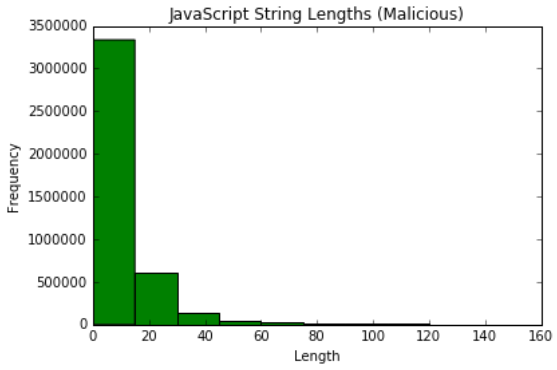
In [6]:
```
%matplotlib inline
import matplotlib
import matplotlib.pyplot as plt
import numpy as np
from scipy import stats

f = open("StringLengthOne1.txt", "r")
StrLenValues=[]
for line in f:
    line = line.strip("\n")
    StrLenValues.append(int(line))
f.close()
arr = np.array(StrLenValues)
print'Maximum String Length :%d' %(np.max(arr))
print'Mean    String Length :%4.1f' %(np.mean(arr))
m = stats.mode(arr)
print'Mode:  %d occurs %d times' %(m[0], m[1])

print
print
plt.hist(arr, range=[0,150], color='green', bins=10)
plt.title("JavaScript String Lengths (Malicious)")
plt.xlabel("Length")
plt.ylabel("Frequency")
```

```
Maximum String Length :120143
Mean    String Length :21.0
Mode:  3 occurs 504194 times
```

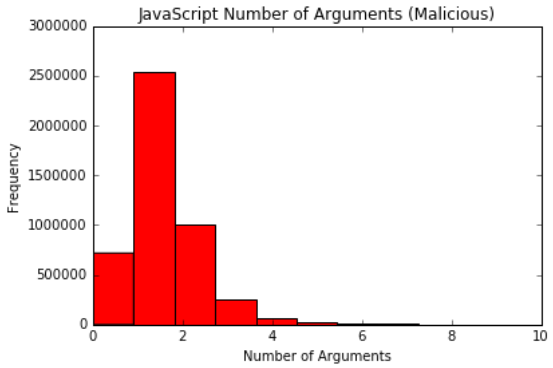
Out[6]:
```
<matplotlib.text.Text at 0x7f3d2f84c210>
```



In [7]:
```
f = open("NumArgOne1.txt", "r")
NumArgValues=[]
for line in f:
    line = line.strip("\n")
    NumArgValues.append(int(line))
f.close()
arg_arr = np.array(NumArgValues)
print'Maximum Number of Arguments  :%d' %(np.max(arg_arr))
print'Mean    Number of Arguments  :%4.1f' %(np.mean(arg_arr))
m = stats.mode(arg_arr)
print'Mode:  %d occurs %d times' %(m[0], m[1])
print
print
plt.hist(arg_arr, range=[0,10], color='red', bins=11)
plt.title("JavaScript Number of Arguments (Malicious)")
plt.xlabel("Number of Arguments")
plt.ylabel("Frequency")
```

```
Maximum Number of Arguments  :222
Mean    Number of Arguments  : 1.3
Mode:  1 occurs 2541473 times
```

Out[7]:
```
<matplotlib.text.Text at 0x7f3d2d6fcc10>
```



In [8]:
```
f = open("NumNodesOne1.txt", "r")
NumNodesValues=[]
for line in f:
    line = line.strip("\n")
    x = int(line)
    if x != 0 :
       NumNodesValues.append(x)
f.close()
nodes_arr = np.array(NumNodesValues)
print'Number of Javascript files processed %d' %(len(NumNodesValues))
print'Maximum Number of AST Nodes  :%d' %(np.max(nodes_arr))
print'Mean    Number of AST Nodes  :%4.1f' %(np.mean(nodes_arr))
m = stats.mode(nodes_arr)
print'Mode:  %d occurs %d times' %(m[0], m[1])
print
print
plt.hist(nodes_arr, range=[1, 2000], color='blue', bins=10)
plt.title("JavaScript Number of AST Nodes (Malicious)")
plt.xlabel("Number of AST Nodes")
plt.ylabel("Frequency")
```

```
Number of Javascript files processed 15555
Maximum Number of AST Nodes  :216962
Mean    Number of AST Nodes  :4863.5
Mode:  14 occurs 989 times
```

Out[8]:
```
<matplotlib.text.Text at 0x7f3d2af81590>
```