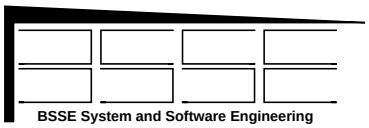

ISG

Instantaneous System and Software Generation

AUTOMATED SYSTEM DOCUMENTATION

OF

USER INPUTS

(Date: Tue Apr 13 12:28:24 2004)

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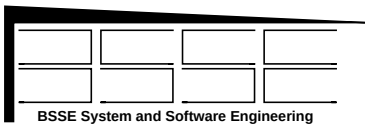
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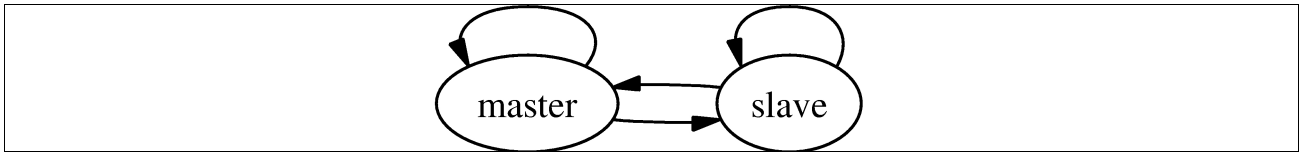
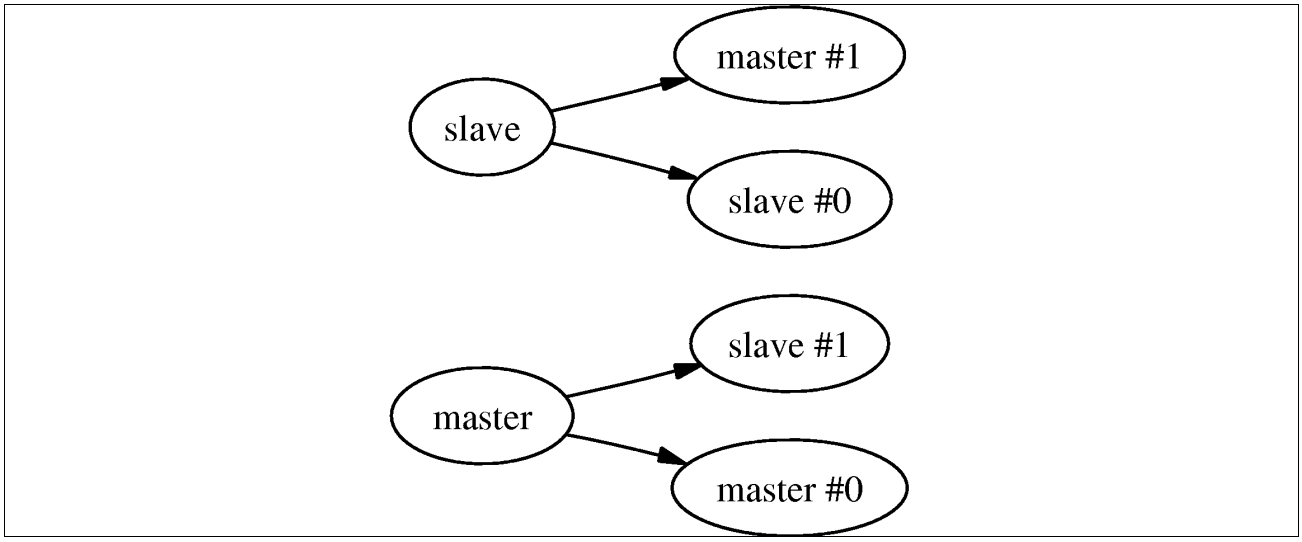


Fig. 1: Process Communication Summary

1.2 Process Communication of Process Instances



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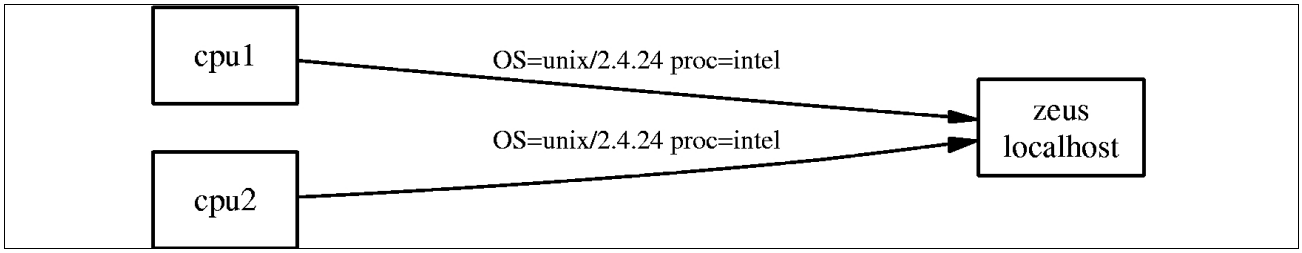
1.3 Platform Information



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1.4 Information on Distribution of Application

Fig. 4: Information on Distribution of Application

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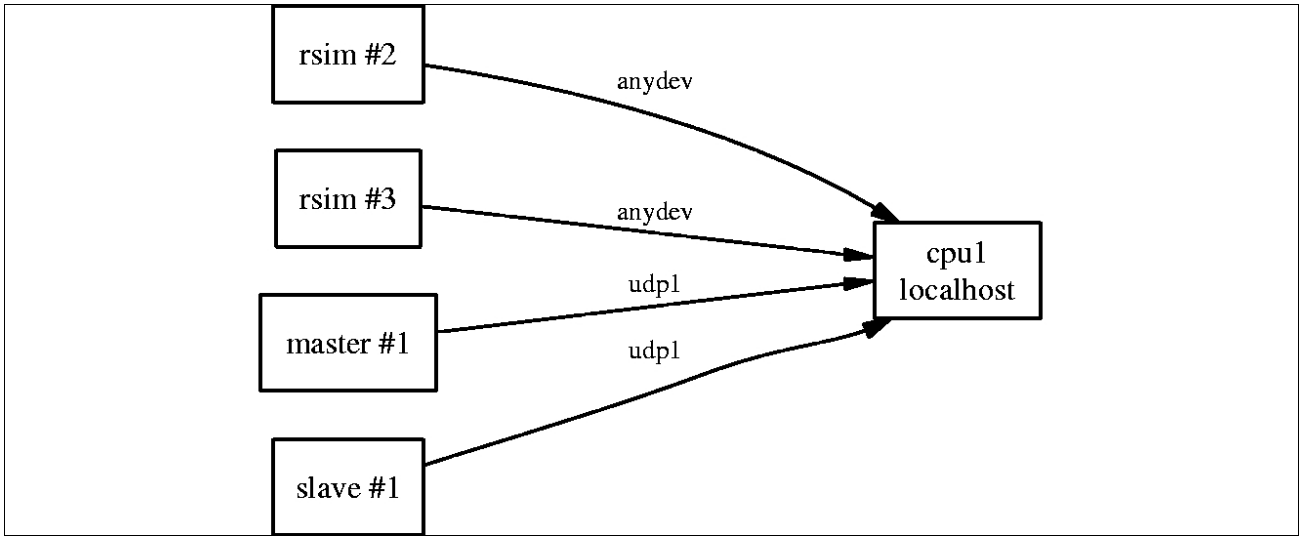

Fig. 5: Allocation of Resources to Processes

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2.1.1.1 Message poweron

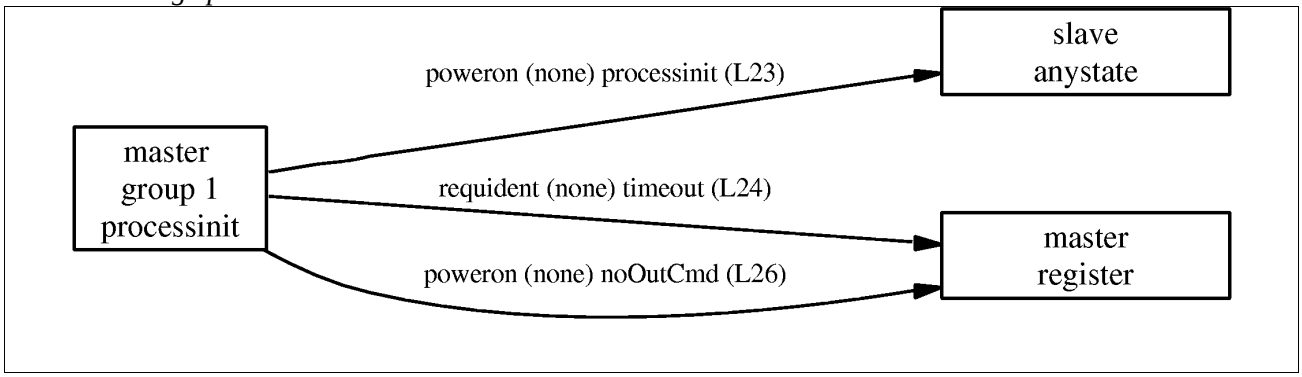

Fig. 6: Data Flow of Process Process master, initState processinit, msgIn poweron

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2.1.1.2 Message excprocessinit

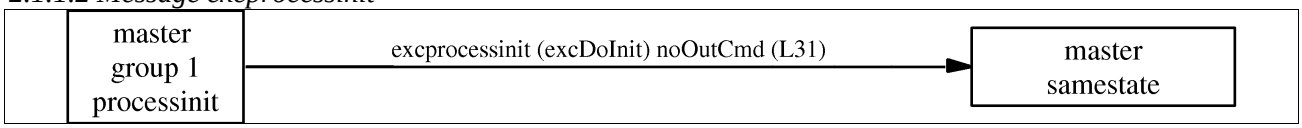

Fig. 7: Data Flow of Process Process master, initState processinit, msgIn excprocessinit

2.1.2 State register

2.1.2.1 Message requident

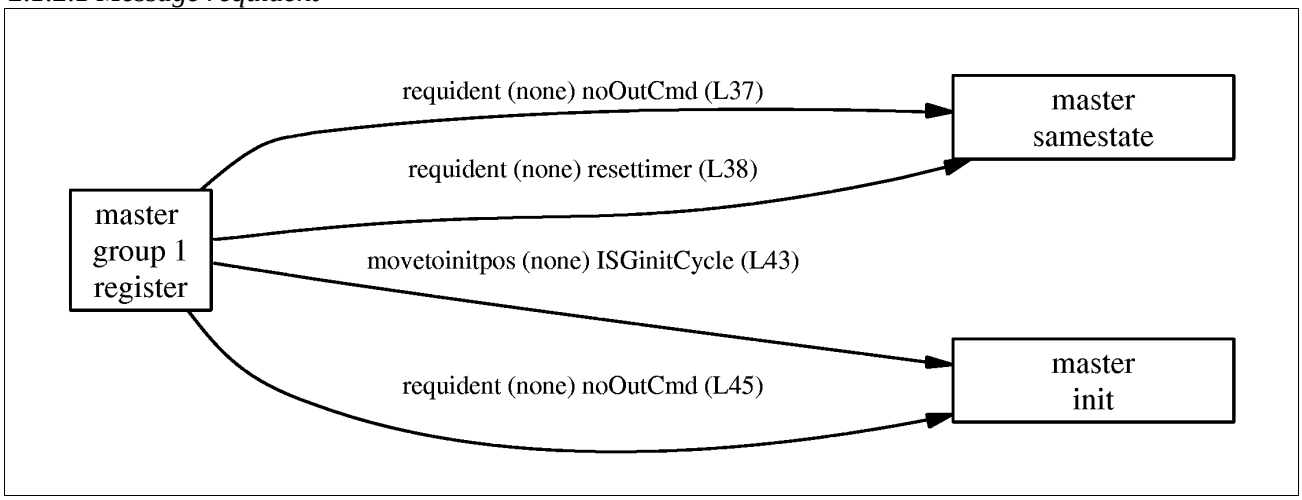

Fig. 8: Data Flow of Process Process master, initState register, msgIn requident

2.1.2.2 Message exctorequident

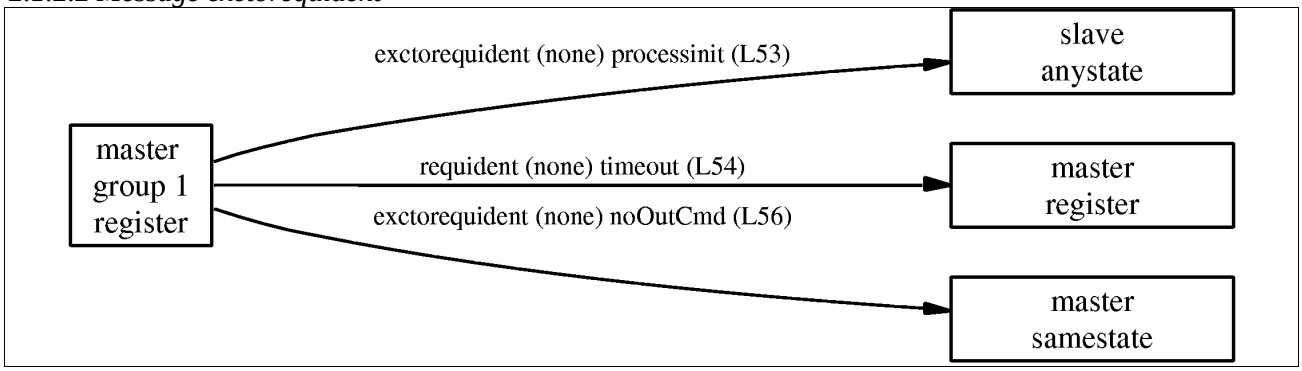

Fig. 9: Data Flow of Process Process master, initState register, msgIn exctorequident

2.1.2.3 Message excregister

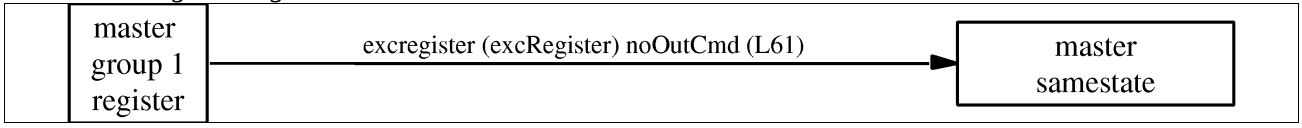

Fig. 10: Data Flow of Process Process master, initState register, msgIn excregister

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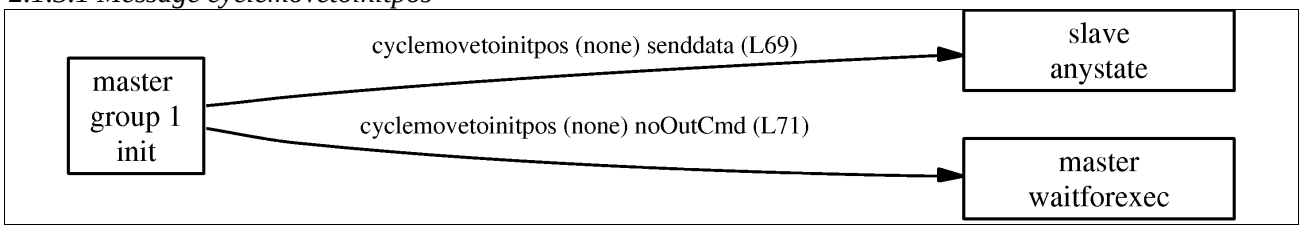
2.1.3 State init

2.1.3.1 Message cyclemovetoinitpos



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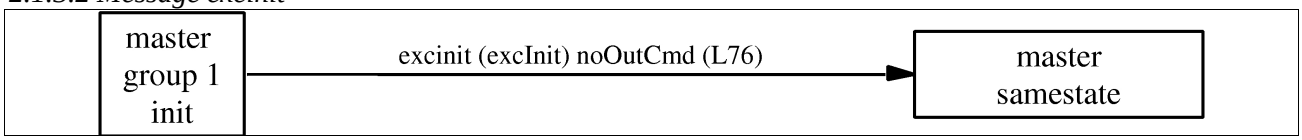

Fig. 12: Data Flow of Process Process master, initState init, msgIn excinit

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2.1.4.1 Message execute

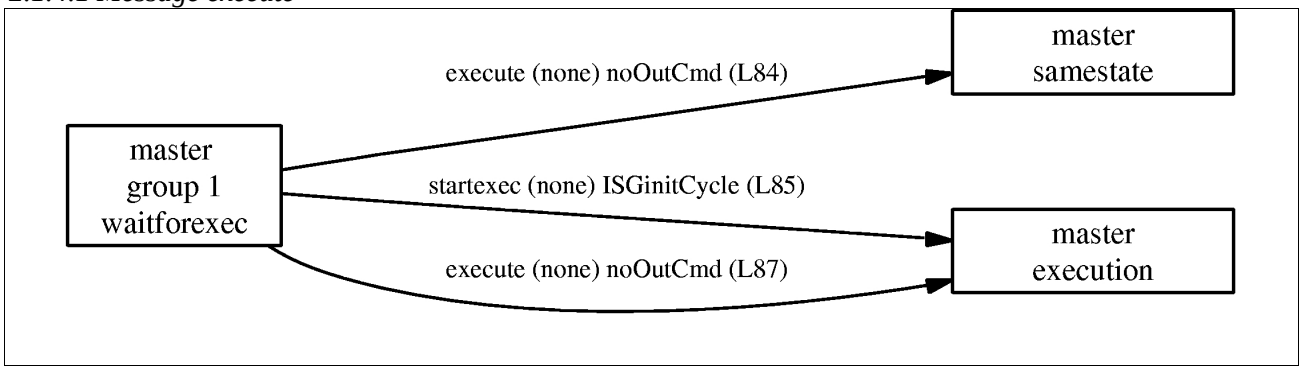

Fig. 13: Data Flow of Process Process master, initState waitforexec, msgIn execute

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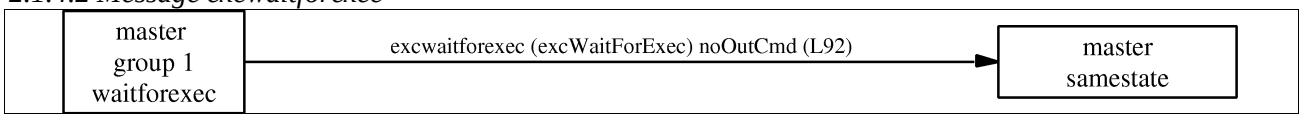

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2.1.5 State execution

2.1.5.1 Message cyclestartexec

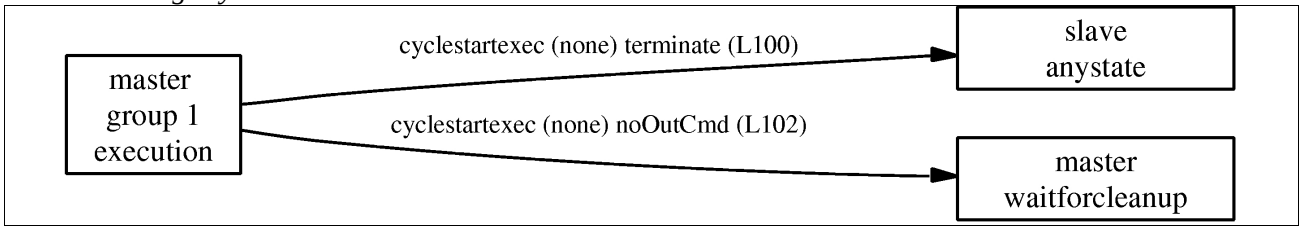

Fig. 15: Data Flow of Process Process master, initState execution, msgIn cyclestartexec

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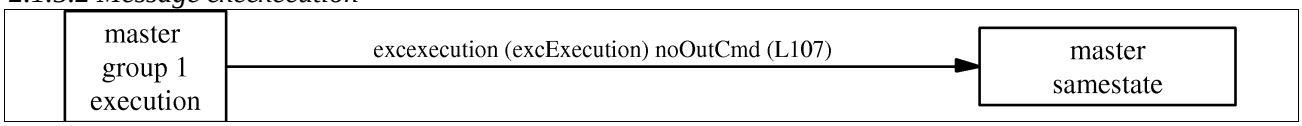
2.1.5.2 Message excexecution



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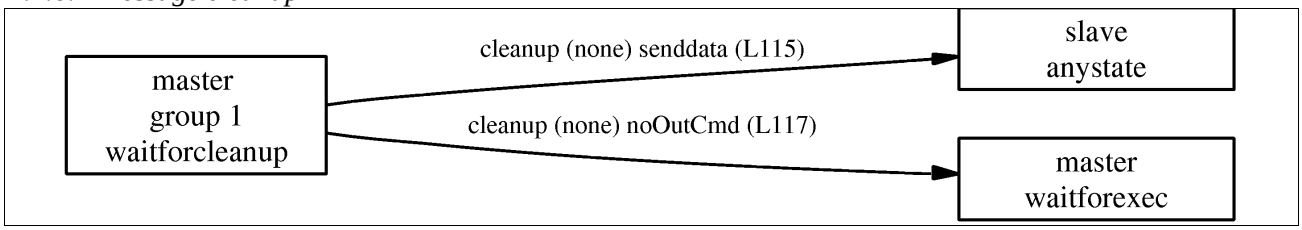
2.1.6 State waitforcleanup

2.1.6.1 Message cleanup



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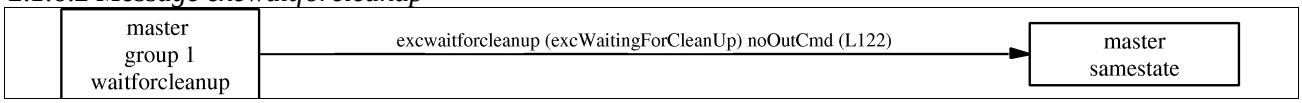

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2.2.1 State anystate

2.2.1.1 Message processinit

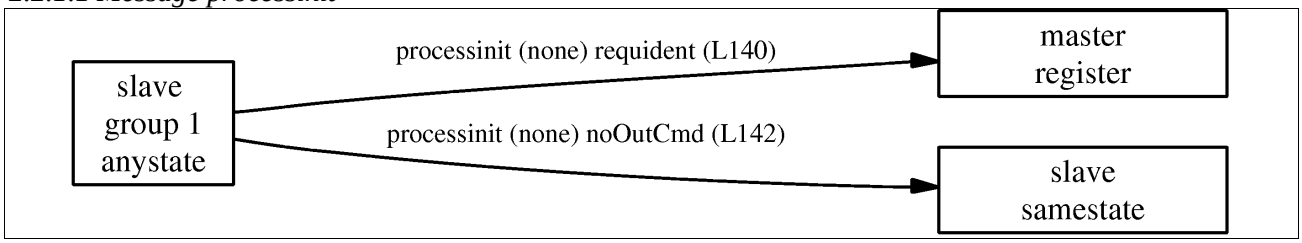

Fig. 19: Data Flow of Process Process slave, initState anystate, msgIn processinit

2.2.1.2 Message senddata

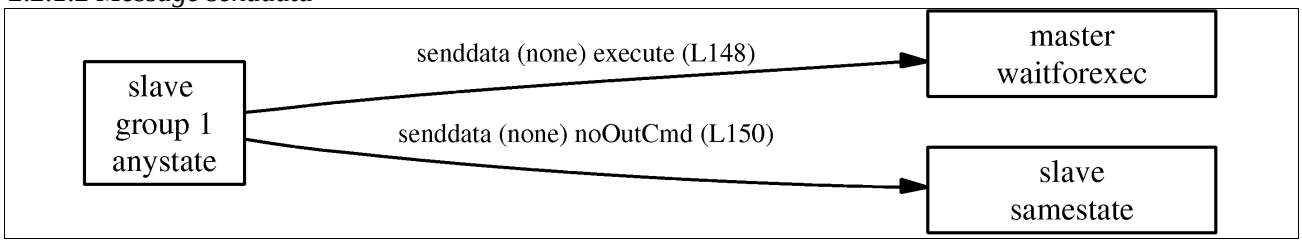

Fig. 20: Data Flow of Process Process slave, initState anystate, msgIn senddata

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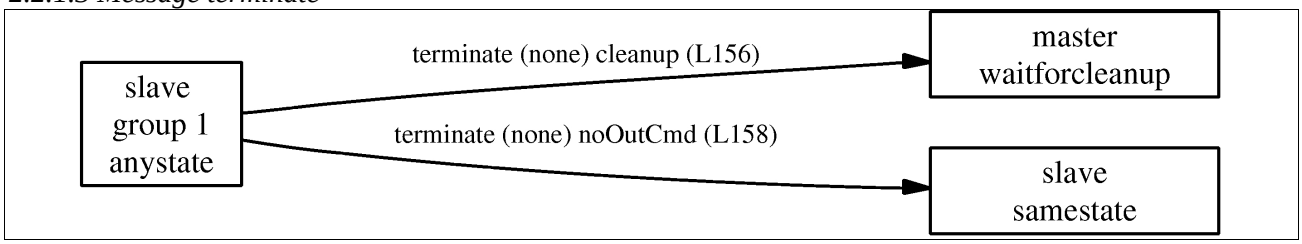
2.2.1.3 Message terminate



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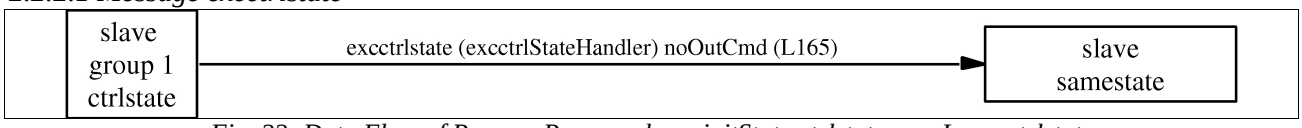
2.2.2 State ctrlstate

2.2.2.1 Message excctrlstate



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3 INVERSE DATA FLOW OF PROCESSES

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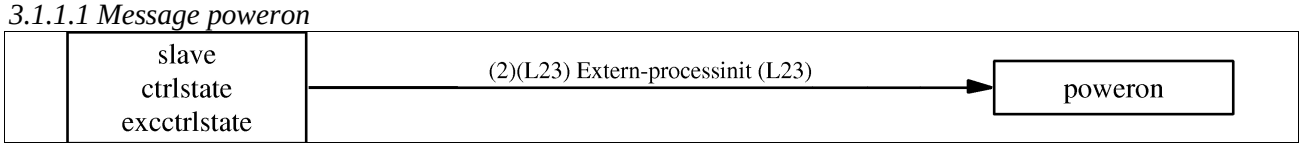
3.1.1.1 Message poweron



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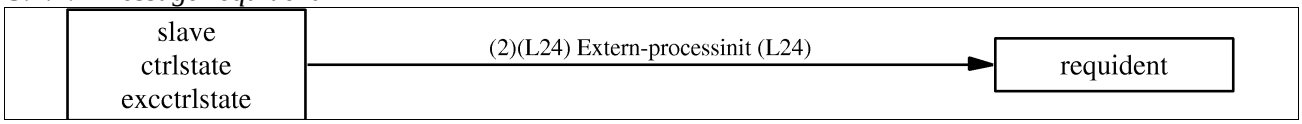

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3.1.1.3 Message excprocessinit

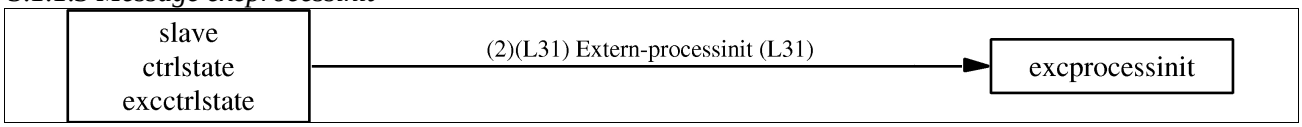

Fig. 25: Inverse Data Flow of Process Process master, initState processinit, msgIn excprocessinit

3.1.2 State register

3.1.2.1 Message movetoinitpos

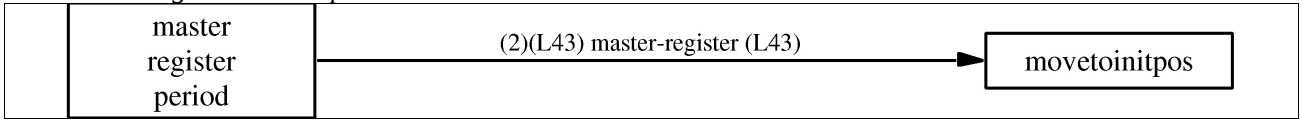

Fig. 26: Inverse Data Flow of Process Process master, initState register, msgIn movetoinitpos

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3.1.2.2 Message exctorequident

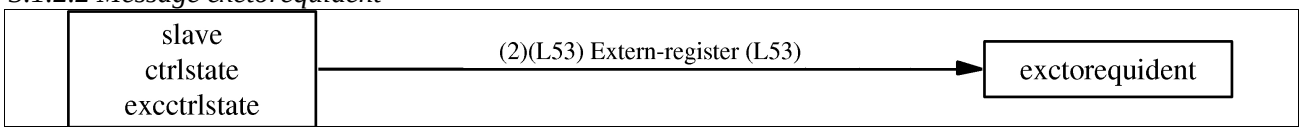


Fig. 27: Inverse Data Flow of Process Process master, initState register, msgIn exctorequident

3.1.2.3 Message excregister

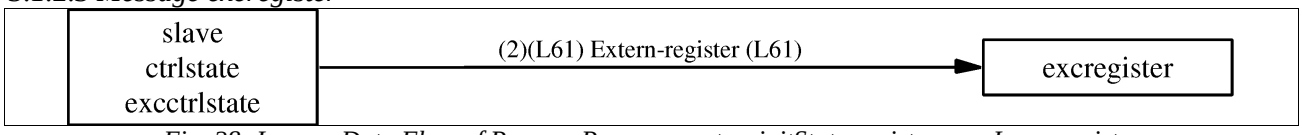
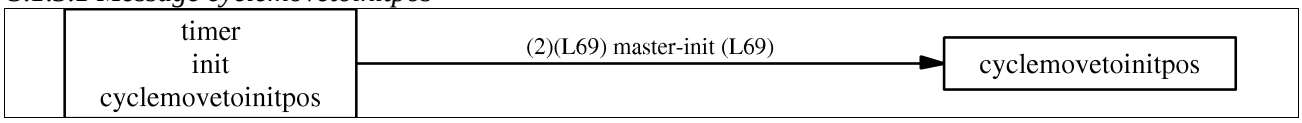


Fig. 28: Inverse Data Flow of Process Process master, initState register, msgIn excregister

3.1.3 State init

3.1.3.1 Message cyclemovetoinitpos



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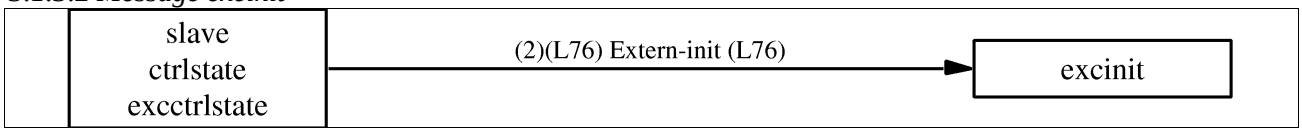

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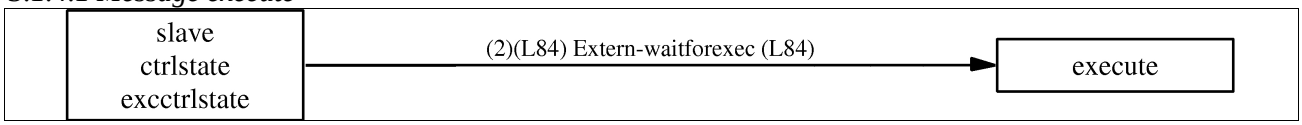

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3.1.4.2 Message startexec

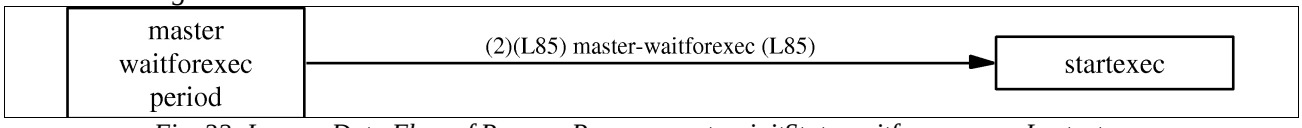

Fig. 32: Inverse Data Flow of Process Process master, initState waitforexec, msgIn startexec

3.1.4.3 Message excwaitforexec

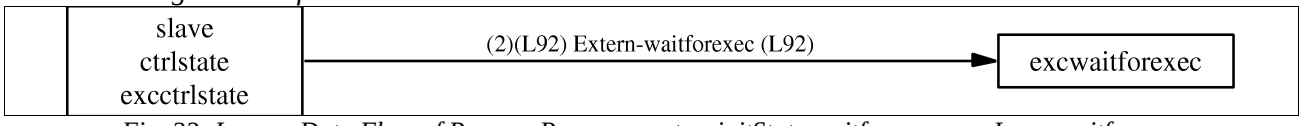

Fig. 33: Inverse Data Flow of Process Process master, initState waitforexec, msgIn excwaitforexec

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3.1.5 State execution

3.1.5.1 Message cyclestartexec

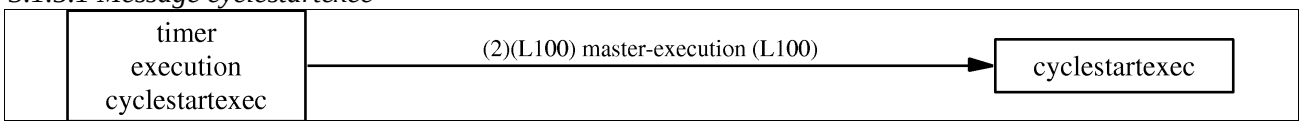


Fig. 34: Inverse Data Flow of Process Process master, initState execution, msgIn cyclestartexec

3.1.5.2 Message excexecution

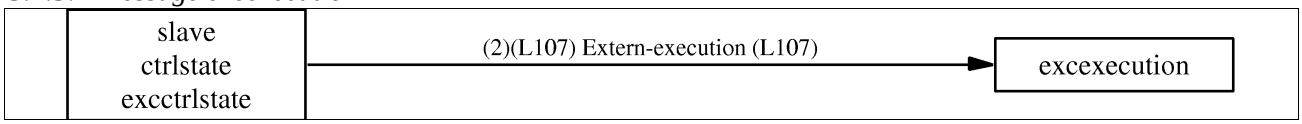
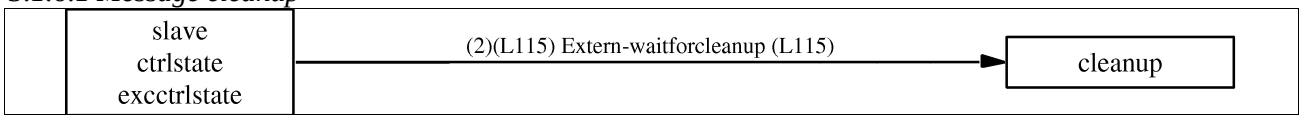


Fig. 35: Inverse Data Flow of Process Process master, initState execution, msgIn excexecution

3.1.6 State waitforcleanup

3.1.6.1 Message cleanup



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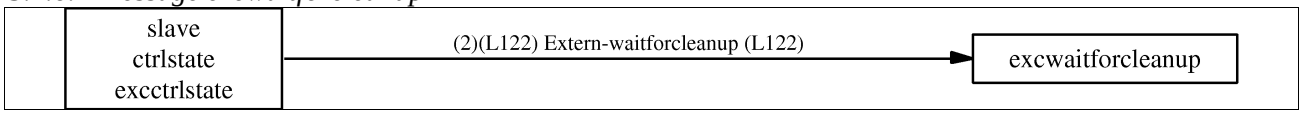

Fig. 37: Inverse Data Flow of Process Process master, initState waitforcleanup, msgIn excwaitforcleanup

3.2 Process slave

3.2.1 State anystate

3.2.1.1 Message processinit

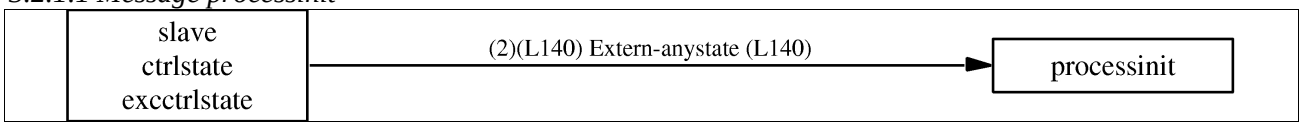

Fig. 38: Inverse Data Flow of Process Process slave, initState anystate, msgIn processinit

3.2.1.2 Message senddata

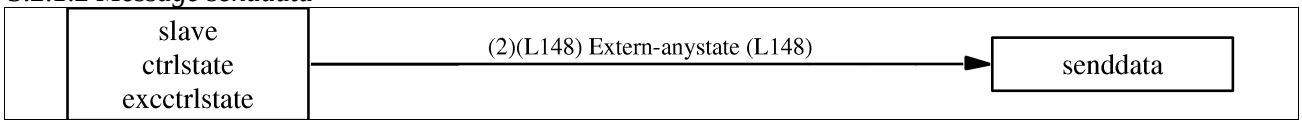

Fig. 39: Inverse Data Flow of Process Process slave, initState anystate, msgIn senddata

3.2.1.3 Message terminate

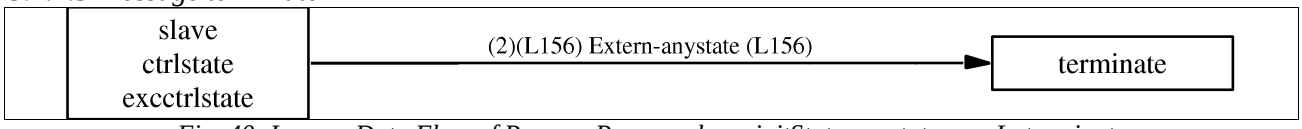

Fig. 40: Inverse Data Flow of Process Process slave, initState anystate, msgIn terminate

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3.2.2 State ctrlstate

3.2.2.1 Message excctrlstate

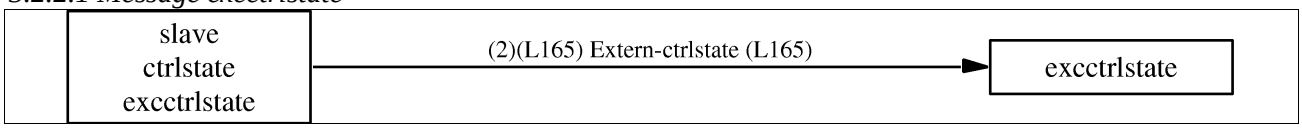

Fig. 41: Inverse Data Flow of Process Process slave, initState ctrlstate, msgIn excctrlstate

4 DETAILED STATE TRANSITIONS

4.1 Process master

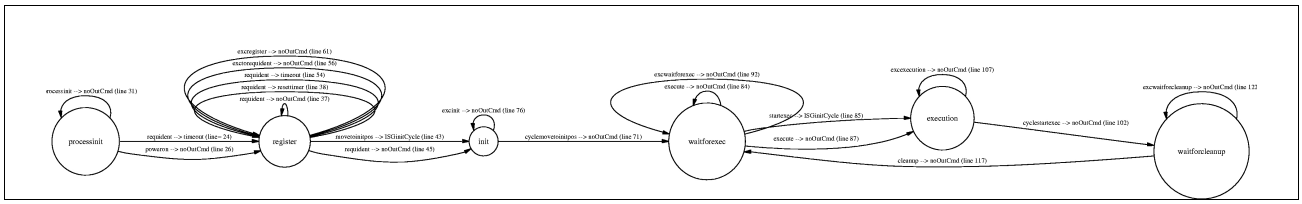

Fig. 42: Detailed State Transitions of Process Process master

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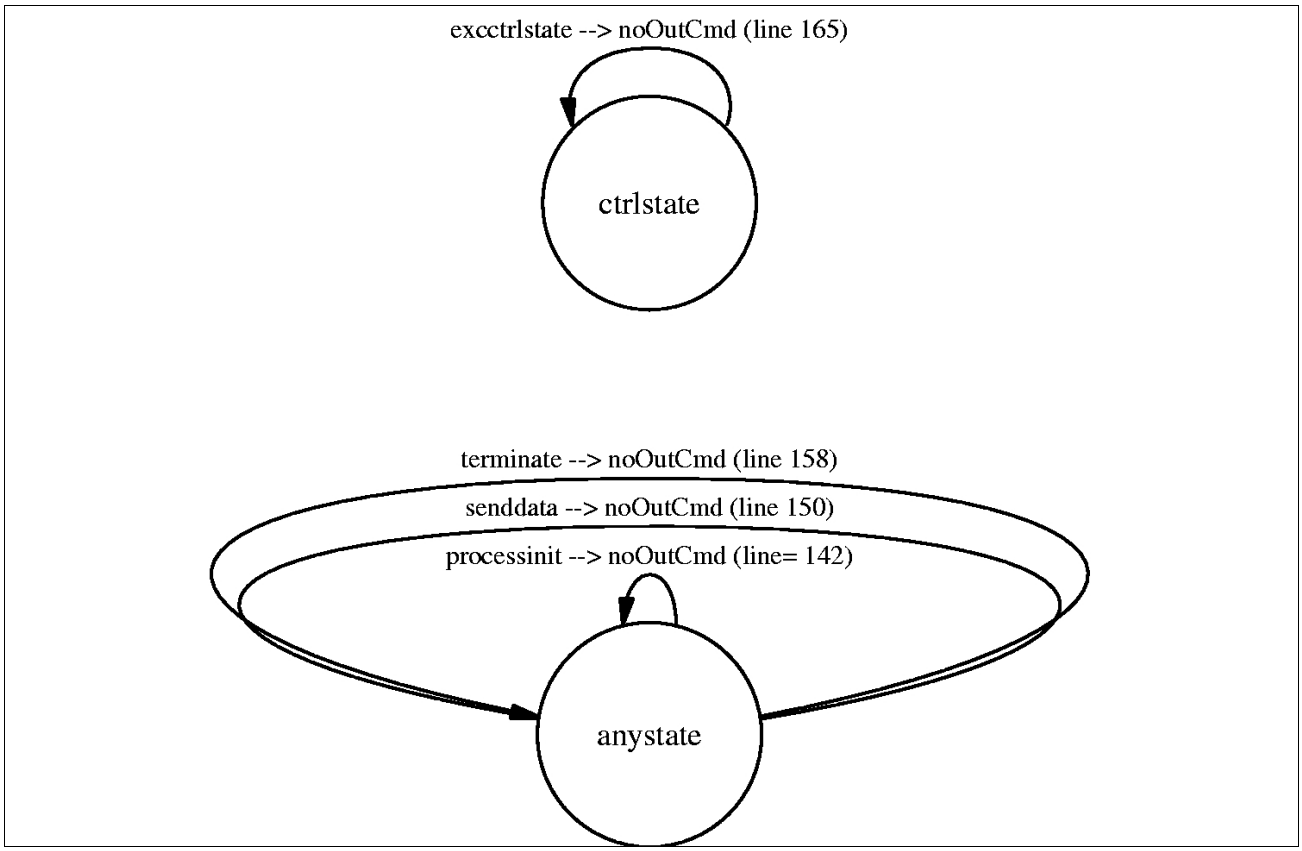

Fig. 43: Detailed State Transitions of Process Process slave

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5 SUMMARY OF STATE TRANSITIONS

5.1 Process master

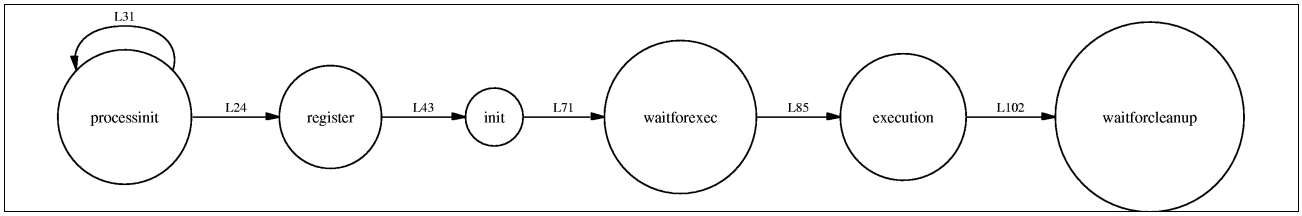

Fig. 44: Summary of State Transitions of Process Process master

5.2 Process slave

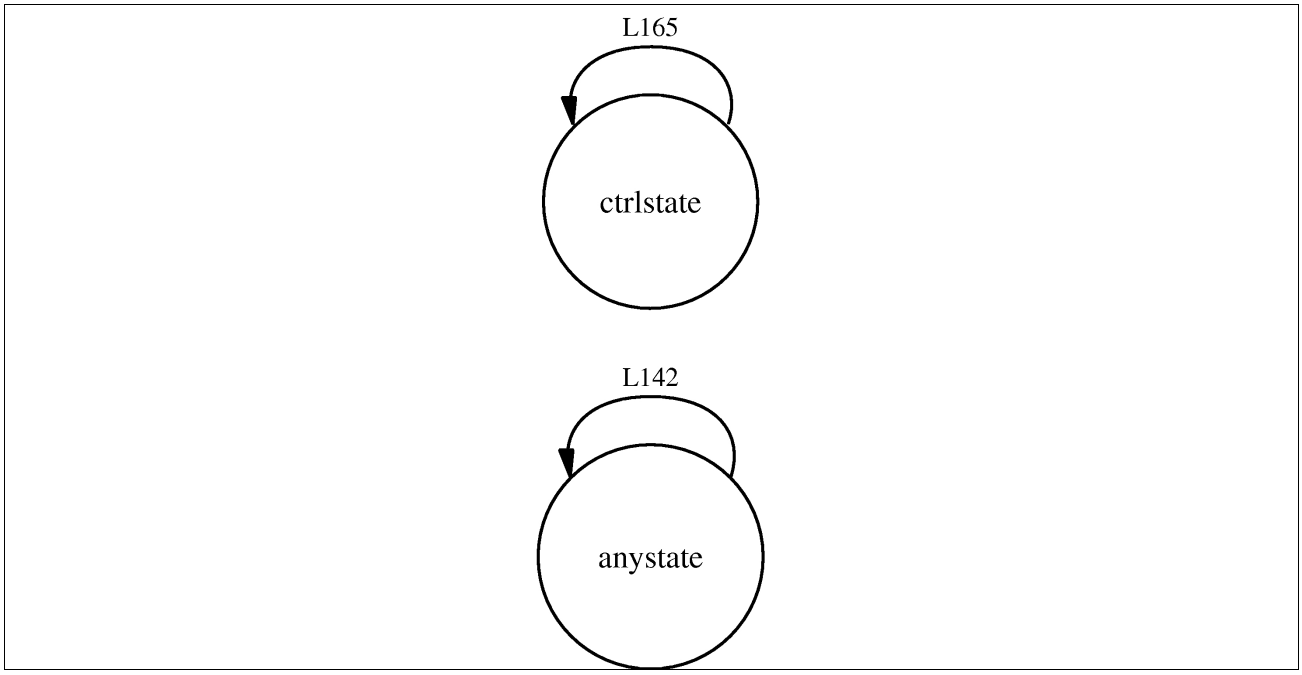

Fig. 45: Summary of State Transitions of Process Process slave

6 COMPLETE DATA FLOW OF THE SYSTEM

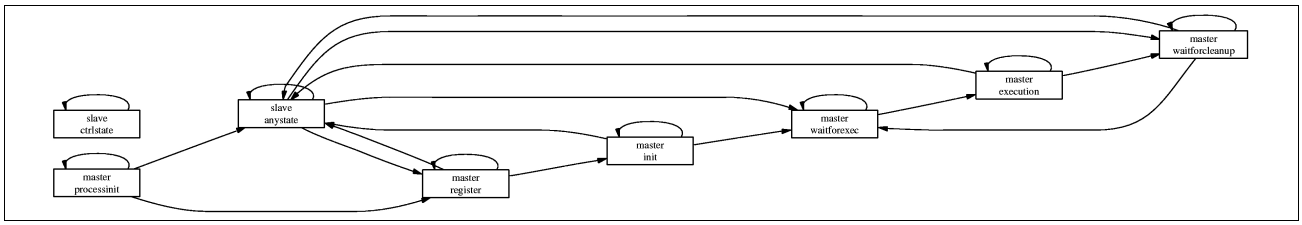

Fig. 46: Complete Data Flow of the System

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7 HIERACHY OF FUNCTIONS

7.1 Process master

7.1.1 State Caller-Called Relationship

7.1.1.1 Message Calling Function gu_TYMASTEROPS_execstatecommandmaster

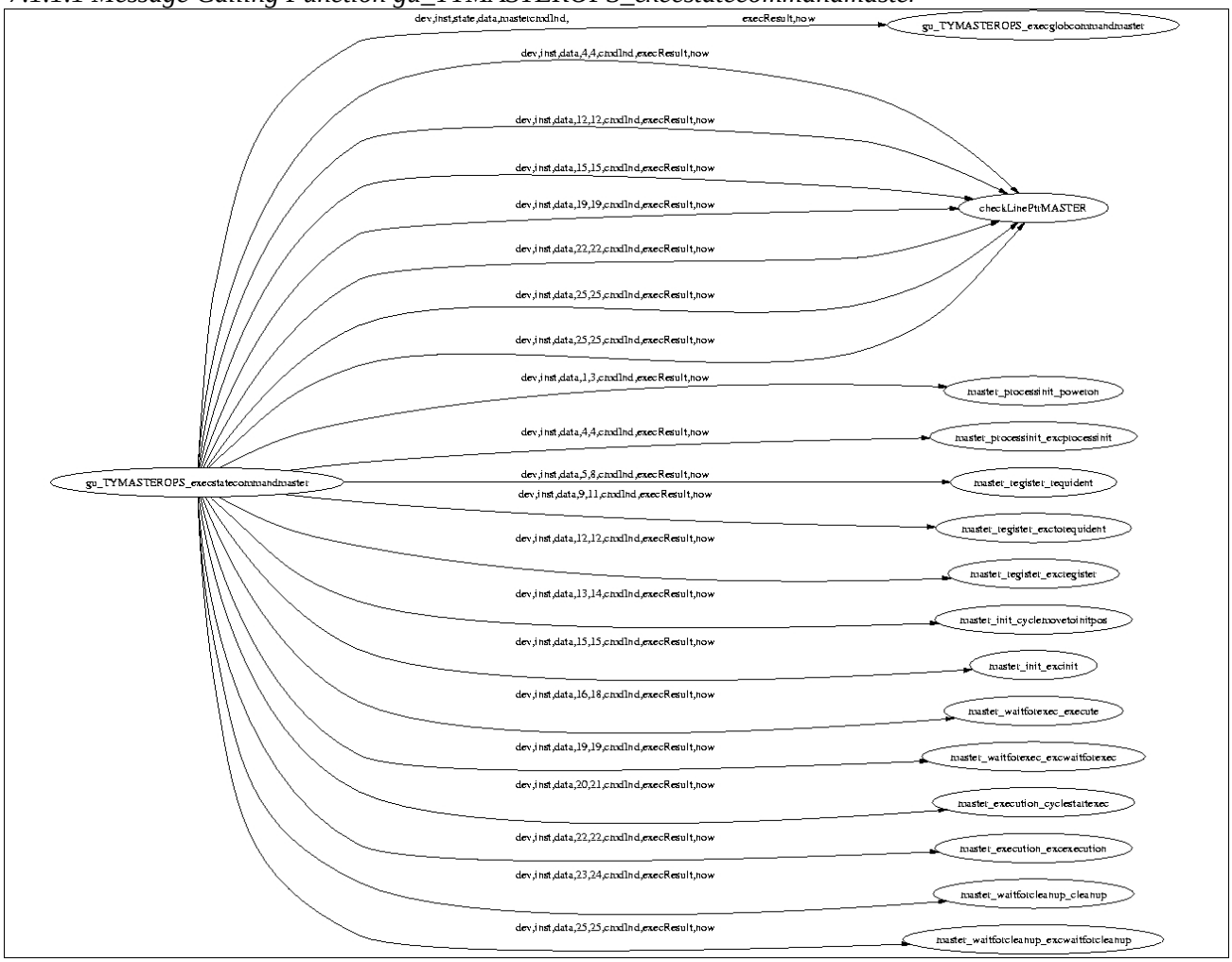

Fig. 47: Caller-Called Relationship of Process master, Calling Function gu_TYMASTEROPS_execstatecommandmaster

7.1.1.2 Message Calling Function gu_TYMASTEROPS_execglobcommandmaster

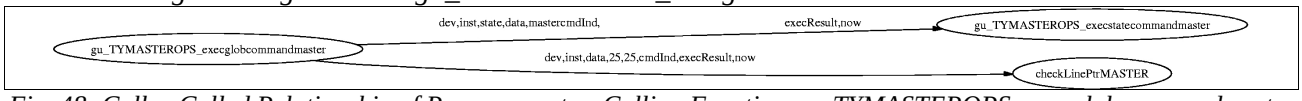

Fig. 48: Caller-Called Relationship of Process master, Calling Function gu_TYMASTEROPS_execglobcommandmaster

7.1.1.3 Message Calling Function gu_TYMASTEROPS_exectimerentrymaster

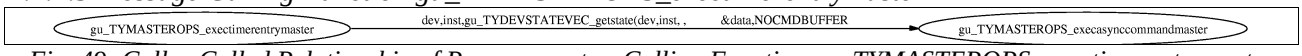

Fig. 49: Caller-Called Relationship of Process master, Calling Function gu_TYMASTEROPS_exectimerentrymaster

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7.1.1.4 Message Calling Function master_processinit_excprocessinit

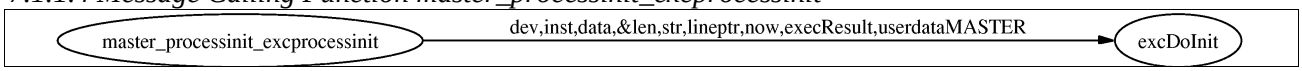

Fig. 50: Caller-Called Relationship of Process master, Calling Function master_processinit_excprocessinit

7.1.1.5 Message Calling Function master_register_excregister

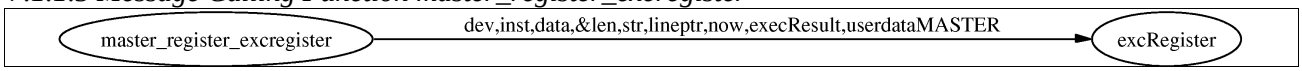

Fig. 51: Caller-Called Relationship of Process master, Calling Function master_register_excregister

7.1.1.6 Message Calling Function master_init_excinit

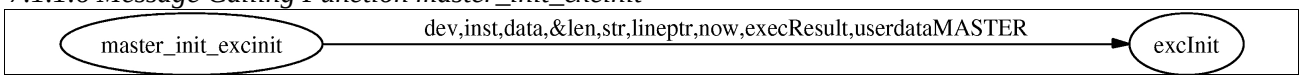

Fig. 52: Caller-Called Relationship of Process master, Calling Function master_init_excinit

7.1.1.7 Message Calling Function master_waitforexec_excwaitforexec

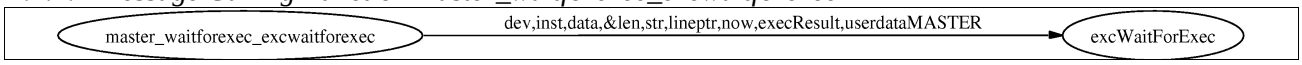

Fig. 53: Caller-Called Relationship of Process master, Calling Function master_waitforexec_excwaitforexec

7.1.1.8 Message Calling Function master_execution_excexecution

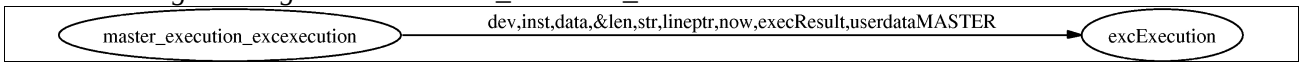

Fig. 54: Caller-Called Relationship of Process master, Calling Function master_execution_excexecution

7.1.1.9 Message Calling Function master_waitforcleanup_excwaitforcleanup

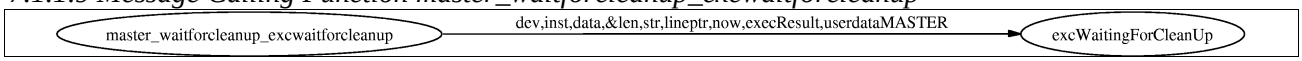

Fig. 55: Caller-Called Relationship of Process master, Calling Function master_waitforcleanup_excwaitforcleanup

7.1.1.10 Message Calling Function masterreceiveUDP

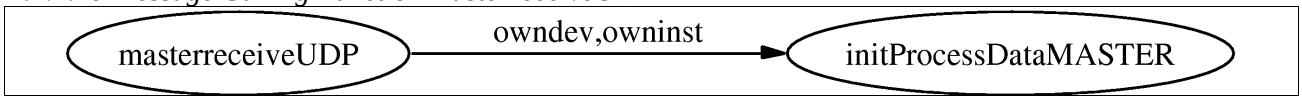

Fig. 56: Caller-Called Relationship of Process master, Calling Function masterreceiveUDP

7.1.1.11 Message Calling Function main

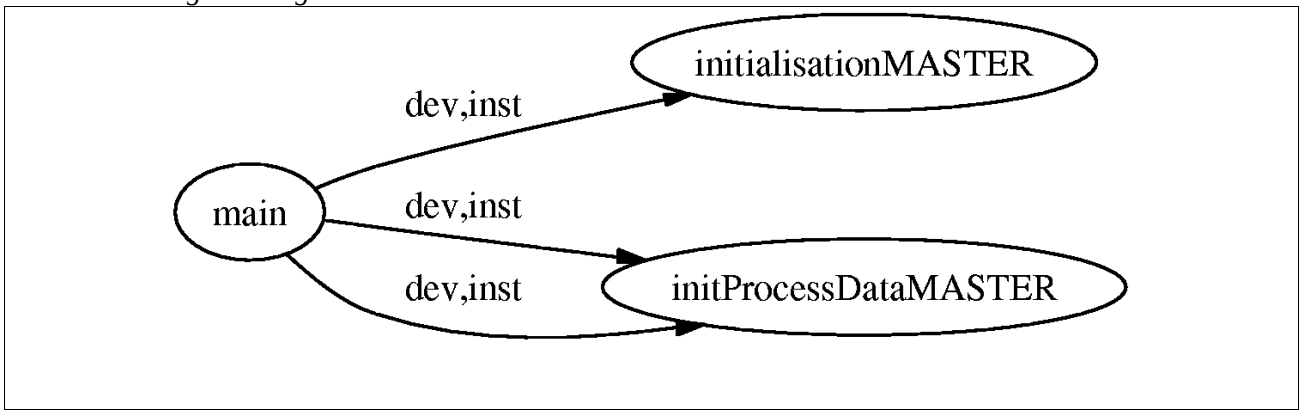

Fig. 57: Caller-Called Relationship of Process master, Calling Function main

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7.1.2 State Called-Caller Relationship

7.1.2.1 Message Called Function initialisationMASTER

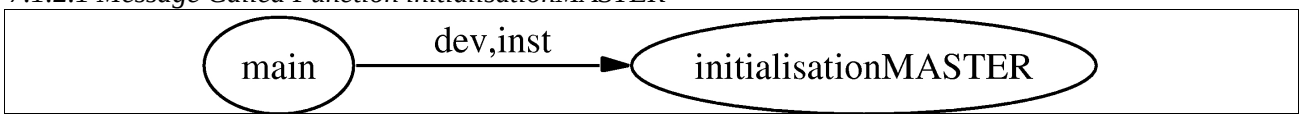

Fig. 58: Called-Caller Relationship of Process master, Called Function initialisationMASTER

7.1.2.2 Message Called Function initProcessDataMASTER

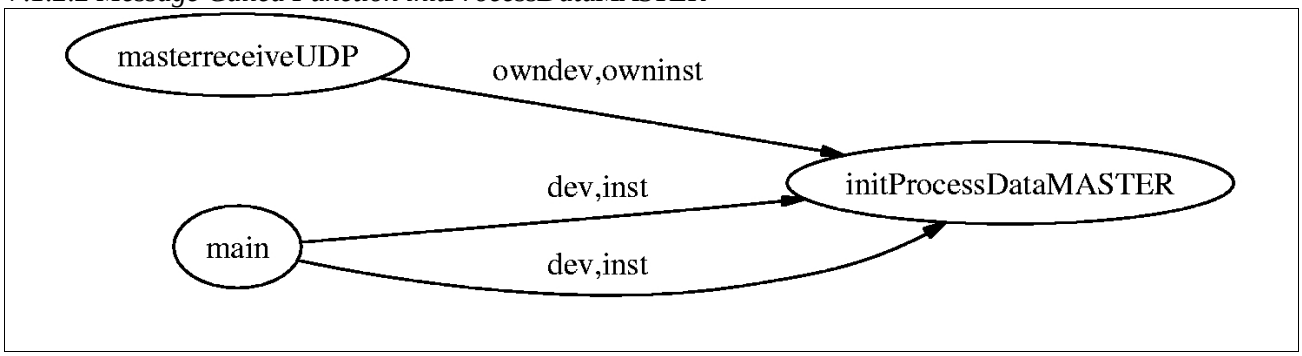

Fig. 59: Called-Caller Relationship of Process master, Called Function initProcessDataMASTER

7.1.2.3 Message Called Function gu_TYMASTEROPS_execstatecommandmaster

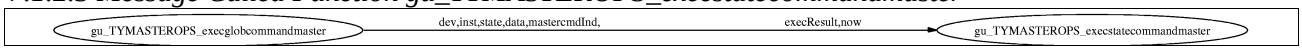

Fig. 60: Called-Caller Relationship of Process master, Called Function gu_TYMASTEROPS_execstatecommandmaster

7.1.2.4 Message Called Function gu_TYMASTEROPS_execglobcommandmaster

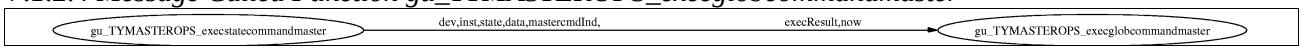

Fig. 61: Called-Caller Relationship of Process master, Called Function gu_TYMASTEROPS_execglobcommandmaster

7.1.2.5 Message Called Function gu_TYMASTEROPS_execasynccommandmaster

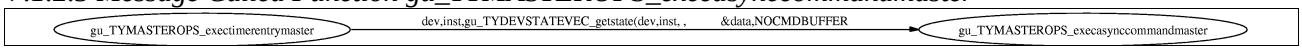

Fig. 62: Called-Caller Relationship of Process master, Called Function gu_TYMASTEROPS_execasynccommandmaster

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7.1.2.6 Message Called Function checkLinePtrMASTER

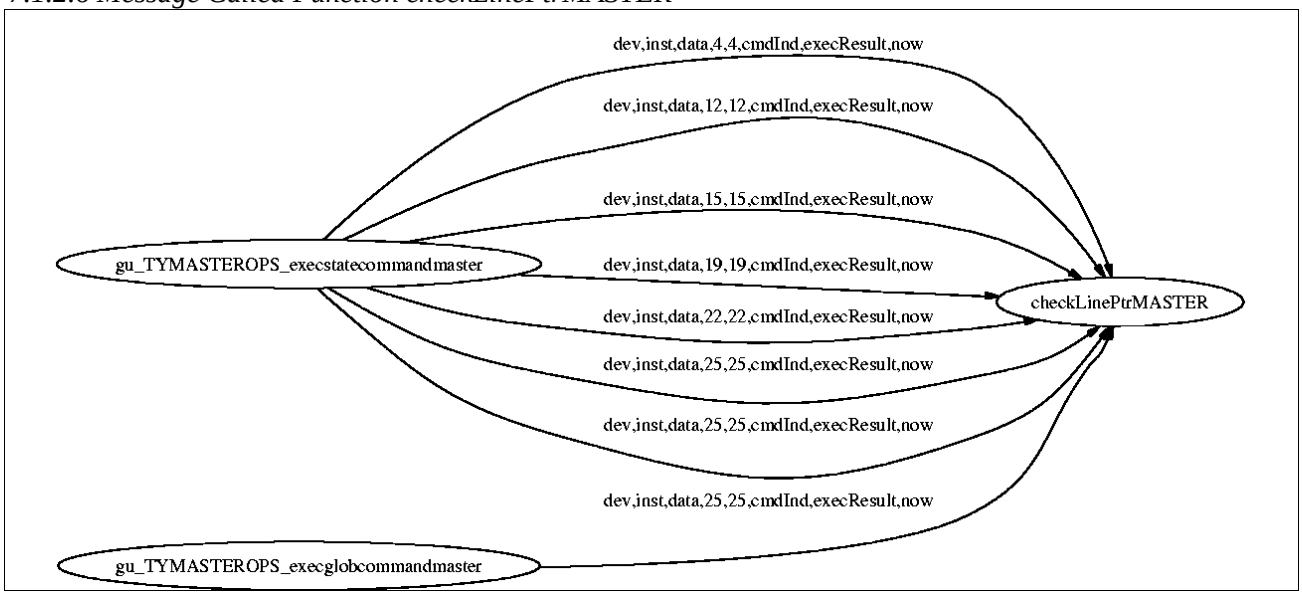

Fig. 63: Called-Caller Relationship of Process master, Called Function checkLinePtrMASTER

7.1.2.7 Message Called Function master_processinit_poweron

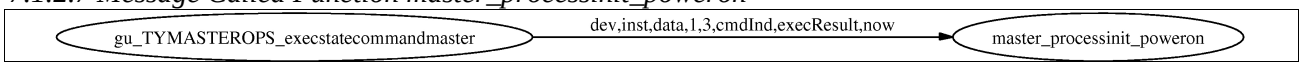

Fig. 64: Called-Caller Relationship of Process master, Called Function master_processinit_poweron

7.1.2.8 Message Called Function master_processinit_excprocessinit

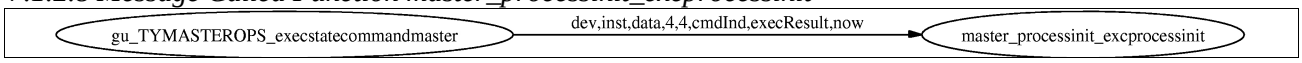

Fig. 65: Called-Caller Relationship of Process master, Called Function master_processinit_excprocessinit

7.1.2.9 Message Called Function master_register_requident

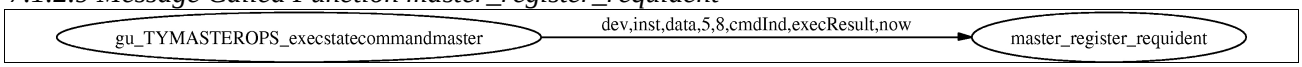

Fig. 66: Called-Caller Relationship of Process master, Called Function master_register_requident

7.1.2.10 Message Called Function master_register_exctorequident

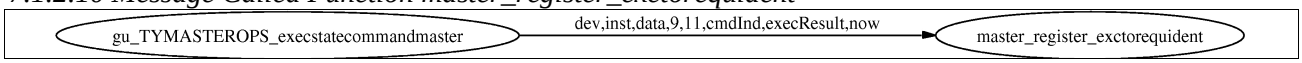

Fig. 67: Called-Caller Relationship of Process master, Called Function master_register_exctorequident

7.1.2.11 Message Called Function master_register_excregister

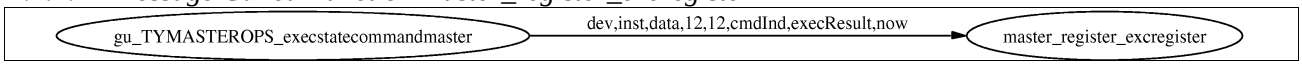

Fig. 68: Called-Caller Relationship of Process master, Called Function master_register_excregister

7.1.2.12 Message Called Function master_init_cyclemovetoinitpos

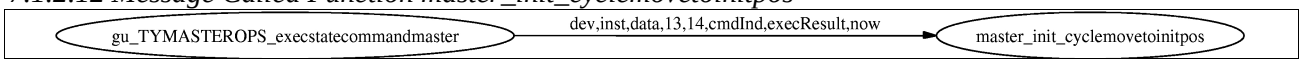

Fig. 69: Called-Caller Relationship of Process master, Called Function master_init_cyclemovetoinitpos

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7.1.2.13 Message Called Function master_init_excinit

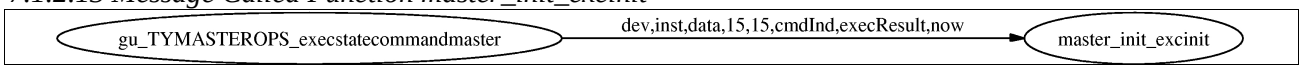

Fig. 70: Called-Caller Relationship of Process master, Called Function master_init_excinit

7.1.2.14 Message Called Function master_waitforexec_execute

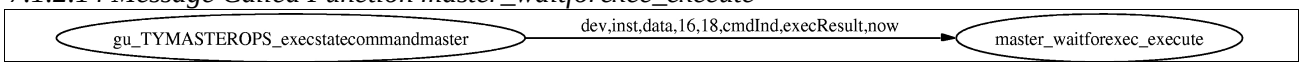

Fig. 71: Called-Caller Relationship of Process master, Called Function master_waitforexec_execute

7.1.2.15 Message Called Function master_waitforexec_excwaitforexec

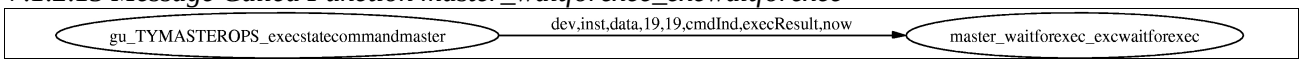

Fig. 72: Called-Caller Relationship of Process master, Called Function master_waitforexec_excwaitforexec

7.1.2.16 Message Called Function master_execution_cyclestartexec

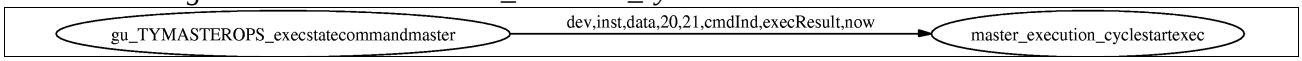

Fig. 73: Called-Caller Relationship of Process master, Called Function master_execution_cyclestartexec

7.1.2.17 Message Called Function master_execution_excexecution

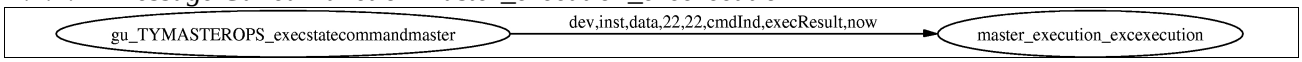

Fig. 74: Called-Caller Relationship of Process master, Called Function master_execution_excexecution

7.1.2.18 Message Called Function master_waitforcleanup_cleanup

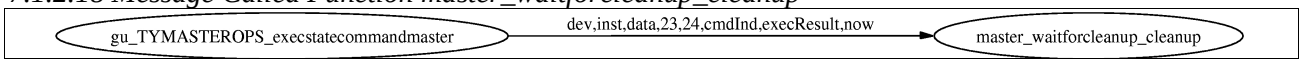

Fig. 75: Called-Caller Relationship of Process master, Called Function master_waitforcleanup_cleanup

7.1.2.19 Message Called Function master_waitforcleanup_excwaitforcleanup

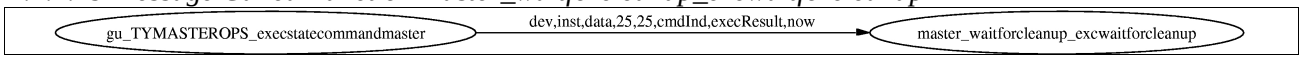

Fig. 76: Called-Caller Relationship of Process master, Called Function master_waitforcleanup_excwaitforcleanup

7.1.2.20 Message Called Function excDoInit

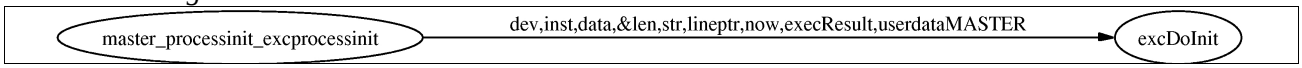

Fig. 77: Called-Caller Relationship of Process master, Called Function excDoInit

7.1.2.21 Message Called Function excRegister

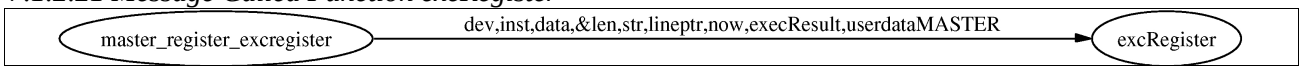

Fig. 78: Called-Caller Relationship of Process master, Called Function excRegister

7.1.2.22 Message Called Function excInit

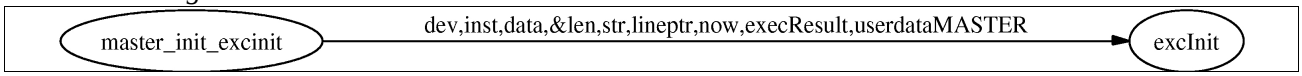

Fig. 79: Called-Caller Relationship of Process master, Called Function excInit

7.1.2.23 Message Called Function excWaitForExec

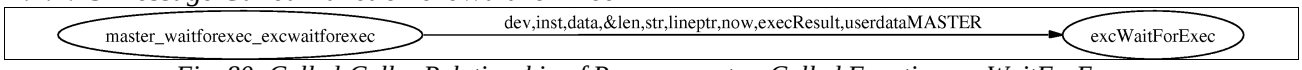

Fig. 80: Called-Caller Relationship of Process master, Called Function excWaitForExec

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7.1.2.24 Message Called Function excExecution

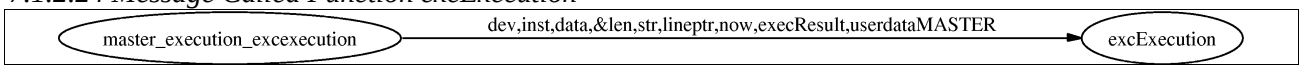

Fig. 81: Called-Caller Relationship of Process master, Called Function excExecution

7.1.2.25 Message Called Function excWaitingForCleanUp

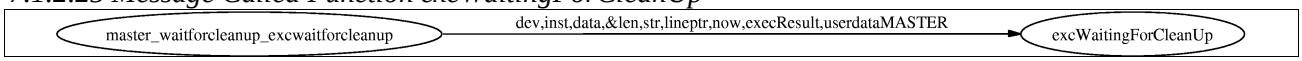

Fig. 82: Called-Caller Relationship of Process master, Called Function excWaitingForCleanUp

7.1.3 State Complete Function Hierachy of Process master

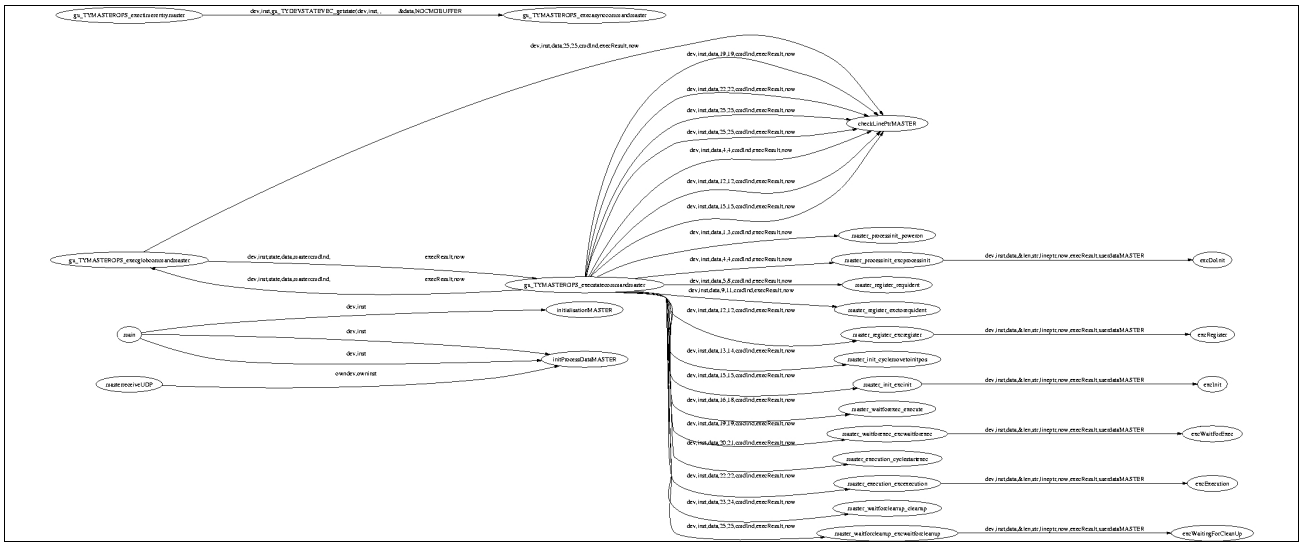

Fig. 83: Function Hierachy of Process master

7.2 Process slave

7.2.1 State Caller-Called Relationship

7.2.1.1 Message Calling Function gu_TYSLAVEOPS_execstatecommandslave

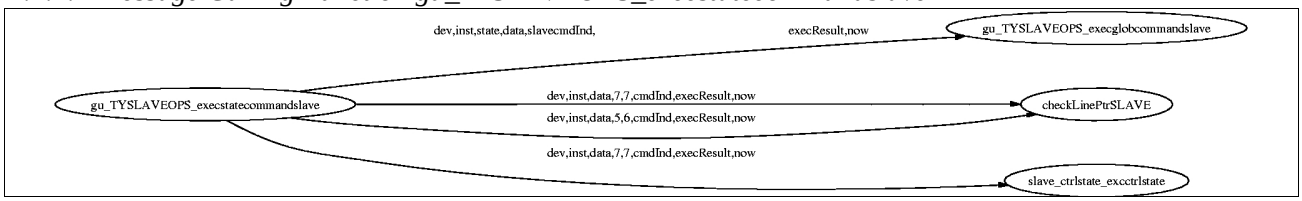

Fig. 84: Caller-Called Relationship of Process slave, Calling Function gu_TYSLAVEOPS_execstatecommandslave

7.2.1.2 Message Calling Function gu_TYSLAVEOPS_execglobcommandslave

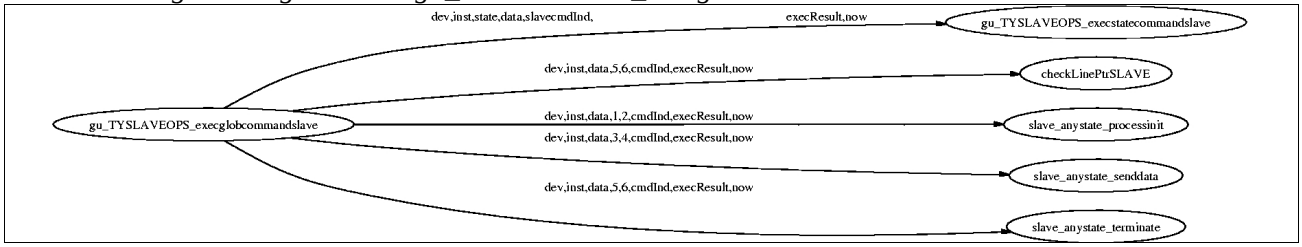

Fig. 85: Caller-Called Relationship of Process slave, Calling Function gu_TYSLAVEOPS_execglobcommandslave

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7.2.1.3 Message Calling Function gu_TYSLAVEOPS_exectimerentryslave

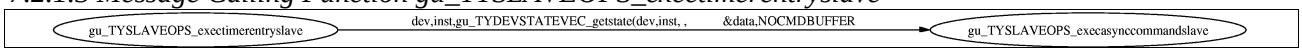

Fig. 86: Caller-Called Relationship of Process slave, Calling Function gu_TYSLAVEOPS_exectimerentryslave

7.2.1.4 Message Calling Function slave_ctrlstate_excctrlstate

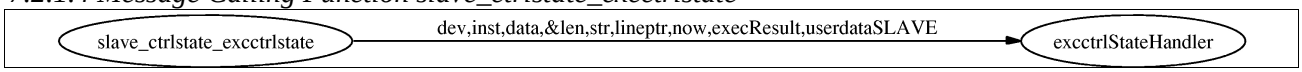

Fig. 87: Caller-Called Relationship of Process slave, Calling Function slave_ctrlstate_excctrlstate

7.2.1.5 Message Calling Function slavereceiveUDP

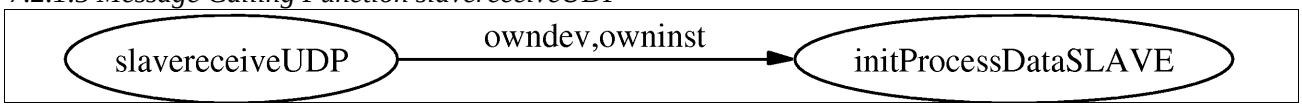

Fig. 88: Caller-Called Relationship of Process slave, Calling Function slavereceiveUDP

7.2.1.6 Message Calling Function main

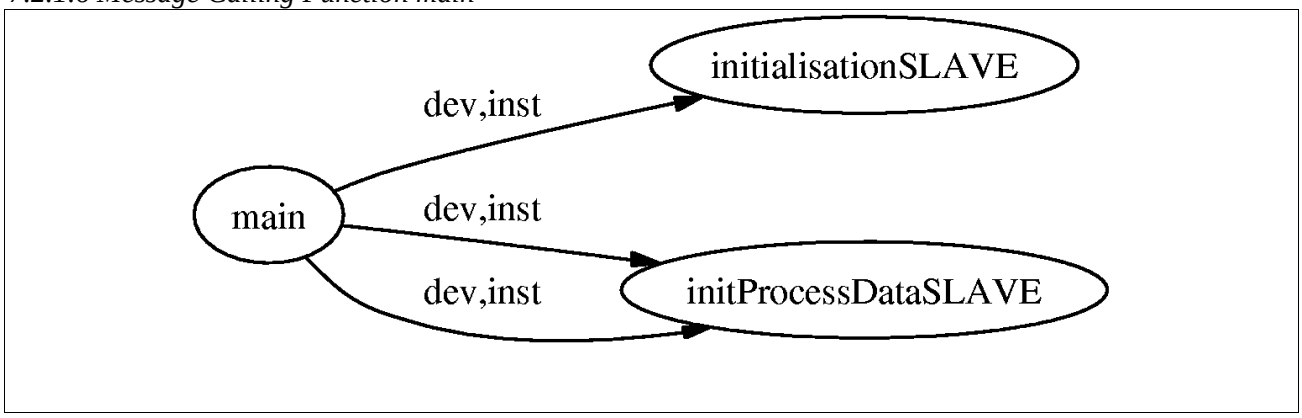

Fig. 89: Caller-Called Relationship of Process slave, Calling Function main

7.2.2 State Called-Caller Relationship

7.2.2.1 Message Called Function initialisationSLAVE

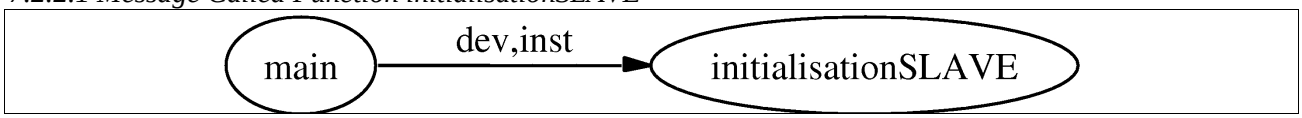

Fig. 90: Called-Caller Relationship of Process slave, Called Function initialisationSLAVE

7.2.2.2 Message Called Function initProcessDataSLAVE

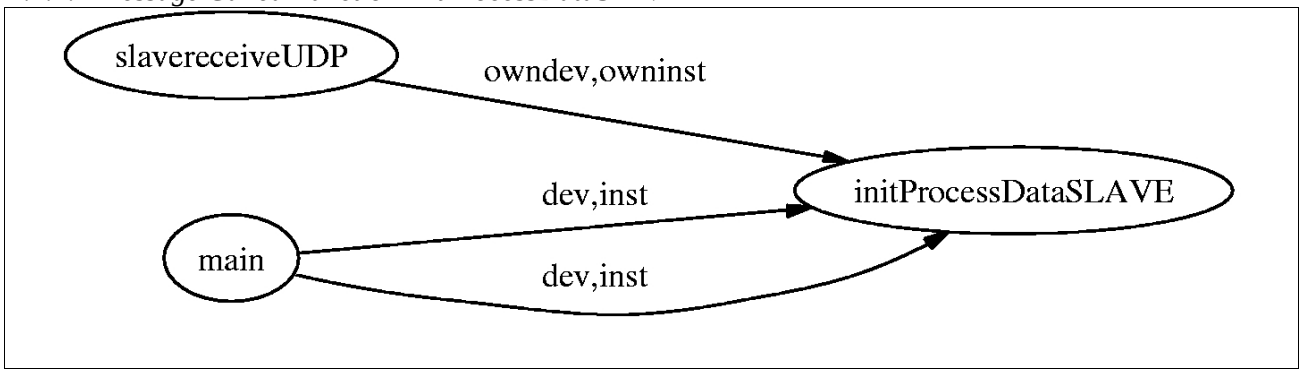

Fig. 91: Called-Caller Relationship of Process slave, Called Function initProcessDataSLAVE

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7.2.2.3 Message Called Function gu_TYSLAVEOPS_execstatecommandslave

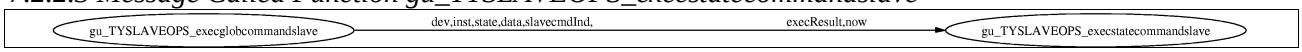

Fig. 92: Called-Caller Relationship of Process slave, Called Function gu_TYSLAVEOPS_execstatecommandslave

7.2.2.4 Message Called Function gu_TYSLAVEOPS_execglobcommandslave

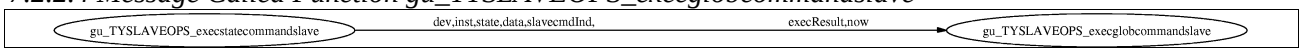

Fig. 93: Called-Caller Relationship of Process slave, Called Function gu_TYSLAVEOPS_execglobcommandslave

7.2.2.5 Message Called Function gu_TYSLAVEOPS_execasynccommandslave

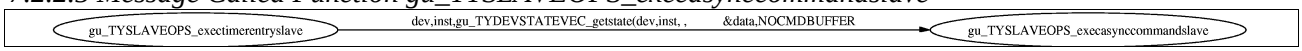

Fig. 94: Called-Caller Relationship of Process slave, Called Function gu_TYSLAVEOPS_execasynccommandslave

7.2.2.6 Message Called Function checkLinePtrSLAVE

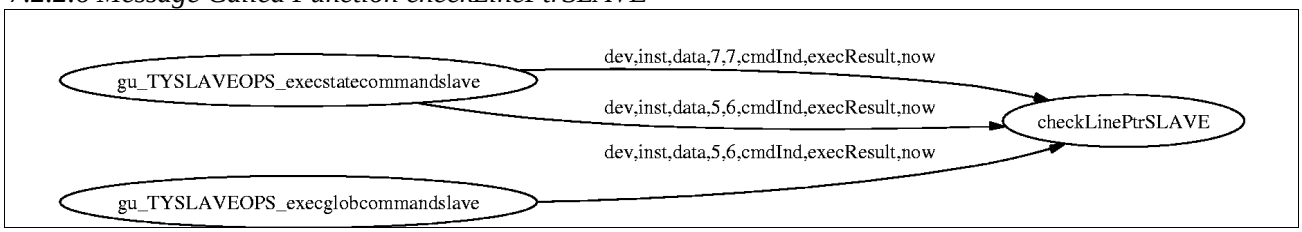

Fig. 95: Called-Caller Relationship of Process slave, Called Function checkLinePtrSLAVE

7.2.2.7 Message Called Function slave_anystate_processinit

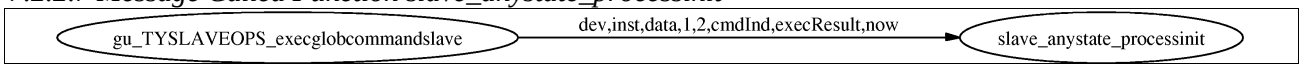

Fig. 96: Called-Caller Relationship of Process slave, Called Function slave_anystate_processinit

7.2.2.8 Message Called Function slave_anystate_senddata

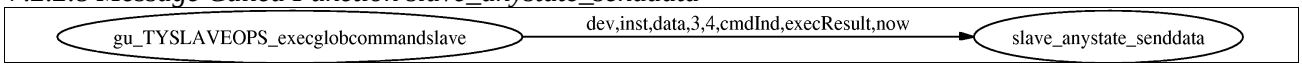

Fig. 97: Called-Caller Relationship of Process slave, Called Function slave_anystate_senddata

7.2.2.9 Message Called Function slave_anystate_terminate

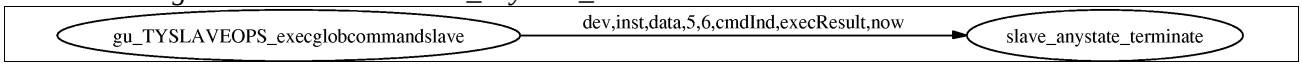

Fig. 98: Called-Caller Relationship of Process slave, Called Function slave_anystate_terminate

7.2.2.10 Message Called Function slave_ctrlstate_excctrlstate

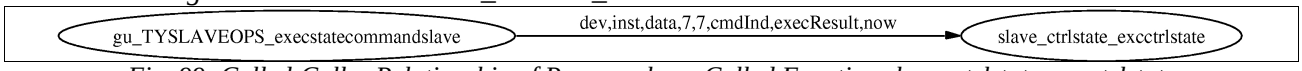

Fig. 99: Called-Caller Relationship of Process slave, Called Function slave_ctrlstate_excctrlstate

7.2.2.11 Message Called Function excctrlStateHandler

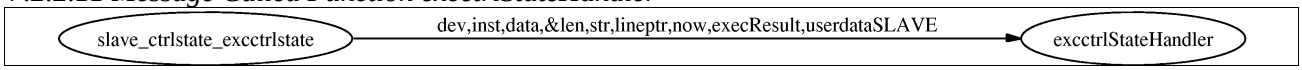

Fig. 100: Called-Caller Relationship of Process slave, Called Function excctrlStateHandler

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7.2.3 State Complete Function Hierachy of Process slave

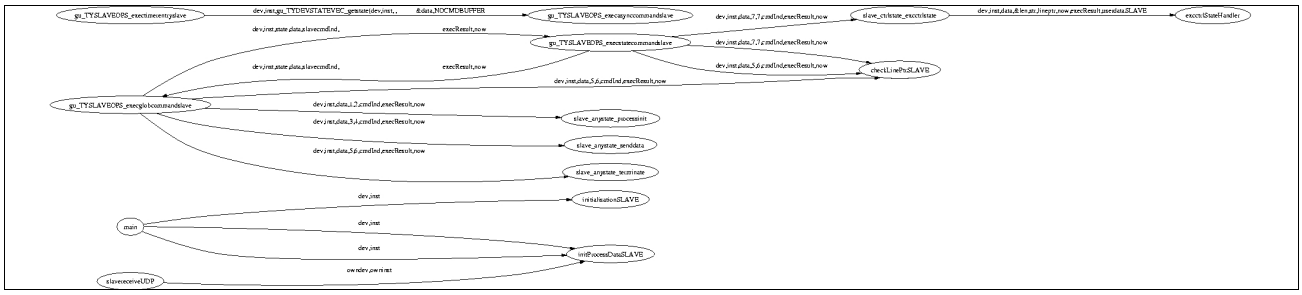

Fig. 101: Function Hierachy of Process slave

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