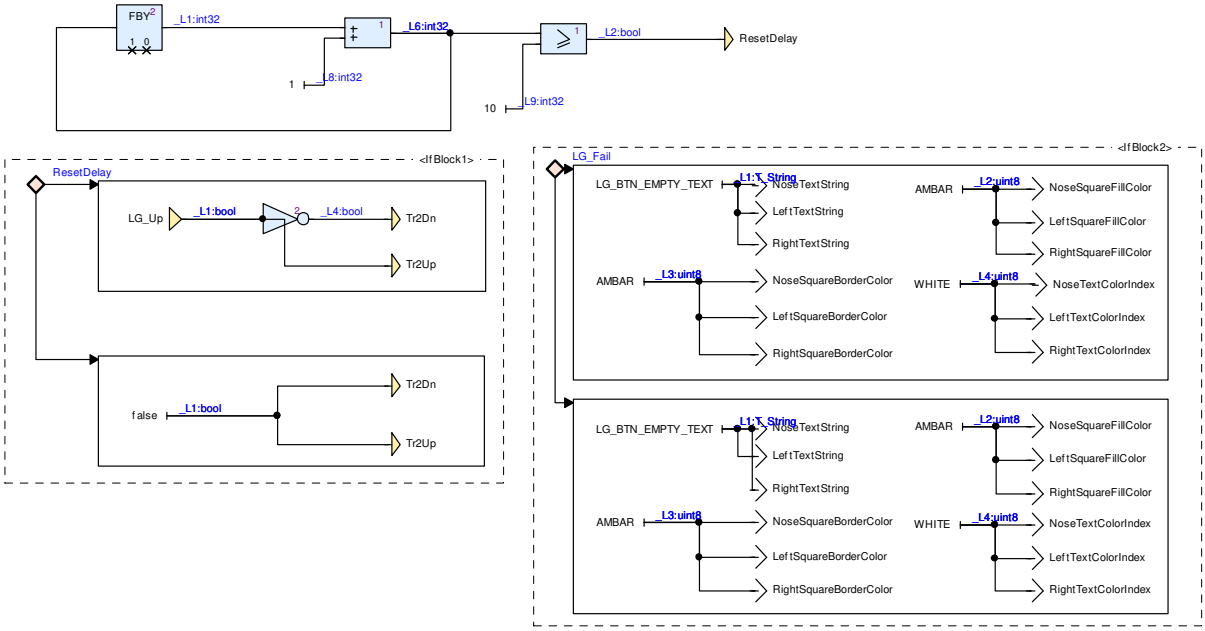


Figure 3: View of TRANSITION_1 (LandingGear/SM1:TRANSITION:)

Table 12: Conditional Blocks of TRANSITION_1

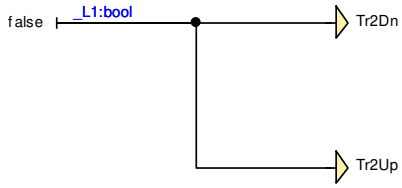
Conditional Block	Comments and Information
IfBlock1	
IfBlock2	

Table 13: Actions of TRANSITION_1

Conditional Block Action	Comments and Information
IfBlock1:then	
IfBlock1:else	
IfBlock2:then	
IfBlock2:else	

3.1.3.4.4. View of UP_1 (LandingGear/SM1:UP:)

Owner diagram: LandingGear_1



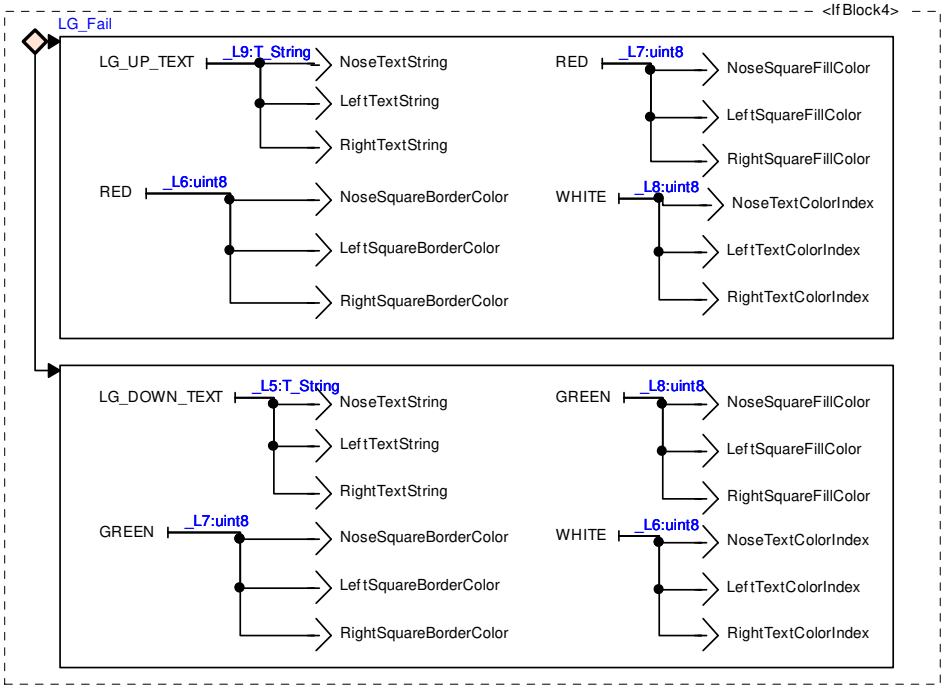


Figure 4: View of UP_1 (LandingGear/SM1:UP:)

Table 14: Conditional Blocks of UP_1

Conditional Block	Comments and Information
IfBlock4	

Table 15: Actions of UP_1

Conditional Block Action	Comments and Information
IfBlock4:then	
IfBlock4:else	

3.1.4. Switch Operator

Declared as **`public node`**

3.1.4.1. Interface

Table 16: Inputs of Switch

Name	Type	Comments and Information
Input1	bool	

Table 17: Outputs of Switch

Name	Type	Comments and Information
Output1	bool	

3.1.4.2. Operator Hierarchy

diagram : Switch_1

3.1.4.3. Graphical and Textual Diagrams

3.1.4.3.1. View of Switch_1 (Switch)

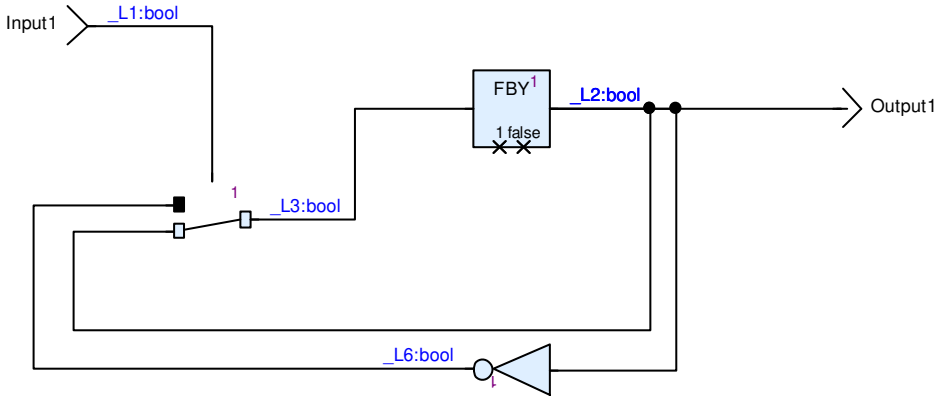


Figure 5: View of Switch_1 (Switch)

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