

CANDY FILE SYSTEM MECHANISM AND REQUIREMENTS

GENERAL

This document must be read in conjunction with *the Candy Network Installation* document. The Candy data files and licence mechanism are supported on Win32® File systems.

RECORD LOCKING

General

Candy uses the Windows API *LockFile* to ensure exclusive access to regions of a data file. Candy uses the mechanism to ensure that data during file write operations do not get corrupted and to identify and assess the number of Candy users online. Non Windows file operating systems that serve the Candy data must support this function fully.

Lockfile

The Windows *LockFile* function locks a region in an open file. Locking prevents other processes from accessing the file region. Locking a file region gives the locking process exclusive access to the specified region. The Candy application uses the *LockFile* function to establish if a file write can take place if data files are both shared and accessed by more than one user at any given moment in time.

FILE LOCKING

General

File sharing in Windows is determined by the *sharing mode* parameter in the *CreateFile* function that is used to open files. The requested access to a file can be read, write or both. An application cannot request an *access mode* that conflicts with the *sharing mode*. The Candy application uses the requested *access* and *sharing mode* to control access to data files. Non Windows file operating systems that serve the Candy data must support the Windows methods of access and sharing modes fully to ensure safe data read and writes.

CreateFile

Files can be opened to allow sharing the file for read, write or delete access. Subsequent attempts to open the file must be compatible with all previously granted sharing access to the file. When the file

is closed, the sharing access restrictions are adjusted to remove the restrictions imposed by that specific file open. When a file is open, subsequent file opens will fail if the access and shared modes are not compatible. The Candy application uses these mechanisms to determine if data files are accessed in exclusive mode or shared mode.

FILE ATTRIBUTES

General

The Candy application uses the Windows file attributes to protect the system and data files from 3rd party applications and accidental user events. Non Windows file operating systems that serve the Candy data and licence must support the Windows NTFS file attributes below.

Windows NTFS

The Windows file operating system supports the file attributes Archive, System, Hidden and ReadOnly. Non-Windows file operating systems have compatible or equivalent file attributes that can be enabled or simulated in their configuration settings.