

PRCPP Testat1

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1 Unit-Tests

| Passed Tests (9) | | Hierarchy | Not Covered (Blocks) | Not Covered (% Blocks) | Covered (Blocks) | Covered (% Blocks) |
|------------------|--------|---------------------------------|----------------------|------------------------|------------------|--------------------|
| ✓ CharAt | 1 ms | guerbi_GUERBI-HP 2012-10-24 ... | 35 | 8.47 % | 378 | 91.53 % |
| ✓ CompareTo | 1 ms | unittest.dll | 35 | 8.47 % | 378 | 91.53 % |
| ✓ ConcatChar | 3 ms | Global Classes | 0 | 0.00 % | 147 | 100.00 % |
| ✓ ConcatString | 7 ms | Global Functions | 0 | 0.00 % | 8 | 100.00 % |
| ✓ Construction | 3 ms | String | 0 | 0.00 % | 139 | 100.00 % |
| ✓ Length | 1 ms | String | 0 | 0.00 % | 7 | 100.00 % |
| ✓ Substring | 5 ms | String | 0 | 0.00 % | 7 | 100.00 % |
| ✓ ToCString | < 1 ms | String | 0 | 0.00 % | 17 | 100.00 % |
| ✓ ValueOf | 1 ms | String | 0 | 0.00 % | 4 | 100.00 % |
| | | charAt | 0 | 0.00 % | 5 | 100.00 % |
| | | compareTo | 0 | 0.00 % | 19 | 100.00 % |
| | | concat | 0 | 0.00 % | 19 | 100.00 % |
| | | concat | 0 | 0.00 % | 17 | 100.00 % |
| | | length | 0 | 0.00 % | 1 | 100.00 % |
| | | operator= | 0 | 0.00 % | 5 | 100.00 % |
| | | substring | 0 | 0.00 % | 11 | 100.00 % |
| | | toCString | 0 | 0.00 % | 12 | 100.00 % |
| | | valueOf | 0 | 0.00 % | 10 | 100.00 % |
| | | ~String | 0 | 0.00 % | 5 | 100.00 % |

2 Zuweisungsoperator

Um den Einsatz des Zuweisungsoperators zu verhindern gibt es folgende Möglichkeiten:

Setzen des Zuweisungsoperator auf private

```
class String final {
    // private Datenstruktur
    size_t m_len;
    size_t m_start;
    std::shared_ptr<char> m_string;

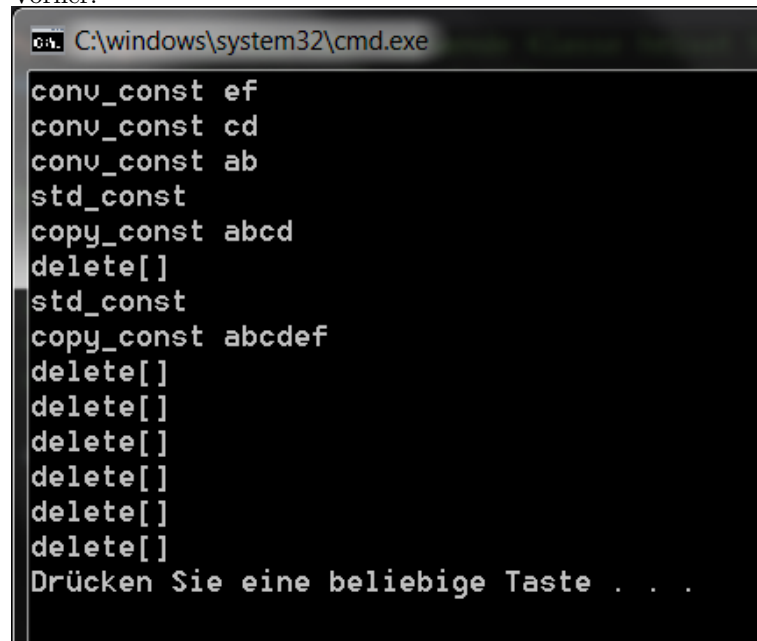
    //Zuweisungsoperator privat um Unveränderbarkeit zu sichern
    String operator = (const String&);
}
```

Löschen des generierten Zuweisungsoperators

```
String::String operator = (const String&) = delete;
```

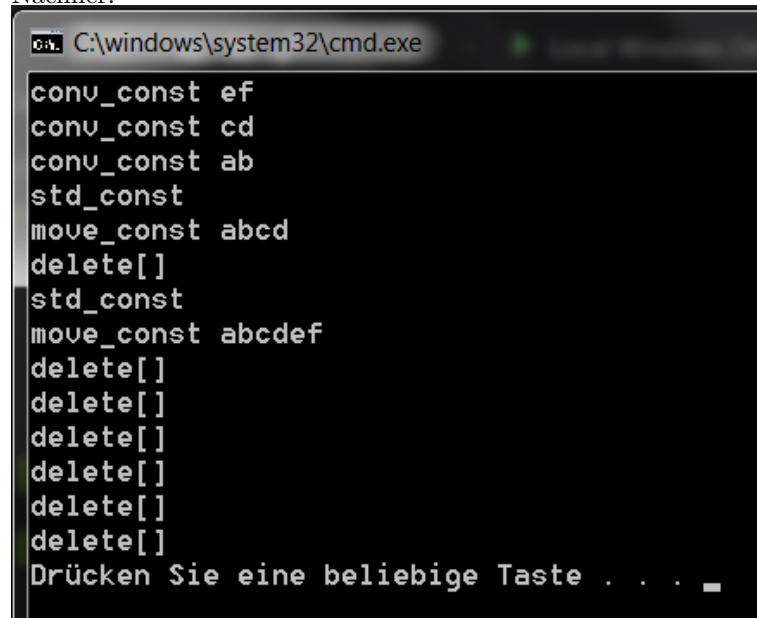
3 Move-Semantik

Vorher:



```
C:\windows\system32\cmd.exe
conv_const ef
conv_const cd
conv_const ab
std_const
copy_const abcd
delete[]
std_const
copy_const abcdef
delete[]
delete[]
delete[]
delete[]
delete[]
delete[]
delete[]
Drücken Sie eine beliebige Taste . . .
```

Nachher:



```
C:\windows\system32\cmd.exe
conv_const ef
conv_const cd
conv_const ab
std_const
move_const abcd
delete[]
std_const
move_const abcdef
delete[]
delete[]
delete[]
delete[]
delete[]
delete[]
Drücken Sie eine beliebige Taste . . .
```