FILEMAN & LAB AGILE PROJECT (FLAP)

PAST, PRESENT, & FUTURE

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Reinventing the wheel is killing our productivity.
Instead, we need to collaborate, to divide & conquer.
To do that, we must align our problems & solutions.
To do that, we must converge our VISTA dialects.

Code convergence must be done from the inside out.
(Otherwise, code "unconverges" whenever the center changes.)

The very center is MUMPS, which must be standard and portable.

The logical center is File Manager.
Converging Fileman is the gateway to all other VISTA convergence.

In medical software, the data is everything.
All VISTA data is defined & stored in Fileman.
Fileman is everything.

In medical software, integration makes the data useful.
Fileman integrates all VISTA data.
Fileman makes VISTA useful.

In VISTA, the architecture is not made up of packages.
It is made up of extensible frameworks & thousands of plugins.
Fileman defines the skeletal frameworks & stores all the plugins.
Fileman is the architecture of VISTA.

WHY FILEMAN? PART 3

For all these reasons, Fileman is the biggest lever on VISTA.
Upgrading one package costs 1% of upgrading 100 packages.
Yet improvements to Fileman improve every single VISTA package.
There is no cheaper way to move all of VISTA forward.

The pie model of VISTA budgeting.
70% to the new initiative.
20% to the old package's architecture.
10% to the core infrastructure packages that serve it.
Like Fileman, Kernel, HL7, etc.

WHY FILEMAN? PART 4

Medicine is complex, requiring specialization.
Medical software is complex, requiring specialization.
Specialization takes time and continuous practice.
Experienced specialists are a thousand times more productive.
Software engineers are not interchangeable.
The right team must design and execute a medical-software project.

The OSEHRA community has rebuilt a File Manager expertise team.
There are few other comparable VISTA-expertise teams still intact.
This team can succeed with Fileman cheaply, quickly, & safely.

While we rebuild other teams, we should use this one.

The longer any VISTA package is patched without a new release,
the more corrupt its core architecture becomes,
as the incremental enhancements bend it out of coherency.

The longer any package-expertise team goes away from the code,
not deeply, continuously immersed in it,
the less effective they become.

The first step had to be a fresh release of File Manager.
This adds features & fixes bugs.
But more importantly it resets the architecture & expertise.
And it converges Medsphere, VA, IHS, DSS, & WorldVistA.

WHY FILE MANAGER 22.2? PART 2

It was developed in six months, from contract to completion.
It cost a mere half million dollars.
It was completed on time, on budget, with all features delivered.
(Hardly any IT projects can say likewise. Read the CHAOS Report.)

It primed the new FLAP team to be more productive for v22.3.
You will hardly believe what we can do in version 22.3.
More on this at the end of this presentation.

It sets up the second parallel track of the FLAP project.
To put this new infrastructure to work serving clinical development.
By modernizing the "worst" VISTA clinical package.

Repeated efforts to carve out bleeding chunks of VISTA have failed.
Repeatedly.
FLAP Phase 1 proved the speed & accuracy of our alternative.
It's not an opinion. It's not a useless claim. It's a fact. We need facts.
We can do for the clinical packages what we have done for Fileman.
Especially because we now have a new Fileman to help us do it.

VISTA Laboratory is often held up as an example of bad VISTA software.
But we know that's not true.
It just needs refactoring and updating.
We have a VISTA Laboratory-expertise team.
We are going to do for Lab what we did for Fileman.

WHY LABORATORY 5.3? PART 2

VISTA Laboratory needs three main things to be the best of breed.
1) modernized data structures
2) modernized user interface
3) support for alternative laboratory settings

Our Lab team has spent years designing all three of these things.
During our 2013 Hackers' Retreat in Washington State,
we started work on all three of these things,
and made much faster progress than we expected.

Now, with Fileman 22.2 done, we're ready to do Lab 5.3.
We can create a VISTA Lab everyone is proud of.

WHY LABORATORY 5.3? PART 3

Overwhelmingly, big projects fail more often than small ones.
Therefore, we need a software lifecycle that supports small projects,
and frequent releases of incremental upgrades.

Our path forward for File Manager and Laboratory is built this way,
with two parallel paths of development, each advancing by increment,
and each depending on the other.

Fileman 22.2 => Lab 5.3 & Fileman 22.3 => Lab 5.4 & Fileman 22.4,
and so on, each a short, three-month project,
until we reach Lab 6.3 and Fileman 23.3, our targets.

All VISTA enhancement must be done from the inside out.
Build the tools & shared services, then use them to build applications.

All VISTA architecture must be driven from the inside out.
Make the database smart, object-oriented, not dumb & passive.

Modernizing Lab depends on modernizing its files.
So we start with the Lab Data file (63).
And we begin building new web & mobile UIs that use those files.

We already have working demonstrations from our Hackers' Retreat.
So for Laboratory 5.3 that will be the focus.

THE FUTURE OF FILEMAN

To create the first robust, mature, fully featured Internet Database.

1) web & mobile user interface
2) graphstore halos around every file
3) format marshalling for built-in interface capabilities
4) unified messaging engine as a Fileman extension
5) reusable, extensible data types to increase development speed
6) more referential-integrity and big-data tools
7) additional features driven by needs of Lab & other VISTA packages

But everything begins with Fileman 22.2, with getting the bugs fixed, the code converged, and the team fresh.

QUESTIONS & ANSWERS