How can I detect that a shell item refers to a virtual folder, or to a file system inside a file?

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Shell items have a bunch of attributes. For example, `SFGAO_ FOLDER` means that the item is a folder, and it will show up in the navigation pane as a folder. Since it's a folder, you can bind to it and enumerate children. But what if you need more information about what kind of folder it is?

The other attributes `SFGAO_ FILESYSTEM`, `SFGAO_ FILESYSANCESTOR`, and `SFGAO_ STREAM` can help you distinguish the various scenarios.

The `SFGAO_ FILESYSTEM` attribute means that the item exists in the file system, and the parsing name for a `SFGAO_ FILESYSTEM` object can be used to access the corresponding entity in the file system.

The `SFGAO_ FILESYSANCESTOR` attribute means that the item *or one of its children* might have the `SFGAO_ FILESYSTEM` attribute. This attribute is used by the File Open and File Save dialogs, for example, to decide whether to filter out the item. If it's possible to reach the file system via the item, then the File Open and File Save dialogs will include the item. You may not be able to save directly to the item (such as *My Computer*), but it will let you navigate through it on the way to something you can save to.

The `SFGAO_ STREAM` attribute means that the item can produce bytes of data. If combined with the `SFGAO_ FILESYSTEM` attribute, it means that the underlying storage for the item is a file. Even though the underlying storage is a file system file, it may be exposed in the shell namespace as a folder. For example, ZIP files are file system files, but they show up in the shell namespace as a folder, so that you can open them up and drag files into or out of them.

Let's summarize this in a chart.

`SFGAO_ FILE-SYSTEM` ?	`SFGAO_ FOLDER` ?	`SFGAO_ STREAM` ?	Result	Example

			Virtual file with no data	Dial-up networking connectoid
		SFGAO_ STREAM	Virtual file with data	File on an FTP site
	SFGAO_ FOLDER		Virtual folder	Control Panel
	SFGAO_ FOLDER		SFGAO_ STREAM	Virtual folder with data	?
SFGAO_ FILE-SYSTEM			File system file with no data	Symbolic link
SFGAO_ FILE-SYSTEM			SFGAO_ STREAM	File system file with data	Traditional file system file
SFGAO_ FILE-SYSTEM		SFGAO_ FOLDER		File system directory	Traditional file system directory
SFGAO_ FILE-SYSTEM		SFGAO_ FOLDER		SFGAO_ STREAM	Virtual directory inside a file system file	ZIP file

I couldn't think of an example of a virtual folder with data.

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