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Error-Proof Your Automations: A Deep Dive into Advanced Error Handling and Logging in Power Automate Desktop

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Agenda

- Some “theory”
  - Types of error handling available in PAD
  - Options available for logging errors
- Demos
  - Different ways to handle errors
  - The different options for logging error messages
  - Logging runtime non-error messages
  - Taking screenshots on error
  - Monitoring logs in ELK
- Q&A

Types of error handling

The main options on how to handle errors in PAD are:

- None – the flow fails on any error (not recommended)
- Action level – special rules set on each action (not recommended, except for special cases)
- Error blocks – setting rules for blocks of actions or entire sub-flows (recommended)

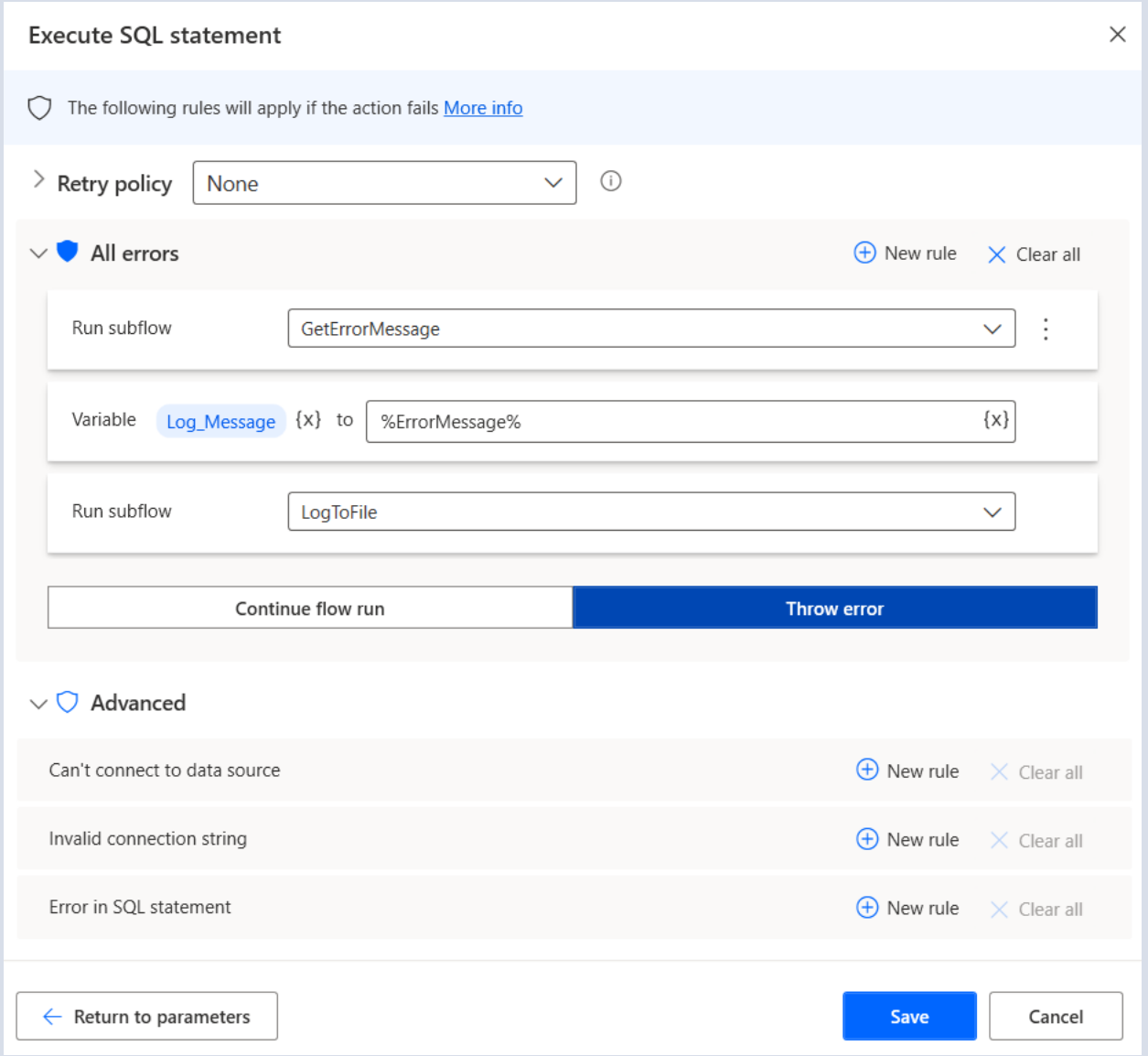
Action level error handling

+ Very powerful, lots of rules

- Time-consuming to build an maintain

- Does not apply to all actions

- Cannot handle unexpected logic errors



Error blocks

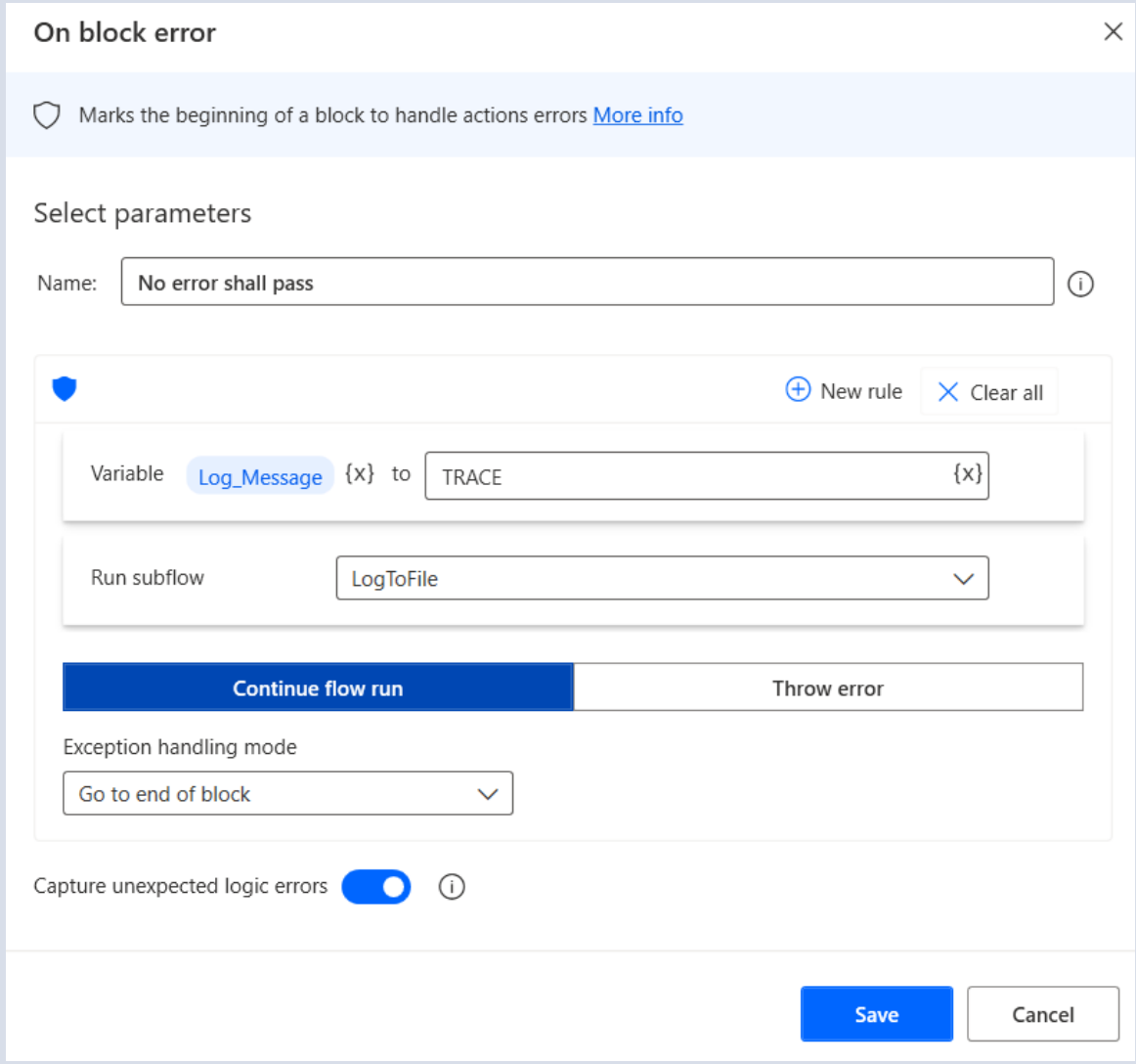
+ Very powerful

+ Easy to set up and maintain

+ Can handle all exceptions

- Less options

- Same rules apply to all actions

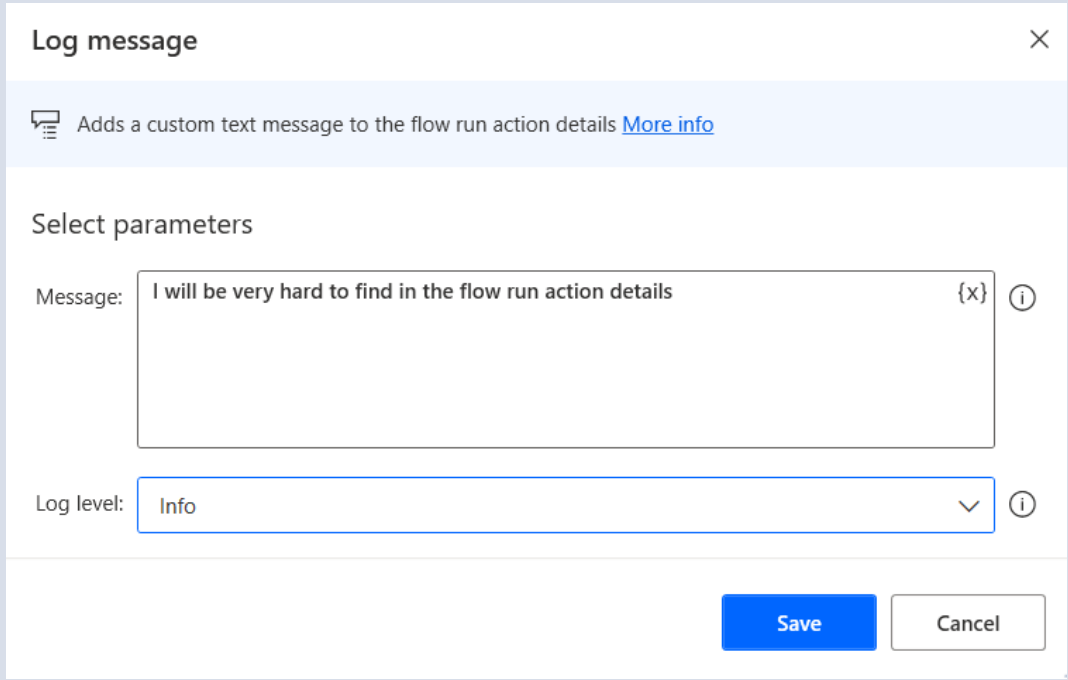


Log messages

Handling errors is cool, but if there are no logs, it will usually be quite hard to find the issue - and let alone fix it.

Currently, PAD supports the **Log message** action.

While **Log message** is better than no logging, pretty much any custom logging alternative is better than using **Log message**.



Logging errors

Some options that I've seen:

- Logging to SQL databases – great for techies, might be harder to use for non-tech people.
- Logging to SharePoint lists – better for non-tech people
- Logging to CSV files – easy to implement, but a bit limited
- Logging to plain text files – very easy to implement and easy to use

Logging to plain text files

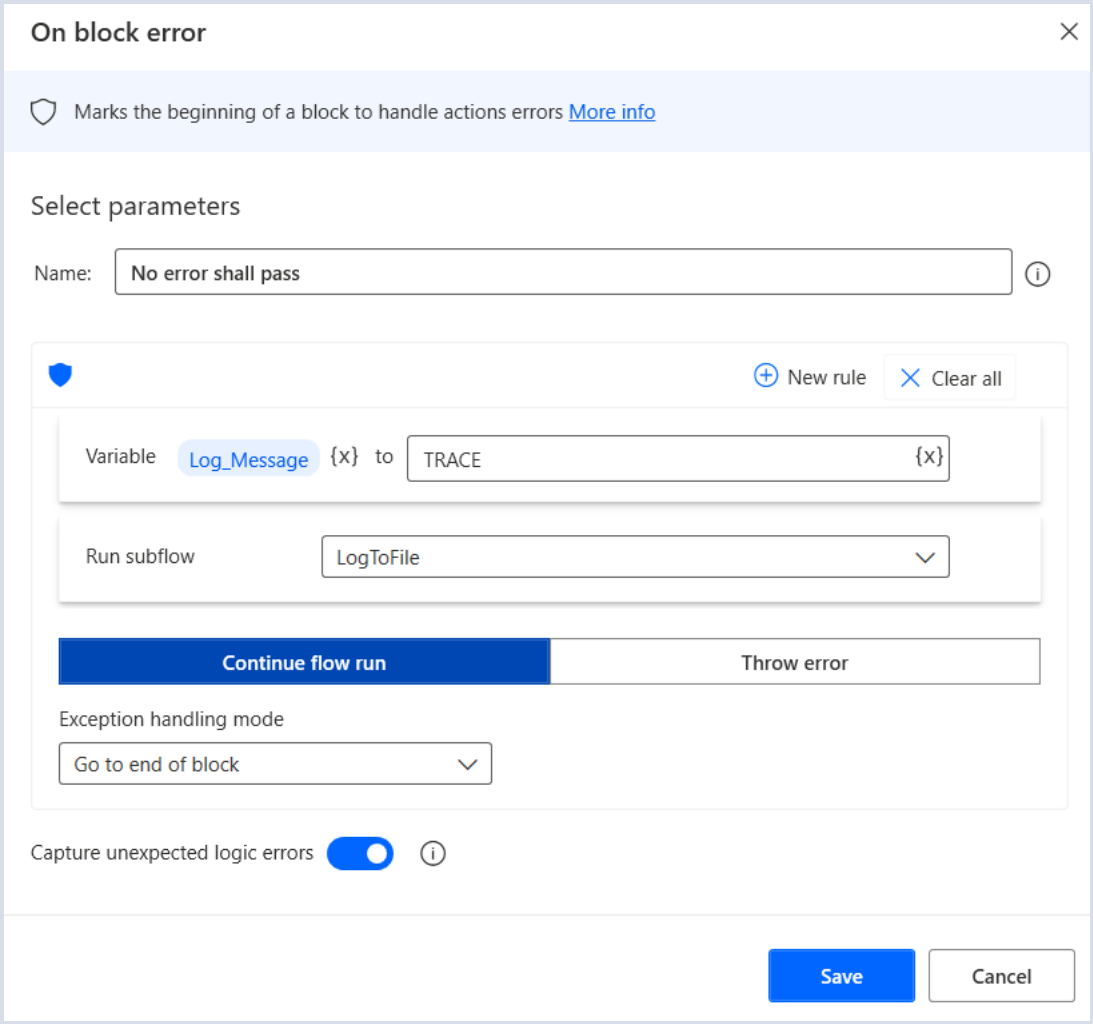
The reason I like plain text files:

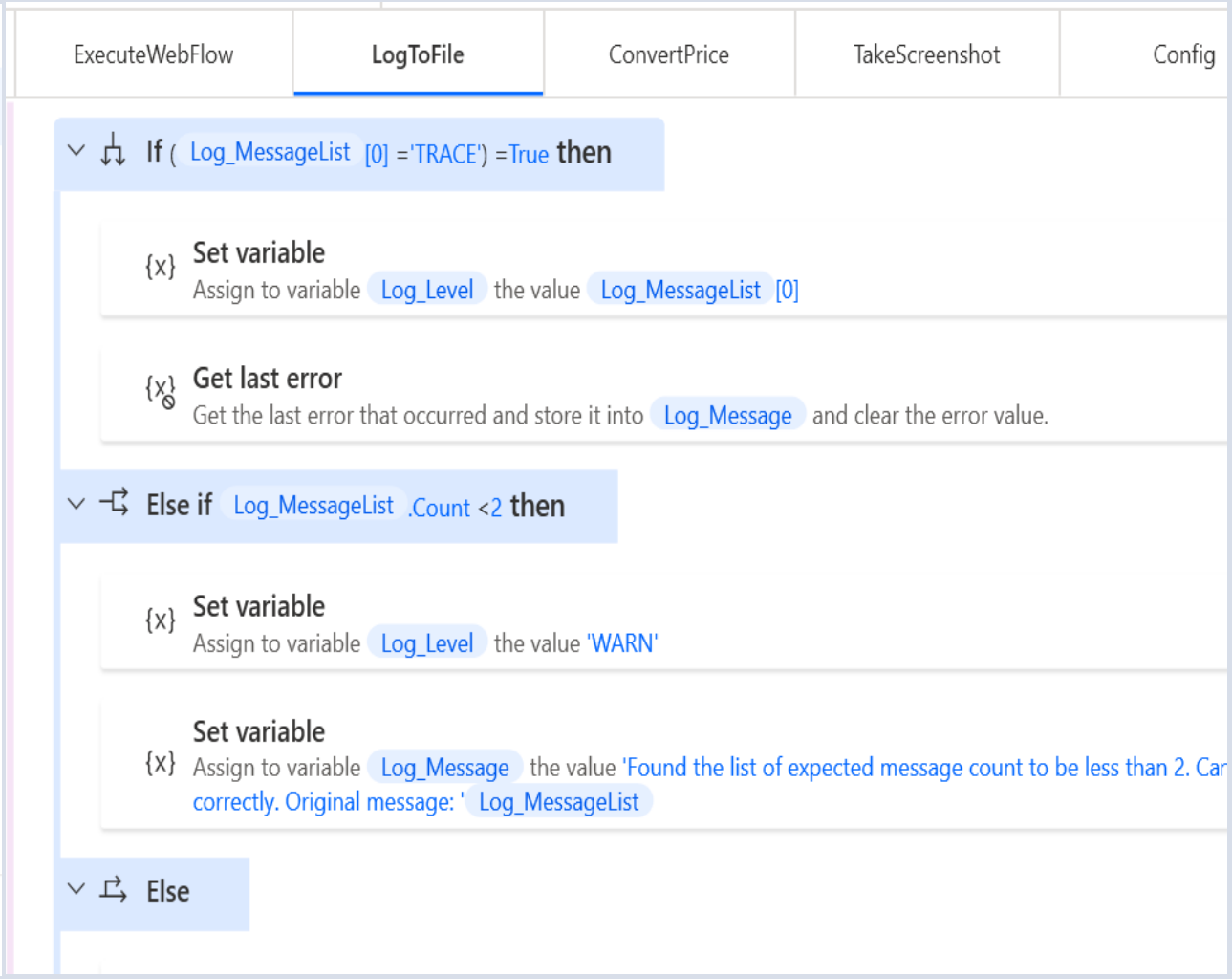
- They're very easy to set up in PAD
- **Write text to file** is much less likely to fail due to application errors.

The one limitation of logging to local files over SQL databases and SharePoint lists are the fact that they're local to the machine (unless we push them to some network location).


STOP TALKING
SHOW ME A DEMO

On block error at sub-flow level + Get last error





External Config for logger object, screenshots path, etc.

```
"WorkItemProcessor": {
    "PreviousModule": "WorkItemGenerator",
    "MaxErrorCount": {
        "Excel": 10,
        "Web": 10,
        "Axapta": 10,
        "WorkItem": 3
    },
    "Logger": {
        "LogLevels": "TRACE,DEBUG,INFO,WARN,ERROR,FATAL",
        "ErrorLogLevels": "ERROR,FATAL"
    },
    "Environment": "DEV",
    "URL": {
        "Main": "https://www.lego.com/",
        "Base": "https://www.lego.com/en-lt/product/{ProductNumber}"
    },
    "ScreenshotsPath": "C:\\RPA\\NordicSummit\\Screenshots",
    "Recipient": {
        "Error": "ab@robovirgin.com",
        "Info": "",
        "Success": "",
        "Skip": "",
        "Fail": "",
        "Default": "ab@robovirgin.com"
    }
}
```

Log file per day per flow (+ per machine optionally)

Get Windows environment variable
Retrieve the value of environment variable 'COMPUTERNAME' and store it into ComputerName

Set variable
Assign to variable Log_File the value LogsDirectory '\{Date}_{ModuleName}_{Machine}.log'

Replace text
Replace text '{Date}' with DateISO8601 in Log_File and store the result into Log_File

Replace text
Replace text '{ModuleName}' with ModuleName in Log_File and store the result into Log_File

Replace text
Replace text '{Machine}' with ComputerName in Log_File and store the result into Log_File

Name	Date modified	Type	Size
2023-08-29_WorkItemGenerator_LAPTOP-55SPC6R1.log	2023-08-29 12:02	Log file Source File	35 KB
2023-09-20_WorkItemGenerator_LAPTOP-55SPC6R1.log	2023-09-20 15:09	Log file Source File	45 KB
2023-09-20_WorkItemProcessor_LAPTOP-55SPC6R1.log	2023-09-20 15:36	Log file Source File	483 KB
2023-09-21_WorkItemGenerator_LAPTOP-55SPC6R1.log	2023-09-21 21:31	Log file Source File	43 KB
2023-09-21_WorkItemProcessor_LAPTOP-55SPC6R1.log	2023-09-21 21:55	Log file Source File	337 KB
2023-09-22_WorkItemGenerator_LAPTOP-55SPC6R1.log	2023-09-22 11:21	Log file Source File	43 KB
2023-09-22_WorkItemProcessor_LAPTOP-55SPC6R1.log	2023-09-22 11:44	Log file Source File	138 KB

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Q&A

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THANK YOU!