



# Microsoft Power Platform **CONFERENCE**

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POWER AUTOMATE

POWER APPS

POWER VIRTUAL AGENTS

POWER PAGES

# Power Automate 101

Lindsay Shelton

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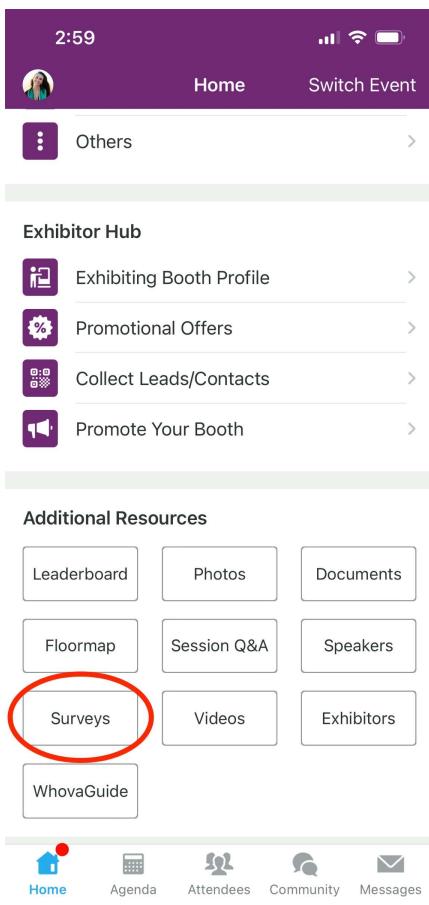
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PPCFall2023**



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*We really want to hear from YOU!*

*In the pursuit of making next year's Microsoft Power Platform Conference even better, we want to hear your feedback about this session.*

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- *Simply go to the Whova App on your smartphone*
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- *Click Session Feedback.*
- *Scroll down to find this session title.*
- *Complete the session feedback survey.*
- *Finally, click 'Submit'*

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President – Microsoft  
Collaborative Apps and  
Platforms, Microsoft



KARUANA GATIMU

Principal Manager, Customer  
Advocacy Group Microsoft  
Teams Engineering, Microsoft



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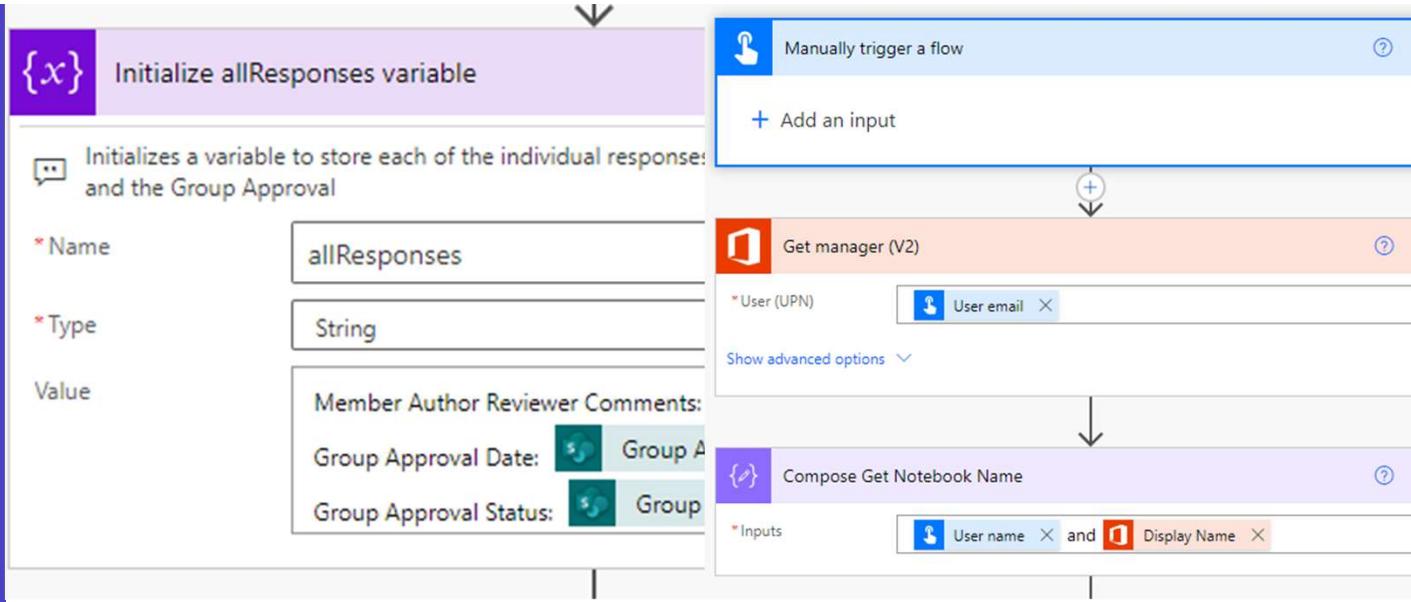
# Hello There!



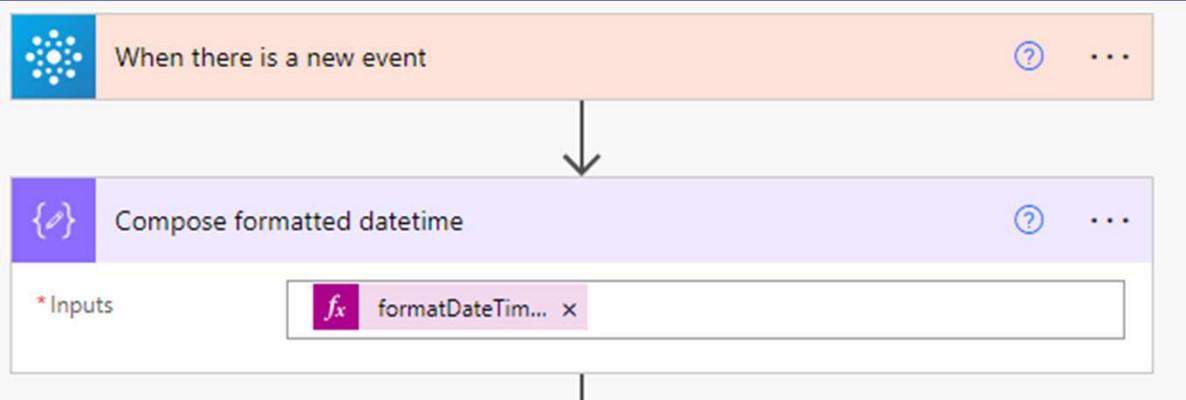
- @lshelton\_tech | [lindsaytshelton.com](https://lindsaytshelton.com) | [linktr.ee/lindsaytshelton](https://linktr.ee/lindsaytshelton) | [lindsaytshelton@gmail.com](mailto:lindsaytshelton@gmail.com)
- Born and raised in Kansas City metro area (go Chiefs!)
- Proud cat mom
- BizApps MVP and MCT
- Spent 10 years as a teacher before switching careers
- Works with everything from Power Platform adoption to SPFx web parts to Azure APIM to Microsoft Shifts

# Agenda

- What can Power Automate do?
- Types of Cloud Flows
- Triggers and Actions
- Tour of Power Automate
- Dynamic Content, Expressions, and Variables
- Tips & Best Practices



# What Can Power Automate Do?



Get sections in notebook

INPUTS Show raw inputs >

Notebook Key

Lindsay Shelton and Megan Bowen|\$|<https://lindsayshelton.sharepoint.com/sites/Home>

OUTPUTS Show raw outputs >

value

```
{},  
"oneNoteWebUrl": {  
    "href": "https://lindsayshelton.sharepoint.com/sites/Home"  
},  
"pagesUrl": "https://www.onenote.com/api/v1.0/myOrganization",  
"size": 23932,  
"parentNotebook@odata.context": "https://www.onenote.com/api/v1.0/notebooks"}
```

① + ↴

'Scope - Catch if Failed' should run after:

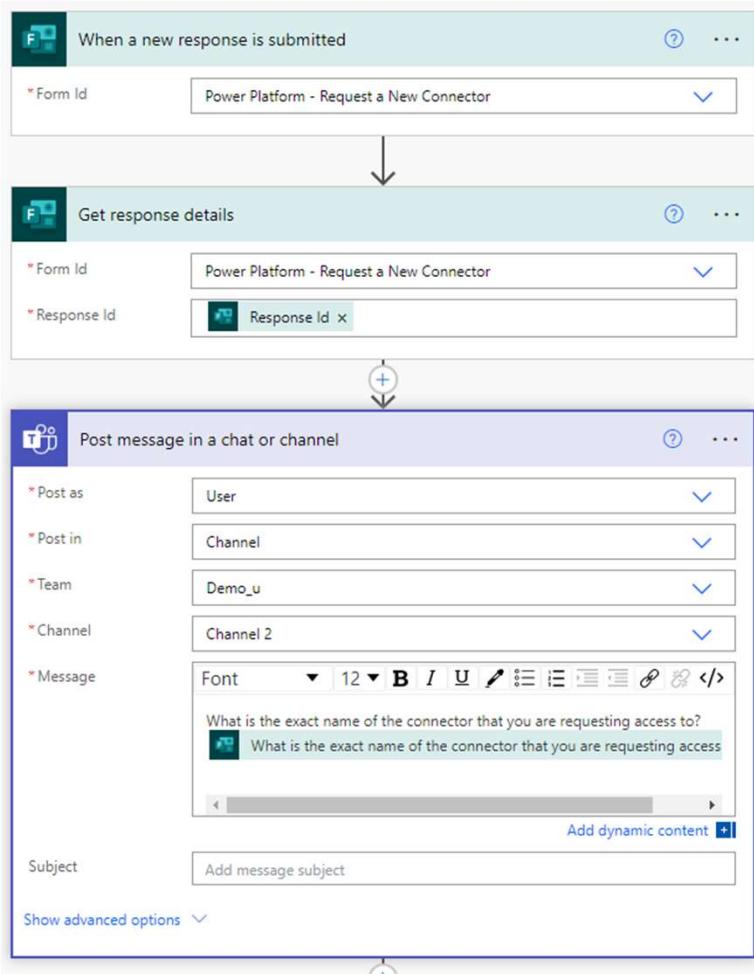
Scope - Try  
Failed, Timed out, Skipped

is successful  
 has failed  
 is skipped  
 has timed out

Done Cancel

# What Can Power Automate Do?

A flow  
that  
posts in  
Teams  
when a  
Forms  
response  
is  
received  
→→→→

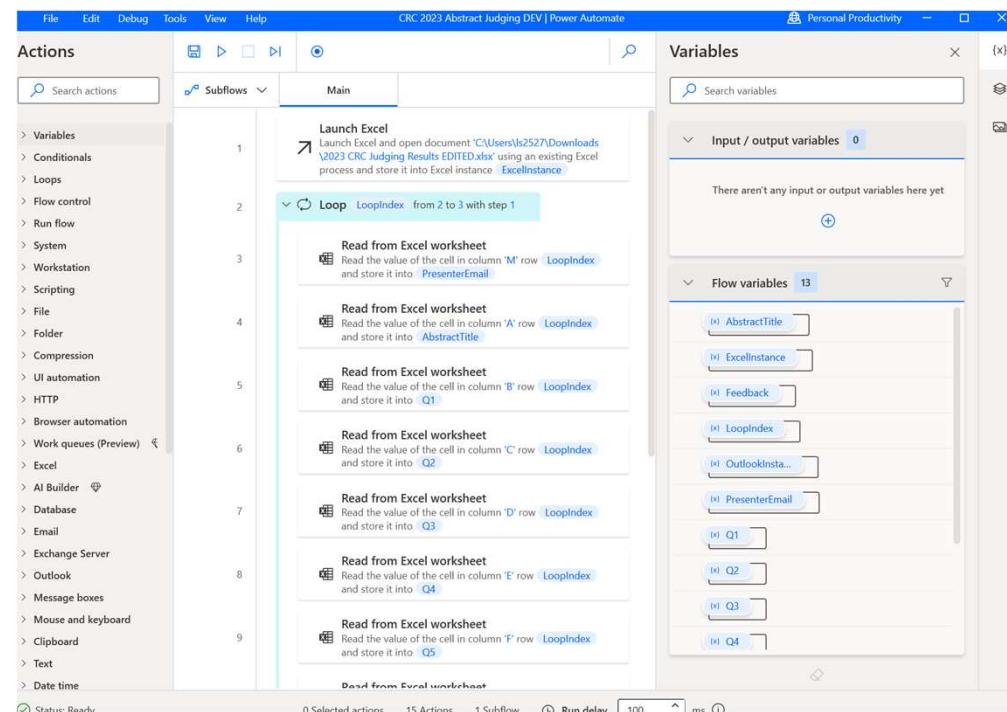


## What else?

- Automatically save email attachments into OneDrive
- Put form responses into a SharePoint list
- Create approvals for documents or tasks or vacation requests
- Move files between OneDrive and SharePoint
- Interact with non-Microsoft connectors and custom connectors that you (and others) can build and share to do any of these things and more!
- If it has an API, you can probably make a Power Automate flow to do it

# What We Aren't Covering - RPA/Desktop Flows

- There's another element to Power Automate that we aren't covering - Robotic Process Automation (RPA) that you can do in Desktop Flows
- Good for if you don't have an API to work with
- A few examples - you can scrape information from the web, interact with documents, and trigger cloud flows



# Types of Cloud Flows

The screenshot shows a Microsoft Power Automate flow. The top card, with a blue icon, says "When there is a new event". An arrow points down to the next card, which has a purple icon and says "Compose formatted datetime". Below this card, under "Inputs", is a box containing the formula "formatDateTim...".

**Get sections in notebook**

**INPUTS** Show raw inputs >

Notebook Key

```
Lindsay Shelton and Megan Bowen|$|https://lindsayshelton.sharepo...
```

**OUTPUTS** Show raw outputs >

value

```
},  
"oneNoteWebUrl": {  
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"size": 23932,  
"parentNotebook@odata.context": "https://www.onenote.com/api/v1.0/notebooks/...
```

(i) + ↴

'Scope - Catch if Failed' should run after:

 Scope - Try Failed, Timed out, Skipped	<input type="checkbox"/> is successful <input checked="" type="checkbox"/> has failed <input checked="" type="checkbox"/> is skipped <input checked="" type="checkbox"/> has timed out
---	---

Done Cancel

# Types of Cloud Flows

## Automated Flow

- ↳ Runs on a trigger that you designate
- ↳ When \_\_\_\_ happens, the flow starts running
- ↳ Different connectors have different trigger options

## Instant Flow

- ↳ When a button is pressed
- ↳ When the button is pressed, the flow starts running
- ↳ The button can look like a lot of things, from an actual button in a Power App to kicking off a "For a selected file" flow in a SharePoint document library

## Scheduled Flow

- ↳ Runs on a schedule that you designate
- ↳ When it has been 7 days/ when it is 5 PM, the flow starts running

# Triggers and Actions

```
graph TD; A[When there is a new event] --> B[Compose formatted datetime];
```

# Triggers and Actions

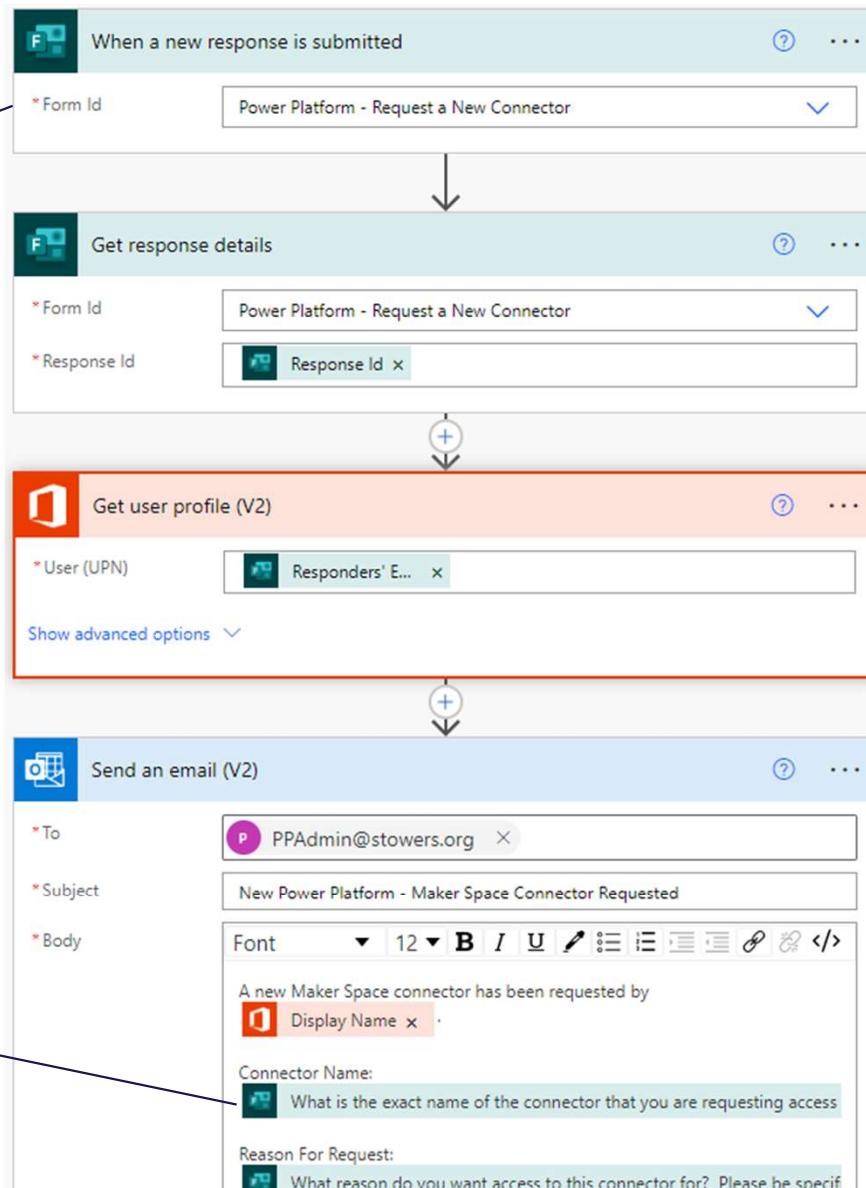
## Triggers

- Each flow has ONE trigger
- It MUST have a trigger
- Examples include:
  - When a new item has been submitted
  - When a button in a Power App has been hit
  - Email sent with specific keywords

## Actions

- Each flow can have one action or many actions
- The actions can be sequential or can be branched to act in parallel
- There are hundreds of actions to choose from
- Allows for all sorts of control options
  - Conditions (If this equals this, do this... or else do this...)
  - Apply to each
  - Do until
  - Switch cases (If this equals this, go do these actions)

**Trigger**  
Microsoft Forms  
connector



**Dynamic Content**  
We'll get to this, but  
these come from the  
Users and Forms  
actions

**Actions**  
Microsoft Forms,  
O365 Users, and  
Microsoft Outlook  
connectors

# Tour of make.power automate.com

The screenshot shows the Microsoft Power Automate home page. On the left, a sidebar menu includes Home, Approvals, My flows (selected), Create, Templates, Connectors, Data, Monitor, AI Builder, Process mining, Solutions, and Learn. The main content area features a "Start building your flow with Copilot" section with a text input field and a note about the AI-powered feature being in preview. Below this is a "Learning for every level" section with several cards:

- Analyze process mining reports in Power Automate (Beginner, 45 min)
- Analyze your business process with Microsoft... (Beginner, 43 min)
- Automate a business process using Power... (Beginner, 4 hr 50 min)
- Automate processes with Robotic Process... (Intermediate, 2 hr 5 min)
- Improve business performance with AI... (Beginner, 6 hr 56 min)
- Improve business performance with AI... (Beginner, 6 hr 56 min)

At the bottom, there's a section titled "Discover Robotic Process Automation (RPA) with zero infrastructure" with a "New hosted machine" button and a "More to explore in Power Automate" section.

# Explore Templates!

The screenshot shows the Power Automate web interface with a blue header bar. The left sidebar contains navigation links: Home, Approvals, My flows, Create, Templates (which is selected), Connectors, Data, Monitor, AI Builder, Process mining, Solutions, and Learn. At the bottom of the sidebar is a 'Ask a chatbot' button. The main area has a light gray background with a grid of 16 template cards. Each card includes a small icon, the template name, the author, status (e.g., Scheduled, Automated), and the number of views.

Template	Author	Status	Views
Post MSN Weather updates to Yammer group everyday	By Microsoft	Scheduled	2747
Save Outlook.com email attachments to your OneDrive	By Microsoft Power Automate Community	Automated	204721
Save email attachments from Outlook.com to Dropbox	By Microsoft	Automated	5971
Complete a custom action for the selected file	By Microsoft Power Automate Community	Instant	42735
Keep my schoolwork in sync with my Google Drive	By Microsoft Power Automate Community	Automated	12586
Save Gmail attachments to a Dropbox folder	By Microsoft	Automated	6084
Get daily reminders from your Outlook.com email	By Microsoft Power Automate Community	Scheduled	9035
Run sentiment analysis on tweets and push results to a Power BI dataset	By Microsoft	Automated	6157
Notify and Email when a new file is uploaded to OneDrive	By Microsoft Power Automate Community	Automated	8585
Create an issue in Azure DevOps when an email is received	By Microsoft Power Automate Community	Automated	8774
Send an email for new Tweets about a certain keyword	By Microsoft	Automated	9973
Trigger a flow with a Power BI data-driven alert	By Microsoft	Automated	135346
Save Office 365 email attachments			
Create a task in Planner based on			
Notify about rows in a SQL DB			
Cross post new items on an RSS			

# Dynamic Content, Expressions, and Variables

The screenshot shows a Microsoft Power Automate flow. The top card is titled "When there is a new event" with a blue icon and a downward arrow pointing to the next step. The second card is titled "Compose formatted datetime" with a purple icon. Below it, the "Inputs" section shows a single input named "formatDateTime..." with a small "fx" button and a close "x".

Get sections in notebook

INPUTS Show raw inputs >

Notebook Key

```
Lindsay Shelton and Megan Bowen|$|https://lindsayshelton.sharepo...
```

OUTPUTS Show raw outputs >

value

```
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  "size": 23932,
  "parentNotebook@odata_context": "https://www.onenote.com/api/v1.0/notebooks/...
```

'Scope - Catch if Failed' should run after:

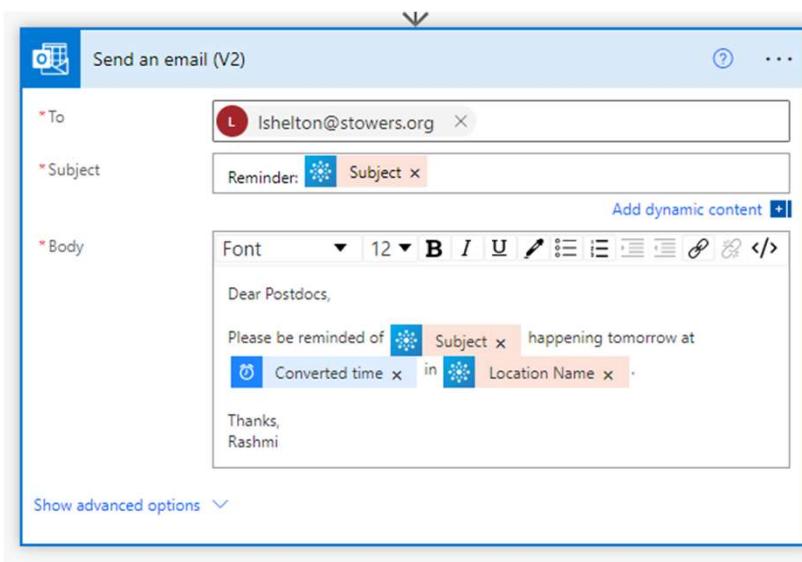
Scope - Try Failed, Timed out, Skipped

is successful  
 has failed  
 is skipped  
 has timed out

Done Cancel

# Dynamic Content

- The output of the trigger or an earlier action
- Almost every trigger and action will give you new dynamic content to use in later actions



The screenshot shows the 'Dynamic content' pane. It has two tabs: 'Dynamic content' (selected) and 'Expression'. A search bar at the top says 'Search dynamic content'. Below it is a list of dynamic content items:

- allowNewTimeProposals
- isDraft
- hideAttendees

Below this is a section titled 'Send an HTTP request - get event info' containing:

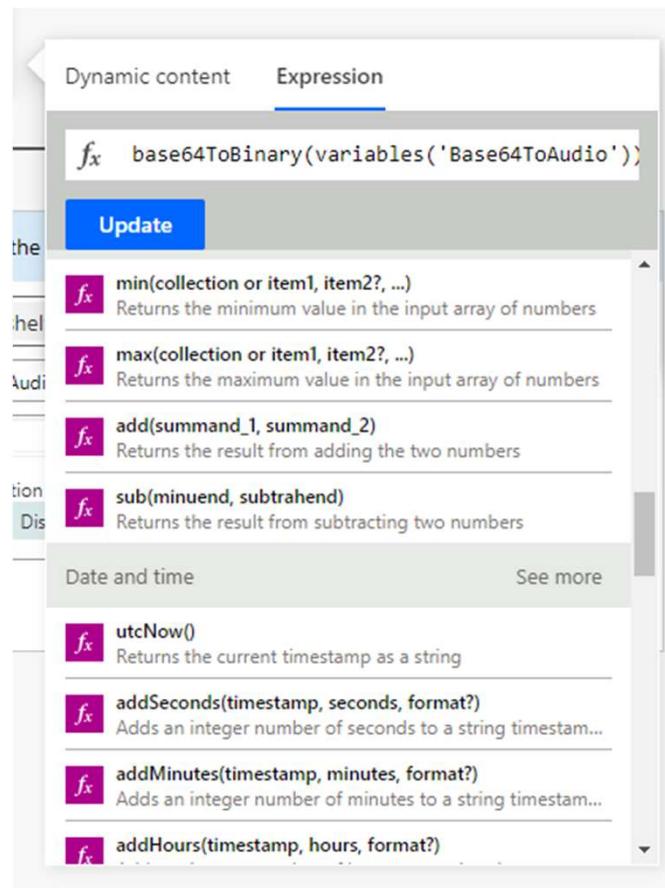
- body

Further down are sections for 'When there is a new event' containing:

- Subject: Title of the event.
- Importance: The importance of the event: Low, Normal, or High.
- Start Date Time: Start time of the event (example: '2016-11-01T14:30:00-0...')

# Expressions

- The ability to freely type code to customize your output
- Available expressions include:
  - Formatting
  - Logical Functions
  - Conversion Functions
  - Math Functions
  - Date and Time
  - String Functions
  - ...and more!



# Variables

- Global variables
  - = environment variables
  - Solution based
- Flow variables
  - can only be used in that flow
- Variable types:
  - String
  - Boolean
  - Integer
  - Float
  - Object
  - Array
- Can append to string and array variables, increment/decrement integers



# Tips & Best Practices

```
graph TD; A[When there is a new event] --> B[Compose formatted datetime]; B --> C[Send an email]
```

When there is a new event

Compose formatted datetime

\* Inputs

formatDateTime...

# Tips & Best Practices

- Share your flow with multiple people - if you leave and your team relies on the flow, they will be out of luck potentially...
- ...but be careful who you share a flow with... thus the warnings shown when you share out a flow.
- Save your work regularly - it does NOT save automatically.
- Add notes and descriptive titles to your actions. You can also add comments.

# Flow Detail Page

Edit Share Save As Delete Send a copy Submit as template Export Process insights (preview) Analytics Turn off Repair tips off Flow checker

Your flow is ready to go. It's turned on and will trigger when you add a new list item to the SharePoint folder you selected.

Flows > When an item is created -> Start and wait for an approval

Details		Edit
Flow	When an item is created -> Start and wait for an approval	Status
Owner	Shelton, Lindsay	On
		Created
		Dec 20, 04:24 PM
		Modified
		Dec 21, 02:16 PM
		Type
		Automated
		Plan
		This flow runs on owner's plan

Connections		Edit
	Approvals	Approvals
	SharePoint Permissions	ls2527@stowers.org

Owners		Edit
	Shelton, Lindsay	

28-day run history

Start	Duration	Status
Dec 20, 04:26 PM (21 h ago)	00:06:33	Succeeded

Process advisor (preview)

Average run duration  
00:06:33



**Two Exercises  
for you to  
practice on  
your own  
with some  
common  
triggers and  
actions, along  
with helpful  
links**

**Keep Practicing!**



**LTS**



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[@LShelton\\_Tech](https://@LShelton_Tech)



Thank you