

Compilation of Executive Summaries

JoXer

JoXer® is a rapid **application generator** that creates **rich-GUI** applications. JoXer applications use **XML** and XML databases for data representation and storage.

JoXer has been designed, from the beginning, to allow end-users to extend JoXer applications by themselves, in a safe way, and be assured of the correctness of the resulting application.

JoXer is written in **Java 6 SE** and uses “named components”, also defined in XML, to specify what is to be done rather than how to do it. Applications defined in such a way can be **statically verified**, and a static verifier is part of the JoXer package.

Patient-Centric Medical Data Systems.

In a patient-centric medical data system, the patient is the owner of all medical data about herself, and constantly carries it on her person, **encrypted**, in a storage device (**USB memory-card, cellular phone**, etc.). The patient can accumulate all her medical data from cradle to grave, and can control it's visibility for each care-giver. The software is self-contained, includes program, data and images, and does not requires a central connection to operate. Thus, the patient is empowered to assume primary responsibility for personal health, improving the ability to adjust life-style to health requirements.

Hidden and Secure

HiddenAndSecure® is a technology for securing data on a memory device such as a **USB disk-on-key**. The security code resides on the memory device, and protection is assured on every computer on which the memory device is used, even if that computer is already compromised. Access controls can be defined by file types, names and sizes. Usage and time limits can established, and destination computer(s) defined by hardware address. The same memory device can be used on all major operating systems. Usage can be tracked on a per-access and per-computer basis.

Global Encrypted Backup.

A system for creating a distributed and encrypted back-up of information on a personal memory device, such as medical history. The encrypted data is distributed to several servers which reside in different legal jurisdictions, none of which contains a portion of the data which can be decrypted by itself. Redundancy is used to enable re-creation of the data even if not all the saved portions are available.

In the approaching age of personal DNA sequencing, this capability is essential for preempting any genetically based discrimination mechanism using personal DNA data.

The Möbius strip principle

JoXer applications are XML processors. And JoXer applications are defined in XML. Therefore a JoXer application (the development application) can be used as the development tool for other applications. But development and use now have identical work paradigm, and development merges into use.

This is the Möbius strip principle: JoXer has two sides (use and development) as does the Möbius strip. But, again like the Möbius strip, it is a single surface (usage paradigm) and the developer/user may move from one side to the other, seamlessly.

