In [2]:
```
import numpy as np
import pandas as pd
%pylab inline
```

```
Populating the interactive namespace from numpy and matplotlib
```

In [3]:
```
arr = np.loadtxt('stamps.dat')
```

In [8]:
```
rarr = arr.reshape(int(len(arr)/5),5)
```

In [9]:
```
frame = pd.DataFrame(rarr)
```

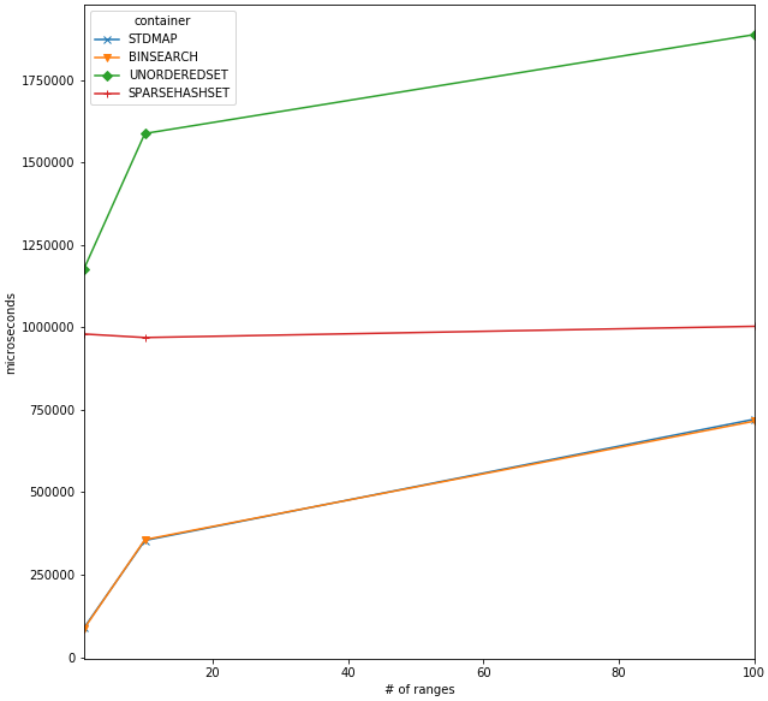
In [10]:
```
frame.columns = ['ranges','STDMAP', 'BINSEARCH', 'UNORDEREDSET', 'SPARSEHASHSET']
frame.set_index('ranges', inplace=True)
frame
```

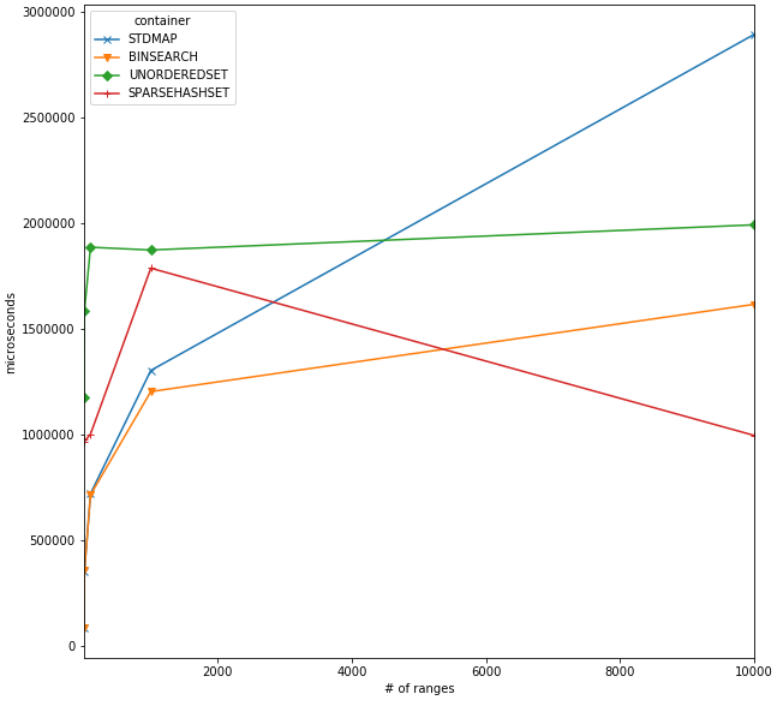
Out[10]:

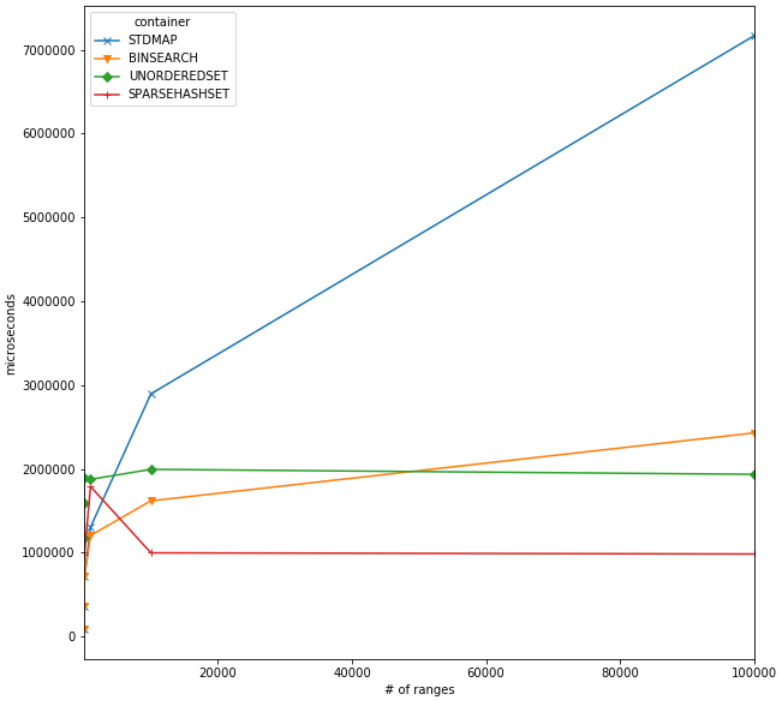
ranges	STDMAP	BINSEARCH	UNORDEREDSET	SPARSEHASHSET
1.0	88722.0	85786.0	1176775.0	979977.0
10.0	354061.0	356462.0	1587705.0	969146.0
100.0	721478.0	715743.0	1887644.0	1003188.0
1000.0	1304570.0	1204600.0	1874422.0	1788520.0
10000.0	2894052.0	1617439.0	1993553.0	997317.0
100000.0	7167739.0	2428427.0	1934161.0	983183.0
1000000.0	18903723.0	5662575.0	2272937.0	1058766.0

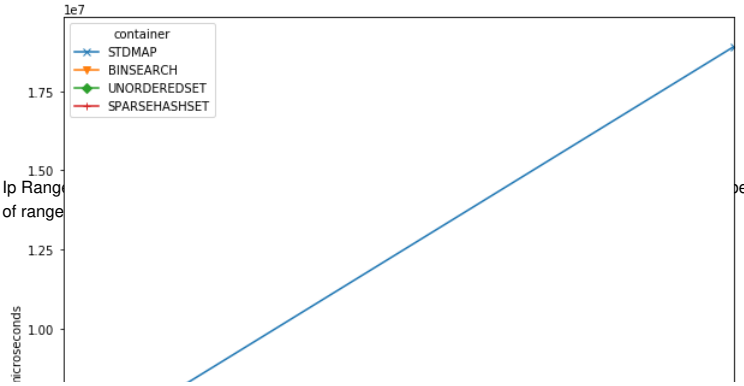
In [14]:
```
figsize_=(10,10)
style_=['x-', 'v-', 'D-', '+-']
frame.index.name = '# of ranges'
frame.columns.name = 'container'
```

In [15]:
```
for lines in [3, 5, 6, 7]:  frame.head(lines).plot(figsize=figsize_, style=style_).set(ylabel='microseconds')
```









Ip Rang etween binary search (advantage - can handle increased number of range