

Personal SE

Arrays

Pointers

Strings

(Examples)

STRCPY - array & pointer

```
void strcpy_a(char to[], char from[]) {  
    int idx = 0 ;  
  
    while( to[idx] = from[idx] ) { // exits when NUL copied  
        idx++ ;  
    }  
}
```

STRCPY - array & pointer

```
void strcpy_a(char to[], char from[]) {  
    int idx = 0 ;  
  
    while( to[idx] = from[idx] ) {  
        idx++ ;  
    }  
}
```

```
void strcpy_p(char *to, char *from) {  
    while( *to++ = *from++ ) // exits when NUL copied  
        ; // !!??!!  
}
```

STRAPPEND - array & pointer

```
void strappend_a(char to[], char from[]) {  
    int idx = 0 ;  
  
    while( to[idx++] )           //exit when NUL found  
        ;  
    idx-- ;                      // why?  
  
    while( to[idx] = from[idx] ) { // append <from>  
        idx++ ;  
    }  
}
```

STRAPPEND - array & pointer

```
void strappend_a(char to[], char from[]) {
    int idx = 0 ;
    int idx2 = 0;
    while( to[idx++] )
        ;
    idx-- ;

    while( to[idx] = from[idx2] ) {
        idx++ ; idx2++;
    }
}
```

Danger signs:

- **NULL** termination (but assume it's safe)
- **Size of 'to' array** (or pointer). Can't assume it is safe.

```
void strappend_p(char *to, char *from) {
    while( *to++ ) // exits when NUL copied
        ;
    to-- ; // why?
    strcpy_p(to, from) ; // !!
}
```

STRLEN - array & pointer

```
void strlen_a(char s[]) {  
    int idx = 0 ;  
  
    while( s[idx++] )    //exit when NUL found  
        ;  
    return idx - 1 ;    // why -1?  
}
```

STRLEN - array & pointer

```
void strlen_a(char s[]) {  
    int idx = 0 ;  
  
    while( s[idx++] )  
        ;  
    return idx - 1 ;  
}
```

```
void strlen_p(char *s) {  
    char *sp = s ;  
  
    while( *sp++ )    // exits when NUL found  
        ;  
    return (sp - s) - 1 // see above.  
}
```