## Javelin Stamp Errata v:3

For the Javelin Stamp Manual Version 1.0

## Javelin Stamp Manual v1.0 Errata v1.3

The following are known printing mistakes in the Javelin Stamp Manual v1.0, please be aware of them.

| Page viii • Table of Program Listings |  |
| :--- | :--- |
| Problem | Table of Program Listings is incomplete. |
| Explaination | Program Listing 9.7 - Timer Example is missing. |
| Solution | Add "Program Listing 9.7 - Timer Example" to the table. |


| Page 14 • Figure 2.3 |  |
| :---: | :---: |
| Problem | Schematic incomplete. |
| Explaination | Two capacitors are missing, there should be a capacitor between DTR and ATN, and a capacitor between ATN and VSS(GND). Both capacitors are $0.1 \mu \mathrm{~F}$ @50 VDC. |
| Solution |  |


| Page 15 • Bottom Paragraph |  |
| :--- | :--- |
| Problem | Text Clarification |
| Explaination | The sentence: "If it does not appear, run the welcome application from the CD's <br> root directory." |
| Solution | Should read: "If it does not appear, run the Welcome application (We l come . exe) from <br> the CD's root directory." |

## Javelin Stamp Manual v1.0 Errata v1.3

| Page 26 • Figure 2.13(b) |  |
| :---: | :---: |
| Problem | None, circuit will work as pictured. |
| Explaination | The breadboard in Figure 2.13(b) does not match the schematic in Figure 2.13(a). |
| Solution | The LED and $470 \Omega$ resistor from Figure 2.13(b) were swapped to match the circuit shown in Figure 2.13(a). |


| Page 35 • Program Listing 2.6 - Math Example |  |
| :--- | :--- |
| Problem | Program variables do not match actual variables in code. |
| Explaination | The variables, temporary and results, each have been referenced twice with <br> capitalization as Temporary and Results. |
| Solution | Change the following lines: <br> Temporary = temporary/10; <br> Result = temporary*scale; <br> Temporary /= 10; <br> Result = (14*2+3)/10*scale; <br>  <br> To this: <br> temporary = temporary/10; <br> result = temporary*scale; <br> temporary /= 10; <br> result = (14*2+3)/10*scale; |

## Javelin Stamp Manual v1.0 Errata v1.3

| Page 47• Program Listing 3.12 - Method Example |  |
| :--- | :--- |
| Problem | Program variable does not match actual variable in code. |
| Explaination | The variable, sigmaT, was referenced with capitalization as Sigmat. |
| Solution | Change the following line: <br> Sigmat $=\operatorname{avg}(a, b, c, d, e)+100 / \mathbf{x} ;$ <br>  <br> To This: <br> sigmaT $=\operatorname{avg}(a, b, c, d, e)+100 / \mathbf{x} ;$ |


| Page 52 • Bulleted list, 2 ${ }^{\text {nd }}$ item |  |
| :--- | :--- |
| Problem | Power supply is not included with the Javelin Stamp Starter Kit. |
| Explaination | The $2^{\text {nd }}$ <br> with a 1000 mA supply, connect Vm to Vdd." |
| Solution | Should read, "If you are using a wall mounted power supply (1000 mA recommended), <br> connect Vm to Vdd." |



| Page 184• PWM text |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Problem | Misrepresented input value for PWM. |  |  |  |  |  |  |  |  |  |  |  |  |
| Explaination | The sentence "(or any two equal numbers from 1 to 255)". |  |  |  |  |  |  |  |  |  |  |  |  |
| Solution | Should read: <br> (or any two equal integers). <br> The PWM will accept integer values from 0 to 65535. The Javelin's int field can hold values from - 32768 to 32767 . To enter PWM values above 32767 use the following map: |  |  |  |  |  |  |  |  |  |  |  |  |
|  | $\begin{aligned} & \hline \text { PWM } \\ & \text { value: } \end{aligned}$ | 0 | 1 | 2 | ... | 32767 | 32768 | 32769 | 32770 | ... | 65533 | 65534 | 65535 |
|  | Integer value: | 0 | 1 | 2 | ... | 32767 | $32768$ | $32767$ | $32765$ | $\cdots$ | -3 | -2 | -1 |

## Javelin Stamp Manual v1.0 Errata v1.3

| Page 188•Uart "final static boolean invert" |  |
| :--- | :--- |
| Problem | Labeled incorrectly/Elaboration |
| Explaination | The title "final static boolean invert" |
| Solution | Should read: <br> final static boolean dont Invert <br> The explaination for dontlnvert has been expanded. The new explaination is as <br> follows: |
| final static boolean dont Invert - selects non-inverted mode. Non-inverted <br> mode allows you to connect the Javelin Stamp to an RS232 device. To do this you will need <br> to boost the Javelin's TTL signal (0/5 V) to $\pm 12 \mathrm{~V}$ as required by the RS232 specifications. <br> This can be accomplished by using a MAX232 or the SP237 Uart transceivers. Either of <br> these transceivers will invert the TTL signal as it boosts them to $\pm 12 \mathrm{~V}$, which is why we <br> use the non-inverted mode. The Javelin Stamp Demo board has an SP237 that you can use <br> by connecting the I/O pins of the Javelin Stamp to the 8-socket COM header (X4) on the <br> Demo Board (See Chapter 4, figure 4.8b). The figure below shows you this as a 2-wire <br> connection, without flow control. |  |

Figure Uart Not-Inverted


The pins on the male/female DB-9 connectors are different. They are Important mirror images of each other; care is needed when making these connections that you are connecting to the appropriate pin.

Javelin Stamp Manual v1.0 Errata v1.3

| Page 188•Uart "final static boolean dontInvert" |  |
| :---: | :---: |
| Problem | Labeled incorrectly/Elaboration |
| Explaination | The title "final static boolean dontInvert" |
| Solution | Should read: <br> final static boolean invert <br> The explaination for dontlnvert has been expanded. The new explaination is as follows: <br> final static boolean invert - selects inverted mode. Inverted mode allows you to connect to a computer's RS232 port without using a MAX232 or an SP237 RS232 Uart transceiver. This can be accomplished by using a $22 \mathrm{k} \Omega$ resistor to connect the Javelin Stamp I/O pin (that you are using as the receiver) to pin \#3 on a 9-pin serial port (DB-9). This will allow you to receive data. To send data to a PC, connect a Javelin Stamp I/O pin to pin \#2 of the serial port on your computer. This method will create a voltage that is not to the Uart specifications; some receivers do not accept this nonstandard voltage. If this is your situation you will need to use a Uart transceiver in non-inverted mode. The figure below shows you this as a 2-wire connection, without flow control. |

Javelin Stamp Manual v1.0 Errata v1.3

## Corrected Index

-- (Decrement), 92, 94, 131

- (Subtraction), 92, 94, 132
! (Boolean Invert), 92, 134
!= (Not Equal to), 92, 133
\% (Modulus), 92, 132
\& (Bitwise AND), 92, 95, 134
\&\& (Logical AND), 92, 95
( ) (Parentheses), 93, 132
* (Multiplication), 93, 94, 132
*/ (Multi-line Remark, closing), 95
/ (Division), 94, 132
/* (Multi-line Remark, opening), 95
/** (JavaDoc Remark), 95
// (Remark), 95
; (Semicolon), 87
?: (Conditional), 92, 135
[ ] (Square Brackets), 93, 130-131
^ (Bitwise XOR), 92, 134
\{ \} (Curly Braces), 88-89
| (Bitwise OR), 92, 134
|| (Logical OR), 92
~ (Bitwise Invert), 92, 134
+ (Addition), 92, 93, 94, 132
++ (Increment), 92, 94, 131
< (Less Than), 92, 133
<< (Left-Shift), 92, 133
<= (Less Than Equal to), 92, 133
== (Equal to), 92
> (Greater Than), 92, 133
>= (Greater Than Equal to), 92, 133
>> (Right-Shift, Signed Extension), 92, 132
>>> (Right-Shift), 92, 132
- A -
abstract, 114
Abstraction, 109
ADC, 159-1260
Analog to Digital, 159-160
Arrays, 103-5, 193
ASCII, 41

\author{

- B -
}

Base
Hexadecimal, 91
Octal, 91
boolean, 89, 115, 149
break, 40, 96, 115
Button, 160
byte, 89, 115

- C -

Cache, 113
Calculations, 34
carry, 164
case, 97, 116
case sensitive, 32
cast, 107, 115-116, 131
catch, 111, 116, 129-130, 150
char, 41, 89, 116
Checked Exceptions, 111
class
definition, 31
Library, 48
Classes, 97-100, 116
Basic Type, 107
Clone, 105
Constructors, 107
DS1620, 59
Equals, 105
Extending. See extends
HashCode, 105
import, 113
Integer, 109
Member, 98
Relationships, 140
toString, 105
Virtual Peripherals. See Virtual Peripherals
wrapper. See wrapper
CLASSPATH, 86, 112
Clock, 174
COM Ports, 30

## Javelin Stamp Manual v1.0 Errata v1.3

const, 136
constant, 32
Constants. See final
construct, 99
continue, 40, 96, 116
count, 164
Counter, 169-170
CPU, 163
Message, 42-44

- D -

DAC, 59, 181
Debug, 78-83, 185
delay, 164, 193
Digital to Analog, 181
do, 37, 115, 116
double, 136
DS1620, 8, 59-64

- E-

Editor, 83
EEPROM, 182
else, 95, 116
Encapsulation, 138
Errors, 76-78, 110, 150
Escape Sequences, 91
Exception Handling, 110, 150
Exceptions, 146
Expressions, 91-95
extends, 105-108, 117
-F -
final, 32, 106, 117
finally, 117, 129
float, 136, 193
for, 39-40, 88, 95, 115, 117

- G -

Garbage Collection, 100, 191 getMessage, 150

Global Options, 71-72
goto, 136

- H -

Hardware, 11-14
EEPROM, 183
Hexadecimal, 91

- I-

I/O Pins, 163, 164, 167-169, 170, 174-175
IDE, 2, 15-17, 71-86
Call Stack, 80
CLASSPATH, 84
Compile, 76
Debug, 27-28, 76
Step Into, 81
Editor, 83
Installation, 15-17
Link, 76
Memory Usage, 80
Menubars, 83
Packages, 84-85
Program, 76
Projects, 85-86
Resume Debug, 76
Starting a Project, 72-76
Toolbars, 83
if, 35-37, 88-89, 95, 119
implements, 136
import, 113, 120
Inheritance, 105
Inputs, 156, 160-163
instalIVP, 164
instanceof, 135
int, 89, 121, 192
interface, 136

- J -

Java Differences, 87, 193-197
break, 96

## Javelin Stamp Manual v1.0 Errata v1.3

```
Java Differences (continued)
    const,136
    continue, }9
    double, 136
    Floating Point, 193
    for,}9
    Garbage Collection, 191
    goto, 136
    if, }9
    implements, 136
    int, }19
    interface, }13
    long, }13
    Loops, }19
    native, 136
    objects,192
    static,191
    StringBuffer, 191, }19
    Strings, 104, 192
    synchronized, 136
    Threads, 191
    transient, 136
    Unicode, 193
    volatile, 136
    while, }9
Javelin Stamp
    Architecture, 3-4
    Demo Board, }
    Hardware, 1, 4, }
    Heavy Loads,57
    I/O pins, 12-14
    Power Supply, 13-14
    Starter Kit, 5
    - K -
Keywords, 114-130
    -L -
Libraries,193
Library Class,48
```

Lists, 157-158
long, 136
Loops, 37-40
break, 40
continue, 40
do, 37
for, 39-40, 88, 95
while, 37-40, 88

- M -

Math, 151, 164
message, 42-44, 166
Methods, 99
Constructors, 99
equals, 99
Returning a Value, 99
void, 99

- N -
nap, 166, 172, 173
native, 136
new, 100, 121
null, 121
- 0 -

Object Oriented, 140, 147
Objects, 98-100, 137-138, 151
Arrays, 103-5
casting. See cast
keywords. See the key word
new, 100
Pointers, 101-102
Strings, 104-5 substring, 105
this, 102
Timer, 146
UART(s), 137, 146
Octal, 91
Online Resources, 114

## Javelin Stamp Manual v1.0 Errata v1.3

## Operators

Basic Java Operators, 92
Order of Operations, 93
Order of Operations, 93
override, 106

- P -

Packages, 84-85, 112, 122-123
CLASSPATH. See CLASSPATH
Pointers, 101-2
Polymorphism, 106, 139
print, 41-42, 155-156
printIn, 41-42, 155-156
PrintStream, 155-156
private, 106, 123
protected, 106, 123
public, 106, 123
pulseln, 167
pulseOut, 168
PWM, 58, 146, 184-185

- R -

Random, 156
RC circuit, 170
RC timing, 170
rcTime, 169-171
readPin, 171-173
readPort, 172
removeVP, 173
return, 99, 124

- S -

Serial Port, 30
setInput, 174
shiftln, 174
short, 89, 125
static, 33, 125
StringBuffer, 42, 100, 104, 154, 192
Strings, 104-5, 152, 192
StringBuffer. See StringBuffer

Strings (continued)
substring, 105
super, 106-108, 126
switch, 97, 115, 127
synchronized, 136
System.out
print, 41-42, 154-156
println, 41-42, 154-156

- T -

Template, 72-76
Terminal, 185
this, 127
Threads, 191
throw(s), 111, 128, 150
throwlt, 152
Timer, 146, 187
toString, 109
transient, 136
try, 110-111, 128-130, 150
Type, 131
Garbage Collection, 191
int, 192

- U -

UART(s), 64, 146, 188
Unicode, 202
URL's, 114

- V -

Variables, 32-34
boolean, 89
byte, 89
Calculations, 34
char, 89
Declaration, 89-91
final, 32, 90-91
int, 89
short, 89
static, 80

# Javelin Stamp Manual v1.0 Errata v1.3 

Variables (continued) static final, 91
Virtual Peripherals, xiv, 3, 145, 163, 164, 173, 184
ADC, 159
Background, 3
DAC, 59
Foreground, 3
PWM, 58, 146, 184-185

Virtual Peripherals
Timer, 187
UART(s), 64, 188void, 99, 130
volatile, 136

- W -
while, 37-40, 88, 97, 115, 130
wrapper, 109

