# **b01\_OSnScheduler**

**Design Description**

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KCNC / Control System Research Team

**b01\_OSnScheduler: Design Description**

지은이 KCNC / Control System Research Team

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# **차례**

[**1장. Model Version**](#_17)[**1**](#_17)

[**2장. Root System**](#_34)[**2**](#_34)

[Interface](#_57) [2](#_57)

[Output Signals](#_59) [2](#_59)

[Blocks](#_111) [3](#_111)

[Parameters](#_113) [3](#_113)

["BI\_mSched\_i32CntForSch" (Outport)](#_116) [3](#_116)

["BO\_mSched\_i32CntForVarGain" (Outport)](#_207) [4](#_207)

["BO\_mSched\_uFlagSpdCtrl" (Outport)](#_298) [6](#_298)

["BO\_mSched\_uFlagSpdSlop" (Outport)](#_389) [8](#_389)

[Block Execution Order](#_484) [9](#_484)

[**3장. Subsystems**](#_522)[**10**](#_522)

[Ftn\_TaskScheduling](#_525) [10](#_525)

[Interface](#_564) [10](#_564)

[Output Signals](#_566) [10](#_566)

[Blocks](#_620) [11](#_620)

[Parameters](#_622) [11](#_622)

["CB\_i32CntMaxForSch" (Constant)](#_625) [11](#_625)

["CB\_i32CntMaxForSpdCtrl" (Constant)](#_662) [12](#_662)

["CB\_i32CntMaxForVarGain" (Constant)](#_699) [12](#_699)

["CB\_i32Every8" (Constant)](#_736) [13](#_736)

["CB\_i32InitCntForSch" (Constant)](#_773) [13](#_773)

["CB\_u16False" (Constant)](#_810) [14](#_810)

["CB\_u16True" (Constant)](#_847) [15](#_847)

["mSched\_i32CntForSch" (Outport)](#_885) [15](#_885)

["mSched\_i32CntForVarGain" (Outport)](#_961) [17](#_961)

["mSched\_uFlagSpdCtrl" (Outport)](#_1037) [18](#_1037)

["mSched\_uFlagSpdSlop" (Outport)](#_1113) [19](#_1113)

[Block Execution Order](#_1189) [21](#_1189)

[State Charts](#_1222) [21](#_1222)

[Chart](#_1225) [21](#_1225)

[Data](#_1317) [22](#_1317)

[**4장. System Design Variables**](#_1466)[**24**](#_1466)

[Design Variable Summary](#_1468) [24](#_1468)

[Design Variable Details](#_1554) [24](#_1554)

[**5장. Requirements**](#_2644)[**33**](#_2644)

[**6장. System Model Configuration**](#_2649)[**34**](#_2649)

[**7장. Glossary**](#_6862)[**64**](#_6862)

[**8장. About this Report**](#_6909)[**65**](#_6909)

[Report Overview](#_6911) [65](#_6911)

[Root System Description](#_6956) [65](#_6956)

[Subsystem Descriptions](#_6999) [66](#_6999)

[State Chart Descriptions](#_7047) [66](#_7047)

# **표 목록**

[2-1. Output Signals](#_61) [2](#_61)

[2-2. "BI\_mSched\_i32CntForSch" Parameters](#_118) [3](#_118)

[2-3. "BO\_mSched\_i32CntForVarGain" Parameters](#_209) [4](#_209)

[2-4. "BO\_mSched\_uFlagSpdCtrl" Parameters](#_300) [6](#_300)

[2-5. "BO\_mSched\_uFlagSpdSlop" Parameters](#_391) [8](#_391)

[3-1. Output Signals](#_570) [10](#_570)

[3-2. "CB\_i32CntMaxForSch" Parameters](#_627) [11](#_627)

[3-3. "CB\_i32CntMaxForSpdCtrl" Parameters](#_664) [12](#_664)

[3-4. "CB\_i32CntMaxForVarGain" Parameters](#_701) [12](#_701)

[3-5. "CB\_i32Every8" Parameters](#_738) [13](#_738)

[3-6. "CB\_i32InitCntForSch" Parameters](#_775) [13](#_775)

[3-7. "CB\_u16False" Parameters](#_812) [14](#_812)

[3-8. "CB\_u16True" Parameters](#_849) [15](#_849)

[3-9. "mSched\_i32CntForSch" Parameters](#_887) [15](#_887)

[3-10. "mSched\_i32CntForVarGain" Parameters](#_963) [17](#_963)

[3-11. "mSched\_uFlagSpdCtrl" Parameters](#_1039) [18](#_1039)

[3-12. "mSched\_uFlagSpdSlop" Parameters](#_1115) [19](#_1115)

[3-13. Data - i32CntForSpdCtrl](#_1319) [22](#_1319)

[3-14. Data - i32CntMaxForSch](#_1334) [22](#_1334)

[3-15. Data - i32CntMaxForSpdCtrl](#_1346) [22](#_1346)

[3-16. Data - i32CntMaxForVarGain](#_1358) [22](#_1358)

[3-17. Data - i32Every8](#_1370) [22](#_1370)

[3-18. Data - i32InitCntForSch](#_1382) [22](#_1382)

[3-19. Data - mSched\_i32CntForSch](#_1394) [23](#_1394)

[3-20. Data - mSched\_i32CntForVarGain](#_1406) [23](#_1406)

[3-21. Data - mSched\_uFlagSpdCtrl](#_1418) [23](#_1418)

[3-22. Data - mSched\_uFlagSpdSlop](#_1430) [23](#_1430)

[3-23. Data - u16False](#_1442) [23](#_1442)

[3-24. Data - u16True](#_1454) [23](#_1454)

[4-1. Design Variables](#_1470) [24](#_1470)

[4-2. B01SCHED](#_1558) [24](#_1558)

[4-3. **B01SCHED [24] .Value**](#_1606) [25](#_1606)

[4-4. **B01SCHED [24] .CoderInfo**](#_1671) [25](#_1671)

[4-5. **B01SCHED.CoderInfo [25] .CustomAttributes**](#_1711) [26](#_1711)

[4-6. S\_B01SCHED](#_1752) [26](#_1752)

[4-7. **S\_B01SCHED.Elements [26] (1)**](#_1810) [26](#_1810)

[4-8. **S\_B01SCHED.Elements [26] (2)**](#_1862) [27](#_1862)

[4-9. **S\_B01SCHED.Elements [26] (3)**](#_1914) [27](#_1914)

[4-10. **S\_B01SCHED.Elements [26] (4)**](#_1966) [27](#_1966)

[4-11. **S\_B01SCHED.Elements [26] (5)**](#_2018) [28](#_2018)

[4-12. **S\_B01SCHED.Elements [26] (6)**](#_2070) [28](#_2070)

[4-13. **S\_B01SCHED.Elements [26] (7)**](#_2122) [29](#_2122)

[4-14. **S\_B01SCHED.Elements [26] (8)**](#_2174) [29](#_2174)

[4-15. **S\_B01SCHED.Elements [26] (9)**](#_2226) [29](#_2226)

[4-16. **S\_B01SCHED.Elements [26] (10)**](#_2278) [30](#_2278)

[4-17. X\_B01SCHED](#_2351) [30](#_2351)

[4-18. **X\_B01SCHED.Elements [30] (1)**](#_2397) [31](#_2397)

[4-19. **X\_B01SCHED.Elements [30] (2)**](#_2457) [31](#_2457)

[4-20. **X\_B01SCHED.Elements [30] (3)**](#_2517) [31](#_2517)

[4-21. **X\_B01SCHED.Elements [30] (4)**](#_2577) [32](#_2577)

[6-1. b01\_OSnScheduler Configuration Set](#_2663) [34](#_2663)

[6-2. **b01\_OSnScheduler Configuration Set.Components [34] (1)**](#_2718) [34](#_2718)

[6-3. **b01\_OSnScheduler Configuration Set.Components [34] (2)**](#_2932) [36](#_2932)

[6-4. **b01\_OSnScheduler Configuration Set.Components [34] (3)**](#_3118) [37](#_3118)

[6-5. **b01\_OSnScheduler Configuration Set.Components [34] (4)**](#_3437) [39](#_3437)

[6-6. **b01\_OSnScheduler Configuration Set.Components [34] (5)**](#_3978) [43](#_3978)

[6-7. **b01\_OSnScheduler Configuration Set.Components [34] (6)**](#_4219) [44](#_4219)

[6-8. **b01\_OSnScheduler Configuration Set.Components [34] (7)**](#_4313) [45](#_4313)

[6-9. **b01\_OSnScheduler Configuration Set.Components [34] (8)**](#_4519) [47](#_4519)

[6-10. **b01\_OSnScheduler Configuration Set.Components [34] (9)**](#_4963) [50](#_4963)

[6-11. **b01\_OSnScheduler Configuration Set.Components [34] (10)**](#_5188) [51](#_5188)

[6-12. **b01\_OSnScheduler Configuration Set.Components [34] (11)**](#_5216) [51](#_5216)

[6-13. **b01\_OSnScheduler Configuration Set.Components [34] (12)**](#_5326) [52](#_5326)

[6-14. **b01\_OSnScheduler Configuration Set.Components [34] (13)**](#_5458) [53](#_5458)

[6-15. **b01\_OSnScheduler Configuration Set.Components [34] (14)**](#_5484) [53](#_5484)

[6-16. **b01\_OSnScheduler Configuration Set.Components [34] (15)**](#_5853) [56](#_5853)

[6-17. **b01\_OSnScheduler Configuration Set.Components(8) [47] .CodeCoverageSettings**](#_5887) [56](#_5887)

[6-18. **b01\_OSnScheduler Configuration Set.Components(8).Components [50] (1)**](#_5917) [56](#_5917)

[6-19. **b01\_OSnScheduler Configuration Set.Components(8).Components [50] (2)**](#_6156) [58](#_6156)

[6-20. **b01\_OSnScheduler Configuration Set.Components(11) [51] .Components**](#_6780) [62](#_6780)

[6-21. **b01\_OSnScheduler Configuration Set.Components(8).Components(2) [58] .ReplacementTypes**](#_6806) [62](#_6806)

# **그림 목록**

[2-1. b01\_OSnScheduler](#_37) [2](#_37)

[3-1. b01\_OSnScheduler/Ftn\_TaskScheduling](#_532) [10](#_532)

# **1장. Model Version**

**Version:** 7.217

**Last modified:** Tue Jan 28 15:22:11 2025

**Checksum:** 644327177 2303781964 3403751142 966295685

# **2장. Root System**

**그림 2-1. b01\_OSnScheduler**

****

## **Interface**

### **Output Signals**

**표 2-1. Output Signals**

| **Signal Name** | **Block** | **Description** | **Data Type** | **Width** | **Dimensions** |
| --- | --- | --- | --- | --- | --- |
| <mSched\_i32CntForSch> | b01\_OSnScheduler/Ftn\_TaskScheduling |  | int32 | 1 | 1x1 |
| <mSched\_i32CntForVarGain> | b01\_OSnScheduler/Ftn\_TaskScheduling |  | int32 | 1 | 1x1 |
| <mSched\_uFlagSpdCtrl> | b01\_OSnScheduler/Ftn\_TaskScheduling |  | uint16 | 1 | 1x1 |
| <mSched\_uFlagSpdSlop> | b01\_OSnScheduler/Ftn\_TaskScheduling |  | uint16 | 1 | 1x1 |

## **Blocks**

### **Parameters**

#### **"BI\_mSched\_i32CntForSch" (Outport)**

**표 2-2. "BI\_mSched\_i32CntForSch" Parameters**

| **Parameter** | **Value** |
| --- | --- |
| 포트 번호 | 1 |
| 포트 이름 | bB01SCHED |
| 요소 | mSched\_i32CntForSch |
| Bus Element Port 블록임 | on |
| SignalObject | <Simulink.Signal> |
| 스토리지 클래스 | ExportedGlobal |
| 아이콘 표시 | Port number |
| 함수 호출 출력 | off |
| 최솟값 | 0 |
| 최댓값 | 30 |
| 데이터형 | int32 |
| 고정소수점 툴에 의해 변경되지 않도록 출력 데이터형 설정 잠금 | off |
| 부모 모델에서 비가상 버스로 출력 | off |
| 버스 가상성 | inherit |
| 데이터 모드 | inherit |
| 포트 차원(상속된 경우 -1) | [1] |
| 가변 크기 신호 | No |
| 샘플 시간(상속된 경우 -1) | mSim.dTime |
| 신호 유형 | real |
| 가상 아웃포트여야 함 | off |
| 비활성인 경우 출력 | held |
| 초기 출력 | [] |
| MustResolveToSignalObject | off |
| 소스가 연결되지 않은 경우의 출력 지정 | off |
| 상수 값 | 0 |
| 벡터 파라미터를 1차원으로 해석 | on |

#### **"BO\_mSched\_i32CntForVarGain" (Outport)**

**표 2-3. "BO\_mSched\_i32CntForVarGain" Parameters**

| **Parameter** | **Value** |
| --- | --- |
| 포트 번호 | 1 |
| 포트 이름 | bB01SCHED |
| 요소 | mSched\_i32CntForVarGain |
| Bus Element Port 블록임 | on |
| SignalObject | <Simulink.Signal> |
| 스토리지 클래스 | ExportedGlobal |
| 아이콘 표시 | Port number |
| 함수 호출 출력 | off |
| 최솟값 | 0 |
| 최댓값 | 3 |
| 데이터형 | int32 |
| 고정소수점 툴에 의해 변경되지 않도록 출력 데이터형 설정 잠금 | off |
| 부모 모델에서 비가상 버스로 출력 | off |
| 버스 가상성 | inherit |
| 데이터 모드 | inherit |
| 포트 차원(상속된 경우 -1) | [1] |
| 가변 크기 신호 | No |
| 샘플 시간(상속된 경우 -1) | mSim.dTime |
| 신호 유형 | real |
| 가상 아웃포트여야 함 | off |
| 비활성인 경우 출력 | held |
| 초기 출력 | [] |
| MustResolveToSignalObject | off |
| 소스가 연결되지 않은 경우의 출력 지정 | off |
| 상수 값 | 0 |
| 벡터 파라미터를 1차원으로 해석 | on |

#### **"BO\_mSched\_uFlagSpdCtrl" (Outport)**

**표 2-4. "BO\_mSched\_uFlagSpdCtrl" Parameters**

| **Parameter** | **Value** |
| --- | --- |
| 포트 번호 | 1 |
| 포트 이름 | bB01SCHED |
| 요소 | mSched\_uFlagSpdCtrl |
| Bus Element Port 블록임 | on |
| SignalObject | <Simulink.Signal> |
| 스토리지 클래스 | ExportedGlobal |
| 아이콘 표시 | Port number |
| 함수 호출 출력 | off |
| 최솟값 | 0 |
| 최댓값 | 1 |
| 데이터형 | uint16 |
| 고정소수점 툴에 의해 변경되지 않도록 출력 데이터형 설정 잠금 | off |
| 부모 모델에서 비가상 버스로 출력 | off |
| 버스 가상성 | inherit |
| 데이터 모드 | inherit |
| 포트 차원(상속된 경우 -1) | [1] |
| 가변 크기 신호 | No |
| 샘플 시간(상속된 경우 -1) | mSim.dTime |
| 신호 유형 | real |
| 가상 아웃포트여야 함 | off |
| 비활성인 경우 출력 | held |
| 초기 출력 | [] |
| MustResolveToSignalObject | off |
| 소스가 연결되지 않은 경우의 출력 지정 | off |
| 상수 값 | 0 |
| 벡터 파라미터를 1차원으로 해석 | on |

#### **"BO\_mSched\_uFlagSpdSlop" (Outport)**

**표 2-5. "BO\_mSched\_uFlagSpdSlop" Parameters**

| **Parameter** | **Value** |
| --- | --- |
| 포트 번호 | 1 |
| 포트 이름 | bB01SCHED |
| 요소 | mSched\_uFlagSpdSlop |
| Bus Element Port 블록임 | on |
| SignalObject | <Simulink.Signal> |
| 스토리지 클래스 | ExportedGlobal |
| 아이콘 표시 | Port number |
| 함수 호출 출력 | off |
| 최솟값 | 0 |
| 최댓값 | 1 |
| 데이터형 | uint16 |
| 고정소수점 툴에 의해 변경되지 않도록 출력 데이터형 설정 잠금 | off |
| 부모 모델에서 비가상 버스로 출력 | off |
| 버스 가상성 | inherit |
| 데이터 모드 | inherit |
| 포트 차원(상속된 경우 -1) | [1] |
| 가변 크기 신호 | No |
| 샘플 시간(상속된 경우 -1) | mSim.dTime |
| 신호 유형 | real |
| 가상 아웃포트여야 함 | off |
| 비활성인 경우 출력 | held |
| 초기 출력 | [] |
| MustResolveToSignalObject | off |
| 소스가 연결되지 않은 경우의 출력 지정 | off |
| 상수 값 | 0 |
| 벡터 파라미터를 1차원으로 해석 | on |

### **Block Execution Order**

1. [*Ftn\_TaskScheduling [10]*](#ID_mw_95_d753bade0a65567a74859e9933bc94af)

1. [CB\_i32CntMaxForSch [11]](#ID_mw_95_a41fed02e075f78b2a63189770c76d0d)  (Constant)

2. [CB\_i32CntMaxForSpdCtrl [12]](#ID_mw_95_8e457e7a0b0f8e463f09034cba130539)  (Constant)

3. [CB\_i32CntMaxForVarGain [12]](#ID_mw_95_b958378143d80ff9e11da7b8481d9442)  (Constant)

4. [CB\_i32Every8 [13]](#ID_mw_95_b08b1f5b727360c526b9e8130278c907)  (Constant)

5. [CB\_i32InitCntForSch [13]](#ID_mw_95_16fa5480604fd25565b37e357cd35054)  (Constant)

6. [CB\_u16False [14]](#ID_mw_95_bfcd0ee387bf83befb788c4d707080cf)  (Constant)

7. [CB\_u16True [15]](#ID_mw_95_1dc527182cdba09c67eb849aac803c9b)  (Constant)

8. *Chart\_OuterLoop*

1. SFunction (S-Function)

# **3장. Subsystems**

## **Ftn\_TaskScheduling**

**Checksum:** 3779974526 2428118720 2683067865 2468048771

**그림 3-1. b01\_OSnScheduler/Ftn\_TaskScheduling**

****

### **Interface**

#### **Output Signals**

The following tables describe the signals output by this system. The name of the output signal is the name of the signal's parent block, i.e., the block that computes the signal. The number in angle brackets is the number of the port that emits the signal.

**표 3-1. Output Signals**

| **Signal Name** | **Block** | **Description** | **Data Type** | **Width** | **Dimensions** |
| --- | --- | --- | --- | --- | --- |
| <mSched\_i32CntForSch> | b01\_OSnScheduler/Ftn\_TaskScheduling/Chart\_OuterLoop |  | int32 | 1 | 1x1 |
| <mSched\_i32CntForVarGain> | b01\_OSnScheduler/Ftn\_TaskScheduling/Chart\_OuterLoop |  | int32 | 1 | 1x1 |
| <mSched\_uFlagSpdCtrl> | b01\_OSnScheduler/Ftn\_TaskScheduling/Chart\_OuterLoop |  | uint16 | 1 | 1x1 |
| <mSched\_uFlagSpdSlop> | b01\_OSnScheduler/Ftn\_TaskScheduling/Chart\_OuterLoop |  | uint16 | 1 | 1x1 |

### **Blocks**

#### **Parameters**

##### *"CB\_i32CntMaxForSch" (Constant)*

**표 3-2. "CB\_i32CntMaxForSch" Parameters**

| **Parameter** | **Value** |
| --- | --- |
| 상수 값 | B01SCHED.i32CntMaxForSch |
| 벡터 파라미터를 1차원으로 해석 | on |
| 출력 최솟값 | [] |
| 출력 최댓값 | [] |
| 출력 데이터형 | Inherit: Inherit from 'Constant value' |
| 고정소수점 툴에 의해 변경되지 않도록 출력 데이터형 설정 잠금 | off |
| 샘플 시간 | inf |
| 프레임 기간 | inf |

##### *"CB\_i32CntMaxForSpdCtrl" (Constant)*

**표 3-3. "CB\_i32CntMaxForSpdCtrl" Parameters**

| **Parameter** | **Value** |
| --- | --- |
| 상수 값 | B01SCHED.i32CntMaxForSpdCtrl |
| 벡터 파라미터를 1차원으로 해석 | on |
| 출력 최솟값 | [] |
| 출력 최댓값 | [] |
| 출력 데이터형 | Inherit: Inherit from 'Constant value' |
| 고정소수점 툴에 의해 변경되지 않도록 출력 데이터형 설정 잠금 | off |
| 샘플 시간 | inf |
| 프레임 기간 | inf |

##### *"CB\_i32CntMaxForVarGain" (Constant)*

**표 3-4. "CB\_i32CntMaxForVarGain" Parameters**

| **Parameter** | **Value** |
| --- | --- |
| 상수 값 | B01SCHED.i32CntMaxForVarGain |
| 벡터 파라미터를 1차원으로 해석 | on |
| 출력 최솟값 | [] |
| 출력 최댓값 | [] |
| 출력 데이터형 | Inherit: Inherit from 'Constant value' |
| 고정소수점 툴에 의해 변경되지 않도록 출력 데이터형 설정 잠금 | off |
| 샘플 시간 | inf |
| 프레임 기간 | inf |

##### *"CB\_i32Every8" (Constant)*

**표 3-5. "CB\_i32Every8" Parameters**

| **Parameter** | **Value** |
| --- | --- |
| 상수 값 | B01SCHED.i32Every8 |
| 벡터 파라미터를 1차원으로 해석 | on |
| 출력 최솟값 | [] |
| 출력 최댓값 | [] |
| 출력 데이터형 | Inherit: Inherit from 'Constant value' |
| 고정소수점 툴에 의해 변경되지 않도록 출력 데이터형 설정 잠금 | off |
| 샘플 시간 | inf |
| 프레임 기간 | inf |

##### *"CB\_i32InitCntForSch" (Constant)*

**표 3-6. "CB\_i32InitCntForSch" Parameters**

| **Parameter** | **Value** |
| --- | --- |
| 상수 값 | B01SCHED.i32InitCntForSch |
| 벡터 파라미터를 1차원으로 해석 | on |
| 출력 최솟값 | [] |
| 출력 최댓값 | [] |
| 출력 데이터형 | Inherit: Inherit from 'Constant value' |
| 고정소수점 툴에 의해 변경되지 않도록 출력 데이터형 설정 잠금 | off |
| 샘플 시간 | inf |
| 프레임 기간 | inf |

##### *"CB\_u16False" (Constant)*

**표 3-7. "CB\_u16False" Parameters**

| **Parameter** | **Value** |
| --- | --- |
| 상수 값 | 0 |
| 벡터 파라미터를 1차원으로 해석 | on |
| 출력 최솟값 | [] |
| 출력 최댓값 | [] |
| 출력 데이터형 | uint16 |
| 고정소수점 툴에 의해 변경되지 않도록 출력 데이터형 설정 잠금 | off |
| 샘플 시간 | inf |
| 프레임 기간 | inf |

##### *"CB\_u16True" (Constant)*

**표 3-8. "CB\_u16True" Parameters**

| **Parameter** | **Value** |
| --- | --- |
| 상수 값 | 1 |
| 벡터 파라미터를 1차원으로 해석 | on |
| 출력 최솟값 | [] |
| 출력 최댓값 | [] |
| 출력 데이터형 | uint16 |
| 고정소수점 툴에 의해 변경되지 않도록 출력 데이터형 설정 잠금 | off |
| 샘플 시간 | inf |
| 프레임 기간 | inf |

##### *"mSched\_i32CntForSch" (Outport)*

**표 3-9. "mSched\_i32CntForSch" Parameters**

| **Parameter** | **Value** |
| --- | --- |
| 포트 번호 | 1 |
| 아이콘 표시 | Port number |
| 함수 호출 출력 | off |
| 최솟값 | 0 |
| 최댓값 | 50 |
| 데이터형 | Inherit: auto |
| 고정소수점 툴에 의해 변경되지 않도록 출력 데이터형 설정 잠금 | off |
| 부모 모델에서 비가상 버스로 출력 | off |
| 버스 가상성 | inherit |
| 데이터 모드 | inherit |
| 단위(예 m, m/s^2, N\*m) | inherit |
| 포트 차원(상속된 경우 -1) | -1 |
| 가변 크기 신호 | Inherit |
| 샘플 시간(상속된 경우 -1) | -1 |
| 가상 아웃포트여야 함 | off |
| 비활성인 경우 출력 | held |
| 초기 출력 | [] |
| MustResolveToSignalObject | off |
| 소스가 연결되지 않은 경우의 출력 지정 | off |
| 상수 값 | 0 |
| 벡터 파라미터를 1차원으로 해석 | off |

##### *"mSched\_i32CntForVarGain" (Outport)*

**표 3-10. "mSched\_i32CntForVarGain" Parameters**

| **Parameter** | **Value** |
| --- | --- |
| 포트 번호 | 4 |
| 아이콘 표시 | Port number |
| 함수 호출 출력 | off |
| 최솟값 | 0 |
| 최댓값 | 3 |
| 데이터형 | Inherit: auto |
| 고정소수점 툴에 의해 변경되지 않도록 출력 데이터형 설정 잠금 | off |
| 부모 모델에서 비가상 버스로 출력 | off |
| 버스 가상성 | inherit |
| 데이터 모드 | inherit |
| 단위(예 m, m/s^2, N\*m) | inherit |
| 포트 차원(상속된 경우 -1) | -1 |
| 가변 크기 신호 | Inherit |
| 샘플 시간(상속된 경우 -1) | -1 |
| 가상 아웃포트여야 함 | off |
| 비활성인 경우 출력 | held |
| 초기 출력 | [] |
| MustResolveToSignalObject | off |
| 소스가 연결되지 않은 경우의 출력 지정 | off |
| 상수 값 | 0 |
| 벡터 파라미터를 1차원으로 해석 | on |

##### *"mSched\_uFlagSpdCtrl" (Outport)*

**표 3-11. "mSched\_uFlagSpdCtrl" Parameters**

| **Parameter** | **Value** |
| --- | --- |
| 포트 번호 | 2 |
| 아이콘 표시 | Port number |
| 함수 호출 출력 | off |
| 최솟값 | 0 |
| 최댓값 | 1 |
| 데이터형 | Inherit: auto |
| 고정소수점 툴에 의해 변경되지 않도록 출력 데이터형 설정 잠금 | off |
| 부모 모델에서 비가상 버스로 출력 | off |
| 버스 가상성 | inherit |
| 데이터 모드 | inherit |
| 단위(예 m, m/s^2, N\*m) | inherit |
| 포트 차원(상속된 경우 -1) | -1 |
| 가변 크기 신호 | Inherit |
| 샘플 시간(상속된 경우 -1) | -1 |
| 가상 아웃포트여야 함 | off |
| 비활성인 경우 출력 | held |
| 초기 출력 | [] |
| MustResolveToSignalObject | off |
| 소스가 연결되지 않은 경우의 출력 지정 | off |
| 상수 값 | 0 |
| 벡터 파라미터를 1차원으로 해석 | on |

##### *"mSched\_uFlagSpdSlop" (Outport)*

**표 3-12. "mSched\_uFlagSpdSlop" Parameters**

| **Parameter** | **Value** |
| --- | --- |
| 포트 번호 | 3 |
| 아이콘 표시 | Port number |
| 함수 호출 출력 | off |
| 최솟값 | 0 |
| 최댓값 | 1 |
| 데이터형 | Inherit: auto |
| 고정소수점 툴에 의해 변경되지 않도록 출력 데이터형 설정 잠금 | off |
| 부모 모델에서 비가상 버스로 출력 | off |
| 버스 가상성 | inherit |
| 데이터 모드 | inherit |
| 단위(예 m, m/s^2, N\*m) | inherit |
| 포트 차원(상속된 경우 -1) | -1 |
| 가변 크기 신호 | Inherit |
| 샘플 시간(상속된 경우 -1) | -1 |
| 가상 아웃포트여야 함 | off |
| 비활성인 경우 출력 | held |
| 초기 출력 | [] |
| MustResolveToSignalObject | off |
| 소스가 연결되지 않은 경우의 출력 지정 | off |
| 상수 값 | 0 |
| 벡터 파라미터를 1차원으로 해석 | on |

### **Block Execution Order**

1. [CB\_i32CntMaxForSch [11]](#ID_mw_95_a41fed02e075f78b2a63189770c76d0d)  (Constant)

2. [CB\_i32CntMaxForSpdCtrl [12]](#ID_mw_95_8e457e7a0b0f8e463f09034cba130539)  (Constant)

3. [CB\_i32CntMaxForVarGain [12]](#ID_mw_95_b958378143d80ff9e11da7b8481d9442)  (Constant)

4. [CB\_i32Every8 [13]](#ID_mw_95_b08b1f5b727360c526b9e8130278c907)  (Constant)

5. [CB\_i32InitCntForSch [13]](#ID_mw_95_16fa5480604fd25565b37e357cd35054)  (Constant)

6. [CB\_u16False [14]](#ID_mw_95_bfcd0ee387bf83befb788c4d707080cf)  (Constant)

7. [CB\_u16True [15]](#ID_mw_95_1dc527182cdba09c67eb849aac803c9b)  (Constant)

8. *Chart\_OuterLoop*

1. SFunction (S-Function)

### **State Charts**

#### **Chart**

****

 [mSched\_i32CntForSch >= i32CntMaxForSch]

 {...

 {...

 [i32CntForSpdCtrl >= i32CntMaxForSpdCtrl]

 {...

 {...

 [i32CntForSpdCtrl == i32Every8]

 {...

 {...

**(10)** [mSched\_i32CntForVarGain >= i32CntMaxForVarGain]

**(11)** {...

**(12)** {...

#### **Data**

**표 3-13. Data - i32CntForSpdCtrl**

|  |  |
| --- | --- |
| Scope | Output |
| Data Type | int32 |
| InitValue | 1 |

**표 3-14. Data - i32CntMaxForSch**

|  |  |
| --- | --- |
| Scope | Input |
| Data Type | int32 |

**표 3-15. Data - i32CntMaxForSpdCtrl**

|  |  |
| --- | --- |
| Scope | Input |
| Data Type | Inherit: Same as Simulink |

**표 3-16. Data - i32CntMaxForVarGain**

|  |  |
| --- | --- |
| Scope | Input |
| Data Type | Inherit: Same as Simulink |

**표 3-17. Data - i32Every8**

|  |  |
| --- | --- |
| Scope | Input |
| Data Type | int32 |

**표 3-18. Data - i32InitCntForSch**

|  |  |
| --- | --- |
| Scope | Input |
| Data Type | Inherit: Same as Simulink |

**표 3-19. Data - mSched\_i32CntForSch**

|  |  |
| --- | --- |
| Scope | Output |
| Data Type | int32 |

**표 3-20. Data - mSched\_i32CntForVarGain**

|  |  |
| --- | --- |
| Scope | Output |
| Data Type | int32 |

**표 3-21. Data - mSched\_uFlagSpdCtrl**

|  |  |
| --- | --- |
| Scope | Output |
| Data Type | uint16 |

**표 3-22. Data - mSched\_uFlagSpdSlop**

|  |  |
| --- | --- |
| Scope | Output |
| Data Type | uint16 |

**표 3-23. Data - u16False**

|  |  |
| --- | --- |
| Scope | Input |
| Data Type | Inherit: Same as Simulink |

**표 3-24. Data - u16True**

|  |  |
| --- | --- |
| Scope | Input |
| Data Type | Inherit: Same as Simulink |

# **4장. System Design Variables**

## **Design Variable Summary**

**표 4-1. Design Variables**

| **Variable Name** | **Parent Blocks** | **Size** | **Bytes** | **Class** | **Value** |
| --- | --- | --- | --- | --- | --- |
| B01SCHED | [CB\_i32CntMaxForSch [11]](#ID_mw_95_a41fed02e075f78b2a63189770c76d0d)  [CB\_i32CntMaxForSpdCtrl [12]](#ID_mw_95_8e457e7a0b0f8e463f09034cba130539)  [CB\_i32CntMaxForVarGain [12]](#ID_mw_95_b958378143d80ff9e11da7b8481d9442)  [CB\_i32Every8 [13]](#ID_mw_95_b08b1f5b727360c526b9e8130278c907)  [CB\_i32InitCntForSch [13]](#ID_mw_95_16fa5480604fd25565b37e357cd35054)  [CB\_i32CntMaxForSch [11]](#ID_mw_95_a41fed02e075f78b2a63189770c76d0d)  [CB\_i32CntMaxForSpdCtrl [12]](#ID_mw_95_8e457e7a0b0f8e463f09034cba130539)  [CB\_i32CntMaxForVarGain [12]](#ID_mw_95_b958378143d80ff9e11da7b8481d9442)  [CB\_i32Every8 [13]](#ID_mw_95_b08b1f5b727360c526b9e8130278c907)  [CB\_i32InitCntForSch [13]](#ID_mw_95_16fa5480604fd25565b37e357cd35054) | 1x1 |  | Bus:S\_B01SCHED | i32CntMaxForSch: 30  i32CntMaxForSpdCtrl: 10  i32CntMaxForVarGain: 3  i32InitCntForSch: 1  i32Every8: 8  sTbaseFreq: 10000  sTbaseTime: 1.0000e-04  sTbaseTime2: 2.0000e-04  sOutloopTime: 0.0010  uDummy: 0 |
| S\_B01SCHED | [CB\_i32CntMaxForSch [11]](#ID_mw_95_a41fed02e075f78b2a63189770c76d0d)  [CB\_i32CntMaxForSpdCtrl [12]](#ID_mw_95_8e457e7a0b0f8e463f09034cba130539)  [CB\_i32CntMaxForVarGain [12]](#ID_mw_95_b958378143d80ff9e11da7b8481d9442)  [CB\_i32Every8 [13]](#ID_mw_95_b08b1f5b727360c526b9e8130278c907)  [CB\_i32InitCntForSch [13]](#ID_mw_95_16fa5480604fd25565b37e357cd35054) | 1x1 | 821 | Simulink.Bus | <Simulink.Bus> |
| X\_B01SCHED | [BO\_mSched\_uFlagSpdCtrl [6]](#ID_mw_95_47635b27c0a47c866baeb60764abf7d2) | 1x1 | 623 | Simulink.Bus | <Simulink.Bus> |

## **Design Variable Details**

**표 4-2. B01SCHED**

|  |  |
| --- | --- |
| **Property** | **Value** |
| Value | [B01SCHED.Value [25]](#ID_mw_95_e235c091009a588bc1ab6f48d7ee5403) |
| Complexity | real |
| Dimensions | [1 1] |
| CoderInfo | [B01SCHED.CoderInfo [25]](#ID_mw_95_e5cbeb913e1014bb5bf44094efc5a701) |
| Description |  |
| DataType | Bus:S\_B01SCHED |
| Min |  |
| Max |  |
| Unit |  |

**표 4-3.** [**B01SCHED [24]**](#ID_mw_95_2d062532f69c74ecd3d4f283912257a0) **.Value**

|  |  |
| --- | --- |
| **Field** | **Value** |
| i32CntMaxForSch | 30 |
| i32CntMaxForSpdCtrl | 10 |
| i32CntMaxForVarGain | 3 |
| i32InitCntForSch | 1 |
| i32Every8 | 8 |
| sTbaseFreq | 10000 |
| sTbaseTime | 1.0000e-04 |
| sTbaseTime2 | 2.0000e-04 |
| sOutloopTime | 0.0010 |
| uDummy | 0 |

**표 4-4.** [**B01SCHED [24]**](#ID_mw_95_2d062532f69c74ecd3d4f283912257a0) **.CoderInfo**

|  |  |
| --- | --- |
| **Property** | **Value** |
| StorageClass | Custom |
| TypeQualifier |  |
| Identifier |  |
| Alignment | -1 |
| CustomStorageClass | FileScope |
| CustomAttributes | [B01SCHED.CoderInfo.CustomAttributes [26]](#ID_mw_95_029dd3a532282cc31d633761fd0a047d) |

**표 4-5.** [**B01SCHED.CoderInfo [25]**](#ID_mw_95_e5cbeb913e1014bb5bf44094efc5a701) **.CustomAttributes**

|  |  |
| --- | --- |
| **Property** | **Value** |
| PreserveDimensions | false |

**Used by Blocks:**

• [b01\_OSnScheduler/Ftn\_TaskScheduling/CB\_i32CntMaxForSch [11]](#ID_mw_95_a41fed02e075f78b2a63189770c76d0d)

• [b01\_OSnScheduler/Ftn\_TaskScheduling/CB\_i32CntMaxForSpdCtrl [12]](#ID_mw_95_8e457e7a0b0f8e463f09034cba130539)

• [b01\_OSnScheduler/Ftn\_TaskScheduling/CB\_i32CntMaxForVarGain [12]](#ID_mw_95_b958378143d80ff9e11da7b8481d9442)

• [b01\_OSnScheduler/Ftn\_TaskScheduling/CB\_i32Every8 [13]](#ID_mw_95_b08b1f5b727360c526b9e8130278c907)

• [b01\_OSnScheduler/Ftn\_TaskScheduling/CB\_i32InitCntForSch [13]](#ID_mw_95_16fa5480604fd25565b37e357cd35054)

Resolved in: base workspace

**표 4-6. S\_B01SCHED**

|  |  |
| --- | --- |
| **Property** | **Value** |
| Alignment | -1 |
| PreserveElementDimensions | false |
| Elements | [[S\_B01SCHED.Elements(1) [26]](#ID_mw_95_fb2171febdc72ca160394192b1cd3899) , [S\_B01SCHED.Elements(2) [27]](#ID_mw_95_0445ddad23ca8ad50cba7fa92e50a8aa) , [S\_B01SCHED.Elements(3) [27]](#ID_mw_95_4ed5484a34db59db0d8bf12e4b6911df) , [S\_B01SCHED.Elements(4) [27]](#ID_mw_95_faa86a5cf97f793cd88d4b75fbc7f40f) , [S\_B01SCHED.Elements(5) [28]](#ID_mw_95_7868bf3bcad41b5e0bc013969a5bc462) , [S\_B01SCHED.Elements(6) [28]](#ID_mw_95_878949ee016b098cfaebd055050a9d94) , [S\_B01SCHED.Elements(7) [29]](#ID_mw_95_3927040f482c78bc7a4ef9573574dfd4) , [S\_B01SCHED.Elements(8) [29]](#ID_mw_95_e7a55fc3a3847648d816baa238dfeeb0) , [S\_B01SCHED.Elements(9) [29]](#ID_mw_95_a66b32ea01b7fbd7516bcb513caea79a) , [S\_B01SCHED.Elements(10) [30]](#ID_mw_95_da212e350e0bdd30dc2bcf1472df49d6) ] |
| Description |  |
| DataScope | Auto |
| HeaderFile |  |

**표 4-7.** [**S\_B01SCHED.Elements [26]**](#ID_mw_95_fb611bc9fc06582f7193ead69fc2ed39) **(1)**

|  |  |
| --- | --- |
| **Property** | **Value** |
| Min |  |
| Max |  |
| DimensionsMode | Fixed |
| Description |  |
| Unit |  |
| Name | i32CntMaxForSch |
| DataType | int32 |
| Complexity | real |
| Dimensions | [1 1] |

**표 4-8.** [**S\_B01SCHED.Elements [26]**](#ID_mw_95_fb611bc9fc06582f7193ead69fc2ed39) **(2)**

|  |  |
| --- | --- |
| **Property** | **Value** |
| Min |  |
| Max |  |
| DimensionsMode | Fixed |
| Description |  |
| Unit |  |
| Name | i32CntMaxForSpdCtrl |
| DataType | int32 |
| Complexity | real |
| Dimensions | [1 1] |

**표 4-9.** [**S\_B01SCHED.Elements [26]**](#ID_mw_95_fb611bc9fc06582f7193ead69fc2ed39) **(3)**

|  |  |
| --- | --- |
| **Property** | **Value** |
| Min |  |
| Max |  |
| DimensionsMode | Fixed |
| Description |  |
| Unit |  |
| Name | i32CntMaxForVarGain |
| DataType | int32 |
| Complexity | real |
| Dimensions | [1 1] |

**표 4-10.** [**S\_B01SCHED.Elements [26]**](#ID_mw_95_fb611bc9fc06582f7193ead69fc2ed39) **(4)**

|  |  |
| --- | --- |
| **Property** | **Value** |
| Min |  |
| Max |  |
| DimensionsMode | Fixed |
| Description |  |
| Unit |  |
| Name | i32InitCntForSch |
| DataType | int32 |
| Complexity | real |
| Dimensions | [1 1] |

**표 4-11.** [**S\_B01SCHED.Elements [26]**](#ID_mw_95_fb611bc9fc06582f7193ead69fc2ed39) **(5)**

|  |  |
| --- | --- |
| **Property** | **Value** |
| Min |  |
| Max |  |
| DimensionsMode | Fixed |
| Description |  |
| Unit |  |
| Name | i32Every8 |
| DataType | int32 |
| Complexity | real |
| Dimensions | [1 1] |

**표 4-12.** [**S\_B01SCHED.Elements [26]**](#ID_mw_95_fb611bc9fc06582f7193ead69fc2ed39) **(6)**

|  |  |
| --- | --- |
| **Property** | **Value** |
| Min |  |
| Max |  |
| DimensionsMode | Fixed |
| Description |  |
| Unit |  |
| Name | sTbaseFreq |
| DataType | single |
| Complexity | real |
| Dimensions | [1 1] |

**표 4-13.** [**S\_B01SCHED.Elements [26]**](#ID_mw_95_fb611bc9fc06582f7193ead69fc2ed39) **(7)**

|  |  |
| --- | --- |
| **Property** | **Value** |
| Min |  |
| Max |  |
| DimensionsMode | Fixed |
| Description |  |
| Unit |  |
| Name | sTbaseTime |
| DataType | single |
| Complexity | real |
| Dimensions | [1 1] |

**표 4-14.** [**S\_B01SCHED.Elements [26]**](#ID_mw_95_fb611bc9fc06582f7193ead69fc2ed39) **(8)**

|  |  |
| --- | --- |
| **Property** | **Value** |
| Min |  |
| Max |  |
| DimensionsMode | Fixed |
| Description |  |
| Unit |  |
| Name | sTbaseTime2 |
| DataType | single |
| Complexity | real |
| Dimensions | [1 1] |

**표 4-15.** [**S\_B01SCHED.Elements [26]**](#ID_mw_95_fb611bc9fc06582f7193ead69fc2ed39) **(9)**

|  |  |
| --- | --- |
| **Property** | **Value** |
| Min |  |
| Max |  |
| DimensionsMode | Fixed |
| Description |  |
| Unit |  |
| Name | sOutloopTime |
| DataType | single |
| Complexity | real |
| Dimensions | [1 1] |

**표 4-16.** [**S\_B01SCHED.Elements [26]**](#ID_mw_95_fb611bc9fc06582f7193ead69fc2ed39) **(10)**

|  |  |
| --- | --- |
| **Property** | **Value** |
| Min |  |
| Max |  |
| DimensionsMode | Fixed |
| Description |  |
| Unit |  |
| Name | uDummy |
| DataType | uint16 |
| Complexity | real |
| Dimensions | [1 1] |

**Used by Blocks:**

• [b01\_OSnScheduler/Ftn\_TaskScheduling/CB\_i32CntMaxForSch [11]](#ID_mw_95_a41fed02e075f78b2a63189770c76d0d)

• [b01\_OSnScheduler/Ftn\_TaskScheduling/CB\_i32CntMaxForSpdCtrl [12]](#ID_mw_95_8e457e7a0b0f8e463f09034cba130539)

• [b01\_OSnScheduler/Ftn\_TaskScheduling/CB\_i32CntMaxForVarGain [12]](#ID_mw_95_b958378143d80ff9e11da7b8481d9442)

• [b01\_OSnScheduler/Ftn\_TaskScheduling/CB\_i32Every8 [13]](#ID_mw_95_b08b1f5b727360c526b9e8130278c907)

• [b01\_OSnScheduler/Ftn\_TaskScheduling/CB\_i32InitCntForSch [13]](#ID_mw_95_16fa5480604fd25565b37e357cd35054)

Resolved in: base workspace

**표 4-17. X\_B01SCHED**

|  |  |
| --- | --- |
| **Property** | **Value** |
| Alignment | -1 |
| PreserveElementDimensions | false |
| Elements | [[X\_B01SCHED.Elements(1) [31]](#ID_mw_95_2835883d920599aa2ab36e7c882e1d8a) , [X\_B01SCHED.Elements(2) [31]](#ID_mw_95_89b5ec503044a99f8e207d2e97ed18ce) , [X\_B01SCHED.Elements(3) [31]](#ID_mw_95_dbb48591b0226076ff541a0188d53e14) , [X\_B01SCHED.Elements(4) [32]](#ID_mw_95_898cfc86078b1921ccfc8e13d2de1667) ] |
| Description |  |
| DataScope | Auto |
| HeaderFile |  |

**표 4-18.** [**X\_B01SCHED.Elements [30]**](#ID_mw_95_f4409b2eab4145c804256a6e7d30ed83) **(1)**

|  |  |
| --- | --- |
| **Property** | **Value** |
| Min | 0 |
| Max | 1 |
| DimensionsMode | Fixed |
| Description |  설명: Speed Control 스케쥴 카운터 |
| Unit | N/A |
| Name | mSched\_uFlagSpdCtrl |
| DataType | uint16 |
| Complexity | real |
| Dimensions | 1 |

**표 4-19.** [**X\_B01SCHED.Elements [30]**](#ID_mw_95_f4409b2eab4145c804256a6e7d30ed83) **(2)**

|  |  |
| --- | --- |
| **Property** | **Value** |
| Min | 0 |
| Max | 1 |
| DimensionsMode | Fixed |
| Description |  설명: 속도 지령 Slop 스케쥴 카운터 |
| Unit | N/A |
| Name | mSched\_uFlagSpdSlop |
| DataType | uint16 |
| Complexity | real |
| Dimensions | 1 |

**표 4-20.** [**X\_B01SCHED.Elements [30]**](#ID_mw_95_f4409b2eab4145c804256a6e7d30ed83) **(3)**

|  |  |
| --- | --- |
| **Property** | **Value** |
| Min | 0 |
| Max | 30 |
| DimensionsMode | Fixed |
| Description |  설명: 메인 스케쥴 카운터 |
| Unit | N/A |
| Name | mSched\_i32CntForSch |
| DataType | int32 |
| Complexity | real |
| Dimensions | 1 |

**표 4-21.** [**X\_B01SCHED.Elements [30]**](#ID_mw_95_f4409b2eab4145c804256a6e7d30ed83) **(4)**

|  |  |
| --- | --- |
| **Property** | **Value** |
| Min | 0 |
| Max | 3 |
| DimensionsMode | Fixed |
| Description |  설명: 가변게인 스케쥴 카운터 |
| Unit | N/A |
| Name | mSched\_i32CntForVarGain |
| DataType | int32 |
| Complexity | real |
| Dimensions | 1 |

**Used by Blocks:**

• [b01\_OSnScheduler/BO\_mSched\_uFlagSpdCtrl [6]](#ID_mw_95_47635b27c0a47c866baeb60764abf7d2)

Resolved in: base workspace

# **5장. Requirements**

b01\_OSnScheduler does not contain requirements traceability links.

# **6장. System Model Configuration**

|  |  |
| --- | --- |
| Source: | Model |
| Source Name: | b01\_OSnScheduler |

**표 6-1. b01\_OSnScheduler Configuration Set**

|  |  |
| --- | --- |
| **Property** | **Value** |
| Description |  |
| Components | [[b01\_OSnScheduler Configuration Set.Components(1) [34]](#ID_mw_95_0d271444c4bf9ebe137bb55665e9e2f5) , [b01\_OSnScheduler Configuration Set.Components(2) [36]](#ID_mw_95_1d7ca52e9796460e0c1f38ba6c1ec3d4) , [b01\_OSnScheduler Configuration Set.Components(3) [37]](#ID_mw_95_ab5989107bca415bdb591d9270db14d1) , [b01\_OSnScheduler Configuration Set.Components(4) [39]](#ID_mw_95_30660bb8105ce0e7c43cdb9082584b65) , [b01\_OSnScheduler Configuration Set.Components(5) [43]](#ID_mw_95_2ee25d8657ea2929f77b27282f375cf7) , [b01\_OSnScheduler Configuration Set.Components(6) [44]](#ID_mw_95_376b0f682e31102509eb18bbcc5a130e) , [b01\_OSnScheduler Configuration Set.Components(7) [45]](#ID_mw_95_6c601159132704f06489824795a18bd4) , [b01\_OSnScheduler Configuration Set.Components(8) [47]](#ID_mw_95_6209db7c71bba5666825b75cb7b911ca) , [b01\_OSnScheduler Configuration Set.Components(9) [50]](#ID_mw_95_f794eaaef38811b70f582f30e1ae3e0d) , [b01\_OSnScheduler Configuration Set.Components(10) [51]](#ID_mw_95_d5b1e9c058b0b5d2d0f738f03e736490) , [b01\_OSnScheduler Configuration Set.Components(11) [51]](#ID_mw_95_26d34d64c249da73f3f883c5ad7c03d2) , [b01\_OSnScheduler Configuration Set.Components(12) [52]](#ID_mw_95_7cb8752e39ffde95352076dc98fbc426) , [b01\_OSnScheduler Configuration Set.Components(13) [53]](#ID_mw_95_b5e4ce435f815a7746805fa51dbb1004) , [b01\_OSnScheduler Configuration Set.Components(14) [53]](#ID_mw_95_b53b725590953ac22aaf791550767c11) , [b01\_OSnScheduler Configuration Set.Components(15) [56]](#ID_mw_95_95d7c9f8b1235e85a11167e0f56b1007) ] |
| Name | cfgMABnMISRAC |

**표 6-2.** [**b01\_OSnScheduler Configuration Set.Components [34]**](#ID_mw_95_cba78efa24d74fd2959759fb927b56b8) **(1)**

|  |  |
| --- | --- |
| **Property** | **Value** |
| Name | Solver |
| Description |  |
| Components |  |
| StartTime | 0.0 |
| StopTime | 1 |
| AbsTol | auto |
| AutoScaleAbsTol | on |
| FixedStep | mSim.dTime |
| InitialStep | auto |
| MaxOrder | 5 |
| ZcThreshold | auto |
| ConsecutiveZCsStepRelTol | 10\*128\*eps |
| MaxConsecutiveZCs | 10000 |
| ExtrapolationOrder | 4 |
| NumberNewtonIterations | 1 |
| MaxStep | Define.sModelSampleTime |
| MinStep | auto |
| MaxConsecutiveMinStep | 1 |
| RelTol | 7.1420e-05 |
| EnableMultiTasking | off |
| AllowMultiTaskInputOutput | off |
| ConcurrentTasks | off |
| SolverName | FixedStepDiscrete |
| SolverType | Fixed-step |
| SolverJacobianMethodControl | auto |
| DaesscMode | auto |
| ShapePreserveControl | DisableAll |
| ZeroCrossControl | UseLocalSettings |
| ZeroCrossAlgorithm | Adaptive |
| SolverResetMethod | Fast |
| PositivePriorityOrder | off |
| AutoInsertRateTranBlk | off |
| SampleTimeConstraint | Unconstrained |
| InsertRTBMode | Whenever possible |
| SampleTimeProperty |  |
| DecoupledContinuousIntegration | off |
| MinimalZcImpactIntegration | off |
| ODENIntegrationMethod | ode3 |
| EnableFixedStepZeroCrossing | off |
| MaxZcPerStep | 2 |
| MaxZcBracketingIterations | 10 |

**표 6-3.** [**b01\_OSnScheduler Configuration Set.Components [34]**](#ID_mw_95_cba78efa24d74fd2959759fb927b56b8) **(2)**

|  |  |
| --- | --- |
| **Property** | **Value** |
| Name | Data Import/Export |
| Description |  |
| Components |  |
| Decimation | 1 |
| ExternalInput | [t, u] |
| FinalStateName | xFinal |
| InitialState | xInitial |
| LimitDataPoints | off |
| MaxDataPoints | 1000 |
| LoadExternalInput | off |
| LoadInitialState | off |
| SaveFinalState | off |
| SaveOperatingPoint | off |
| SaveFormat | Dataset |
| SaveOutput | off |
| SaveState | off |
| SignalLogging | on |
| DSMLogging | off |
| StreamToWks | on |
| InspectSignalLogs | on |
| SaveTime | off |
| ReturnWorkspaceOutputs | on |
| StateSaveName | xout |
| TimeSaveName | tout |
| OutputSaveName | yout |
| SignalLoggingName | logsout\_Validator |
| DSMLoggingName | dsmout |
| OutputOption | RefineOutputTimes |
| OutputTimes | [] |
| ReturnWorkspaceOutputsName | out |
| Refine | 1 |
| LoggingToFile | off |
| DatasetSignalFormat | timeseries |
| LoggingFileName | out.mat |
| LoggingIntervals | [-inf, inf] |

**표 6-4.** [**b01\_OSnScheduler Configuration Set.Components [34]**](#ID_mw_95_cba78efa24d74fd2959759fb927b56b8) **(3)**

|  |  |
| --- | --- |
| **Property** | **Value** |
| Name | Optimization |
| Description |  |
| Components |  |
| BlockReduction | off |
| BooleanDataType | on |
| ConditionallyExecuteInputs | on |
| DefaultParameterBehavior | Inlined |
| InlineParams | on |
| UseDivisionForNetSlopeComputation | UseDivisionForReciprocalsOfIntegersOnly |
| GainParamInheritBuiltInType | on |
| UseFloatMulNetSlope | on |
| InheritOutputTypeSmallerThanSingle | off |
| DefaultUnderspecifiedDataType | single |
| UseSpecifiedMinMax | off |
| InlineInvariantSignals | on |
| OptimizeBlockIOStorage | on |
| BufferReuse | on |
| ReuseModelBlockBuffer | on |
| GlobalBufferReuse | on |
| GlobalVariableUsage | None |
| StrengthReduction | off |
| AdvancedOptControl |  |
| ExpressionFolding | on |
| BooleansAsBitfields | off |
| BitfieldContainerType | uint\_T |
| BitwiseOrLogicalOp | Logical operator |
| EnableMemcpy | on |
| MemcpyThreshold | 64 |
| PassReuseOutputArgsAs | Individual arguments |
| PassReuseOutputArgsThreshold | 12 |
| LocalBlockOutputs | on |
| RollThreshold | 5 |
| StateBitsets | off |
| DataBitsets | off |
| ActiveStateOutputEnumStorageType | Native Integer |
| ZeroExternalMemoryAtStartup | on |
| ZeroInternalMemoryAtStartup | on |
| InitFltsAndDblsToZero | off |
| NoFixptDivByZeroProtection | off |
| EfficientFloat2IntCast | on |
| EfficientMapNaN2IntZero | on |
| LifeSpan | Inf |
| EvaledLifeSpan | Inf |
| ClockResolution | -1 |
| MaxStackSize | Inherit from target |
| BufferReusableBoundary | on |
| RemoveLocalVariableInitialization | on |
| SimCompilerOptimization | off |
| AccelVerboseBuild | off |
| OptimizeBlockOrder | speed |
| OptimizeDataStoreBuffers | on |
| BusAssignmentInplaceUpdate | on |
| DifferentSizesBufferReuse | on |
| UseRowMajorAlgorithm | off |
| OptimizationLevel | level2 |
| OptimizationPriority | Balanced |
| OptimizationCustomize | on |
| LabelGuidedReuse | off |
| MultiThreadedLoops | off |
| AutoScheduleForLoops | off |
| DenormalBehavior | GradualUnderflow |
| EfficientTunableParamExpr | on |

**표 6-5.** [**b01\_OSnScheduler Configuration Set.Components [34]**](#ID_mw_95_cba78efa24d74fd2959759fb927b56b8) **(4)**

|  |  |
| --- | --- |
| **Property** | **Value** |
| Name | Diagnostics |
| Description |  |
| Components |  |
| RTPrefix | error |
| ConsistencyChecking | none |
| ArrayBoundsChecking | none |
| SignalInfNanChecking | error |
| StringTruncationChecking | error |
| SignalRangeChecking | error |
| ReadBeforeWriteMsg | EnableAllAsError |
| WriteAfterWriteMsg | EnableAllAsError |
| WriteAfterReadMsg | EnableAllAsError |
| AlgebraicLoopMsg | error |
| ArtificialAlgebraicLoopMsg | error |
| SaveWithDisabledLinksMsg | error |
| SaveWithParameterizedLinksMsg | error |
| CheckSSInitialOutputMsg | on |
| UnderspecifiedInitializationDetection | Simplified |
| MergeDetectMultiDrivingBlocksExec | error |
| SignalResolutionControl | UseLocalSettings |
| BlockPriorityViolationMsg | error |
| MinStepSizeMsg | warning |
| TimeAdjustmentMsg | none |
| MaxConsecutiveZCsMsg | error |
| MaskedZcDiagnostic | warning |
| IgnoredZcDiagnostic | warning |
| SolverPrmCheckMsg | error |
| InheritedTsInSrcMsg | error |
| MultiTaskDSMMsg | error |
| MultiTaskCondExecSysMsg | error |
| MultiTaskRateTransMsg | error |
| SingleTaskRateTransMsg | error |
| TasksWithSamePriorityMsg | error |
| SigSpecEnsureSampleTimeMsg | error |
| CheckMatrixSingularityMsg | error |
| IntegerOverflowMsg | error |
| Int32ToFloatConvMsg | warning |
| ParameterDowncastMsg | error |
| ParameterOverflowMsg | error |
| ParameterUnderflowMsg | error |
| ParameterPrecisionLossMsg | error |
| ParamSuppressDoubleToSinglePrecisionLossMsg | off |
| ParamPrecisionLossAbsoluteDiffThreshold | 0.0 |
| ParamPrecisionLossRelativeDiffThreshold | 0.0 |
| ParamOverflowErrorThreshold | OneBit |
| ParameterTunabilityLossMsg | error |
| FixptConstUnderflowMsg | none |
| FixptConstOverflowMsg | none |
| FixptConstPrecisionLossMsg | none |
| UnderSpecifiedDataTypeMsg | error |
| UnnecessaryDatatypeConvMsg | warning |
| VectorMatrixConversionMsg | error |
| FcnCallInpInsideContextMsg | error |
| SignalLabelMismatchMsg | error |
| UnconnectedInputMsg | error |
| UnconnectedOutputMsg | error |
| UnconnectedLineMsg | error |
| UseOnlyExistingSharedCode | error |
| SFcnCompatibilityMsg | error |
| FrameProcessingCompatibilityMsg | error |
| UniqueDataStoreMsg | error |
| BusObjectLabelMismatch | error |
| RootOutportRequireBusObject | error |
| AssertControl | DisableAll |
| AllowSymbolicDim | on |
| ModelReferenceVersionMismatchMessage | none |
| ModelReferenceIOMismatchMessage | error |
| UnknownTsInhSupMsg | error |
| ModelReferenceDataLoggingMessage | error |
| ModelReferenceNoExplicitFinalValueMsg | none |
| ModelReferenceSymbolNameMessage | none |
| StateNameClashWarn | warning |
| OperatingPointInterfaceChecksumMismatchMsg | warning |
| NonCurrentReleaseOperatingPointMsg | error |
| PregeneratedLibrarySubsystemCodeDiagnostic | warning |
| SubsystemReferenceDiagnosticForUnitTest | error |
| InitInArrayFormatMsg | warning |
| StrictBusMsg | ErrorOnBusTreatedAsVector |
| BusNameAdapt | WarnAndRepair |
| NonBusSignalsTreatedAsBus | error |
| SFUnusedDataAndEventsDiag | warning |
| SFUnexpectedBacktrackingDiag | error |
| SFInvalidInputDataAccessInChartInitDiag | error |
| SFNoUnconditionalDefaultTransitionDiag | error |
| SFTransitionOutsideNaturalParentDiag | error |
| SFUnreachableExecutionPathDiag | error |
| SFUndirectedBroadcastEventsDiag | error |
| SFTransitionActionBeforeConditionDiag | error |
| SFOutputUsedAsStateInMooreChartDiag | error |
| SFTemporalDelaySmallerThanSampleTimeDiag | error |
| SFSelfTransitionDiag | error |
| SFExecutionAtInitializationDiag | error |
| IntegerSaturationMsg | error |
| AllowedUnitSystems | all |
| UnitsInconsistencyMsg | none |
| AllowAutomaticUnitConversions | on |
| RCSCRenamedMsg | warning |
| RCSCObservableMsg | warning |
| ForceCombineOutputUpdateInSim | off |
| UnderSpecifiedDimensionMsg | none |
| DebugExecutionForFMUViaOutOfProcess | off |
| ArithmeticOperatorsInVariantConditions | error |
| VariantConditionMismatch | error |
| InheritVATfromSVC | warning |
| VariantConfigNotUsedByTopModel | warning |
| ParamWriterValidationControl | UseLocalSettings |

**표 6-6.** [**b01\_OSnScheduler Configuration Set.Components [34]**](#ID_mw_95_cba78efa24d74fd2959759fb927b56b8) **(5)**

|  |  |
| --- | --- |
| **Property** | **Value** |
| Name | Hardware Implementation |
| Description |  |
| Components |  |
| ProdBitPerChar | 16 |
| ProdBitPerShort | 16 |
| ProdBitPerInt | 16 |
| ProdBitPerLong | 32 |
| ProdBitPerLongLong | 64 |
| ProdBitPerFloat | 32 |
| ProdBitPerDouble | 64 |
| ProdBitPerPointer | 32 |
| ProdBitPerSizeT | 32 |
| ProdBitPerPtrDiffT | 32 |
| ProdLargestAtomicInteger | Integer |
| ProdLargestAtomicFloat | None |
| ProdIntDivRoundTo | Zero |
| ProdEndianess | LittleEndian |
| ProdWordSize | 16 |
| ProdShiftRightIntArith | on |
| ProdLongLongMode | off |
| ProdHWDeviceType | Texas Instruments->C2000 |
| TargetBitPerChar | 8 |
| TargetBitPerShort | 16 |
| TargetBitPerInt | 32 |
| TargetBitPerLong | 32 |
| TargetBitPerLongLong | 64 |
| TargetBitPerFloat | 32 |
| TargetBitPerDouble | 64 |
| TargetBitPerPointer | 32 |
| TargetBitPerSizeT | 32 |
| TargetBitPerPtrDiffT | 32 |
| TargetLargestAtomicInteger | Char |
| TargetLargestAtomicFloat | None |
| TargetShiftRightIntArith | on |
| TargetLongLongMode | off |
| TargetIntDivRoundTo | Undefined |
| TargetEndianess | Unspecified |
| TargetWordSize | 32 |
| TargetPreprocMaxBitsSint | 32 |
| TargetPreprocMaxBitsUint | 32 |
| TargetHWDeviceType | Specified |
| TargetUnknown | off |
| ProdEqTarget | on |
| UseEmbeddedCoderFeatures | on |
| UseSimulinkCoderFeatures | on |
| HardwareBoardFeatureSet | EmbeddedCoderHSP |

**표 6-7.** [**b01\_OSnScheduler Configuration Set.Components [34]**](#ID_mw_95_cba78efa24d74fd2959759fb927b56b8) **(6)**

|  |  |
| --- | --- |
| **Property** | **Value** |
| Name | Model Referencing |
| Description |  |
| Components |  |
| UpdateModelReferenceTargets | IfOutOfDateOrStructuralChange |
| EnableRefExpFcnMdlSchedulingChecks | on |
| CheckModelReferenceTargetMessage | error |
| EnableParallelModelReferenceBuilds | off |
| ParallelModelReferenceErrorOnInvalidPool | on |
| ParallelModelReferenceMATLABWorkerInit | None |
| ModelReferenceNumInstancesAllowed | Single |
| PropagateVarSize | Infer from blocks in model |
| ModelDependencies |  |
| ModelReferencePassRootInputsByReference | on |
| ModelReferenceMinAlgLoopOccurrences | off |
| PropagateSignalLabelsOutOfModel | on |
| SupportModelReferenceSimTargetCustomCode | off |
| UseModelRefSolver | off |

**표 6-8.** [**b01\_OSnScheduler Configuration Set.Components [34]**](#ID_mw_95_cba78efa24d74fd2959759fb927b56b8) **(7)**

|  |  |
| --- | --- |
| **Property** | **Value** |
| Name | Simulation Target |
| Description |  |
| Components |  |
| SimCustomSourceCode |  |
| SimCustomHeaderCode |  |
| SimCustomInitializer |  |
| SimCustomTerminator |  |
| SimReservedNameArray |  |
| SimUserSources |  |
| SimUserIncludeDirs |  |
| SimUserLibraries |  |
| SimUserDefines |  |
| SimCustomCompilerFlags |  |
| SimCustomLinkerFlags |  |
| SFSimEnableDebug | off |
| SFSimEcho | on |
| SimCtrlC | on |
| SimIntegrity | on |
| SimUseLocalCustomCode | off |
| SimParseCustomCode | on |
| SimAnalyzeCustomCode | off |
| SimDebugExecutionForCustomCode | off |
| SimGenImportedTypeDefs | off |
| CompileTimeRecursionLimit | 0 |
| EnableRuntimeRecursion | off |
| EnableImplicitExpansion | on |
| MATLABDynamicMemAlloc | off |
| MATLABDynamicMemAllocThreshold | 65536 |
| LegacyBehaviorForPersistentVarInContinuousTime | off |
| CustomCodeFunctionArrayLayout |  |
| DefaultCustomCodeFunctionArrayLayout | NotSpecified |
| CustomCodeUndefinedFunction | UseInterfaceOnly |
| CustomCodeGlobalsAsFunctionIO | off |
| DefaultCustomCodeDeterministicFunctions | None |
| CustomCodeDeterministicFunctions |  |
| SimHardwareAcceleration | generic |
| SimTargetLang | C |
| GPUAcceleration | off |
| SimGPUMallocThreshold | 200 |
| SimGPUStackLimitPerThread | 1024 |
| SimGPUErrorChecks | off |
| SimGPUCustomComputeCapability |  |
| SimGPUCompilerFlags |  |
| SimDLTargetLibrary | mkl-dnn |
| SimDLAutoTuning | on |

**표 6-9.** [**b01\_OSnScheduler Configuration Set.Components [34]**](#ID_mw_95_cba78efa24d74fd2959759fb927b56b8) **(8)**

|  |  |
| --- | --- |
| **Property** | **Value** |
| Name | Code Generation |
| Description | Embedded Coder |
| SystemTargetFile | ert.tlc |
| EmbeddedCoderDictionary |  |
| HardwareBoard | None |
| ShowCustomHardwareApp | on |
| ShowEmbeddedHardwareApp | off |
| TLCOptions |  |
| GenCodeOnly | on |
| MakeCommand | make\_rtw |
| GenerateMakefile | on |
| PackageGeneratedCodeAndArtifacts | off |
| PackageName |  |
| TemplateMakefile | ert\_default\_tmf |
| PostCodeGenCommand |  |
| GenerateReport | on |
| RTWVerbose | on |
| RetainRTWFile | off |
| ProfileTLC | off |
| TLCDebug | off |
| TLCCoverage | off |
| TLCAssert | off |
| BuiltinFFTWCallback | off |
| RTWUseLocalCustomCode | off |
| RTWUseSimCustomCode | off |
| CustomSourceCode |  |
| CustomHeaderCode |  |
| CustomInclude |  |
| CustomSource |  |
| CustomLibrary |  |
| CustomDefine |  |
| CustomBLASCallback |  |
| CustomLAPACKCallback |  |
| CustomFFTCallback |  |
| CustomInitializer |  |
| CustomTerminator |  |
| Toolchain | Automatically locate an installed toolchain |
| BuildConfiguration | Faster Runs |
| CustomToolchainOptions |  |
| IncludeHyperlinkInReport | on |
| LaunchReport | on |
| PortableWordSizes | off |
| CreateSILPILBlock | None |
| CodeExecutionProfiling | off |
| CodeExecutionProfileVariable | executionProfile |
| CodeProfilingSaveOptions | SummaryOnly |
| CodeProfilingInstrumentation | off |
| CodeStackProfiling | off |
| CodeStackProfileVariable | stackProfile |
| CodeCoverageSettings | [b01\_OSnScheduler Configuration Set.Components(8).CodeCoverageSettings [56]](#ID_mw_95_c793150aea536cf43c4a947061efdec6) |
| SILPILDebugging | off |
| RemoveFixptWordSizeChecks | off |
| DataTypeReplacement | CoderTypedefs |
| CoderTypedefsCompatibility | off |
| TargetLang | C |
| GenerateGPUCode | None |
| HalideCodeGeneration | off |
| GenerateTraceInfo | on |
| GenerateTraceReport | on |
| GenerateTraceReportSl | on |
| GenerateTraceReportSf | on |
| GenerateTraceReportEml | off |
| GenerateWebview | on |
| GenerateCodeMetricsReport | on |
| GenerateCodeReplacementReport | on |
| RTWCompilerOptimization | off |
| ObjectivePriorities | {MISRA C:2012 guidelines, Execution efficiency, RAM efficiency, ROM efficiency} |
| RTWCustomCompilerOptimizations |  |
| CheckMdlBeforeBuild | Off |
| GPUKernelNamePrefix |  |
| GPUDeviceID | -1 |
| GPUMallocMode | discrete |
| GPUMallocThreshold | 200 |
| GPUEnableMemoryManager | off |
| GPUStackLimitPerThread | 1024 |
| GPUcuBLAS | on |
| GPUcuSOLVER | on |
| GPUcuFFT | on |
| GPUErrorChecks | off |
| GPUComputeCapability | 3.5 |
| GPUCustomComputeCapability |  |
| GPUCompilerFlags |  |
| GPUMaximumBlocksPerKernel | 0 |
| DLTargetLibrary | none |
| DLAutoTuning | on |
| DLDataType | fp32 |
| DLArmComputeVersion | 19.05 |
| DLArmComputeArch | unspecified |
| DLLearnablesCompression | None |
| LargeConstantGeneration | KeepInSourceFiles |
| LargeConstantThreshold | 131072 |
| Components | [[b01\_OSnScheduler Configuration Set.Components(8).Components(1) [56]](#ID_mw_95_cdf2756e6ab4da306cb7570a08e86c98) , [b01\_OSnScheduler Configuration Set.Components(8).Components(2) [58]](#ID_mw_95_4829fd0d89bf85da395948f1dec5b814) ] |

**표 6-10.** [**b01\_OSnScheduler Configuration Set.Components [34]**](#ID_mw_95_cba78efa24d74fd2959759fb927b56b8) **(9)**

|  |  |
| --- | --- |
| **Property** | **Value** |
| Description | Simulink Coverage Configuration Component |
| Components |  |
| Name | Simulink Coverage |
| CovEnable | off |
| CovScope | EntireSystem |
| CovIncludeTopModel | on |
| RecordCoverage | off |
| CovPath | / |
| CovSaveName | coveragedata |
| CovCompData |  |
| CovMetricSettings | we |
| CovFilter |  |
| CovHTMLOptions |  |
| CovNameIncrementing | off |
| CovForceBlockReductionOff | on |
| CovEnableCumulative | off |
| CovSaveCumulativeToWorkspaceVar | on |
| CovSaveSingleToWorkspaceVar | on |
| CovCumulativeVarName | covCumulativeData |
| CovCumulativeReport | off |
| CovSaveOutputData | on |
| CovOutputDir | sldv\_output/$ModelName$\sldv\_covoutput |
| CovDataFileName | $ModelName$\_cvdata |
| CovReportOnPause | on |
| CovModelRefEnable | off |
| CovModelRefExcluded |  |
| CovExternalEMLEnable | on |
| CovSFcnEnable | on |
| CovBoundaryAbsTol | 1.0000e-05 |
| CovBoundaryRelTol | 0.0100 |
| CovUseTimeInterval | off |
| CovStartTime | 0 |
| CovStopTime | 0 |
| CovMetricStructuralLevel | BlockExecution |
| CovMetricLookupTable | off |
| CovMetricSignalRange | off |
| CovMetricSignalSize | off |
| CovMetricObjectiveConstraint | off |
| CovMetricSaturateOnIntegerOverflow | off |
| CovMetricRelationalBoundary | off |
| CovLogicBlockShortCircuit | off |
| CovUnsupportedBlockWarning | on |
| CovMcdcMode | Masking |
| CovExcludeInactiveVariants | off |

**표 6-11.** [**b01\_OSnScheduler Configuration Set.Components [34]**](#ID_mw_95_cba78efa24d74fd2959759fb927b56b8) **(10)**

|  |  |
| --- | --- |
| **Property** | **Value** |
| Description | HDL Coder custom configuration component |
| Components |  |
| Name | HDL Coder |

**표 6-12.** [**b01\_OSnScheduler Configuration Set.Components [34]**](#ID_mw_95_cba78efa24d74fd2959759fb927b56b8) **(11)**

|  |  |
| --- | --- |
| **Property** | **Value** |
| Description |  |
| Components | [b01\_OSnScheduler Configuration Set.Components(11).Components [62]](#ID_mw_95_04fd51372d0a6bb388a8a36bd3107a7b) |
| Name | Simscape |
| EditingMode | Full |
| ExplicitSolverDiagnosticOptions | warning |
| GlobalZcOffDiagnosticOptions | warning |
| SimscapeNormalizeSystem | off |
| SimscapeNominalValues | [{"value":"1","unit":"A"},{"value":"1","unit":"bar"},{"value":"1","unit":"cm^2"},{"value":"1","unit":"cm^3/s"},{"value":"1","unit":"kJ/kg"},{"value":"1","unit":"kW"},{"value":"1","unit":"l"},{"value":"1","unit":"N"},{"value":"1","unit":"N\*m"},{"value":"1","unit":"V"}] |
| SimscapeLogType | none |
| SimscapeLogSimulationStatistics | off |
| SimscapeLogToSDI | off |
| SimscapeLogOpenViewer | off |
| SimscapeLogName | simlog |
| SimscapeLogDecimation | 1 |
| SimscapeLogLimitData | on |
| SimscapeLogDataHistory | 5000 |
| SimscapeUseOperatingPoints | off |
| SimscapeOperatingPoint |  |
| SimscapeCompileComponentReuse | off |
| SimscapeMultithreadedCompilation | on |

**표 6-13.** [**b01\_OSnScheduler Configuration Set.Components [34]**](#ID_mw_95_cba78efa24d74fd2959759fb927b56b8) **(12)**

|  |  |
| --- | --- |
| **Property** | **Value** |
| Description | Polyspace Custom Configuration Component |
| Components |  |
| Name | Polyspace |
| PSVerificationMode | BugFinder |
| PSVerificationSettings | PrjConfig |
| PSCxxVerificationSettings | PrjConfig |
| PSOpenProjectManager | off |
| PSResultDir | results\_$ModelName$ |
| PSAddSuffixToResultDir | off |
| PSEnableAdditionalFileList | off |
| PSAdditionalFileList |  |
| PSModelRefVerifDepth | Current model only |
| PSModelRefIgnoreList |  |
| PSEnableModelRefIgnoreList | off |
| PSModelRefByModelRefVerif | off |
| PSInputRangeMode | DesignMinMax |
| PSModelRefMinMaxVerif | CheckAndConstrain |
| PSParamRangeMode | None |
| PSOutputRangeMode | None |
| PSAutoStubLUT | on |
| PSCheckConfigBeforeAnalysis | OnWarn |
| PSEnablePrjConfigFile | off |
| PSPrjConfigFile |  |
| PSAddToSimulinkProject | off |
| PSVerifAllSFcnInstances | off |

**표 6-14.** [**b01\_OSnScheduler Configuration Set.Components [34]**](#ID_mw_95_cba78efa24d74fd2959759fb927b56b8) **(13)**

|  |  |
| --- | --- |
| **Property** | **Value** |
| Name | unset |
| Description |  |
| Components |  |

**표 6-15.** [**b01\_OSnScheduler Configuration Set.Components [34]**](#ID_mw_95_cba78efa24d74fd2959759fb927b56b8) **(14)**

|  |  |
| --- | --- |
| **Property** | **Value** |
| Description | Design Verifier Custom Configuration Component |
| Components |  |
| Name | Design Verifier |
| DVMode | TestGeneration |
| DVMaxProcessTime | 300 |
| DVAutomaticStubbing | on |
| DVUseParallel | off |
| DVDesignMinMaxConstraints | on |
| DVOutputDir | sldv\_output/$ModelName$ |
| DVMakeOutputFilesUnique | on |
| DVBlockReplacement | off |
| DVBlockReplacementRulesList | <FactoryDefaultRules> |
| DVBlockReplacementModelFileName | $ModelName$\_replacement |
| DVParameterConfiguration | None |
| DVParametersConfigFileName | sldv\_params\_template.m |
| DVParameterNames |  |
| DVParameterConstraints |  |
| DVParameterUseInAnalysis |  |
| DVTestgenTarget | Model |
| DVModelCoverageObjectives | MCDC |
| DVTestConditions | UseLocalSettings |
| DVTestObjectives | UseLocalSettings |
| DVMaxTestCaseSteps | 10000 |
| DVTestSuiteOptimization | CombinedObjectives (Nonlinear Extended) |
| DVAssertions | UseLocalSettings |
| DVProofAssumptions | UseLocalSettings |
| DVExtendExistingTests | off |
| DVExistingTestFile |  |
| DVIgnoreExistTestSatisfied | on |
| DVIgnoreCovSatisfied | off |
| DVCoverageDataFile |  |
| DVCovFilter | off |
| DVCovFilterFileName |  |
| DVIncludeRelationalBoundary | off |
| DVRelativeTolerance | 0.0100 |
| DVAbsoluteTolerance | 1.0000e-05 |
| DVDetectDeadLogic | off |
| DVDetectActiveLogic | off |
| DVDeadLogicObjectives | ConditionDecision |
| DVDetectOutOfBounds | off |
| DVDetectDivisionByZero | on |
| DVDetectIntegerOverflow | on |
| DVDetectInfNaN | off |
| DVDetectSubnormal | off |
| DVDesignMinMaxCheck | off |
| DVDetectDSMAccessViolations | off |
| DVDetectHISMViolationsHisl\_0002 | off |
| DVDetectHISMViolationsHisl\_0003 | off |
| DVDetectHISMViolationsHisl\_0004 | off |
| DVDetectHISMViolationsHisl\_0028 | off |
| DVDetectBlockInputRangeViolations | off |
| DVProvingStrategy | Prove |
| DVMaxViolationSteps | 20 |
| DVDataFileName | $ModelName$\_sldvdata |
| DVSaveExpectedOutput | off |
| DVRandomizeNoEffectData | off |
| DVSaveHarnessModel | off |
| DVHarnessModelFileName | $ModelName$\_harness |
| DVModelReferenceHarness | off |
| DVHarnessSource | Signal Builder |
| DVSaveReport | off |
| DVReportPDFFormat | off |
| DVReportFileName | $ModelName$\_report |
| DVReportIncludeGraphics | off |
| DVDisplayReport | on |
| DVSFcnSupport | on |
| DVCodeAnalysisExtraOptions |  |
| DVCodeAnalysisIgnoreVolatile | on |
| DVReduceRationalApprox | on |
| DVSlTestFileName | $ModelName$\_test |
| DVSlTestHarnessName | $ModelName$\_sldvharness |
| DVStrictEnhancedMCDC | off |
| DVRebuildModelRepresentation | Always |
| DVAnalyzeAllStartupVariants | on |

**표 6-16.** [**b01\_OSnScheduler Configuration Set.Components [34]**](#ID_mw_95_cba78efa24d74fd2959759fb927b56b8) **(15)**

|  |  |
| --- | --- |
| **Property** | **Value** |
| Description |  |
| Components |  |
| Name | Model Advisor |
| ModelAdvisorConfigurationFile |  |
| ShowAdvisorChecksEditTime | on |

**표 6-17.** [**b01\_OSnScheduler Configuration Set.Components(8) [47]**](#ID_mw_95_6209db7c71bba5666825b75cb7b911ca) **.CodeCoverageSettings**

|  |  |
| --- | --- |
| **Property** | **Value** |
| TopModelCoverage | off |
| ReferencedModelCoverage | off |
| CoverageTool | None |

**표 6-18.** [**b01\_OSnScheduler Configuration Set.Components(8).Components [50]**](#ID_mw_95_0af41c9889ad1f5a2732d342cce80e57) **(1)**

|  |  |
| --- | --- |
| **Property** | **Value** |
| Name | Code Appearance |
| Description |  |
| Components |  |
| ForceParamTrailComments | on |
| GenerateComments | on |
| CommentStyle | Auto |
| IgnoreCustomStorageClasses | off |
| IgnoreTestpoints | off |
| MaxIdLength | 31 |
| ShowEliminatedStatement | on |
| OperatorAnnotations | off |
| SimulinkDataObjDesc | off |
| SFDataObjDesc | off |
| MATLABFcnDesc | on |
| MangleLength | 4 |
| SharedChecksumLength | 8 |
| CustomSymbolStrGlobalVar | GvB01$N$M |
| CustomSymbolStrType | StrB01$N$M |
| CustomSymbolStrField | $N$M |
| CustomSymbolStrFcn | $N$M$F |
| CustomSymbolStrFcnArg | rt$I$N$M |
| CustomSymbolStrBlkIO | rtb\_$N$M |
| CustomSymbolStrTmpVar | $N$M |
| CustomSymbolStrMacro | $N$M |
| CustomSymbolStrUtil | $N$C |
| CustomSymbolStrEmxType | emxArray\_$M$N |
| CustomSymbolStrEmxFcn | emx$M$N |
| CustomUserTokenString |  |
| CustomCommentsFcn |  |
| DefineNamingRule | UpperCase |
| DefineNamingFcn |  |
| ParamNamingRule | UpperCase |
| ParamNamingFcn |  |
| SignalNamingRule | None |
| SignalNamingFcn |  |
| InsertBlockDesc | off |
| InsertPolySpaceComments | off |
| SimulinkBlockComments | off |
| BlockCommentType | BlockPathComment |
| StateflowObjectComments | off |
| MATLABSourceComments | on |
| EnableCustomComments | on |
| InternalIdentifier | Shortened |
| InlinedPrmAccess | Literals |
| ReqsInCode | on |
| UseSimReservedNames | off |
| ReservedNameArray |  |
| EnumMemberNameClash | error |

**표 6-19.** [**b01\_OSnScheduler Configuration Set.Components(8).Components [50]**](#ID_mw_95_0af41c9889ad1f5a2732d342cce80e57) **(2)**

|  |  |
| --- | --- |
| **Property** | **Value** |
| Name | Target |
| Description |  |
| Components |  |
| IsERTTarget | on |
| TargetLibSuffix |  |
| TargetPreCompLibLocation |  |
| TargetLangStandard | C99 (ISO) |
| CodeReplacementLibrary | None |
| UtilityFuncGeneration | Shared location |
| MultiwordTypeDef | System defined |
| MultiwordLength | 2048 |
| DynamicStringBufferSize | 256 |
| GenerateFullHeader | on |
| InferredTypesCompatibility | off |
| ExistingSharedCode |  |
| GenerateSampleERTMain | off |
| GenerateTestInterfaces | off |
| ModelReferenceCompliant | on |
| ParMdlRefBuildCompliant | on |
| CompOptLevelCompliant | on |
| ConcurrentExecutionCompliant | on |
| IncludeMdlTerminateFcn | off |
| CombineOutputUpdateFcns | on |
| CombineSignalStateStructs | on |
| GroupInternalDataByFunction | off |
| SuppressErrorStatus | on |
| IncludeFileDelimiter | Auto |
| ERTCustomFileBanners | on |
| SupportAbsoluteTime | off |
| LogVarNameModifier | rt\_ |
| MatFileLogging | off |
| MultiInstanceERTCode | off |
| CodeInterfacePackaging | Nonreusable function |
| PurelyIntegerCode | off |
| SupportNonFinite | off |
| SupportComplex | on |
| SupportContinuousTime | off |
| SupportNonInlinedSFcns | off |
| RemoveDisableFunc | off |
| RemoveResetFunc | on |
| SupportVariableSizeSignals | off |
| ParenthesesLevel | Maximum |
| CastingMode | Standards |
| ModelStepFunctionPrototypeControlCompliant | on |
| CPPClassGenCompliant | on |
| GRTInterface | off |
| GenerateAllocFcn | off |
| UseToolchainInfoCompliant | on |
| GenerateSharedConstants | off |
| LUTObjectStructOrderExplicitValues | Size,Breakpoints,Table |
| LUTObjectStructOrderEvenSpacing | Size,Breakpoints,Table |
| ArrayLayout | Column-major |
| UnsupportedSFcnMsg | error |
| ERTHeaderFileRootName | $R$E |
| ERTSourceFileRootName | $R$E |
| ERTDataFileRootName | $R\_data |
| InstructionSetExtensions | {None} |
| InstructionSetFMA | off |
| OptimizeReductions | off |
| IsSLRTTarget | off |
| HeaderGuardPrefix |  |
| LogToMDFFile | off |
| DSAsUniqueAccess | off |
| ExtMode | off |
| ExtModeTransport | 0 |
| ExtModeStaticAlloc | off |
| ExtModeAutomaticAllocSize | on |
| ExtModeMaxTrigDuration | 10 |
| ExtModeStaticAllocSize | 1000000 |
| ExtModeTesting | off |
| ExtModeMexFile | ext\_comm |
| ExtModeMexArgs |  |
| ExtModeIntrfLevel | Level1 |
| TargetOS | BareBoardExample |
| MultiInstanceErrorCode | Error |
| RootIOFormat | Individual arguments |
| RTWCAPISignals | off |
| RTWCAPIParams | off |
| RTWCAPIStates | off |
| RTWCAPIRootIO | off |
| ERTSrcFileBannerTemplate | t\_code\_template.cgt |
| ERTHdrFileBannerTemplate | t\_code\_template.cgt |
| ERTDataSrcFileTemplate | t\_code\_template.cgt |
| ERTDataHdrFileTemplate | t\_code\_template.cgt |
| ERTCustomFileTemplate | example\_file\_process.tlc |
| EnableDataOwnership | off |
| SignalDisplayLevel | 10 |
| ParamTuneLevel | 10 |
| GlobalDataDefinition | Auto |
| DataDefinitionFile | global.c |
| GlobalDataReference | Auto |
| ERTFilePackagingFormat | CompactWithDataFile |
| RateTransitionBlockCode | Inline |
| DataReferenceFile | global.h |
| PreserveExpressionOrder | on |
| PreserveIfCondition | off |
| ConvertIfToSwitch | on |
| PreserveExternInFcnDecls | on |
| PreserveStaticInFcnDecls | on |
| SuppressUnreachableDefaultCases | off |
| EnableSignedLeftShifts | off |
| EnableSignedRightShifts | off |
| ImplementImageWithCVMat | off |
| IndentStyle | Allman |
| IndentSize | 4 |
| NewlineStyle | Default |
| MaxLineWidth | 80 |
| EnableUserReplacementTypes | off |
| ReplacementTypes | [b01\_OSnScheduler Configuration Set.Components(8).Components(2).ReplacementTypes [62]](#ID_mw_95_6843de333a4ca589cfed82cb89847b2e) |
| MaxIdInt64 | MAX\_int64\_T |
| MinIdInt64 | MIN\_int64\_T |
| MaxIdUint64 | MAX\_uint64\_T |
| MaxIdInt32 | MAX\_int32\_T |
| MinIdInt32 | MIN\_int32\_T |
| MaxIdUint32 | MAX\_uint32\_T |
| MaxIdInt16 | MAX\_int16\_T |
| MinIdInt16 | MIN\_int16\_T |
| MaxIdUint16 | MAX\_uint16\_T |
| MaxIdInt8 | MAX\_int8\_T |
| MinIdInt8 | MIN\_int8\_T |
| MaxIdUint8 | MAX\_uint8\_T |
| BooleanTrueId | true |
| BooleanFalseId | false |
| TypeLimitIdReplacementHeaderFile |  |
| ArrayContainerType | C-style array |

**표 6-20.** [**b01\_OSnScheduler Configuration Set.Components(11) [51]**](#ID_mw_95_26d34d64c249da73f3f883c5ad7c03d2) **.Components**

|  |  |
| --- | --- |
| **Property** | **Value** |
| Name | unset |
| Description |  |
| Components |  |

**표 6-21.** [**b01\_OSnScheduler Configuration Set.Components(8).Components(2) [58]**](#ID_mw_95_4829fd0d89bf85da395948f1dec5b814) **.ReplacementTypes**

|  |  |
| --- | --- |
| **Field** | **Value** |
| double |  |
| single |  |
| int32 |  |
| int16 |  |
| int8 |  |
| uint32 |  |
| uint16 |  |
| uint8 |  |
| boolean |  |
| int |  |
| uint |  |
| char |  |
| uint64 |  |
| int64 |  |

# **7장. Glossary**

**Atomic Subsystem.** A subsystem treated as a unit by an implementation of the design documented in this report. The implementation computes the outputs of all the blocks in the atomic subsystem before computing the next block in the parent system's block execution order (sorted list).

**Block Diagram.** A Simulink block diagram represents a set of simultaneous equations that relate a system or subsystem's inputs to its outputs as a function of time. Each block in the diagram represents an equation of the form y = f(t, x, u) where t is the current time, u is a block input, y is a block output, and x is a system state (see the Simulink documentation for information on the functions represented by the various types of blocks that make up the diagram). Lines connecting the blocks represent dependencies among the blocks, i.e., inputs whose current values are the outputs of other blocks. An implementation of a design described in this document computes a root or atomic system's outputs at each time step by computing the outputs of the blocks in an order determined by block input/output dependencies.

**Block Parameter.** A variable that determines the output of a block along with its inputs, for example, the gain parameter of a Gain block.

**Block Execution Order.** The order in which Simulink evaluates blocks during simulation of a model. The block execution order determined by Simulink ensures that a block executes only after all blocks on whose outputs it depends are executed.

**Checksum.** A number that indicates whether different versions of a model or atomic subsystem differ functionally or only cosmetically. Different checksums for different versions of the same model or subsystem indicate that the versions differ functionally.

**Design Variable.** A symbolic (MATLAB) variable or expression used as the value of a block parameter. Design variables allow the behavior of the model to be altered by altering the value of the design variable.

**Enumeration Type.** Enumerated data is data that is restricted to a finite set of values. An enumerated data type is a MATLAB® class that defines a set of enumerated values. Each enumerated value consists of an enumerated name and an underlying integer which the software uses internally and in generated code.

**Signal.** A block output, so-called because block outputs typically vary with time.

**Virtual Subsystem.** A subsystem that is purely graphical, i.e., is intended to reduce the visual complexity of the block diagram of which it is a subsystem. An implementation of the design treats the blocks in the subsystem as part of the first nonvirtual ancestor of the virtual subsystem (see Atomic Subsystem).

# **8장. About this Report**

## **Report Overview**

This report describes the design of the b01\_OSnScheduler system. The report was generated automatically from a Simulink model used to validate the design. It contains the following sections:

**Model Version.** Specifies information about the version of the model from which this design description was generated. Includes the model checksum, a number that indicates whether different versions of the model differ functionally or only cosmetically. Different checksums for different versions indicate that the versions differ functionally.

**Root System.** Describes the design's root system.

**Subsystems.** Describes each of the design's subsystems.

**Design Variables.** Describes system design variables, i.e., MATLAB variables and expressions used as block parameter values.

**Enumeration Type.** Describes the enumeration types used by this model.

**System Model Configuration.** Lists the configuration parameters, e.g., start and stop time, of the model used to simulate the system described by this report.

**Requirements.** Shows design requirements associated with elements of the design model. This section appears only if the design model contains requirements links.

**Glossary.** Defines Simulink terms used in this report.

## **Root System Description**

This section describes a design's root system. It contains the following sections:

**Diagram.** Simulink block diagram that represents the algorithm used to compute the root system's outputs.

**Description.** Description of the root system. This section appears only if the model's root system has a Documentation property or a Doc block.

**Interface.** Name, data type, width, and other properties of the root system's input and output signals. The number of the block port that outputs the signal appears in angle brackets appended to the signal name. This section appears only if the root system has input or output ports.

**Blocks.** This section has two subsections:

• **Parameters.** Describes key parameters of blocks in the root system. This section also includes graphical and/or tabular representations of lookup table data used by lookup table blocks, i.e., blocks that use lookup tables to compute their outputs.

• **Block Execution Order.** Order in which blocks must be executed at each time step in order to ensure that each block's inputs are available when it executes.

**State Charts.** Describes state charts used in the root system. This section appears only if the root system contains Stateflow blocks.

## **Subsystem Descriptions**

This section describes a design's subsystems. Each subsystem description contains the following sections:

**Checksum.** This section appears only if the subsystem is an atomic subsystem. The checksum indicates whether the version of the model subsystem used to generate this report differs functionally from other versions of the model subsystem. If two model checksums differ, the corresponding versions of the model differ functionally.

**Diagram.** Simulink block diagram that graphically represents the algorithm used to compute the subsystem's outputs.

**Description.** Description of the subsystem. This section appears only if the subsystem has a Documentation property or contains a Doc block.

**Interface.** Name, data type, width, and other properties of the subsystem's input and output signals. The number of the block port that outputs the signal appears in angle brackets appended to the signal name. This section appears only if the subsystem is atomic and has input or output ports.

**Blocks.** Blocks that this subsystem contains. This section has two subsections:

• **Parameters.** Key parameters of blocks in the subsystem. This section also includes graphical and/or tabular representations of lookup table data used by lookup table blocks, blocks that use lookup tables to compute their outputs.

• **Block Execution Order.** Order in which the subsystem's blocks must be executed at each time step in order to ensure that each block's inputs are available when the block executes .This section appears only if the subsystem is atomic. Note: in Acrobat(PDF) reports, the number in square brackets next to the block name is a hyperlink to the block parameter table. The number has no model significance.

**State Charts.** Describes state charts used in the subsystem. This section appears only if the root system contains Stateflow blocks.

## **State Chart Descriptions**

This section describes the state machines used by Stateflow blocks to compute their outputs, i.e., Stateflow blocks. Each state machine description contains the following sections:

**Chart.** Diagram representing the state machine.

**States.** Describes the state machine's states. Each state description includes the state's diagram and diagrams and/or descriptions of graphical functions, Simulink functions, truth tables, and MATLAB functions parented by the state.

**Transitions.** Transitions between the state machine's states. Each transition description specifies the values of key transition properties. Appears only if a transition has properties that do not appear on the chart.

**Junctions.** Transition junctions. Each junction description specifies the values of key junction properties. Appears only if a junction has properties that do not appear on the chart.

**Events.** Events that trigger state transitions. Each event description specifies the values of key event properties.

**Data.** Data types and other properties of the Stateflow block's inputs, outputs, and other state machine data.

**Targets.** Executable implementations of the state machine used to compute the outputs of the corresponding Stateflow block.

**MATLAB Supporting Functions.** List of functions invoked by MATLAB functions defined in the chart.