

# C referens manual

## Comments

<code>/* Comment */</code>
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## Operators

Assignment Operators		Arithmetic Operators	
<b>Assignment</b>	Something = Expression	<b>Plus</b>	+
<b>Plus one</b>	Something++	<b>Minus</b>	-
<b>Minus one</b>	Something--	<b>Multiplied</b>	*
<b>It self plus</b>	It_Self += Expression	<b>Divaded</b>	/
<b>It self minus</b>	It_Self -= Expression	<b>Modelus</b>	%
<b>It self multiplyd</b>	It_Self *= Expression		
<b>It self divided</b>	It_Self /= Expression		

Relational Operators		Logical Operators	
<b>Equal</b>	Comparand_One == Comparand_Two	<b>And</b>	Expression && Expression
<b>Not Equal</b>	Comparand_One != Comparand_Two	<b>Or</b>	Expression    Expression
<b>Greater then</b>	Comparand_Big > Comparand_Smal	<b>Not</b>	!Expression
<b>Greater or Equal to</b>	Comparand_Big >= Comparand_Smal		
<b>Less then</b>	Comparand_Smal < Comparand_Big		
<b>Less or Equal to</b>	Comparand_Smal <= Comparand_Big		

## Printf operators

<b>%i, %d</b>	integer
<b>%u</b>	Decimal unsigned int
<b>%f, %F</b>	Double fixt point
<b>%e, %E</b>	Double standard

<b>%g, %G</b>	Double no exponent
<b>%x, %X</b>	Integer in hex
<b>%o</b>	Integer in octal
<b>%s</b>	Character string
<b>%c</b>	character
<b>%p</b>	Void pointer
<b>%n</b>	Print nothing, but write number of characters successfully written so far into an integer pointer parameter.
<b>%%</b>	Print a %

Main funktion	
<pre>return_operator <b>main</b>() { /*stuff*/   <b>return</b> return_operator; }</pre>	<pre>return_operator = int or void (standard)</pre>
<pre>return_operator <b>main</b>( int argc, char *argv[] ) { /*stuff*/   <b>return</b> return_operator; }</pre>	<pre>argc = number of arguments argv = argument strings  argv[0] = program name argv[1] = first program argument argv[n] = blankspace  argv[n] =&gt; correct *argv[n] =&gt; segmentation fault</pre>

## Type definitions

<b>void</b>	<b>Void</b> Name_of_Nothing;
<b>Integer</b>	<b>Int</b> Integer_Name;
<b>Char</b>	<b>Char</b> Character_Name;
<b>Floating Point</b>	<b>Float</b> Floatingpoint_Name;
<b>Double precision floating point</b>	<b>Double</b> Double_Name;

<b>Array</b>	<b>Array_type</b> Array_Name [Nr_of_Elements];	<b>Deklaration</b>
	Array_Name[Element]	<b>Usage</b>
<b>Pointer</b>	<b>Type</b> *Pointer_Name;	<b>Deklaration</b>
	<b>type</b> Normal_Type;	
	<b>struct</b> Record_Pointer { <b>type</b> *point };	

	<b>Record_Pointer</b> record_type;	
	Pointer_Name /* returns adress */ *Pointer_Name /* returns type value */  &Normal_type /* returns adress of Normal_Type */  record_type.point /* returns adress of point*/ record_type.(*point) /* returns value of point */ record_type->point /* also returns value of point */	<b>Usage</b>

<b>Record</b>	Record_Name.Type_Name = value_one; Record_Name.Type_two_Name = value_two; Record_two_Name->Type_Name = value_one; Record_two_Name->Type_two_Name = value_two Record_Name = { valu_one, value_two };	<b>Usage</b>
	<b>Struct</b> Record_Type_A_Name Record_Name; <b>Record_Type_B_Name</b> Record_Name; <b>Record_Type_B_Name</b> *Record_two_Name;	<b>Dekloration</b>
	<b>Struct</b> Record_Type_A_Name { <i>type</i> Type_Name; <i>type_two</i> *Type_two_Name; };  <b>typedef</b> <b>Struct</b> Record_type_B_Name { <i>type</i> Type_Name; <i>type_two</i> *Type_two_Name; }Record_type_B_Name;	<b>Dekloration body</b>

## Selections

<b>If- statement</b>	<b>if</b> ( Boolean_Expression ) { /* Statements */ } <b>else if</b> ( Boolean_Expression ) { /* Statements */ } <b>else</b> { /* Statments */ }
<b>Switch/case- statement</b>	<b>Switch</b> ( Expression ) { <b>case</b> Constant_Value: /* Statements */ <b>break</b> ; <b>case</b> Constant_Value_two: /* Statements */ <b>break</b> ; <b>default</b> : /* Statements */

	<i>break;</i> }
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## Repetition

<b>While- loop</b>	<b>While</b> ( Boolean_Expression ) { /* Statements */ }
<b>For- loop</b>	<b>For</b> ( statement; Boolean_expression; looped_Statement ) { /* Statements */ }

## Procedures and funktions

<b>Funktion</b>	Funktion_name ( Parameter_List );	<b>Usage</b>
	<b>return_type</b> Funktion_Name ( Parameter_List );	<b>Deklaration</b>
	<b>return_type</b> Funktion_Name ( Parameter_List ) { /* Statements */ <b>return</b> Expression_of_Return_Type; }	<b>Deklaration Body</b>

## Library structures

<b>Library</b>	<b>#include</b> < Library_Name >	<b>Use</b>
	<b>#ifndef</b> Library_Definition <b>#define</b> Library_Definition /* Deklarationlist */ <b>#endif</b>	<b>Definition</b> <b>in file:</b> Library_Name.h
	<b>#include</b> < Library_Name > /* funktion bodys */	<b>Body</b> <b>in file:</b> Library_Name.c