





Troubleshooting Power Automate cloud flows & Power Apps canvas apps

Tips and tricks for effective debugging

Agenda

- Importance of troubleshooting
- Most common problems  
 - Performance
 - Application functionality / Getting an error message
- Troubleshooting | tips, tricks and tools
- Best practices
- Power Platform community
- Microsoft Support

Importance of troubleshooting

Why it is relevant to master these skills and know the tools available for it

Most common problems / errors & how to troubleshoot them

What are the most common issues, how do they manifest and how to troubleshoot them

- Performance issues
- Application functionality / Getting an error message

Performance

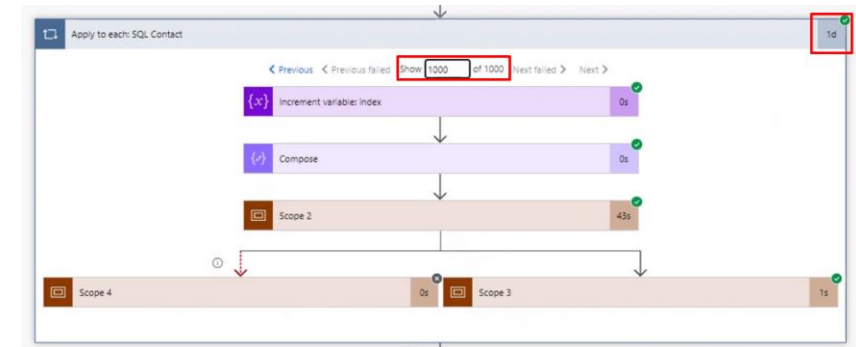
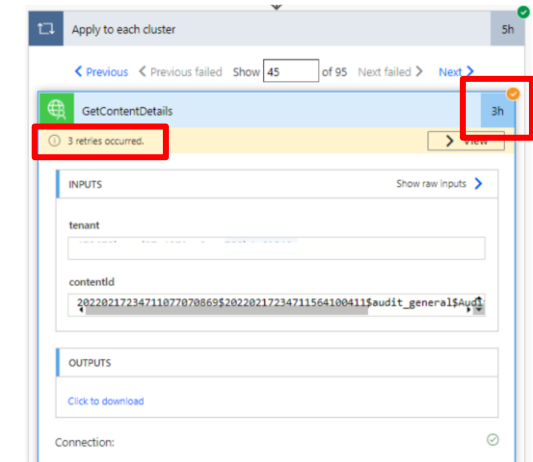
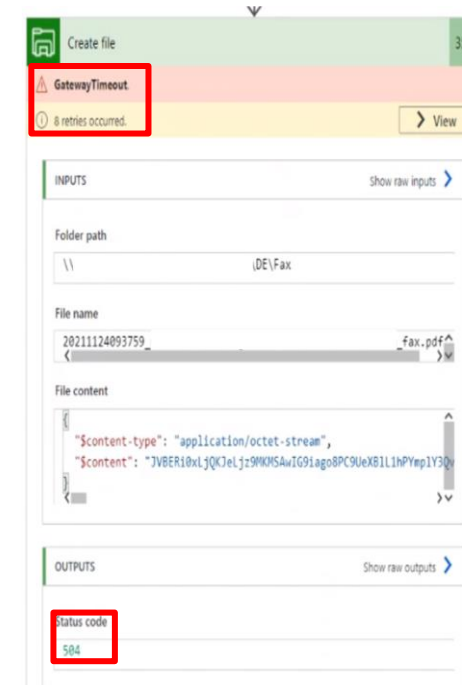


Symptom

- Flow execution that seem to be running slowly and/or stuck in a particular action in the flow run viewer.

Cause

- Service you're connecting is running slowly
- Connector slowing down as a service protection mechanism
 - HTTP error 429 – Too many requests
 - Dataverse, Sharepoint, Outlook, Graph API...
- Flow executing excessive number of actions (Power Platform requests) per day
- Exceeding data consumption allowance per day
- Exceeding other documented limits



Performance



1. Connector slowing down as a service protection mechanism

- Dataverse [\[link1\]](#)[\[link2\]](#)
- Sharepoint [\[link\]](#)
- Graph API [\[link\]](#)
- Outlook [\[link\]](#)

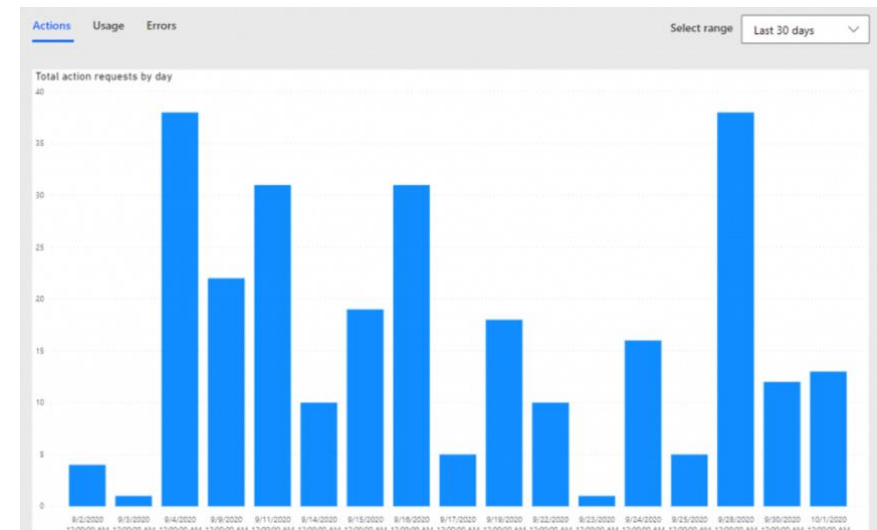
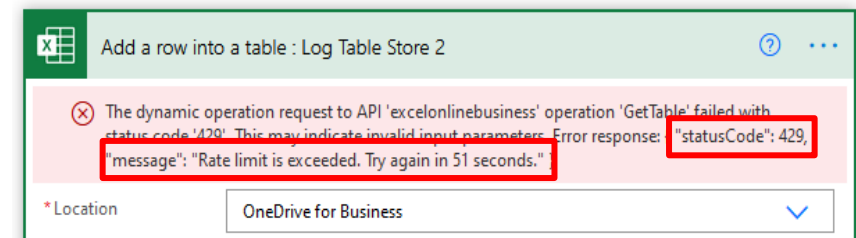
2. Flow executing excessive number of actions (Power Platform requests) per day

- Power Platform requests [\[link\]](#)

3. Exceeding data consumption allowance per day [\[link\]](#)

4. Exceeding other documented limits [\[link\]](#)

- Flow definition limits
- Duration and retention limits
- Concurrency and looping
- Timeout limits



Performance - troubleshooting



Troubleshooting steps:

1. Flow run duration
2. Current license / plan
 - <CTRL> + <Alt> + <A>
 - "isCurrent": true
3. Flow analytics tab – Actions
 - Power Platform requests
4. Connector specific
5. Data consumption limits
6. Flow Requirement limits

The screenshot shows the 'Run history' table in Power Automate. The table has three columns: 'Start time', 'Duration', and 'Status'. The 'Duration' and 'Status' columns are highlighted with red boxes. The table lists several runs, all with a status of 'Running'. A dropdown menu is open on the right side of the table, showing options: 'All runs', 'Successful runs', 'Failed runs', 'Running', 'Cancelled runs', 'Checks (no new data)', and 'Failed checks'.

Start time	Duration	Status
Feb 15, 04:06 PM (23 min ago)	00:23:53	Running
Feb 15, 03:06 PM (1 h ago)	01:23:54	Running
Feb 15, 02:06 PM (2 h ago)	02:23:54	Running
Feb 15, 01:06 PM (3 h ago)	03:23:55	Running
Feb 15, 12:06 PM (4 h ago)	04:23:55	Running
Feb 15, 11:06 AM (5 h ago)	05:23:55	Running
Feb 15, 10:06 AM (6 h ago)	06:23:56	Running
Feb 15, 09:06 AM (7 h ago)	07:23:56	Running
Feb 15, 08:06 AM (8 h ago)	08:23:56	Running

```
{
  "id": "/providers/Microsoft.BusinessAppPlatform/scopes/service/serviceplans/c5002c70-f725-4367-b409-f0eff4fee6c0",
  "name": "c5002c70-f725-4367-b409-f0eff4fee6c0",
  "type": "Microsoft.BusinessAppPlatform/scopes/serviceplans",
  "properties": {
    "assignedTime": "2021-03-08T14:35:44Z",
    "capabilityStatus": "Enabled",
    "expirationTime": null,
    "isTrial": false,
    "licenseId": "c5002c70-f725-4367-b409-f0eff4fee6c0",
    "licenseName": "FLOW_PER_USER",
    "licenseSku": "P2",
    "serviceType": "ProcessSimple",
    "policies": {
      "maximumRecurrenceFrequency": 60,
      "accessPremiumApis": true,
      "accessOnPremGateway": true,
      "canUseCustomApis": true,
      "calendarMonthFlowRunLimit": 15000,
      "additionalAllowedPremiumApis": null,
      "rpaAttendedAllowed": false,
      "maxFlowExpiryInDays": 732,
      "isFlowExpiryAutoRenewable": true
    }
  },
  "isCurrent": true
},
```

Application functionality / Getting an error message



Common issues

- Logic
 - Formula Syntax
- Data Loss Prevention (DLP) / Conditional Access (CA) policies



How to identify them

- Flow checker
- Error notifications

- Connectors
 - Connections
 - Custom connectors [\[link\]](#)
- Permissions and security roles
- Whitelisting of IP addresses / services [\[link\]](#)
- Orphaned Flows [\[link\]](#)



HTTP status code

- Authorization – 401/403
- Bad request – 400
- Not Found – 404
- Rate limit exceeded – 429
- Bad Gateway – 502
- Service Unavailable – 503
- Gateway timeout – 504

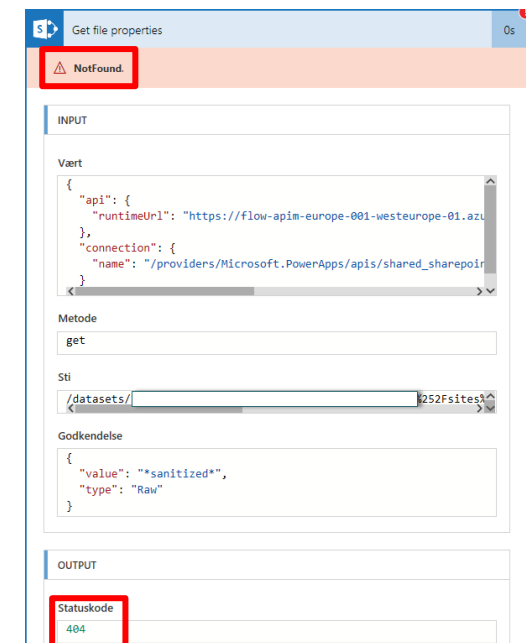
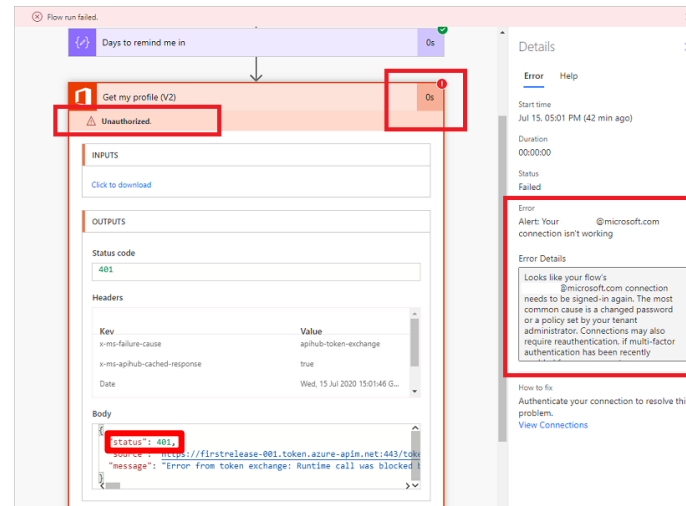
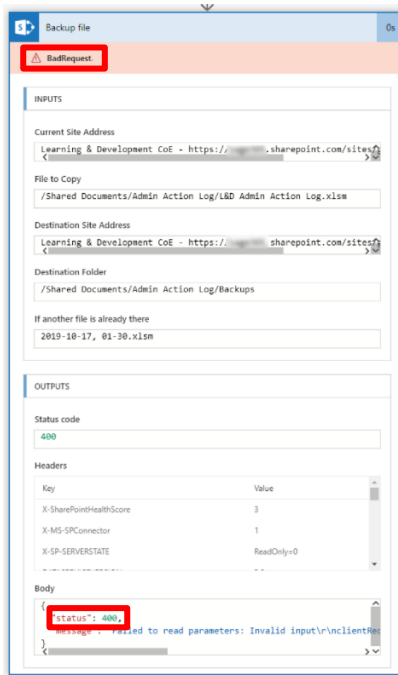
- Trigger not triggering
- Licensing and add-ons

Application functionality / Getting an error message



HTTP status codes

- Bad request – 400
 - Web method is not correct: POST, GET, Data is in correct format (JSON, CSV)
- Authorization – 401/403
 - Account credential, account permissions, MFA authentication needed
- Not Found – 404
 - Resource of file path incorrect, URI incorrect

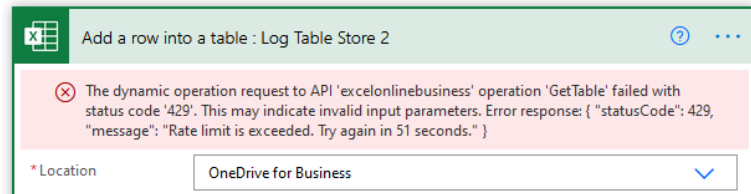


Application functionality / Getting an error message

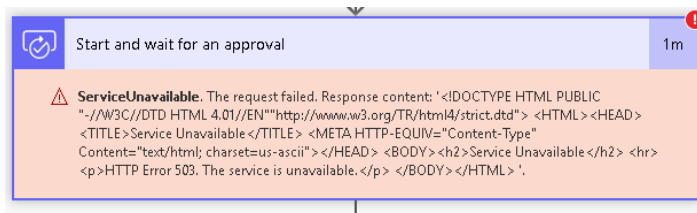


HTTP status codes

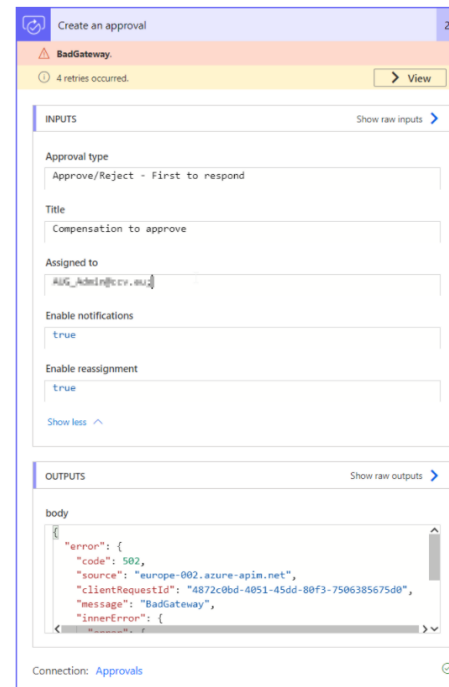
- Rate limit exceeded – 429
 - Reached API limit from or to a specific service



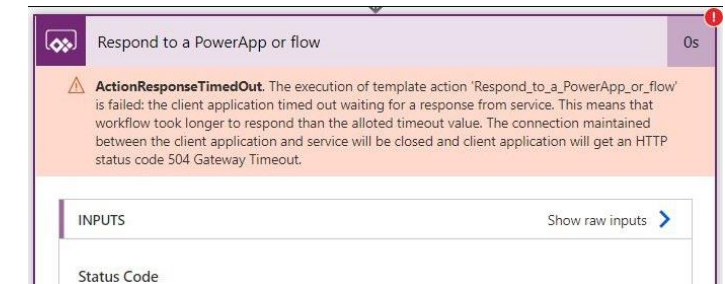
- Service Unavailable – 503
 - Service is Online and under heavy load



- Bad Gateway – 502
 - Protocol incorrect: http, https , firewall or proxy blocking service connection, security role issue



- Gateway timeout – 504
 - Firewall or proxy in configured incorrectly, check whether no additional protection service is blocking (antivirus), no response in time



Application functionality / Getting an error message – troubleshooting



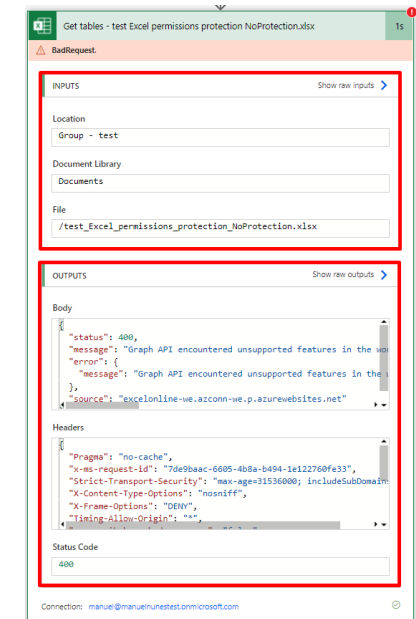
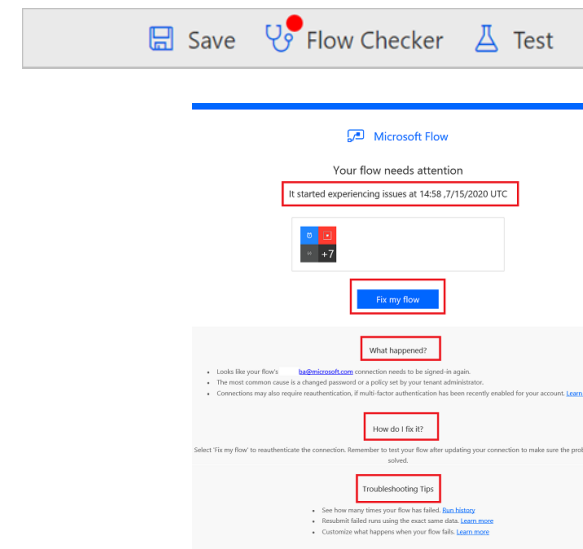
Assessment

1. Have you tried turning it off and on?
2. Other users have the same issue?
 - What are their settings and do they differ from mine
3. Did it ever worked in the past?
 - What changes have occurred in the meantime



Tools available

- Flow checker
- Repair tips
- Connector
 - Inputs/Outputs
 - Error message
- Peak code functionality
- Network trace
- URL decoder
- Community Forum



Error handling – Best practices

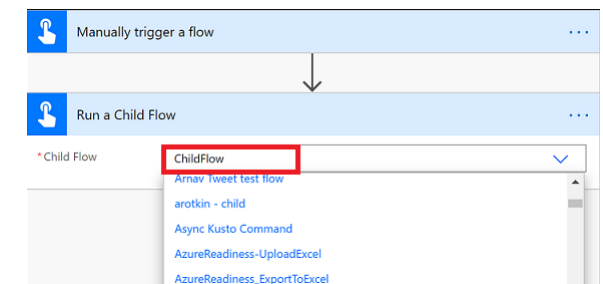
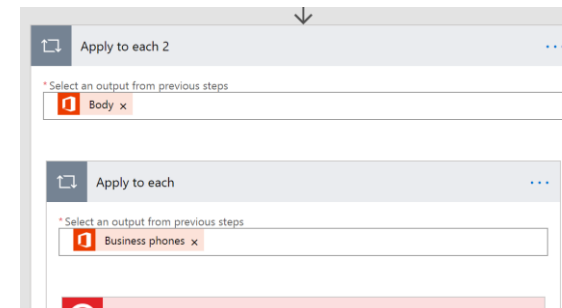
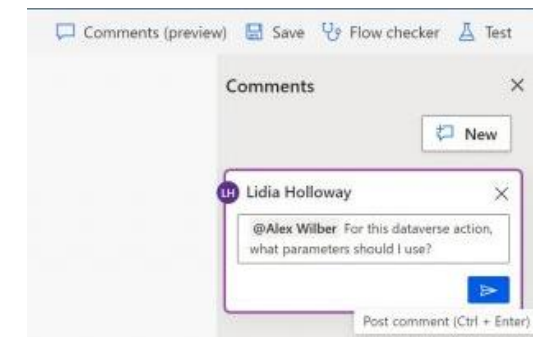
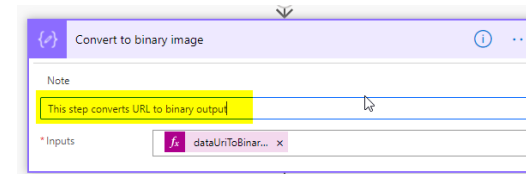


Operational

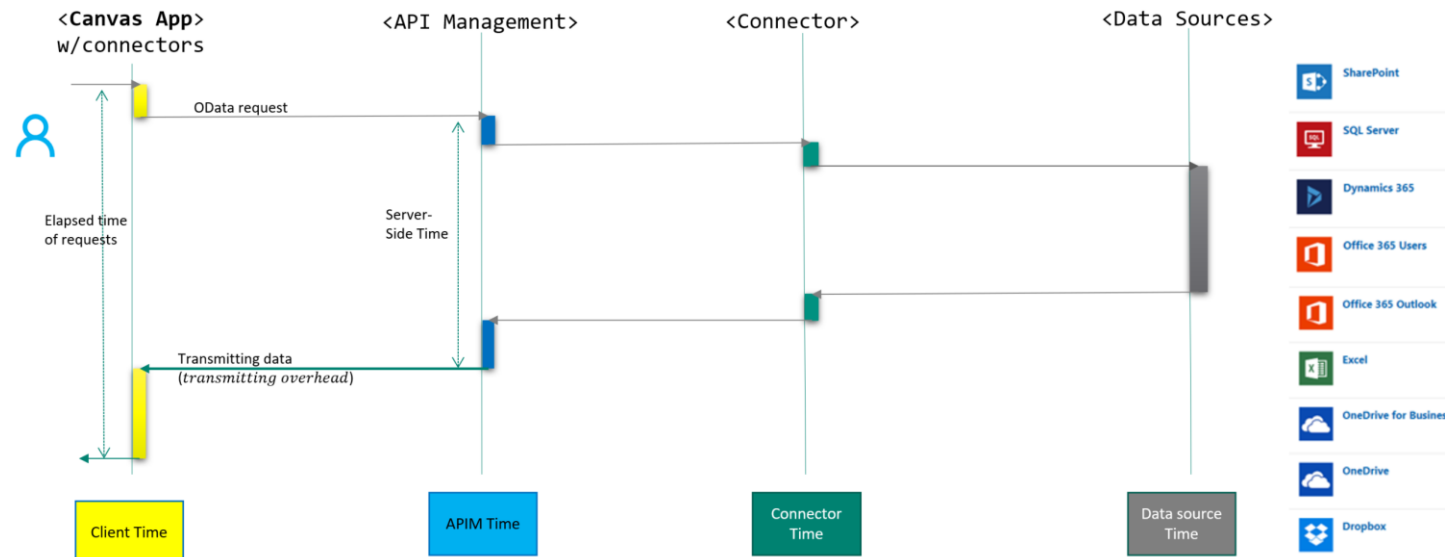
- Relevant action name and note
- Add comments
- Use scopes to organize complex flows
 - Try, Catch and Finally model [\[link\]](#)
- Avoid nested loops
- Make use of child flows

Strategic

- Trainings – They pay dividends [\[link\]](#)
 - Free instructor lead trainings and certification [\[link\]](#)
- Test the flow as you're building it
- Add co-owners / service account
- ALM and environment strategy
 - Use solutions

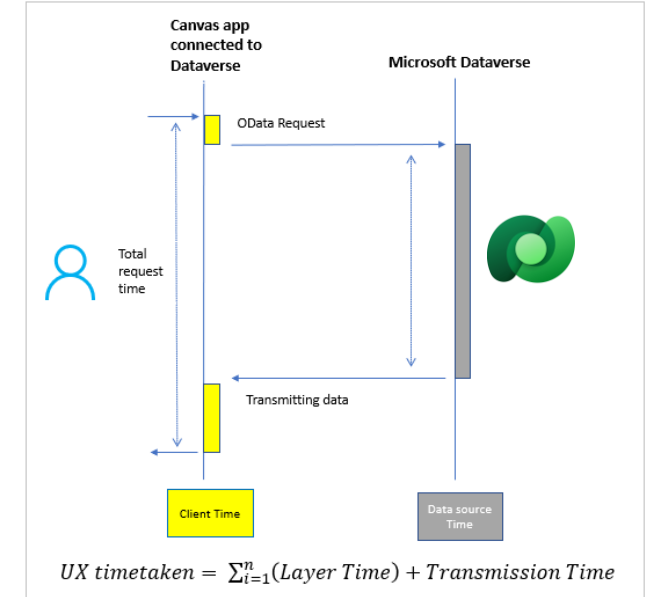


Data call flow



$$UX\ timetaken = \sum_{i=1}^n (Layer\ Time) + transmitting\ Time$$

[link]



Performance



Symptoms

Canvas app is taking a lot of time to load (OnStart, between screens) or retrieving data from the data source

Cause

1. Poor app design
2. Bottleneck in the data source
3. Client browsers, devices and location
4. Geographical location of the on-prem data gateway and environment
5. Throttling of high-volume requests at the back end
6. 'Debug published app' setting enabled

[\[link\]](#)



Loading ...

Performance breakdown



1. Poor app design

- Recommended limit of 500 controls and 30 connections p/ app
- Use of Concurrent(), ClearCollect(), Set() functions
- Avoid control dependency between screens
- Use delegation
- Heavy scripts on the 'OnStart property'

2. Bottleneck in the data source

- Too many columns retrieved
- Few resources available on the server side
- On-prem data gateway unhealthy

3. Client browsers, devices and authoring version

- Unsupported browsers, OS versions
- Change authoring version and republish app regularly
 - Supported versions: <https://create.powerapps.com/debug.html>
 - Change authoring version in URL: <https://create.powerapps.com/vX.XXXXXX.XX.XXXXXXXX/studio/>

4. Geographical location of data gateway and environment

- Affects latency, throughput or packet loss

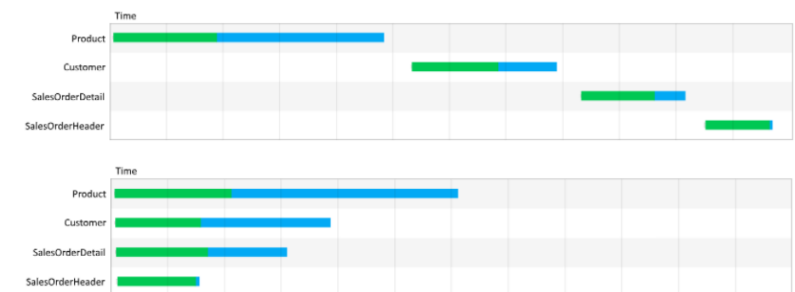
5. Throttling of high-volume requests at the back end

- Subject to Service Protection API limits

Concurrent(

```
ClearCollect( Product, '[SalesLT].[Product]' ),  
ClearCollect( Customer, '[SalesLT].[Customer]' ),  
ClearCollect( SalesOrderDetail, '[SalesLT].[SalesOrderDetail]' ),  
ClearCollect( SalesOrderHeader, '[SalesLT].[SalesOrderHeader]' )
```

)

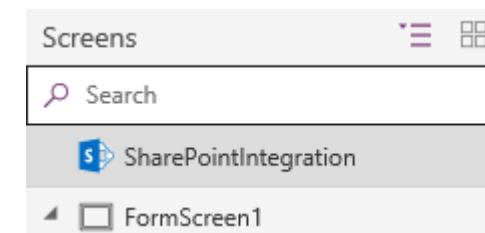
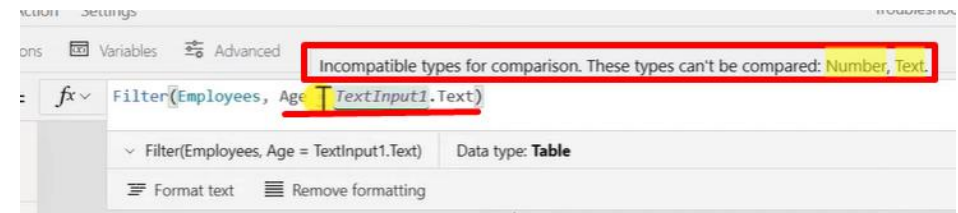
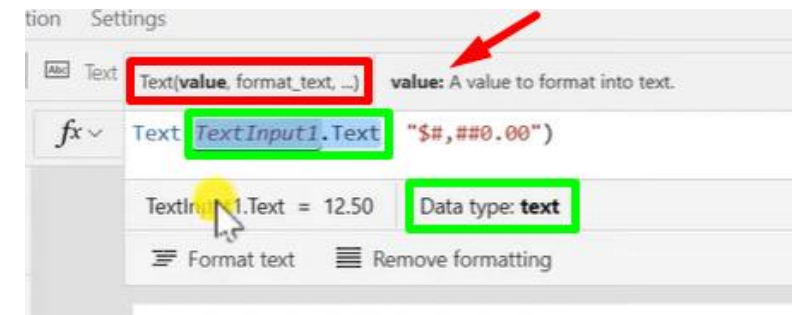


Application functionality / Getting an error message



Common issues

- Logic [\[link\]](#)
 - Formula syntax
 - Data types not matching
- Integrations
 - Sharepoint, Model-Driven Apps, MCAS, ...
- Licensing and plan assignment
 - Per App plan and Add-Ons [\[link\]](#) [\[link2\]](#)
- Whitelisting of IP addresses / required services [\[link\]](#)

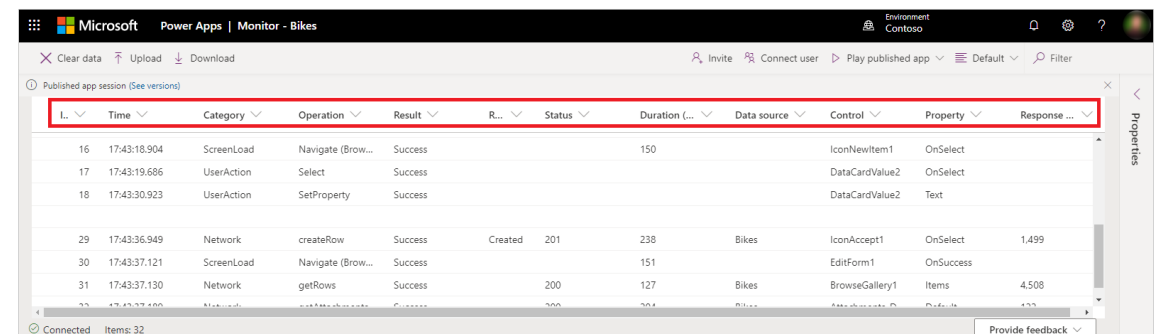
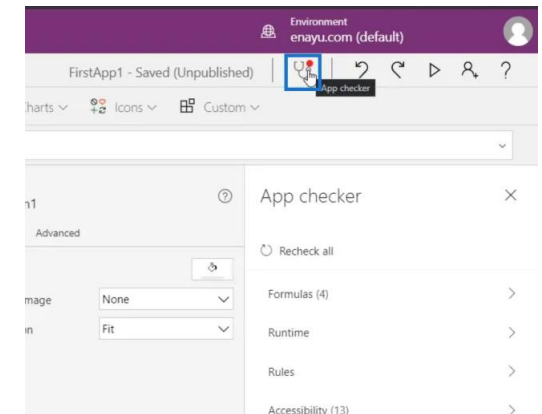
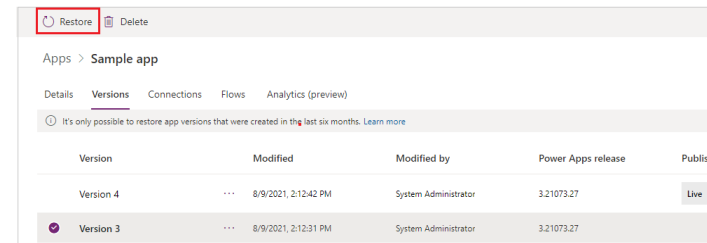
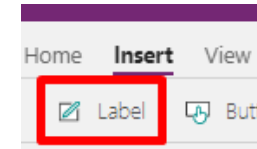
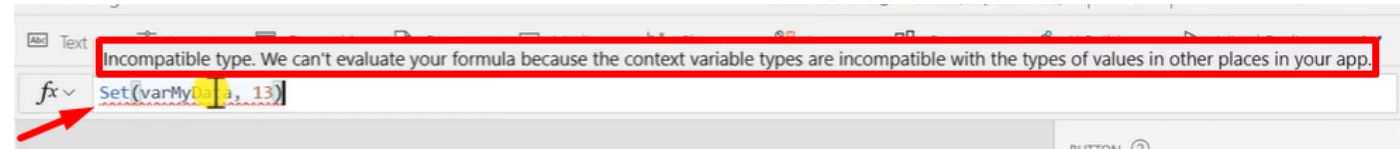


Performance - Troubleshooting



Tools available

- **App Checker & Mouse over error**
 - Formulas
 - Warnings
 - Accessibility
- **Label control**
- **Monitor**
 - View events while building
 - Monitor published apps in runtime
- **Clear cache and cookies**
 - Browser in incognito mode
- **Restoring app to previous version**
- **Change authoring version**
 - Studio version updated based on environment location and refresh cadence
- **Community Forum**



Shout-out to Shane Young and Tom Jeffries for the demos: [\[link1\]](#)[\[link2\]](#)

Power Platform community

Connect with peers, share ideas, and learn from experts

- Q&A forum
- Feature requests / Ideas
- Sample implementations / canvas apps

Power Platform community



- **Power Automate** [\[link\]](#)
- **Power Apps** [\[link\]](#)
- News & Announcements
- Get Help
- Blog posts
- Flow/App samples
 - Components sharing
- Ideas

 **ManojR**
Frequent Visitor

Flow is not getting Triggered on time, there is delay of about 30 mins for "When a file is created in a folder" Trigger
3 weeks ago

Hi Folks,

Hope you doing Great!,

As mentioned in the title of this thread, My flow is not getting triggered on time for SharePoint Trigger "When a file is created in a folder".

So, Is this because any external reason or Do I need to configure anything into my flow? 🙄

Thanks much,
Manoj

Solved! Go to Solution.

Labels: [Power Automate Admin Issue](#)
[Power Automate Community Practice](#)

Everyone's tags (3): [Power Automate Cloud Fl...](#) [SharePoint](#) [sharepoint triggers](#)


 0 [Reply](#)


Power Apps Ideas

Share your ideas and vote for future features


[Suggest an idea](#) [Options](#)

Hot Ideas **Top Ideas** New Ideas Categories Status

1,752  **Vote**

 **Allow Admins to login as Users**
D365Ideas_Admin on 02-04-2019 06:23 AM

It would be great if as an admin I could login as another user in order to troubleshoot issues that arise. Instead of having to waste a license for my test user so I can change the test users security roles to mimick that of the individual having issues.

 **PLANNED** D365Ideas_Admin (Regular Visitor) responded

Thank you for your feedback. This is a great suggestion! We are considering this for our future release.

Microsoft Support

On a mission to empower every person and organization on the planet to achieve more

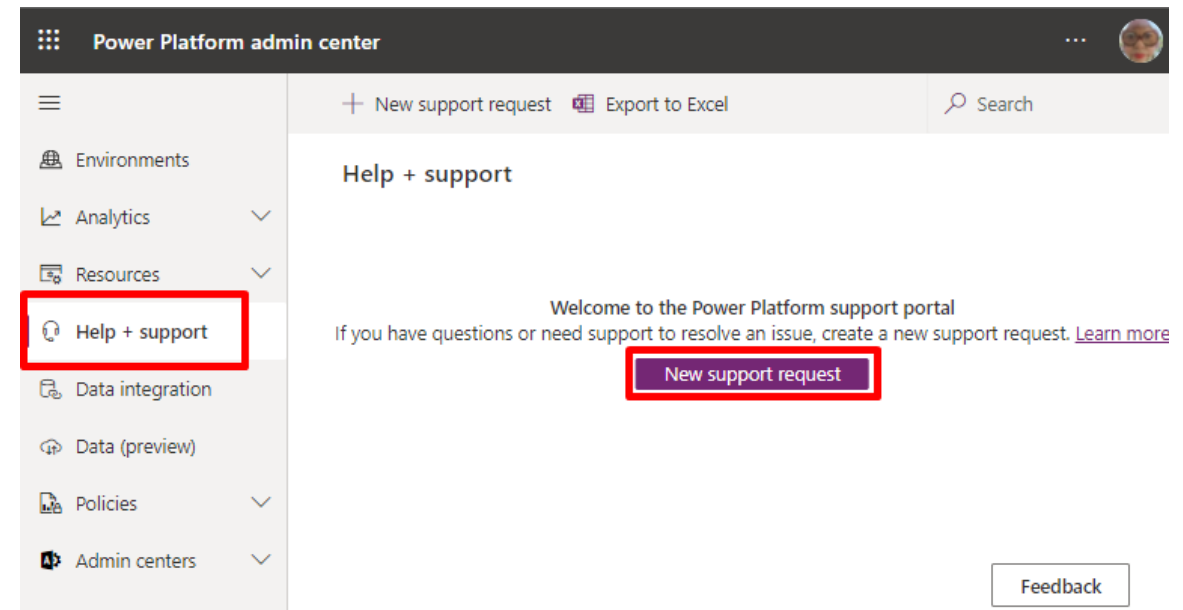
- Break-fix
- Advisory

Microsoft Support



Create support requests in Power Platform Admin Center (PPAC)

- Detailed issue description
 - Screenshots
- Business Impact
- Environment ID
- Flow / App ID
- Session ID
- Request ID





Thank you