A Report submitted in partial fulfilment
of the regulations governing the award of
the Degree of
BSc (Honours) Computing for Business
at
Northumbria University

Files Catalogue System
for
Removable Storage
An implementation of Java Native Interface (JNI)

YIP WAI MENG (99107587)

2004/2005
ABSTRACT

In current time, the usage removable storages are getting more common and the different platforms are rapidly emerge and submerge in the market. As a result, the author captured the needs of system to catalogue the contents of these removable storages to ease users' tasks of managing them and making use of Java Native Interface (JNI) to maintain the system's portability.

This system is implemented to catalogue the contents of removable drives to ease users' tasks for searching and maintaining these contents. The system will provide a list of valid removable storages for users to choose and to catalogue its contents. The system can retrieves these contents from the database when needed. It also provides a searching feature for users to search for the labels of the storage media where particular files or folders are located.

Java Native Interface is an API provided by Java to enable Java applications to communicate with native languages and vice versa. This system retrieves removable storages' information by accessing a C++ implemented Dynamically Loadable Library (DLL) with JNI as an interface. The DLL retrieves the information of the drives available to the system with the use of libraries provided by Windows platforms; information is then filtered so that only information of removable storages is sent back to the Java system for processing.

As a result, the author concluded that the overall objectives of the project had been achieved. The author hopes that this system will be a useful application especially when managing large numbers of removable storages. The author is also looking forward for future enhancements to make it more powerful with more features and making it deployable in any other platforms.