1 Open Watcom C Diagnostic Messages

The following is a list of all warning and error messages produced by the Open Watcom C compilers. Diagnostic messages are issued during compilation and execution.

The messages listed in the following sections contain references to %s, %d and %u. They represent strings that are substituted by the Open Watcom C compilers to make the error message more exact. %d and %u represent a string of digits; %s a string, usually a symbolic name.

Consider the following program, named err.c, which contains errors.

Example:

```
#include <stdio.h>

void main()
{
   int i;
   float i;

   i = 383;
   x = 13143.0;
   printf( "Integer value is %d\n", i );
   printf( "Floating-point value is %f\n", x );
}
```

If we compile the above program, the following messages will appear on the screen.

```
err.c(6): Error! E1034: Symbol 'i' already defined err.c(9): Error! E1011: Symbol 'x' has not been declared err.c: 12 lines, included 191, 0 warnings, 2 errors
```

The diagnostic messages consist of the following information:

- 1. the name of the file being compiled,
- 2. the line number of the line containing the error (in parentheses),
- 3. a message number, and
- 4. text explaining the nature of the error.

In the above example, the first error occurred on line 6 of the file err.c. Error number 1034 (with the appropriate substitutions) was diagnosed. The second error occurred on line 9 of the file err.c. Error number 1011 (with the appropriate substitutions) was diagnosed.

The following sections contain a complete list of the messages. Run-time messages (messages displayed during execution) do not have message numbers associated with them.

1.1 Warning Level 1 Messages

W100 Parameter %d contains inconsistent levels of indirection

The function is expecting something like char ** and it is being passed a char * for instance.

W101 Non-portable pointer conversion

This message is issued whenever you convert a non-zero constant to a pointer.

W102 Type mismatch (warning)

This message is issued for a function return value, an assignment or operators where one type is pointer and second one is non-pointer type.

W103 Parameter count does not agree with previous definition (warning)

You have either not enough parameters or too many parameters in a call to a function. If the function is supposed to have a variable number of parameters, then you can ignore this warning, or you can change the function declaration and prototypes to use the ",..." to indicate that the function indeed takes a variable number of parameters.

W104 Inconsistent levels of indirection

This occurs in an assignment or return statement when one of the operands has more levels of indirection than the other operand. For example, a char ** is being assigned to a char *.

Solution: Correct the levels of indirection or use a void *.

W105 Assignment found in boolean expression

An assignment of a constant has been detected in a boolean expression. For example: "if(var = 0)". It is most likely that you want to use "==" for testing for equality.

W106 Constant out of range - truncated

This message is issued if a constant cannot be represented in 32 bits or if a constant is outside the range of valid values that can be assigned to a variable.

W107 Missing return value for function '%s'

A function has been declared with a function return type, but no *return* statement was found in the function. Either add a *return* statement or change the function return type to *void*.

W108 Duplicate typedef already defined

A duplicate typedef is not allowed in ISO C. This warning is issued when compiling with extensions enabled. You should delete the duplicate typedef definition.

W109 not used

unused message

W110 'fortran' pragma not defined

You have used the *fortran* keyword in your program, but have not defined a #pragma for *fortran*.

W111 Meaningless use of an expression

The line contains an expression that does nothing useful. In the example "i = (1,5);", the expression "1," is meaningless.

W112 Pointer truncated

A far pointer is being passed to a function that is expecting a near pointer, or a far pointer is being assigned to a near pointer.

W113 Pointer type mismatch

You have two pointers that either point to different objects, or the pointers are of different size, or they have different modifiers.

W114 Missing semicolon

You are missing the semicolon ";" on the field definition just before the right curly brace "}".

W115 & & array may not produce intended result

The type of the expression "&array" is different from the type of the expression "array". Suppose we have the declaration char buffer[80] Then the expression (&buffer + 3) will be evaluated as (buffer + 3 * sizeof(buffer)) which is (buffer + 3 * 80) and not (buffer + 3 * 1) which is what most people expect to happen. The address of operator "&" is not required for getting the address of an array.

W116 Attempt to return address of auto variable

This warning usually indicates a serious programming error. When a function exits, the storage allocated on the stack for auto variables is released. This storage will be overwritten by further function calls and/or hardware interrupt service routines. Therefore, the data pointed to by the return value may be destroyed before your program has a chance to reference it or make a copy of it.

W117 '##' tokens did not generate a single token (rest discarded)

> When two tokens are pasted together using ##, they must form a string that can be parsed as a single token.

W118 Label '%s' has been defined but not referenced

> You have defined a label that is not referenced in a *goto* statement. It is possible that you are missing the *case* keyword when using an enumerated type name as a case in a *switch* statement. If not, then the label can be deleted.

W119 Address of static function '%s' has been taken

This warning may indicate a potential problem when the program is overlayed.

W120 lvalue cast is not standard C

> A cast operation does not yield an Ivalue in ISO C. However, to provide compatibility with code written prior to the availability of ISO compliant C compilers, if an expression was an Ivalue prior to the cast operation, and the cast operation does not cause any conversions, the compiler treats the result as an Ivalue and issues this warning.

W121 Text following pre-processor directives is not standard C

> Arbitrary text is not allowed following a pre-processor directive. Only comments are allowed following a pre-processor directive.

W122 Literal string too long for array - truncated

> The supplied literal string contains more characters than the specified dimension of the array. Either shorten the literal string, or increase the dimension of the array to hold all of the characters from the literal string.

W123 '//' style comment continues on next line

> The compiler has detected a line continuation during the processing of a C++ style comment ("//"). The warning can be removed by switching to a C style comment ("/**/"). If you require the comment to be terminated at the end of the line, make sure that the backslash character is not the last character in the line.

Example:

```
#define XX 23 // comment start \
comment \
end
int x = XX; // comment start ...\
comment end
```

W124 Comparison result always %d

The line contains a comparison that is always true (1) or false (0). For example comparing an unsigned expression to see if it is ≥ 0 or ≤ 0 is redundant. Check to see if the expression should be signed instead of unsigned.

W125 Nested include depth of %d exceeded

The number of nested include files has reached a preset limit, check for recursive include statements.

W126 Constant must be zero for pointer compare

A pointer is being compared using == or != to a non-zero constant.

W127 trigraph found in string

Trigraph expansion occurs inside a string literal. This warning can be disabled via the command line or #pragma warning directive.

Example:

```
// string expands to "(?]?????"!
char *e = "(???)???-???";
// possible work-arounds
char *f = "(" "???" ")" "???" "-" "????";
char *g = "(\?\?\)\?\?\?\?\?\?\?";
```

W128 %d padding byte(s) added

The compiler has added slack bytes to align a member to the correct offset.

W129 #endif matches #if in different source file '%s'

This warning may indicate a **#endif** nesting problem since the traditional usage of **#if** directives is confined to the same source file. This warning may often come before an error and it is hoped will provide information to solve a preprocessing directive problem.

W130 Possible loss of precision

This warning indicates that you may be converting a argument of one size to another, different size. For instance, you may be losing precision by passing a long argument to a function that takes a short. This warning is initially disabled. It must be explicitly enabled with #pragma enable_message(130) or option "-wce=130". It can be disabled later by using #pragma disable_message(130).

W131 No prototype found for function '%s'

A reference for a function appears in your program, but you do not have a prototype for that function defined. Implicit prototype will be used, but this will cause problems if the assumed prototype does not match actual function definition.

W132 No storage class or type specified

When declaring a data object, either storage class or data type must be given. If no type is specified, *int* is assumed. If no storage class is specified, the default depends on scope (see the *C Language Reference* for details). For instance

```
Example:
   auto i;
is a valid declaration, as is

Example:
   short i;

However,

Example:
```

is not a correctly formed declaration.

W133 Symbol name truncated for '%s'

i;

Symbol is longer than the object file format allows and has been truncated to fit. Maximum length is 255 characters for OMF and 1024 characters for COFF or ELF object files.

W134 Shift amount negative

The right operand of a left or right shift operator is a negative value. The result of the shift operation is undefined.

```
Example:
   int a = 1 << -2;</pre>
```

The value of 'a' in the above example is undefined.

W135 Shift amount too large

The right operand of a left or right shift operator is a value greater than or equal to the width in bits of the type of the promoted left operand. The result of the shift operation is undefined.

```
Example:
   int a = 1 >> 123;
```

The value of 'a' in the above example is undefined.

W136 Comparison equivalent to 'unsigned == 0'

Comparing an unsigned expression to see whether it is ≤ 0 is equivalent to testing for == 0. Check to see if the expression should be signed instead of unsigned.

W137 Extern function '%s' redeclared as static

The specified function was either explicitly or implicitly declared as *extern* and later redeclared as *static*. This is not allowed in ISO C and may produce unexpected results with ISO compliant compilers.

```
Example:
   int bar( void );

   void foo( void )
   {
      bar();
   }

   static int bar( void )
   {
      return( 0 );
   }
```

W138 No newline at end of file

ISO C requires that a non-empty source file must include a newline character at the end of the last line. If no newline was found, it will be automatically inserted.

W139 Divisor for modulo or division operation is zero

The right operand of a division or modulo operation is zero. The result of this operation is undefined and you should rewrite the offending code to avoid divisions by zero.

```
Example:
    int foo( void )
    {
        return( 7 / 0 );
    }
```

W140 Definition of macro '%s' not identical to previous definition

If a macro is defined more than once, the definitions must be identical. If you want to redefine a macro to have a different definition, you must #undef it before you can define it with a new definition.

W141 message number '%d' is invalid

The message number used in the #pragma does not match the message number for any warning message. This message can also indicate that a number or '*' (meaning all warnings) was not found when it was expected.

W142 warning level must be an integer in range 0 to 5

The new warning level that can be used for the warning can be in the range 0 to 5. The level 0 means that the warning will be treated as an error (compilation will not succeed). Levels 1 up to 5 are used to classify warnings. The -w option sets an upper limit on the level for warnings. By setting the level above the command line limit, you effectively ignore all cases where the warning shows up.

W143 %s

This is a user message generated by the **#pragma message** or by **#warning** preprocessor directive.

Example:

```
#pragma message( "my very own warning" );
or
#warning my very own warning
```

1.2 Warning Level 2 Messages

W200 '%s' has been referenced but never assigned a value

You have used the variable in an expression without previously assigning a value to that variable.

W201 Unreachable code

The statement will never be executed, because there is no path through the program that causes control to reach this statement.

W202 Symbol '%s' has been defined, but not referenced

There are no references to the declared variable. The declaration for the variable can be deleted.

In some cases, there may be a valid reason for retaining the variable. You can prevent the message from being issued through use of #pragma off(unreferenced).

W203 Preprocessing symbol '%s' has not been declared

The symbol has been used in a preprocessor expression. The compiler assumes the symbol has a value of 0 and continues. A #define may be required for the symbol, or you may have forgotten to include the file which contains a #define for the symbol.

1.3 Warning Level 3 Messages

W300 Nested comment found in comment started on line %u

While scanning a comment for its end, the compiler detected /* for the start of another comment. Nested comments are not allowed in ISO C. You may be missing the */ for the previous comment.

W301 not used

unused message

W302 Expression is only useful for its side effects

You have an expression that would have generated the warning "Meaningless use of an expression", except that it also contains a side-effect, such as ++, —, or a function call.

W303 Parameter '%s' has been defined, but not referenced

There are no references to the declared parameter. The declaration for the parameter can be deleted. Since it is a parameter to a function, all calls to the function must also have the value for that parameter deleted.

In some cases, there may be a valid reason for retaining the parameter. You can prevent the message from being issued through use of #pragma off(unreferenced).

This warning is initially disabled. It must be specifically enabled with #pragma enable_message(303) or option "-wce=303". It can be disabled later by using #pragma disable message(303).

W304 Return type 'int' assumed for function '%s'

If a function is declared without specifying return type, such as

```
Example:
    foo( void );
```

then its return type will be assumed to be int

W305 Type 'int' assumed in declaration of '%s'

If an object is declared without specifying its type, such as

```
Example:
    register count;
```

then its type will be assumed to be int

W306 Assembler warning: '%s'

A problem has been detected by the in-line assembler. The message indicates the problem detected.

W307 Obsolete non-prototype declarator

Function parameter declarations containing only empty parentheses, that is, non-prototype declarations, are an obsolescent language feature. Their use is dangerous and discouraged.

```
Example:
   int func();
```

W308 The function '%s' without prototyped parameters called

A call to an unprototyped function was made, preventing the compiler from checking the number of function arguments and their types. Use of unprototyped functions is obsolescent, dangerous and discouraged.

```
Example:
  int func();

void bar( void )
{
    func( 4, "s" );  /* possible argument mismatch */
}
```

W309 The function without prototyped parameters indirectly called

An indirect call to an unprototyped function was made, preventing the compiler from checking the number of function arguments and their types. Use of unprototyped functions is obsolescent, dangerous and discouraged.

W310 Pointer truncated during cast

A far pointer is being cast to a near pointer, losing segment information in the process.

```
Example:
    char __near *foo( char __far *fs )
    {
        return( (char __near *)fs );
    }
```

1.4 Warning Level 4 Messages

W400 Array subscript is of type plain char

Array subscript expression is of plain char type. Such expression may be interpreted as either signed or unsigned, depending on compiler settings. A different type should be chosen instead of char. A cast may be used in cases when the value of the expression is known to never fall outside the 0-127 range.

```
Example:
   int foo( int arr[], char c )
   {
      return( arr[c] );
   }
```

1.5 Warning Level 5 Messages

W500 undefined macro '%s' evaluates to 0

The ISO C/C++ standard requires that undefined macros evaluate to zero during preprocessor expression evaluation. This default behaviour can often mask incorrectly spelled macro references. The warning is useful when used in critical environments where all macros will be defined.

```
Example:
    #if _PRODUCTION // should be _PRODUCTION
    #endif
```

1.6 Error Messages

E1000 BREAK must appear in while, do, for or switch statement

A *break* statement has been found in an illegal place in the program. You may be missing an opening brace { for a *while*, *do*, *for* or *switch* statement.

E1001 CASE must appear in switch statement

A *case* label has been found that is not inside a *switch* statement.

E1002 CONTINUE must appear in while, do or for statement

The *continue* statement must be inside a *while*, *do* or *for* statement. You may have too many } between the *while*, *do* or *for* statement and the *continue* statement.

E1003 DEFAULT must appear in switch statement

> A *default* label has been found that is not inside a *switch* statement. You may have too many } between the start of the switch and the default label.

E1004 Misplaced '}' or missing earlier '{'

An extra } has been found which cannot be matched up with an earlier { .

E1005 Misplaced #elif directive

> The #elif directive must be inside an #if preprocessing group and before the #else directive if present.

E1006 Misplaced #else directive

> The #else directive must be inside an #if preprocessing group and follow all #elif directives if present.

E1007 Misplaced #endif directive

> A preprocessing directive has been found without a matching #if directive. You either have an extra or you are missing an #if directive earlier in the file.

E1008 Only 1 DEFAULT per switch allowed

You cannot have more than one *default* label in a *switch* statement.

E1009 Expecting '%s' but found '%s'

> A syntax error has been detected. The tokens displayed in the message should help you to determine the problem.

E1010 *Type mismatch*

> For pointer subtraction, both pointers must point to the same type. For other operators, both expressions must be assignment compatible.

E1011 Symbol '%s' has not been declared

> The compiler has found a symbol which has not been previously declared. The symbol may be spelled differently than the declaration, or you may need to #include a header file that contains the declaration.

Expression is not a function E1012

> The compiler has found an expression that looks like a function call, but it is not defined as a function.

E1013 Constant variable cannot be modified

An expression or statement has been found which modifies a variable which has been declared with the *const* keyword.

E1014 Left operand must be an 'lvalue'

The operand on the left side of an "=" sign must be a variable or memory location which can have a value assigned to it.

E1015 '%s' is already defined as a variable

You are trying to declare a function with the same name as a previously declared variable.

E1016 Expecting identifier

The token following "->" and "." operators must be the name of an identifier which appears in the struct or union identified by the operand preceding the "->" and "." operators.

E1017 Label '%s' already defined

All labels within a function must be unique.

E1018 Label '%s' not defined in function

A *goto* statement has referenced a label that is not defined in the function. Add the necessary label or check the spelling of the label(s) in the function.

E1019 Tag '%s' already defined

All struct, union and enum tag names must be unique.

E1020 Dimension cannot be 0 or negative

The dimension of an array must be positive and non-zero.

E1021 Dimensions of multi-dimension array must be specified

All dimensions of a multiple dimension array must be specified. The only exception is the first dimension which can declared as "[]".

E1022 Missing or misspelled data type near '%s'

The compiler has found an identifier that is not a predefined type or the name of a "typedef". Check the identifier for a spelling mistake.

E1023 Storage class of parameter must be register or unspecified

The only storage class allowed for a parameter declaration is *register*.

E1024 Declared symbol '%s' is not in parameter list

Make sure that all the identifiers in the parameter list match those provided in the declarations between the start of the function and the opening brace "{".

E1025 Parameter '%s' already declared

A declaration for the specified parameter has already been processed.

E1026 Invalid declarator

A syntax error has occurred while parsing a declaration.

E1027 Invalid storage class for function

If a storage class is given for a function, it must be static or extern.

E1028 Variable '%s' cannot be void

You cannot declare a void variable.

Expression must be 'pointer to ...'

An attempt has been made to de-reference (*) a variable or expression which is not declared to be a pointer.

E1030 Cannot take the address of an rvalue

You can only take the address of a variable or memory location.

E1031 Name '%s' not found in struct/union %s

The specified identifier is not one of the fields declared in the *struct* or *union*. Check that the field name is spelled correctly, or that you are pointing to the correct *struct* or *union*.

E1032 Expression for '.' must be a 'structure' or 'union'

The compiler has encountered the pattern "expression" "." "field_name" where the expression is not a *struct* or *union* type.

E1033 Expression for '->' must be 'pointer to struct or union'

The compiler has encountered the pattern "expression" "->" "field_name" where the expression is not a pointer to *struct* or *union* type.

E1034 Symbol '%s' already defined

The specified symbol has already been defined.

E1035 static function '%s' has not been defined

A prototype has been found for a static function, but a definition for the static function has

not been found in the file.

E1036 Right operand of '%s' is a pointer

The right operand of "+=" and "-=" cannot be a pointer. The right operand of "-" cannot

be a pointer unless the left operand is also a pointer.

E1037 Type cast must be a scalar type

You cannot type cast an expression to be a *struct, union*, array or function.

E1038 Expecting label for goto statement

The *goto* statement requires the name of a label.

E1039 Duplicate case value '%s' found

Every case value in a *switch* statement must be unique.

E1040 Field width too large

The maximum field width allowed is 16 bits.

E1041 Field width of 0 with symbol not allowed

A bit field must be at least one bit in size.

E1042 Field width must be positive

You cannot have a negative field width.

E1043 Invalid type specified for bit field

The types allowed for bit fields are signed or unsigned varieties of char, short and int

E1044 Variable '%s' has incomplete type

A full definition of a *struct* or *union* has not been given.

E1045 Subscript on non-array

One of the operands of "[]" must be an array.

E1046 Incomplete comment started on line %u

The compiler did not find */ to mark the end of a comment.

E1047 Argument for # must be a macro parm

The argument for the stringize operator "#" must be a macro parameter.

E1048 Unknown preprocessing directive '#%s'

An unrecognized preprocessing directive has been encountered. Check for correct spelling.

E1049 Invalid #include directive

A syntax error has been encountered in a #include directive.

E1050 Not enough parameters given for macro '%s'

You have not supplied enough parameters to the specified macro.

E1051 Not expecting a return value for function '%s'

> The specified function is declared as a *void* function. Delete the *return* statement, or change the type of the function.

E1052 Expression has void type

You tried to use the value of a *void* expression inside another expression.

E1053 Cannot take the address of a bit field

The smallest addressable unit is a byte. You cannot take the address of a bit field.

E1054 Expression must be constant

> The compiler expects a constant expression. This message can occur during static initialization if you are trying to initialize a non-pointer type with an address expression.

E1055 Unable to open '%s'

> The file specified in an #include directive could not be located. Make sure that the file name is spelled correctly, or that the appropriate path for the file is included in the list of paths specified in the INCLUDE environment variable or the "-I" option on the command line.

E1056 Too many parameters given for macro '%s'

You have supplied too many parameters for the specified macro.

E1057 Modifiers disagree with previous definition of '%s'

You have more than one definition or prototype for the variable or function which have different type modifiers.

E1058 Cannot use typedef '%s' as a variable

The name of a typedef has been found when an operand or operator is expected. If you are trying to use a type cast, make sure there are parentheses around the type, otherwise check for a spelling mistake.

E1059 Invalid storage class for non-local variable

A variable with module scope cannot be defined with the storage class of auto or register

E1060 Invalid type

An invalid combination of the following keywords has been specified in a type declaration: const, volatile, signed, unsigned, char, int, short, long, float and double

E1061 Expecting data or function declaration, but found '%s'

The compiler is expecting the start of a data or function declaration. If you are only part way through a function, then you have too many closing braces "}".

E1062 Inconsistent return type for function '%s'

Two prototypes for the same function disagree.

E1063 Missing operand

An operand is required in the expression being parsed.

E1064 Out of memory

The compiler has run out of memory to store information about the file being compiled. Try reducing the number of data declarations and or the size of the file being compiled. Do not #include header files that are not required.

For the 16-bit C compiler, the "-d2" option causes the compiler to use more memory. Try compiling with the "-d1" option instead.

E1065 Invalid character constant

This message is issued for an improperly formed character constant.

E1066 Cannot perform operation with pointer to void

You cannot use a "pointer to void" with the operators +, -, ++, --, += and -=.

E1067 Cannot take address of variable with storage class 'register'

If you want to take the address of a local variable, change the storage class from *register* to *auto*

E1068 Variable '%s' already initialized

The specified variable has already been statically initialized.

E1069 String literal not terminated before end of line

A string literal is enclosed by double quote "characters.

The compiler did not find a closing double quote " or line continuation character \ before the end of a line or before the end of the source file.

E1070 Data for aggregate type must be enclosed in curly braces

When an array, struct or union is statically initialized, the data must be enclosed in curly braces {}.

E1071 Type of parameter %d does not agree with previous definition

The type of the specified parameter is incompatible with the prototype for that function. The following example illustrates a problem that can arise when the sequence of declarations is in the wrong order.

Example:

```
/* Uncommenting the following line will
  eliminate the error */
/* struct foo; */

void fn1( struct foo * );

struct foo {
   int   a,b;
};

void fn1( struct foo *bar )
{
   fn2( bar );
}
```

The problem can be corrected by reordering the sequence in which items are declared (by moving the description of the structure foo ahead of its first reference or by adding the indicated statement). This will assure that the first instance of structure foo is defined at the proper outer scope.

E1072 Storage class disagrees with previous definition of '%s'

The previous definition of the specified variable has a storage class of *static*. The current definition must have a storage class of *static* or *extern*

Alternatively, a variable was previously declared as extern and later defined as static

E1073 Invalid option '%s'

The specified option is not recognized by the compiler.

E1074 Invalid optimization option '%s'

The specified option is an unrecognized optimization option.

E1075 Invalid memory model '%s'

Memory model option must be one of "ms", "mm", "mc", "ml", "mh" or "mf" which selects the Small, Medium, Compact, Large, Huge or Flat memory model.

E1076 Missing semicolon at end of declaration

You are missing a semicolon ";" on the declaration just before the left curly brace "{".

E1077 Missing '}'

The compiler detected end of file before finding a right curly brace "}" to end the current function.

E1078 Invalid type for switch expression

The type of a switch expression must be integral.

E1079 Expression must be integral

An integral expression is required.

E1080 Expression must be arithmetic

Both operands of the "*", "/" and "%" operators must be arithmetic. The operand of the

unary minus must also be arithmetic.

E1081 Expression must be scalar type

A scalar expression is required.

E1082 Statement required after label

The C language definition requires a statement following a label. You can use a null

statement which consists of just a semicolon (";").

E1083 Statement required after 'do'

A statement is required between the *do* and *while* keywords.

E1084 Statement required after 'case'

The C language definition requires a statement following a case label. You can use a null

statement which consists of just a semicolon (";").

E1085 Statement required after 'default'

The C language definition requires a statement following a default label. You can use a

null statement which consists of just a semicolon (";").

E1086 Expression too complicated, split it up and try again

The expression contains too many levels of nested parentheses. Divide the expression up

into two or more sub-expressions.

E1087 Missing matching #endif directive

You are missing a to terminate a #if, #ifdef or #ifndef preprocessing directive.

E1088 Invalid macro definition, missing)

The right parenthesis ")" is required for a function-like macro definition.

E1089 Missing) for expansion of '%s' macro

The compiler encountered end-of-file while collecting up the argument for a function-like

macro. A right parenthesis ")" is required to mark the end of the argument(s) for a

function-like macro.

E1090 Invalid conversion

A *struct* or *union* cannot be converted to anything. A *float* or *double* cannot be converted to a *pointer* and a *pointer* cannot be converted to a *float* or *double*

E1091 %s

This is a user message generated with the #error preprocessing directive.

E1092 Cannot define an array of functions

You can have an array of pointers to functions, but not an array of functions.

E1093 Function cannot return an array

A function cannot return an array. You can return a pointer to an array.

E1094 Function cannot return a function

You cannot return a function. You can return a pointer to a function.

E1095 Cannot take address of local variable in static initialization

You cannot take the address of an *auto* variable at compile time.

E1096 Inconsistent use of return statements

The compiler has found a *return* statement which returns a value and a *return* statement that does not return a value both in the same function. The *return* statement which does not return a value needs to have a value specified to be consistent with the other *return* statement in the function.

E1097 Missing? or misplaced:

The compiler has detected a syntax error related to the "?" and ":" operators. You may need parenthesis around the expressions involved so that it can be parsed correctly.

E1098 Maximum struct or union size is 64K

The size of a *struct* or *union* is limited to 64K so that the compiler can represent the offset of a member in a 16-bit register.

E1099 Statement must be inside function. Probable cause: missing {

The compiler has detected a statement such as *for, while, switch*, etc., which must be inside a function. You either have too many closing braces "}" or you are missing an opening brace "{" earlier in the function.

E1100 not used unused message E1101 Cannot #undef '%s' The special macros __LINE___, __FILE___, __DATE___, STDC___, __FUNCTION__ and __func___, and the identifier "defined", cannot be deleted by the #undef directive. E1102 Cannot #define the name 'defined' You cannot define a macro called defined E1103 ## must not be at start or end of replacement tokens There must be a token on each side of the "##" (token pasting) operator. E1104 Type cast not allowed in #if or #elif expression A type cast is not allowed in a preprocessor expression. E1105 'sizeof' not allowed in #if or #elif expression The *sizeof* operator is not allowed in a preprocessor expression. E1106 Cannot compare a struct or union A struct or union cannot be compared with "==" or "!=". You must compare each member of a *struct* or *union* to determine equality or inequality. If the *struct* or *union* is packed (has no holes in it for alignment purposes) then you can compare two structs using memcmp E1107 Enumerator list cannot be empty You must have at least one identifier in an enum list. E1108 Invalid floating-point constant The exponent part of the floating-point constant is not formed correctly. E1109 Cannot take size of a bit field The smallest object that you can ask for the size of is a char. E1110 Cannot initialize variable with storage class of extern A storage class of extern is used to associate the variable with its actual definition

somewhere else in the program.

E1111 Invalid storage class for parameter

The only storage class allowed for a parameter is *register*

E1112 Initializer list cannot be empty

An initializer list must have at least one item specified.

E1113 Expression has incomplete type

An attempt has been made to access a struct or union whose definition is not known, or an array whose dimensions are not known.

E1114 Struct or union cannot contain itself

You cannot have a *struct* or *union* contain itself. You can have a pointer in the *struct* which points to an instance of itself. Check for a missing "*" in the declaration.

E1115 Incomplete enum declaration

The enumeration tag has not been previously defined.

E1116 An id list not allowed except for function definition

A function prototype must contain type information.

E1117 Must use 'va_start' macro inside function with variable parameters

The va_start macro is used to setup access to the parameters in a function that takes a variable number of parameters. A function is defined with a variable number of parameters by declaring the last parameter in the function as "...".

E1118 ***FATAL*** %s

A fatal error has been detected during code generation time. The type of error is displayed in the message.

E1119 Internal compiler error %d

A bug has been encountered in the C compiler. Please report the specified internal compiler error number and any other helpful details about the program being compiled to compiler developers so that we can fix the problem.

E1120 Parameter number %d - invalid register in #pragma

The designated registers cannot hold the value for the parameter.

E1121 Procedure '%s' has invalid return register in #pragma

The size of the return register does not match the size of the result returned by the function.

E1122 Illegal register modified by '%s' #pragma

For the 16-bit C compiler: The BP, CS, DS, and SS registers cannot be modified in small data models. The BP, CS, and SS registers cannot be modified in large data models.

For the 32-bit C compiler: The EBP, CS, DS, ES, and SS registers cannot be modified in flat memory models. The EBP, CS, DS, and SS registers cannot be modified in small data models. The EBP, CS, and SS registers cannot be modified in large data models.

E1123 File must contain at least one external definition

Every file must contain at least one global object, (either a data variable or a function). This message is only issued in strict ANSI mode (-za).

E1124 Out of macro space

The compiler ran out of memory for storing macro definitions.

E1125 Keyboard interrupt detected

The compile has been aborted with Ctrl/C or Ctrl/Break.

E1126 Array, struct or union cannot be placed in a register

Only scalar objects can be specified with the *register* class.

E1127 Type required in parameter list

If the first parameter in a function definition or prototype is defined with a type, then all of the parameters must have a type specified.

E1128 Enum constant is out of range %s

All of the constants must fit into appropriate value range.

E1129 Type does not agree with previous definition of '%s'

You have more than one definition of a variable or function that do not agree.

E1130 Duplicate name '%s' not allowed in struct or union

All the field names in a *struct* or *union* must be unique.

E1131 Duplicate macro parameter '%s'

The parameters specified in a macro definition must be unique.

E1132 Unable to open work file: error code = %d

The compiler tries to open a new work file by the name "__wrkN__.tmp" where N is the digit 0 to 9. This message will be issued if all of those files already exist.

E1133 Write error on work file: error code = %d

An error was encountered trying to write information to the work file. The disk could be full

E1134 Read error on work file: error code = %d

An error was encountered trying to read information from the work file.

E1135 Seek error on work file: error code = %d

An error was encountered trying to seek to a position in the work file.

E1136 not used

unused message

E1137 Out of enum space

The compiler has run out of space allocated to store information on all of the *enum* constants defined in your program.

E1138 Filename required on command line

The name of a file to be compiled must be specified on the command line.

E1139 Command line contains more than one file to compile

You have more than one file name specified on the command line to be compiled. The compiler can only compile one file at a time. You can use the Open Watcom Compile and Link utility to compile multiple files with a single command.

E1140 __leave must appear in a _try statement

The _leave keyword must be inside a _try statement. The _leave keyword causes the program to jump to the start of the _finally block.

E1141 Expecting end of line but found '%s'

> A syntax error has been detected. The token displayed in the message should help you determine the problem.

E1142 Too many bytes specified in #pragma

> There is an internal limit on the number of bytes for in-line code that can be specified with a pragma. Try splitting the function into two or more smaller functions.

E1143 Cannot resolve linkage conventions for routine '%s' #pragma

> The compiler cannot generate correct code for the specified routine because of register conflicts. Change the registers used by the parameters of the pragma.

Symbol '%s' in pragma must be global E1144

> The in-line code for a pragma can only reference a global variable or function. You can only reference a parameter or local variable by passing it as a parameter to the in-line code pragma.

E1145 Internal compiler limit exceeded, break module into smaller pieces

> The compiler can handle 65535 quadruples, 65535 leaves, and 65535 symbol table entries and literal strings. If you exceed one of these limits, the program must be broken into smaller pieces until it is capable of being processed by the compiler.

E1146 Invalid initializer for integer data type

> Integer data types (int and long) can be initialized with numeric expressions or address expressions that are the same size as the integer data type being initialized.

E1147 Too many errors: compilation aborted

> The compiler stops compiling when the number of errors generated exceeds the error limit. The error limit can be set with the "-e" option. The default error limit is 20.

E1148 Expecting identifier but found '%s'

> A syntax error has been detected. The token displayed in the message should help you determine the problem.

E1149 Expecting constant but found '%s'

The #line directive must be followed by a constant indicating the desired line number.

E1150 Expecting \"filename\" but found '%s'

The second argument of the #line directive must be a filename enclosed in quotes.

E1151 Parameter count does not agree with previous definition

You have either not enough parameters or too many parameters in a call to a function. If the function is supposed to have a variable number of parameters, then you are missing the ", ..." in the function prototype.

E1152 Segment name required

A segment name must be supplied in the form of a literal string to the __segname() directive.

E1153 Invalid __based declaration

The compiler could not recognize one of the allowable forms of __based declarations. See the *C Language Reference* document for description of all the allowable forms of __based declarations.

E1154 Variable for __based declaration must be of type __segment or pointer

A based pointer declaration must be based on a simple variable of type __segment or pointer.

E1155 Duplicate external symbol %s

Duplicate external symbols will exist when the specified symbol name is truncated to 8 characters.

E1156 Assembler error: '%s'

An error has been detected by the in-line assembler. The message indicates the error detected.

E1157 Variable must be 'huge'

A variable or an array that requires more than 64K of storage in the 16-bit compiler must be declared as *huge*.

E1158 Too many parm sets

Too many parameter register sets have been specified in the pragma.

E1159 I/O error reading '%s': %s

An I/O error has been detected by the compiler while reading the source file. The system dependent reason is also displayed in the message.

E1160 Attempt to access far memory with all segment registers disabled in '%s'

The compiler does not have any segment registers available to access the desired far memory location.

E1161 No identifier provided for '-D' option

The command line option "-D" must be followed by the name of the macro to be defined.

E1162 Invalid register pegged to a segment in '%s'

The register specified in a #pragma data_seg, or a __segname expression must be a valid segment register.

E1163 Invalid octal constant

An octal constant cannot contain the digits 8 or 9.

E1164 Invalid hexadecimal constant

The token sequence "0x" must be followed by a hexadecimal character (0-9, a-f, or A-F).

E1165 Unexpected')'. Probable cause: missing'('

A closing parenthesis was found in an expression without a corresponding opening parenthesis.

E1166 Symbol '%s' is unreachable from #pragma

The in-line assembler found a jump instruction to a label that is too far away.

E1167 Division or remainder by zero in a constant expression

The compiler found a constant expression containing a division or remainder by zero.

E1168 Cannot end string literal with backslash

The argument to a macro that uses the stringize operator '#' on that argument must not end in a backslash character.

Example:

```
#define str(x) #x
str(@#\)
```

E1169 Invalid __declspec declaration

The only valid __declspec declarations are "__declspec(thread)", "__declspec(dllexport)", and "__declspec(dllimport)".

E1170 Too many storage class specifiers

You can only specify one storage class specifier in a declaration.

E1171 Expecting '%s' but found end of file

A syntax error has been detected. The compiler is still expecting more input when it reached the end of the source program.

E1172 Expecting struct/union tag but found '%s'

The compiler expected to find an identifier following the *struct* or *union* keyword.

E1173 Operand of __builtin_isfloat() must be a type

The __builtin_isfloat() function is used by the *va_arg* macro to determine if a type is a floating-point type.

E1174 Invalid constant

The token sequence does not represent a valid numeric constant.

E1175 Too many initializers

There are more initializers than objects to initialize. For example int $X[2] = \{0, 1, 2\}$; The variable "X" requires two initializers not three.

E1176 Parameter %d, pointer type mismatch

You have two pointers that either point to different objects, or the pointers are of different size, or they have different modifiers.

E1177 Modifier repeated in declaration

You have repeated the use of a modifier like "const" (an error) or "far" (a warning) in a declaration.

E1178 Type qualifier mismatch

You have two pointers that have different "const" or "volatile" qualifiers.

E1179 Parameter %d, type qualifier mismatch

You have two pointers that have different const or "volatile" qualifiers.

E1180 Sign specifier mismatch

You have two pointers that point to types that have different sign specifiers.

E1181 Parameter %d, sign specifier mismatch

You have two pointers that point to types that have different sign specifiers.

E1182 Missing \\ for string literal

You need a '\' to continue a string literal across a line.

E1183 Expecting '%s' after '%s' but found '%s'

A syntax error has been detected. The tokens displayed in the message should help you to determine the problem.

E1184 Expecting '%s' after '%s' but found end of file

A syntax error has been detected. The compiler is still expecting more input when it reached the end of the source program.

E1185 Invalid register name '%s' in #pragma

The register name is invalid/unknown.

E1186 Storage class of 'for' statement declaration not register or auto

The only storage class allowed for the optional declaration part of a *for* statement is *auto* or *register*

E1187 No type specified in declaration

A declaration specifier must include a type specifier.

```
Example:
   auto i;
```

E1188 Symbol '%s' declared in 'for' statement must be object

Any identifier declared in the optional declaration part of a *for* statement must denote an object. Functions, structures, or enumerations may not be declared in this context.

```
Example:
   for( int i = 0, j( void ); i < 5; ++i ) {
      ...
}</pre>
```

E1189 Unexpected declaration

Within a function body, in C99 mode a declaration is only allowed in a compound statement and in the opening clause of a *for* loop. Declarations are not allowed after *if*, *while*, or *switch* statement, etc.

```
Example:
    void foo( int a )
    {
        if( a > 0 )
            int j = 3;
    }
```

In C89 mode, declarations within a function body are only allowed at the beginning of a compound statement.

```
Example:
    void foo( int a )
    {
          ++a;
          int j = 3;
}
```

E1190 'else' without 'if'

The else must follow if

E1191 expression contains consecutive operand(s)

More than one operand found in a row.

E1192 '%s' unexpected in constant expression

'%s' not allowed in constant expression.

E1193 floating-point constant too small to represent

The Open Watcom C compiler cannot represent the floating-point constant because the magnitude of the negative exponent is too large.

```
Example:
    float f = 1.2e-78965;
```

E1194 floating-point constant too large to represent

The Open Watcom C compiler cannot represent the floating-point constant because the magnitude of the positive exponent is too large.

```
Example:
    float f = 1.2e78965;
```

E1195 unmatched left parenthesis '('

The expression contains a left parenthesis "(" without a matching right parenthesis.

E1196 expression contains extra operand(s)

The expression contains operand(s) without an operator.

E1197 unmatched right parenthesis ')'

The expression contains a right parenthesis.")" without a matching left parenthesis.

E1198 no expression between parentheses '()'

There is a matching set of parenthesis "()" which do not contain an expression.

E1199 expecting ':' operator in conditional expression

A conditional expression exists without the ':' operator.

E1200 expecting '?' operator in conditional expression

A conditional expression exists without the '?' operator.

E1201 expecting first operand in conditional expression

A conditional expression exists without the first operand.

E1202 expecting second operand in conditional expression

A conditional expression exists without the second operand.

E1203 expecting third operand in conditional expression

A conditional expression exists without the third operand.

E1204 binary operator '%s' missing right operand

There is no expression to the right of the indicated binary operator.

E1205 binary operator '%s' missing left operand

There is no expression to the left of the indicated binary operator.

E1206 expecting operand after unary operator '%s'

A unary operator without being followed by an operand.

E1207 %s

This is a internal error message generated by compiler.

E1208 Invalid binary constant

The token sequence "0b" must be followed by a binary character (0 or 1).

1.7 Informational Messages

12000 Not enough memory to fully optimize procedure '%s'

The compiler did not have enough memory to fully optimize the specified procedure. The code generated will still be correct and execute properly. This message is purely informational.

12001 Not enough memory to maintain full peephole

Certain optimizations benefit from being able to store the entire module in memory during optimization. All functions will be individually optimized but the optimizer will not be able to share code between functions if this message appears. The code generated will still be correct and execute properly. This message is purely informational. It is only printed if the warning level is greater than or equal to 4.

The main reason for this message is for those people who are concerned about reproducing the exact same object code when the same source file is compiled on a different machine. You may not be able to reproduce the exact same object code from one compile to the next unless the available memory is exactly the same.

12002 '%s' defined in: %s(%u)

This informational message indicates where the symbol in question was defined. The message is displayed following an error or warning diagnostic for the symbol in question.

```
Example:
    static int a = 9;
    int b = 89;
```

The variable 'a' is not referenced in the preceding example and so will cause a warning to be generated. Following the warning, the informational message indicates the line at which 'a' was declared.

I2003 source conversion type is '%s'

This informational message indicates the type of the source operand, for the preceding conversion diagnostic.

12004 target conversion type is '%s'

This informational message indicates the target type of the conversion, for the preceding conversion diagnostic.

I2005 Including file '%s'

This informational message indicates that the specified file was opened as a result of

#include directive processing.

12006 operator '%s'

This informational message indicates the operator, for the preceding diagnostic.

I2007 first operand type is '%s'

This informational message indicates the type of the first operand, for the preceding

diagnostic.

I2008 second operand type is '%s'

This informational message indicates the type of the second operand, for the preceding

diagnostic.

1.8 Pre-compiled Header Messages

H3000 Error reading PCH file

The pre-compiled header file does not follow the correct format.

H3001 PCH file header is out of date

The pre-compiled header file is out of date with the compiler. The current version of the

compiler is expecting a different format.

H3002 Compile options differ with PCH file

The command line options are not the same as used when making the pre-compiled header

file. This can effect the values of the pre-compiled information.

H3003 Current working directory differs with PCH file

The pre-compiled header file was compiled in a different directory.

H3004 Include file '%s' has been modified since PCH file was made

The include files have been modified since the pre-compiled header file was made.

H3005 PCH file was made from a different include file

The pre-compiled header file was made using a different include file.

H3006 Include path differs with PCH file

The include paths have changed.

H3007 Preprocessor macro definition differs with PCH file

The definition of a preprocessor macro has changed.

H3008 PCH cannot have data or code definitions.

The include files used to build the pre-compiled header contain function or data definitions.

This is not currently supported.

1.9 Miscellaneous Messages and Phrases

M4000 Code size

String used in message construction.

M4001 Error!

String used in message construction.

M4002 Warning!

String used in message construction.

M4003 Note!

String used in message construction.

M4004 Parameter %d:

String used in message construction.