Puree ReadMe

Puree is a simple Hardware Serial parsing library for Arduino.

As of August 2012, Puree is an alpha release. It is tested and appears stable. Please report bugs here:

https://github.com/hex705/Puree/issues

Download:
Obtain archive (.zip) from

https://github.com/hex705/Puree

Unzip and copy folder (OSX) into: ~/Documents/Arduino/libraries

Folder contains library, and examples.

Usage:

Puree expects structured messages with packages of the following form (spaces for clarity ONLY - do not include in your package):

START_BYTE dataZero DELIMITER dataOne DELIMITER dataTwo DELIMITER END_BYTE

Assuming default of : START_BYTE = '*', END_BYTE = '#', DELIMITER =','

*dataZero,dataOne,dataTwo,#

(Yes, I know that a delimiter and an END_BYTE side-by-side looks odd -- but it simplifies).

The example package has three data points indexed 0-2 (like an array).

Data points can be any combination of int, float or String. By default max number of data points in a single message is 8. The can be reset with:

int setMaxElements(int) ;

Puree object must be declared at the top of sketch:

Puree **puree**;

.**begin()** function must be called within **setup()** :

```
void setup() {

    puree.begin();  // will instantiate with defaults

}
```

Alternate constructors:

```
    puree.begin( int );  // set baud

    puree.begin( int, char, char, char ); // baud, startByte, endByte, delimiter
```

Defaults:

BAUD: 19200
START_BYTE = '*'
END_BYTE = '#'
DELIMITER = ','

Debugging with serial communication is possible once **.begin()** is called.

Data Stream:

Data is retrieved from the buffer within **loop()** with a call to:

```
puree.update();
```

Returns the number (int) of data points found in current package.

Extracting Data Points

Incoming serial data is stored in a string buffer that is automatically parsed at delimiters upon receipt. Individual values can be obtained by by calling the following get functions:

```
int     puree.getInt( index );
float   puree.getFloat (index);
String puree.getString (index );
```

where index = data position in original data package (zero indexed)

RAW Data

You can retrieve the whole data stream with:

String **puree.getRaw();**

TO DO:

-- Further Examples
-- tie to Stream not serial -- enabling use with Ethernet Shield
Note: this will change the instantiation.

-- full documentation to be developed.