stamp.peripheral.io.ADC

Class LTC1298

```
java.lang.Object
  |
  +--stamp.peripheral.io.ADC.AtoD
        |
        +--stamp.peripheral.io.ADC.LTC1298
```

public class **LTC1298**
extends AtoD

This class encapsulates the capabilities of the 12-bit LTC1298 3-wire A to D.

For more information on this class and the circuit please see Parallax Application Note #008. There are 2 types of setup's this class will handle:

```
Setup A: Reading the measurement taken directly from:
         Channel 0 (CH0) use read(0)
         Channel 1 (CH1) use read(1)

Setup B: Read the difference between Channel 0 and Channel 1.
         To subtract CH1 from CH0 use read(2)
         To subtract CH0 from CH1 use read(3)


Revision History:
Ver 1.0 - 11/29/02: Initial release of class submitted to Parallax Inc.
                    by customer Tim Constable of Boston, MA
                    Evaluated and modified by Steve Dill of Parallax Inc.
```

Field Summary

Fields inherited from class stamp.peripheral.io.ADC.AtoD
lastRaw, readSize, resolution

Constructor Summary

LTC1298(int dataPin, int clockPin, int enablePin) Initialize the LTC1298 A to D Chip and bus.

Method Summary

int	**read**(int command) Read value from A to D chip.
void	**setOffset**(int offset) Change offset value.

Methods inherited from class stamp.peripheral.io.ADC.AtoD
add, calcMV, calcTemp, clear, copy, lastMV, lastRaw, lastVf, multiply, readSmooth, setBitValue

Methods inherited from class java.lang.Object
equals

Constructor Detail

LTC1298

```
public LTC1298(int dataPin,
               int clockPin,
               int enablePin)
```

Initialize the LTC1298 A to D Chip and bus.

Method Detail

setOffset

```
public void setOffset(int offset)
```

Change offset value.

This offset is added to each voltage computed from the raw value of the ADC chip. The LTC1298 maximum voltage measured is 4.998. To adjust this to +5.000 V use setOffset(2). This setting can also be useful if you set Vref to 4.5 V. Use this value to fine tune your settings without manipulating the high/low bits.

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read

```
public int read(int command)
```

Read value from A to D chip. The LTC1298 chip must be given a command as to which Port it is to read from.

Channel 0 (CH0) use `read(0)`
Channel 1 (CH1) use `read(1)`
To subtract CH1 from CH0 use `read(2)`
To subtract CH0 from CH1 use `read(3)`

Specified by:

`read` in class `AtoD`

Parameters:

`command` - 0,1,2,3

Returns:

raw value from chip
