

# X-CubeSat Controller language documentation

Tiago Lobato Gimenes

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## Introduction

In this file you will be able to find the definitions of the language used in the X-CubeSat Controller.

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## Types:

- **string**
- **data**
- **bool**
- **int**
- **void**

## Functions:

- **bool SEND( string )**
  - **bool SAVE( data, string )**
  - **bool IF( bool )**
  - **bool EQ( int, int )**
  - **bool LL( int, int )**
  - **bool LEQ( int, int )**
  - **string FILE( string )**
  - **string APPENDDATE( string )**
  - **string FORMAT( string )**
  - **data RECEIVE( string )**
  - **void DECLARE( type, string)**
  - **void SET(string, type)**
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## SEND()

**bool SEND( string )**

- **Params:** string to be sent to the interface (often the modem).
- **Return:** boolean value indicating if the send process was successfully accomplished (true) or not (false).

## RECEIVE()

**data RECEIVE( string )**

- **Params:** string with the name of the format that will be received.
- **Return:** read data from the interface (modem) with the right format associated.

## SAVE()

**bool SAVE( data, string )**

- **Params:**
  1. data with the data to be saved.
  2. string with the file name that the data will be saved.
- **Return:** boolean indicating if the save was successful (true) or not (false).

## IF()

**bool IF (bool)**

- **Params:** if true to run what is inside of , else to continue.
- **Return:** true if it should run the or false if it should continue.

## DECLARE()

**void DECLARE( type, string )**

- **Params:**

1. the type of the new variable.
2. the name of the new variable.

- **Return:** void

## EQ()

**bool EQ(int, int)**

- **Params:**

1. first element to compare.
2. second element to compare.

- **Return:** true if first element equals the second one, false otherwise.

## LL()

**bool LL(int, int)**

- **Params:**

1. first element to compare.
2. second element to compare.

- **Return:** true if first element is less than the second one, false otherwise.

## LEQ()

**bool LEQ(int, int)**

- **Params:**

1. first element to compare.
2. second element to compare.

- **Return:** true if first element is less or equal the second one, false otherwise.

## FILE()

**string FILE( string )**

- **Params:** string with the name of the file to be opened.
- **Return:** string with the content of the file.

## APPENDDATE()

**string APPENDDATE( string )**

- **Params:** string.
- **Return:** the parameter appended with the date (dd/mm/yyyy:hh:mm:ss) of execution of this function.

## FORMAT()

**string FORMAT( string )**

- **Params:** string with the name of the format.
- **Return:** string with the name of the format.

## SET()

**void SET(string, type)**

- **Params:**
  1. variable name
  2. type with the correct data to set the variable
- **Return:** void