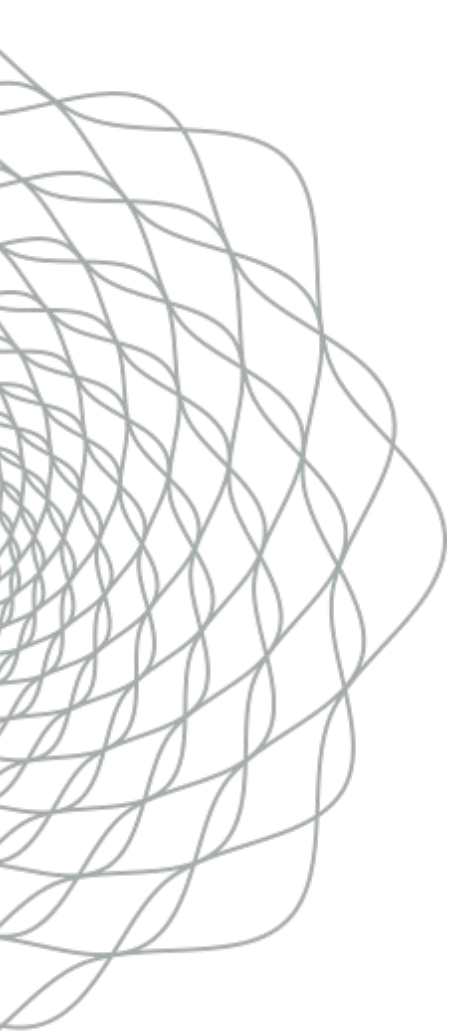
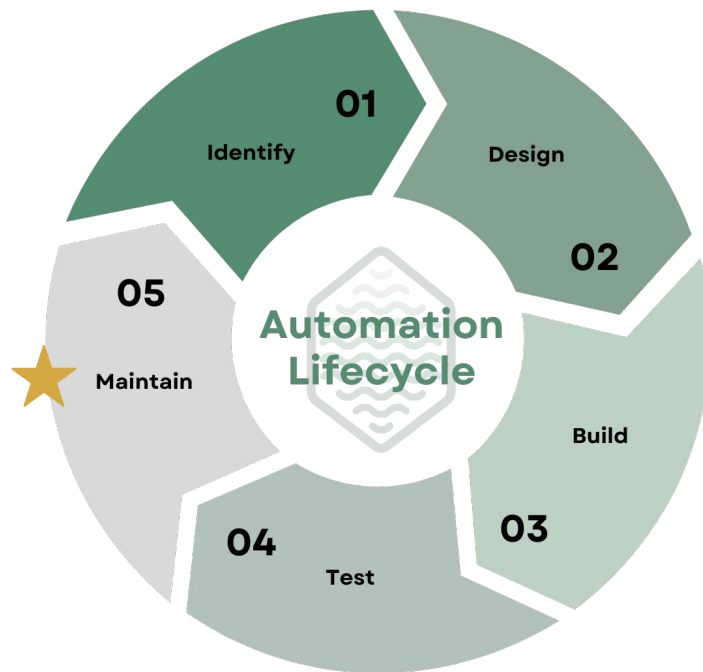




TARPON
HEALTH

a healthcare automation community

The Automation Lifecycle



Agenda

- Planned and unplanned downtime
- Our number one rule
- Issue identification and triage
- Operational and technical preparedness
- Planned downtime activities

Planned vs. unplanned

Examples of planned and unplanned situations that will impact your automation

Planned

- System upgrades
 - EHR or virtual machine changes
 - Scheduled “maintenance” black outs
- Upstream data input changes
 - Subscriber ID prefix changes, Insurance dictionary payor mappings, etc.
- Upstream operational changes

Unplanned

- Power outage / network issues
- Website changes
- Credential expiration
- Emergent software patches
- Server instability / congestion
- Back end data missing

People and machines

The situation:

You are responsible for cleaning the dishes after a big holiday meal. Some dishes must be done by hand. Some can go in the *automated dishwasher*.

You load and start the dishwasher, but half-way through the dishwasher has a malfunction.

Question: *Who is responsible for cleaning the dishes?*

Our number one rule

The rule

Building automations is a partnership between the automation and operation teams, however ***operations is always responsible for the underlying process that is being automated.***

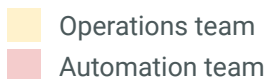
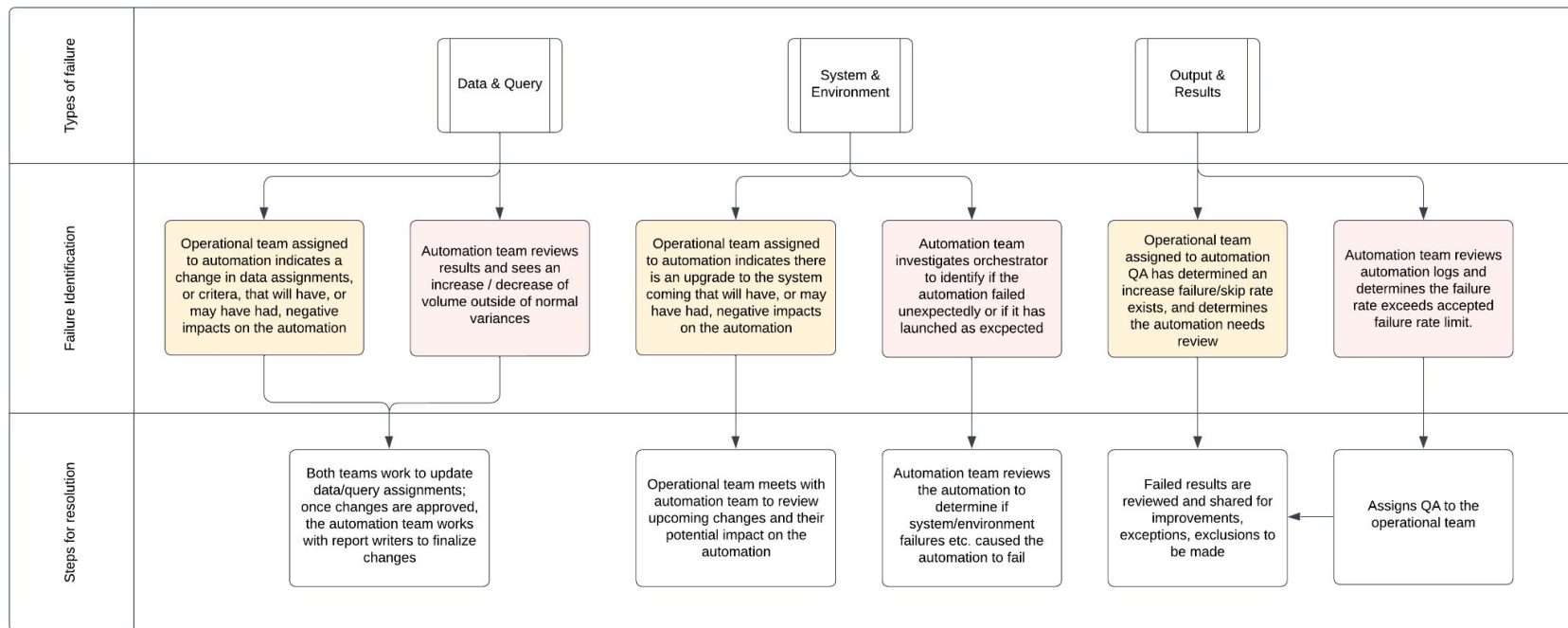
Discussion

The goal is to remove people from the process, but there still needs to be a plan for if and when the automation goes down.

- How can automation teams make it abundantly clear that the underlying process remains the responsibility of operations?
- Are operational teams responsible for communicating issues to the automation team?
- What details do operations teams need to know from the automation team in order to make the appropriate decisions?

Issue identification

Here is a breakdown of activities each team would take based on the type of failure.



Establish a triage system

A triage system will help operations understand what type of coverage is required

Suggested Triage System

- **Level 1:** We expect the automation to be down for 1-2 days
- **Level 2:** We expect the automation to be down for 2-7 days
- **Level 3:** We expect the automation to be down for 7-14 days
- **Level 4:** We expect the automation to be down indefinitely

Triage and Communication

The automation team and operations should establish some brief guidelines for what the teams will do depending on the level.

The automation team should establish and communicate a triage level for the automation when it goes down within 24 hours.

Consistently communicate the triage level to operations, especially changes!

Example of an operational coverage plan

Triage Level	Operational Actions
Level 1	No action required.
Level 2	Department manager will review the volume and assign a team lead to work high priority accounts.
Level 3	Department manager will reallocate a team leader to work accounts half-time. Team lead has discretion to bring in another staff member on a half-time basis to assist with the volume, if needed.
Level 4	Department manager will work with the VP of Revenue Cycle on a permanent staffing solution. Priority of options are as follows: - Flex staff from other areas to cover - Overtime approval - Temporary staffing - Hiring

Preventative activities

Beyond triage, teams should be preparing themselves for inevitable downtime

Automation Team

- Proactively allocate time to enhancements/maintenance into every sprint
- Development teams should review whether the automation has run daily
 - Most automation platforms have pre-built triggers indicating whether the automation has run
- Build automated reports that get shared with both teams
 - Daily automation metrics (from the automation)
 - Automation status (from orchestrator)

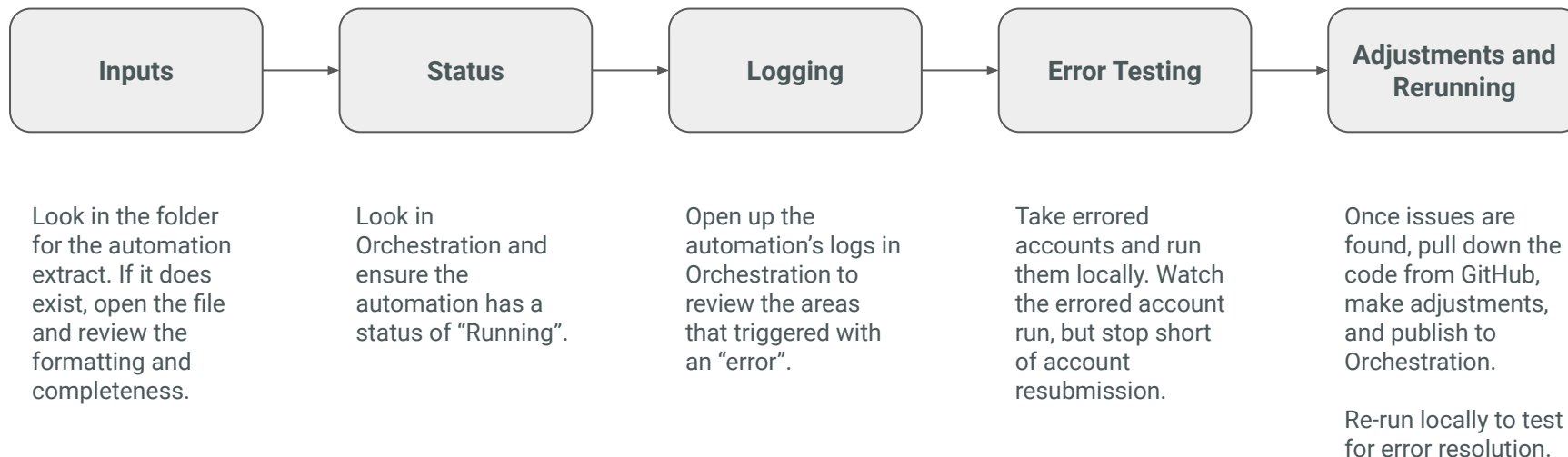
Operations team

- Maintain access to the automation work queues so no administrative work is required for operational teams to intervene when needed
- Educated to submit tickets if any issues or relevant communication arises
- Downtime plans should be documented in a place accessible to both teams, such as an intranet site

Technical documentation

Document known challenges and resolution actions as if you're not the one maintaining or fixing the automation.

Examples of common documentation points that should be captured in a README.



Planned downtime pre-work

Some general asks to make of your IT department:

1. Have a representative from the automation team join application / EMR meetings
 - a. Alternatively, have an application / EMR representative join a standing automation program meeting
2. Have the automation team included on the application / EMR release notes
3. Ask for the automation team to have early access to the application / EMR test environment (as early as allowed by the organization)
 - a. This will allow the team to view, test, and understand (with precision) how upgrades will impact your automations as soon as possible

Planned downtime activities

Every organization has to manage enterprise software upgrades

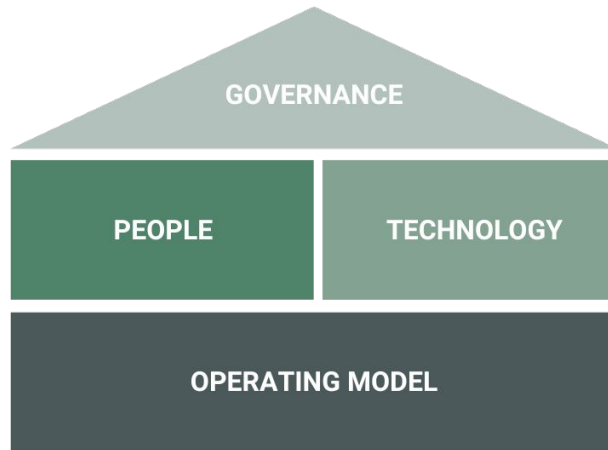
Below are the operational steps the automation program should take to transition existing automations to a new, upgraded application or EMR.

1. Isolate the automations that are going to be impacted
2. Prioritize the isolated automations based on their operational impact
 - a. Tarpon recommends focusing on the automations with the highest financial and labor impact
3. Build a sprint based on the established priority and assign goals with your development team
 - a. Identify and secure resources outside your team
4. Execute as much of the sprint ahead of the application / EMR upgrade as possible
 - a. Building as much as possible in a test environment will make the go-live smoother and drastically reduce downtime
5. Communicate anticipated downtime with operational teams (see above) as soon as possible so that operational/staffing adjustments can be made

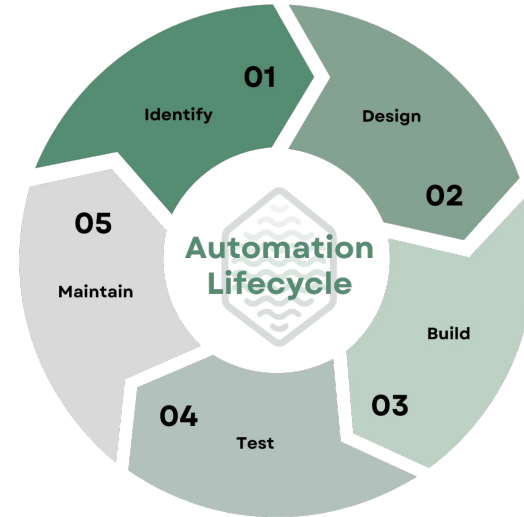


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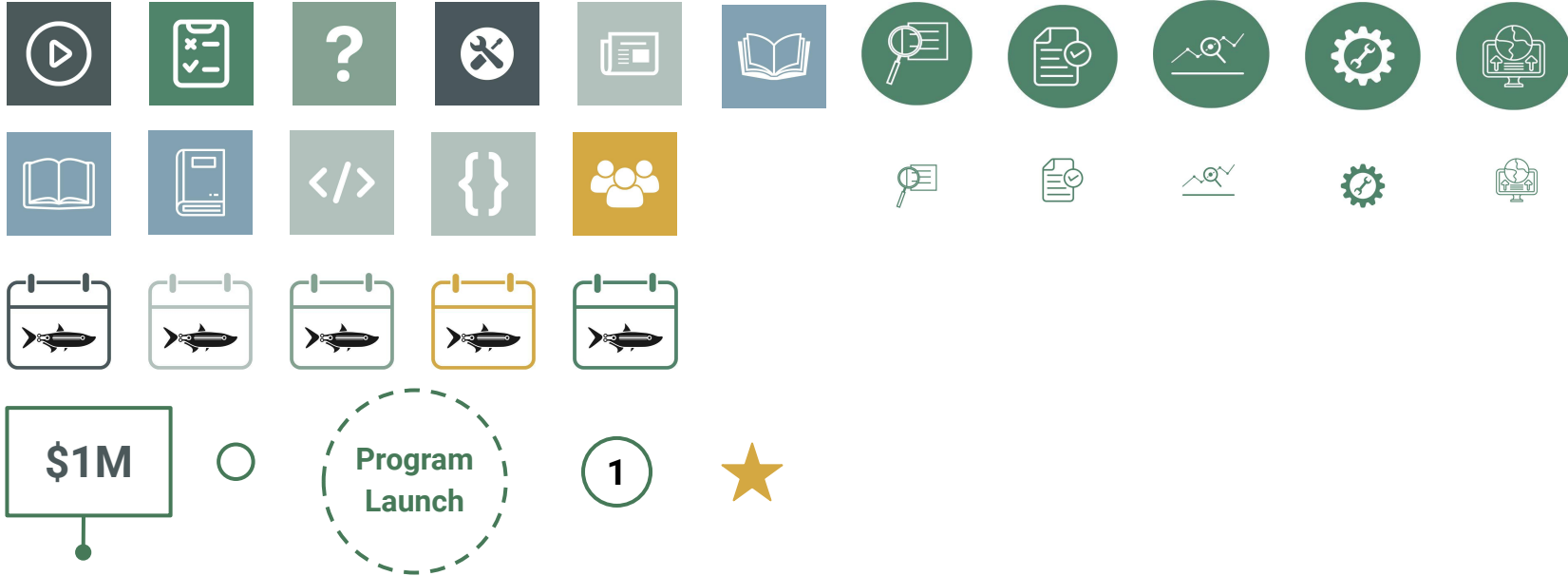


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Icons

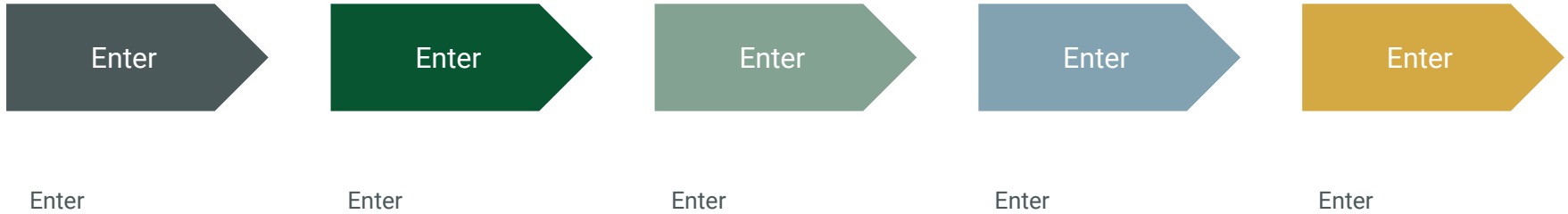


Tables you can use

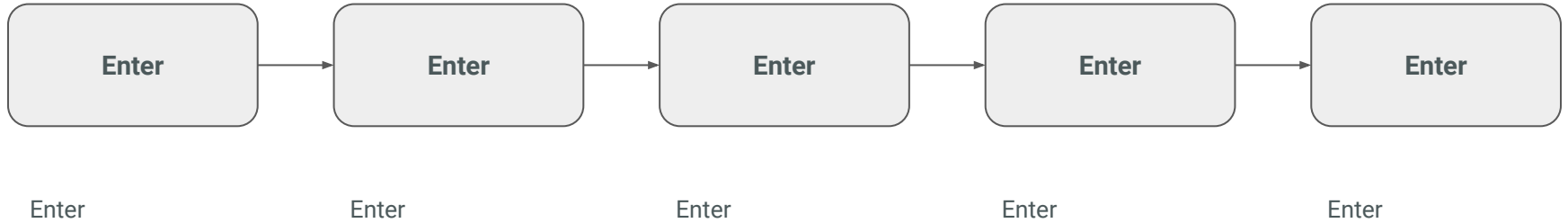
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Phases you can use



Process steps you can use



Logos

