

Table 6-3. Standard GLib Macros

Macro	Description
ABS (a)	Return the absolute value of argument a. This function simply returns any negative number without the negative sign and does nothing to positive numbers.
CLAMP (a, low, high)	Make sure that a is between low and high. If a is not between low and high, the returned value will be the closest of the two. Otherwise, the returned value will be left unchanged.
G_DIR_SEPARATOR G_DIR_SEPARATOR_S	On UNIX machines, directories are separated by a slash (/), and on Windows machines, they are separated by a backslash (\). G_DIR_SEPARATOR will return the appropriate separator as a character, and G_DIR_SEPARATOR_S will return the separator as a string.
GINT_TO_POINTER (i) GPOINTER_TO_INT (p)	Convert an integer to a gpointer or a gpointer to an integer. Only 32 bits of the integer will be stored, so you should avoid using integers that will take up more than that amount of space when using these macros. Remember that you cannot store pointers in integers. This only allows you to store an integer as a pointer.
GSIZE_TO_POINTER (s) GPOINTER_TO_SIZE (p)	Convert a gsize value to a gpointer or a gpointer to gsize value. The gsize data type must have been stored as a pointer with GSIZE_TO_POINTER() to convert it back. See GINT_TO_POINTER() for more information.
GUINT_TO_POINTER (u) GPOINTER_TO_UINT (p)	Convert an unsigned integer to a gpointer or a gpointer to an unsigned integer. The integer must have been stored as a pointer with GUINT_TO_POINTER() to convert it back. See GINT_TO_POINTER() for more information.
G_OS_WIN32 G_OS_BEOS G_OS_UNIX	These three macros allow you to define code that will only be run on a specific platform. Only the macro corresponding to the user's system will be defined, so you can bracket code specific to the user's operating system with #ifdef G_OS_.*.
G_STRUCT_MEMBER (type, struct_p, offset)	Returns the member of the structure located at the specified offset. This offset must be within struct_p. type defines the data type of the field you are retrieving.
G_STRUCT_MEMBER_P (struct_p, offset)	Returns an untyped pointer to the member of the structure located at the specified offset. The offset must be within struct_p.
G_STRUCT_OFFSET (type, member)	Returns the byte offset of a member within a structure. The structure type is defined by type.
MIN (a, b) MAX (a, b)	Calculates the minimum or maximum value of the two arguments a and b respectively.
TRUE and FALSE	FALSE is defined as zero, and TRUE is set to the logical not of FALSE. These values are used for the gboolean type.