UIOS Development Project – Proof-of-Concept Prototype for Integrated Universal Information Management Framework

1. Project Summary: The UIOS project aims to provide a flexible infrastructure for sharing and managing information. The UIOS will run on all major computer operating system platforms. The UIOS software and services provide numerous information oriented extensions to enable for the sharing, transfer, organization and security of all designated information types. A core value of this project effort is to provide a secure platform for independent software developers to rapidly produce innovation and to create within an environment that will protect their IP investment.

2. Software Development Project: The development efforts will consist of creating several core applications and services as outlined below. These services and software will be accessed by the user as well as by applications through a complete API.

3. Software Process Patent Areas:

1. Processes related to filters and containers
2. Processes related to communications between UIOS enabled devices (ICD)
3. Processes related to proprietary protection of UIOS developers.

4. Core UIOS Features, Software and Services:

1. UIOS Filter creation and management which allows for virtually unlimited flexibility in data and information management and storage.
2. Standards for information distinction and categorization
3. Software and service type daemons running on local machine that act as the interface for software applications and users utilizing UIOS capabilities
4. Free applications designed to run on top of the UIOS platform

* Universal Email Client featuring encryption, security, service extension capabilities, and access anywhere.

5. **Filter Services Daemon (FSD)**: An always running service providing simplified access to all UIOS features and services, available to local applications and users.
6. Proprietary, cryptographic secure authentication of users, applications and services that are integrated into all aspects of the OS. Authenticate once, accesses everywhere.

5. Main OS Applications:
1. **Filter Explorer** (core application for designing and managing Filters)
2. "***InzoBot"* Tagging Assistant**: software application to assist in creating document associations) Inzo Bot is the information organizing bot. Basically, it guides and supports the user in creating associations between different iBlocks.
3. "***InzoBot"* Clipboard Assistant**: a storage container onto itself with quick call-up, history, and data type conversion)
4. "***InzoBot"* Metasearch**: core search application for finding information **anywhere** – could be branded with Google

6. Core OS Service Daemons:
1. Filter Services Daemon FSD (UIOS.DLL)
This is the master service that communicates with all other UIOS services. Applications developed to run within the UIOS environment will communicate primarily with the FSD which will in turn communicate with the other core services (ICD, ISD, UAD).
2. Information Communication Daemon (ICD)
Remote gateway communication daemon service - utilizing specified port(s) for communications and maintaining connections with other UIOS enabled devices
3. Information Storage Daemon (ISD)
All types of data storage, tagging, & conversion including all types of Containers. Maintains an internal map of the native file system and links iBlock idents to the iBlock data (which may or may not be local)
4. User Authentication Daemon (UAD)
Universal authentication and authorization daemon allowing for authenticate once, access everywhere allowed.

Definitions:

Information Unit – iBlock:
An information unit is a universal document with an identification record **(contained within the UIOS file structure)**. The identification records are contained within the iBlock database (similar to a file allocation table).

An iBlock can contain data for any one of the following **information types**:
* Document
* Spreadsheet
* Custom Database (or should it be the database record?)
* Presentation (PowerPoint or Impress)
* Image
* Email (Basic text or Rich text)
* Internet web page
* Bookmark

These are the building blocks of information and are encapsulated in one singular definition. Each iBlock is managed and tracked by the local UIOS ISD and is tagged with many attributes.

iBlock Database and Attributes:
* World-wide location
* User or application given name
* Information Type (see above)
* Owner (application or user)
* DocuNum Unique enterprise and/or world-wide document number
* Subject (Metatag)
* Date/Time creation

* Date/Time last update
* Source Location
* Source Author
* Version Number
* Application that created the iBlock
* Creating application version number
* Source operating system
* Source operating system version number
* Popularity rating (based on how often accessed)
* Multiple Associations to projects, applications and people (relational database)
*** An sha1 hash of the iBlock information data**

iBlock databases can be moved, combined, and shared. They can be stored locally, or publically. They can be placed on rented servers and accessed from anywhere through authentication.

Filters:
Filters are methods to copy, send and convert information to Containers, Applications and Service Daemons. Filters can be customized in an unlimited fashion using the Filter Explorer.

Containers:
Containers, or data destinations, are any one or combination of the following:
* local storage
* remote storage
* local database
* remote database
* conversion applications
* image share servers (publish)
* printers
* email destinations
* local email client
* application/software utilizing the UIOS API
* local clipboard
* backup with versioning

IBlock Operations:
* Block Write: the act of executing a Filter write
* iBlock Read: the act of executing a Filter read
* Step iBlock version: create a new copy of the iBlock and step the version number
* iBlock Lock/Unlock: check out or lock an iBlock to prevent data loss.