

C PROGRAMMING

Common Programming and Compiler Errors

PART 1

Fundamentals

Chapter 2: Getting Started in C Programming

Error	Typical Unix-based compiler Error message	Typical Windows-based Compiler error message
Omitting the parentheses, (), in the header line for the main function.	(S) Definition of function main requires parentheses.	Error: ' main ' : looks like a function definition, but there is no formal parameter list; skipping apparent body
Omitting the opening { in the main function body.	(S) Syntax error: Possible missing ' ; ' or ' , ' (S) Parameter declaration list is incompatible with declarator for main.	Note; The Error message you will Receive depends on the Statements in the function. The Line numbers for these errors start At the line immediately following The header line. Typical error Messages will include: Syntax error : ³ missing ' ; ' before identifier ... Missing storage-class or

		Type specifiers Syntax error : ' return ' Syntax error
Omitting the } at the end of the main function.	(S) Syntax error: Possible missing ' ; ' or ' , '? (S) Unexpected end of file.	End of file found before the left brace ' { ' was matched
Misspelled <i>printf</i>	ERROR: Unidentified symbol	Identifier not found, even with argument lookup
Omitting either the opening or closing double Quotes in the String passed to printf	(S) String literal must be ended before the end of line. (S) Syntax error: possible missing ') '?	newline in constant

Omitting the ; at the end of an executable statement.	(S) Syntax error: possible missing ' ; ' or ' , ' ?	Syntax error : missing ' ; '
Forgetting to declare all the variable used in a program.	(S) Undeclared identifier	undeclared identifier
Omitting the opening /* at the beginning of a comment	(S) Definition of function this requires parentheses. (S) Syntax error: possible missing ' { ' ? Note: The compiler is basically telling you that it cannot recognize any of the lines following the mistakes.)	Note: The error message you will receive depends on the statements following the comment. The line numbers for these errors will start at the line missing the /*. A warning, similar to the following, will also be issued warning; ' */ ' found outside of comment

Omitting the closing */ in a comment	(S) Comment that started on line . . must end before the end of file.	unexpected end of file found in comment
Initializing a' numeric variable with a comma in the initializer For example, int Val = 1, 234; will generate an error.	(S) Syntax error.	syntax error : ' constant '

Chapter 3: Processing and interactive Input

Error	Typical Unix-based Compiler error message	Typical Windows-based compiler error message
Attempting to use mathematical function, such as pow without including the math.h header file.	“ERROR: Unidentified symbol: . pow (You can use the -bloadmap or bnoquiet options when compiling the program to obtain more information. Additionally, you must use the -1m option for correct compilation.)	* pow identifier not pound”
Forgetting to close the control string passed to scanf() with double quotes.	“ (S) string literal must be before the end of line. ” “ (S) syntax error: possible missing ‘) ‘?’”	

(The first error message is attempting to tell you that the string has not been closed using a double quote. The second error message is a result of the string not being terminated, which causes an error on the line following the call to `scanf()` .)

“ newline in constant” “syntax error: missing ‘) ‘ before identifier . . .”
(The first error message is attempting to tell you that the string has not been closed using a double quote. The second error message is a result of the string not being terminated, which causes an error on the line Following the call to `scanf()` .)

Failing to separate all arguments in `scanf()` Which commas as, for example, in the call `scanf(“%f %f ”,`

“ (S) Operation between types “ **unsigned char***” and “**float**” is not allowed. “

“ ‘ & ‘ : illegal, left operand has type ...”
(Although very cryptic, this message indicates that the

<p><i>&count &n);</i></p>	<p>(Although very cryptic, this message indicates that the Compiler cannot recognize the variable in which the Function is trying to store a value.)</p>	<p>compiler cannot recognize the variable in which the function is trying to store a value.)</p>
<p>Placing the parentheses in the wrong location when using the cast operator, as, for example, in the expression <i>(count + n) ++</i></p>	<p>“ (E) Identifier not allowed in cast or sizeof declarations. “ “ (S) Syntax error. “</p>	<p>“syntax error: missing ‘) ‘ before count “ “ syntax error : ‘) ‘</p>
<p>Applying the increment or decrement operators to an expression. For example <i>(count + n) ++</i></p>	<p>“Operand must be a modifiable lvalue.” (This error message is indicating that the expression of the left of the ++ operator can not be modified.)</p>	<p>“ ++ needs lvalue. ” (This error message indicates that the expression to the left of the ++ operator can not be modified)</p>

PART 2

Flow of Control

Chapter 4: Selection

Error	Typical Unix-based Compiler error message	Typical Windows-based Compiler error message
Forgetting to surround a tested expression in parenthesis	(S) Syntax error: possible missing '('?	syntax error: identifier
Mistyping relational operators. For example using => instead of >=	(S) Unexpected text ' > ' encountered.	Syntax error : 'operator'
Using a construction such as If (expression) <i>statement1</i> ; <i>statement2</i> ; Else <i>statement3</i>	(S) Unexpected text ' else ' encountered. (This error message occurs because the else keyword does not have a matching if . Because of <i>statement2</i> the if becomes a one-way if statement .)	illegal else without matching if (This error message occurs because the else keyword does not have a matching if . Because of <i>statement2</i> the if becomes a one-way if statement .)

Forgetting to use quotes around single characters used in a relational expression	(S) Undeclared identifier ...	' <i>char</i> ': Undeclared identifier
Testing a floating-point expression in a <i>switch</i> statement	(S) Expression must be an integral type.	<i>switch</i> expression of type ' . . . ' is illegal
Forgetting the braces in a <i>switch</i> statement	(S) Case label Cannot be placed outside a <i>switch</i> statement. (S) <i>break</i> statement cannot be placed outside a <i>while</i> , <i>do</i> , <i>for</i> , or <i>switch</i> statement.	illegal <i>break</i> illegal default

Chapter 5: Repetition

Error	Typical Unix-based Compiler error message	Typical Windows-based Compiler Error message
Separating the statements in a for loop with commas rather than semicolons. For example for (init, cond, alt)	(S) Syntax error: possible Missing ' ; ' or ' , ' ?	Error :syntax error: missing ' ; ' before ') '
Omitting the parenthesis in a while statement. For example, while condition { statement; }while(condition)	(S) Syntax error : possible Missing ' ('	Error: syntax error : missing ' ; '

Omitting the ‘ ; ‘ at the end of the <i>do-while</i> statement. For example, <i>do</i> <i>{ statement;</i> <i>] while (condition)</i>	(S) Syntax error (This error tends to lead programmers astray. You would expect to get the error generated by a missing semicolon or comma, but instead you get a Syntax error .)	Error: syntax error missing ‘
Omitting the second + or - In a post increment Or decrement statement. For example <i>Val +; Val-</i>	(S) Syntax error. (Note that <i>+Val;</i> and <i>-Val;</i> do not generates a compiler error because these are valid expressions.)	error: syntax error: ‘ ; ‘

Chapter 6:Modularity Using Functions : Part I

Error	Typical Unix-based Compiler error message	Typical Windows-based Compiler error message
Terminating a functions' header line with a semicolon.	(S) Syntax error	error: missing function header (old-style formal list?)
Passing the incorrect number of parameters into a function.	(E) Missing argument (s)	error C2660: function does not take arguments ...
Not having a function prototype	(S) Syntax error: possible missing ' ; ' or ' , ' Note that each parameter of the function will generate the following error: (S) Undeclared Identifier	error: identifier not found, even with argument-dependent lookup redefinition; previous definition was a 'formerly unknown identifier'

Chapter 7:Modularity Using Functions : Part II

Error	Typical Unix-based Compiler error message	Typical Windows-based Compiler error message
Attempting to take the address to a constant	(W) Operation between types “ int ” and “ const” allowed.	
Applying the indirection operator to a non-pointer variable	(S) Operand of indirection operator must be a pointer expression.	error: illegal indirection
Not passing an address in a call to a function whose parameter is declared as a pointer	(W) Function argument assignment between types “ type * “ and “ type ” is not allowed	error: function cannot convert parameter from dataType to datatype*
Assigning a value, rather than an address to a pointer	(W) Operation between types “ type * “ and “ type ” is not allowed	error: cannot convert parameter from dataType to dataType*

PART 3

Completing the Basics

Chapter 8 : Arrays

Error	Typical Unix-based Compiler error message	Typical Windows-based Compiler error message
Designing a variable as an extern in one file, without declaring the variable as global in another file	ERROR: Unidentified symbol : ex (Note: use the -bloadmap or -bnoquiet option to obtain more information about the error)	Link error: unresolved external symbol
Applying the indirection operator to a non pointer variable	(S) Operand of indirection operator must be a pointer expression.	error: illegal indirection
Not passing an address in a call to a function whose parameter is declared as a pointer	(W) Function argument assignment between types “int* “ and “ int “ is not allowed.	error : function cannot convert parameter from dataType to dataType*
Assigning a value, rather than an address, to a pointer	(W) Operation between types “int* “ and “ int “ is not allowed	error: cannot convert parameter from dataType to dataType* ¹⁸

Attempting to take the address of a constant	(W) Operation between types “ int* “ and “ int “ is not allowed.	error: & on constant
Attempting to use a variable that is not within scope	(S) Undeclared identifier	error: undeclared identifier

Chapter 9: Character Strings

Error	Typical Unix-based Compiler error message	Typical Windows-based Compiler error message
Attempting to assign a single character into an element of the array using double , rather than single quotes. For example, <i>message[5] = " A " ;</i>	(W) Operation between types " unsigned char " and " unsigned char* " is not allowed	error : cannot convert from 'const char [2] ' to 'char'
Not using a system predefined constant in all capital letters. For example, <i>message[10] = NULL;</i>	(S) Undeclared identifier <i>NULL</i>	error : 'NULL' : Undeclared identifier
Forgetting to insert a length in the Size of the Array without initializers. For example, <i>Char message[];</i>	(S) Explicit dimension specification or initializer required for an auto or static array	error : 'message' : Unknown size

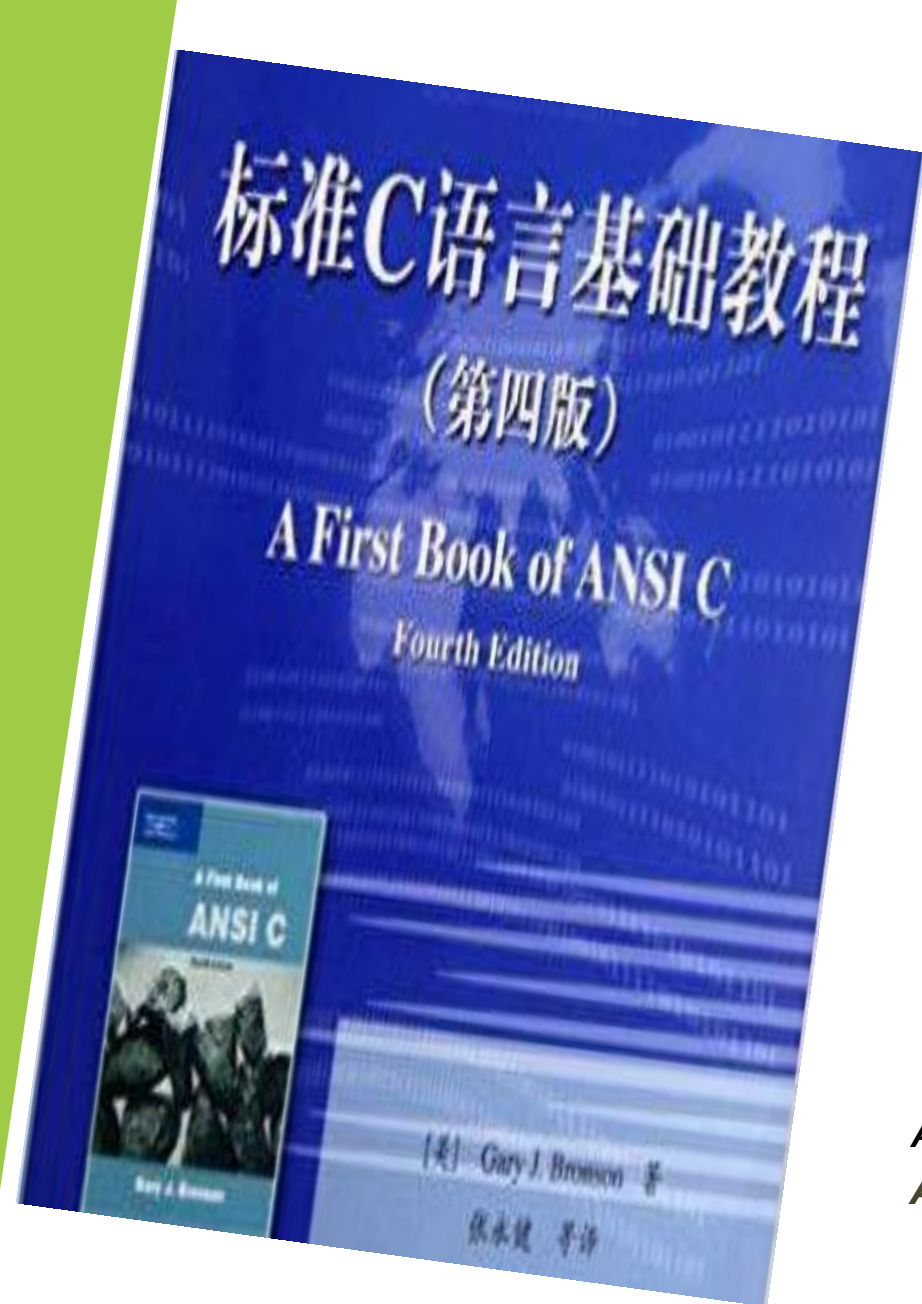
Comparing against an escape sequence that is inside double quotes. For example, <code>getChar()) != " \n ")</code>	(W) Operation between types <code>" int "</code> and <code>" unsigned char "</code> is not allowed	error: <code>' != ' :no conversion from ' const char *' to ' int '</code>
Providing an incorrect path for including header files. For example, <code>#include " c : \\ stdio.h "</code>	(S) <code>#include file " c : stdio.h "</code> not found.	fatal error: cannot open include file: <code>' c : \\ stdio.h ' : No such file or directory</code>

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Source
A First Book of ANSI C
Fourth Edition
by Gary J. Bronson



C programming

Compiler Errors

A First Book of C
ALL ERROR COMPILER OF C PROGRAMMING

Program 2.7

Error	Typical Unix-based compiler error message	Typical Windows-based compiler error message
Omitting the parentheses,(), in the header line for the main function.	(S) Definition of function main requires parentheses.	error:: 'main' : looks like a function definition, but there is no formal parameter list; skipping apparent body
Omitting the opening { in the main function body.	(S) Syntax error: possible missing ';' or ',' (S) Parameter declaration list is incompatible with declarator for main.	Note: The error message you will receive depends on the statements in the function. The line numbers for these errors start at the line immediately following the header line. Typical error messages will include: syntax error : missing ';' before identifier ... missing storage-class or type specifiers syntax error : 'return' syntax error : '}'
<i>Omitting</i> the } at the end of the main function.	(S) Syntax error: possible missing ';' or ', '? (S) Unexpected end of file.	end of file found before the left brace '{' was matched
Misspelling printf.	ERROR: Undefined symbol	Identifier not found even with argument dependent lookup

Error	Typical Unix-based compiler error message	Typical Windows-based compiler error message
Omitting either the opening or closing double quotes in the · string passed to printf ().	(S) String literal must be ended before the end of line. (S) Syntax error: possible missing ' ' ?	newline in constant
Omitting the ; at the end of an executable statement.	(S) Syntax error: possible missing ' ;' or ', ' ?	syntax error :missing ' ; '
Forgetting to declare all the variables used in a program.	(S) Undeclared identifier	undeclared identifier
Omitting the opening / * at the beginning of a comment.	(S) Definition of function this requires parentheses. (S) Syntax error: possible missing '{' ? Note: The compiler is basically telling you that it cannot recognize any of the lines · following the mistake.)	Note: The error message you will receive depends on the statements following the comment. The line numbers for these errors will start at the line missing the / *. A warning, similar to the following, will also be issued warning: '*/' found outside of comment
Omitting the closing * / in a comment.	(S) Comment that started on line .. must end before the end of file.	unexpected end of file found in comment
Initializing a numeric variable with a comma in the initializer. For example, int val= 1,234; will generate an error.	(S) Syntax error.	syntax error : 'constant'

Program 3.7

Error	Typical Unix-based compiler error message	Typical Windows-based compiler error message
Attempting to use a mathematical function, such as pow without including the math. h header file.	"ERROR: Undefined symbol: . Pow (You can use the -bloadmap or -bnoquiet options when compiling the program to obtain more information.Additionally, you must use the - lm option for correct compilation .)	"pow identifier not found."
Forgetting to close the control string passed to scanf () with double quotes.	"(S) String literal must be ended before the end of line." "(S) Syntax error: possible missing')'? (The first error message is attempting to tell you that the string has not been closed using a double quote. The second error message is a result of the string not being terminated, which causes an error on the line following the call to scanf().)	"newline in constant" "syntax error: missing ') ' before identifier ... " (The first error message is attempting to tell you that the string has not been closed using a double quote. The second error message is a result of the string not being terminated, which causes an error on the line following the call to Scanf ().)
Failing to separate all arguments in scanf () with commas as, for example, in the call scanf ("%f%f", &count &n);	"(S) Operation between types "unsigned char*" and "float" is not allowed." (Although very cryptic, this message indicates that the compiler cannot recognize the variable in which the function is trying to store a value.)	" ' & ' : illegal, left operand has type ... " (Although very cryptic, this message indicates that the compiler cannot recognize the variable in which the function is trying to store a value.)
Placing the parentheses in the wrong location when using the cast operator, as, for example, in the expression (int count)	"(E) Identifier not allowed in cast or Size of declarations." "(S) Syntax error."	"syntax error : missing ') ' before count " " syntax error:)' "
Applying the increment or decrement operators to an expression.For example,the expression (count + n) ++	"Operand must be a modifiable value."(This error message is indicates that the expression to the left of the ++ operator can not be modified.)	"++ needs 1-value."(This error message indicates that the expression to the left of the + + operator can not be modified.)

Error	Typical Unix-based Compiler Error Message	Typical Windows-based Compiler Error Message
Forgetting to surround a tested expression in parenthesis	(S) Syntax error: possible missing '('?	syntax error: identifier
Mistyping relational operators. For example using => instead of >=	(S) Unexpected text '>' encountered.	syntax error : 'operator'
Using a construction such as if (expression) statement1; statement2; else statement3	(S) Unexpected text 'else' encountered. (This error message occurs because the else keyword does not have a matching if. Because of statement2 the if becomes a one-way if statement.)	illegal else without matching if (This error message occurs because the else keyword does not have a matching if. Because of statement2 the if becomes a one-way if statement.)
Forgetting to use quotes around single characters used in a relational expression	(S) Undeclared identifier ...	'char': undeclared identifier
Testing a floating-point expression in a switch statement	(S) Expression must be an integral type.	switch expression of type '...' is illegal
Forgetting the braces in a switch statement	(S) Case label cannot be placed outside a switch statement. (S) Break statement cannot be placed outside a while, do, for, or switch statement.	illegal break illegal default

Program 5.8

Error	Typical Unix-based compiler error message	Typical Windows-based compiler error message
Separating the statements in a for loop with commas rather than semicolons. For example, <code>for(init,cond,alt)</code>	(S) Syntax error: possible missing ';' or ','?	error: syntax error : missing ';' before ')'
Omitting the parenthesis in a while statement. For example, <code>while condition { statement; }</code>	(S) Syntax error: possible missing '('?	error: syntax error : missing ';' before '{'
Omitting the ; at the end of the do-while statement. For example, <code>do{ statement; }while(condition)</code>	(S) Syntax error. (This error tends to lead programmers astray. You would expect to get the error generated by a missing semicolon or comma, but instead you get a syntax error.)	error: syntax error : missing ';'
Omitting the second + or - in a post increment or decrement statement. For example, <code>val+;</code> or <code>val-;</code>	(S) Syntax error. (Note that <code>+val;</code> and <code>-val;</code> do not generate a compiler error because these are valid expressions)	error: syntax error : ';'

Program 6.5

Error	Typical Unix-based compiler error message	Typical Windows-based compiler error message
Terminating a function's header line with a semicolon.	(S) Syntax error	error: missing function header (old-style formal list?)
Passing the incorrect number of parameters into a function.	(E) Missing argument(s)	error C2660: function does not take ... Arguments
Not having a function prototype.	(S) Syntax error: possible missing ';' or '' I Note that each parameter of the function will generate the following error: (S) Undeclared Identifier	error: identifier not found, even with argument dependent lookup error C2365: redefinition;previous definition was a 'formerly unknown identifier'
Changing the data types of the parameters between the prototype and the function header.	(S) Redeclaration of ... differs from previous declaration (I) The data type of parameter differs from the previous type	error: unresolved external symbol referenced in function fatal error: Unresolved Externals
Forgetting to separate the parameters in the function header with a comma.	(S) Syntax error: possible missing ')' or ',';Redeclaration of doit differs from previous declaration on line 3 of "Filename.c" (I) Redeclaration of doit has a different number of fixed parameters than the previous declaration (S) Undeclared identifier b	error: syntax error : argument should be preceded by ' , '
Using a function name that is a reserved syntax word.	(S) Redeclaration of function differs from previous declaration	error : identifier not found, even with argumentdependent lookup

Program 7.6

Error	Typical Unix-based compiler error message	Typical Windows-based compiler error message
Attempting to take the address of a constant	(W) Operation between types "int" and "const int*" is not allowed.	error: & on constant
Applying the indirection operator to a nonpointer variable	(S) Operand of indirection operator must be a pointer expression.	error: illegal indirection
Not passing an address in a call to a function whose parameter is declared as a pointer	(W) Function argument assignment between types "type*" and "type" is not allowed.	error: function cannot convert parameter from dataType to dataType*
Assigning a value, rather than an address to a pointer	(W) Operation between types "type*" and "type" is not allowed.	error: cannot convert parameter from dataType to dataType*

Error	Typical Unix-based Compiler Error Message	Typical Windows-based Compiler Error Message
Forgetting to separate the parameters in the function header with a comma.	<p>(S) Syntax error: possible missing ')' or ', '? Redclaration of doit differs from previous declaration on line 3 of "Filename.c"</p> <p>(I) Redclaration of doit has a different number of fixed parameters than the previous declaration (S) Undeclared identifier b</p>	<p>error: syntax error : argument should be preceded by ','</p>
Using a function name that is a reserved syntax word.	(S) Redclaration of function differs from previous declaration	error: identifier not found, even with argument-dependent lookup

Program 8.6

Error	Typical Unix-based compiler error message	Typical Windows-based compiler error message
Designating a variable as an extern in one file, without declaring the variable as a global ,in another file	ERROR: Undefined symbol: ex (Note: use the -bloadmap or bnoquiet option to obtain more information about the error.)	Link error: unresolved external symbol ...
Applying the indirection operator to a nonpointer Variable	(S) Operand of indirection operator must be a pointer expression.	error: illegal indirection
Not passing an address in a call to a function whose parameter is declared as a pointer	(W) Function argument assignment between types "int*" and "int" is not allowed.	error: function cannot convert parameter from dataType .to dataType*
Assigning a value, rather than an address, to a pointer	(W) Operation between types "int*" and "int" is not allowed.	error: cannot convert parameter from dataType to dataType*
Attempting to take the address of a constant	(W) Operation between types "int" and "const int*" is not allowed.	error: & on constant
Attempting to use a variable that is not within scope	(S) Undeclared identifier ...	error: undeclared identifier ...

C Programming Compiler Errors

A First Book of ANSI C

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Atanu Shuvam Roy
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Chapter 2

Error	Typical Unix-base Compiler Error Message	Typical windows-based compiler Error message
Omitting the parentheses () in the header line for the main function.	(S) Definition of function main requires parentheses	Error:: 'main' : looks like a function definition, but there is no formal parameter list; skipping apparent body
Omitting the opening { in the main function body	(S) Syntax error: possible missing ' ; ' or ' , ' (S) Parameter declaration list is incompatible with declarator for main.	Note: The error message you will receive depends on the statements in the function. The numbers for these errors at the line immediately following the header line. Typical error messages will include: Syntax error: missing ' ; ' before identifier - missing storage-class or type specifiers Syntax error : 'return' Syntax error : ' } '
Omitting the } at the end of the main function	(S) Syntax error: possible missing ' ; ' or ' , ' ? (S) Unexpected end of file	End of file found before the left brace ' { ' was matched
Misspelling printf	ERROR: Undefined symbol	Identifier not found, even with argument-dependent lookup
Omitting either the opening or closing double quoted in the string passed to printf()	(S) String literal must be ended before the end of line. (S) Syntax error: possible missing ') '	newline in constant

Chapter 2 (Continued)

Error	Typical Unix-base Compiler Error Message	Typical windows-based compiler Error message
Omitting the ; at the end of an executable statement	(S) Syntax error: Possible missing ' ; ' or ' , ' ?	Syntax error: missing ' ; ' ;
Forgetting to declare all the variables used in a program	(S) Undeclared identifier	Undeclared identifier
Omitting the opening /* at the beginning of a comment	(S) Definition of function this requires parentheses. (S) Syntax error: possible missing ' { ' . Note: The compiler is basically you that it cannot recognize any of the lines following the mistake	Note: The error message you will receive depends on the statements following the comment. The line numbers for these errors will start at the line missing the /*. A warning, similar to the following, will also be issued: WARNING: '*/' found outside of comment
Omitting the closing */ in a comment.	(S) Comment that started on line.. Must end before the end of file.	Unexpected end of file found in comment
Initializing a numeric variable with a comma in the initializer. For example, Int val= 1, 234; will generate an error.	(S) Syntax error.	Syntax error: 'constant'

Chapter 3

Error	Typical Unix-base Compiler Error Message	Typical windows-based compiler Error message
Attempting to use a mathematical function, such as pow without including the math.h header file	"ERROR: Undefined symbol: .pow " (You can use the -bloadmap or -bnoquiet options when compiling the program to obtain more information. Additionally, you must use the -lm option for correct compilation)	"pow identifier not found"
Forgetting to close the control string passed to scanf() with double quotes	"(S) String literal must be ended before the end of line." "(S) Syntax error: possible missing ') ' ?" (The first error message is attempting to tell you that the string has not been closed using a double quote. The second error message is a result of the string not being terminated, which causes an error on the following the call to scanf().)	"newline in constant" "Syntax error: missing ') ' before identifier... " (The first error message is attempting to tell you that the string has not been closed using a double quote. The second error message is a result of the string not being terminated, which causes an error on the following the call to scanf().)
Failing to separate all arguments in scanf() with commas as, for example, in the call scanf("%f %f", &count &n);	"(S) Operation between types "unsigned char*" and "float" is not allowed." (Although very cryptic, this message indicates that the compiler cannot recognize the variable in which the function is trying to store a value)	" '&' : illegal , left operand has type .." (Although very cryptic, this message indicates, that the compiler cannot recognize the variable in which the function is trying to store a value.)
Placing the parentheses in the wrong location when using the cast operator, as, for example, in the expression (int count)	"(E) Identifier not allowed in cast or sizeof declarations. " " (S) Syntax error. "	"syntax error: missing ') ' before count " "syntax error: ') ' "

Chapter 4

Error	Typical Unix-based Compiler Error Message	Typical Windows-based Compiler Error Message
Forgetting to surround a tested expression in parenthesis	(S) Syntax error: possible missing (?	syntax error: identifier
Mistyping relational operators. For example using => instead of >=	(S) Unexpected text '>' encountered.	syntax error · 'operator'
Using a construction such as if (expression) statement1; statement2; else statement3	(S) Unexpected text 'else' encountered. (This error message occurs because the else keyword does not have a matching if. Because of statement2 the if becomes a one-way if statement.)	illegal else without matching if · (This error message occurs because the else keyword does not have a matching if. Because of statement2 the if becomes a one-way if statement.)
Forgetting to use quotes around single characters used in a relational expression	(S) Undeclared identifier ...	'char': undeclared identifier
Testing a floating-point expression in a switch statement	(S) Expression must be an integral type.	switch expression of type ' ... ' is illegal
Forgetting the braces in a switch statement	(S) Case label cannot be placed outside a switch statement. (S) Break statement cannot be placed outside a while, do, for, or switch statement.	illegal break illegal default

Chapter 5

Error	Typical Unix-based Compiler Error Message	Typical windows-based compiler Error message
Separating the statements in a for loop with commas rather than semicolons. For example, <code>for(init,cond,alt)</code>	(S) Syntax error: possible missing ';' or ','?	error: syntax error : missing ';' before ')
Omitting the parenthesis in a while statement. For example, <code>while condition { statement; }</code>	(S) Syntax error: possible missing '('?	error: syntax error : missing ';' before '{'
Omitting the ; at the end of the do-while statement. For example, <code>do { statement; }while(condition)</code>	(S) Syntax error. (This error tends to lead programmers astray. You would expect to get the error generated by a missing semicolon or comma, but instead you get a syntax error.)	error: syntax error : missing ';'
Omitting the second + or - in a post increment or decrement statement. For example, <code>val+;</code> or <code>val-;</code>	(S) Syntax error. (Note that <code>+val ;</code> and <code>-val;</code> do not generate a compiler error because these are valid expressions)	error: syntax error : ';'

Chapter 6

Error	Typical Unix-based Compiler Error Message	Typical windows-based compiler Error message
Terminating a function's header line with a semicolon.	(S) Syntax error	error: missing function header (old-style formal list?)
Terminating a function's header line with a semicolon.	(E) Missing argument(s)	error C2660: function does not take ... Arguments
Not having a function prototype.	(S) Syntax error: possible missing ';' or ' , ' Note that each parameter of the function will generate the following error: (S) Undeclared Identifier	error: identifier not found, even with argument dependent lookup error C2365: redefinition; Previous definition was a 'formerly unknown identifier'
Changing the data types of the parameters between the prototype and the function header.	(S) Redeclaration of ... differs from previous Declaration (I) The data type of parameter differs from the previous type	error: unresolved external symbol referenced in Function fatal error: unresolved Externals
Forgetting to separate the parameters in the function header with a comma.	(S) Syntax error: possible missing ')' or ' , '? Redeclaration of doit differs from previous declaration on line 3 of "Filename.c" (I) Redeclaration of doit has a different number of fixed parameters than the previous declaration (S) Undeclared identifier b	error: syntax error : argument should be preceded by ' , ' .
Using a function name that is a reserved syntax word.	(S) Redeclaration of function differs from previous declaration	error: identifier not found, even with argument dependent Lookup

Chapter 7

Error	Typical Unix-based Compiler Error Message	Typical windows-based compiler Error message
Attempting to take the address of a constant	(W) Operation between types "int" and "const int*" is not allowed.	error: & on Constant
Applying the indirection operator to a nonpointer variable	(S) Operand of indirection operator must be a pointer expression.	error: illegal Indirection
Not passing an address in a call to a function whose parameter is declared as a pointer	(W) Function argument assignment between types "type*" and "type" is not allowed.	error: function cannot convert parameter from dataType to dataType*
Assigning a value, rather than an address to a Pointer	(W) Operation between types "type*" and "type" is not allowed.	error: cannot convert parameter from dataType to dataType*

Chapter 8

Error	Typical Unix-based Compiler Error Message	Typical windows-based compiler Error message
Designating a variable as an extern in one file, without declaring the variable as a global in another file	ERROR: Undefined symbol: ex (Note: use the -bloadmap or -bnoquiet option to obtain more information about the error.)	Link error: unresolved external symbol ...
Applying the indirection operator to a nonpointer variable	(S) Operand of indirection operator must be a pointer expression.	error: illegal indirection
Not passing an address in a call to a function whose parameter is declared as a pointer	(W) Function argument assignment between types "int*" and "int" is not allowed.	error: function cannot convert parameter from dataType .to dataType*
Assigning a value, rather than an address, to a pointer	(W) Operation between types "int*" and "int" is not allowed.	error: cannot convert parameter from dataType to dataType*
Attempting to take the address of a constant	(W) Operation between types "int" and "const int*" is not allowed.	error: & on constant
Attempting to use a variable that is not within scope	(S) Undeclared identifier ...	error: undeclared identifier ...

Error	Typical Unix-based Compiler Error Message	Typical Windows-based Compiler Error Message
Forgetting to surround a tested expression in parenthesis	(S) Syntax error: possible missing '(' ?	syntax error: identifier
Mistyping relational operators. For example using => instead of >=	(S) Unexpected text '>' encountered.	syntax error : 'operator'
Using a construction such as if (expression) statement1; statement2; else statement3	(S) Unexpected text 'else' encountered. (This error message occurs because the else keyword does not have a matching if. Because of statement2 the if becomes a one-way if statement.)	illegal else without matching if (This error message occurs because the else keyword does not have a matching if. Because of statement2 the if becomes a one-way if statement.)
Forgetting to use quotes around single characters used in a relational expression	(S) Undeclared identifier ...	'char': undeclared identifier
Testing a floating-point expression in a switch statement	(S) Expression must be an integral type.	switch expression of type '...' is illegal
Forgetting the braces in a switch statement	(S) Case label cannot be placed outside a switch statement. (S) Break statement cannot be placed outside a while, do, for, or switch statement.	illegal break illegal default

Error	Typical Unix-based Compiler Error Message	Typical Windows-based Compiler Error Message
Terminating a function's header line with a semicolon.	(S) Syntax error	error: missing function header (old-style formal list?)
Passing the incorrect number of parameters into a function.	(E) Missing argument(s)	error C2660: function does not take ... arguments
Not having a function prototype.	(S) Syntax error: possible missing ';' or ',' Note that each parameter of the function will generate the following error: (S) Undeclared identifier	error: identifier not found, even with argument-dependent lookup error C2365: redefinition; previous definition was a 'formerly unknown identifier'
Changing the data types of the parameters between the prototype and the function header.	(S) Redeclaration of ... differs from previous declaration (I) The data type of parameter differs from the previous type	error: unresolved external symbol referenced in function fatal error: unresolved externals

Error	Typical Unix-based Compiler Error Message	Typical Windows-based Compiler Error Message
Forgetting to separate the parameters in the function header with a comma.	(S) Syntax error: possible missing ')' or ,','? Redeclaration of doit differs from previous declaration on line 3 of "Filename.c" (I) Redeclaration of doit has a different number of fixed parameters than the previous declaration (S) Undeclared identifier b	error: syntax error : argument should be preceded by ','
Using a function name that is a reserved syntax word.	(S) Redeclaration of function differs from previous declaration	error: identifier not found, even with argument- dependent lookup

Error	Typical Unix-based Compiler Error Message	Typical Windows-based Compiler Error Message
Attempting to take the address of a constant	(W) Operation between types "int" and "const int*" is not allowed.	error: & on constant
Applying the indirection operator to a nonpointer variable	(S) Operand of indirection operator must be a pointer expression.	error: illegal indirection
Not passing an address in a call to a function whose parameter is declared as a pointer	(W) Function argument assignment between types "type*" and "type" is not allowed.	error: function cannot convert parameter from dataType to dataType*
Assigning a value, rather than an address to a pointer	(W) Operation between types "type*" and "type" is not allowed.	error: cannot convert parameter from dataType to dataType*

Error	Typical Unix-based Compiler Error Message	Typical Windows-based Compiler Error Message
Designating a variable as an extern in one file, without declaring the variable as a global in another file	ERROR: Undefined symbol: ex (Note: use the -bloadmap or -bnoquiet option to obtain more information about the error.)	Link error: unresolved external symbol ...
Applying the indirection operator to a nonpointer variable	(S) Operand of indirection operator must be a pointer expression.	error: illegal indirection
Not passing an address in a call to a function whose parameter is declared as a pointer	(W) Function argument assignment between types "int*" and "int" is not allowed.	error: function cannot convert parameter from dataType to dataType*
Assigning a value, rather than an address, to a pointer	(W) Operation between types "int*" and "int" is not allowed.	error: cannot convert parameter from dataType to dataType*
Attempting to take the address of a constant	(W) Operation between types "int" and "const int*" is not allowed.	error: & on constant
Attempting to use a variable that is not within scope	(S) Undeclared identifier...	error: undeclared identifier ...

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Compiler Errors



Error	Typical Unix -based compiler error message	Typical Windows based compiler error message
Omitting the parenthesis, (), in the header line for the main function.	(S) Definition of function main requires main requires parenthesis.	Error::main : looks like a function definition, but there is no formal parameter list; skipping apparent body.
Omitting the opening { in the main function body.	(S) Syntax Error: possible missing ';' or ',' (S) Parameter declaration list is incompatible with declaration for main.	Note: The error message you will receive depends on the statements in the function. The line immediately following the header line. Typical error messages will include: Syntax error : missing ';' before identifier ... missing storage- class or type specifiers
Omitting the } in the main function.	(S) Syntax Error: possible missing ';' or ','? (S) Unexpected end of file.	End of file found before the left brace '{' was matched.

Error	Typical Unix -based compiler error message	Typical Windows based compiler error message
Missing printf.	ERROR: Undefined symbol	Identifier not found even with argument-dependent lookup.
Omitting either the opening or closing double quotes in the string passed to printf().	(S) String literal must be ended before the end of line. (S) Syntax error: possible missing ')' ?	Newline in constant.
Forgetting to declare all the variables used in a program.	(S) Undeclared identifier	Undeclared identifier
Omitting the opening */ in the beginning of a comment.	(S) Definition of function this requires parentheses. (S) Syntax error: possible missing '{'? (Note: The compiler is basically telling you that it cannot recognize any of the lines following the mistake.)	Note: The error message you will receive depends on the statements following the comment. The line numbers for the error will start at the line missing the /*. A warning, similar to the following, will also be issued warning: '*/' found outside of comment.
Omitting the closing */ in a comment.	(S) Comment that started on line .. must end before end of file.	Unexpected end of file found in comment
Initialising a numeric variable with a comma in the initialiser. For example, int val 1.234; will generate an error.	(S) Syntax error.	Syntax error : constant

Error	Typical Unix -based compiler error message	Typical Windows based compiler error message
Attempting to use a mathematical function, such as pow without including the math.h header file.	“ERROR: Undefined symbol: .pow	“pow identifier not found.”
Forgetting to close the control string passed to scanf() with double quotes.	“(S) String literal must be ended before the end of line.” “(S) Syntax Error: possible missing ‘)’ ?”	“newline in my constant” “syntax error: missing ‘)’ before identifier...”
Failing to separate all arguments in scanf() with commas as, for example, in call scanf(“%f%f”, &count &n);	“(S) Operation between types “unsigned char*” and the “float” is not allowed.”	“ ‘&’ : illegal, left operand has type ...”
Placing the parentheses in the wrong location when using the cast operator, as , for example in the expression (int count)	“(E) Identifier not allowed in cast or sizeof declaration.” “(S) Syntax error.”	“syntax error: Missing ‘)’ before count “ “syntax error: ‘)’ “
Applying the increment or decrement operators to an expression. For example, the expression (count + n)++	“Operand must be a modifiable lvalue.”	“++Needs l-value.”

Error	Typical Unix -based compiler error message	Typical Windows based compiler error message
Forgetting to surround a tested expression in parenthesis.	(S) Syntax error: possible missing '(' ?	Syntax error: Identifier
Mistyping relational operators. For example using => instead of >=	(S) Unexpected text '>' encountered.	Syntax error : 'operator'
Using a construction such as If (expression) Statement1; Statement2; Else Statement3	(S) Unexpected text 'else' encountered.	Illegal else without matching if
Forgetting to use quotes around single characters used in a relational expression.	(S) Undeclared identifier ...	'char': undeclared identifier
Testing a floating-point expression in a switch statement	(S) Expression must be an integral type.	Switch expression of type '....' is illegal
Forgetting the braces in a switch statement	(S) Case label cannot be placed outside a switch statement. (S) Break statement cannot be placed outside a while, do, for, or switch statement.	Illegal break illegal default.



Error	Typical Unix -based compiler error message	Typical Windows based compiler error message
Separating the statements in for loop with commas rather than semicolons.	(S) Syntax error: possible missing ';' or ','?	Error syntax error: missing ';' before ')'
Omitting the parenthesis in a while statement.	(S) Syntax error: possible missing '('?	Error syntax error : missing ';' before '{'
Omitting the ; at the end of a do-while statement	(S) Syntax error	Error syntax error : missing ';'
Omitting the second + or - in a post increment or decrement statement.	(S) Syntax error	Error syntax error : missing ';'

Error	Typical Unix -based compiler error message	Typical Windows based compiler error message
Separating the statements in for loop with commas rather than semicolons.	(S) Syntax error: possible missing ';' or ','?	Error syntax error: missing ';' before ')'
Omitting the parenthesis in a while statement.	(S) Syntax error: possible missing '('?	Error syntax error : missing ';' before '{'
Omitting the ; at the end of a do-while statement	(S) Syntax error	Error syntax error : missing ';' before '}'
Omitting the second + or - in a post increment or decrement statement.	(S) Syntax error	Error syntax error : missing ';' before '}'

Error	Typical Unix -based compiler error message	Typical Windows based compiler error message
Separating the statements in for loop with commas rather than semicolons.	(S) Syntax error: possible missing ';' or ', '?	Error syntax error: missing ';' before ')'
Omitting the parenthesis in a while statement.	(S) Syntax error: possible missing '('?	Error syntax error : missing ';' before '{'
Omitting the ; at the end of a do-while statement	(S) Syntax error	Error syntax error : missing ';' before '}'
Omitting the second + or - in a post increment or decrement statement.	(S) Syntax error	Error syntax error : missing ';' before '}'

Error	Typical Unix -based compiler error message	Typical Windows based compiler error message
Terminating a function's header line with a semi colon.	(S) Syntax error	Error: missing function header
Passing the incorrect number of parameters into a function.	(F) Missing argument(s)	Error C2660: function does not take... arguments
Not having a function prototype.	(S) Syntax error: possible missing ';' or ',' (S) Undeclared identifier	Error: identifier not found even with argument-dependent lookup error C6365: redefinition; previous definition was a formally unknown identifier
Changing the data types of the parameters between the prototype and function header.	(S) Redclaration of function differs from previous declaration (S) Undeclared Identifier	Error: unresolved external symbol referenced in function Fatal error: Unresolved externals
Forgetting to separate the function header with a comma.	(S) Syntax error: possible missing ')' or ','? Redclaration on line 3 of "Filename.c" (I) Redclaration of doit has a different number of fixed parameters than the previous declaration (S) Undeclared identifier b.	Error: syntax error : argument should be preceded by ','
Using a function name that is a reserved syntax word	(S) Redclaration of function differs from previous declaration	Error: identifier not found, even with argument- dependent lookup.

Error	Typical Unix -based compiler error message	Typical Windows based compiler error message
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Changing the data types of the parameters between the prototype and function header.	(S) Redeclaration of function differs from previous declaration (S) Undeclared Identifier	Error: unresolved external symbol referenced in function Fatal error: Unresolved externals
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Using a function name that is a reserved syntax word	(S) Redeclaration of function differs from previous declaration	Error: identifier not found, even with argument- dependent lookup.

Error	Typical Unix -based compiler error message	Typical Windows based compiler error message
Designing a variable as an extern in one file, without declaring the variable as a global in another file	ERROR: Undefined Symbol: ex	Link error
Applying the indirection operator to a nonpointer variable	(S) Operand of indirection operator must be a pointer expression.	Error: illegal indirection
Not passing an address in a call to a function whose parameter is declared as a pointer	(W) Function argument assignment between types “int*” and “int” is not allowed	Error: function cannot convert parameter from datatype to datatype*
Assigning a value rather than an address to a pointer	(W) Operation between “int*” and “int” is not allowed.	Error: cannot convert parameter from datatype to datatype*
Attempting to take the address of a constant	(W) Operation between “int*” and “const int” is not allowed.	Error: & on constant
Attempting to use a variable is not within a scope	(S) Undeclared Identifier	Error: Undeclared Identifier

Error	Typical Unix -based compiler error message	Typical Windows based compiler error message
Attempting to assign a single character into an element of array using double, rather than single quotes	W) Operation between “unsigned char*” and “unsigned char” is not allowed.	Error : cannot convert from ‘const char [2]’ to ‘char’
Not using a system predefined constant in all capital letters.	(S) Undeclared Identifier [NULL]	Error: ‘NULL’ : undeclared identifier
Forgetting to insert a length in the Size of the array without initialisers .	(S) Explicit dimension specification or initialiser required for an auto or static array	Error: ‘message’ : unknown size
Comparing against an escape sequence that is inside double quotes.	(W) Operation between “in*” and “unsigned char*” is not allowed.	Error ‘!=’: no conversion from ‘const char *’ to ‘int’
Providing an incorrect path for including header files	(W) Operation between “int*” and “const int” is not allowed.	Error: & on constant
Attempting to use a variable is not within a scope	(S) #include file “c:\\stdio.h” not found	Fatal error: Cannot Open Include file: ‘c:\\stdio.h’: No such file directory

Reference

- BOOK

(Prof: Chengtian Ouyang)

- with special thanks
- Sithembiso Khaya Sambo

