



AMASP Java Library
1.0.0

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Chapter 1

Hierarchical Index

1.1 Class Hierarchy

This inheritance list is sorted roughly, but not completely, alphabetically:

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Chapter 2

Class Index

2.1 Class List

Here are the classes, structs, unions and interfaces with brief descriptions:

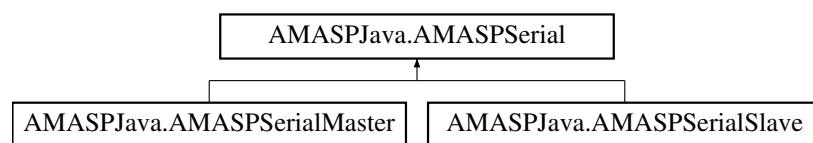
| | |
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| AMASPJava.AMASPSerial | 5 |
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Chapter 3

Class Documentation

3.1 AMASPJava.AMASPSerial Class Reference

Inheritance diagram for AMASPJava.AMASPSerial:



Classes

- enum [ErrorCheckType](#)
- class [PacketData](#)
- enum [PacketType](#)

Public Member Functions

- void [setErrorCheckType](#) ([ErrorCheckType](#) errorCheckType)
- [ErrorCheckType](#) [getErrorCheckType](#) ()
- boolean [begin](#) (SerialPort serialCom)
- void [end](#) ()
- int [sendError](#) (int deviceId, int errorCode)
- [PacketData](#) [readPacket](#) ()

Public Attributes

- final int **MSGMAXSIZE** = 4096

Protected Member Functions

- int **CRC16ModbusCheck** (byte[] data, int dataLength)
- int **LRC16Check** (byte[] data, int dataLength)
- int **XORCheck** (byte[] data, int dataLength)
- int **checksum16Check** (byte[] message, int dataLength)
- int **fletcher16Check** (byte[] data, int dataLength)
- int **errorCheck** (byte[] data, int dataLength, [ErrorCheckType](#) eCheckType)

3.1.1 Detailed Description

AMASP Abstract class

Author

Andre L. Delai

3.1.2 Member Function Documentation

3.1.2.1 begin()

```
boolean AMASPJava.AMASPSerial.begin (
    SerialPort serialCom )
```

Establishes a serial connection.

Parameters

| | |
|------------------|---|
| <i>serialCom</i> | A JSerialComm object to serial communication. |
|------------------|---|

Returns

True if the serial connection was stablished or false if not.

3.1.2.2 end()

```
void AMASPJava.AMASPSerial.end ( )
```

Closes the serial connection.

3.1.2.3 getErrorCheckType()

```
ErrorCheckType AMASPJava.AMASPSerial.getErrorCheckType ( )
```

Gets the current error checking algorithm to be used in the sent packets.

Returns

The current error checking algorithm.

3.1.2.4 readPacket()

```
PacketData AMASPJava.AMASPSerial.readPacket ( )
```

Check if a valid packet is available and read it.

Returns

A [PacketData](#) Object which contains the information and data from a packet.

3.1.2.5 sendError()

```
int AMASPJava.AMASPSerial.sendError (
    int deviceID,
    int errorCode )
```

Send a CEP packet (Communication Error Packet).

Parameters

| | |
|------------------|---|
| <i>deviceID</i> | Id of the target device in communication. |
| <i>errorCode</i> | The communication error code (0 to 255). |

Returns

The error check data.

3.1.2.6 setErrorCheckType()

```
void AMASPJava.AMASPSerial.setErrorCheckType (
    ErrorCheckType errorCheckType )
```

Sets the error checking algorithm to be used in the sent packets.

Parameters

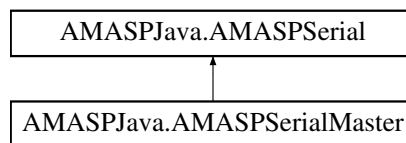
| | |
|-----------------------|-------------------------------|
| <i>errorCheckType</i> | The error checking algorithm. |
|-----------------------|-------------------------------|

The documentation for this class was generated from the following file:

- C:/Users/delai/Documents/Repositorio/amaspjavallib/AMASPJava/src/AMASPJava/AMASPSerial.java

3.2 AMASPJava.AMASPSerialMaster Class Reference

Inheritance diagram for AMASPJava.AMASPSerialMaster:



Public Member Functions

- int [sendRequest](#) (int deviceId, byte message[], int msgLength)
- int [sendRequest](#) (int deviceId, String message, int msgLength)

Additional Inherited Members

3.2.1 Detailed Description

AMASP Master class

Author

Andre L. Delai

3.2.2 Member Function Documentation

3.2.2.1 [sendRequest\(\)](#) [1/2]

```
int AMASPJava.AMASPSerialMaster.sendRequest (
    int deviceId,
    byte message[],
    int msgLength )
```

Send a MRP packet to a slave computer.

Parameters

| | |
|------------------|--------------------------------------|
| <i>deviceId</i> | Id of the requested device in slave. |
| <i>message</i> | The message in bytes to be send. |
| <i>msgLength</i> | The message length. |

Returns

The error check data.

3.2.2.2 sendRequest() [2/2]

```
int AMASPJava.AMASPSerialMaster.sendRequest (
    int deviceId,
    String message,
    int msgLength )
```

Send a MRP packet to a slave computer.

Parameters

| | |
|------------------|--------------------------------------|
| <i>deviceId</i> | Id of the requested device in slave. |
| <i>message</i> | The string message to be send. |
| <i>msgLength</i> | The message length. |

Returns

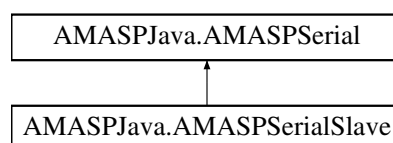
The error check data.

The documentation for this class was generated from the following file:

- C:/Users/delai/Documents/Repositorio/amaspsjavalib/AMASPJava/src/AMASPJava/AMASPSerialMaster.java

3.3 AMASPJava.AMASPSerialSlave Class Reference

Inheritance diagram for AMASPJava.AMASPSerialSlave:



Public Member Functions

- int [sendResponse](#) (int deviceId, byte[] message, int msgLength)
- int [sendResponse](#) (int deviceId, String message, int msgLength)
- int [sendInterruption](#) (int deviceId, int InterrupCode)

Additional Inherited Members

3.3.1 Detailed Description

AMASP Slave class

Author

delai

3.3.2 Member Function Documentation

3.3.2.1 sendInterruption()

```
int AMASPJava.AMASPSerialSlave.sendInterruption (
    int deviceId,
    int InterrupCode )
```

Send a SIP (Slave Interrupt Packet).

Parameters

| | |
|---------------------|--|
| <i>deviceId</i> | Id of the slave device who generated the interruption. |
| <i>InterrupCode</i> | The code of the interruption (0 to 255). |

Returns

The error check data.

3.3.2.2 sendResponse() [1/2]

```
int AMASPJava.AMASPSerialSlave.sendResponse (
    int deviceId,
    byte[] message,
    int msgLength )
```

Send a SRP (Slave Response Packet) to a master computer.

Parameters

| | |
|------------------|---|
| <i>deviceId</i> | Id of the slave device who answered. |
| <i>message</i> | The response message (in bytes) to be send. |
| <i>msgLength</i> | The message length. |

Returns

The error check data.

3.3.2.3 sendResponse() [2/2]

```
int AMASPJava.AMASPSerialSlave.sendResponse (
    int deviceId,
    String message,
    int msgLength )
```

Send a SRP (Slave Response Packet) to a master computer.

Parameters

| | |
|------------------|--|
| <i>deviceId</i> | Id of the slave device who answered. |
| <i>message</i> | The response message (string format) to be send. |
| <i>msgLength</i> | The message length. |

Returns

The error check data.

The documentation for this class was generated from the following file:

- C:/Users/delai/Documents/Repositorio/amaspjavallib/AMASPJava/src/AMASPJava/AMASPSerialSlave.java

3.4 AMASPJava.AMASPSerial.ErrorCheckType Enum Reference**Public Member Functions**

- **ErrorCheckType** (int echeckValue)
- int **getValue** ()

Static Public Member Functions

- static **ErrorCheckType fromValue** (int value)

Public Attributes

- **None** =(0)
- **XOR8** =(1)
- **checksum16** =(2)
- **LRC16** =(3)
- **fletcher16** =(4)
- **CRC16** =(5)

3.4.1 Detailed Description

Enumeration to the error checking algorithms available in AMASP. None(0), XOR8(1), checksum16(2), LRC16(3), fletcher16(4), CRC16(5).

The documentation for this enum was generated from the following file:

- C:/Users/delai/Documents/Repositorio/amaspjavallib/AMASPJava/src/AMASPJava/AMASPSerial.java

3.5 AMASPJava.AMASPSerial.PacketData Class Reference

Public Member Functions

- [PacketType](#) [getType](#) ()
- int [getDeviceId](#) ()
- byte[] [getMessage](#) ()
- [ErrorCheckType](#) [getErrorCheckType](#) ()
- int [getErrorCheckData](#) ()
- int [getCodeLength](#) ()

3.5.1 Detailed Description

Store the data and metadata of the packet.

3.5.2 Member Function Documentation

3.5.2.1 getCodeLength()

```
int AMASPJava.AMASPSerial.PacketData.getCodeLength ( )
```

Returns

the codeLength

3.5.2.2 getDeviceId()

```
int AMASPJava.AMASPSerial.PacketData.getDeviceId ( )
```

Returns

the deviceId

3.5.2.3 getErrorCheckData()

```
int AMASPJava.AMASPSerial.PacketData.getErrorCheckData ( )
```

Returns

the errorCheckData

3.5.2.4 getErrorCheckType()

```
ErrorCheckType AMASPJava.AMASPSerial.PacketData.getErrorCheckType ( )
```

Returns

the errorCheckType

3.5.2.5 getMessage()

```
byte [] AMASPJava.AMASPSerial.PacketData.getMessage ( )
```

Returns

the message

3.5.2.6 getType()

```
PacketType AMASPJava.AMASPSerial.PacketData.getType ( )
```

Returns

the type

The documentation for this class was generated from the following file:

- C:/Users/delai/Documents/Repositorio/amaspjavalib/AMASPJava/src/AMASPJava/AMASPSerial.java

3.6 AMASPJava.AMASPSerial.PacketType Enum Reference

Public Member Functions

- **PacketType** (int typeValue)
- int **getValue** ()

Public Attributes

- **MRP** =(0)
- **SRP** =(1)
- **SIP** =(2)
- **CEP** =(3)
- **Timeout** =(4)

3.6.1 Detailed Description

Enumeration to the packet types available in AMASP and the Timeout condition. MRP(0), SRP(1), SIP(2), CEP(3), Timeout(4).

The documentation for this enum was generated from the following file:

- C:/Users/delai/Documents/Repositorio/amaspjavalib/AMASPJava/src/AMASPJava/AMASPSerial.java

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