

JAMF PRO + FileMaker 16

Enhanced Lifecycle Management

Tami Miguens

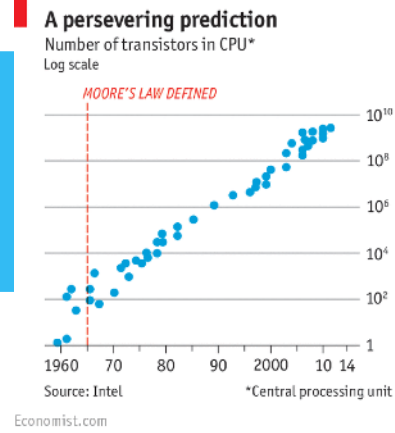
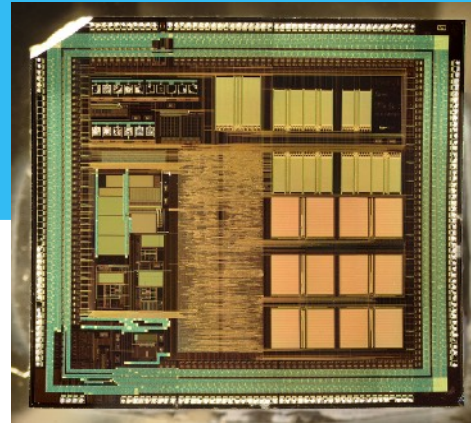


Good Afternoon, my name is Tami Miguens with RIPEDA Consulting. We are an IT and software engineering company here in Calgary. Before we start, I want to talk a little bit about automation. Where I've used it and where I've missed opportunities.

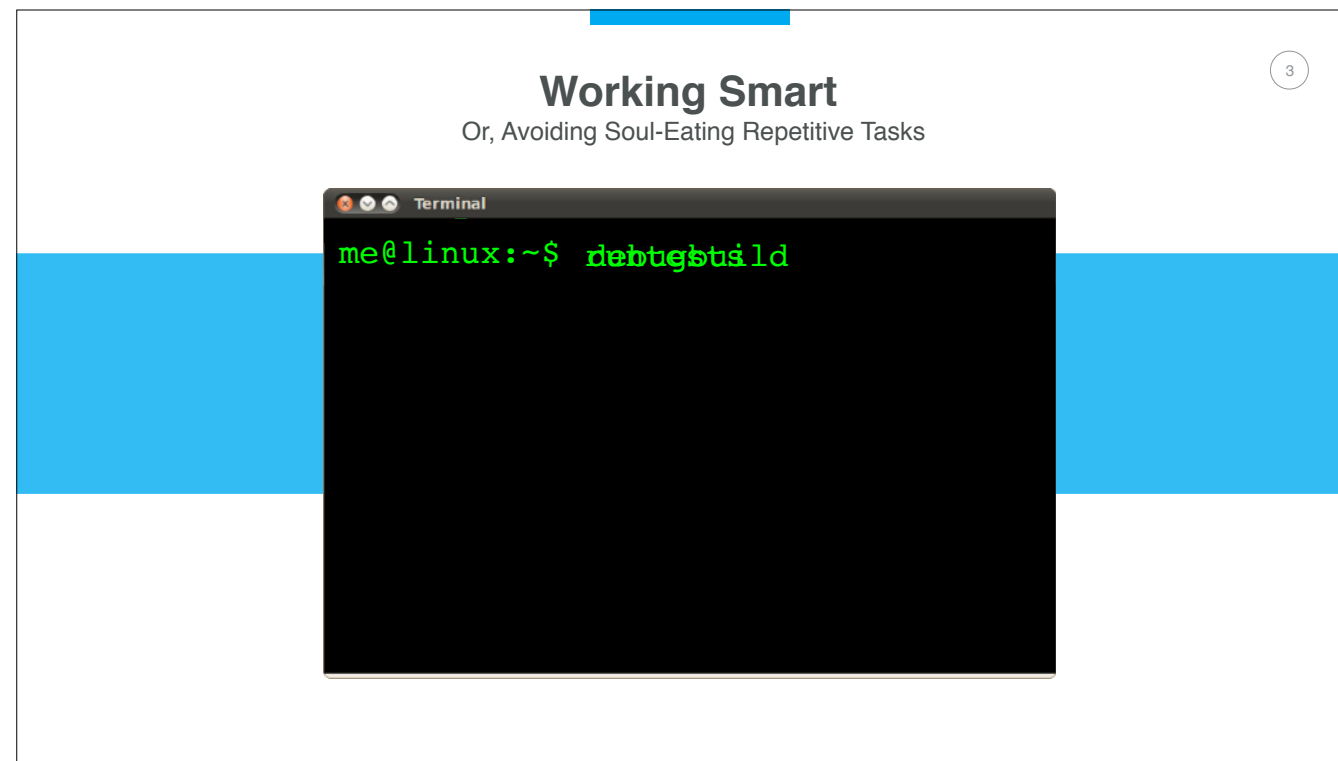
Working Smart

Or, Avoiding Soul-Eating Repetitive Tasks

2



Before I moved to Calgary 6 years ago, I worked in high tech writing performance simulation & verification software for integrated circuits in C++. It was fantastic. I was working with some of the smartest people on the planet doing the coolest stuff — making chips smaller, faster, and more reliable.



Our group worked exclusively on linux — the kind of setup where you never need to touch a mouse. Every thing in our dev environment was automated on the command line.

Need debug build? / There's a command for that. / Need to run regression tests? / There's a command for that. We were wicked fast. But there was a dark side to this idyllic developer paradise...

Working Smart

Or, Avoiding Soul-Eating Repetitive Tasks

4



Committees, meetings, sign-offs and more meetings. Sometimes we'd have the same meeting multiple times, to share essentially the same information with different sets of people.

Despite the killer dev automation, we were still losing time. We never considered that some of that extraneous stuff like process and information sharing could be automated too.

Working Smart

Or, Avoiding Soul-Eating Repetitive Tasks

5

“My favourite things in life don't cost any money. It's really clear that the most precious resource we all have is time.”
Steve Jobs



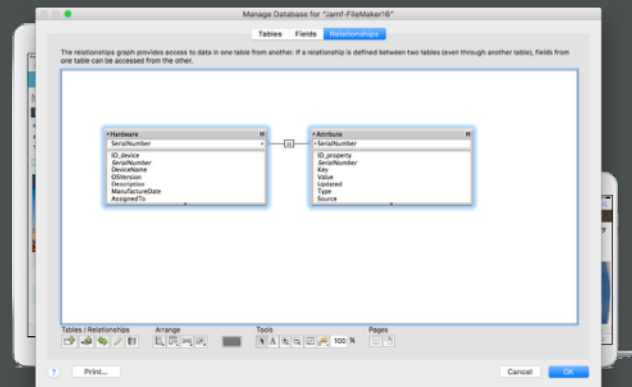
Today we're going to talk about getting some of that time back. Gathering information, collecting it in one place, and presenting it in a way that supports efficient and effective action.

In our business, we use an app developed in-house on the FileMaker platform to manage our IT assets and report real-time information about them in a single front-end.

What is FileMaker?

A Platform for Building Apps

6



RAPID DEVELOPMENT

INTEGRATED DATA STORE

BEGINNER FRIENDLY

CROSS-PLATFORM/MOBILE

SCALES UP

RAPID DEVELOPMENT / Specifically, it's a Rapid Application Development Platform.

DATASTORE / FileMaker is built on a relational database that is like SQL (but isn't). It has both front-end and back-end rolled into one. DIY SQL+PHP/HTML/CSS app compares.

BEGINNER FRIENDLY / You can create an ERD in the database view and define relationships visually by drawing flylines between tables - and those relationships are persistent (very cool). No need for repeating join definitions in every query. On top of the database is a rich collection of live layout elements like buttons, pop-overs and related data list views that are easy to use.

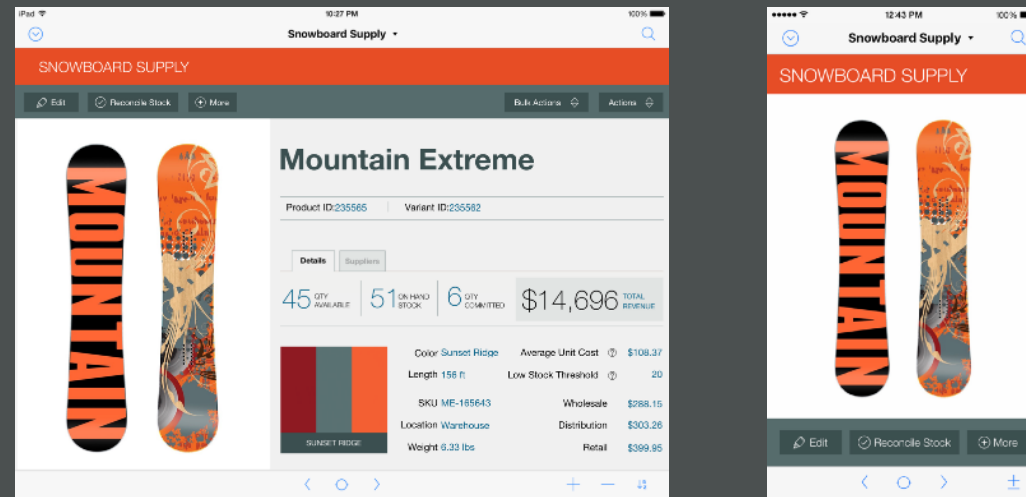
CROSS-PLATFORM/MOBILE / Apps built on FileMaker automatically work on Mac, Windows, iOS and the web - no porting necessary. If you have FileMaker Server, any client can access and edit the data so everyone can see updates instantly.

SCALES UP / FileMaker is used in small projects and also in enterprise apps. For developers wanting to invest the time to learn advanced features, it's possible to develop very sophisticated apps.

What is FileMaker?

A Platform for Building Apps

7

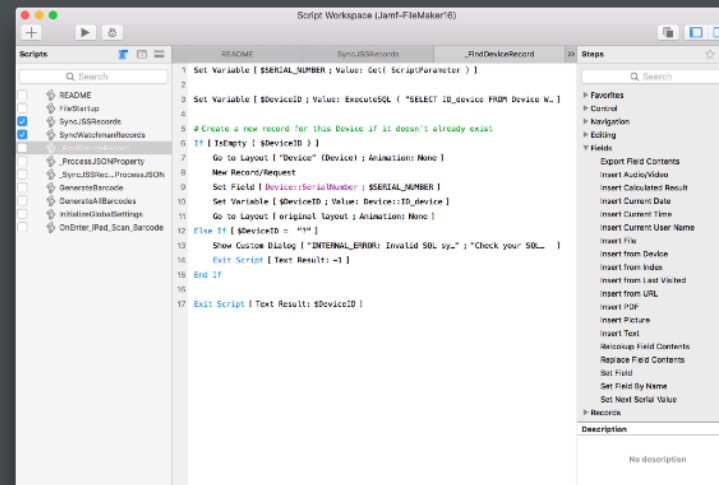


You can collect and store any kind of data including GPS coordinates (iOS), barcodes, signatures, documents and snapshots (on iOS). It's possible to create a simple app with no programming. To do most of the cool stuff, you need to write scripts.

What is FileMaker?

A Platform for Building Apps

8



FileMaker is not coding like you're used to, and it takes some getting used to. No freestyle coding. There is only one IDE and you have to use it. Requires mouse frequently. Frustrating for coders.

9

What is FileMaker?

A Platform for Building Apps

01

02

03

04

Manage inventory, store documents/photos, record check-outs/check-ins, run reports.

Collect information from staff on an iPad and instantly share it with your team.

Analyze large datasets, draw conclusions, and present results graphically.

Provide an interactive experience with proximity functions using iBeacons.

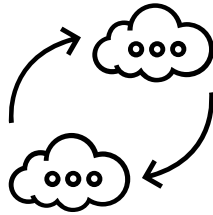
Some of the ways FileMaker can be used in real life.

Why Integrate?

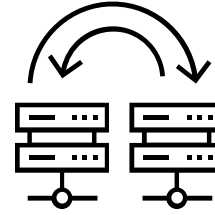
Integrating with REST APIs

10

Cloud/Web Services



On-premise Servers



Or Some Combination...

Most of us in here are using commercial IT software that stores data about our devices. Many of those apps have RESTful APIs to share their data with other apps. I'm going to use JAMF Pro as an example today. There are lots more. Sometimes apps that have related data will integrate directly with each other out-of-the-box, like JAMF Pro and Watchman do.

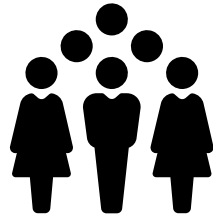
What it means to be integrated varies a lot from offering to offering. Some share data in one direction, some share both ways. This is really useful. But sometimes it's not enough for what you want to do.

Why Integrate?

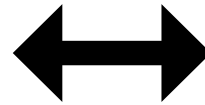
Integrating with REST APIs

11

CUSTOMERS



INVOICES



Take an example. One app manages customers. Another app manages invoices. Both advertise that they are integrated with one another and share customer information both ways. Great! I only have to manage one list of customers. That's pretty great.

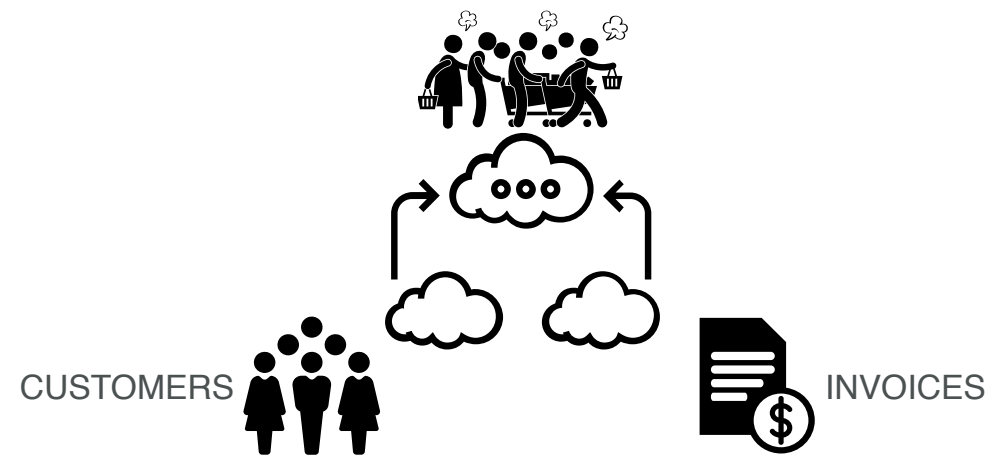
Now let's say that I want to email all of my customers that have bought Widget A within the last 6 months. My customers app can send bulk emails. Yay! My invoices app can list which customers bought Widget A. Yay! Now how do I get that subset of people out of my invoices app and into my customers app?

Uh oh.

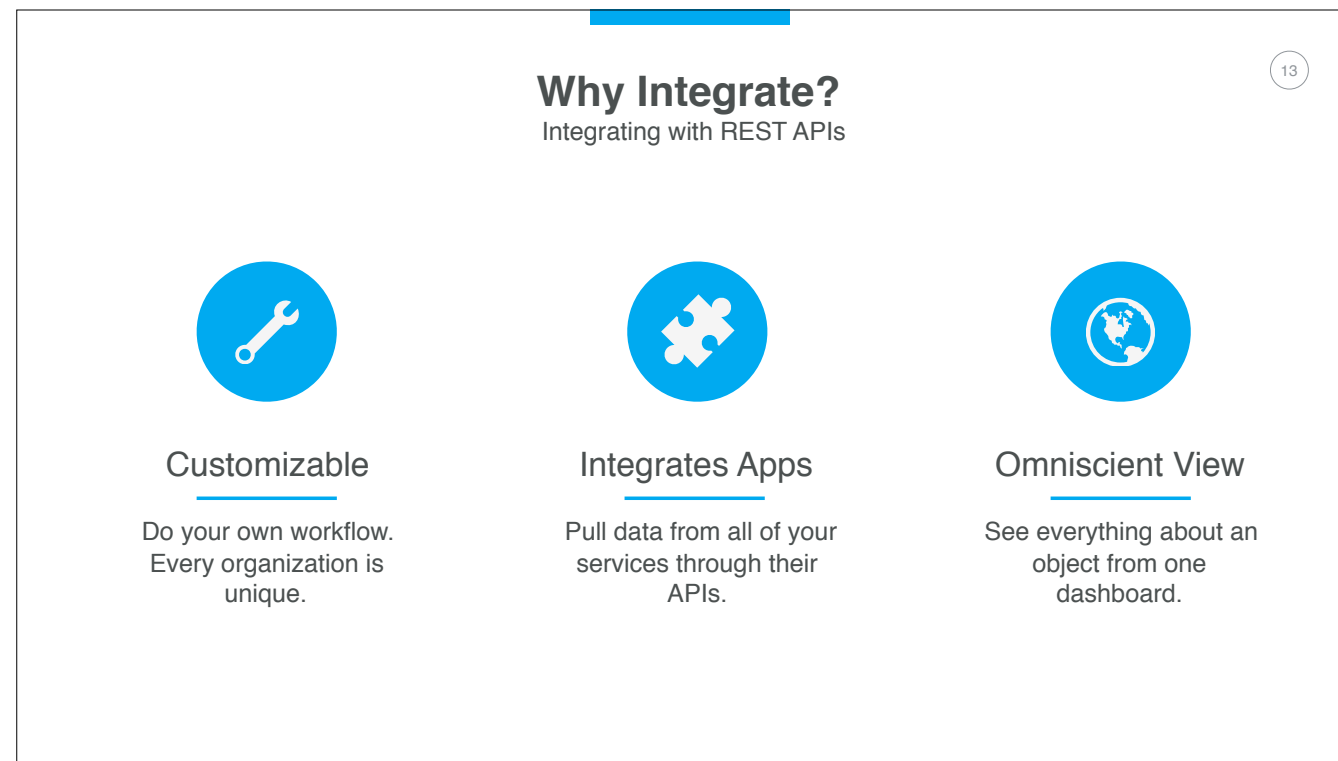
Why Integrate?

Integrating with REST APIs

12



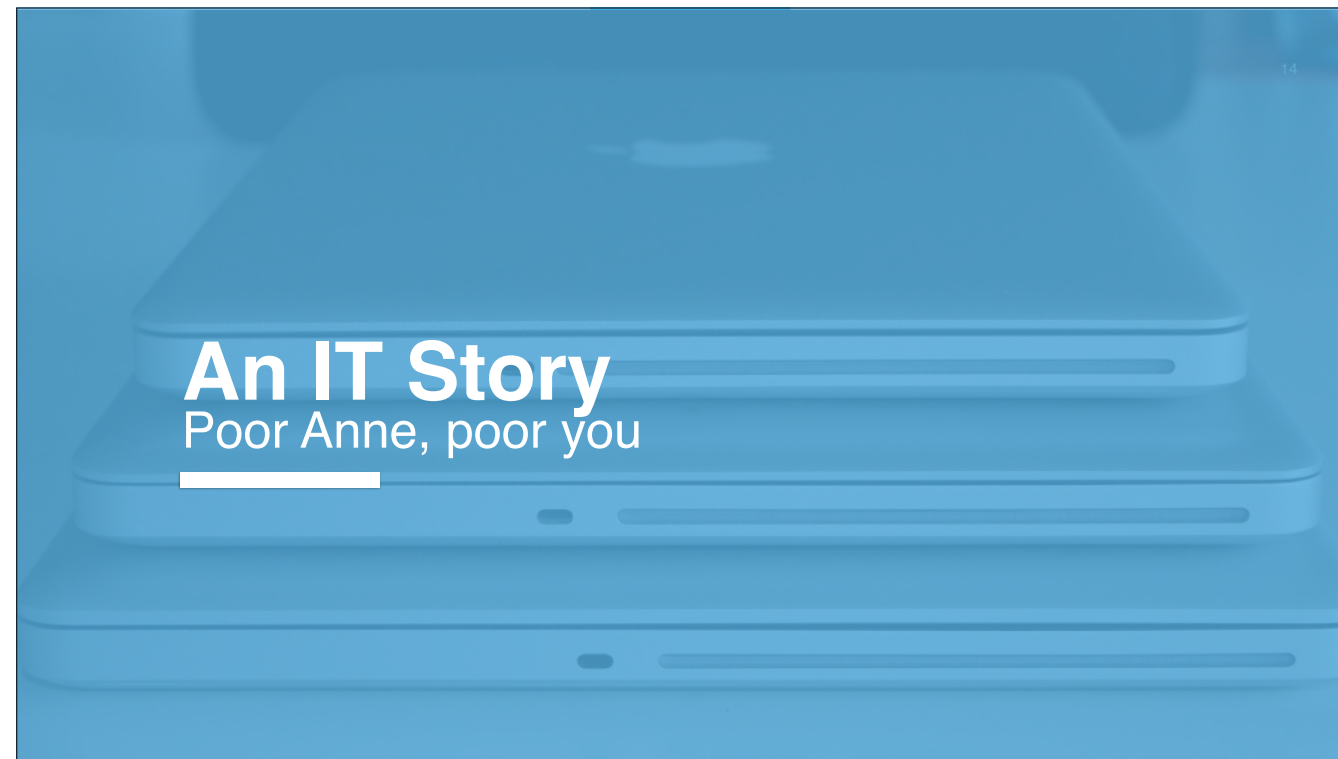
The solution? Use an external custom app to pull data from both sources, building your lists and the functionality you need to automate batch jobs like sending bulk email.



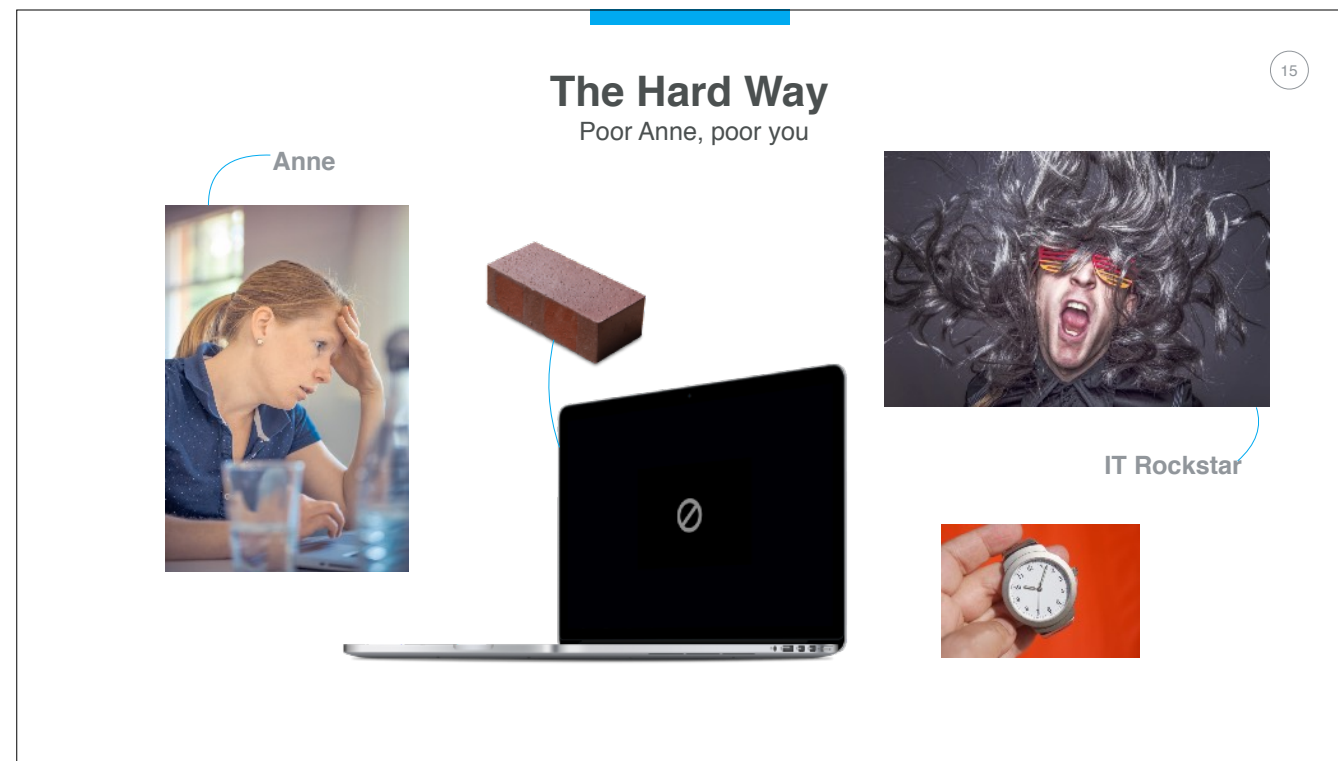
I'm going to demo a few features we used in our app to get organized and automate some time intensive tasks. Specifically, data retrieval and digging out from under that pile of data.

Sadness sets in when I realize that I can't, at least not directly. I will have to export the list from my inventory app into XLS format, manually reorganize it so the columns line up with the format my customers app will accept, and then import it. Misery sets in when I realize I'll have to repeat that process every time.

What it means to be integrated varies a lot from offering to offering. Sometimes integration between web apps is impressive, and sometimes it's sparse. The value of using your own data hub is that you will always be able to get what you want.



I'd like to take a few moments to consider a hypothetical day for an IT Specialist. Let's imagine he's been overwhelmed recently, by more demands that can be reasonably handled by one human being. So, for most of us, Tuesday.



This is Anne. Anne is having a bad day. A very bad, no good, horrible day.

/ Her MacBook is bricked and she has a big presentation/lesson/deadline tomorrow.

/ She comes to you, her IT rockstar and hero, for help. Let's start the clock.

/ You try a safe reboot. No dice. Time to do some research. Specs? Apple Care? Repairs?

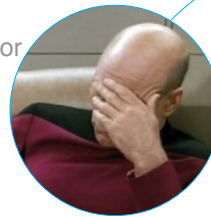
The Hard Way

Poor Anne, poor you

16



This is not the device you are looking for



Groan

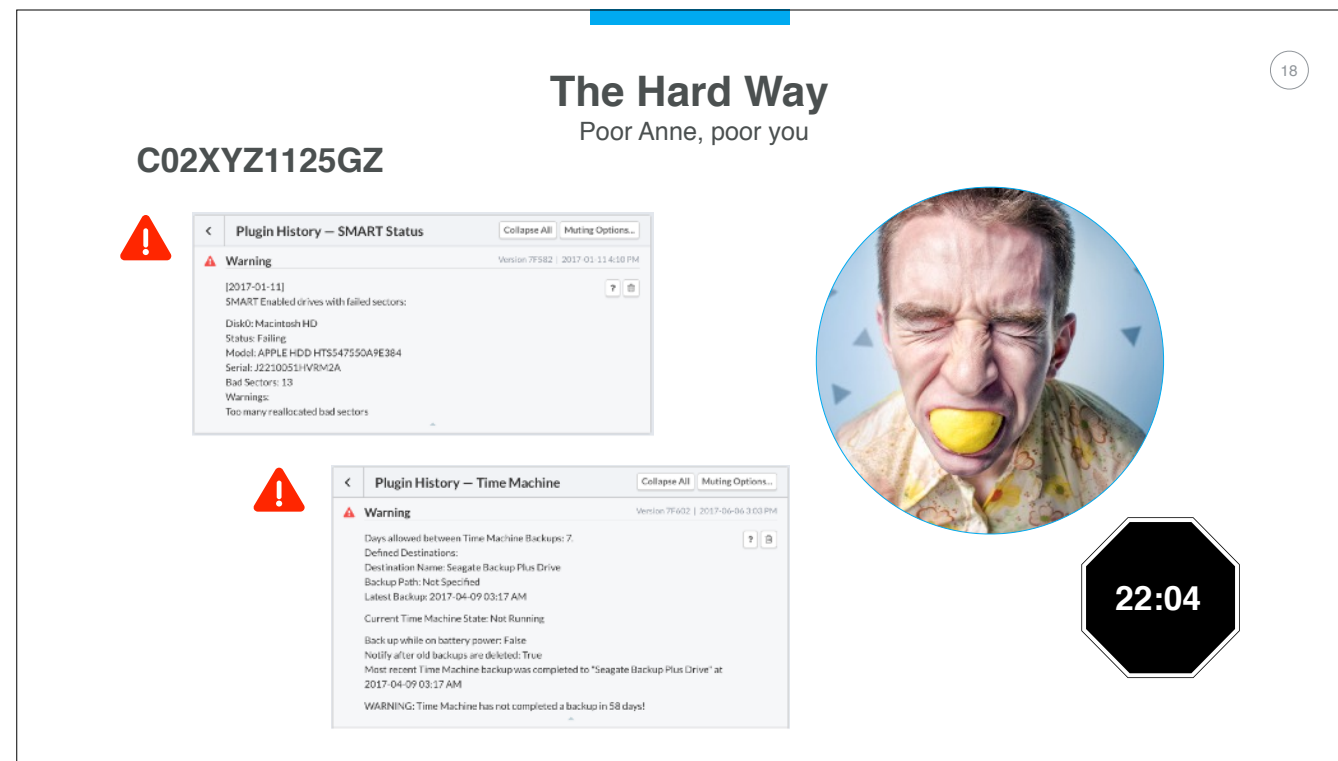


C02XYZ1125GZ

Well, this is embarrassing. You lookup Anne's devices in JSS using her email address. Only it shows a MacBook Air and you're holding a MacBook Pro.

/ Groan. Somebody forgot to update the assignment when the new machines were deployed.

/ Ok, then. Rolling up your sleeves. Let's get that case off and pull the serial number off the body.



Watchman. Log-in. Paste the serial number.

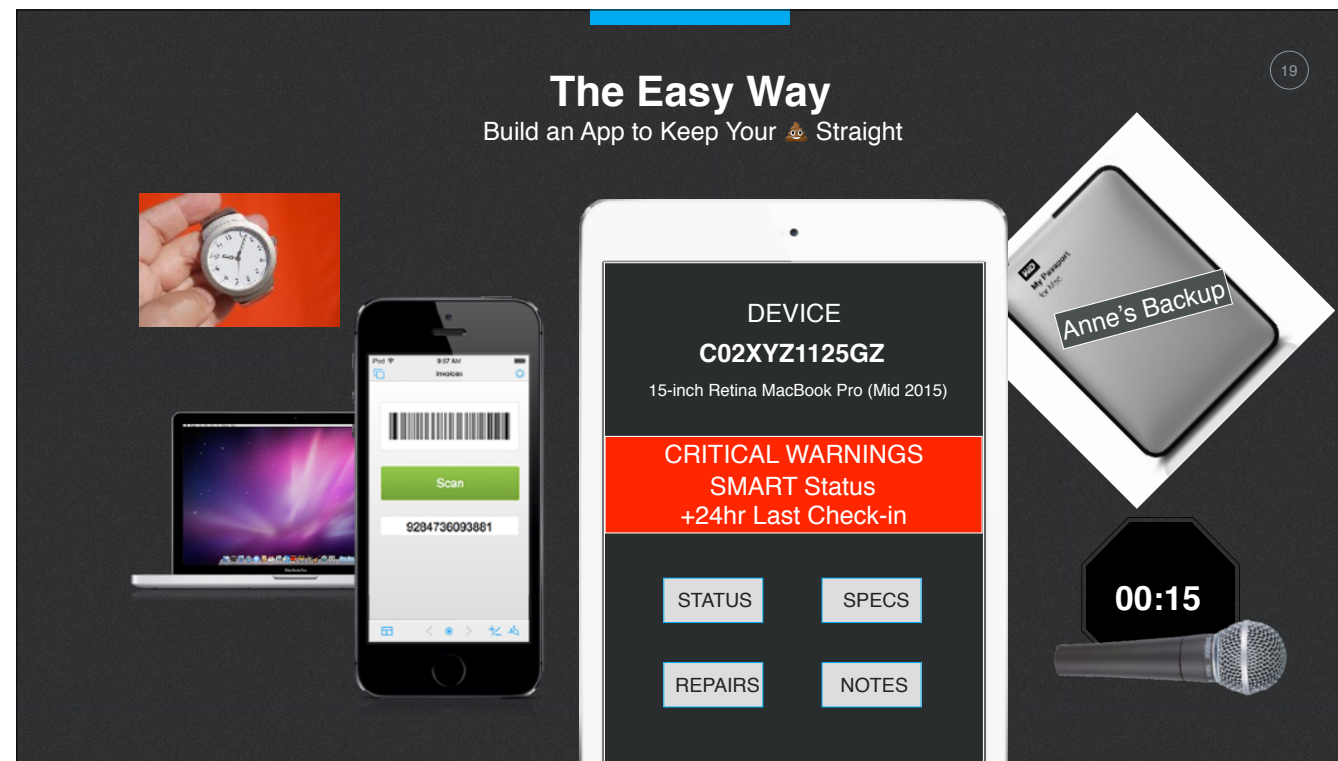
/ Uh-oh /

/ SMART failures popping up for the last two weeks intermittently. Now you remember why this machine was familiar. Watchman has been sending you emails. You meant to track down the owner, but it slipped your mind. Overwhelmed, remember?

/ And now you are having a very bad, no good, horrible day too. Because the other error is no Time Machine for 58 days.

/ You clock in at 22 minutes to do the research.

Now to break the news to Anne - tell her everything is going to be okay (it's not) and piece together what you can from the fried HD and the stale backup. Ugh.



Let's rewind the story, and start at the beginning. Anne comes to see you. / Start the clock.

/ You pull out your iPad and scan the barcode on her MacBook using your custom app. You printed the bar code sticker right from the app when you first deployed the system.

/ Watchman SMART Status failures right up front. You cherry picked the data that is most important to you and decided exactly how to present it.

/ It gets better. That Time Machine alert? It's not there. Your clever app has been monitoring Watchman statuses and sending notifications directly to the assigned user's email all along. It sends you an email if the user doesn't resolve the problem after 3 days. It also sends a tailored email to users for critical hardware issues - for SMART failures it warns users to store files in the cloud. Sounds spammy? That's the beauty. You get to decide.

/ You know this HD has to be replaced. Click on the SPECS button and have the HD specs from JSS to pull a new unit. Stop the clock. Research done, 15 seconds flat.

/ Anne already knew the HD needed replacement. She hands you her Time Machine drive. She knew to bring it because of the notifications. And she has long since moved her work off to a network drive, just in case. You give her a loaner and start restoring her system.

/ Insert mic drop here.

Demo

Spreadsheet + JAMF Pro

Resources

Documentation

21

REST API Docs

https://<your_jss_server>:8443/api/
<https://api.watchmanmonitoring.com>

Importing Data into FileMaker from a Web Service

https://fmhelp.filemaker.com/help/16/fmp/en/index.html#page/FMP_Help/json-functions.html
<http://www.soliantconsulting.com/blog/2017/05/parsing-json-filemaker-16>

Writing to FM DATA API from another app

<https://fmhelp.filemaker.com/docs/16/en/restapi/>
<http://www.soliantconsulting.com/blog/2017/05/filemaker-data-api-filemaker-server-16>

Resources

Downloads

22

Postman (web service explorer)

<https://www.getpostman.com>

FileMaker 30-day Trial

http://info2.filemaker.com/FileMaker_trial_request.html

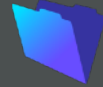
Examples of apps built with FileMaker

<https://www.filemaker.com/custom-apps/mobile-custom-apps.html>

Resources

FileMaker Platform/OS Support

23



FM PRO*

Desktop Client

Windows or OS X, Standalone, FM Server Client, FM Cloud Client, Peer-to-Peer Sharing over LAN.



FM GO

Mobile Client

iOS client for FM Server, FM Cloud, or FM PRO in LAN Peer-to-Peer configuration. No native Android support.



FM SERVER

Self-Managed

Windows or OS X, hosts data for FM PRO, FM GO FM WebDirect, FM DATA API or FM Custom Web Publishing.



FM CLOUD

Hosted Data

Linux-based managed deployment of FM Server in AWS, hosts data for FM PRO, FM GO and FM WebDirect.



FM WEBDIRECT

Web Client

Platform-independent client for hosted data access from any device in a web browser. Requires FM Server or FM Cloud.

* FM PRO ADVANCED is FM PRO with advanced developer utilities.

Get in Touch

We love to help. Really!

24



Tami Miguens



RIPEDA Consulting is a dedicated team of experienced engineers and IT professionals in Calgary, Alberta. We offer managed services and IT consulting for Mac and Windows computers and servers, as well as secure, high-performance networks for businesses, institutions and schools. Our software development division provides custom apps for running a paperless business efficiently, website design and development, and automation programs.

