

General High-Level Overview

for:

QOIN (KO-IN) and Koins

Version 1.1

03.Mar.2015 mjd

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Preface

This document consists of excerpts from a workbook and is comparatively high-level. This is not to be construed as a formal detailed design document. It should be understood that there are many points in active development, not finalized, and the architecture is intentionally flexible and adaptive.

Here are some of the many functions and features.

QOIN (formerly "KOIN") = **K**nowledge **O**bject **I**ntelligence **N**etwork, another term for the iQs, a highly asynchronous, amorphous parallel distributed "cloud" network of agents and programs cooperatively processing massive streams of data extracted and tracked across the internet.

A parallel distributed processing intelligence network ("PDPIN") operating within the "CIoT" - the "Cloud of the Internet of Things" -

making use of ubiquitous and generic devices including phones, tablets, appliances, automotives, wearables, and other types of devices, and employing a class of new devices known as Koins.

CUBIT = a superclass of software and hardware entities performing semi-autonomous intelligent functions and comprising a massively parallel, distributed, open environment for data acquisition, collection, identification, coordination, sharing, and constructive reasoning that produces knowledge that can be distributed and shared among the network for the benefit of the humans and systems that operate the various devices.

Koins comprise a genus within a particular order and family of cubits.

There are four species of koins: **iKoin** (interaction-focus), **pKoin** (process-focus, including sensor & actuator functions), **mKoin** (memory-focus) and **xKoin** (decorative, advert focus).

Preface (continued)

All koins have certain basic common functions for communication among koins and with other “CIoT” devices.

iKoins have a control functions through a touch-sensitive display region and also audio and visual functions for the benefit of human (principally) users. In addition there are capabilities for extensive memory and inter-koin shared processing.

pKoins are specialized for particular processing tasks and contain modules for one or more functions involving sensing/detection/identification of substances, objects, environmental conditions; and/or actuation/dissemination of some physical agent into the environment' and/or enhanced/specialized co-processing of digital information.

mKoins are specialized for basic memory functions and also are especially designed for human user decorative, social, and commercial functions.

Koins, along with other Cubit entities, make extensive use in their PDPIN activity of a class of CUBIT known as **LUX** – software modules that comprise agents (“binars”) ranging from elementary simple functional entities serving to communicate and share data to more complex entities that perform pattern recognition, anomaly detection, search, alerts, and a number of synthetic intelligence functions including rule-based, statistical, and self-learning algorithms.

With respect to the generic “CIoT”, koins are merely another class of comparatively small units that can function individually or in physical aggregates, either physically connected or completely discontinuous and communicating wirelessly. The iQs (QOIN) as an Intelligence Network with multiple databases (knowledge bases) operates distinct and independent of any particular group of devices, internet or cellular protocols, or operating systems.

Preface (conclusion)

Applications for koins vary and may be created easily and even dynamically using the LUX architecture and software application tools that are associated with the different devices and components (e.g., MEMS sensors, actuators, cameras, displays, communication protocols) that are included in different types of koins.

As one example of koin use, one may consider koins that are carried by a human user in an automobile or leisure boat. The koin obtains data from various “CIoT” devices that may be accessible – information on indoor/outdoor/water temperature, humidity, UV, weather forecasts, storm alerts, and human biometric data (e.g., glucose levels, blood pressure and pulse), as well as personal EHR, medication, and preference data.

Through the koin, data is assimilated, aggregated, and then processed through one or more applications that may be resident on phone, tablet, laptop, embedded-PC or, as will often be the case, through the “Cloud” via server resources that comprise the back-end and high-performance computing of the KOIN.

The human user(s) of the associated koin(s) may be advised, warned, suggested, and otherwise informed of actions to do, to avoid, and also opportunities pertinent to health, security, leisure, shopping, and a variety of activities that arise as recommendations on the basis of the intelligent reasoning and pattern-association performed through the KOIN by the various cybots (binars; “computational agents”).

Technical, historical roots of CUBIT, LUX and components thereof, including KOIN and the koins:

OOD, OOP, LISP, Functional Languages, CSP, OCCAM, PROLOG, MIMD and SIMD, Transputer, PDP, RETE, Neural Networks, PCA, Bayesian Networks, BOINC, OSM, OSML, OpenStream, vMessaging, CDP, MANET, NomadEyes, CEBIT, PRMC, PALLAS, and more



iKoin Alpha.01



DESIGNS BY LBORIGINAL.COM

[SPECS]

BlueTooth
RFID Chip
NFC
8GB Memory
MicroCam
(2) Micro-USB Ports
Microphone
Headphone Jack
MicroSD Card
Touch Screen
5cm Diameter
0.5cm Height

Fully Customizable Surface
(Personal etching, embossing,
imprinting, and material)
Links with Phone App



DESIGNS BY LBORIGINAL.COM

Note that the SPECS as listed are incomplete in this graphic; among other points, the 8GB figure for onboard memory is the Minimum Mem; projected memory range extends to 128GB for certain Koin varieties (pKoins)



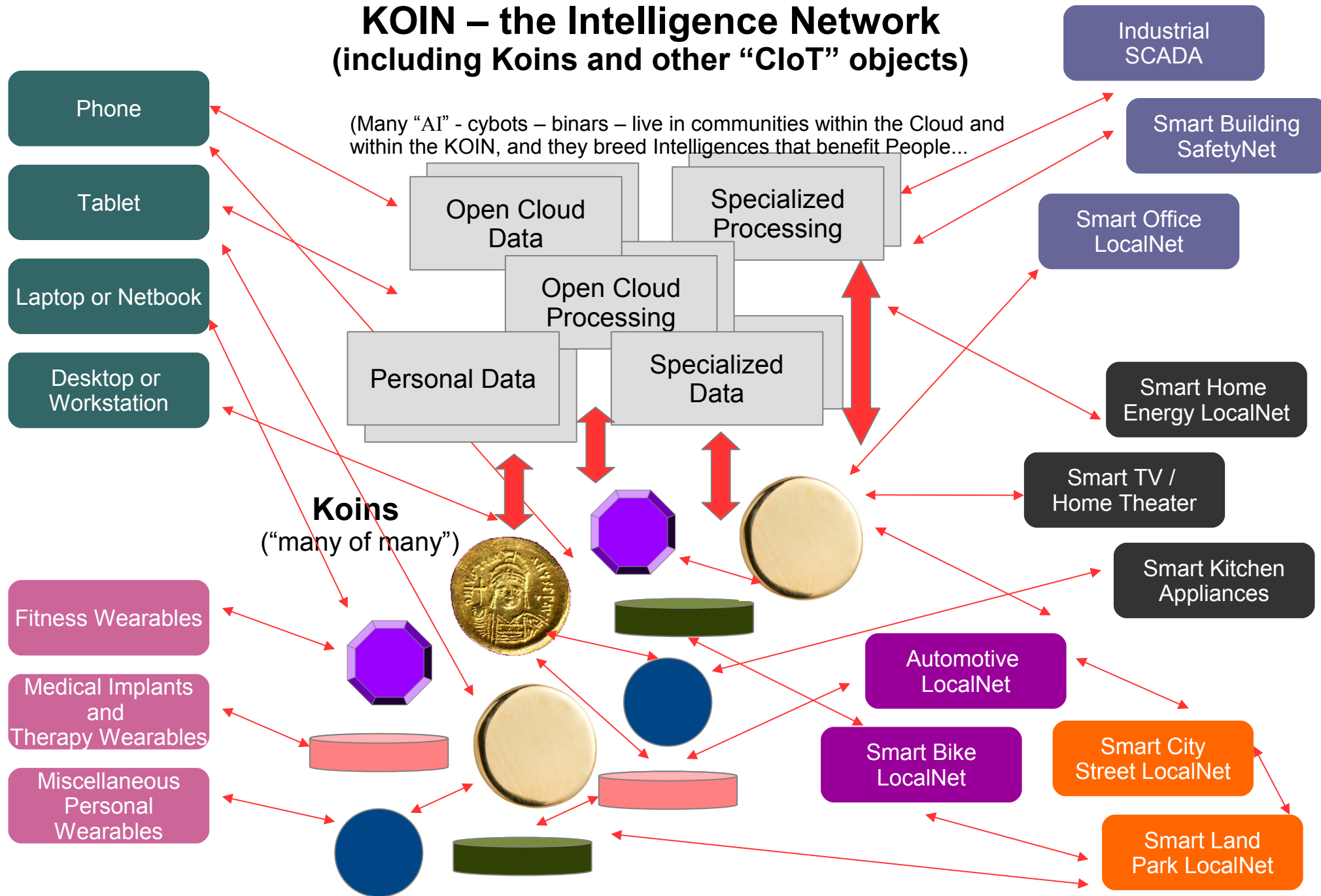
This is a Koin, specifically an iKoin, which provides interaction and communications.

This is another variation on basic iKoin style, taking into account the comments on the geometry made in earlier slides here.

See Notes in these slides about surface features and decorations (“skins”).

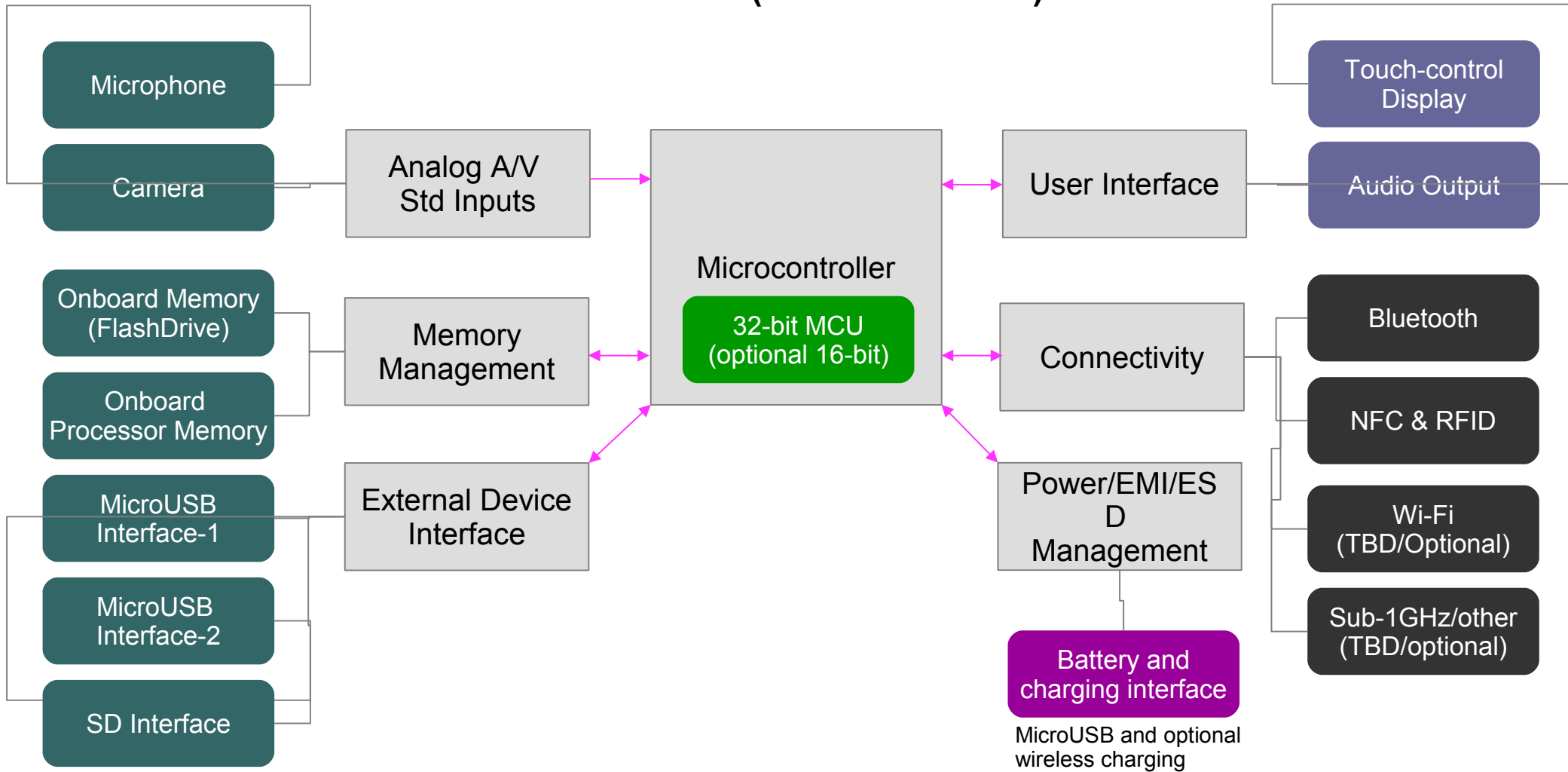


KOIN – the Intelligence Network (including Koins and other “CloT” objects)

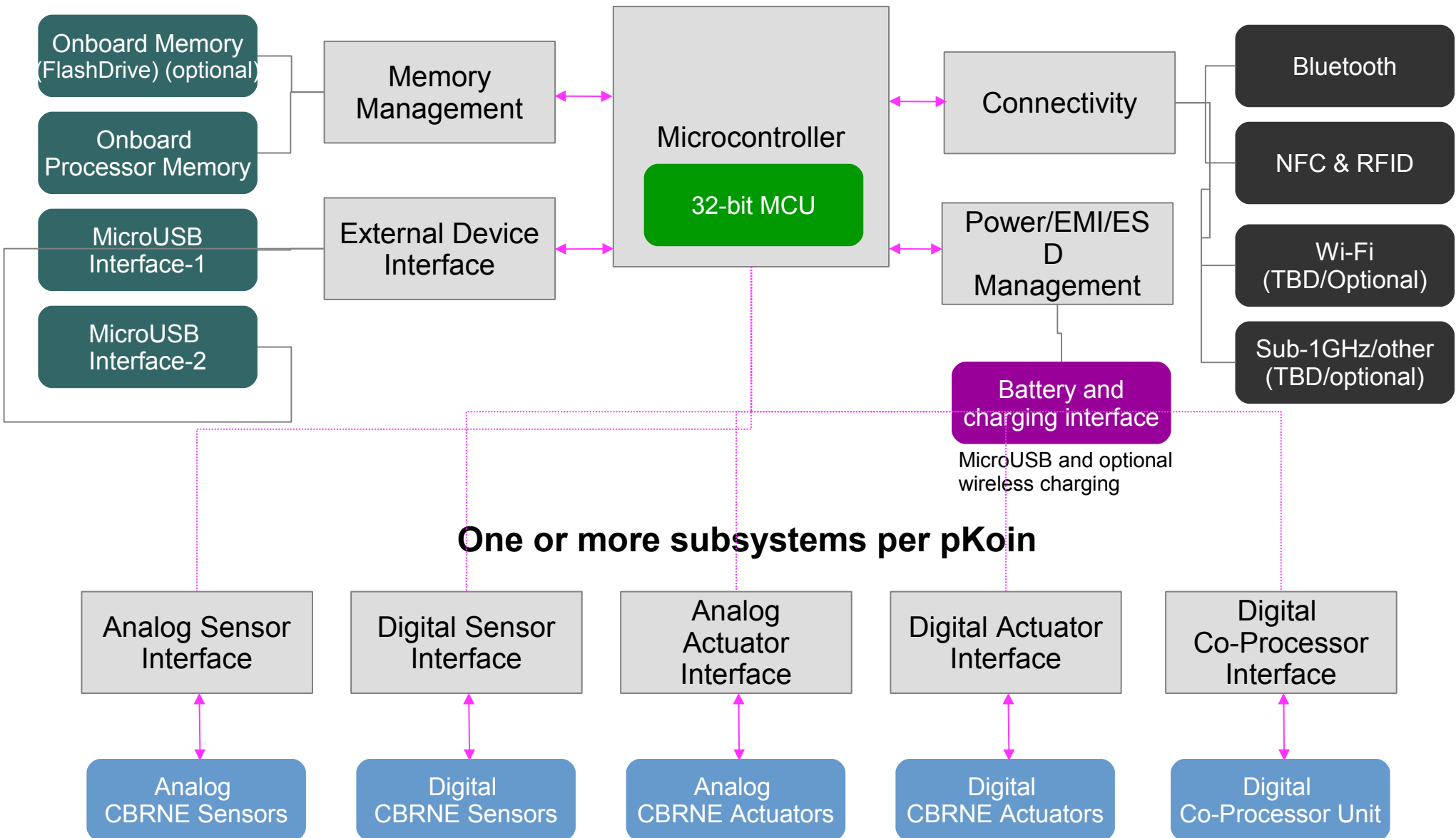


(Koins of one person and/or those of others who are in accessible social circles – PDSNs - “purposive directed social nets”)

Basic iKoin (interactive Koin)

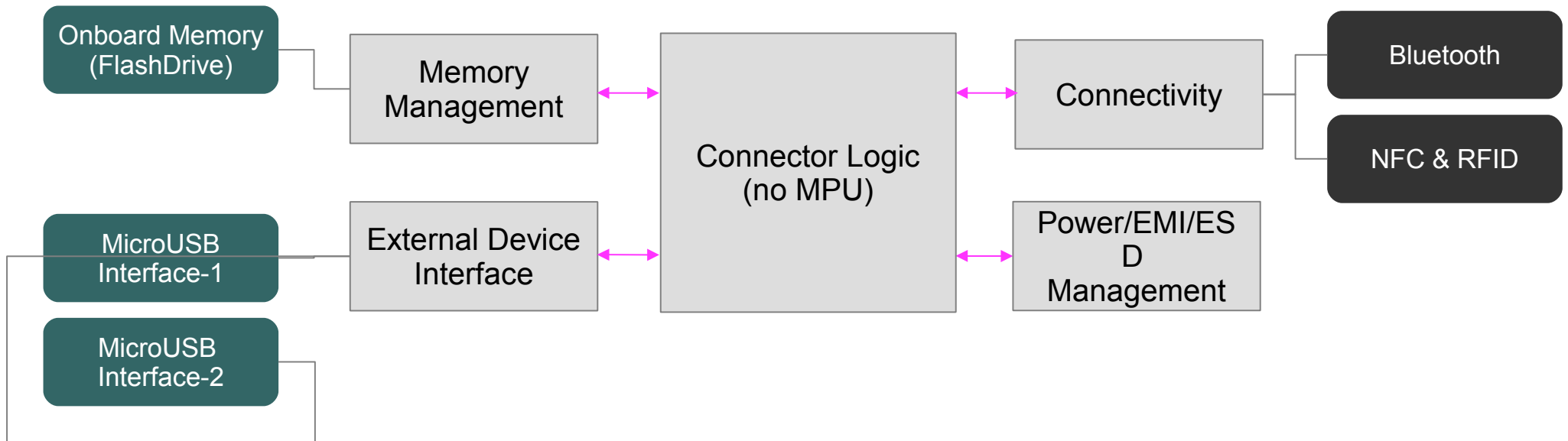


Basic pKoin (processing Koin)



Generally, a given pKoin variety will have only one particular sensor, actuator, or co-processing subsystem per pKoin.
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Basic mKoin (memoryKoin)



Basic Koin Component Assembly

Koin CORE

**Electronics
subassembly
(inside)**

**Plastic shell
("Dermis")**



Skins fit tight over the core "Dermis" and are generally Permanently Bonded



Skins may be composed of precious metals and for high-end decorative Designer Koins may have hand-crafted artwork

Variations of Koin "skins" ("Epidermis") --

The thin plastic or metallic or composite "skin" obverse and reverse shell-halves fit and adhere to the core koin and are bonded permanently or semi-permanently.



Variations of Koin "skins"

Koin differentiation and Multi-Koin Assemblies (Older Illustrations)

The following slides (Jan. 2015) illustrate the basics of Koin architecture and also some points about the optional use of Koins as “LEGO” blocks in multi-Koin assemblies for generally dedicated-purpose applications, such as for sensing and identification of multiple CBRNE substances in an industrial, military, hospital, emergency/disaster, or other special environment.

Note that koins can be used singly, without any other device, in mKoin-mode memory-intensive functions, or with other individual koins or CIoT devices as such a phone, tablet, laptop or desktop, or with wearables, appliances, automobile and home theater systems, etc.

Koins can also be used for very powerful dedicated or ad hoc PDPIN constructs, and in some cases, as illustrated here, koins will be combined into arrays of iKoins and pKoins.

Koins do not need to be physically in contact with one another in order to exchange data and to participate as components within a small or massive MIMD type processing array.

Employing both MANET and BOINC principles and standard open-source code, koins can be employed to assemble dynamic or static Massive Processing Networks while still functioning in very individual capacities and means for personal use which can range from the serious-side of health and medicine, or safety and security, or energy management, to freeform entertainment, gaming and leisure functions of every imaginable sort.

Comments, mjd, 21.jan.15

Sizes --- for Std and other sizes of Koins
– see NOTES in following slides here

Work In Progress
Preview Only

Koin overall dia. s/b 5.0cm
dia. for Standard Koin

Active panel (“C2”) s/b 2.5cm
dia. for Standard Koin

Located on side, 90 deg from both microUSB ports, is
the MicroSD port (not shown in such a drawing as this)

1cm
and
0.5cm
types

Active panel (C2) surface must be flat, and the rest of the obverse (top)
s/b slightly convex and beveled, somewhat like in this drawing and also
in the earlier (Koin_Build_005_03) – Reverse (bottom) s/b the same
contour as far as the surface.

MicroCam is on the top
surface, somewhere that
looks attractive to the
geometry, approx. ½ way
between edge and the Active
Panel (C2)

Yes, leave a mic in the design, but make it look
more like a mic and not some pin-hole, and
move it in accord with other Notes here (in line
with microCam, on the side, 90 deg btw
microUSB ports and 180 deg from microSD

MicroUSB

(Charging/Device Link)

MicroPhone

Two (2) MicroUSB, precisely
180 deg apart from one
another

Other ports on a std Koin: None, since power is through MicroUSB
and there are now two (2) ports. Ext mic and Ext spkrs
(headphones) may be used but they must go through MicroUSB
also. Any other interface types must go through std converter to
MicroUSB.

Notes on arrangements of the geometry (2)

REVERSE

Layout of features (ports, etc. should be “balanced” in terms of geometry, appearance, and utility (ergonomics))

MicroUSB port 180 deg from the other MicroUSB

Passive Panel aka “D2” (Data Distribution) - The center region on the Reverse is not a physical interface but it is important. The NFC electronics are just above this, inside. This is the region that is placed in contact, also, with certain special other Koin's such as those with some CBRNE or other EM sensing capabilities.

DATA is transferred between Koin's in this way by NFC, as opposed to hooking them together with microUSB-to-microUSB connectors.

This center surface is magnetized, so that a Koin can be affixed to a steel surface, or in contact with another Koin (rev to rev surfaces bonding)

MicroUSB port 180 deg from the other microUSB

Mic is on the side of the Koin, aligned with MicroCam, at 90 deg from SD/USB ports also – this is to make it easier for the user if he/she is using the cam and adding an audio caption – think of how one would hold the Koin by the edge, fingers at the SD and USB areas, pointing the cam at the target, and the mic is close to the person's face.

Notes on arrangements of the geometry (1)

Layout of features (ports, etc. should be “balanced” in terms of geometry, appearance, and utility (ergonomics))

OBVERSE

MicroCam is halfway between C2 and edge, and at 90 deg from MicroUSB ports and 180 deg from MicroSD

MicroUSB port 180 deg from the other MicroUSBport

MicroSD port 90 deg from each MicroUSB

Active Panel aka “C2” (Command and Control) – a finger-swipe interactive surface with optional display capabilities for advanced Koins

Mic is on the side of the Koin, aligned with MicroCam, at 90 deg from microUSB ports also – this is to make it easier for the user if he/she is using the cam and adding an audio caption – think of how one would hold the Koin by the edge, fingers at the microUSB areas, pointing the cam at the target, and the mic is close to the person's face.

MicroUSB port – note that there are two, 180 deg apart

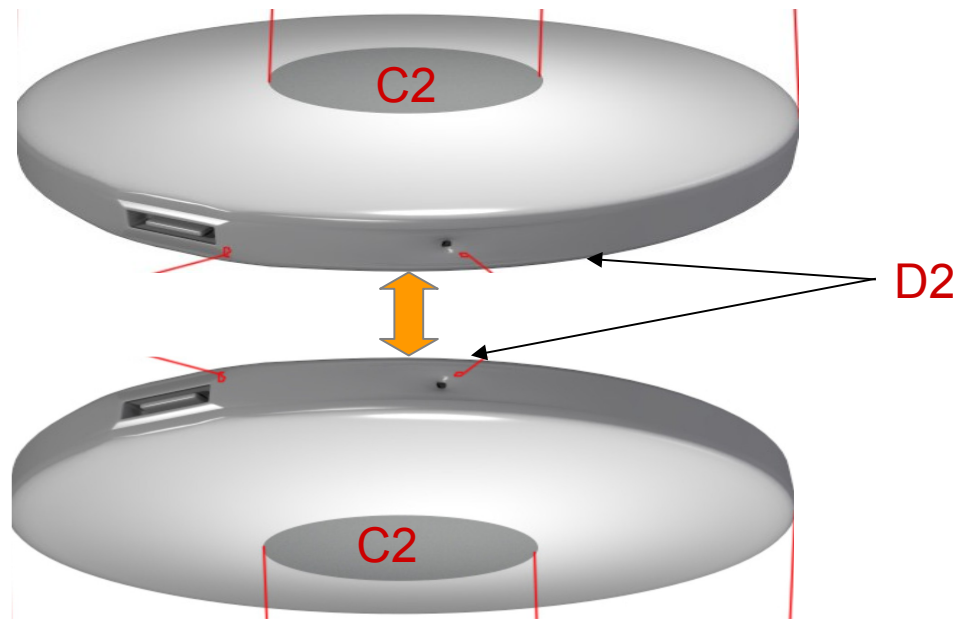
How Koins can be assembled (stacked) together

NOTE!!!

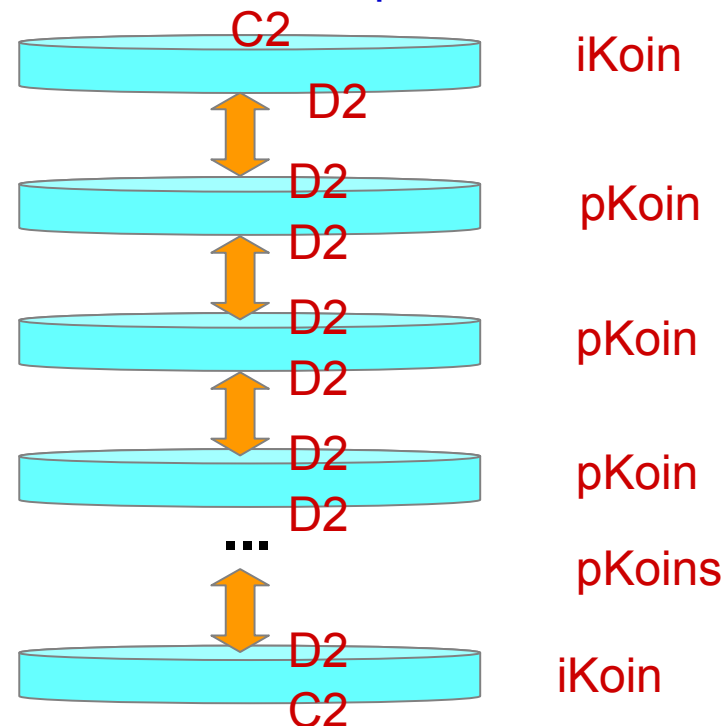
Koin fundamental types are Interactive (**iKoins**) and non-interactive (functional, dedicated, special - processing Koins or **pKoins**)

Two iKoins can be connected, stacked, bound, using their reverse sides, the D2 center panels which are magnetic. That's all – any other stacking must be through the velcro clip accessories that will be provided with Koins. This is obvious – there are no other D2 surfaces, and the C2 surfaces must be clear, exposed, for the user to make use of them.

But if pKoins are used, then one can have a theoretically endless stack of Koins, and up to 2 iKoins in this stack, one at each end of the stack.

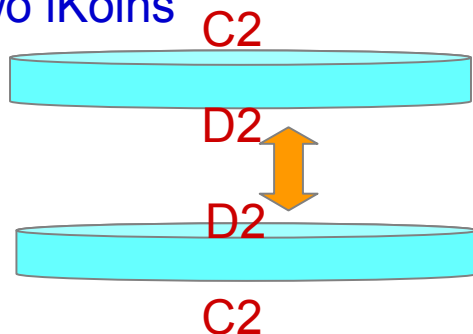


1 or 2 iKoins and n pKoins



Koins “stick together” via D2-D2 connections with the low-strength magnetic surfaces of the D2 panels. Koins can also be data-connected from one microUSB port to another, and physically with small velcro clip accessories – See Next Slide for More Info

Two iKoins

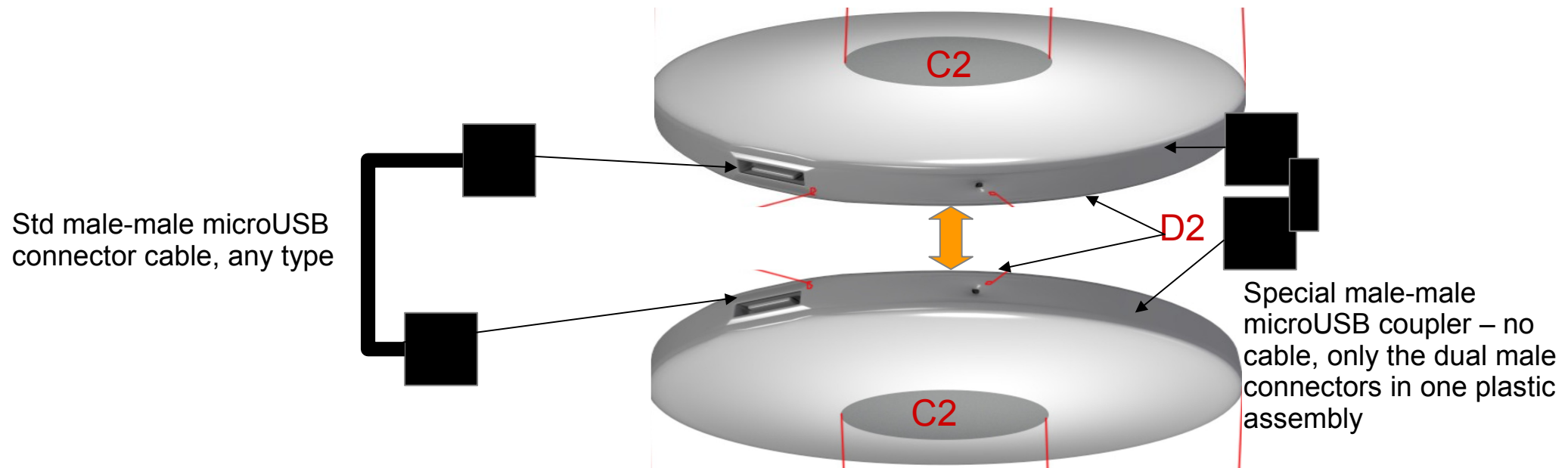


More on Koins stacking and interconnects (physical and data connections) (1)

Main way to connect Koins is D2 to D2, using the magnetized D2 surfaces.

But special microUSB clips can be used.

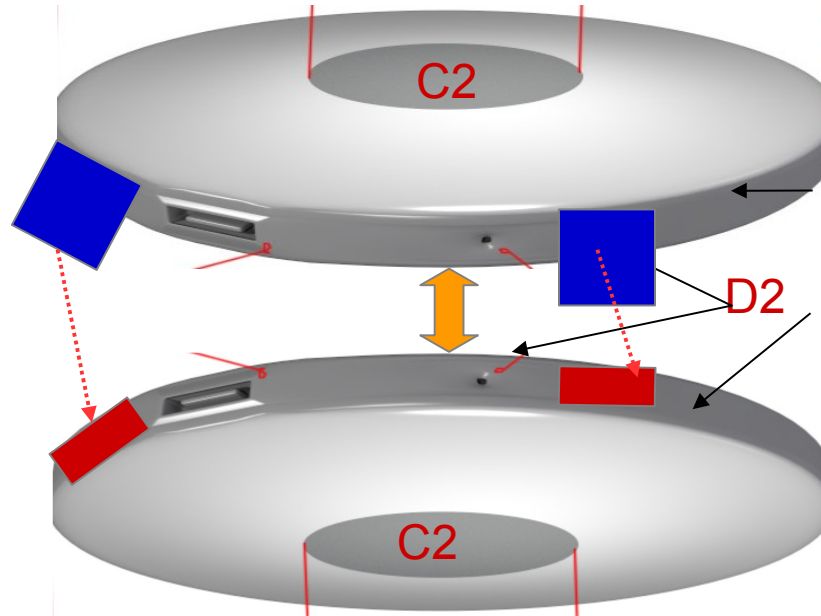
Or (next Slide) special velcro clips.



MicroUSB to MicroUSB (male, male connectors) for Data, but also can be for physical bonding, since there are Two (2) MicroUSB ports, directly opposite each other. Using short, non-cable, special-for-Koin microUSB clips (indicated at right), this provides a rigid connector between two Koins. Using two clips, one for each now-adjacent pair of ports, then two Koins are reasonably well-connected – this MAY, after some experimentation with actual physical devices, be sufficient, although the magnetic D2 surfaces seem like a good option – there are just some concerns about how the magnetics will affect the NFC performance.

More on Koins stacking and interconnects (physical connections) (2)

Connecting Koins using special velcro clip accessories.



The user gets a plastic-wrapped packet with two types of velcro pads. One type (passive, denoted by red), you peel off the plastic coating on one adhesive side and stick it to the side of a Koin. The second type (active, denoted by blue), you do the same and stick it on another Koin.

The velcro from the active pad extends far enough to attach to the velcro on the passive pad. Typically one would use two pad-pairs on each pair of Koins, and situate them @ 180 deg apart.

NOTES – these supersede earlier notes, if there is any conflict, then these take precedence, but otherwise, the older notes also apply.

Koin functions and device features (# = std in all Koins)

- # RFID (passive, but note: also active in some higher-end Koins) [radio-freq identification]
- # NFC [near-field comms]
- # Flash onboard permanent memory – 8GB and upwards to 128GB
- # MicroUSB (2 ports)
- # MicroSD port (1)
- # Built-in microphone
- # Active panel for C2 cmd-and-control interface (different sizes in different Koins)
- # MicroCam (different resolutions in different Koins)

Koin sizes (all measurements in metric)

For now, we will have:

Type --- Size (physical dimensions) ----- Name (tech) ----- Other points relevant to image, style, graphics

iKoin	Standard (5.0 dia., 1.0 height/thickness)	alpha	maybe only 0.5 height if we can manage it w the electronics
iKoin goodies	Double (10.0 dia., 1.0 height/thickness)	beta	more memory, better microCam, larger C2 panel, other
pKoin	Standard (5.0 dia., 1.0 height/thickness)	gamma	
pKoin	Intermed (7.5 dia., 1.5 height/thickness)	delta	
pKoin	Double (10.0 dia., 2.0 height/thickness)	epsilon	

Taking a look into what's inside the “Cloud” of the iQs (QOIN, “KOIN”)

The following slides illustrate snapshots of some of the back-end Engines that are in addition to many commonplace, standard, and both open-source and proprietary, licensable software packages and tools which make up the Synthetic Intelligence Engine Room of the iQs (QOIN).

Please note carefully:

The following collection of images is not intended to be a complete nor self-explanatory presentation. These images have been collected from several different systems and various published materials. They need to be accompanied by a speaker's narration, or a large set of notes and references to the systems, the algorithms, the information being processed.

The intent here is to have a few images together in one place, and then to get to Dialog and Explication.

APIS

Public Info and Status Updates

All values either real-time or updated via autonomous queries on a periodic basis

8149 p_expressions created	427 binars created	763 h_relations created	268 active binars in botnet groups
13216 URLs visited	4895 Files browsed	14459 MBytes explored	2327 MBytes assimilated
2734 blogs accessed	866 videos accessed	937 content-links established	37 largest binar community
16822 descriptor-set elements	782 artifact count	596 functions defined	108 binars mutated

Curious to know what this is all about?

Simple answer: Autonomous agent networks, self-programming, self-learning, self-mutating, trained and then training each other, to discover interesting stuff easier, faster, more accurately, unconstrained and freely adaptable to all sorts of applications, from "A" to "Z" and even beyond.

Want more in depth? Contact the Doctor for an appointment.

APIS Development - the Main Interface

Fundamentals and Abstract Ops

- [Add p_expr \(raw input\)](#)
- [Add h_relation \(structured form\)](#)
- [Compare processes \(objects\)](#)

Portal Ops

- [Experiment with **aioue!** icon/image personality builder](#)
- [Work through **aioue!** portal](#)

Search/Transform Ops I (non-Geo)

- [Pattern Search \(open\)](#)
- [Pattern Search \(syn/anti\)](#)
- [Anomaly Search](#)

Search/Transform Ops II (Personas)

- [People Search \(syn/anti\)](#)
- [Transform Persona](#)

Search/Transform Ops III (GeoSpaces)

- [Explore GeoSpace](#)
- [Search GeoSpace](#)
- [Transform GeoSpace](#)
- [Reverse Transform GeoSpace](#)

Compose I (Processes/Objects)

- [Compose REQUEST](#)
- [Compose SHARE](#)
- [Compose COLLECTION](#)

Compose II (Activities)

- [Compose TRADE](#)
- [Compose PROJECT](#)
- [Compose GAME](#)

Compose III (Groups)

- [Compose RESOURCE](#)
- [Compose ALLIANCE](#)
- [Compose TEAM](#)

Compose IV (Engagements)

- [Compose MEETING](#)
- [Compose GATHERING](#)
- [Compose EVENT](#)
- [Compose CONTEST](#)

iBank Ops

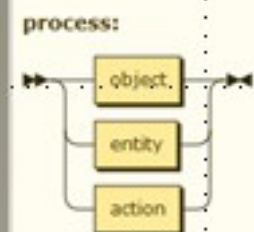
- [iBank S-Deposit](#)
- [iBank S-Manage](#)
- [iBank X-Trade](#)
- [iBank S-Removal](#)

Binar Ops

- [Binar CREATE](#)
- [Binar MOD](#)
- [Binar DELETE](#)
- [Browse binar activity logs](#)

Admin Aux-Ops (Other)

- [Browse **aioue!** stats](#)



process ::= object
| entity
| action

no references



p_expr ::= '(' signifier_set descriptor_set ')'

no references

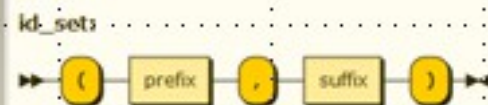


signifier_set
::= '(' id_set ptype_set ')'

referenced by:
• p_expr



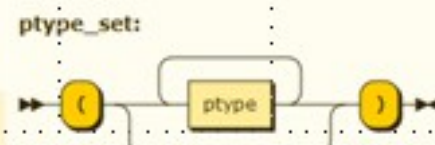
descriptor_set
::= '(' alpha_set beta_set mu_set tau_set ')'



id_set ::= '(' prefix ',' suffix ')'

referenced by:

• signifier_set



ptype_set
::= '(' ptype ')'

referenced by:

• signifier_set



alpha_set
::= '(' attrib_op_tetrad ')'

referenced by:

• descriptor_set



magnit_op_tetrad:

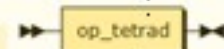


magnit_op_tetrad
::= op_tetrad

referenced by:

• mu_set

target_op_tetrad:



target_op_tetrad
::= op_tetrad

referenced by:

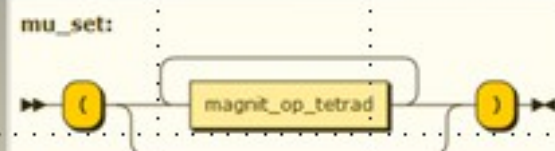
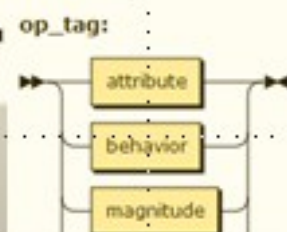
• tau_set



op_tetrad
::= '(' op_tag funct_call c ')'

referenced by:

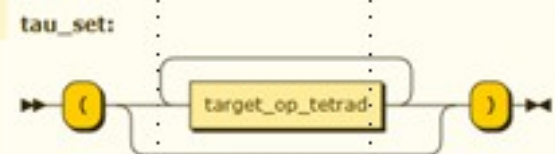
• attrib_op_tetrad
• behav_op_tetrad
• magnit_op_tetrad
• target_op_tetrad



mu_set ::= '(' magnit_op_tetrad ')'

referenced by:

• descriptor_set

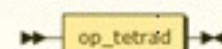


tau_set ::= '(' target_op_tetrad ')'

referenced by:

• descriptor_set

attrib_op_tetrad:

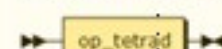


attrib_op_tetrad
::= op_tetrad

referenced by:

• alpha_set

behav_op_tetrad:



behav_op_tetrad
::= op_tetrad



Illustration Scenarios

[Browse System](#)[NTDB Sandbox](#)What LUCY (01) Does

View LUCY Behavior:

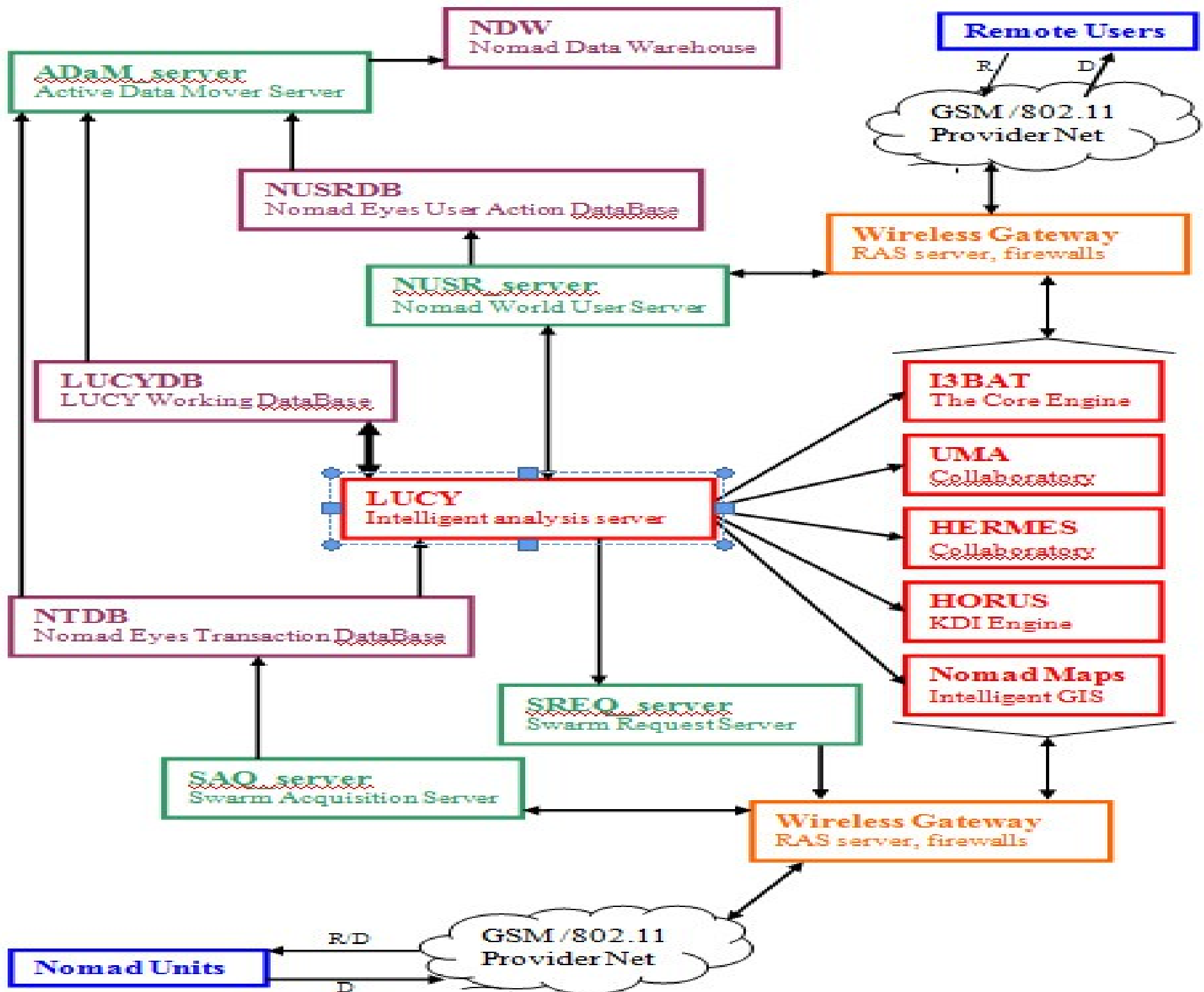
Check METI Indicator

1. RadSubstance Transport	2. ChemSubstance Transport	3. Suspicious Object	4. Suspicious Behavior	5. Suspicious Person	6. Suspicious Group
7. Biomonitoring (Temp)	8. Biomonitoring (Symptoms)	9. Street Conflict	10. Event Response (Metro)	11. Event Response (Quake)	12. Event Response (Storm)
13. False Positive Filtering(rad)	14. False Positive Filtering(chem)	15. False Positive Filtering(object)	16. Re-routing People	17. Missing Persons/Pets	18. Remote Property Inspection

View Scenario Information:

Quick-view, All Reports in DB

1. (RadSubst Transport)	2. (ChemSubst Transport)	3. (Susp Object)	4. (Susp Behavior)	5. (Susp Person)	6. (Susp Group)
7. (Biomon Temp)	8. (Biomon Symptoms)	9. (Streetfight)	10. (Metro Response)	11. (Quake Response)	12. (Storm Response)
13. (Rad False Positive)	14. (Chem False Positive)	15. (Object False Positive)	16. (Re-routing)	17. (Missing Persons/Pets)	18. (Property Inspection)



Taking a further look into the KOIN Cloud

The following slides continue the excursion into what has been the foundations and groundwork leading up to CUBIT, LUX, KOIN, and the “Flora and Fauna” of Koins.

Richard Feynman once said, back in the 1950's in fact, with regard to the far-futuristic field of nanophysics and nanotechnology,

“There's a lot of room at the bottom.”

We've been working hard down there and have built a lot of very useful and practical things.

Now the Whole World is Wide Open and Ready for all of this.

Real Intelligence.

It's extremely flexible, dynamic, adaptive.

Playing the Game == Playing The Economy == Adventure Making Money Making Adventure

What this is about, how it is supposed to work

Before you can start to play, meet, trade, deal, love, fight or do anything in the World, you need to have a Persona and that is way much more than just an avatar or some "handle"!

What We found
about You



What you said you want
(or we figured out you want)
in your Persona



What we strongly recommend
for you!



What you are selecting
(Careful! Your life may depend on it!)



About
"aioe!"



Sign
Up
Become
a
Player



News

Latest
Public
Juice
straight
from the
Bar



PLAYERS

ENTER
HERE!



Top
Offers
To Sell



Wanted
To Buy



Trades
Barter



JV's
Join
In



Stats & Temps



May 24, 2012
3:26 pm (GMT)

KERBEROS



The Private Information Bank and Trust

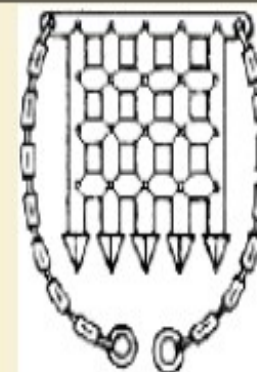
Begin

Access ID :

Password :

Login!

If you have lost your access information you must contact KERBEROS by your protocol assigned to you when you opened your account. You cannot obtain this information (or other access codes, keys and certificates) here via the web for security reasons.



Welcome!

KERBEROS v.1 requires "cookies" activated in your browser. You are safe.

Current language support (Version 1.0)



Click on flag to change system language

Note! All languages not fully available in development system.

- Special - All Categories
- Shop for Gifts
- Create Basic Article
- Help and Hints for Using "WE"



Music & Video

(F10)(2010-present) audio



Water

Water

Login Form

Hi Super User,

Log out

Support/Invest in (Y)our Stories



Enter Amount:

\$

USD

Donate

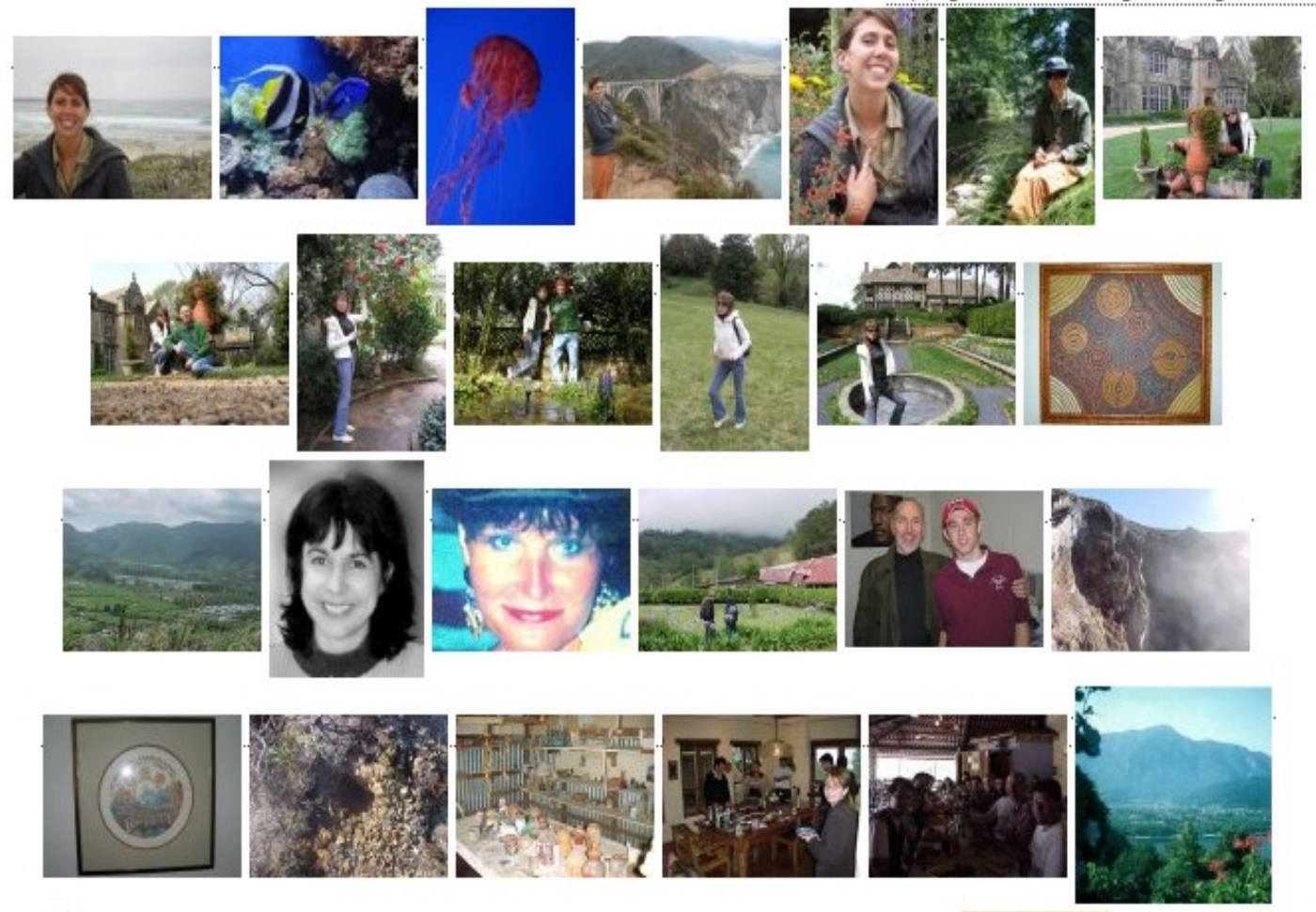
Translate!

Select Language

Powered by Google Translate

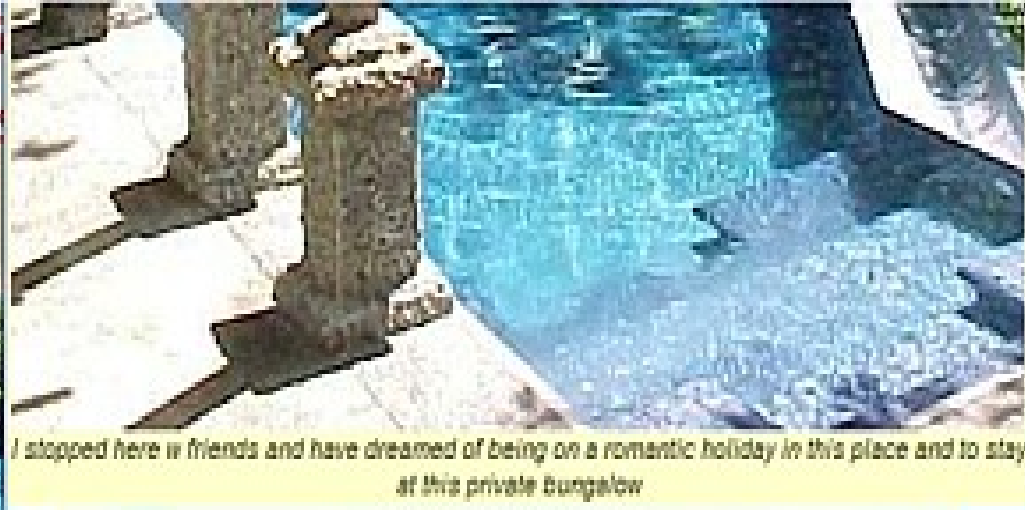
Who's On?

Copyright MAXXmarketing Webdesigner GmbH

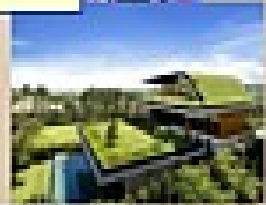
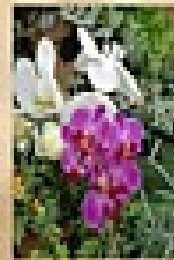
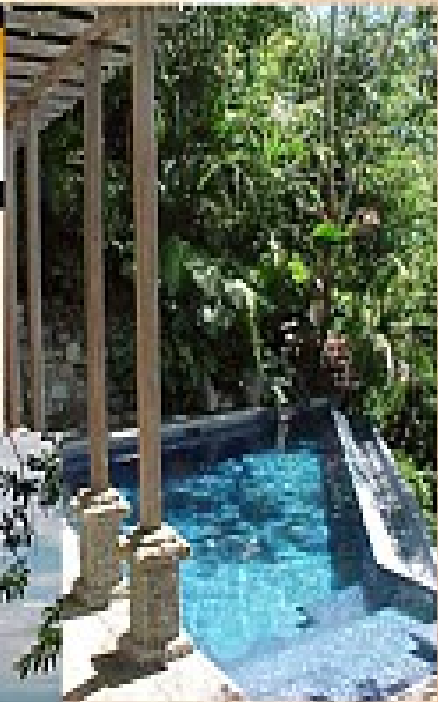
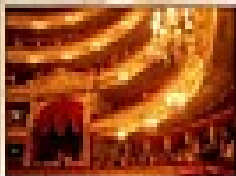




Getti
n



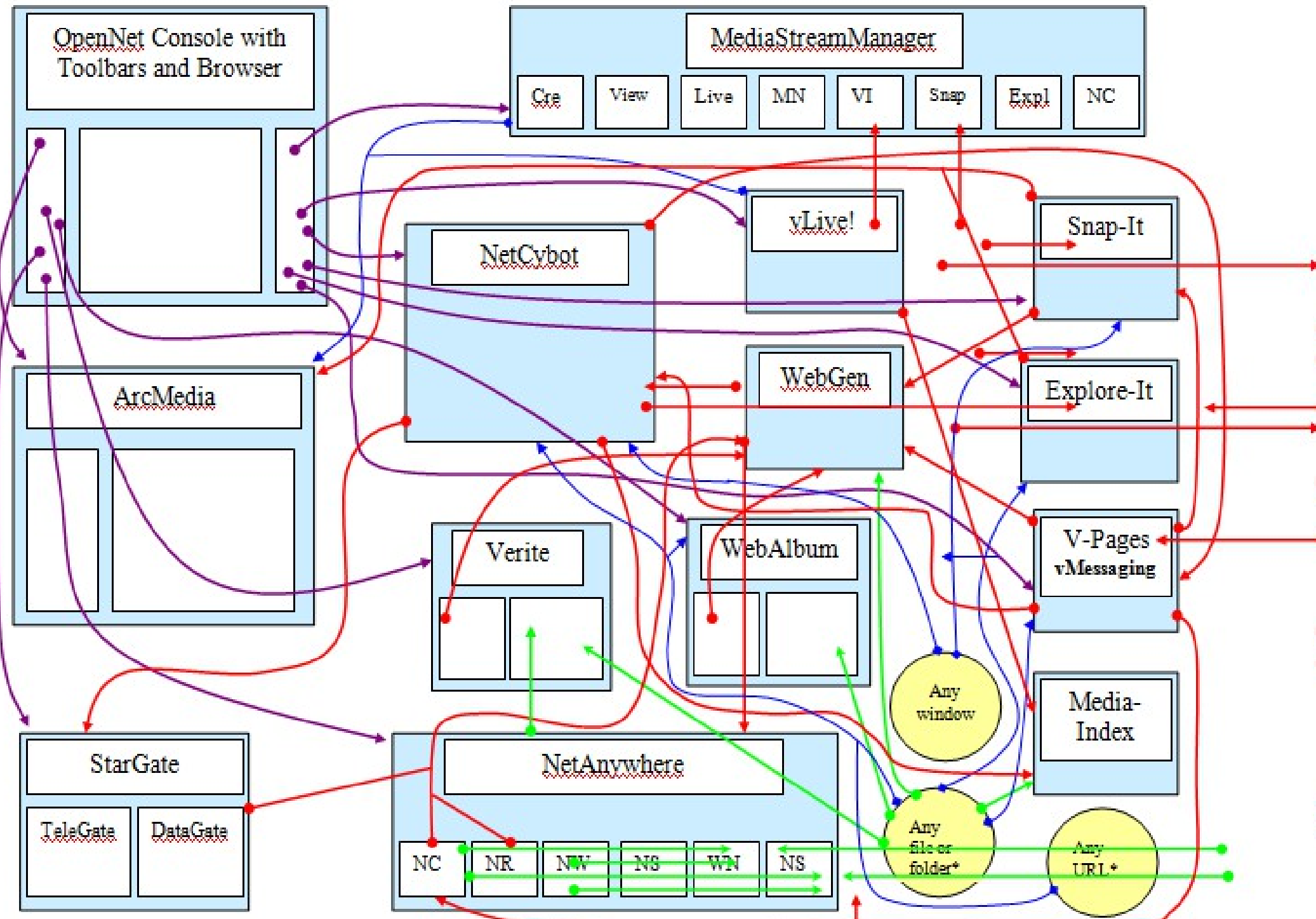
I stopped here w friends and have dreamed of being on a romantic holiday in this place and to stay at this private bungalow







Master Logic Diagram





June 22,
2003
2:17 pm
(GMT)

Active Session

HORUS



Элемент : Brigitte **XPlor** **Типа :** video **XPlor**

Определение XPlor

Определение (S): S basic - word/phrase/sent/object 10

Определение (S-A): S more complex definition A with attribute 10

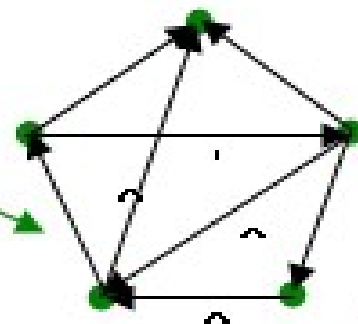
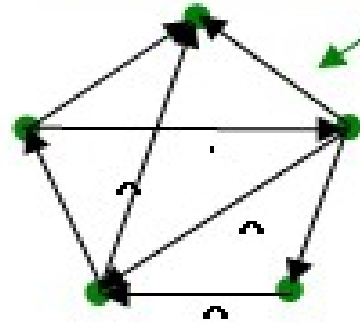
Определение (S-R-O):

S	subject	10
R	relation-operator	10
O	object	10

Быстрое Определение: S woman 10 **XPlor** Note: this is a temp example list (pre-DB).

Это - определение идентичности?: N **XPlor**

P_graph of ETLS (2)



Actor objects
(nodes)

ETLPs (with
actors)

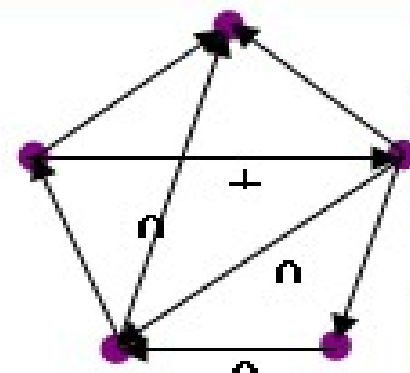
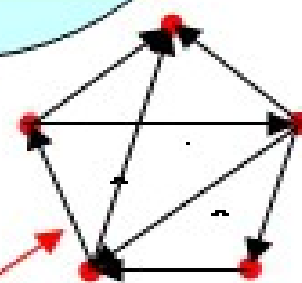
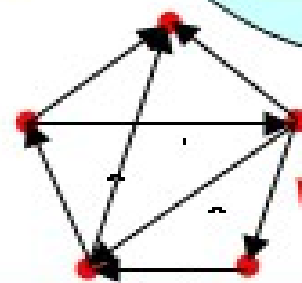
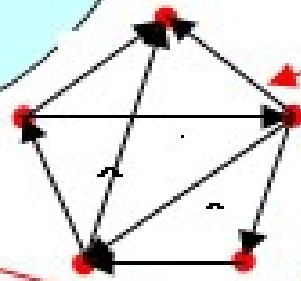
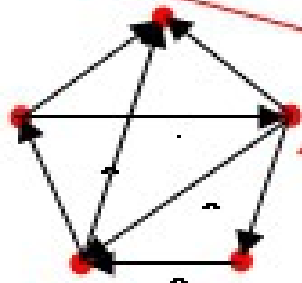
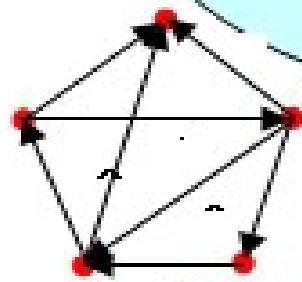
ETL Set
(with ETLPs)

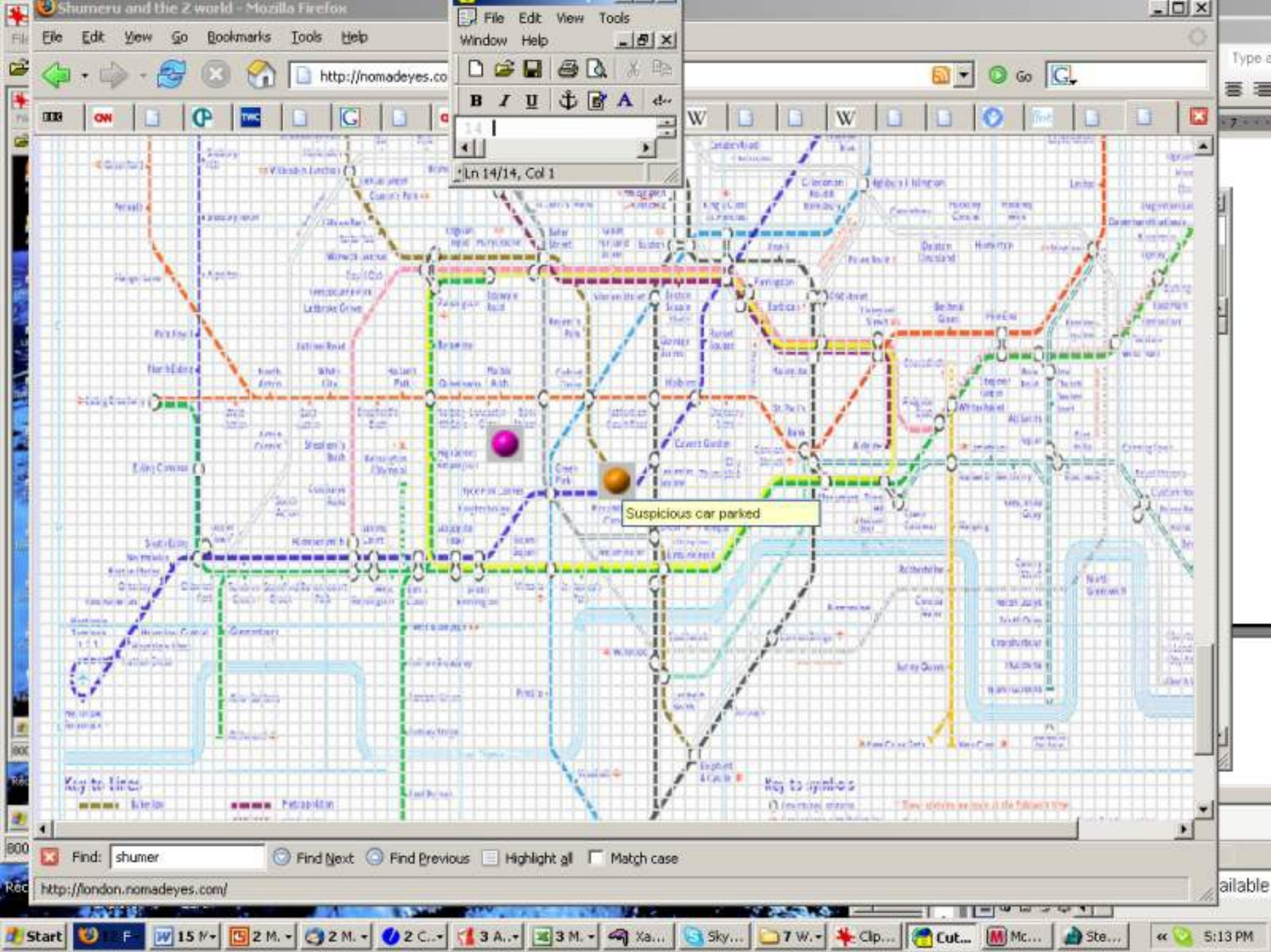
ETL Set
(with ETLPs)

P_graph of ETLP (5)

P_graph of
Exec (1)

ADaM exec
(program)







All of this was developed by Martin with help from a few friends.

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