

CopyProgressRoutine callback function

An application-defined callback function used with the [CopyFileEx](#), [MoveFileTransacted](#), and [MoveFileWithProgress](#) functions. It is called when a portion of a copy or move operation is completed. The **LPPROGRESS_ROUTINE** type defines a pointer to this callback function. **CopyProgressRoutine** is a placeholder for the application-defined function name.

Syntax

C++

```

DWORD CALLBACK CopyProgressRoutine(
    _In_      LARGE_INTEGER TotalFileSize,
    _In_      LARGE_INTEGER TotalBytesTransferred,
    _In_      LARGE_INTEGER StreamSize,
    _In_      LARGE_INTEGER StreamBytesTransferred,
    _In_      DWORD          dwStreamNumber,
    _In_      DWORD          dwCallbackReason,
    _In_      HANDLE         hSourceFile,
    _In_      HANDLE         hDestinationFile,
    _In_opt_  LPVOID         lpData
);

typedef DWORD (WINAPI *LPPROGRESS_ROUTINE)(
    _In_      LARGE_INTEGER TotalFileSize,
    _In_      LARGE_INTEGER TotalBytesTransferred,
    _In_      LARGE_INTEGER StreamSize,
    _In_      LARGE_INTEGER StreamBytesTransferred,
    _In_      DWORD          dwStreamNumber,
    _In_      DWORD          dwCallbackReason,
    _In_      HANDLE         hSourceFile,
    _In_      HANDLE         hDestinationFile,
    _In_opt_  LPVOID         lpData
);

```

Parameters

TotalFileSize [in]

The total size of the file, in bytes.

TotalBytesTransferred [in]

The total number of bytes transferred from the source file to the destination file since the copy operation began.

StreamSize [in]

The total size of the current file stream, in bytes.

StreamBytesTransferred [in]

The total number of bytes in the current stream that have been transferred from the source file to the destination file since the copy operation began.

dwStreamNumber [in]

A handle to the current stream. The first time **CopyProgressRoutine** is called, the stream number is 1.

dwCallbackReason [in]

The reason that **CopyProgressRoutine** was called. This parameter can be one of the following values.

Value	Meaning
CALLBACK_CHUNK_FINISHED 0x00000000	Another part of the data file was copied.
CALLBACK_STREAM_SWITCH 0x00000001	Another stream was created and is about to be copied. This is the callback reason given when the callback routine is first invoked.

hSourceFile [in]

A handle to the source file.

hDestinationFile [in]

A handle to the destination file

lpData [in, optional]

Argument passed to **CopyProgressRoutine** by [CopyFileEx](#), [MoveFileTransacted](#), or [MoveFileWithProgress](#).

Return value

The **CopyProgressRoutine** function should return one of the following values.

Return code/value	Description
PROGRESS_CANCEL 1	Cancel the copy operation and delete the destination file.
PROGRESS_CONTINUE 0	Continue the copy operation.
PROGRESS_QUIET 3	Continue the copy operation, but stop invoking CopyProgressRoutine to report progress.
PROGRESS_STOP 2	Stop the copy operation. It can be restarted at a later time.

Remarks

An application can use this information to display a progress bar that shows the total number of bytes copied as a percent of the total file size.

Requirements

Minimum supported client	Windows XP [desktop apps only]
Minimum supported server	Windows Server 2003 [desktop apps only]
Header	WinBase.h (include Windows.h)

See also

[CopyFileEx](#)

[File Management Functions](#)

[MoveFileTransacted](#)

MoveFileWithProgress

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