

Building a SharePoint Document Library Approvals System



Greetings!

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The Use Case and Requirements

What did our users need?

Use Case

- One of our departments, LAS, needed to get off an on-prem Access database system for their SOP library and approvals
- This SOP library governs everything this department does, and these aren't just internal – the entire Institute needs access to the majority of the SOPs
- SOPs were just located on servers, and LAS wanted a modern solution that was cloud-based

Requirements

- Mobile-friendly for lab members who don't have computer access when in certain areas of the lab
- Cloud-based for less-restrictive access (but still protected behind MFA and Azure AD etc.)
- Multiple levels and layers of approvals required – not just one and done

◆ The Basic Process

Scheduled Daily Flow

- Needed a scheduled flow with a recurrence trigger
- Clears out all fields in the doc library that are 335 days out from their Completion Date (which also turns them back into Draft state)
- At some point, had an email component to email the supervisor with info about what SOPs were up for review

Tiered Reviews

- Three levels of approvals – Supervisor, Member/Author, and then a group vote
- Approvals are manually assigned with numbered flows and For a Selected File triggers
- Group vote flow also reads SP group members and can assign approval vote to multiple groups
- Approval Reminders are included and historical info is written to separate list

Set Approval and Clear

- Clears the entries in the SP list and resets them all to null (after the group vote has written that info to a separate list)
- Sets the Content Approval to Approved
- Writes an approved and updated copy of the SOP to an Institute Documents library

◆ The Most Basic Set-Up

- A SharePoint document library with columns for a SupervisorReviewer (person or group), SupervisorReviewStatus (choice column, with Yes, No, and Pending), and SupervisorReviewComments (multi-line text)
- <https://pnp.github.io/powerplatform-samples/> and find "Request Review and Approval for a Selected File"

Minimal Path to Awesome

- Download the .zip from the solution folder
- Browse to [Power Automate](#) and select the environment where you wish to import the sample
- From the toolbar, select **Import**
- In the **Import package** page, select **Upload** and choose the .zip file containing the sample flow.
- Select **Import**
- Customize the flow with your own SharePoint library and column names
- Go to the "Update file properties" action within the "Do until - Add approver name to SP and lock email if it fails" action and if you are allowing more than one reviewer, you may need to change the "SupervisorReviewer" field to "Switch to input entire array" before you can add the "supervisorReviewers" array variable

Title

SupervisorReviewer
Claims - 1

Switch to input entire array



Update file properties

Adds the name(s) of the selected approver(s) to SharePoint so that they will see it is assigned to them under the "My Reviews" view

* Site Address

* Library Name

* Id

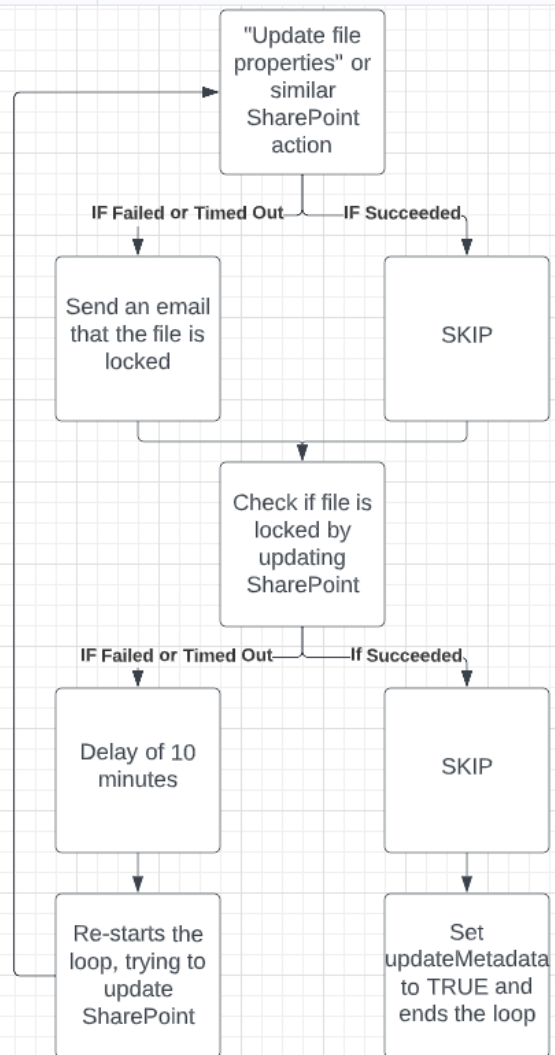
Title



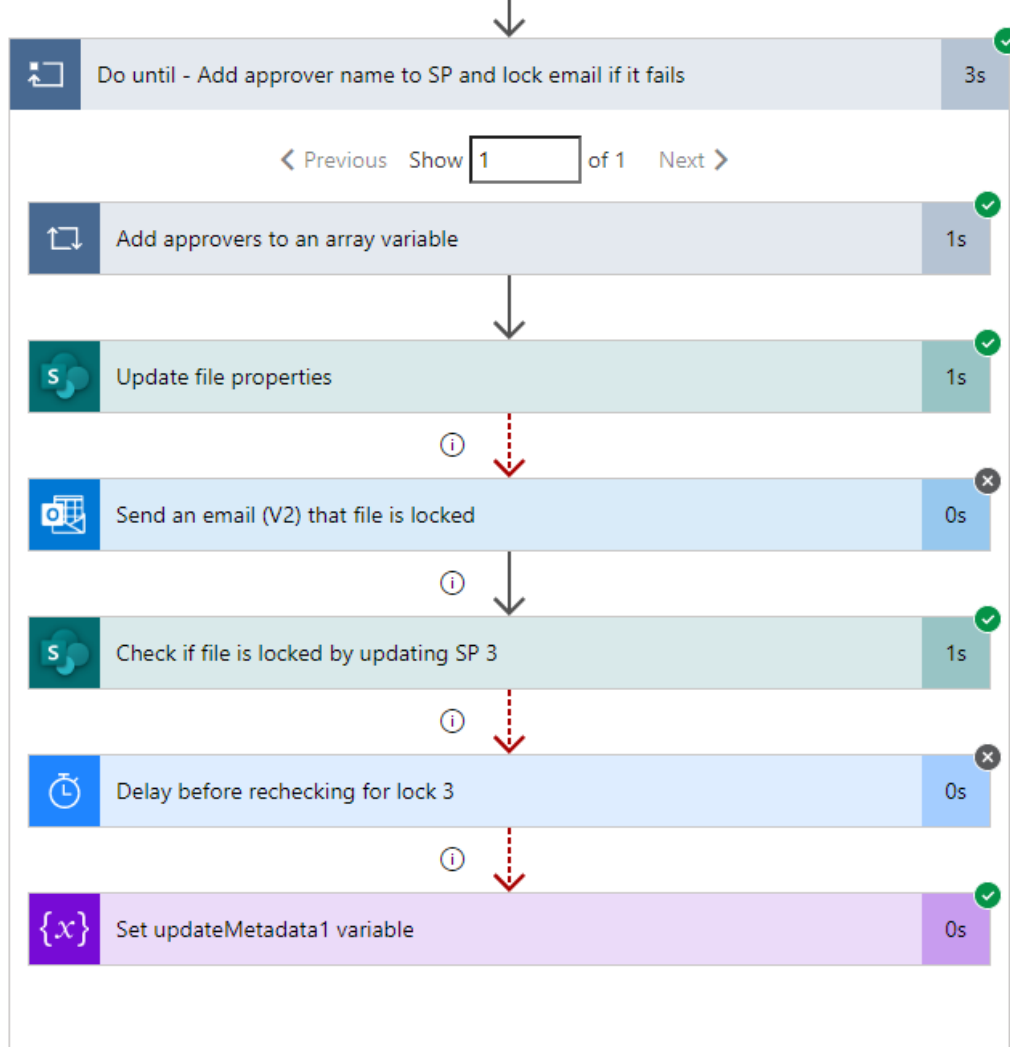
- If any action needs to be done to the SharePoint Document Library, you need “file is locked” error handling if it fails

TO THE DEMO!



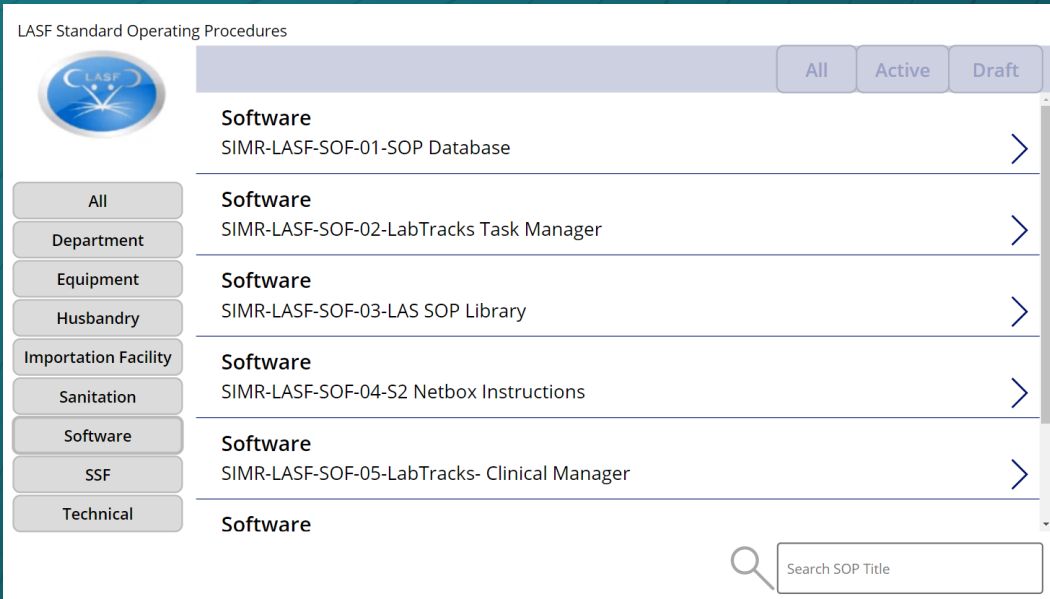


How the Error Checking should run



We also turned the Doc Library into a Power App!

- Nothing fancy UI-wise – we designed it to mimic a legacy application they were using
- In the labs, many members don't have computer access – just phones
- Still being utilized a year after launch



Takeaways

- Make a service acct the owner of the flow and the connections, not your account. Share it with all admins.
- Rename sections and leave notes, even if it's just for future you
- UAT, UAT, UAT. A lot of these tweaks you see in my code are from things that the users found when trying to do what they'd normally do

Source for Basic File Locked Check Pattern

- <https://thrivenextgen.com/power-automate-file-lock-fail/>



Do until - Add approver name to SP and lock email if it fails

...



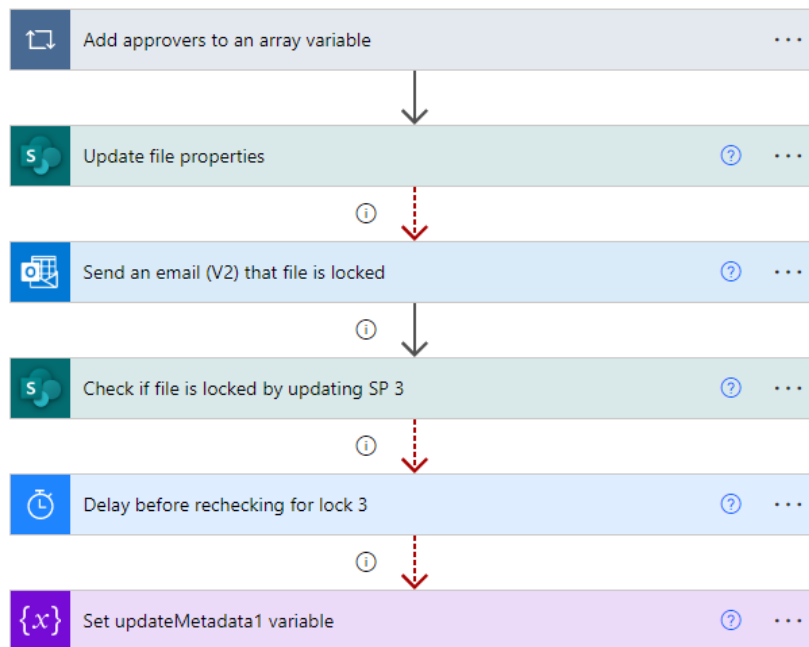
The items in this loop will repeat until the updateMetadata variable is equal to true, which is set at the end when the steps are successfully completed



{x} updateMetada... x is equal to fx true x

[Edit in advanced mode](#)

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[Add an action](#)

Update file properties

'Send an email (V2) that file is locked' should run after:

Only runs after previous step has failed or timed out - sends an email that the file is likely locked for editing to the person who started the flow

Update file properties

Failed, Timed out

☐ is successful
☒ has failed
☐ is skipped
☒ has timed out

Done

Cancel

'Check if file is locked by updating SP 3' should run after:

If the previous loop exits because SharePoint threw an error, this will re-check if the SharePoint item can be updated at all yet

Send an email (V2) that file is lo...

Succeeded, Failed, Skipped, Timed out

☒ is successful
☒ has failed
☒ is skipped
☒ has timed out

Done

Cancel

'Delay before rechecking for lock 3' should run after:

Only runs after previous step has failed or timed out - waits 10 minutes before trying again

Check if file is locked by updati...

Failed, Timed out

☐ is successful
☒ has failed
☐ is skipped
☒ has timed out

Done

Cancel

'Set updateMetadata1 variable' should run after:

Only runs after previous step is skipped (meaning SP was able to update) - setting this variable to true signals that the Do Until cycle can be exited

Delay before rechecking for loc...

Skipped

☐ is successful
☐ has failed
☒ is skipped
☐ has timed out

Done

Cancel

◆ Demo Steps

- Show getting file from the Samples Gallery
- Show importing the flow
- Show how to start changing the flow for your environment but then switch to Flow 1
- Go through the steps of Flow 1 and show the error check loop
- Go back to deck to show the Flow 1 chart
- Finish going through Flow 1
- Back to the deck for a few more slides



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