

Flow Designer

Flow Designer is a Now Platform® feature that enables process owners to automate work. Build multi-step flows from reusable components without having to code.

Benefits of Flow Designer

Automate flows for everyone

Empower business users with codeless flow components built for reuse. Boost productivity through flow generation based on text inputs.

Integrate third-party services

Link end-to-end digital workflows to popular business apps with ready-made Integration Hub spokes.

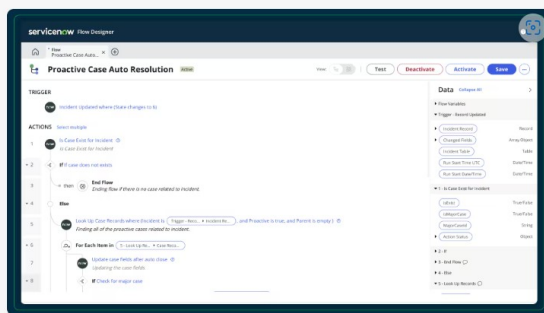
Accelerate development

Extend ServiceNow® workflows and create new ones with out-of-the-box, reusable flow components.

Improve flow visibility

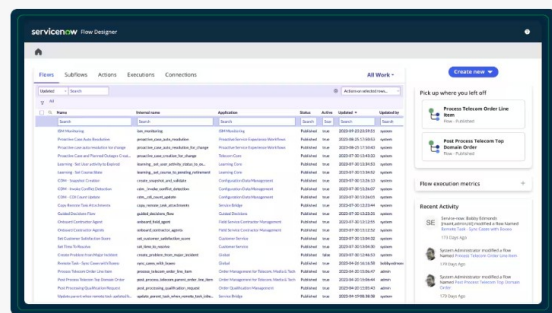
Promote collaboration by inviting process stakeholders to review flows with no change risk.

Features of Flow Designer



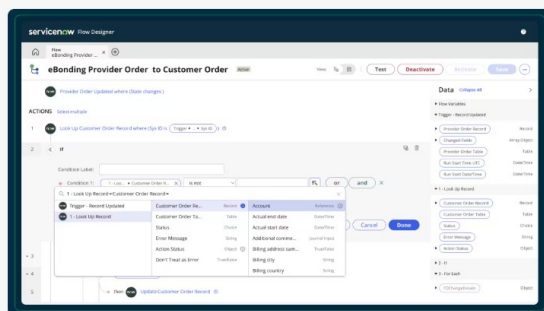
Codeless automation

Use flowchart style diagramming to build automated process flows easily.



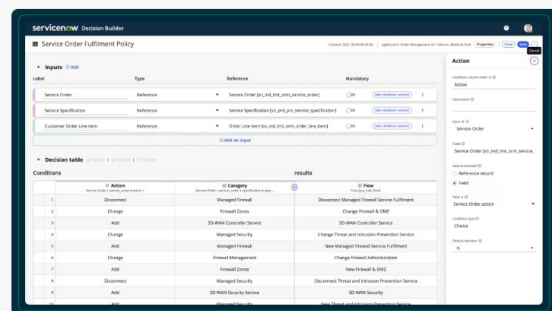
Application-specific flow actions

Apply application-specific flow actions to extend and create conditional, trigger-based workflows.



No-code data management tools

Build flows with no-code tools and generative AI. View complex structured data in a graphical interface.



Decision builder

Empower business users to manage complex decision logic independently of the flow design.

Additional features

Role-based flow management

Create flows that run with their own roles, so users can run flows they normally could not access.

Action designer

Publish custom flow actions. Reuse script to automate tasks, remediate events, and simplify upgrades.

Domain-separated flows

Create flows and actions in multitenant environments, a feature ideal for MSPs and large enterprises.

Dynamic subflow

Unlock sophisticated use cases with dynamic subflows. Trigger actions based on run-time parameters.

The Washington release of ServiceNow's Flow Designer has a number of new features, including:

- Auto-save: Saves work in real time
- Undo and redo limits: Limits the number of times you can undo and redo actions
- Workflow event capability: Allows flows to continue from outside the flow
- Flow try catch block: Allows a flow to continue running when an error occurs within a flow logic block
- Cloned records: Allows users to duplicate records with ease
- Generative AI: Allows users to build multi-step flows from a flow description

[Washington Release Features](#)

There are three types of Trigger Conditions:

1. Record Based
2. Schedule Based
3. Application Based

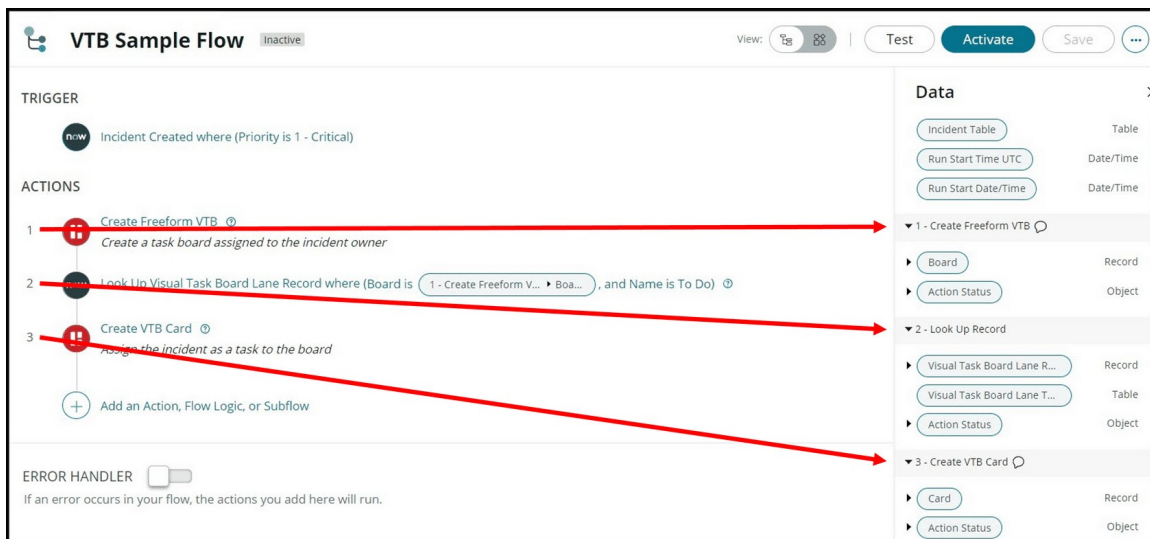
Actions: Actions are the set of operations which can be reused again and again to automate the flow without using code. These actions cannot be edited.

Core Action: Core actions are the pre defined actions(set of operations) which is provided by the ServiceNow.

Flow Designer provides a set of core actions to automate Now Platform processes, such as Ask for Approval, Create Task, Delete Record, etc.

Spokes: A spoke is a scoped application containing Flow Designer content dedicated to a particular application or record type. For example, the ITSM spoke contains actions for managing task records, such as the Create Task action. Spokes are activated when their parent application is activated.

Every time an action is added to a flow, Data Pills are created to store the variables that the action generates. The data pills also store any other information the action may require access to. The data stored in the pills can then be used in subsequent actions.



Code can be written within the flow or action to build values. Format conversions, data transformations, or math operations are common examples.

Inline Scripts: Code can be written within the flow or action to build values. Format conversions, data transformations, or math operations are common examples. (We use code)

Transform Functions: Transform functions provide a way to return a processed version of an input string. (we don't use code instead we use pre-build functions).

Test a Flow

You can view runtime information about a flow right in the design environment.

Open an Execution record to review details such as current state, actions run, and values produced. Related records can be opened in the design environment or a new browser tab.

Multiple tests can be run against the same test record, eliminating the need for multiple test records.

Flow Execution Details

Flow Status

Flow Time Duration

Trigger Status

Access to Logs

Access to Trigger Record

Trigger Details

Action Time Duration

Action Details

Flow Statistics

Run as: System Open Flow Logs **Completed** 2022-03-15 21:09:55 1307ms

TRIGGER

Incident Created

VARIABLE NAME	VALUE
Calling Source	Flow Designer Test

Configuration Details

VARIABLE NAME	RUNTIME VALUE	CONFIGURATION	TYPE
Condition		priority=1	Conditions
Table	incident	incident	Table Name
run_flow_in	any	any	Choice
run_on_extended	false	false	Choice
run_when_setting	both	both	Choice
run_when_user_list			List
run_when_user_setting	any	any	Choice

Trigger Output

VARIABLE NAME	RUNTIME VALUE	TYPE
Record	INC0008112	document_id
Run Start Date/Time	2022-03-15 21:09:54	glide_date_time
Run Start Time UTC	2022-03-16 04:09:54	glide_date_time
Table Name	incident	table_name

ACTIONS

1 **Create Freeform VTB** **Completed** 2022-03-15 21:09:55 334ms

Create a task board assigned to the incident owner

Configuration Details

VARIABLE NAME	RUNTIME VALUE	CONFIGURATION	TYPE
Name	P1 Incidents	P1 Incidents	String
Owner		Trigger → ... Assigned to	Reference
Default View			String
Picker Visibility	true	1	True/False
Label Visibility	true	1	True/False
Background Color	vtb-board-color-1	vtb-board-color-1	String

Output Data

VARIABLE NAME	RUNTIME VALUE	CONFIGURATION	TYPE
Action Status	{"Action Status":{"code":0,"message":"Success"}}		Object
Board	P1 Incidents	record	Document ID
Don't Treat as Error	true	true	True/False

No Logs

► Steps

2 **Look Up Record** **Completed** 2022-03-15 21:09:56 6ms

Core Action

3 **Create VTB Card** **Completed** 2022-03-15 21:09:56 771ms

Assign the incident as a task to the board

ERROR HANDLER

Components of testing:

Calling source

The calling source lists what initiated a flow or subflow.

Flow Designer Test: When you select the Test option from the Flow Designer interface

CRUD Trigger: When the record-based trigger conditions are met

Date Trigger: When the schedule-based trigger conditions are met

Metric Trigger: When the MetricBase trigger conditions of a MetricBase are met

Service Catalog Trigger: When a Service Catalog item was requested

Flow state

All active flows are in one of these three states:

Completed: This indicates that the flow successfully ran all actions. The flow statistics display configuration and run-time details for each action.

Waiting: This indicates that the flow paused on an action that is waiting for some condition to be met before continuing. Flows in the Waiting state display a Cancel Flow UI action in the header.

Error: This indicates that the flow stopped executing due to an error. Flows in the Error state display a Go to error UI action in the header.

Flow Designer Properties:

Flow Designer Properties
(More Info)

The maximum number of records to return when fetching data ②
1000

Set to True to show duration in the stage column. ②
☒ Yes | No

Allow the option for select users to write a script to populate the value of an input on Flow and Action Designers. ②
☒ Yes | No

Specify the log level of system log entries to replicate to the flow log. The system only replicates log entries of the specified level or higher. ②
ERROR | ERROR

The maximum amount of iterations that a loop will run in flow designer. ②
1000

Enable flow engine debug messages in the system log. ②
☐ Yes | No

Number of times that a flow or subflow can be indirectly triggered during a transaction. ②
3

The maximum number of actions allowed on a flow. ②
50

The maximum amount of allowed steps on an action. ②
20

Level of reporting data generated by the flow engine. ②
Off | OFF

Number of recent iterations to report for Do Until and For Each loops. For example, if we have 100 iterations and the number is 5, we would report iterations 95-100. If the number is 1 we report all iterations. If the number is 0 we report 1 iteration. ②

What is Flow Logic?

Flows may contain flow logic to specify conditional or repeated actions.

