

Shortcut Superpowers Unleashed!

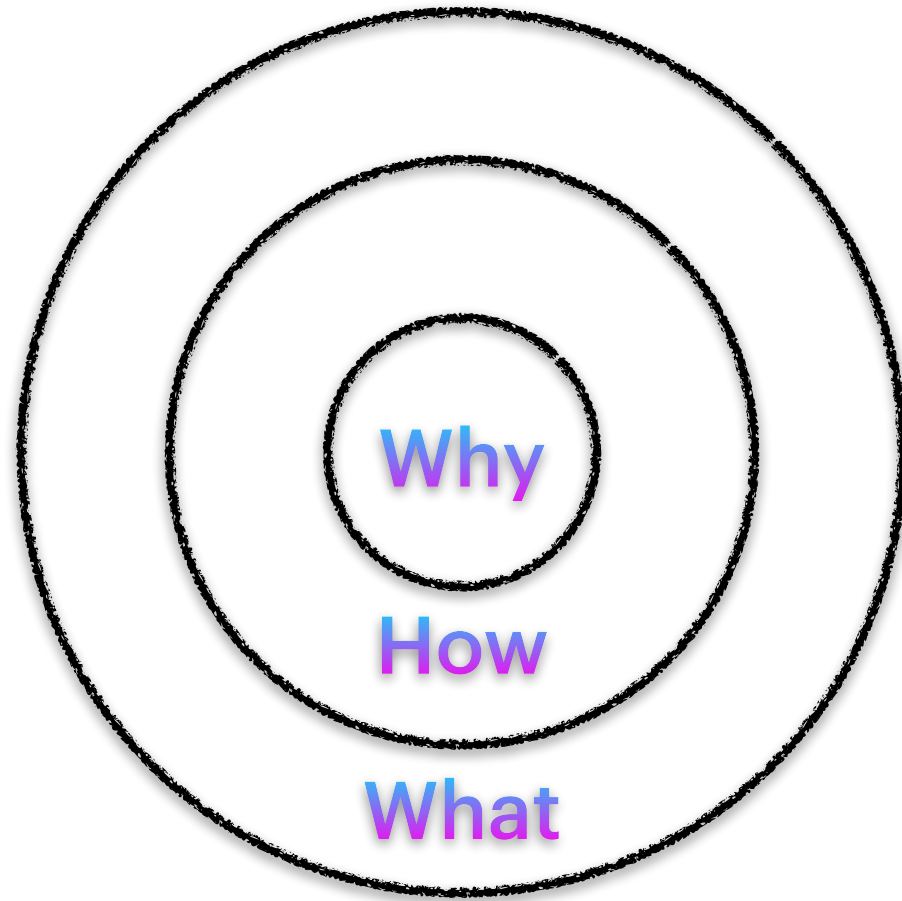
Macstock VII

Kirschen Seah, July 2023
<https://www.freerangecoder.com>



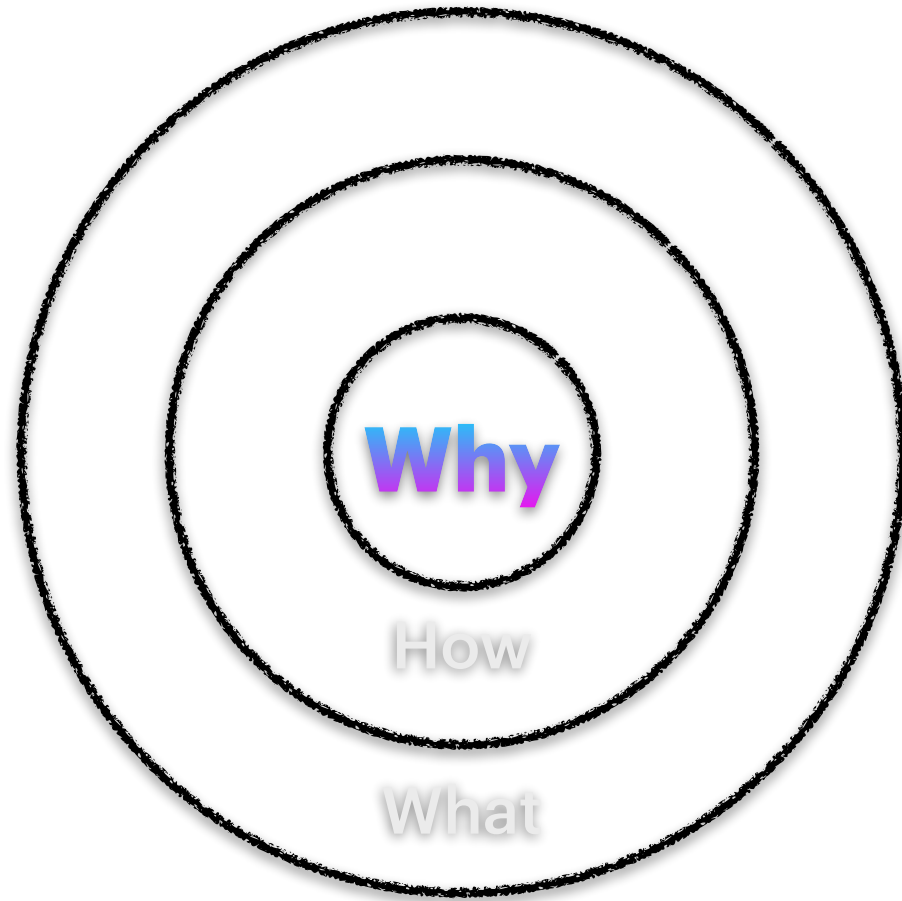
Overview

Overview



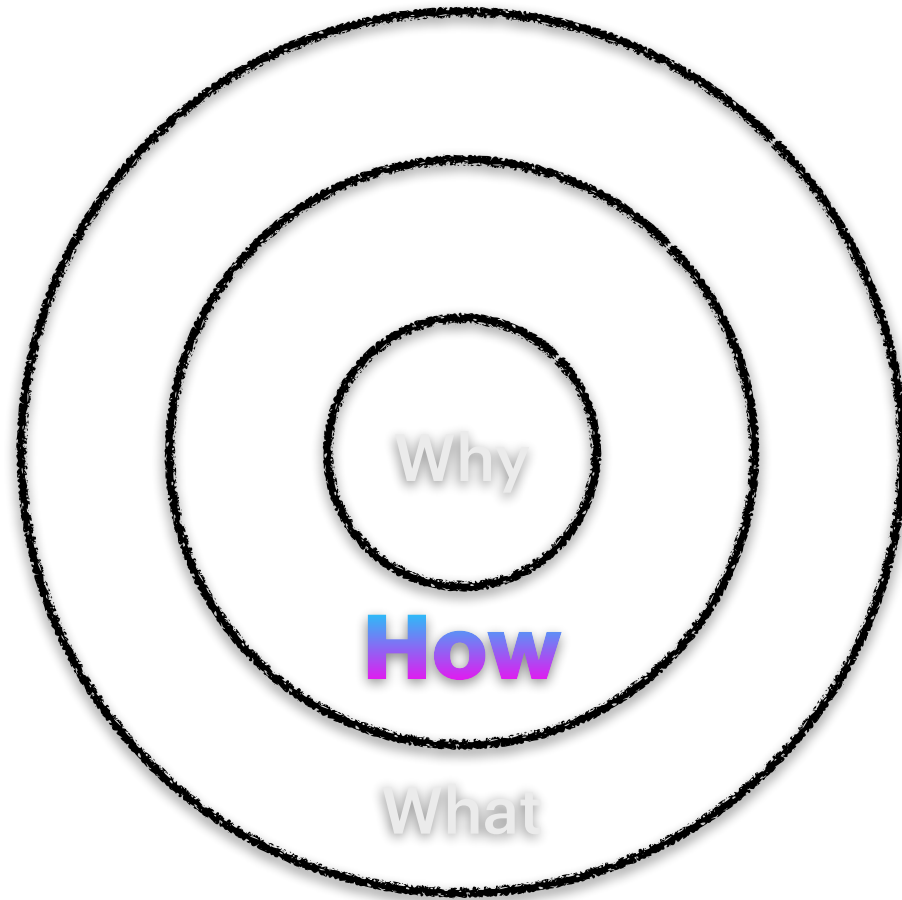
Simon Sinek, "Start with Why"

Overview



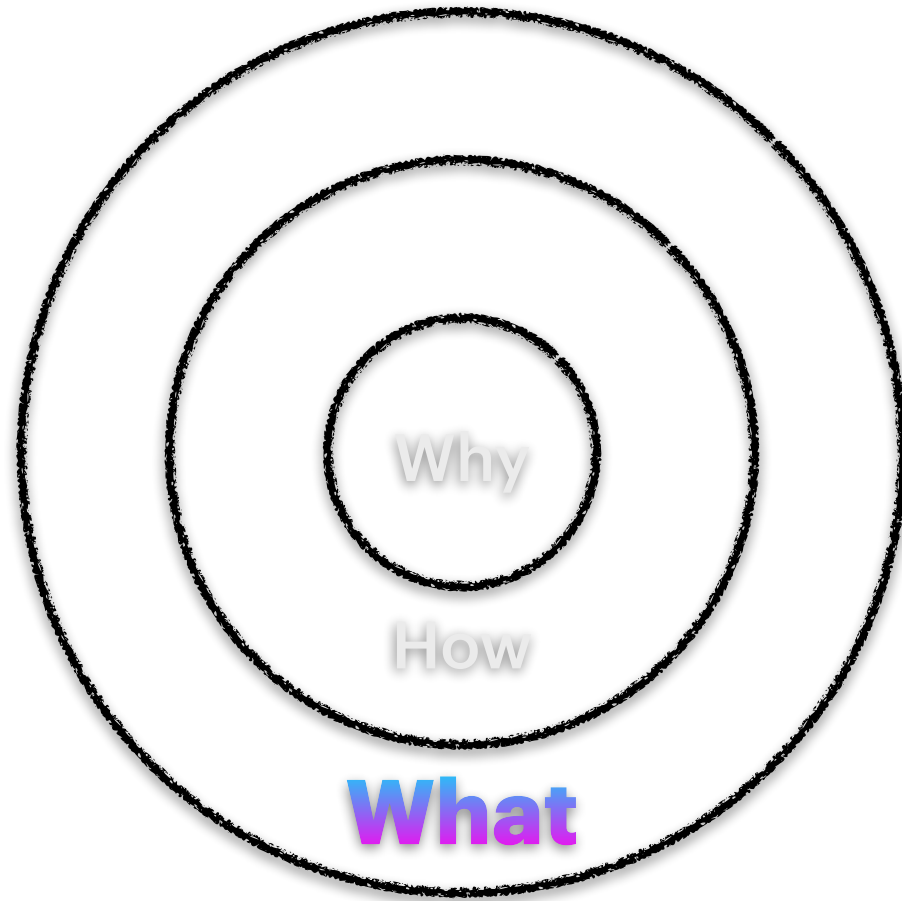
Simon Sinek, "Start with Why"

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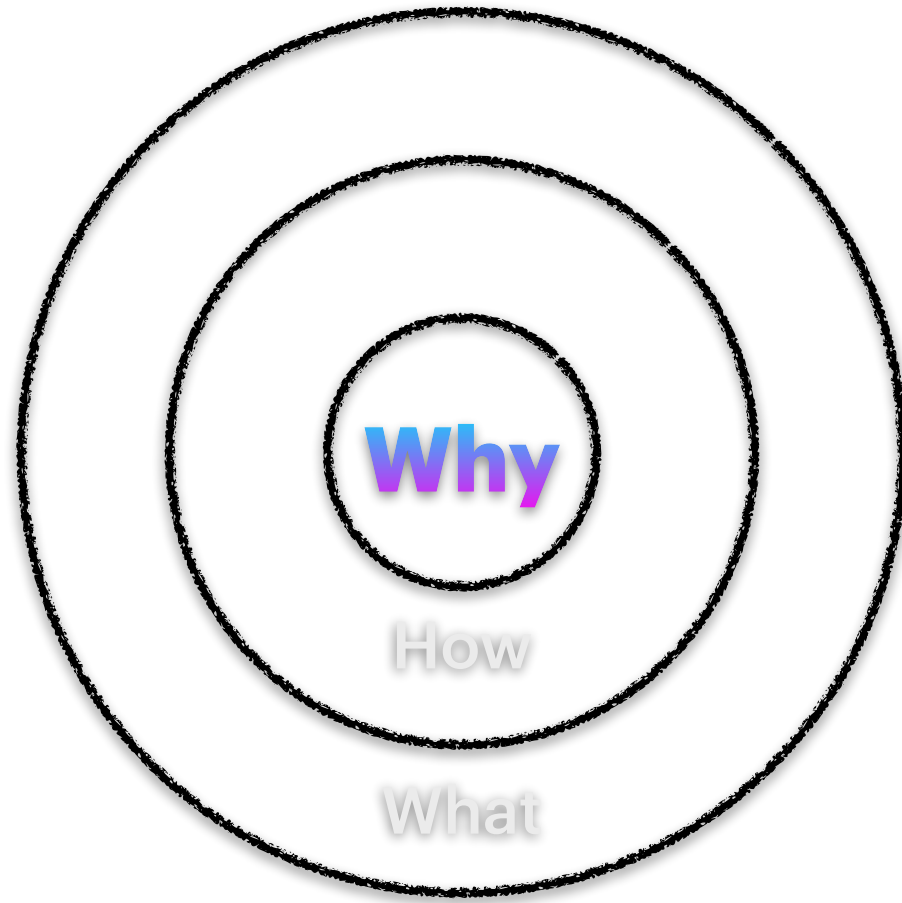
Simon Sinek, "Start with Why"

Overview

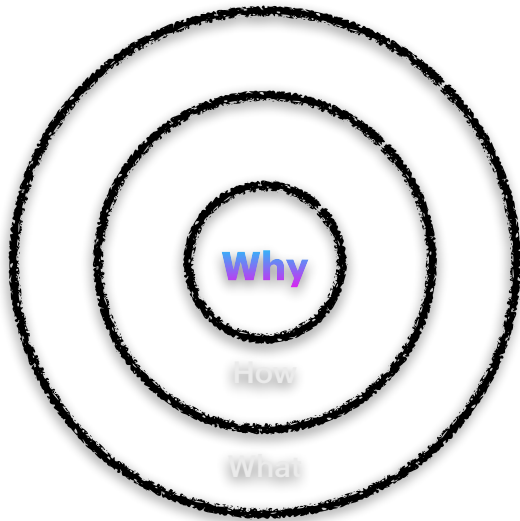


Simon Sinek, "Start with Why"

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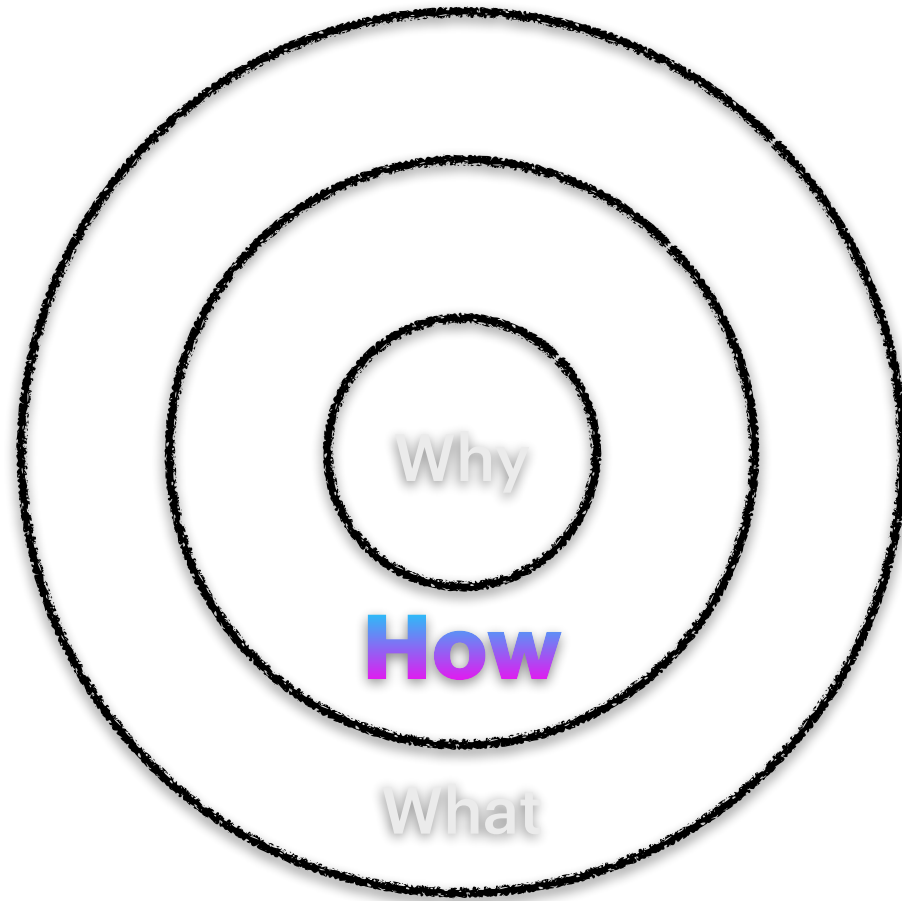


Overview – Why?

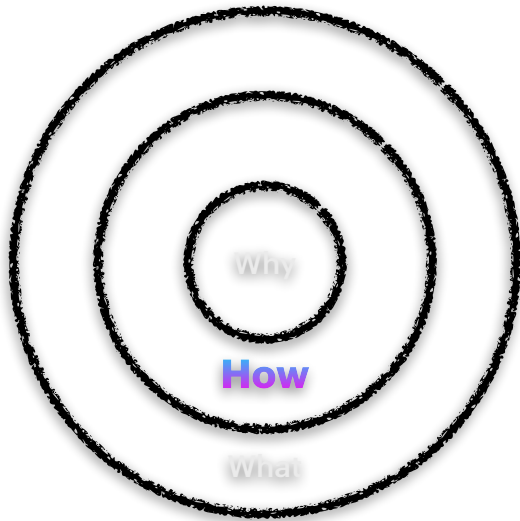


- Invoke repetitive actions
- Trigger HomeKit automation
- Display useful information

Overview

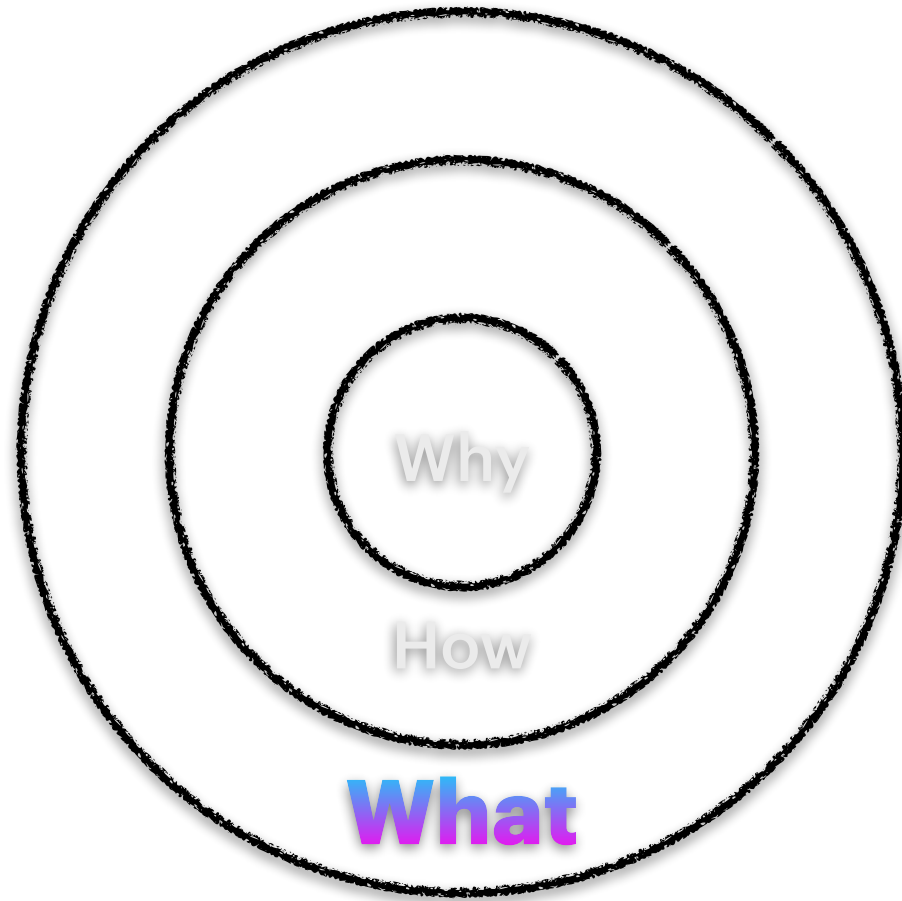


Overview – How?



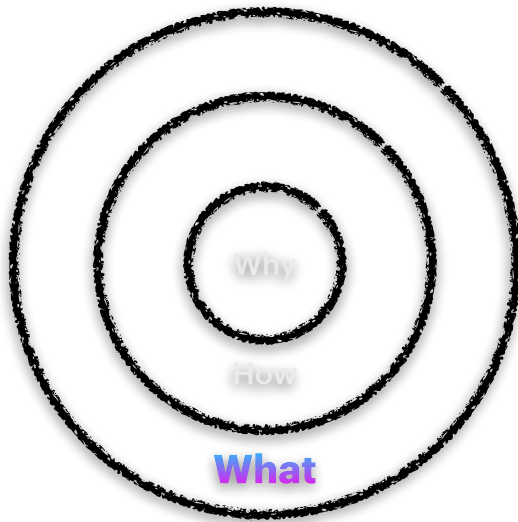
- Shortcuts App
- Gallery of Shortcuts
- HomeKit Automation

Overview



Overview - What?

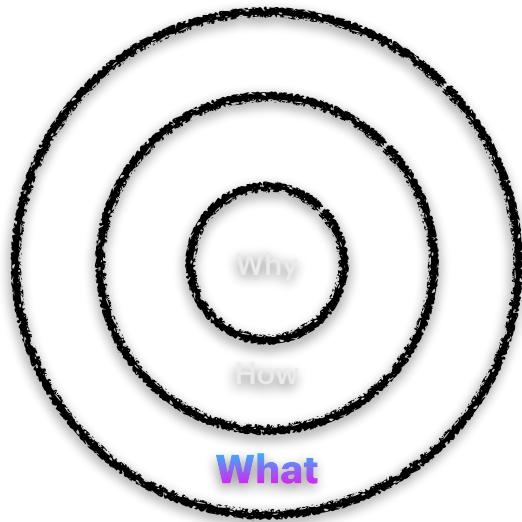
What can I script?



- Open a set of Apps
- Turn on lights
- Process bank statements
- Clean up selected text
- Respond to Triggers

Overview – What?

What Devices can Shortcuts work on?



- iPhone & iPad
- Apple Watch
- Mac
- HomeKit

Shortcuts

Shortcuts



Shortcuts

What's a Shortcut?

Programming???

Shortcuts

What's a Shortcut?

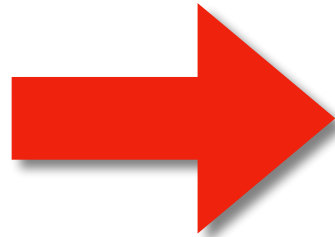
Recipe!

Analogy thanks to Chuck 🙏

Shortcuts

What is a ~~Shortcut~~ Recipe?

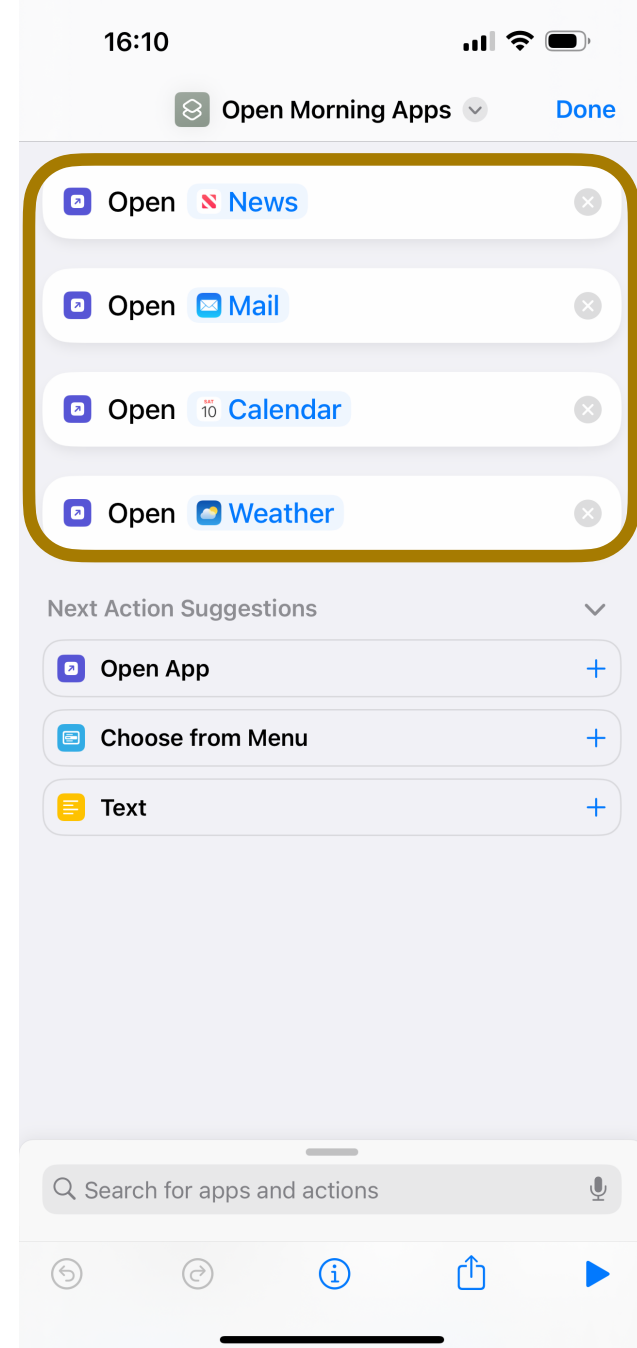
- Gather ingredients
- Mix ingredients
- Pour into cake pan
- Bake



Shortcuts

What's a Shortcut?

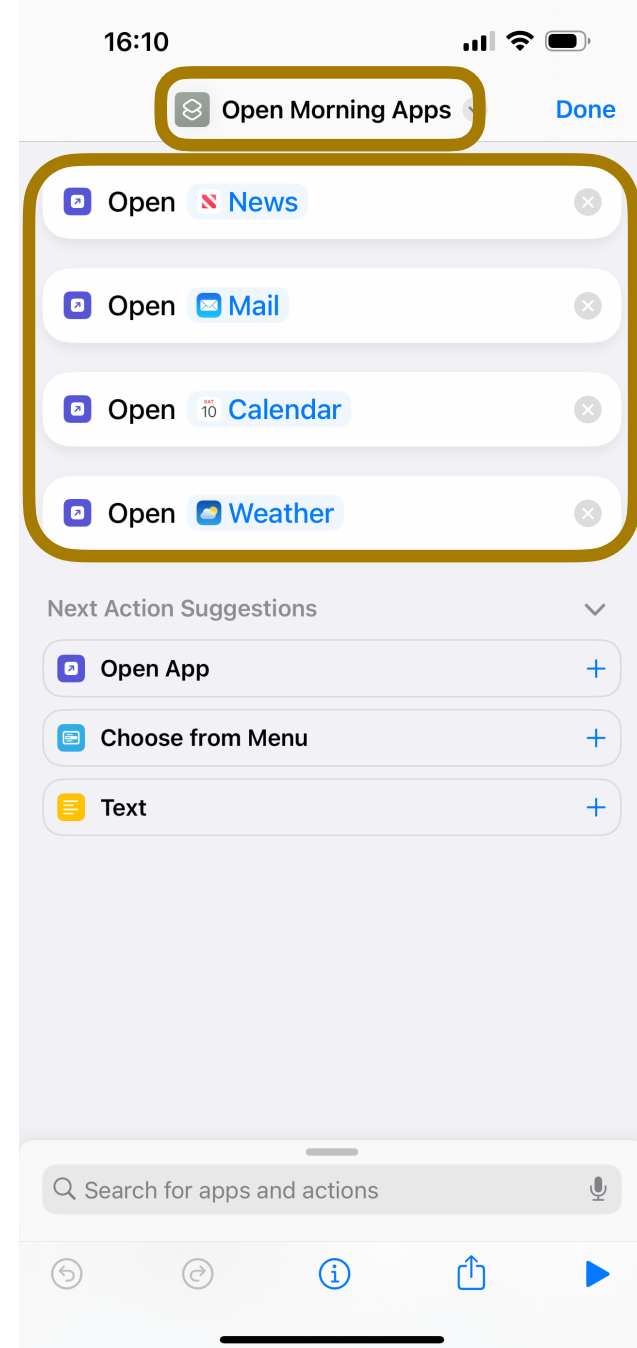
- Open News
- Open Mail
- Open Calendar
- Open Weather



Shortcuts

What's in a Shortcut?

- **Name and Icon**
- Composed of **Actions**



Shortcuts

iCloud

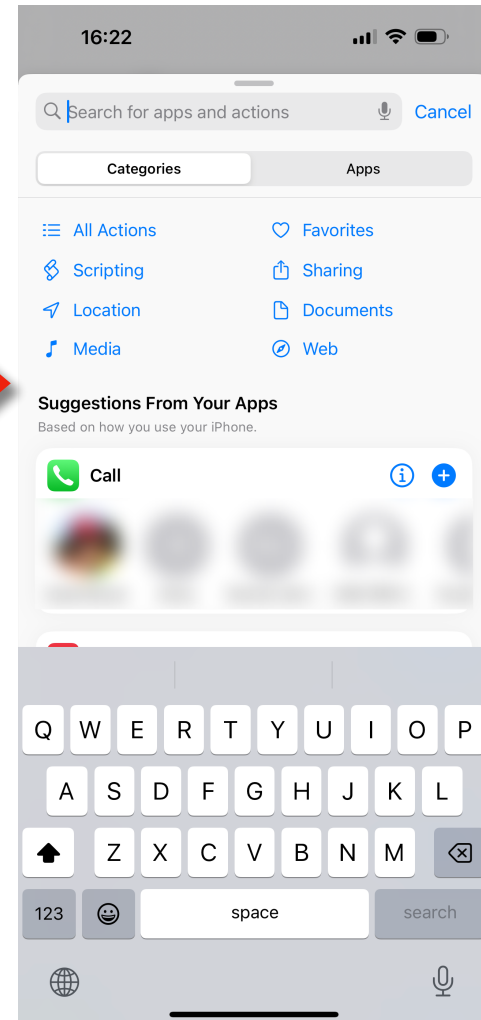
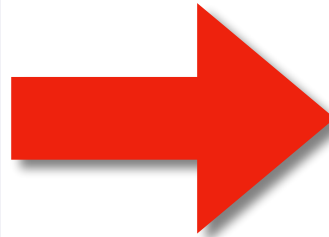
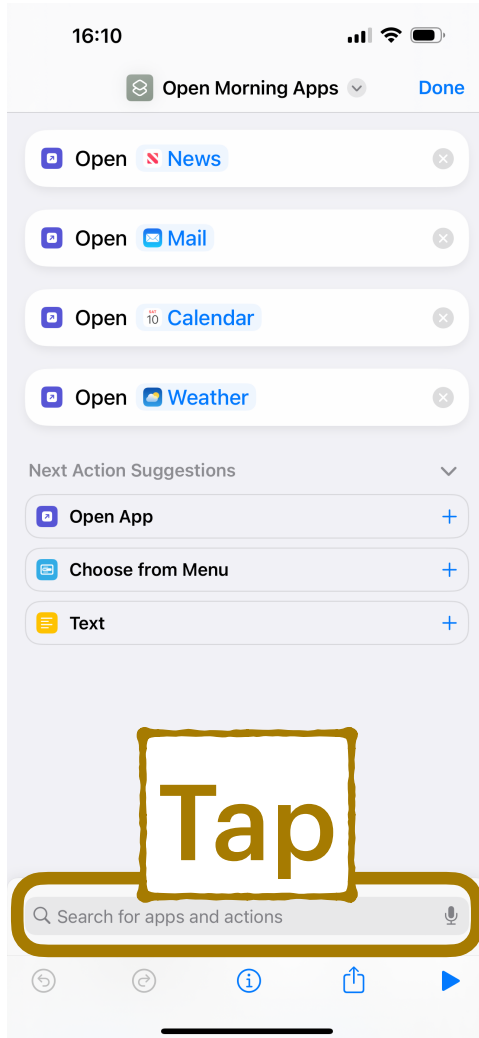


Settings > Shortcuts > iCloud Sync

Actions

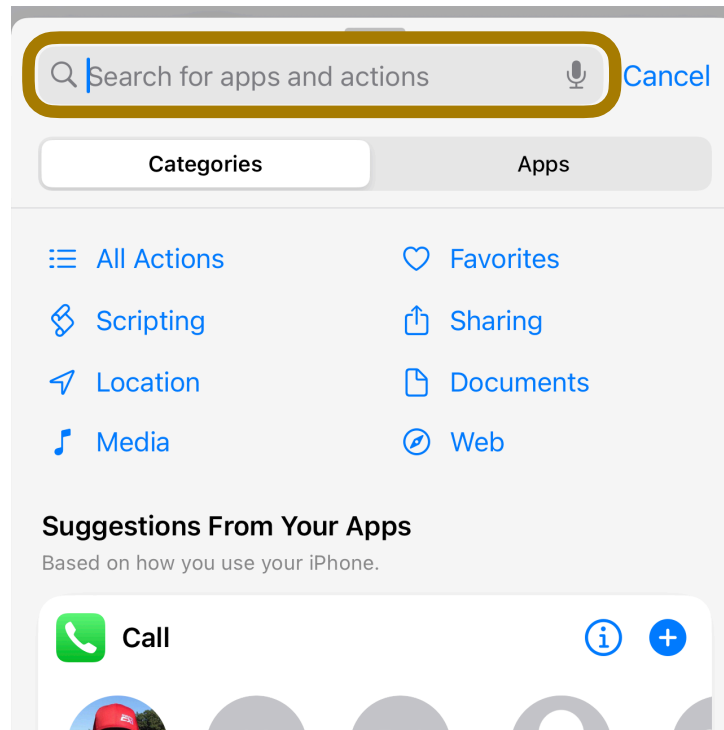
Actions

Searching



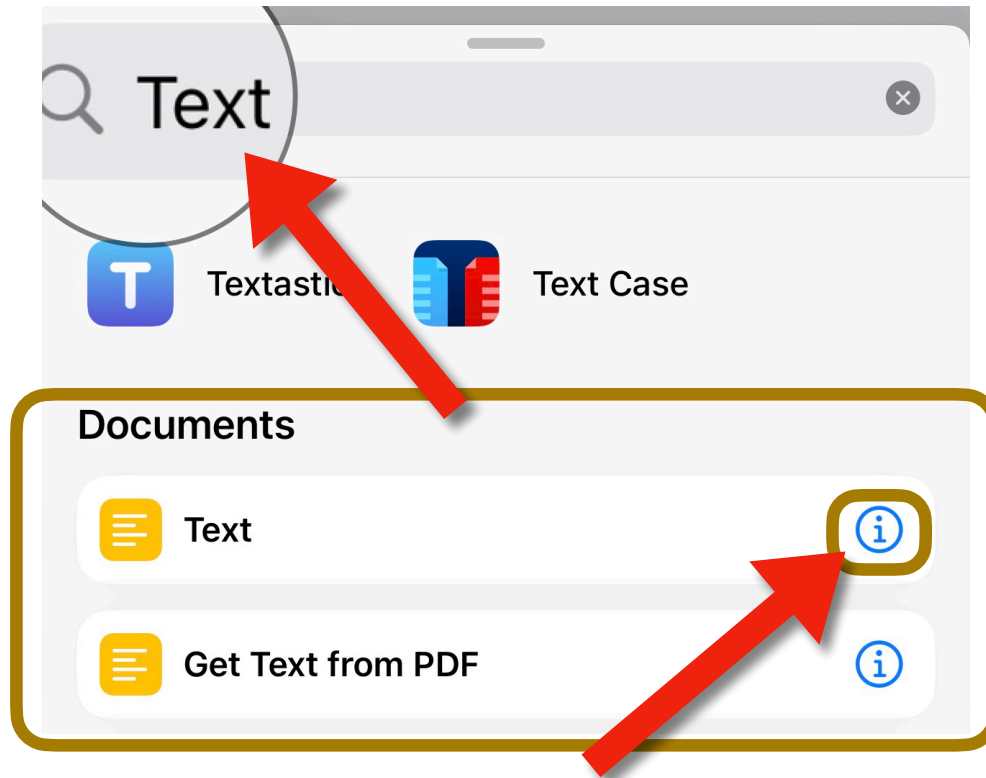
Actions

Searching





Actions


Searching




Actions

Action Info

 **Text** 


Add as Favorite

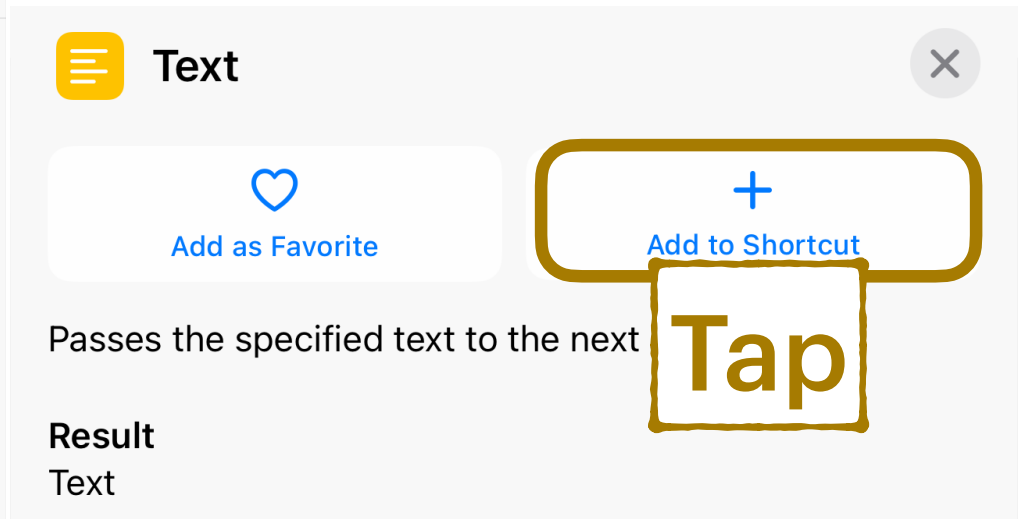
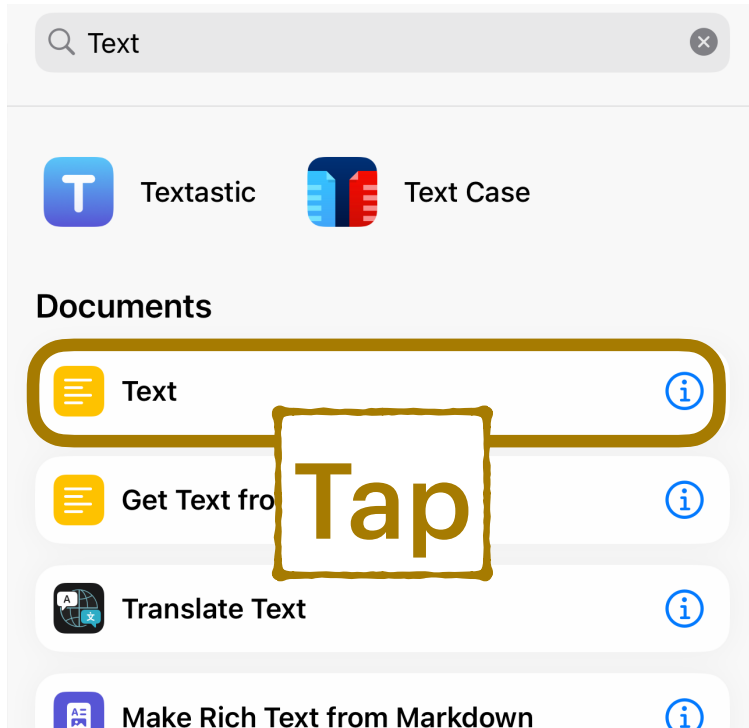

Add to Shortcut

Passes the specified text to the next action.

Result
Text

Actions

Adding an Action





Actions


Adding an Action




Actions

Action Options

 **Match Text** 

 [Remove Favorite](#)

 [Add to Shortcut](#)

Searches text passed into the action for matches to a regular expression.

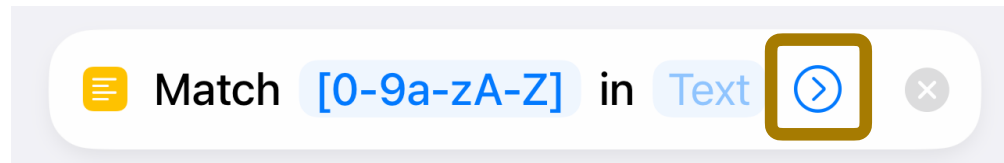
Text
Text

Case Sensitive
When disabled, the capitalization of letters is ignored.

Result
(Text Match) A list of text items that matched the regular expression

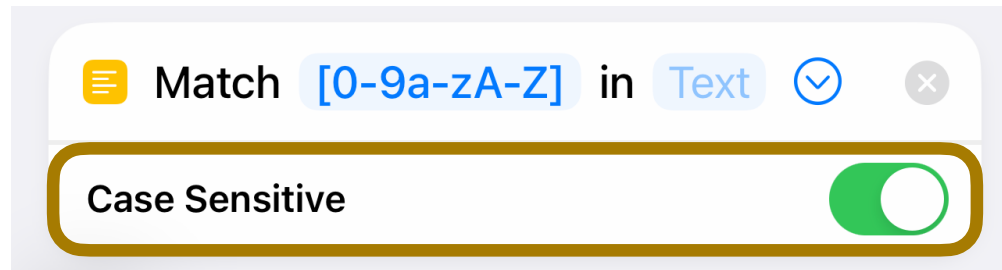
Actions

Action Options



Actions

Action Options



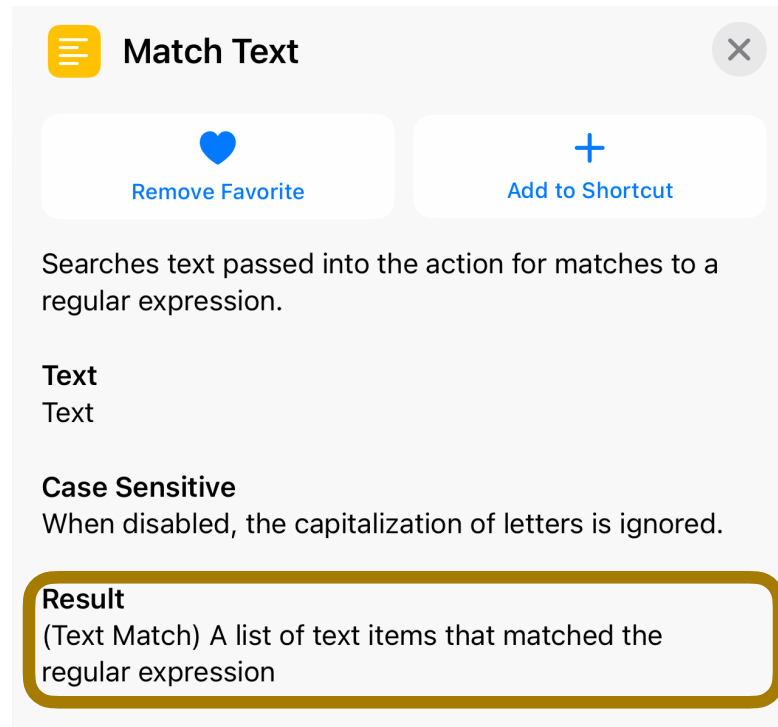
A screenshot of a search action configuration interface. The top bar contains a yellow menu icon, the text "Match", a blue input field with the regex "[0-9a-zA-Z]", the text "in", a blue "Text" button, a blue dropdown arrow, and a grey close button. Below this, a "Case Sensitive" toggle switch is shown in the "on" position, highlighted by a thick brown border.

Match [0-9a-zA-Z] in Text

Case Sensitive ☒

Actions

Action Result



Sent to the next Action or returned by Shortcut

Actions

Miscellany

- Tap and Drag to reorder Actions
- Duplicate
- Copy
- Paste Before / After

Actions

All Action Categories

- Calendar
- Clock
- Contacts
- Documents
- Health
- Home
- Location
- Media
- Scripting
- Settings
- Sharing
- Web
- Workout

Data

Data

Information to Process

- Numbers
- Text
- Date and Time
- URLs
- Files and Folders
- and more...

See “Understanding input types in Shortcuts”

Data

Input Sources

- Data values
- Shortcut Input (e.g. Share Sheet)
- Clipboard
- Choose from Menu and List
- Ask for Input
- Ask Each Time

See “Show Prompts in a Shortcut”

Data

Data Values

42

List

- One

- Two

+ Add new item

Text

Text

Data

Manipulation

- Calculate
 - Expression
 - Statistics
- Text
 - Combine and Split
 - Find and Replace
 - Match

Data Variables

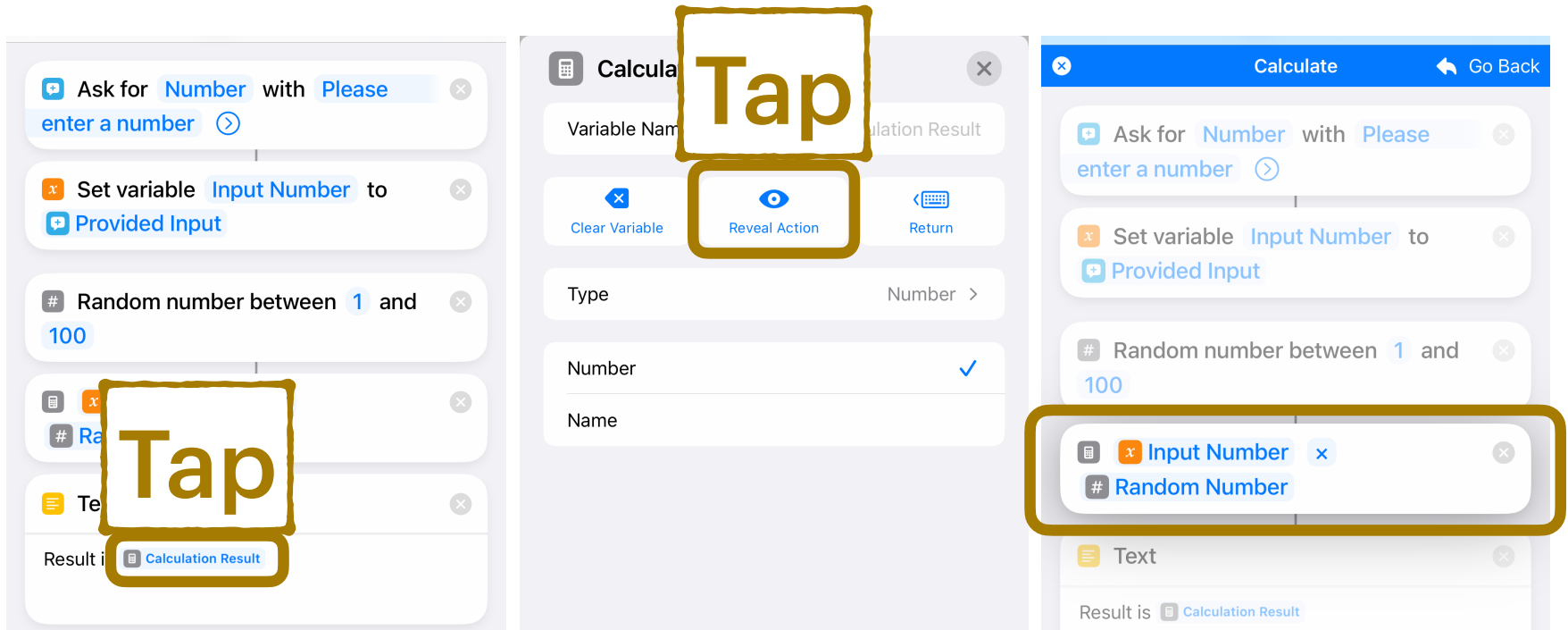
- Save values to a **named variable**
- Actions
 - Add to Variable
 - Get Variable
 - Set Variable
- Reference variable by name in Actions

The screenshot displays a workflow editor with the following actions:

- Ask for Number with Please enter a number**: An action to prompt the user for a number.
- Set variable Input Number to Provided Input**: An action to store the user's input into a variable named 'Input Number'. This action is highlighted with a brown border.
- Random number between 1 and 100**: An action to generate a random number within a specified range.
- Input Number**: A variable reference, highlighted with a brown border, likely used in a subsequent calculation.
- Text**: A block containing the text 'Result is Calculation Result', where 'Calculation Result' is a variable reference.

Data

Show Data Value Source



Use named variables!

Data

Formatting for Output

- Format Date
 - Date & Time with Locale
- Format File Size
 - Size units (KB, GB, ...)
- Format Number
 - Specify decimal places

Data

Output Destinations

- Show Alert
- Show Notification
- Show Result
- Quick Look

Control Flow

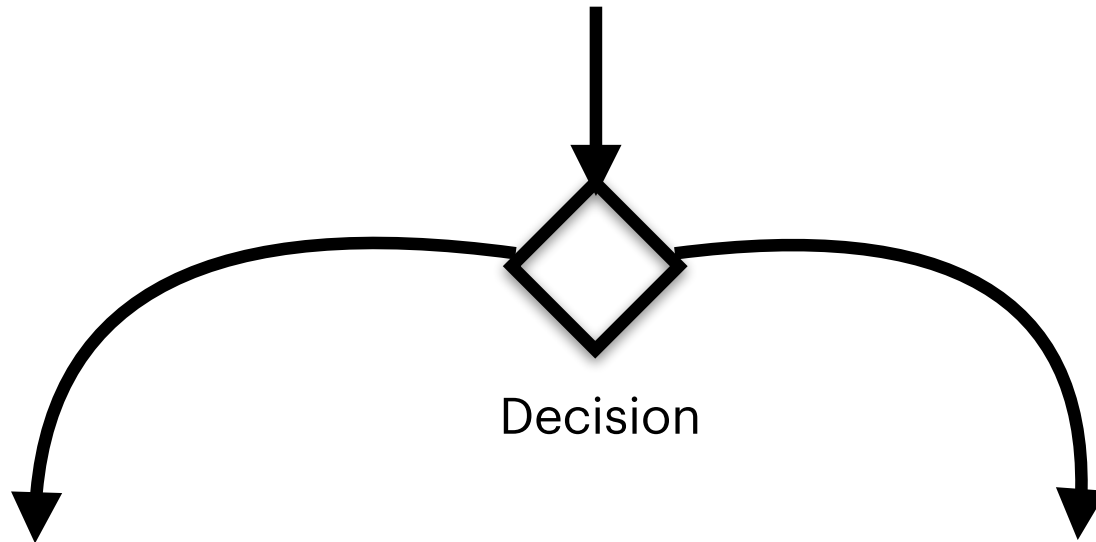
Control Flow

Why?

Decision Making!

Control Flow

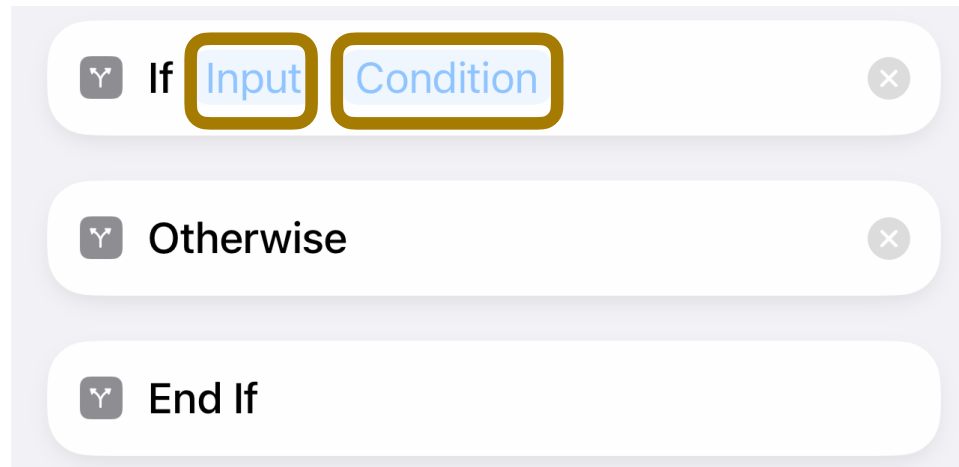
Throwback!



Flowcharts!

Control Flow

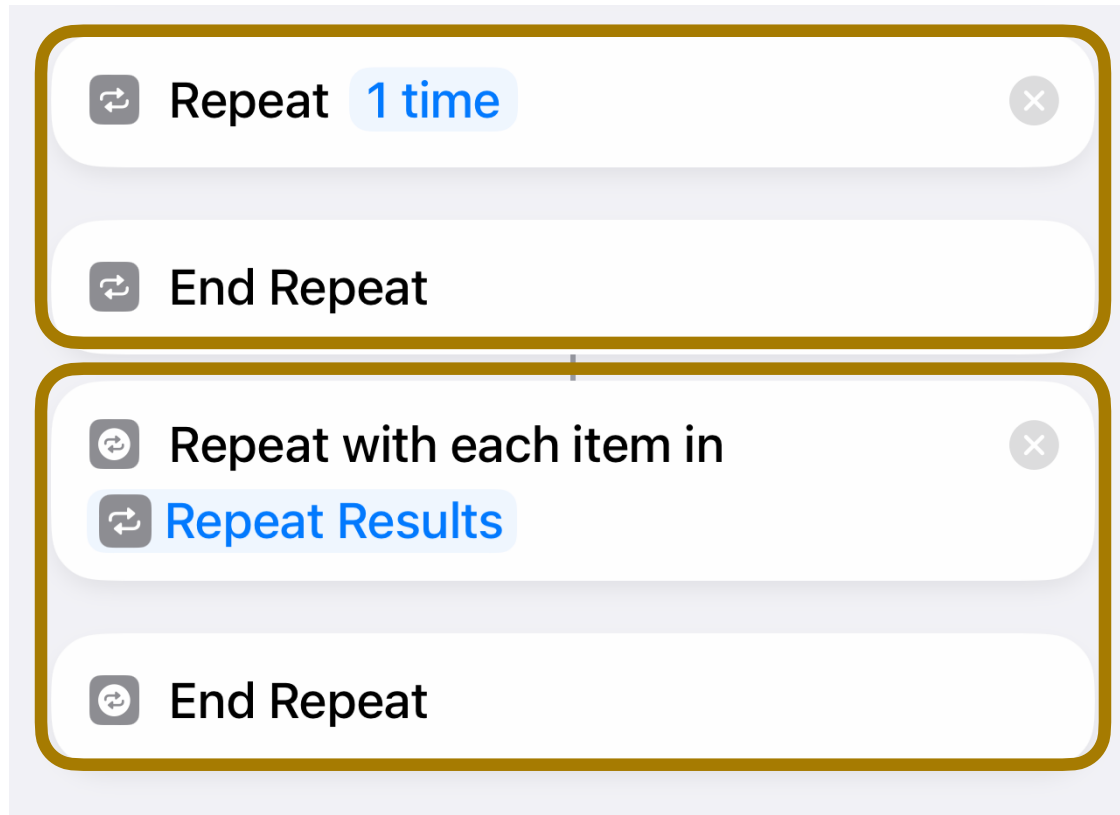
"If" Action



Conditions depend on Data Type

Control Flow

“Repeat” Action



Control Flow

Transfer Control

- Open App
- Wait to Return
- Run Shortcut
- Stop and Output

Documentation

Documentation

How did I do that?

- Comment
- Nothing
 - No action
 - Placeholder for future actions

Debugging

Debugging

Now... What went wrong?

- Quick Look
- Show Alert
- Show Result
- Show Notification
- Stop this Shortcut
- 3rd Party Apps (e.g. Logger)

Some ways to debug

Demo

Demo

Case Studies

- Days to Retirement
- Price Comparison

What Next?

Subprograms

- Run Shortcut action
- Use “Shortcut Input” for parameters
- Return value
 - Last value set in Shortcut
 - Stop and Output action

Reuse common functionality

Advanced Data Types

- Lists
- Dictionaries
 - Name / Value pairs

Extending Shortcuts

Apps with Actions

- Fantastical
- Actions
- Toolbox Pro
- PushCut
- Drafts
- Text Case

Other Capabilities

- Share Sheet
- Siri
 - Run Shortcut
 - Suggested shortcuts
- URL schemes
 - Special URL to run commands on an app

Caution

Here be trouble...

- Dataflow with same actions in sequence
- Copying actions which reference input
- Data type conversions are hidden

Tips

- Meaningful Shortcut Names
 - DEV prefix for Development
 - SUB prefix for Subprograms
- Always use variables

Idiosyncracies

- Only 2 Actions for Home control
- Ask for Input - no title on Apple Watch
- App switching timeout
- Cannot schedule Shortcut for later
- Print Action does not work
- Actions which are iOS and macOS specific
- No way to list a Shortcut

Idiosyncracies

- Selecting input item sometimes requires long press
- Hidden formatting for data items

Resources

Resources

Podcasts

- Automators
 - <https://www.relay.fm/automators>
- Mac Power Users
 - <https://www.relay.fm/mpu>

Resources

Books & Courses

- MacSparky Field Guide
 - Shortcuts for iPhone and iPad Field Guide
 - <https://learn.macsparky.com/p/shortcuts13>
- Take Control of Shortcuts
 - <https://www.takecontrolbooks.com/shortcuts>

Resources

Sites & Blogs

- MacSparky
 - <https://macsparky.com>
- Rosemary Orchard
 - <https://rosemaryorchard.com>
- Shortcuts Gallery
 - <https://shortcutsgallery.com>

Resources

Support Sites

- Shortcuts User Manual
 - <https://support.apple.com/en-gb/guide/shortcuts/welcome/ios>
- All Actions in the Shortcuts App - Reddit
 - https://www.reddit.com/r/shortcuts/comments/9zr0vs/all_actions_in_the_shortcuts_app_redditors_use
- All the Shortcuts actions: Apple apps | iMore
 - <https://www.imore.com/all-shortcuts-actions-apple-apps>

Questions?

Free Range Coder

<https://www.freerangecoder.com>

Encore

Demo

Case Studies

- Enter Temperature into Health
- Turn off charger when device is fully charged
- Days to person's next birthday