Strictly speaking, a FileReferenceNumber consists of a 48-bit index into the Master File Table and a 16-bit sequence number that records how many times the entry in the table has been reused, but the sequence number is ignored when using FSCTL_GET_NTFS_FILE_RECORD.Therefore, to retrieve the file record at index 30, the value 30 should be assigned to FileReferenceNumber. If the table entry at index 30 is empty, FSCTL_GET_NTFS_FILE_RECORD retrieves a nearby entry that is not empty.To verify
that the intended table entry has been retrieved, it is necessary to compare the low order 48 bits of FileReferenceNumber in the output buffer with that in the input buffer.
The remainder of this chapter describes the data structures that represent the ondisk structure of NTFS. It includes a sample utility that interprets the data structures to recover the data of a deleted file.The descriptions of the on-disk data structures also serve to explain the contents of the FileRecordBuffer returned by FSCTL_GET_NTFS_FILE_RECORD.