

# Anything but Excel

## Bringing “Shadow Systems” into the Light with Modern, Low-Code Tools

**Presented by**

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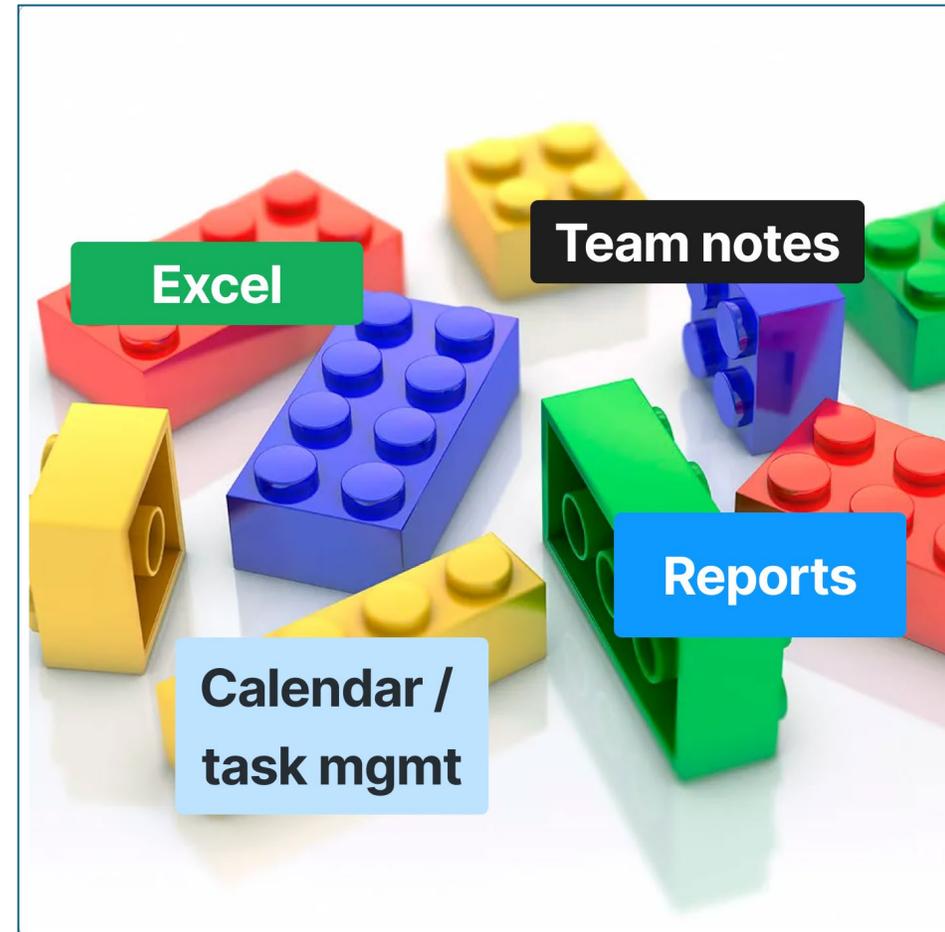
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# Why this presentation?

## Solve recurring issues while having fun!

- Financial pressures facing universities / back-office teams
- Long-term talent pipeline shrinking
- Staff turnover and loss of knowledge
- Complex and fragmented software systems make jobs more difficult than they need to be



# Why you should trust me... case study

**Time savings equal to  
1.63 full-time employees**

2964 total hours saved per year

35/hr per week FTE = 1820 hrs

+ improved quality of life/work

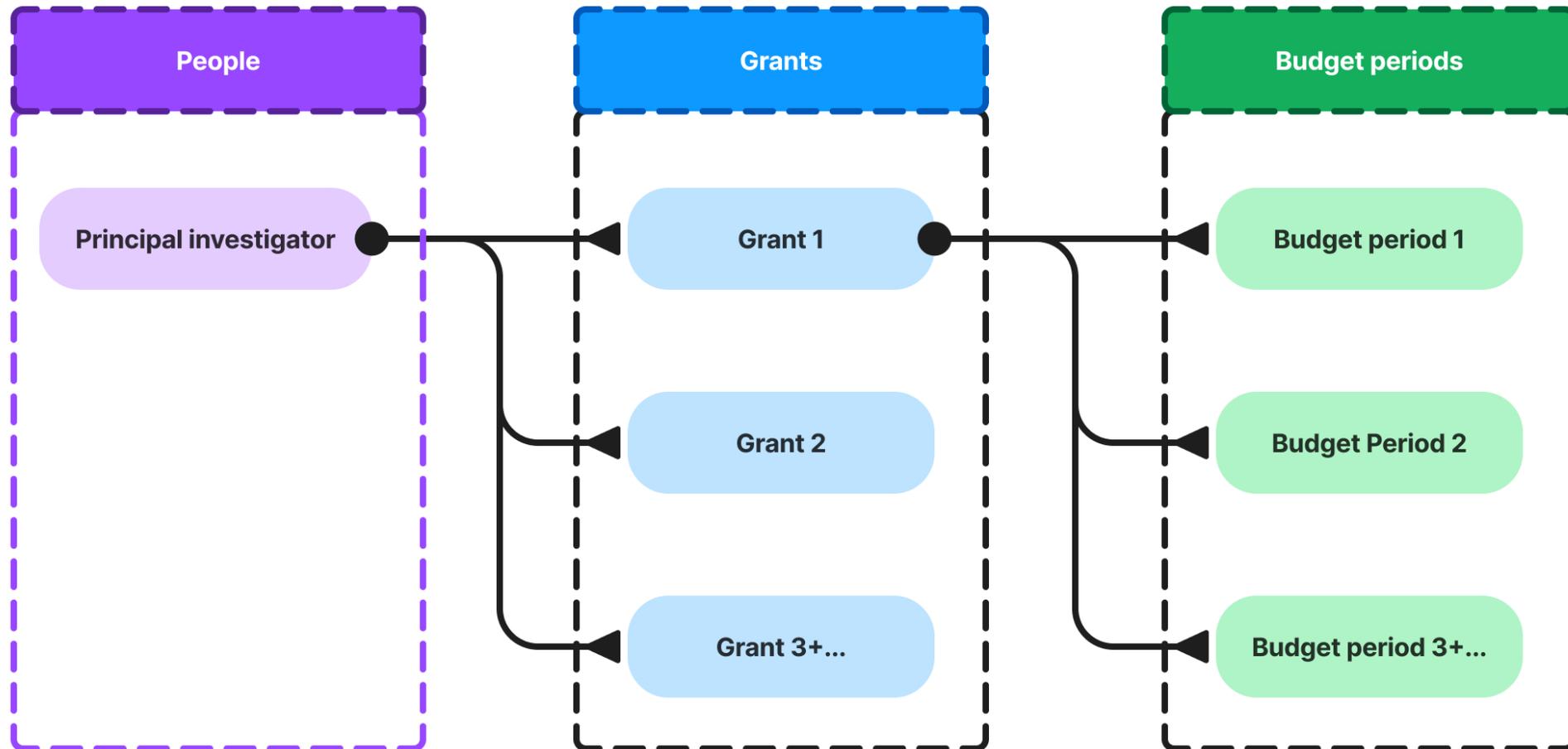
+ metrics for mgmt. gathered seamlessly

Time savings	# hours
One-time: onboarding	2100
<b>Recurring</b>	
Easy access to information	936
Efficient tracking systems	624
Easier financial models	936
Info sharing portal	468
<b>Total recurring savings</b>	<b>2964</b>

# What are low/no-code tools?

- Low code tools are meant for you and me
  - Allow normal/nontechnical people to build apps through point/click rather than writing code
- All low-code applications are point-and-click front-ends for “relational databases”
  - Fancy way of saying “this one thing is tied to this other thing, and here’s how they’re related”

# Relational database example



# What can I do with these tools?



**Basic:** Shared calendar/task management



**Mid-tier:** Keeping track of grant portfolio data and documents



**Advanced:** Financial modeling/projections

# Low-code tools on market

 **Beginner** – Asana, Trello, Monday

- “Opinionated” 

 **Intermediate** – Airtable, Notion, Zapier

- “BYOB” – Bring Your Own Back-end 

 **Advanced** – Bubble, some other random stuff

- At this point, just learn how to code 

**Now let's build!**

# General points / best practices / lessons learned

- 🧐 Start small; build out incrementally.
  - Don't be afraid to make mistakes
  - Perfection is the enemy of the good
- 🙌👩 Involve your team early
  - Get feedback, and implement it together.
  - Iterate rapidly.
  - Sprints = 👍 | Slogs = 👎
- 📄 Document everything
- 🤖 ChatGPT/Claude are great resources (base structure, scripting, etc.)

**Q&A**

# Have questions or want to chat?

**Please feel free to reach out!**

## **Email**

- Personal: [joseph.m.celentano@gmail.com](mailto:joseph.m.celentano@gmail.com) (preferred)
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## **LinkedIn**

- <https://www.linkedin.com/in/josephmcelentano/>

## **Website**

- [locojo.io](https://locojo.io) (**Low-code Joe** 🕶️) - I will be offering consulting, classes, and free templates/content over time. Please bear with me while I get this up and running. 😊

## **Link to sample Airtable base/application built during presentation**

- [Base \(can be copied to use for your own app!\)](#)
- [Interface page \(“front-end”\) example](#)

# Resources

## Recommended reading

- Andrew Grove – “High Output Management”
- Cal Newport – “A World Without Email” and “Digital Minimalism”
- David Epstein - “Range”

## **Airtable community and Reddit are great resources as well!**

- Airtable community: <https://community.airtable.com/>
- Reddit: <https://www.reddit.com/r/Airtable/>

# **Addendums (10/31/24)**

1. FAQ reference
2. Automation screenshots

# Addendum 1 - FAQ (from live Q&A)

## **How long did it take to build the projection application?**

It took me 1.5 years on my own, after using Airtable for 3+ years, taking a database design course, and leading a 2-year software implementation; Additionally, I have 8 years of shared services and department admin research experience. Finally, I kind of know how to code anyway. So I have a weird intersection of skills that isn't typical in research admin. Be patient with yourself, upskill, and if you're interested in doing it faster... Please note that I also do consulting arrangements 😊

## **How much maintenance time does this take per month?**

Roughly 1-2 hours per month to run reports/queries from my institution's ERP/data warehouse (which I'd be doing anyway), and then importing them/link records together. You can see slide 3 for how much time overall this saves per year. It's worth the investment even if there is some manual data entry/uploads.

# Addendum 1 - FAQ (from live Q&A)

**How much data entry isn't automated? How much data does your team need to enter?**

My team enters the following information into the database manually:

- Internal records (proposals/reports) – along with all proposal documentation
- Project/budget period information
- Committed effort information
- Subcontract information and documentation
- Projected expenses (personnel/nonpersonnel)
- People from other departments / institutions
- Other institutions that we work with

Once anything is entered, it is reused over and over again. There is virtue to data entry as it forces familiarity with the information. Everything is handled via forms and validated during entry.

# Addendum 1 - FAQ (from live Q&A)

## **Was this approved by my IT department?**

Yes. The lingo that IT departments want to hear is that Airtable is SOC3 (basically they passed a rigorous security audit) and HIPAA compliant (we don't have any HIPAA / human subject info on there anyway, but it can be safely used as a front-end/analysis tool for technical teams).

## **Does this integrate automatically with other software we use?**

It can! You can see the full list of integrations here: [\*\*https://www.airtable.com/integrations\*\*](https://www.airtable.com/integrations). Most of them will need to be approved by your IT department. We don't integrate with any other corporate systems because a.) we don't have any that we want to with; and b.) IT would need to be more involved, which the point of these tools is to empower your teams and not need to rely on IT to fix problems (which generally makes the problem worse in 9/10 instances, at least imo).

# Addendum 2: Automation screenshots

The screenshot displays an automation configuration interface. At the top, a toggle switch is set to "OFF" for the automation "Send an email follow-up on pe...". There are buttons for "Automation history" and "Test automation".

The main workspace is divided into "TRIGGER" and "ACTIONS" sections. The trigger is "Review test results" (checked). The action is "Send an email" (checked), with the description "Send a reminder to the grant manage...". A dashed box below the action contains the text "+ Add advanced logic or action".

The right-hand "Properties" panel is expanded and contains the following sections:

- TRIGGER DETAILS**
  - Trigger type: "When record matches conditions" (selected)
  - Description: "This trigger will fire when a record in the chosen table starts matching the provided conditions. This does not include records that already match the conditions. [Learn more](#)"
- CONFIGURATION**
  - \* Table: "Effort Approvals" (selected)
  - \* Conditions:
    - When "Filed in HR?" is
    - and "14 days after created date" is today
    - + Add condition
- TEST STEP**
  - Description: "Test this trigger to confirm its configuration is correct. The data from this test can be used in later steps. The selected table should have records that match the configured conditions."
  - Buttons: "Use suggested record" and "Choose record"

# Addendum 2: Automation screenshots

The screenshot displays an automation workflow editor. At the top, a toggle switch is set to 'OFF' for the automation 'Send an email follow-up on pe...'. Below this, there are two tabs: 'Automation history' and 'Test automation'. The main workspace is divided into 'TRIGGER' and 'ACTIONS' sections. The 'TRIGGER' section contains a single step: 'When a record matches conditions' with the condition 'If Filed in HR? is unchecked and 14 days a...'. The 'ACTIONS' section contains a step: 'Send an email' with the description 'Send a reminder to the grant manager to file a salary allocation approval.' This step is highlighted with a blue border. Below the actions, there is a dashed box with the text '+ Add advanced logic or action'. On the left side, there is a 'Review test results' button. On the right side, there is a 'Properties' panel with the following sections: 'ACTION DETAILS' (Action type: Send email), 'LABELS' (Description: Send a reminder to the grant manager to file a salary.), and 'CONFIGURATION' (Action will run...: Always; \* To: Created by | Email; Show more options >; \* Subject: update database plz; \* Message: Hi | Created by | Name).