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IA-32 Assembly Language Reference Manual

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Repeat String Operation (rep, repnz, repz)

```
rep;  
repnz;  
repz;
```

Operation

repeat string-operation until tested-condition

Description

Use the `rep` (repeat while equal), `repnz` (repeat while nonzero) or `repz` (repeat while zero) prefixes in conjunction with string operations. Each prefix causes the associated string instruction to repeat until the count register (CX) or the zero flag (ZF) matches a tested condition.

Example

Repeat while equal: Copy the 8-bit byte from the DS:[(E)SI] to the ES:[(E)DI] register.

```
rep; movsb
```

Repeat while not zero: Compare the memory byte double-word addressed in the destination register EDI, relative to the ES segment, with the contents of the EAX register.

```
repnz; scasd
```

Repeat while zero: Transfer the contents of the EAX register to the memory double-word addressed in the destination register EDI, relative to the ES segment.

```
repz; stosl
```

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