Module Interface Specification for Image Feature Correspondences for Camera Calibration

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1 Revision History

Date	**Version**	**Notes**
2025-03-19	1.0	Initial Release

2 Symbols, Abbreviations and Acronyms

See SRS Documentation at https://github.com/KiranSingh15/CAS-741-Image-Correspondences/blob/main/docs/SRS/SRS.pdf.

[Also add any additional symbols, abbreviations or acronyms —SS]

Contents

3 Introduction

The following document details the Module Interface Specifications for [Fill in your project name and description —SS]

Complementary documents include the System Requirement Specifications and Module Guide. The full documentation and implementation can be found at .... [provide the url for your repo —SS]

4 Notation

[You should describe your notation. You can use what is below as a starting point. —SS]

The structure of the MIS for modules comes from Hoffman and Strooper (1995), with the addition that template modules have been adapted from Ghezzi et al. (2003). The mathematical notation comes from Chapter 3 of Hoffman and Strooper (1995). For instance, the symbol := is used for a multiple assignment statement and conditional rules follow the form $(c_1 \Rightarrow r_1 | c_2 \Rightarrow r_2 | ... | c_n \Rightarrow r_n)$.

The following table summarizes the primitive data types used by the Image Feature Correspondences for Camera Calibrationsoftware.

Data Type	**Notation**	**Description**
character	char	a single symbol or digit
integer	$\mathbb{Z}$	a number without a fractional component in (-∞, ∞)
natural number	$\mathbb{N}$	a number without a fractional component in [1, ∞)
real	$\mathbb{R}$	any number in (-∞, ∞)

The specification of Image Feature Correspondences for Camera Calibration uses some derived data types: sequences, strings, and tuples. Sequences are lists filled with elements of the same data type. Strings are sequences of characters. Tuples contain a list of values, potentially of different types. In addition, Image Feature Correspondences for Camera Calibration uses functions, which are defined by the data types of their inputs and outputs. Local functions are described by giving their type signature followed by their specification.

5 Module Decomposition

The following table is taken directly from the Module Guide document for this project.

Level 1	**Level 2**
Hardware-Hiding	
Behaviour-Hiding	Input Parameters Input Format Module Specification Parameters Output Format Module Output Verification Module Control Module Image Smoothing Module Keypoint Detection Module Feature Descriptor Module Feature Matching Module
Software Decision	Sequence Data Structure Image Data Structure Module Image Plot Module Feature Match Data Module Dataframe Structure Module ORB Data Structure Module

Table 1: Module Hierarchy

6 MIS of Input Format Module

[You can reference SRS labels, such as R??. —SS]

[It is also possible to use LaTeXfor hypperlinks to external documents. —SS]

6.1 Module

config

6.2 Uses

- specParams (Section 7)

6.3 Syntax

6.3.1 Exported Constants

6.3.2 Exported Access Programs

Name	In	Out	Exceptions
get_head_directory	-	string	noHeadFound
get_active_functions	-	dictionary of string	badFxnSelections
get_chosen_parameters	-	dictionary of string, integer, and floats	badKernelSize, badStdDeviation, badFASTThrehold, badBinSize, badPatchSize, badDistThreshold

6.4 Semantics

6.4.1 State Variables

[Not all modules will have state variables. State variables give the module a memory. —SS]

6.4.2 Environment Variables

[This section is not necessary for all modules. Its purpose is to capture when the module has external interaction with the environment, such as for a device driver, screen interface, keyboard, file, etc. —SS]

6.4.3 Assumptions

[Try to minimize assumptions and anticipate programmer errors via exceptions, but for practical purposes assumptions are sometimes appropriate. —SS]

6.4.4 Access Routine Semantics

[accessProg —SS]():

- transition: [if appropriate —SS]
- output: [if appropriate —SS]
- exception: [if appropriate —SS]

[A module without environment variables or state variables is unlikely to have a state transition. In this case a state transition can only occur if the module is changing the state of another module. —SS]

[Modules rarely have both a transition and an output. In most cases you will have one or the other. —SS]

6.4.5 Local Functions

[As appropriate —SS] [These functions are for the purpose of specification. They are not necessarily something that is going to be implemented explicitly. Even if they are implemented, they are not exported; they only have local scope. —SS]

7 MIS of Specification Parameters Module

[You can reference SRS labels, such as R**??**. —SS]

[It is also possible to use LaTeXfor hypperlinks to external documents. —SS]

7.1 Module

specParams (Section 6)

7.2 Uses

None.

7.3 Syntax

7.3.1 Exported Constants

7.3.2 Exported Access Programs

Name	In	Out	Exceptions
set_default_parameters	-	$kernel\_sz : \mathbb{Z}$ $std\_deviation : \mathbb{R}$ $FAST\_threshold : \mathbb{Z}$ $bin\_sz : \mathbb{Z}$ $patch\_sz : \mathbb{Z}$	-
set_default_methods	-	$mthd\_img\_smoothing : \mathbb{Z}$ $mthd\_kp\_detection : \mathbb{Z}$ $mthd\_kp\_description : \mathbb{Z}$ $mthd\_ft\_match : \mathbb{Z}$	-
check_limits	$kernel\_sz : \mathbb{Z}$ $std\_deviation : \mathbb{R}$ $FAST\_threshold : \mathbb{Z}$ $bin\_sz : \mathbb{Z}$ $patch\_sz : \mathbb{Z}$	-	badKernelSize, badStdDeviation, badFASTThrehold, badBinSize, badPatchSize, badDistThreshold

7.4 Semantics

7.4.1 State Variables

$kernel\_sz : \mathbb{Z}$
$std\_deviation : \mathbb{R}$
$FAST\_threshold : \mathbb{R}$
$bin\_sz : \mathbb{Z}$
$patch\_sz : \mathbb{Z}$
$mthd\_img\_smoothing : \mathbb{Z}$
$mthd\_kp\_detection : \mathbb{Z}$
$mthd\_kp\_description : \mathbb{Z}$
$mthd\_ft\_match : \mathbb{Z}$

7.4.2 Environment Variables

[This section is not necessary for all modules. Its purpose is to capture when the module has external interaction with the environment, such as for a device driver, screen interface, keyboard, file, etc. —SS]

7.4.3 Assumptions

[Try to minimize assumptions and anticipate programmer errors via exceptions, but for practical purposes assumptions are sometimes appropriate. —SS]

7.4.4 Access Routine Semantics

[accessProg —SS]():

- transition: [if appropriate —SS]
- output: [if appropriate —SS]
- exception: [if appropriate —SS]

set_default_parameters():

- output: [if appropriate —SS]
  - $kernel\_sz : \mathbb{Z}$
  - $std\_deviation : \mathbb{R}$
  - $FAST\_threshold : \mathbb{Z}$
  - $bin\_sz : \mathbb{Z}$
  - $patch\_sz : \mathbb{Z}$

set_default_methods():

- output: [if appropriate —SS]
  - $mthd\_img\_smoothing : \mathbb{Z}$
  - $mthd\_kp\_detection : \mathbb{Z}$
  - $mthd\_kp\_description : \mathbb{Z}$
  - $mthd\_ft\_match : \mathbb{Z}$
- exception: none

check_limits():

- output: none

- exception: exc:=

$\neg(kernel\_sz < 1)$	$\Rightarrow$ badKernelSize
$\neg(kernel\_sz > 15)$	$\Rightarrow$ badKernelSize
$\neg(kernel\_sz\%2 == 1)$	$\Rightarrow$ badKernelSize
$\neg(0 < std\_deviation < 10)$	$\Rightarrow$ badStdDeviation
$\neg(2 \leq FAST\_threshold \leq 255)$	$\Rightarrow$ badFASTThreshold
$\neg(1 \leq FAST\_threshold \leq 2048)$	$\Rightarrow$ badBinSize
$\neg(5 \leq FAST\_threshold \leq 100)$	$\Rightarrow$ badPatchSize

[A module without environment variables or state variables is unlikely to have a state transition. In this case a state transition can only occur if the module is changing the state of another module. —SS]

[Modules rarely have both a transition and an output. In most cases you will have one or the other. —SS]

7.4.5 Local Functions

[As appropriate —SS] [These functions are for the purpose of specification. They are not necessarily something that is going to be implemented explicitly. Even if they are implemented, they are not exported; they only have local scope. —SS]

8 MIS of Output Format Module

[You can reference SRS labels, such as R**??**. —SS]

[It is also possible to use LaTeXfor hypperlinks to external documents. —SS]

8.1 Module

formatOutput

8.2 Uses

- matchStruct (Section 10)
- dataframeStruct (Section 18)

8.3 Syntax

8.3.1 Exported Constants

Not applicable.

8.3.2 Exported Access Programs

Name	In	Out	Exceptions
main	-	-	-

8.4 Semantics

8.4.1 State Variables

[Not all modules will have state variables. State variables give the module a memory. —SS]

8.4.2 Environment Variables

[This section is not necessary for all modules. Its purpose is to capture when the module has external interaction with the environment, such as for a device driver, screen interface, keyboard, file, etc. —SS]

8.4.3 Assumptions

[Try to minimize assumptions and anticipate programmer errors via exceptions, but for practical purposes assumptions are sometimes appropriate. —SS]

8.4.4 Access Routine Semantics

[accessProg —SS]():

- transition: Modify the state of the Specification Parameters Module and the environment variables for the Image Plot Module and Dataframe Structure modules through the following steps.
- output: [if appropriate —SS]
- exception: [if appropriate —SS]

[A module without environment variables or state variables is unlikely to have a state transition. In this case a state transition can only occur if the module is changing the state of another module. —SS]

[Modules rarely have both a transition and an output. In most cases you will have one or the other. —SS]

8.4.5 Local Functions

[As appropriate —SS] [These functions are for the purpose of specification. They are not necessarily something that is going to be implemented explicitly. Even if they are implemented, they are not exported; they only have local scope. —SS]

9 MIS of Output Verification Module

[You can reference SRS labels, such as R??. —SS]

[It is also possible to use LaTeXfor hypperlinks to external documents. —SS]

9.1 Module

verifyOutput

9.2 Uses

None.

9.3 Syntax

9.3.1 Exported Constants

9.3.2 Exported Access Programs

Name	In	Out	Exceptions
[accessProg —SS]	-	-	-

9.4 Semantics

9.4.1 State Variables

[Not all modules will have state variables. State variables give the module a memory. —SS]

9.4.2 Environment Variables

[This section is not necessary for all modules. Its purpose is to capture when the module has external interaction with the environment, such as for a device driver, screen interface, keyboard, file, etc. —SS]

9.4.3 Assumptions

[Try to minimize assumptions and anticipate programmer errors via exceptions, but for practical purposes assumptions are sometimes appropriate. —SS]

9.4.4 Access Routine Semantics

[accessProg —SS]():

- transition: [if appropriate —SS]

- output: [if appropriate —SS]
- exception: [if appropriate —SS]

[A module without environment variables or state variables is unlikely to have a state transition. In this case a state transition can only occur if the module is changing the state of another module. —SS]

[Modules rarely have both a transition and an output. In most cases you will have one or the other. —SS]

9.4.5 Local Functions

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10 MIS of Control Module

[You can reference SRS labels, such as R**??**. —SS]

[It is also possible to use LaTeXfor hypperlinks to external documents. —SS]

10.1 Module

main

10.2 Uses

- matchFeatures (Section 14)
- plotImage (Section 16)
- formatOutput (Section 8)
- verifyOutput (Section 9)

10.3 Syntax

10.3.1 Exported Constants

10.3.2 Exported Access Programs

Name	In	Out	Exceptions
main	-	-	-

10.4 Semantics

10.4.1 State Variables

[Not all modules will have state variables. State variables give the module a memory. —SS]

10.4.2 Environment Variables

[This section is not necessary for all modules. Its purpose is to capture when the module has external interaction with the environment, such as for a device driver, screen interface, keyboard, file, etc. —SS]

10.4.3 Assumptions

[Try to minimize assumptions and anticipate programmer errors via exceptions, but for practical purposes assumptions are sometimes appropriate. —SS]

10.4.4 Access Routine Semantics

[accessProg —SS]():

- transition: [if appropriate —SS]
- output: [if appropriate —SS]
- exception: [if appropriate —SS]

[A module without environment variables or state variables is unlikely to have a state transition. In this case a state transition can only occur if the module is changing the state of another module. —SS]

[Modules rarely have both a transition and an output. In most cases you will have one or the other. —SS]

10.4.5 Local Functions

[As appropriate —SS] [These functions are for the purpose of specification. They are not necessarily something that is going to be implemented explicitly. Even if they are implemented, they are not exported; they only have local scope. —SS]

11 MIS of Image Smoothing Module

[You can reference SRS labels, such as R**??**. —SS]

[It is also possible to use LaTeXfor hypperlinks to external documents. —SS]

11.1 Module

smoothImage

11.2 Uses

- config (Section 10)
- imageStruct (Section 15)

11.3 Syntax

11.3.1 Exported Constants

11.3.2 Exported Access Programs

Name	In	Out	Exceptions
[accessProg —SS]	-	-	-

11.4 Semantics

11.4.1 State Variables

[Not all modules will have state variables. State variables give the module a memory. —SS]

11.4.2 Environment Variables

[This section is not necessary for all modules. Its purpose is to capture when the module has external interaction with the environment, such as for a device driver, screen interface, keyboard, file, etc. —SS]

11.4.3 Assumptions

[Try to minimize assumptions and anticipate programmer errors via exceptions, but for practical purposes assumptions are sometimes appropriate. —SS]

11.4.4 Access Routine Semantics

[accessProg —SS]():

- transition: [if appropriate —SS]
- output: [if appropriate —SS]
- exception: [if appropriate —SS]

[A module without environment variables or state variables is unlikely to have a state transition. In this case a state transition can only occur if the module is changing the state of another module. —SS]

[Modules rarely have both a transition and an output. In most cases you will have one or the other. —SS]

11.4.5 Local Functions

[As appropriate —SS] [These functions are for the purpose of specification. They are not necessarily something that is going to be implemented explicitly. Even if they are implemented, they are not exported; they only have local scope. —SS]

12 MIS of Keypoint Detection Module

[You can reference SRS labels, such as R**??**. —SS]

[It is also possible to use LaTeXfor hypperlinks to external documents. —SS]

12.1 Module

detectKeypoints

12.2 Uses

- config (Section 6)
- smoothImage (Section 11)
- imageStruct (Section 15)
- orbStruct (Section 19)

12.3 Syntax

12.3.1 Exported Constants

12.3.2 Exported Access Programs

Name	In	Out	Exceptions
[accessProg —SS]	-	-	-

12.4 Semantics

12.4.1 State Variables

[Not all modules will have state variables. State variables give the module a memory. —SS]

12.4.2 Environment Variables

[This section is not necessary for all modules. Its purpose is to capture when the module has external interaction with the environment, such as for a device driver, screen interface, keyboard, file, etc. —SS]

12.4.3 Assumptions

[Try to minimize assumptions and anticipate programmer errors via exceptions, but for practical purposes assumptions are sometimes appropriate. —SS]

12.4.4 Access Routine Semantics

[accessProg —SS]():

- transition: [if appropriate —SS]
- output: [if appropriate —SS]
- exception: [if appropriate —SS]

[A module without environment variables or state variables is unlikely to have a state transition. In this case a state transition can only occur if the module is changing the state of another module. —SS]

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12.4.5 Local Functions

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13 MIS of Feature Descriptor Module

[You can reference SRS labels, such as R**??**. —SS]

[It is also possible to use LaTeXfor hypperlinks to external documents. —SS]

13.1 Module

assignDescriptors

13.2 Uses

- detectKeypoints (Section 12)

13.3 Syntax

13.3.1 Exported Constants

13.3.2 Exported Access Programs

Name	In	Out	Exceptions
[accessProg —SS]	-	-	-

13.4 Semantics

13.4.1 State Variables

[Not all modules will have state variables. State variables give the module a memory. —SS]

13.4.2 Environment Variables

[This section is not necessary for all modules. Its purpose is to capture when the module has external interaction with the environment, such as for a device driver, screen interface, keyboard, file, etc. —SS]

13.4.3 Assumptions

[Try to minimize assumptions and anticipate programmer errors via exceptions, but for practical purposes assumptions are sometimes appropriate. —SS]

13.4.4 Access Routine Semantics

[accessProg —SS]():

- transition: [if appropriate —SS]
- output: [if appropriate —SS]
- exception: [if appropriate —SS]

[A module without environment variables or state variables is unlikely to have a state transition. In this case a state transition can only occur if the module is changing the state of another module. —SS]

[Modules rarely have both a transition and an output. In most cases you will have one or the other. —SS]

13.4.5 Local Functions

[As appropriate —SS] [These functions are for the purpose of specification. They are not necessarily something that is going to be implemented explicitly. Even if they are implemented, they are not exported; they only have local scope. —SS]

14 MIS of Feature Matching Module

[You can reference SRS labels, such as R??. —SS]

[It is also possible to use LaTeXfor hypperlinks to external documents. —SS]

14.1 Module

matchFeatures

14.2 Uses

- assignDescriptors (Section 13)

14.3 Syntax

14.3.1 Exported Constants

14.3.2 Exported Access Programs

Name	In	Out	Exceptions
[accessProg —SS]	-	-	-

14.4 Semantics

14.4.1 State Variables

[Not all modules will have state variables. State variables give the module a memory. —SS]

14.4.2 Environment Variables

[This section is not necessary for all modules. Its purpose is to capture when the module has external interaction with the environment, such as for a device driver, screen interface, keyboard, file, etc. —SS]

14.4.3 Assumptions

[Try to minimize assumptions and anticipate programmer errors via exceptions, but for practical purposes assumptions are sometimes appropriate. —SS]

14.4.4 Access Routine Semantics

[accessProg —SS]():

- transition: [if appropriate —SS]

- output: [if appropriate —SS]
- exception: [if appropriate —SS]

[A module without environment variables or state variables is unlikely to have a state transition. In this case a state transition can only occur if the module is changing the state of another module. —SS]

[Modules rarely have both a transition and an output. In most cases you will have one or the other. —SS]

14.4.5 Local Functions

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15 MIS of Image Data Structure Module

[You can reference SRS labels, such as R**??**. —SS]

[It is also possible to use $\LaTeX$for hypperlinks to external documents. —SS]

15.1 Module

imageStruct

15.2 Uses

None.

15.3 Syntax

15.3.1 Exported Constants

15.3.2 Exported Access Programs

Name	**In**	**Out**	**Exceptions**
[accessProg —SS]	-	-	-

15.4 Semantics

15.4.1 State Variables

[Not all modules will have state variables. State variables give the module a memory. —SS]

15.4.2 Environment Variables

[This section is not necessary for all modules. Its purpose is to capture when the module has external interaction with the environment, such as for a device driver, screen interface, keyboard, file, etc. —SS]

15.4.3 Assumptions

[Try to minimize assumptions and anticipate programmer errors via exceptions, but for practical purposes assumptions are sometimes appropriate. —SS]

15.4.4 Access Routine Semantics

[accessProg —SS]():

- transition: [if appropriate —SS]
- output: [if appropriate —SS]
- exception: [if appropriate —SS]

[A module without environment variables or state variables is unlikely to have a state transition. In this case a state transition can only occur if the module is changing the state of another module. —SS]

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15.4.5 Local Functions

[As appropriate —SS] [These functions are for the purpose of specification. They are not necessarily something that is going to be implemented explicitly. Even if they are implemented, they are not exported; they only have local scope. —SS]

16 MIS of Image Plot Module

[You can reference SRS labels, such as R??. —SS]

[It is also possible to use LaTeXfor hypperlinks to external documents. —SS]

16.1 Module

plotImage

16.2 Uses

- imageStruct (Section 16)

16.3 Syntax

16.3.1 Exported Constants

16.3.2 Exported Access Programs

Name	In	Out	Exceptions
[accessProg —SS]	-	-	-

16.4 Semantics

16.4.1 State Variables

[Not all modules will have state variables. State variables give the module a memory. —SS]

16.4.2 Environment Variables

[This section is not necessary for all modules. Its purpose is to capture when the module has external interaction with the environment, such as for a device driver, screen interface, keyboard, file, etc. —SS]

16.4.3 Assumptions

[Try to minimize assumptions and anticipate programmer errors via exceptions, but for practical purposes assumptions are sometimes appropriate. —SS]

16.4.4 Access Routine Semantics

[accessProg —SS]():

- transition: [if appropriate —SS]
- output: [if appropriate —SS]
- exception: [if appropriate —SS]

[A module without environment variables or state variables is unlikely to have a state transition. In this case a state transition can only occur if the module is changing the state of another module. —SS]

[Modules rarely have both a transition and an output. In most cases you will have one or the other. —SS]

16.4.5 Local Functions

[As appropriate —SS] [These functions are for the purpose of specification. They are not necessarily something that is going to be implemented explicitly. Even if they are implemented, they are not exported; they only have local scope. —SS]

17 MIS of Feature Match Data Module

[You can reference SRS labels, such as R??. —SS]

[It is also possible to use LaTeXfor hypperlinks to external documents. —SS]

17.1 Module

matchStruct

17.2 Uses

None.

17.3 Syntax

17.3.1 Exported Constants

17.3.2 Exported Access Programs

Name	In	Out	Exceptions
[accessProg —SS]	-	-	-

17.4 Semantics

17.4.1 State Variables

[Not all modules will have state variables. State variables give the module a memory. —SS]

17.4.2 Environment Variables

[This section is not necessary for all modules. Its purpose is to capture when the module has external interaction with the environment, such as for a device driver, screen interface, keyboard, file, etc. —SS]

17.4.3 Assumptions

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17.4.4 Access Routine Semantics

[accessProg —SS]():

- transition: [if appropriate —SS]

- output: [if appropriate —SS]
- exception: [if appropriate —SS]

[A module without environment variables or state variables is unlikely to have a state transition. In this case a state transition can only occur if the module is changing the state of another module. —SS]

[Modules rarely have both a transition and an output. In most cases you will have one or the other. —SS]

17.4.5 Local Functions

[As appropriate —SS] [These functions are for the purpose of specification. They are not necessarily something that is going to be implemented explicitly. Even if they are implemented, they are not exported; they only have local scope. —SS]

18 MIS of Dataframe Structure Module

[Use labels for cross-referencing —SS]

[You can reference SRS labels, such as R**??**. —SS]

[It is also possible to use LaTeXfor hypperlinks to external documents. —SS]

18.1 Module

dataframeStruct

18.2 Uses

None.

18.3 Syntax

18.3.1 Exported Constants

18.3.2 Exported Access Programs

Name	In	Out	Exceptions
[accessProg —SS]	-	-	-

18.4 Semantics

18.4.1 State Variables

[Not all modules will have state variables. State variables give the module a memory. —SS]

18.4.2 Environment Variables

[This section is not necessary for all modules. Its purpose is to capture when the module has external interaction with the environment, such as for a device driver, screen interface, keyboard, file, etc. —SS]

18.4.3 Assumptions

[Try to minimize assumptions and anticipate programmer errors via exceptions, but for practical purposes assumptions are sometimes appropriate. —SS]

18.4.4 Access Routine Semantics

[accessProg —SS]():

- transition: [if appropriate —SS]
- output: [if appropriate —SS]
- exception: [if appropriate —SS]

[A module without environment variables or state variables is unlikely to have a state transition. In this case a state transition can only occur if the module is changing the state of another module. —SS]

[Modules rarely have both a transition and an output. In most cases you will have one or the other. —SS]

18.4.5 Local Functions

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19 MIS of ORB Data Structure Module

[Use labels for cross-referencing —SS]

[You can reference SRS labels, such as R**??**. —SS]

[It is also possible to use LaTeXfor hypperlinks to external documents. —SS]

19.1 Module

orbStruct

19.2 Uses

None.

19.3 Syntax

19.3.1 Exported Constants

19.3.2 Exported Access Programs

Name	In	Out	Exceptions
[accessProg —SS]	-	-	-

19.4 Semantics

19.4.1 State Variables

[Not all modules will have state variables. State variables give the module a memory. —SS]

19.4.2 Environment Variables

[This section is not necessary for all modules. Its purpose is to capture when the module has external interaction with the environment, such as for a device driver, screen interface, keyboard, file, etc. —SS]

19.4.3 Assumptions

[Try to minimize assumptions and anticipate programmer errors via exceptions, but for practical purposes assumptions are sometimes appropriate. —SS]

19.4.4 Access Routine Semantics

[accessProg —SS]():

- transition: [if appropriate —SS]
- output: [if appropriate —SS]
- exception: [if appropriate —SS]

[A module without environment variables or state variables is unlikely to have a state transition. In this case a state transition can only occur if the module is changing the state of another module. —SS]

[Modules rarely have both a transition and an output. In most cases you will have one or the other. —SS]

19.4.5 Local Functions

[As appropriate —SS] [These functions are for the purpose of specification. They are not necessarily something that is going to be implemented explicitly. Even if they are implemented, they are not exported; they only have local scope. —SS]

20 MIS of [Module Name —SS]

[Use labels for cross-referencing —SS]

[You can reference SRS labels, such as R??. —SS]

[It is also possible to use LaTeXfor hypperlinks to external documents. —SS]

20.1 Module

[Short name for the module —SS]

20.2 Uses

20.3 Syntax

20.3.1 Exported Constants

20.3.2 Exported Access Programs

Name	In	Out	Exceptions
[accessProg —SS]	-	-	-

20.4 Semantics

20.4.1 State Variables

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20.4.2 Environment Variables

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20.4.3 Assumptions

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20.4.4 Access Routine Semantics

[accessProg —SS]():

- transition: [if appropriate —SS]
- output: [if appropriate —SS]

- exception: [if appropriate —SS]

[A module without environment variables or state variables is unlikely to have a state transition. In this case a state transition can only occur if the module is changing the state of another module. —SS]

[Modules rarely have both a transition and an output. In most cases you will have one or the other. —SS]

20.4.5 Local Functions

[As appropriate —SS] [These functions are for the purpose of specification. They are not necessarily something that is going to be implemented explicitly. Even if they are implemented, they are not exported; they only have local scope. —SS]

References

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21 Appendix

[Extra information if required —SS]