

Tokyo Hyperautomation and Low-Code

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Process Automation Designer

ServiceNow® Process Automation Designer enables process owners to author cross-enterprise workflows and create a single, unified process. You can also use Process Automation Designer to provide end users with a simplified, task-oriented view of your process.

Process Automation Designer benefits

Process Automation Designer is a Now Platform® feature that enables you, as a business process owner, to organize Flow Designer content into unified and digitized cross-enterprise processes. With Process Automation Designer, you gain these benefits:

- Connect multiple flows and actions into an end-to-end business workflow.
- Reuse existing Flow Designer flows, subflows, or actions to automate process activities.
- Organize process activities in a digitized task board interface.
- Guide end users to complete a process in a task-oriented interface, such as a [playbook](#).
- Consolidate separate business processes across the organization.
- Define a consistent record life cycle from creation to completion.
- Pass data between the activities and stages of a business process.
- Specify the conditions and the order in which activities and stages run.
- Visualize and manage the activities and stages of your process.

Creating a well-designed process

The automated business processes that you design guide your end users and help them focus on the tasks and information that matter to them. A well-designed process can do these things:

- Start up, or trigger, automatically for the types of records that your end users care about

- Reuse activities from existing [Flow Designer](#) content
- Has well-defined lanes that end users can follow for a record
- Clearly show the next steps that end users must take to move through a record's life cycle

Process Automation Designer content

Process Automation Designer has these components:

Processes

A process is a Now Platform® representation of a cross-enterprise business process for your organization. A process owner is responsible for creating and maintaining a process.

Triggers

A trigger specifies when to start running your process.

Lanes

A lane is a grouped sequence of activities in a process. A process owner creates a lane to specify a logical grouping of activities. A lane represents one stage in your overall business process.

Activities

An activity defines the [Flow Designer](#) content that powers the process's automation. An activity can also specify the user-facing experience that the process produces when it runs.

For more information about how to use and navigate the Process Automation Designer user interface, see [Exploring Process Automation Designer](#).

Getting started

Before you get started with Process Automation Designer, familiarize yourself with any features that your business uses to automate operations on the Now Platform, such as [Flow Designer](#), [business rules](#), and [workflows](#). Learning about these concepts can help you avoid creating any conflicting logic in your processes.

If you're a process owner who wants to learn the basics of digitizing your business process, check out the following resources:

- [Get started with ServiceNow® Process Automation](#)
- [Get started with processes](#)
- [Design your first automated process](#)
- [View your process executions](#)

If you're a ServiceNow Process Automation administrator who wants to set up and customize Process Automation Designer, check out the following resources:

- [Triggers](#)
- [Process definitions](#)
- [Activity definitions](#)
- [Process Automation Designer architecture](#)

Understand how Process Automation Designer works in the Now Platform® to automate cross-functional processes and consolidate them into task-oriented views for your end users.

- [Process Automation Designer triggers](#)

Process Automation Designer triggers specify when to start running your process.

- [Process definitions](#)

Process definitions are Now Platform® representations of cross-enterprise processes for your organization. Create and activate a process definition to run your digitized business process on the Now Platform.

- [Process Automation Designer lanes and activities](#)

In Process Automation Designer, an activity represents one step in your overall business process. You can sequence many activities together in a lane, which represents one stage in your process.

Process Automation Designer architecture

Understand how Process Automation Designer works in the Now Platform® to automate cross-functional processes and consolidate them into task-oriented views for your end users.

Process Automation Designer consists of a design time environment that lets you produce a runtime view of a record's life cycle. The design time environment is a space where process owners can create process definitions. Meanwhile, the runtime experience is where end users, such as Workspace agents, follow the process to complete records.

Design time environment

The Process Automation Designer design time environment consists of these components:

Process definitions

A process definition is where a process owner configures and organizes multiple instances of Flow Designer content into a coherent business process. A process definition consists of a trigger, a sequence of lanes, and a sequence of activities.

Trigger definitions

A trigger definition specifies the conditions that must be met to run a process definition. A user with the admin, pd_admin, or pd_trigger_author role typically creates and configures a trigger definition that process authors can use as a template. A trigger definition specifies the record operation and table conditions that must be met to start running a process definition. A process owner typically selects a trigger template when creating a process definition.

Trigger instances

A trigger instance is produced when you select a trigger template. The trigger instance stores the conditions that a record must meet to start running the process.

Lanes

A lane is a logical grouping of activities in a process definition. A process owner creates a lane to group activities and specify the start rule for

when the lane should start running. A lane represents one stage in your overall business process.

Activity definitions

An activity definition maps [Flow Designer](#) inputs and outputs to an activity instance. An activity definition contains:

- The automation plan to map the triggering input record data to action or flow inputs
- The activity experience to map action or flow outputs to a user-facing view of the process definition

A user with the admin, pd_admin, or pd_content_author roles typically specifies the automation plan and activity experience when creating an activity definition.

Activity instances

An activity instance is produced when you add an activity to a process definition. The activity instance stores the automation plan data mappings from the activity definition. You can change these data mappings when the default values do not fit your process. The process can specify the start rules for when the activity should start running.

Start rules

A start rule specifies when a lane or an activity starts running. A process owner can use start rules to specify what parts of a process run simultaneously and what parts run serially.

For more information about how to use and navigate the Process Automation Designer user interface, see [Exploring Process Automation Designer](#).

Runtime experience

Process Automation Designer produces these runtime components:

Process executions

A process execution stores the details of running a process definition in a context record. You can use a process execution to troubleshoot and verify that process definitions run as expected.

Activity executions

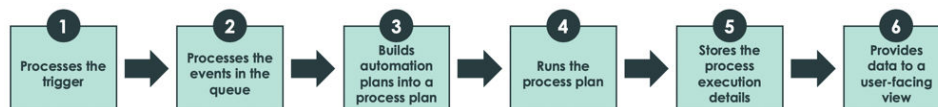
An activity execution stores the details of running an activity instance in a context record. You can use an activity execution to troubleshoot and verify that process definitions run as expected.

User-facing views

A user-facing view is a user interface that displays the output or results of a process definition, such as a Playbook. A workspace administrator can specify a user-facing view as part of setting up a Playbook experience. See [Set up a Playbook](#).

During runtime for a process definition, your instance:

1. Evaluates any conditions specified in the trigger definition and processes the trigger.
2. Processes the [Events](#) and starts running the process definition in the background.
3. Builds the automation plans from each activity into an entire process plan.
4. Runs the process plan for your process definition.
5. Stores the process execution information in the Process Execution [sys_pd_context] table.
6. Supplies data for a user-facing view of your process execution.



Data security and HTML sanitization

Process Automation Designer protects against cross-site scripting and code injection by evaluating all string data for HTML markup. The system only preserves HTML markup that is present in its inclusion list. All other HTML markup is removed from string data.

The inclusion list supports these HTML elements and attributes, which cannot be modified.

HTML inclusion list

HTML element	Included Attributes
a	class, href, target, title
abbr	class, title
address	class
area	alt, class, coords, href, shape
article	class
aside	class
audio	autoplay, class, controls, loop, preload, src
b	class
bdi	class, dir
bdo	class, dir
big	class
blockquote	cite, class
br	class
caption	class
center	class
cite	class
code	class
col	align, class, span, valign, width
colgroup	align, class, span, valign, width

HTML element	Included Attributes
dd	class
del	class, datetime
details	class, open
div	class
dl	class
dt	class
em	class
emp	class
font	class, color, face, size
footer	class
h1	class
h2	class
h3	class
h4	class
h5	class
h6	class
header	class
hr	class
html	
i	class

HTML element	Included Attributes
img	alt, class, height, src, title, width
input	aria-label, class, type, value
ins	class, datetime
li	class
mark	class
nav	class
ol	class
p	class
pre	class
s	class
section	class
small	class
span	class
sub	class
sup	class
svg	class
strong	class
style	
table	align, border, class, valign, width
tag	class

HTML element	Included Attributes
tbody	align, class, valign
td	align, class, colspan, rowspan, valign, width
tfoot	align, class, valign
th	align, class, colspan, rowspan, valign, width
thead	align, class, valign
tr	align, class, rowspan, valign
tt	class
u	class
ul	class
video	autoplay, class, controls, height, loop, preload, src, width

- [Exploring Process Automation Designer](#)

Get an overview of the Process Automation Designer landing page and design environment.

- [Process Automation Designer system properties](#)

Review the system properties for Process Automation Designer. You can configure these properties to control how the system handles Process Automation Designer events.

- [Activate Process Automation Designer](#)

Activate Process Automation Designer to create processes for your subscribed applications.

- [Getting started with Process Automation](#)

Learn how Process Automation applications can help you use the Now Platform® to transform your manual business processes into digitized, automated workflows.

- [Getting started with processes](#)

Learn the basics of designing an automated process for your organization. Get an overview of how processes work on the Now Platform®.

- [Process Automation Designer roles](#)

Grant users one or more Process Automation Designer roles to enable them to create triggers, process definitions, and activity definitions.

- [Domain separation and Process Automation Designer](#)

Process Automation Designer supports data separation. The domain value of the triggering input record determines the domain context. Domain separation enables you to separate data, processes, and administrative tasks into logical groupings called domains. You can control several aspects of this separation, including which users can see and access data.

Exploring Process Automation Designer

Get an overview of the Process Automation Designer landing page and design environment.

Process Automation Designer landing page

You can view the Process Automation Designer landing page by navigating to **Process Automation > Process Automation Designer**. The landing page displays a list view of process definitions that are available for you to view or edit. For more information on creating a process definition to add to this list, see [Getting started with processes](#).

Multi-flow processes 6						
Last refreshed just now.						
<input type="checkbox"/>	Label	Application	Status	Active	Updated by	Updated
	New hire onboarding process	Global	Draft	true	admin	2020-05-22 12:57:37
	Automated incident notification process	Global	Draft	true	admin	2020-05-11 17:45:47
	P1 incident management process	Global	Draft	true	admin	2020-05-22 12:53:11
	Availability incident management process	Global	Draft	true	admin	2020-05-22 12:58:17
	Problem Management process	Global	Published	true	admin	2020-05-22 10:49:01
	Defect testing and resolution process	Global	Draft	true	admin	2020-05-22 12:58:55

Showing 1-6 of 6

20 rows per page

Process Automation Designer design environment

Process Automation Designer gives you a simple, interactive way to design digitized, automated processes for your business in a task board view. The Process Automation Designer design environment consists of the main header, activity design space, and configuration panel.

Main header

The main header displays information about the process definition that you're currently designing. In the main header, you can:

- Access the properties for your process definition. For more information, see [Process definition properties](#).
- Confirm your process definition's status and activation state, created or updated date and time, and application scope.
- Activate your process definition so that it runs when triggered. For more information, see [Process definition statuses and activation states](#).

Activity design space

Organize activities into lanes to design your process definition.

- An activity represents one step within your overall business process. An activity can automate operations on the Now Platform, such

as creating or updating records, displaying record information, and running automated actions in the background.

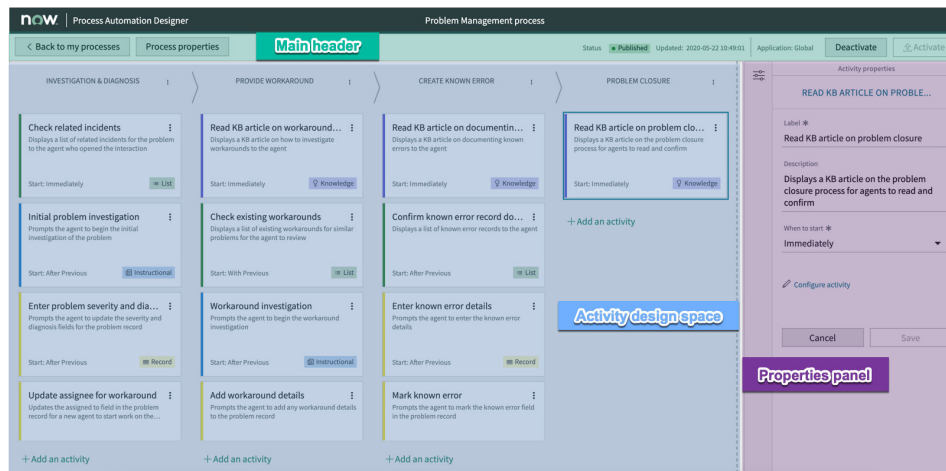
- A lane is a set of activities that represents one stage within your business process.

For more information, see [Process Automation Designer lanes and activities](#).

Properties panel

The properties panel lets you set various options for your process definition, activities, and lanes. In the properties panel, you can:

- Add or edit the name for your process definition, lane, or activity.
- Add or edit the description for your process definition, lane, or activity.
- Define the start rule for your lane or activity.
- Access the configuration options for your lane or activity.



Process Automation Designer system properties

Review the system properties for Process Automation Designer. You can configure these properties to control how the system handles Process Automation Designer events.

The system properties for Process Automation Designer provide advanced configuration options for how the system handles Process Automation Designer events. To set Process Automation Designer system properties, access the System Properties [sys_properties] table.

The following system properties relate to the Process Automation Designer configuration:

Property	Description
com.glide.event_manager.process_automation.claim_limit	Number of Process Automation events that the event handler can process in a single transaction
sn_agent_workspace.default_view_editable_tables	Default table views, as a comma-separated list, that you want to allow Workspace to render within a playbook card

Activate Process Automation Designer

Activate Process Automation Designer to create processes for your subscribed applications.

Each application subscription entitles you to create processes for its associated tables.

- Application tables
- Custom tables that extend the application tables
- Custom tables authorized by the application subscription

You can activate Process Automation Designer for the application that you want your processes to run in by purchasing a subscription for the appropriate application. If you already have a subscription to your application but you still can't create processes for your application's tables, enable the appropriate plugin.

Note: The Process Automation Designer plugins you enable determine which tables are available for you to create processes.

See the following sections to learn how to activate Process Automation Designer for your application.

Activate Process Automation Designer for App Engine

Activate Process Automation Designer on your instance to create processes triggered by Now Platform® tables.

About this task

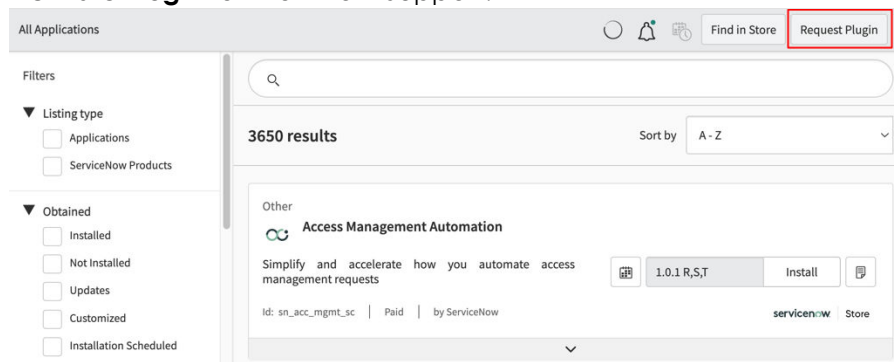
In order to create processes in Process Automation Designer that are triggered by Now Platform tables, you must [purchase a subscription to the Now Platform App Engine](#).

To purchase this subscription, contact your ServiceNow account manager. Your account manager can arrange to have the plugin activated on your organization's production and subproduction instances, generally within a few days.

If you don't have an account manager, decide to delay activation after purchase, or want to evaluate the product on a subproduction instance without charge, follow these steps to enable the **Process Automation Designer for App Engine [com.glide.pad.license]** plugin:

Procedure

1. Navigate to **All > System Applications > All Available Applications > All**.
2. On the All Applications page, click **Request Plugin** to open the **Activate Plugin** form on Now Support.



- On Now Support, select the link to access the Now Support Service Portal Service Catalog.

Activate Plugin

In order to enhance the user experience, we have redesigned Activate a Plugin service catalog. Please use the new HI Service Portal 'Activate a Plugin' service catalog item. You can also use Manage Instances page on Service Portal to Activate a Plugin.

Take me to the HI Service Portal Activate a Plugin Service Catalog. [↗](#)

- Select your instance.
- Select **Actions > Activate Plugin**.
- On the **Activate Plugin** form on Now Support, provide the following information.

Activate Plugin request form

Field	Description
What is your target instance	Instance on which to activate the plugin.
Which plugin would you like to activate	Name of the plugin to activate.
Select Maintenance Date and Time	<p>The date and time to activate the plugin.</p> <p>Note: Plugins are activated in two batches, once in the morning and once in the evening, on every business day in the US Pacific time zone. If the plugin must be activated at a specific time, enter the request in the Reason/Comments field.</p>

- Select **Submit**.

Result

You can create triggers in Process Automation Designer for [custom tables that you create](#). Enabling the **Process Automation Designer for App Engine [com.glide.pad.license]** plugin lets you create processes for these tables and their [extensions](#):

- Affected CIs [cmdb_outage_ci_mtom]
- Agent Capacity [awa_agent_capacity]
- Agent channel availability [awa_agent_channel_availability]
- Agent Presence [awa_agent_presence]
- Announcement [announcement]
- Assessment Category Result [asmt_category_result]
- Assessment Instance [asmt_assessment_instance]
- Assessment Metric [asmt_metric]
- Assessment Metric Template [asmt_template]
- Assessment Metric Type [asmt_metric_type]
- Assessment Metric Type Group [asmt_metric_type_group]
- Assessment Net Promoter Score [asmt_nps_result]
- Assessment Template Definition [asmt_template_definition]
- Assignment Eligibility [awa_eligibility_pool]
- Assignment Rule [awa_assignment_rule]
- Audit [cert_audit]
- Audit Result [cert_audit_result]
- AWA Agent Presence and Capacity [awa_agent_presence_capacity]
- AWA Document Size [awa_document_size]
- Base Configuration Item [cmdb]

- Building [cmn_building]
- Business Calendar [business_calendar]
- Certification Template [cert_template]
- CI Relation Filter [cmdb_rel_filter]
- CI Relationship [cmdb_rel_ci]
- CI Relationship Rollup [cmdb_rel_rollup]
- CI Relationship Type [cmdb_rel_type]
- CI/User Relationship Type [cmdb_rel_user_type]
- CIs Affected [task_ci]
- CMDB Group [cmdb_group]
- CMDB Group Event Queue [cmdb_group_event_queue]
- CMDB Group Type [cmdb_group_type]
- CMDB Health Configuration [cmdb_health_config]
- CMDB Health Metric [cmdb_health_metric]
- CMDB Health Result [cmdb_health_result]
- CMDB Health Scorecard [cmdb_health_scorecard]
- Company [core_company]
- Connection & Credential Aliases [sys_alias]
- Connection & Credential Templates [sys_alias_templates]
- Cost Center [cmn_cost_center]
- Country [core_country]
- Department [cmn_department]
- Direct Relationships [cmdb_related]
- [dms_document]

- Draft Document [draft_document]
- Follow On Task [cert_follow_on_task]
- Group [sys_user_group]
- Group Member [sys_user_grmember]
- Group Queue Priority [awa_group_queue_priority]
- Group Relationship [cmdb_rel_group]
- Group Role [sys_group_has_role]
- Group Skill [sys_group_has_skill]
- Guided Setup Task [gsw_task]
- Holiday [sys_holiday]
- Impacted CIs [task_cmdb_ci_service]
- Inbox Layout [awa_inbox_layout]
- Interaction [interaction]
- IP Address Pool [cmdb_ip_address_pool]
- IP Address Range [cmdb_ip_address_range]
- IP Address to DNS Name [cmdb_ip_address_dns_name]
- IP Service [cmdb_ip_service]
- KB Submission [kb_submission]
- Knowledge [kb_knowledge]
- Knowledge Base [kb_knowledge_base]
- Knowledge Category [kb_category]
- Knowledge Feedback [kb_feedback]
- Knowledge Feedback Task [kb_feedback_task]
- Knowledge Use [kb_use]

- Location [cmn_location]
- Metric [metric_instance]
- Model Category [cmdb_model_category]
- Offer Details [awa_offer_details]
- OS User [cmdb_os_user]
- Outage [cmdb_ci_outage]
- Page [sp_page]
- Peer Relationships [cmdb_peer]
- People Relationship [cmdb_rel_person]
- Presence State [awa_presence_state]
- Private Task [vtb_task]
- Product Model [cmdb_model]
- Queue [awa_queue]
- Related Entry [cmdb_related_entry]
- Report [sys_report]
- Role [sys_user_role]
- Roster [cmn_rota_roster]
- Rotation Escalation [cmn_rota_escalation]
- Scheduled Suite Run [sys_atf_schedule_run]
- Service [cmdb_ip_service_ci]
- Service Portal [sp_portal]
- Shift [cmn_rota]
- Shift Escalation Set [cmn_rota_escalation_set]
- Shift Escalation Step Definition [cmn_rota_esc_step_def]

- Skill Category [cmn_skill_category]
- Skill Level [cmn_skill_level]
- Skill Level Type [cmn_skill_level_type]
- Subscribers [cmdb_subscriber]
- Template [sys_template]
- Test [sys_atf_test]
- Test Results [sys_atf_test_result]
- Test Suite [sys_atf_test_suite]
- Test Suite Result [sys_atf_test_suite_result]
- Test Suite Test [sys_atf_test_suite_test]
- Test Template [sys_atf_test_template]
- Theme [sp_theme]
- Ticket [ticket]
- [universal_request]
- User [sys_user]
- User Skill [sys_user_has_skill]
- Vendor Type [vendor_type]
- Work Item [awa_work_item]
- Work Item Rejection [awa_work_item_rejection]
- Work Item Sizing [awa_work_item_sizing]
- Work Item Sort Order [awa_queue_item_sorting]

Note: If you create a custom table such as My Table [x_my_table], you can create processes that trigger from it. However, you cannot create a process that triggers from a table belonging to another Process Automation Designer plugin.

Activate Process Automation Designer for Customer Service Management (CSM)

Activate Process Automation Designer on your instance so that you can create processes triggered by CSM tables.

About this task

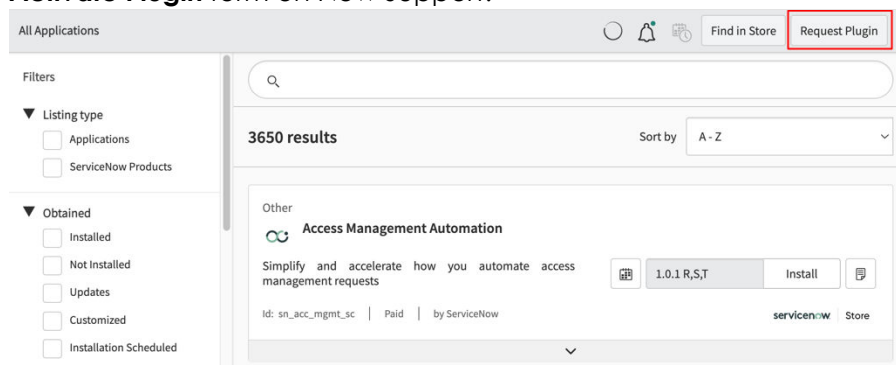
In order to create processes in Process Automation Designer that are triggered by CSM tables and custom tables that extend from them, you need to [purchase a subscription to CSM](#).

To purchase this subscription, contact your ServiceNow account manager. Your account manager can arrange to have the plugin activated on your organization's production and subproduction instances, generally within a few days.

If you don't have an account manager, decide to delay activation after purchase, or want to evaluate the product on a subproduction instance without charge, follow these steps to enable the **Playbooks for Customer Service Management [com.sn_csm_playbook]** plugin:

Procedure

1. Navigate to **All > System Applications > All Available Applications > All**.
2. On the All Applications page, click **Request Plugin** to open the **Activate Plugin** form on Now Support.



3. On Now Support, select the link to access the Now Support Service Portal Service Catalog.

Activate Plugin

In order to enhance the user experience, we have redesigned Activate a Plugin service catalog. Please use the new HI Service Portal 'Activate a Plugin' service catalog item. You can also use Manage Instances page on Service Portal to Activate a Plugin.

Take me to the HI Service Portal Activate a Plugin Service Catalog. [↗](#)

- Select your instance.
- Select **Actions > Activate Plugin**.
- On the **Activate Plugin** form on Now Support, provide the following information.

Activate Plugin request form

Field	Description
What is your target instance	Instance on which to activate the plugin.
Which plugin would you like to activate	Name of the plugin to activate.
Select Maintenance Date and Time	<p>The date and time to activate the plugin.</p> <p>Note: Plugins are activated in two batches, once in the morning and once in the evening, on every business day in the US Pacific time zone. If the plugin must be activated at a specific time, enter the request in the Reason/Comments field.</p>

- Select **Submit**.

Result

Enabling the **Playbooks for Customer Service Management** [com.sn_csm_playbook] plugin lets you create processes for these tables and their [extensions](#):

- Account [customer_account]
- Case [sn_customerservice_case]
- Change Request [change_request]. Requires Customer Service with Service Management (com.sn_cs_sm)
- Consumer [csm_consumer]
- Contact [customer_contact]
- Escalation [sn_customerservice_escalation]
- Household [csm_household]
- Incident [incident]. Requires Customer Service with Service Management (com.sn_cs_sm)
- Interaction [interaction]
- Order [csm_order]. Requires Customer Service Management for Orders (com.snc.csm.order)
- Order Line Item [csm_order_line_item]. Requires Customer Service Management for Orders (com.snc.csm.order)
- Problem [problem]. Requires Customer Service with Service Management (com.sn_cs_sm)
- Request [sc_request]. Requires Customer Service with Request Management (com.sn_cs_sm_request)
- Service Organization [sn_customer_service_organization]. Requires Service Organization (com.snc.service_organization)
- Task [sn_customerservice_task]

Note: If you create a custom table that extends a CSM table such as Case, you can create processes that trigger from it.

Activate Process Automation Designer for Field Service Management

Activate Process Automation Designer on your instance so that you can create processes triggered by tables.

About this task

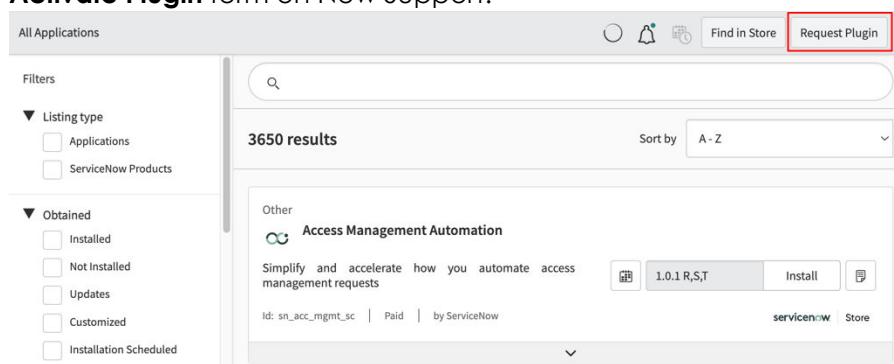
In order to create processes in Process Automation Designer that are triggered by Field Service Management tables, you must [purchase a subscription to Field Service Management](#).

To purchase this subscription, contact your ServiceNow account manager. Your account manager can arrange to have the plugin activated on your organization's production and subproduction instances, generally within a few days.

If you don't have an account manager, decide to delay activation after purchase, or want to evaluate the product on a subproduction instance without charge, follow these steps to enable the **Playbooks for Field Service Management [com.sn_fsm_playbook]** plugin:

Procedure

1. Navigate to **All > System Applications > All Available Applications > All**.
2. On the All Applications page, click **Request Plugin** to open the **Activate Plugin** form on Now Support.



3. On Now Support, select the link to access the Now Support Service Portal Service Catalog.

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- Select your instance.
- Select **Actions > Activate Plugin**.
- On the **Activate Plugin** form on Now Support, provide the following information.

Activate Plugin request form

Field	Description
What is your target instance	Instance on which to activate the plugin.
Which plugin would you like to activate	Name of the plugin to activate.
Select Maintenance Date and Time	<p>The date and time to activate the plugin.</p> <p>Note: Plugins are activated in two batches, once in the morning and once in the evening, on every business day in the US Pacific time zone. If the plugin must be activated at a specific time, enter the request in the Reason/Comments field.</p>

- Select **Submit**.

Result

Enabling the **Playbooks for Field Service Management** [**com.sn_fsm_playbook**] plugin lets you create processes for these tables and their [extensions](#):

- Work Task Flow [sf_work_task]
- Work Order Flow [sf_work_order]
- Work Order Task [wm_Task]
- Work Order [wm_order]
- Work Order Model [cmdb_workorder_product_model]
- Work Task Model [cmdb_worktask_product_model]
- Work Type [wm_work_type]
- Agent Personal Schedule [agent_events]
- Appointment Booking [sn_apptmnt_booking_appointment_booking]
- Questionnaire [wm_questionnaire]
- Service Order Task [sm_task]
- Service Order Task Template Dependency [sm_m2m_task_template_dependency]
- Asset Usage [sm_asset_usage]
- Part Requirement [sm_part_requirement]
- Service Management Incidentals [sm_incidentals]

Getting started with Process Automation

Learn how Process Automation applications can help you use the Now Platform® to transform your manual business processes into digitized, automated workflows.

ServiceNow Process Automation applications help you digitize, visualize, and manage the cross-enterprise workflows for your business. Digitizing

your business processes with Process Automation applications gives you these benefits:

- Management of process compliance
- Ownership of continual process improvement
- Collaboration across divisions and departments
- Visibility into process outcomes

Process Automation applications

The ServiceNow Process Automation applications that you can use to digitize your business processes into automated workflows on the Now Platform include:

Flow Designer

ServiceNow® Flow Designer enables process owners to automate approvals, tasks, notifications, and record operations without having to code. You can use the Flow Designer design environment to author flows and actions and to view the results they produce.

Process Automation Designer

ServiceNow® Process Automation Designer enables process owners to author cross-enterprise workflows and create a single, unified process. You can also use Process Automation Designer to provide end users with a simplified, task-oriented view of your process.

Roles involved in Process Automation

Depending on the Process Automation application that you use, you may need to coordinate with other teams or individuals to ensure that your automated processes run smoothly. One possible way in which you could organize the roles for Process Automation applications is:

- A developer uses Flow Designer to work on flows, actions, and activity definitions to automate individual pieces of a business process.
- A process owner uses Process Automation Designer to organize the pieces of the business process into a digitized, cross-enterprise workflow.

- A Workspace administrator uses Playbook Experience to work on Playbooks to configure the appropriate views of the business process for the right system users.
- An agent, the end user in this case, uses Agent Workspace to work on the individual tasks within the business process. In this case, the end user of the business process interacts with a Playbook, which is a graphical view of the business process on the Now Platform.

	Developer	Process Owner	Workspace Admin	Agent
Uses	Flow Designer	Process Automation Designer	Playbook Experience	Agent Workspace
To work on	Flows, actions, and activity definitions	Processes	Playbooks	Activities shown in playbook cards
In order to	Automate individual pieces of the business process	Organize the pieces of the business process into a cross-enterprise workflow	Configure the appropriate views of the business process for the right users	Complete individual tasks within the business process

Learn more about Process Automation

To find out more about how you can use Flow Designer and Process Automation Designer to digitize your business processes, try checking out these resources:

- [Flow Designer fundamentals course](#)
- [Flow Designer](#)
- [Getting started with processes](#)

Getting started with processes

Learn the basics of designing an automated process for your organization. Get an overview of how processes work on the Now Platform®.

Processes

Processes are Now Platform representations of your manual cross-enterprise workflows. By creating a process record on the platform, you're digitizing these workflows. A process has two dimensions: the process definition and the associated process executions.

Process definitions

A process definition is where a process owner configures and organizes multiple instances of Flow Designer content into a coherent business process. A process definition consists of a trigger, a sequence of lanes, and a sequence of activities.

Process executions

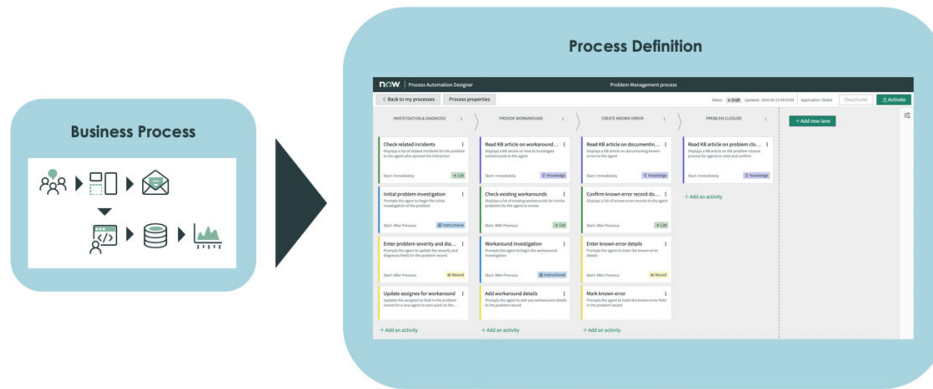
A process execution is a single, runtime instance of a process definition.

Designing a process

When you design your business process in Process Automation Designer, you're creating a process definition.

Each process definition consists of a trigger as well as lanes and activities. Triggers define the conditions that, when met, start running your process. Lanes and activities represent stages and individual steps in your overall business process. In the Process Automation Designer design environment, you can organize these lanes and processes into a sequence that reflects how your business process runs.

When you're done creating your process definition, activate it so that it runs when triggered.



What happens when a process runs

When your activated process definition is triggered, the system creates a process execution, which represents a single, running instance of your process definition.

After you create the process execution, the system evaluates each activity within your process. The system iterates through each activity in your process until the final activity finishes running, which means that the process execution is completed. As each activity runs, automated record operations occur on the Now Platform.

If a Workspace administrator has set up a Playbook experience for your process, then your process execution renders as a Playbook. A Playbook is a visual representation of your process, which is associated with a record in a Workspace.

In summary, your process runs when:

1. The system creates a process execution.
2. Any configured Workspace Playbook for your process renders for agents.
3. Automated operations on records that are associated with your process execution occur on the Now Platform.



Learn more about processes

If you're ready to start digitizing your business process with Process Automation Designer, try checking out these resources:

- [Design your first automated process](#)
- [Create a process definition](#)
- [Design an automated process](#)

Transform an example manual business process into a well-designed, automated process that runs on the Now Platform®.

Design an automated process

Transform an example manual business process into a well-designed, automated process that runs on the Now Platform®.

Before you begin

- Enable the **Process Automation Designer for App Engine** [com.glide.pad.license] plugin with a subscription to the Now Platform App Engine. For more information, see [Activate Process Automation Designer](#).
- Follow the steps to [Configure a Playbook user experience](#).

- Ensure that your current application is set to **Global**. For more information, see [Application picker](#).
- Role required: admin or pd_admin

About this task

In the following procedure, you can step through an example of how to digitize a manual business process on the Now Platform using Process Automation Designer. In this example, you can use Process Automation Designer to standardize and automate how Service Desk agents handle chat interactions with VIP users.

The manual business process for this example consists of the following stages:

1. **Identify and Log:** A Service Desk agent learns of an issue that a VIP user is facing while chatting with the user in a messaging application. The Service Desk agent creates an interaction record to track this issue.
2. **Classify and Diagnose:** The Service Desk agent associates an incident record with the interaction and sets the incident's priority to High. The agent then enters the Assigned To user for the incident.
3. **Communicate Work in Progress:** The assignee updates the incident record's state to Work in Progress and emails the VIP user when progress is made on the incident.
4. **Resolve:** When the incident is resolved, the assignee emails the resolution information to the VIP user.

Procedure


1. Create a process named Handle Interactions with VIPs.
 - a. Navigate to **Process Automation > Process Automation Designer**.
 - b. In the main header, click **Create a new process**.
 - c. On the form, fill in the fields.


Field	Action
Label	Enter Handle Interactions with VIPs .
Description	Enter This process defines how Service Desk agents can handle interaction records that are created for VIP users.
Application	Select Global .


- d. Click **Select a trigger**.
 - e. Click the **Define your own trigger conditions for when your process runs** option.
 - f. From the list of trigger options, select **Record Create**.
 - g. Click **Set your trigger conditions**.
 - h. In the Table list, select **Interaction [interaction]**.
 - i. Use the [condition builder](#) to add the following condition to your trigger:
 - **[Opened for->VIP] [is] [True]**.
 - j. Click **Go to Designer**.
- The Process Automation Designer design environment appears.
2. Add a lane for each stage in your process.
 - a. Click **+ Add new lane** to add the first lane to your process.
 - b. In the lane properties panel's **Label** field, enter **Classify** and **Diagnose**.

Note: Because the Identify and Log stage triggers this process, don't add a lane for that stage.


- c. In the **Description** field, enter Associate an incident with the interaction.
 - d. In the **When to start** field, leave **Immediately** selected, and then click **Save**.
 - e. Click **+ Add new lane** to add another lane to your process.
 - f. In the lane properties panel's **Label** field, enter Communicate Work in Progress.
 - g. In the **Description** field, enter Notify VIP of work in progress.
 - h. In the **When to start** field, leave **After Previous** selected, and then click **Save**.
 - i. Click **+ Add new lane** to add the final lane to your process.
 - j. In the lane properties panel's **Label** field, enter Resolve.
 - k. In the **Description** field, enter Resolve incident and share resolution details.
 - l. In the **When to start** field, leave **After Previous** selected, and then click **Save**.
3. Add the Create incident from interaction activity to the **Classify and Diagnose** lane.
 - a. Under the **Classify and Diagnose** lane, click **+ Add an activity**.
 - b. In the activity picker, select **Common Activities**, and then select **Automated Create Record** under Non-Interactive.
 - c. In the activity properties panel's **Label** field, enter Create incident from interaction.
 - d. In the **When to start** field, leave **Immediately** selected, and then click **Save**.
 - e. Click the **Create incident from interaction** activity card.
 - f. In the activity properties panel, click **Configure activity**.

- g. On the Configure your activity screen, locate the Variables section under Inputs.
 - h. In the Table Name list, select **Incident [incident]**.
 - i. From the Fields list, select **Assigned To**.
 - j. Next to the **Assigned To** field, select the data pill picker icon

).
 - k. Dot-walk to the Interaction record's **Assigned To** field by selecting **Context > Input Record - interaction > Assigned To**.
 - l. In the Fields list, select **Impact** and then select **2 - Moderate**.
 - m. Under **Fields**, select **Urgency** and then select **1 - High**.
 - n. In the Fields list, select **Short Description**.
 - o. Dot-walk to the Interaction record's **Short description** field by selecting **Context > Input Record - interaction > Short Description**.
 - p. In the Fields list, select **Caller**.
 - q. Dot-walk to the Interaction record's **Opened for** field by selecting **Context > Input Record - interaction > Opened for**.
 - r. In the **Wait for user input** field, leave **No** selected.
 - s. In the **Fields to show after creation** field, enter `priority`.
 - t. Click **Update** to finish updating the inputs for the activity.
 The **Create incident from interaction** activity automatically maps the Assigned To and Short Description fields from the interaction record to the incident record when your process runs.
4. Add the **Wait for assignee to update** activity to the **Communicate Work in Progress** lane.
 - a. Under the **Communicate Work in Progress** lane, click **+ Add an activity**.
 - b. In the activity picker, select **Common Activities**, and then select **Wait For Condition** under Interactive.

- c. In the activity properties panel's **Label** field, enter `Wait for assignee to update`.
 - d. In the **When to start** field, leave **Immediately** selected, and then click **Save**.
 - e. Click the **Wait for assignee to update** activity card.
 - f. In the activity properties panel, click **Configure activity**.
 - g. On the Configure your activity screen, locate the Variables section under Inputs.
 - h. Next to the **Record** field, select the data pill picker icon ().
 - i. Dot-walk to the **Create incident from interaction** activity's **record** output by selecting **Activities > 1:1 - automated_create_record > Outputs > record**.
 - j. In the Table list, select **Incident [incident]**.
 - k. Use the [condition builder](#) to add the following condition to your activity:
 - **[Updated by] [is] [Activities > 1:1 - automated_create_record > Outputs > record > Assigned to]**.
 - l. Click **Update** to finish updating the inputs for the activity. The **Wait for assignee to update** activity pauses the process until the Assigned To user for the Incident record updates the record.
5. Add the Send update to VIP activity to the **Communicate Work in Progress** lane.
 - a. Under the **Communicate Work in Progress** lane, select **+ Add an activity**.
 - b. In the activity picker, select **Common Activities**, and then select **Instruction** under Default.
 - c. In the activity properties panel's **Label** field, enter `Send update to VIP`.
 - d. In the **When to start** field, leave **After Previous** selected, and then select **Save**.

- e. Click the **Send update to VIP** activity card.
 - f. In the activity properties panel, select **Configure activity**.
 - g. On the Configure your activity screen, locate the Variables section under Inputs.
 - h. In the **Message** field, enter `Notify the VIP user that work on their issue is in progress.`
 - i. Leave the **Wait for user input** field's value as **Yes**.
 - j. Click **Update** to finish updating the inputs for the activity.
The **Send update to VIP** activity prompts the agent to send an email to the VIP user when the assignee for the incident record makes an update.
6. Add the Wait for incident resolution activity to the **Resolve** lane.
 - a. Under the **Resolve** lane, select **+ Add an activity**.
 - b. In the activity picker, select **Common Activities**, and then select **Wait For Condition** under Interactive.
 - c. In the activity properties panel's **Label** field, enter `Wait for incident resolution`.
 - d. In the **When to start** field, leave **Immediately** selected, and then click **Save**.
 - e. Click the **Wait for incident resolution** activity card.
 - f. In the activity properties panel, click **Configure activity**.
 - g. On the Configure your activity screen, locate the Variables section under Inputs.
 - h. Next to the **Record** field, select the data pill picker icon ().
 - i. Dot-walk to the Create incident from interaction activity's **record** output by selecting **Activities > 1:1 - automated_create_record > Outputs > record**.
 - j. In the **Table** field, select **Incident [incident]**.

- k. Use the [condition builder](#) to add the following condition to your activity:
 - **[State] [is] [Resolved].**
 - l. Select **Update** to finish updating the inputs for the activity. The **Wait for incident resolution** activity pauses the process until the Incident's state becomes **[Resolved]**.
7. Add the Share resolution details with VIP activity to the **Resolve** lane.
 - a. Under the **Resolve** lane, select **+ Add an activity**.
 - b. In the activity picker, select **Common Activities**, and then select **Instruction** under Default.
 - c. In the activity properties panel's **Label** field, enter Share resolution details with VIP.
 - d. In the **When to start** field, leave **After Previous** selected, and then click **Save**.
 - e. Click the **Share resolution details with VIP** activity card.
 - f. In the activity properties panel, click **Configure activity**.
 - g. On the Configure your activity screen, locate the Variables section under Inputs.
 - h. In the **Message** field, enter Provide the Resolution Notes from the Incident record in an email to the VIP user.
 - i. Leave the **Wait for user input** field's value as **Yes**.
 - j. Click **Update** to finish updating the inputs for the activity. The **Share resolution details with VIP** activity prompts the agent to send the issue resolution details to the VIP user.
8. In the main header, click **Activate** so that your process runs when triggered.
9. View your activated process as a playbook in Workspace.
 - a. Close the Process Automation Designer tab and navigate to **Workspace Experience > Agent Workspace Home**.

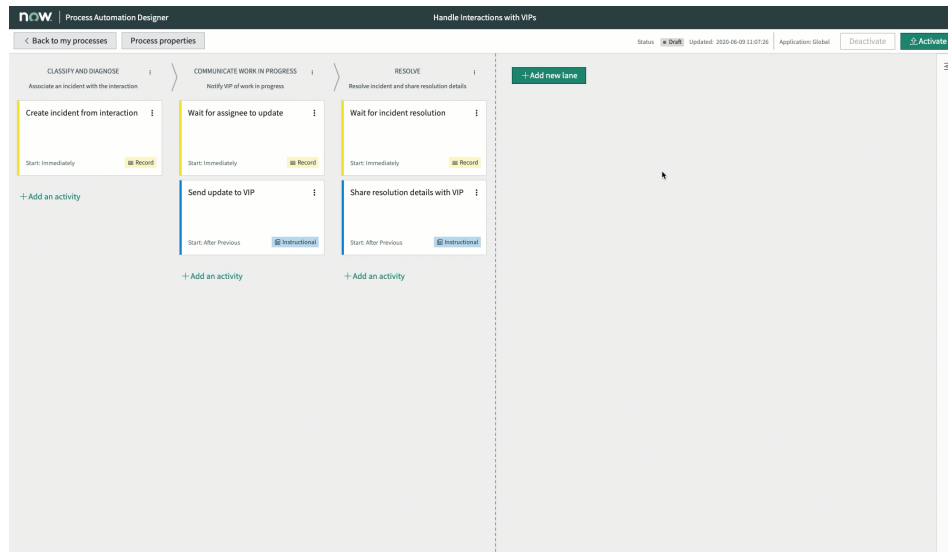
- b. In the side menu, click the lists icon ().
- c. In the **Lists** tab under Interactions, click **My Interactions**.
- d. In the form header, click **New**.
- e. On the form, fill in the fields:

Field	Action
Type	Select Chat .
Opened for	Select a VIP user.
Assigned to	Select a user that can make updates to Incident records.
Short description	Enter Testing out the Handle Interactions with VIPs playbook.

- f. In the form header, click **Save**.
- g. In the Contextual side panel, click the playbook icon ().

Result

Your process appears in the Workspace Contextual side panel as a playbook. Here, Workspace agents can get a task-oriented view of the automated business process. Agents can step through the activities that you set up to see where the record is in the overall process.



Process Automation Designer roles

Grant users one or more Process Automation Designer roles to enable them to create triggers, process definitions, and activity definitions.

System administrators can grant users access to Process Automation Designer by assigning [delegated development permissions](#) or directly assigning [Roles](#). The following user roles are available for Process Automation Designer:

Role	Description
pd_admin	Enables users to create, update, and delete trigger definitions. Also enables users to launch the Process Automation Designer environment to create, activate, edit, and delete process definitions, activity definitions, and trigger definitions.
pd_author	Enables users to launch the Process Automation Designer environment

Role	Description
	to create, activate, edit, and delete process definitions.
pd_content_author	Enables users to create, edit, and delete activity definitions and trigger definitions.
pd_trigger_author	Enables users to create, update, and delete trigger definitions.
pd_operator	Enables users to view process executions, activity executions, and execution logs only.
pd_shared.user	Enables users to view the Experience activity types (sys_pd_activity) and Experience activity properties (sys_pd_activity_type_prop) tables that are shared by Process Automation Designer and Playbook Experience.
pd_shared.admin	Enables users to edit the Experience activity types (sys_pd_activity) and Experience activity properties (sys_pd_activity_type_prop) tables that are shared by Process Automation Designer and Playbook Experience.

Note: Granting users Process Automation Designer roles does not automatically allow them to access the Flow Designer design environment. Granting users access to Flow Designer may be helpful when creating activity definitions. For more information on Flow Designer roles, see [user access to Flow Designer](#).

Domain separation and Process Automation Designer

Process Automation Designer supports data separation. The domain value of the triggering input record determines the domain context. Domain separation enables you to separate data, processes, and administrative tasks into logical groupings called domains. You can control several aspects of this separation, including which users can see and access data.

Support level: Basic

- Business logic: Ensure that data goes into the proper domain for the application's service provider use cases.
- The application supports domain separation at run time. The domain separation includes separation from the user interface, cache keys, reporting, rollups, and aggregations.
- The owner of the instance must set up the application to function across multiple tenants.

Sample use case: When a service provider (SP) uses chat to respond to a tenant-customer's message, the customer must be able to see the SP's response.

For more information on support levels, see [Application support for domain separation](#).

How domain separation works in Process Automation Designer

The system domain separates Process Automation Designer content according to these rules:

Process Automation Designer content runs from the domain it is triggered from

Activities and process definitions run from the domain of the record or user who initiates them. For example, when a user from the child domain ACME triggers a process definition belonging to the parent domain TOP, the process definition runs in the context of the child domain ACME.

Flow Designer content runs in the domain of the calling Process Automation Designer activity

Whenever an activity definition calls an action or flow, the system runs the Flow Designer content in the same domain context as the triggering Process Automation Designer content. If the Flow Designer content has a matching domain-specific process override, then the system runs the override version instead. While Process Automation Designer does not support process overrides, it uses any process overrides defined within Flow Designer.

Process Automation Designer configuration files are visible to all domain users

Process Automation Designer configuration files are not domain separated. Any user with the appropriate roles can view all process definitions, trigger definitions, and activity definitions.

Process Automation Designer triggers

Process Automation Designer triggers specify when to start running your process.

In Process Automation Designer, triggers indicate when your process should start running. Each trigger has a type and conditions that, when met, start running your activated process definition.

You can choose a trigger when you create a process definition in Process Automation Designer. Start by adding a trigger, which defines the trigger type. Then, set conditions and other options to refine your trigger so that it fires in a way that makes sense for your business process. For more information, see [Create a process definition](#).

If there are no triggers that fit your use case, you can create your own trigger definition instead. For more information, see [Create a trigger definition](#).

How triggers work



Trigger types

In your Trigger Definition [sys_pd_trigger_definition] record, you can choose a trigger type, which determines when your trigger fires. These trigger types represent record operations that can occur in the Now Platform®. The following trigger types are available in your instance by default:

Record Created

The process runs when a user creates a record anywhere in the Now Platform.

Record Updated

The process runs when a user updates an existing record anywhere in the Now Platform.

Record Created or Updated

The process runs when a user creates a record or updates an existing record anywhere in the Now Platform.

Note: Triggers only fire for record operations that are interactive, or made by users. Triggers don't fire for non-interactive record operations. For more information, see [Non-interactive sessions](#).

Conditions to run

After you add a trigger to your process, you can then set conditions and other options that determine when and how your trigger fires.

Option	Action
Conditions	Use the condition builder to create field conditions for when your process runs. See Condition builder .
Run my process	Choose an option for when your process runs. Options include:

Option	Action
	<ul style="list-style-type: none"> • Once: Triggers the process definition once for the life of the triggering input record. • For each unique change: Triggers the process definition for every unique update to a non-system field even if the flow is currently running. The system stores a history of every change to a record and determines whether the change is unique. For example, if an incident record's State field changes from In Progress to On Hold, the process definition runs. However, if the State field then changes back to In Progress, the process definition doesn't run. Note: Process definitions that have a trigger that runs For each unique change can produce recursions when run in a non-interactive session. When such processes make a change to the trigger record, the change meets the process definition's trigger conditions and causes a recursion. • Only if not currently running: Triggers the process definition for every unique change if a process execution is not currently running. • For every update: Triggers the process definition every time the input record is updated,

Option	Action
	regardless of whether there has already been or there currently are any running process executions.
Run on extended	Select this option to trigger the process on tables that extend from your selected table. For example, if you enable this option and select the Configuration Item [cmdb_ci] table, your process runs when record operations occur on the Server [cmdb_ci_server], Computer [cmdb_ci_computer], and other extended tables. For more information, see Table extension and classes .

Design considerations

Refer to these design considerations when working with triggers:

Create unique filter conditions for record triggers on the same table

To prevent processes from overwriting each other, create unique filter conditions for each process that runs on the same table. If multiple processes on the same table have the same filter, there is no way to know the order in which the processes will run.

Avoid duplicating triggers used in Flow Designer flows

Process Automation Designer triggers do not override Flow Designer triggers. For both applications, when the trigger conditions are met, the automated processes run.

Ignore records added or updated by import and update sets

Record triggers ignore records that were added or updated by applying an update set or importing an XML file. These operations apply to the entire application or table instead of an individual record.

- [Create a trigger definition](#)

Define the type of trigger that determines when to start running your process.


Create a trigger definition

Define the type of trigger that determines when to start running your process.

Before you begin

- Make sure to set your current application to the application that you want your process to run in. For more information, see [Application picker](#).
- Role required: admin, pd_admin, or pd_trigger_author

Procedure

1. Navigate to **All > Process Automation > Process Automation Administration > Trigger Definitions**.
2. In the context header, click **New**.
3. On the Process Automation Designer Trigger Definition form, in the **Label** field, enter any label for your trigger definition. This label appears as a trigger option when you [Create a process definition](#).
4. Next to the **Trigger Type** field, click the lookup using list icon ().
5. In the Process Automation Designer Trigger Types list, select a trigger type to use for your trigger definition. Options include:

Record Created

The process runs when a user creates a record anywhere in the Now Platform.

Record Updated

The process runs when a user updates an existing record anywhere in the Now Platform.

Record Created or Updated

The process runs when a user creates a record or updates an existing record anywhere in the Now Platform.

Note: Triggers only fire for record operations that are interactive, or made by users. Triggers don't fire for non-interactive record operations. For more information, see [Non-interactive sessions](#).

6. Click **Next** to go on to the next step.
7. In the Table list, select a table whose record operations you want to trigger your process.
8. Under Condition, use the [condition builder](#) to add field conditions for when you want to trigger your process.
9. To trigger your process for tables that extend your selected table, select the **Run On Extended** check box.
For more information, see [Table extension and classes](#).
10. Click **Update** to finish creating your trigger definition.

Result

Your trigger definition is added to the Trigger Definition [sys_pd_trigger_definition] table. You can now select your preset trigger when you [Create a process definition](#).

Process definitions

Process definitions are Now Platform® representations of cross-enterprise processes for your organization. Create and activate a process definition to run your digitized business process on the Now Platform.

Each process definition that you design in Process Automation Designer has a trigger, a sequence of lanes, and a sequence of activities.

You can view your list of process definitions by navigating to **Process Automation > Process Automation Designer**. Clicking one of the process definitions in this list allows you to edit the process definition in Process Automation Designer. If there are no process definitions in this list, you can create a new one by clicking **Create a new process**. For

more information on creating process definitions, see [create a process definition](#).

Process definition properties

After you create a process definition, you can access its properties by clicking **Process properties** in the Process Automation Designer main header. In the resulting Process properties screen, you can edit the following information:

Field	Description
Label	Name of the process to display to users in Process Automation Designer and the Workspace Playbook.
Description	Description of what your process does.
Conditions	Conditions that must be met to run your process definition.
Run my trigger	<p>Option that defines how many times your trigger can run for your process definition. Choices include:</p> <ul style="list-style-type: none"> • Once: Triggers the process definition once for the life of the triggering input record. • For each unique change: Triggers the process definition for every unique update to a non-system field even if the flow is currently running. The system stores a history of every change to a record and determines whether the change is unique. For example, if an incident record's State field changes from In Progress to On Hold, the process definition runs. However, if the

Field	Description
	<p>State field then changes back to In Progress, the process definition doesn't run.</p> <p>Note: Process definitions that have a trigger that runs For each unique change can produce recursions when run in a non-interactive session. When such processes make a change to the trigger record, the change meets the process definition's trigger conditions and causes a recursion.</p> <ul style="list-style-type: none"> • Only if not currently running: Triggers the process definition for every unique change if a process execution is not currently running. • For every update: Triggers the process definition every time the input record is updated, regardless of whether there has already been or there currently are any running process executions.
Run on extended	Option to trigger your process definition when record operations occur on tables that extend the input table. For example, if your selected table is the Task [task] table and you select this option, your process definition triggers when a Problem [problem] record is created or updated. For more

Field	Description
	information, see Table extension and classes .

Note: After you create a process definition, you can't change the trigger's input table or trigger type. For more information, see [Process Automation Designer triggers](#).

Design considerations

Refer to these design considerations when working with process definitions:

Avoid duplicating business logic used in Flow Designer, Workflow, and business rules

Replace separate business logic such as business rules, flows, and workflows with a consolidated process definition. Make sure that you deactivate any external business logic you replace to avoid duplication of effort.

Ignore records added or updated by import and update sets

Record triggers ignore records added or updated by applying an update set or importing an XML file. These operations apply to the entire application or table rather than an individual record.

- [Create a process definition](#)

Enable process owners to configure and organize multiple instances of Flow Designer content into an automated business process on the Now Platform®.

- [Test a process](#)

Verify that your process works as expected by running the process with test trigger data. Identify and resolve all errors before activating your process.

- [Duplicate a process](#)

Make a copy of an existing process with the same trigger, lanes, activities, and experience configurations as the original. Edit the duplicated process to quickly create a working variation.

- [Process definition statuses and activation states](#)

View your process definition's status in the Process Automation Designer main header. This status indicates whether the process definition is active or inactive.

- [Process executions](#)

A process execution is a single, runtime instance of a process definition. Process execution records provide runtime information about process definitions, such as the current state and input record.

Create a process definition

Enable process owners to configure and organize multiple instances of Flow Designer content into an automated business process on the Now Platform®.

Before you begin

- [Activate Process Automation Designer](#) for your appropriate application.
- Familiarize yourself with the tables and relationships that your application uses for the process that you want to create.
- Make sure to familiarize yourself with any features that your business uses to automate operations on the Now Platform, such as [Flow Designer](#), [business rules](#), and [workflows](#). Learning about these concepts can help you avoid creating any conflicting logic in your processes.
- Learn how to [get started with ServiceNow® Process Automation](#).
- Role required: admin or pd_admin

Procedure

1. Navigate to **All > Process Automation > Process Automation Designer**. The Process Automation Designer landing page appears.
2. In the landing page's main header, click **Create a new process**.

The Basic process details screen appears.

- Fill in the following fields.

Field	Action
Label	Enter a unique, user-facing name for your process. This name appears in user-facing views of your process, such as a Workspace playbook.
Description	Optionally, enter some descriptive details about your process.
Application	Choose an application scope that you want your process to run in. Selecting Global lets your process run in any application scope. For more information, see Application scope .

- Select **Select a trigger** to go on to the next step.
The Select a trigger screen appears.
- Select one of the following options:
 - Define your own conditions for when your process runs:** If you want to create your own custom conditions for when your process should run, select this option, choose a trigger type, and then select **Set your trigger conditions**. On the next screen, select a **Table** to trigger your process and the **Conditions** that cause your process to run. Finally, you can choose to run your trigger on [Table extension and classes](#). When you're done adding conditions to your trigger, click **Go to Designer**.
 - Choose an existing trigger:** If you want to use a trigger that has all the conditions you need for your process, select this option. Then, choose an existing trigger from the list and select **Go to Designer**.

Note: The tables available for process creation depend on the applications you have activated for Process Automation Designer. For the tables available for each application, see [Activate Process Automation Designer](#).

The Process Automation Designer design environment appears.

6. Click **+ Add new lane** to add the first lane to your process.
The lane properties panel appears.
7. Fill in the following fields.

Option	Description
Label	Enter a unique name for your lane. This name appears in user-facing views of your process, such as a Workspace playbook.
Description	Optionally, enter some descriptive details about your lane.
Run condition	After the lane starts, the lane runs only if specific conditions are met.
When to start	<p>Choose when you want your lane to start running. Options include:</p> <ul style="list-style-type: none">• After Previous: Your lane starts running when all activities in the immediately preceding lane have a state of Skipped or Complete.• Immediately: Your lane starts running when your process definition is triggered. Your lane doesn't depend on the state of any preceding lanes.

Option	Description
	<ul style="list-style-type: none"> • With Previous: Your lane starts running when the immediately preceding lane starts running.

8. Click **Save** to finish adding the lane to your process.
You can continue to add more lanes to your process anytime by clicking **+ Add new lane** and filling in fields as described in the previous step.
9. Under your lane, click **+ Add an activity** to add the first activity to your lane.
The activity picker appears.
10. In the activity picker, search for an activity to add or select one from the list of Common Activities.
Select the application first, and then the activity from the resulting list.
Your new activity appears under the lane, and the Activity properties panel appears.
11. (Optional) Show the advanced property fields of the activity.

Warning: Changing the advanced property fields of an activity can potentially break your automation. Make sure you understand how the process and its activities flow before you make changes.

 - a. In the Activity properties panel, click **View all properties**.
 - b. In the Additional Properties window, enable **even more granular control** by turning on the **Advanced** button.
12. Under the General tab, fill in the basic details of your activity.

Option	Description
Label	Enter a unique name for your activity. This name appears in user-facing views of your process, such as a Workspace playbook.

Option	Description
Description	Optionally, enter some descriptive details about your activity.
Condition to run	After the activity starts, the activity runs only if specific conditions are met.
When to start	<p>Choose when you want your activity to start running. Options include:</p> <ul style="list-style-type: none"> • After Previous: Your activity starts running when the immediately preceding activity has a state of Skipped or Complete. • Immediately: Your activity starts running when its lane starts running. Your activity doesn't depend on the state of any preceding activities. • With Previous: Your activity starts running when the immediately preceding activity starts running. <p>Use Start with delay to delay the start of the run.</p>

- Open the **Automation** tab.
Automation, inputs, and outputs sections appear:

Automation

If you want to go to the Flow Designer action, flow, or sub-flow that is the source for the activity, open the link.

Inputs

Helps determine the output of the activity. Not all activities require user input.

Outputs

Helps you understand the activity's underlying flow. You cannot change outputs from here. To change outputs, change the inputs.

14. Under the Inputs section, define the values of the activity's inputs.

You can add dynamic data to an activity input. Click the data



pill picker icon () and navigate, or dot-walk, to the data pill whose dynamic value you want to use when your activity runs. You can select dynamic data from fields in the input record. If your activity has a start rule of **After Previous**, you can also select dynamic data from the outputs of other activities in your process. For more information on dot-walking to related fields and records on the Now Platform, see [selecting fields on related tables using dot-walking](#).

15. Open the **Experience** tab.
Depending on the experience type that you choose, different sections and fields appear under the activity definition's Activity Experience. These sections and fields let you set up the activity data that renders in user-facing views of your process, such as a Workspace Playbook.

Note: Each experience type also displays an Associated Record section. For more information on how to set up the Associated Record section for an activity definition, see [Create an activity definition](#).

16. Save the details of your activity.

Option	Description
Click Save and close .	If you are in the Activity properties side panel, the details of your activity are saved and the side panel closes.
Click Done .	If you are in the Additional Properties window, the details of

Option	Description
	your activity are saved and the window closes.

At any point while in the Process Automation Designer design environment, you can add more activities to a lane by clicking **+ Add an activity** under the lane, and then filling in the fields as described in previous steps.

17. (Optional) If the activity you must add is not on a list, create it.
 - a. Under your lane, click **+ Add an activity**.
The activity picker appears.
 - b. Click the **Create a new activity** button.
 - c. Fill in the following fields.

Option	Description
Label	Enter a unique name for your activity. This name appears in user-facing views of your process, such as a Workspace playbook.
Accessible From	Where the activity is accessible from. Make the activity accessible to other applications by setting the Accessible from field to All application scopes . Restrict access by setting the field to This Application Scope Only .
Table	Optionally, set to the table associated with the activity.
Application	Read-only field that indicates which applications can use this activity.

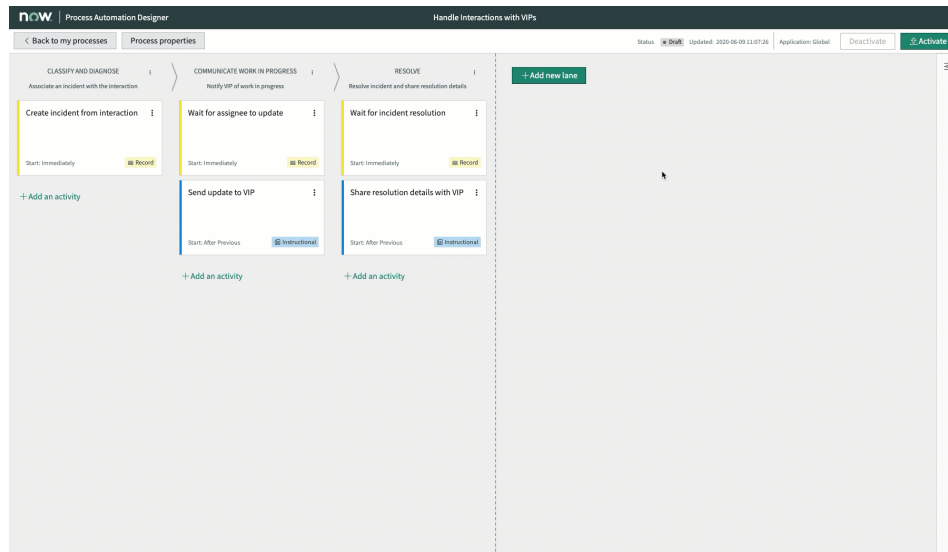
Option	Description
Description	Optionally, enter some descriptive details about your activity.
Automation Plan	Select the subflow or action that you want to use to automate your activity.
Activity Experience	Optionally, set the activity's experience type, which helps to define how the activity renders in user-facing views of a Workspace Playbook card at runtime.

18. Click **Submit** to finish creating your activity definition.
19. Keep adding lanes and activities according to your manual business process.
For an example of how to design an entire digitized process with Process Automation Designer, see [Design an automated process](#).
20. After you've added all appropriate lanes and activities to your process, click **Activate** in the main header.
Activating your process publishes it so that it runs when triggered.

Note: If you change your process definition after activating it, the system saves your changes but deactivates your process definition. You must click **Activate** again to publish any new changes to your process definition. For more information, see [Process definition statuses and activation states](#).

Result

When your process definition's trigger conditions are met, your process runs. As a result, the system creates a Process Execution record and renders any previously configured user-facing views of your process, such as a Workspace playbook. For an example of how to digitize a manual business process that renders as a playbook, see [Design an automated process](#).



Related tasks

- [Test a process](#)
- [Duplicate a process](#)

Related concepts

- [Process executions](#)

Related reference

- [Process definition statuses and activation states](#)

Test a process

Verify that your process works as expected by running the process with test trigger data. Identify and resolve all errors before activating your process.

Before you begin

- [Set up an application in Guided Application Creator](#) to store Process Automation Designer content.
- [Create a process definition](#)
- Role required: the admin or pd_admin roles grants users access to test processes and to view process execution detail records. The Playbook Experience plugin is required to preview processes as a playbook.
- Plugin required: the Playbook Experience (sn_playbook_exp) plugin grants users access to test processes and to preview processes as a playbook. Users need a role to view process execution detail records.

About this task

Testing a process bypasses the normal process trigger to run it with the sample data you provide. Every test you run creates or changes records on your instance. To avoid unwanted record changes, test processes on a non-production instance that contains relevant demonstration data.

Procedure

1. Navigate to **All > Process Automation > Process Automation Designer**.
The Process Automation Designer landing page appears.
2. Select the process you want to test.
The process details screen appears.
3. Select **Test**.
The system displays the Test your process dialog. The contents of the dialog depend on the type of trigger record your process uses.
4. Select a process trigger record to use for testing.

Note: Testing ignores the process trigger conditions. You can select any existing record for testing. If there are no existing records to select, you can create a test record.

The process runs as if the selected test record met the process trigger conditions.

5. (Optional) Create a test record from Process Automation Designer.

- a. From the Test your process dialog, select **Create a new record**.
The system opens a create record form in a new browser tab.
- b. From the new browser tab, enter the new record values.
- c. Select **Submit**.
The system creates the record with the values you specified.
- d. Return to the browser tab displaying the Test your process dialog.
- e. Close or cancel the Test your process dialog.
- f. Repeat steps 3-4 and select the test record you created.

Note: The system only displays the **Create a new record** option when there are no records in the table.

6. Select **Run Test**.
The system runs the process using the record you selected as test data. When the test is complete, the system displays options to view process execution details and a playbook preview.
7. From **Process execution details**, select **View** for information about the process state, activities run, and log messages produced.

Note: This option is only visible to users with the admin or pd_admin roles.

The system opens a Process Execution form in a new tab.

8. From **Playbook preview**, select a playbook experience type, and select **View**.

Note: This option is only visible on instances where the Playbook Experience plugin is activated.

The system opens a sample playbook in a new tab.

9. Identify and resolve any errors in your process. Update and test your process until it is ready for release.

What to do next

Publish your process to a production instance and activate it.

Related tasks

- [Create a process definition](#)
- [Duplicate a process](#)

Related concepts

- [Process executions](#)

Related reference

- [Process definition statuses and activation states](#)

Duplicate a process

Make a copy of an existing process with the same trigger, lanes, activities, and experience configurations as the original. Edit the duplicated process to quickly create a working variation.

Before you begin

- [Activate Process Automation Designer](#) for your appropriate application.
- Familiarize yourself with the tables and relationships that your application uses for the process that you want to create.
- Make sure to familiarize yourself with any features that your business uses to automate operations on the Now Platform, such as [Flow Designer](#), [business rules](#), and [workflows](#). Learning about these concepts can help you avoid creating any conflicting logic in your processes.
- Learn how to [get started with ServiceNow® Process Automation](#).
- Role required: admin or pd_admin

Procedure

1. Navigate to **All > Process Automation > Process Automation Designer**.
The Process Automation Designer landing page appears.
2. Select the process you want to duplicate.

Option	Description
Check the box next to the process that you want to duplicate.	You remain on the landing page when the checkbox is selected. Only one process can be duplicated at a time.
Open the process you want to duplicate.	This leads you to the process details page.

3. Select **Duplicate**.

Option	Description
Select Duplicate in the upper right-hand corner.	If you are on the landing page, this is where the Duplicate button is.
Open the More Actions menu in the upper right-hand corner and select Duplicate .	If you are on the process details page, this is where to find the Duplicate button.

The system makes a copy of the selected process definition and open the properties page for the new process.

4. Fill in the process properties.

Option	Description
Label	Enter a unique, user-facing name for your process. This name appears in user-facing views of your process, such as a Workspace playbook.
Application	Choose an application scope that you want your process to run in. Selecting Global lets your process run in any application scope. For more information, see Application scope .

Option	Description
Description	Optionally, enter some descriptive details about your process.
Trigger type	Specify what causes your trigger to fire.
Table	Select the table with the record operations that you want to trigger your process.

5. Edit the process definition lanes and activities to fit the new process.
6. Select **Save**.

Related tasks

- [Create a process definition](#)
- [Test a process](#)

Related concepts

- [Process executions](#)

Related reference

- [Process definition statuses and activation states](#)

Process definition statuses and activation states

View your process definition's status in the Process Automation Designer main header. This status indicates whether the process definition is active or inactive.

The Status label in the main header of Process Automation Designer describes the current state of configuration changes that were made to your process definition. The status also indicates whether your process

definition is active or inactive. If your process definition is active, you can add it to an end user-facing view, such as a playbook.

Process definition statuses include:

Draft

Your process definition is inactive. Any changes that you make are automatically saved to your draft process definition.

Published

Your process definition is active, and you can add it to an end user-facing view, such as a playbook. Any changes that you make after clicking **Activate** are automatically saved. However, these changes aren't activated in your published process definition until you click **Activate** again.

Process definition status and activation state flow



Related tasks

- [Create a process definition](#)
- [Test a process](#)
- [Duplicate a process](#)

Related concepts

- [Process executions](#)

Process executions

A process execution is a single, runtime instance of a process definition. Process execution records provide runtime information about process definitions, such as the current state and input record.

A process execution represents a runtime execution of your process definition. Each time a process definition is triggered, Process Automation

Designer automatically creates a record in the Process Executions [sys_pd_context] table.

To access the records for an In Progress process execution, navigate to **Process Automation > Process Automation Administration > Active Processes**. Alternatively, you can see the process executions for all processes that ran today by navigating to **Process Automation > Process Automation Administration > Today's Executions**.

Fields

By default, each process execution record contains the following information:

Process Execution record fields

Field	Description
Name	Name of the process definition that triggered this process execution
Created	Date and time when the process definition triggered
Input Record	Table name and record number that triggered this process execution
State	Current status of the overall process execution. For more information, see Process execution states .

Process execution states

A process execution record can have one of the following states:

State	Description
Queued	The process definition triggered, but the system hasn't started running the process execution yet.

State	Description
In Progress	The process definition triggered, and the process execution is currently running. One or more activities in the process definition have a state of Ready or In Progress.
Complete	The process definition triggered, and the process execution is done running. All activities in the process definition have a state of Skipped or Complete.
Error	The process definition triggered, but an activity has an Error state. Errors can occur when the action, subflow, or flow specified in the activity definition's automation plan fails to run.
Cancelled	A user with the admin or pd_admin role explicitly canceled the process execution, and the execution has stopped running.

Related tasks

- [Create a process definition](#)
- [Test a process](#)
- [Duplicate a process](#)

Related reference

- [Process definition statuses and activation states](#)

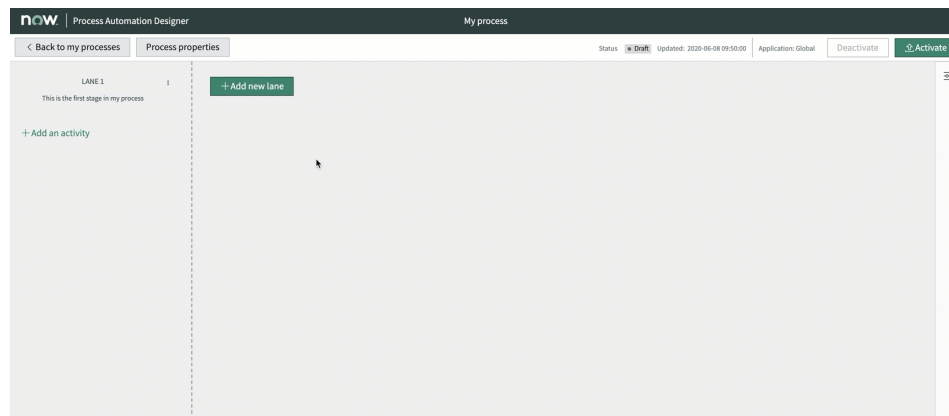
Process Automation Designer lanes and activities

In Process Automation Designer, an activity represents one step in your overall business process. You can sequence many activities together in a lane, which represents one stage in your process.

Lanes

A lane represents one stage in your business process. Use lanes to sequence process activities in an order that makes sense for your cross-enterprise workflow. A lane is made up of many sequenced activities that are grouped in a logical way. In the Process Automation Designer design environment, you can add a lane to your process by clicking **+ Add new lane**.

The visual separator for your lane depends on the start rule that you select. For example, choosing for Lane 3 to start immediately after Lane 2 causes the visual separator to appear as dotted lines. Choosing for Lane 4 to start with Lane 3 causes the visual separator to appear as a chevron. For more information, see [Lane and activity properties](#).



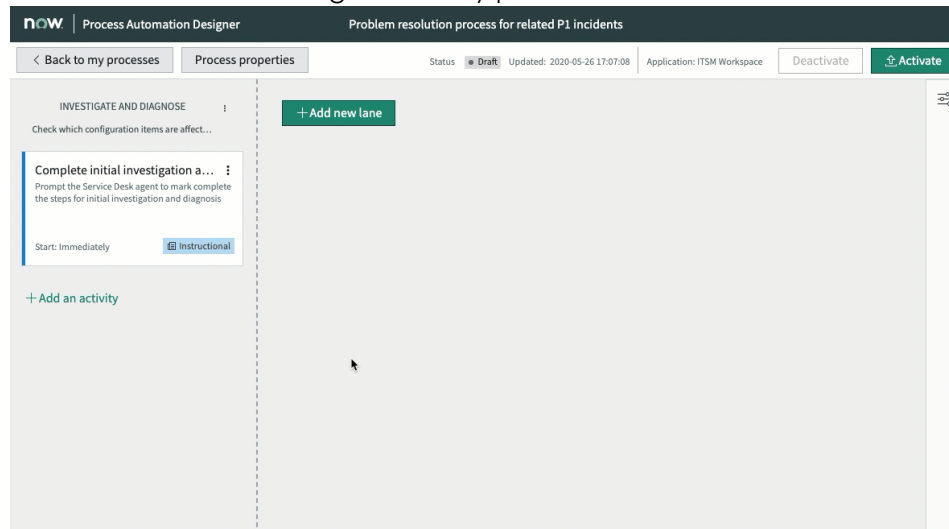
Activities

In Process Automation Designer, an activity represents one step in your overall business process. In the system, an activity is one instance of an activity definition. For more information on activity instances and activity definitions, see the [Process Automation Designer architecture](#) and [activity definitions](#).

Adding an activity to your process

In the Process Automation Designer design environment, you can add an activity to a lane by clicking **+ Add an activity**, which causes the activity picker to appear. In the activity picker, you can search for an activity to add or select one from the list of Common Activities. To choose an activity for a custom application, first select the application and then select the activity from the resulting list within the picker.

Process Automation Designer activity picker



If there isn't an activity that fits your use case, you can create your own activity definition to add to the activity picker. For more information, see [create an activity definition](#).

Interactive and Non-Interactive activities

Activity categories include:

Interactive Activities


When an interactive activity runs, it prompts a user for input in a Workspace playbook experience. For more information, see [Interactive activities](#).

Non-Interactive Activities

When a non-interactive activity runs, it runs entirely behind-the-scenes and requires no user input. For more information, see [Non-Interactive activities](#).

Lane and activity properties

In the properties panel, you can add names, descriptions, and start rules to the lanes and activities in your process. Click the show or hide

properties panel icon () to show or hide the basic properties for your currently selected lane or activity. If you don't select an activity or lane, your process definition's properties appear in the configuration panel instead. The basic properties for each lane and activity include:

Label

You can enter a display name for your lane or activity. This name appears in any user-facing view of your process definition, such as a Workspace Playbook.

Note: Keep your lane and activity names brief, as the system truncates long names.

Description

Optionally, enter a description for your activity or lane. This description only appears within Process Automation Designer and isn't visible in user-facing views of your process definition.

Condition to run

Conditions that must be met to run an activity or lane. You can use data from prior activities to build conditions.

When to start

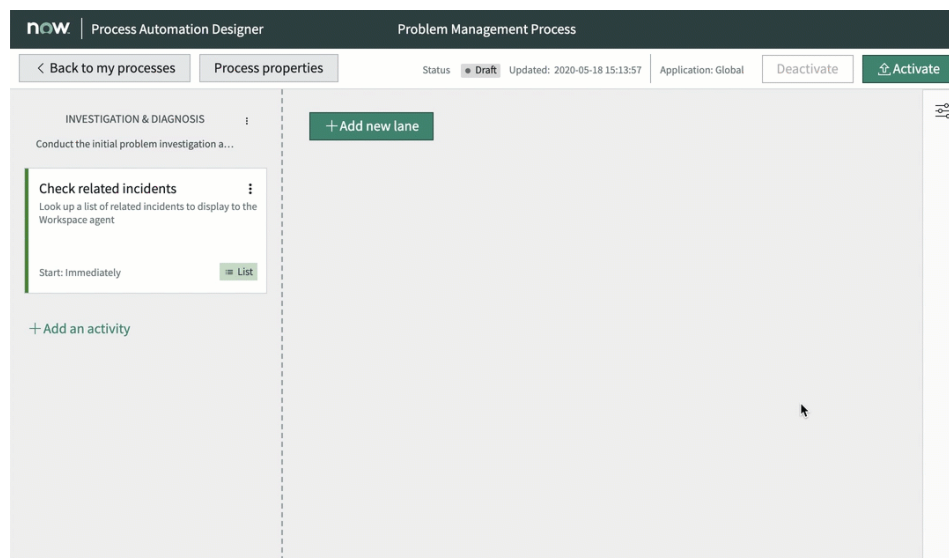
Select a start rule for when your activity or lane should start running, from the following options:

- **After Previous:** Your activity or lane starts running when the immediately preceding activity or lane has a state of Skipped or Complete.

- **Immediately:** Your activity starts running as soon as its lane starts running. Your lane starts running when your process definition is triggered. Your activity or lane doesn't depend on the state of any preceding activities or lanes.
- **With Previous:** Your activity or lane starts running when the immediately preceding activity or lane starts running.

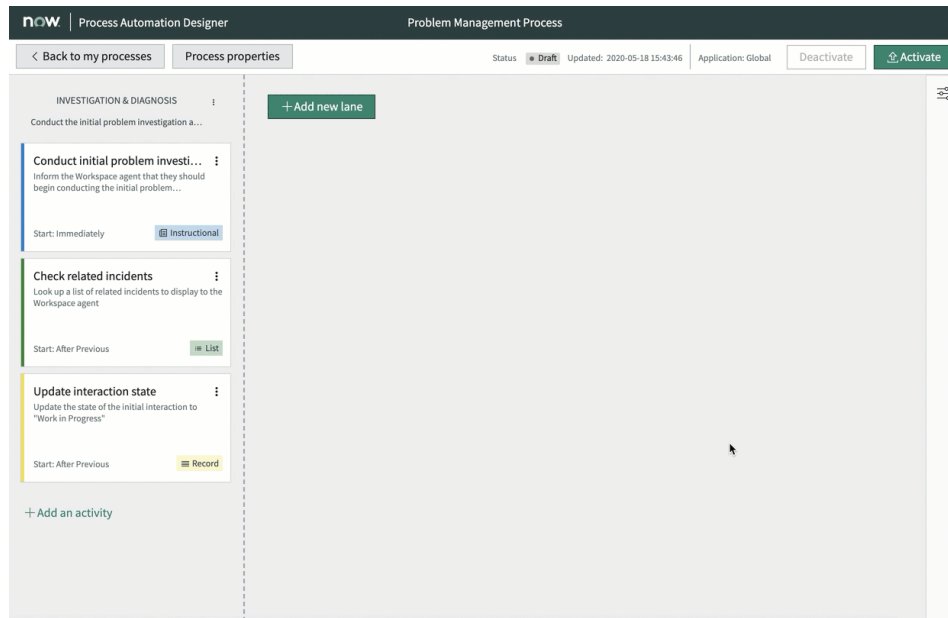
Start with delay

Specify a duration of time to wait before running an activity or a lane whose start rule and conditions have been met. Give users time to act during automated processes. Give users time to wait for a specific date and time to complete actions. To configure the wait duration, see [Start with delay input properties](#).



Activity inputs

Each activity has inputs that you can configure. Activity inputs are data that you provide so that the activity runs and performs its function appropriately. For example, the Instruction activity when a Message input, whose data displays a message within a Workspace Playbook card. You can view each activity's inputs by opening the properties panel for the activity and clicking **Configure activity**. On the Configure your activity screen, the activity's inputs appear in the Variables section under Inputs.



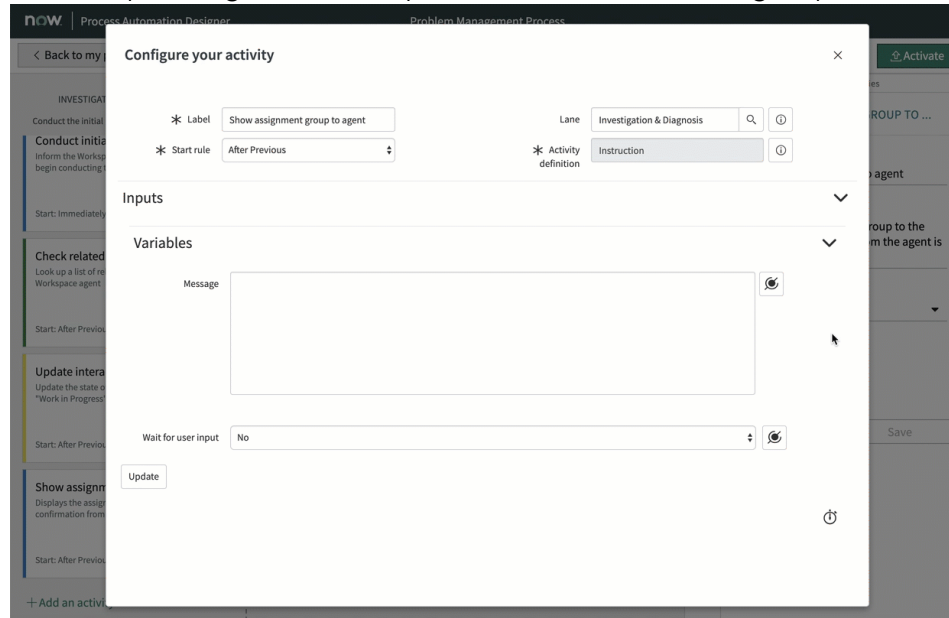
Creating static and dynamic values for activity inputs

You can add dynamic data to an activity input. Click the data pill picker



icon () and navigate, or dot-walk, to the data pill whose dynamic value you want to use when your activity runs. You can select dynamic data from fields in the input record. If your activity has a start rule of **After Previous**, you can also select dynamic data from the outputs of other activities in your process. For more information on dot-walking to related fields and records on the Now Platform, see [selecting fields on related tables using dot-walking](#).

An example using static and dynamic data for the Message input




Note: You can dot-walk to fields in a Reference but not in a Document ID or Sys ID.

The inputs for interactive activities typically provide data that renders in a Playbook for a Workspace agent to interact with. The inputs for non-interactive activities can render in a Playbook but don't require any user input in order to run. For more information, see [Interactive activities](#) and [Non-Interactive activities](#).

Editing activity inputs and outputs

You can change the default inputs and outputs for an activity definition

by selecting the Activity actions icon () on an activity, and then selecting **Edit subflow in Flow Designer** or **Edit action in Action Designer**. For more information on how to work with the default inputs and outputs for activities in Process Automation Designer, see [Create an action as an activity automation plan](#).

Note: You must have the appropriate user roles to access Flow Designer and Action Designer. For more information, see [User access to Flow Designer](#).

Design considerations

Refer to these design considerations when working with lanes and activities:

Keep Now Platform state models in mind when designing your process

Some record types already have state models that describe their life cycle. Use any existing state model as a template for the design of your process. For more information, see [State Management](#).

- [Activity definitions](#)

Activity definitions describe how the activities in your process definition get the data that they need when your process runs.

- [Activity executions](#)

Activity execution records provide runtime information about activities in a process definition, such as the activity's current state and associated record.

- [Start with delay input properties](#)

Specify a duration of time to wait before running an activity or a lane whose start rule and conditions have been met. Give users time to act during automated processes. Give users time to wait for a specific date and time to complete actions.

- [Create Task activity](#)

Create a task record from previously gathered or generated data.

- [Instruction activity](#)

Display a simple message to guide end users through your process.

- [User Form activity](#)

Display a form in a user-facing view to collect input values for your process.

- [Interactive activities](#)

An interactive activity prompts a user for input in a Workspace playbook experience when your process runs.

- **Non-Interactive activities**

A non-interactive activity runs entirely behind-the-scenes on the Now Platform® and doesn't require any user input.

Activity definitions

Activity definitions describe how the activities in your process definition get the data that they need when your process runs.

Activity definitions provide default configurations and values for your activities so that they can run properly when your process definition is triggered. Each activity definition contains some basic configuration details, as well as an automation plan and activity experience.

The Activity Definition [sys_pd_activity_definition] table lists the definitions for the activities that you can add to a process definition in Process Automation Designer. To access these activity definitions, navigate to **Process Automation > Process Automation Administration > Activity Definitions**.

Fields

Each activity definition record has these basic fields:

Field	Description
Label	Name of the activity to display to users in Process Automation Designer.
Table	Name of the table whose records the activity can access as inputs. Typically, this table is either the Task [task] or Global [global] table.
Application	Application scope that the activity can run in.
Accessible From	Options include:

Field	Description
	<ul style="list-style-type: none"> • All application scopes - Users can access this activity from any application scope. • This application scope only - Users can access this activity from the application scope that you specify in the Application field only.
Description	Optional description for the activity.

Automation plan

Each activity definition has an automation plan. The automation plan for an activity definition specifies:

- The Flow Designer flow or action, which drives the activity's automation
- The activity's inputs, which are the data that the activity needs to run your process

Activity designers can configure the visibility of each activity input.

Include in standard modal

Hides the input from the properties panel. Process designers can only see the input from the standard modal when they select the **Show advanced properties** option.

Include in standard modal and configuration panel

Displays the input in the properties panel. Process designers can also see the input from the standard modal when they select the **Show advanced properties** option.

Admin visibility only

Hides the input from users who do not have the admin or pd_admin roles.

Activity experience


Each activity also has an optional activity experience. The activity experience specifies an experience type, associated record, and details for what data to render in the activity's associated Workspace Playbook card. Activity experience configurations only apply to activities that you add to a process definition which has an associated Playbook user experience in a Workspace. For more information, see [Set up Playbook Experiences](#).

Experience type

An experience type defines the data, or properties, that describe how the activity renders as a Workspace Playbook card at runtime. For example, a Record experience type tells the system that the activity can display a title, tagline, description, footer, and service level agreement (SLA) information in the Playbook card when your activated process runs. For more information, see [Experience types](#).


Associated record

The associated record defines the record whose data can render within a Playbook card at runtime. The associated record is dynamic, which means that it changes frequently as the process progresses. Because of

this dynamic nature, you may want to use the data pill picker () to map the associated record to output record data within the underlying subflow or action specified in the automation plan.

Data to render in the Playbook card

You can specify the data to render in the Playbook card in the sections under the Associated Record section. To add dynamic data to fields that

render in this user-facing view, use the data pill picker () next to a data field and navigate, or dot-walk, to the appropriate data pill. The data pill should point to data within the subflow or action specified in the activity definition's automation plan.

Note: An activity experience contains many sections where you can specify the data to appear within the Playbook card. These sections vary depending on the experience type that you select. For example, a Record experience type has Details, Form, Attachments, and Features sections, while a Knowledge experience type has Knowledge, Details, and Features sections. For more information, see [Experience types](#).

Actions to render in the Playbook card

You can specify the Playbook actions that you want to render in an activity's Playbook card using the Playbook Experience Action Assignment Map related list. A Playbook action displays as a button in the Playbook card's footer. Playbook actions can run server scripts, dispatch client actions, or render UI components. For more information, see [Custom Playbook actions](#).

To add a Playbook action to your activity definition, select **New** in the Playbook Experience Action Assignment Map related list. Then, choose a Playbook action from the **Action Assignment** list. Next, choose a Playbook user experience that you want the Playbook action to appear in from the **Playbook Experience** list, and then click **Submit**.

Design considerations

Refer to these design considerations when working with activity definitions:

Avoid calling triggered Flow Designer flows in an activity's automation plan

To prevent unintentionally running a flow outside of Process Automation Designer, you can use only subflows or actions in activity automation plans. Alternatively, you can set the flow's trigger to only run if not already running. For more information, see [Flow Designer trigger types](#).

Specify default input values in your activity definitions

Preconfiguring default input values for your activity definitions reduces the time and complexity needed for a process owner to create a process definition.

- [Create an action as an activity automation plan](#)

Create an example action to configure and run as an activity from Process Automation Designer.

- [Create an activity definition](#)

Specify the action or subflow you want an activity to run. Configure the inputs you want process designers to set when adding the activity to a process. Select the experience you want end users to have when the activity runs.

- [Experience types](#)

An experience type describes what properties and components to use when an activity renders as a card in a Workspace playbook.

Related concepts

- [Activity executions](#)
- [Interactive activities](#)
- [Non-Interactive activities](#)

Related reference

- [Start with delay input properties](#)
- [Create Task activity](#)
- [Instruction activity](#)
- [User Form activity](#)

Create an action as an activity automation plan

Create an example action to configure and run as an activity from Process Automation Designer.

Before you begin

Role required:

- This task requires some knowledge of creating flows in the Flow Designer environment. For more information, see [Flow Designer](#).
- This task requires some knowledge of server-side scripting. For more information, see [Server-side scripting](#).
- admin

About this task

Each activity definition requires an automation plan to run Flow Designer content. The automation plan tells Process Automation Designer what input values to use when running an action or subflow. An automation plan can specify static default values or can prompt process owners to provide dynamic values when they add an activity to a process.

In this example, you create a reusable Flow Designer action to use as an activity's automation plan. The action you create associates a Task [task] record with a parent record.

Procedure

1. Navigate to **All > Process Automation > Flow Designer**.
2. In the main header, click **+ New > Action**.
The Action Properties screen appears.
3. In the Action Properties screen, fill in the following fields:

Field	Action
Name	Enter Associate Record with Parent.
Application	Leave Global selected.
Accessible From	Leave All application scopes selected.




4. Click **Submit**.
The Flow Designer design environment appears.
5. Under the Action Outline, click **Inputs**.

- In the Action Input header, click **+ Create Input**, and then fill in the following fields:

Field	Action
Label	Enter <code>Record</code> .
Name	Enter <code>record</code> .
Type	Select Reference.Task[task]

- In the Action Input header, click **+ Create Input**, and then fill in the following fields:

Field	Description
Label	Enter <code>Parent Record</code> .
Name	Enter <code>record</code> .
Type	Select Reference.Task[task]



- Click the add a new step icon ().
The Select Step to add screen appears.
- Under ServiceNow Data, select the **Update Record** step.
The **Update Record** step appears in the Action Outline under Inputs.
- In the **Record** field, click the data pill picker icon (), and then dot-walk to **Inputs > Record**.
- Under Field Values, click **+Add Field Value**, and then select **Parent** from the list.
- Next to the **Parent** field, click the data pill picker icon (), and then dot-walk to **Inputs > Parent Record**.
- Under the Action Outline, click **Outputs**.

14. Under Action Output, click **+ Create Output**, and then fill in the following fields:

Field	Action
Label	Enter <code>Record</code> .
Name	Enter <code>record</code> .
Type	Select Reference.Task[task]

15. In the Action Output header, click **+ Create Output**, and then fill in the following fields:

Field	Action
Label	Enter <code>Parent Record</code> .
Name	Enter <code>record</code> .
Type	Select Reference.Task[task]

16. In the Action Output header, click **Exit Edit Mode**.
17. Next to the **Record** output's Value column, click the data pill picker icon (), and then dot-walk to **Inputs > Record**
18. Next to the **Parent Record** output's Value column, click the data pill picker icon (), and then dot-walk to **Inputs > Parent Record**.
19. In the main header, click **Save > Publish** to make your action available to add to an activity definition's automation plan.

Result

You can now add your custom Flow Designer action to an automation plan for your custom activity definition.

What to do next

Add your custom action to an automation plan when you [Create an activity definition](#).

Related tasks

- [Create an activity definition](#)

Related concepts

- [Experience types](#)

Create an activity definition

Specify the action or subflow you want an activity to run. Configure the inputs you want process designers to set when adding the activity to a process. Select the experience you want end users to have when the activity runs.

Before you begin

- Create a Flow Designer [subflow](#) or [action](#) that you want to use as the automation plan for your activity. For example, see [Create an action as an activity automation plan](#).
- Make sure to set your current application to the application that you want your activity to run in. For more information, see [Application picker](#).
- Role required: admin, pd_admin, or pd_content_author

Procedure

1. To start creating a new activity definition, do one of the following:
 - Navigate to **Process Automation > Process Automation Administration > Activity Definitions**. Then in the context header, click **New**.

- Follow the steps to [Create a process definition](#). Then in the Process Automation Designer activity design space, click **Add an activity > Create a new activity**.


The Activity Definition form view appears.

2. Fill in the following fields:

Field	Action
Label	<p>Enter a unique name for your activity.</p> <p>This name appears in the Process Automation Designer design environment as well as in any user-facing views of your process, such as a Workspace playbook.</p>
Table	<p>Select a table whose records the activity can access as inputs. When adding inputs to your activity in Process Automation Designer, you can dot-walk to dynamic record data from this table. See Dot-walking to data in related tables.</p> <p>Note: The table specified for a process definition's triggering input record overrides the activity definition table at design time. See Process Automation Designer triggers</p>

Field	Action
Description	Optionally, enter some descriptive details about your activity.
Accessible From	<p>Choose one of the following options:</p> <ul style="list-style-type: none"> • All application scopes - You can add this activity to a process definition in any application scope. • This application scope only - You can only add this activity to process definitions within the same application scope specified in the Application field.

3. Under the Automation Plan section next to the **Flow or Action** field,

click the lookup documents using list icon ().
The Select the document screen appears.


4. In the Table Name list, select one of the following options:

- To use a Flow Designer subflow to automate your activity, select **Flow**.
- To use a Flow Designer action to automate your activity, select **Action Type**.

Note: You can only use published actions or subflows for an activity definition's automation plan.

5. Next to the **Document** field, click the lookup documents using list icon



().
The Flows or Action Types screen appears.

6. From the list, select the subflow or action that you want to use to automate your activity. Then, click **OK**.
7. From the list, select an experience type for the properties and components that you want your activity to use when it renders in a user-facing view of your process. For more information, see [Experience types](#).
8. Click **Submit** to save and create your activity definition record. The Activity Definitions list view appears.
9. Under the **Label** column in the list, select your activity definition. The Activity Definition form view appears.
10. Select the Automation Plan section.
The system displays the available variables for the action or subflow. Process Automation Designer displays a variable for each action or subflow input.
11. For each variable, configure the default value you want each variable to have.
Leave a variable blank when you want a process designer to configure the value when adding the activity to a process.
12. For each variable, select where it is visible.

Visibility	Description
Include in standard modal	Only displays the variable as an input from the Advanced properties modal.
Include in standard modal and configuration panel	Displays the variable as an input in the properties panel and the Advanced properties modal.
Admin visibility only	Only displays the variable as an input from the Advanced properties modal to users that have the admin or pd_admin roles.

Process designers can only set values for variables that they have access to.

13. Select the Activity Experience section.

14. For **Experience Type** field, select the lookup documents using list icon



().

The Activity Types list appears.

15. Under the Associated Record section, select values for the **Associated table** and **Associated record** fields.

These values are typically Record and Table Name outputs for the Flow Designer subflow or action specified in your activity's automation plan. For example, you can click the data pill picker icon



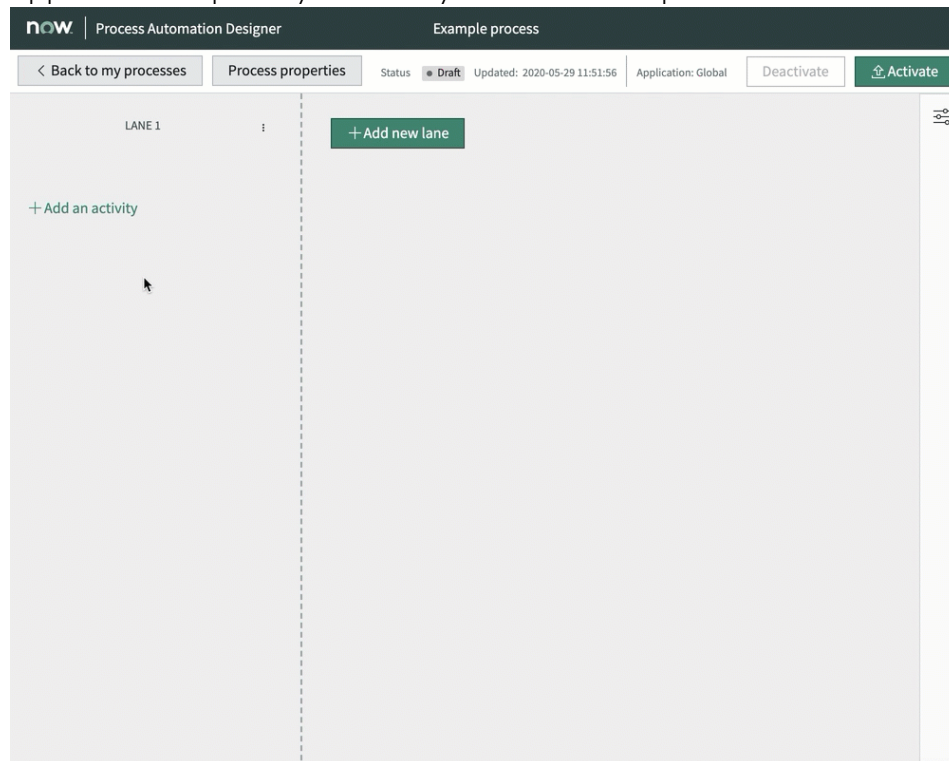
() next to the **Associated record** field and dot-walk to the Table Name output by selecting **VL > My Activity > Outputs > Record**.

The system associates a record with your activity so that, when the activity runs, it knows which record's data to output.

16. If you want to set up the default activity data that renders in user-facing views of your process, enter the values for that data in the other sections under Activity Experience.
The sections and fields that appear under Activity Experience vary depending on the experience type that you select. For more information, see [Experience types](#).
17. Click **Update** to finish creating your activity definition.

Result

You can now select your custom activity from the activity picker in the Process Automation Designer design environment. Select the appropriate application scope for your activity to view it in the picker.



Related tasks

- [Create an action as an activity automation plan](#)

Related concepts

- [Experience types](#)

Experience types

An experience type describes what properties and components to use when an activity renders as a card in a Workspace playbook.

When creating an activity definition, you must select an experience type to associate your activity definition with. Process Automation Designer comes with the following experience types that are available in your instance by default:

- Approval
- Catalog Item
- Create Record
- Instructional
- Knowledge
- List
- Notification
- Record

Depending on the experience type that you choose, different sections and fields appear under the activity definition's Activity Experience. These sections and fields let you set up the activity data that renders in user-facing views of your process, such as a Workspace Playbook.

Note: Each experience type also displays an Associated Record section. For more information on how to set up the Associated Record section for an activity definition, see [Create an activity definition](#).

Approval

If you choose the Approval experience type, the following sections appear in the Activity Experience section for your activity definition:

Record

Displays the following fields:

- Record fields

Details

Displays the following fields:

- Tagline
- Icon
- Title
- Description
- Footer

Form

Displays the following fields:

- Form View
- Form fields

Attachments

Displays the following fields:

- Attachment source
- Attachments read only

Features

Displays the following fields:

- Is Automated

Catalog Item

If you choose the Catalog Item experience type, the following sections appear in the Activity Experience section for your activity definition:

Service Catalog

Displays the following fields:

- Service Catalog Table
- Service Catalog Record

Details

Displays the following fields:

- Tagline
- Description
- Record fields
- Footer

Form

Displays the following fields:

- Form View
- Form fields

Attachments

Displays the following fields:

- Attachment source

Features

Displays the following fields:

- Show SLA
- Show Checklist
- Is Automated

Create Record

If you choose the Create Record experience type, the following sections appear in the Activity Experience section for your activity definition:

Details

Displays the following fields:

- Tagline

- Icon
- Title
- Description
- Pending State Title
- Pending State Description
- Record fields
- Footer

Form

Displays the following fields:

- Form View
- Form fields

Attachments

Displays the following fields:

- Attachment source
- Attachments read only

Features

Displays the following fields:

- Show SLA
- Show Checklist
- Is Automated

Guided Decision

Note: The Guided Decision experience type is available with a subscription to App Engine or Customer Service Management (CSM). For more information on how to enable this activity for use in Process Automation Designer, see [Activate Process Automation Designer for Customer Service Management \(CSM\)](#).

If you choose the Guided Decision experience type, the following fields appear in the Activity Experience section for your activity definition:

- Decision Tree Execution
- Decision Tree

Instructional

If you choose the Instructional experience type, the following sections appear in the Activity Experience section for your activity definition:

Details

Displays the following fields:

- Tagline
- Icon
- Title
- Description
- Footer

Features

Displays the following fields:

- Is Automated

Knowledge

If you choose the Knowledge experience type, the following sections appear in the Activity Experience section for your activity definition:

Knowledge

Displays the following fields:

- Knowledge Table
- Knowledge Record

Details

Displays the following fields:

- Title
- Footer

Features

Displays the following fields:

- Is Automated

List

If you choose the List experience type, the following sections appear in the Activity Experience section for your activity definition:

Details

Displays the following fields:

- Tagline
- Icon
- Title
- UI View

List Details

Displays the following fields:

- List Title
- Record fields

- Max Columns

Table Details

Displays the following fields:

- Table
- Query
- Columns
- Row Count

Features

Displays the following fields:

- Is Automated

Notification

If you choose the Notification experience type, the following sections appear in the Activity Experience section for your activity definition:

Form

Displays the following fields:

- To
- Subject
- Body

Features

Displays the following fields:

- Is Automated

Record

If you choose the Record experience type, the following sections appear in the Activity Experience section for your activity definition:

Details

Displays the following fields:

- Tagline
- Icon
- Title
- Description
- Pending State Title
- Pending State Description
- Record fields
- Footer

Form

Displays the following fields:

- Form View
- Form fields

Attachments

Displays the following fields:

- Attachment source
- Attachments read only

Features

Displays the following fields:

- Show SLA
- Show Checklist
- Is Automated

Related tasks

- [Create an action as an activity automation plan](#)
- [Create an activity definition](#)

Activity executions

Activity execution records provide runtime information about activities in a process definition, such as the activity's current state and associated record.

An activity execution represents a runtime execution of your activity. Each time one of your process definitions triggers, Process Automation Designer automatically creates records for each activity that runs within the triggered process definition.

To access the activity execution records for an In Progress process execution, navigate to **Process Automation > Process Automation Administration > Active Processes**. Alternatively, you can see the activity executions for all processes that ran today by navigating to **Process Automation > Process Automation Administration > Today's Executions**. Select a process execution record from the list. Then, you can view the associated activity execution records in the Activity Executions related list.

Fields

By default, each record in the Activity Executions related list contains the following fields:

Activity Execution fields

Field	Description
Label	Name of the activity
Lane	Lane in which the activity runs
State	Execution status for the activity. See Activity execution states .

Field	Description
Activity Type	Experience type for the activity. See Experience types .
Associated Record	Record whose data renders within the Workspace Playbook card.
Execution index	Sequential order in which the activity runs, starting with 1.

Activity execution states

Activity execution states indicate the status of an activity in a triggered process definition. Activities that render in a Workspace Playbook card can display this state to agents. An activity execution record can have one of the following states:

State	Description
Pending	The process definition triggered, but the activity execution is waiting on preceding activities to complete before it can start running.
Ready	The process definition triggered, and the activity will start running soon.
In Progress	The process definition triggered, and the activity execution is running.
Complete	The process definition triggered, and the activity execution is done running.
Skipped	The process definition triggered, but a user chose to skip this activity execution and move on to the next activity. Also, if the

State	Description
	activity contains a condition that evaluates to false, the system skips the activity.
Error	The process definition triggered, but an error with the activity's automation plan or activity experience occurred. Errors can occur when the underlying action or subflow in the activity's automation plan fails to run.
Cancelled	A user with the admin, flow_designer, or action_designer role explicitly canceled the underlying action or subflow in the activity's automation plan.

Related concepts

- [Activity definitions](#)
- [Interactive activities](#)
- [Non-Interactive activities](#)

Related reference

- [Start with delay input properties](#)
- [Create Task activity](#)
- [Instruction activity](#)
- [User Form activity](#)

Start with delay input properties

Specify a duration of time to wait before running an activity or a lane whose start rule and conditions have been met. Give users time to act

during automated processes. Give users time to wait for a specific date and time to complete actions.


Roles and availability


- This input is available for all lanes and all Process Automation Designer common activities except for the Placeholder activity. Users with the admin, pd_admin, pd_author, or pd_content_author can configure the properties of this input.

Input properties

Open the activity or lane properties panel and enable the **Start with delay** option to configure the following input properties.

Input	Type	Description
Duration Type	Choice	<p>Option to specify how long of duration to wait. Options include</p> <ul style="list-style-type: none"> • Explicit Duration: Wait for a specific time period, such as 5 minutes. • Relative Duration: Wait for a specific time period from a selected Duration data pill or date/time value, such as 5 minutes after the process start. • Percentage Duration: Wait for a specific percentage of a time period between the start of the activity or lane and a specified end time, such as 50%.

Input	Type	Description
		<p>Note: The percentage value must be from 0 through 100 only.</p>
Wait for	Template Value	<p>Option to set a duration value manually or to select a Duration data pill from the data pill picker</p> <p> ().</p> <ul style="list-style-type: none"> • Explicit Duration: Wait duration in hours, minutes, and seconds. • Relative Duration: Wait duration in hours, minutes, and seconds before or after a specific time. Select Relative Duration to specify a wait duration from a specific date. <p>Note: Past dates don't affect the wait duration.</p> <p>You can enter a wait value of up to 999 hours.</p>

Input	Type	Description
		Note: The actual wait duration can vary due to the instance processing time. The process always waits for the time that you specify for this field, but other work in the queue may add to the wait time.
Wait for Percentage	Integer	<p>Percentage of time to wait from a specified end date before running an activity or lane. You can manually enter an end date or select a date/time data pill from the data pill picker</p>  <p>(). If you select an end date in the past, the wait duration is set to 0. This field is only available when you set the Duration Type to Percentage Duration.</p>
During the following schedule	Reference.Schedule [cmn_schedule]	<p>Schedule used to calculate an end date that occurs during your hours of operation. For example, the calculated end date</p>

Input	Type	Description
		<p>for a 10-hour duration that occurs during a 8-5 weekdays schedule will always be one or more business days in the future. If you leave this field blank, the calculated end date does not follow a schedule. For information on creating schedules, see Define a schedule.</p> <p>Note:</p> <p>Use qualifiers to restrict data that is available in the field.</p> <p>Supports reference qualifiers and advance qualifiers. For more information, see Reference qualifiers.</p> <p>Returns all matching results (no maximum).</p>

Related concepts

- [Activity definitions](#)
- [Activity executions](#)

- [Interactive activities](#)
- [Non-Interactive activities](#)

Related reference

- [Create Task activity](#)
- [Instruction activity](#)
- [User Form activity](#)

Create Task activity

Create a task record from previously gathered or generated data.

Roles and availability

This activity is available as a Process Automation Designer common activity. Users with the admin, pd_admin, pd_author, or pd_content_author can add this activity to a process definition.

Inputs

Open the activity properties panel and configure your activity to add values for the following inputs. If the input value varies, use the pill-picker to show where to get the value. To learn more about the pill-picker, see .

Input	Type	Description
Label	String	Title to display as activity and playbook card.
Description	String	Information to display about activity usage or outcome.
Condition to run	Condition Builder	Criteria that must be met to run the activity. You can use the output data from prior activities to build the

Input	Type	Description
		conditions to run this activity.
When to start	Choice	<p>Option to specify when the activity runs. Options include</p> <ul style="list-style-type: none"> • With Previous - the activity runs at the same time as the previous activity • After Previous - the activity only runs after the previous activity completes running • Immediately - the activity runs immediately without waiting for other activities
Start with delay	True/False	Option to wait for a duration of time before running an activity or lane. When enabled, this input displays the Start with delay input properties .
Assigned To	Reference.User [sys_user]	User responsible for completing the task associated with the activity.

Input	Type	Description
		<p>Note:</p> <p>Use qualifiers to restrict data that is available in the field.</p> <p>Supports reference qualifiers and advance qualifiers. For more information, see Reference qualifiers.</p> <p>Returns all matching results (no maximum).</p>
Short Description	String	Summary of the task to complete.
Wait for user input	Choice	Option to pause the process until the end user manually completes or skips the activity.

Advanced inputs

After configuring the required inputs for your activity, you can also choose to configure advanced inputs. On the Configure your activity screen, select **Advanced View** to display these advanced inputs. The advanced view also lets you access the Activity Experience section. In this section, you can set values for the activity's properties and components that render in user-facing views of your process. For more information, see [Activity experience](#).

Input	Type	Description
Assignment Group for this Process Step	Reference.Group [sys_user_group]	<p>Assignment group allowed to perform this process activity.</p> <p>Note:</p> <p>Use qualifiers to restrict data that is available in the field.</p> <p>Supports reference qualifiers and advance qualifiers. For more information, see Reference qualifiers.</p> <p>Returns all matching results (no maximum).</p>
Assigned to this Process Step	Reference.User [sys_user]	User allowed to perform this process activity.

Input	Type	Description
		<p>Note:</p> <p>Use qualifiers to restrict data that is available in the field.</p> <p>Supports reference qualifiers and advance qualifiers. For more information, see Reference qualifiers.</p> <p>Returns all matching results (no maximum).</p>
Task Table	Table Name	Name of the task table extension in which you want to create a task.
Add Field	Template Value	Field values to assign when creating the task record.
Fields to show after creation	String	Comma-separated list of fields to display for a created record.
Wait for Task completion	True/False	Pause the process until the created Task record is complete.

Outputs

These outputs can provide data to other activities in your process. You can access this data as activity inputs when you configure your activity:

Output	Type	Description
Table	Table Name	Table containing new record.
Record	Reference.Task[task]	Reference to record created.

Related concepts

- [Activity definitions](#)
- [Activity executions](#)
- [Interactive activities](#)
- [Non-Interactive activities](#)

Related reference

- [Start with delay input properties](#)
- [Instruction activity](#)
- [User Form activity](#)

Instruction activity

Display a simple message to guide end users through your process.

Roles and availability

- This activity is available as a Process Automation Designer common activity. Users with the admin, pd_admin, pd_author, or pd_content_author can add this activity to a process definition.

Inputs

Open the activity properties panel and configure your activity to add values for the following inputs. If the input value varies, use the pill-picker to show where to get the value. To learn more about the pill-picker, see .

Input	Type	Description
Label	String	Title to display as activity and playbook card.
Description	String	Information to display about activity usage or outcome.
Condition to run	Condition Builder	Criteria that must be met to run the activity. You can use the output data from prior activities to build the conditions to run this activity.
When to start	Choice	<p>Option to specify when the activity runs. Options include</p> <ul style="list-style-type: none"> • With Previous - the activity runs at the same time as the previous activity • After Previous - the activity only runs after the previous activity completes running • Immediately - the activity runs immediately without

Input	Type	Description
		waiting for other activities
Start with delay	True/False	Option to wait for a duration of time before running an activity or lane. When enabled, this input displays the Start with delay input properties .
Message	String	Message text to display to end users.
Wait for user input	Choice	Option to pause the process until the end user manually completes or skips the activity.

Outputs

These outputs can provide data to other activities in your process. You can access this data as activity inputs when you configure your activity:

Output	Description
Record	Reference to the record associated with the activity.

Related concepts

- [Activity definitions](#)
- [Activity executions](#)
- [Interactive activities](#)
- [Non-Interactive activities](#)

Related reference

- [Start with delay input properties](#)
- [Create Task activity](#)
- [User Form activity](#)

User Form activity

Display a form in a user-facing view to collect input values for your process.

Roles and availability

- This activity is available as a Process Automation Designer common activity. Users with the admin, pd_admin, pd_author, or pd_content_author can add this activity to a process definition.

Inputs

Open the activity properties panel and configure your activity to add values for the following inputs. If the input value varies, use the pill-picker to show where to get the value. To learn more about the pill-picker, see .

Input	Type	Description
Label	String	Title to display as activity and playbook card.
Description	String	Information to display about activity usage or outcome.
Condition to run	Condition Builder	Criteria that must be met to run the activity. You can use the output data from prior activities to build the conditions to run this activity.

Input	Type	Description
When to start	Choice	<p>Option to specify when the activity runs. Options include</p> <ul style="list-style-type: none"> • With Previous - the activity runs at the same time as the previous activity • After Previous - the activity only runs after the previous activity completes running • Immediately - the activity runs immediately without waiting for other activities
Start with delay	True/False	<p>Option to wait for a duration of time before running an activity or lane. When enabled, this input displays the Start with delay input properties.</p>
Table	Table Name	<p>Table containing activity or process data.</p>
Record	Reference	<p>Reference to the record you want to display.</p>

Input	Type	Description
		<p>Note:</p> <p>Use qualifiers to restrict data that is available in the field.</p> <p>Supports reference qualifiers and advance qualifiers. For more information, see Reference qualifiers.</p> <p>Returns all matching results (no maximum).</p>
Form View	String	<p>Form view to use for data collection. If you don't provide a form view, the system uses the default view.</p> <p>Note: Many form views are not supported in Workspace.</p>
Form Fields	String	<p>Comma-separated list of fields names to display on the card for the form.</p>
Completion Condition	Condition Builder	<p>Criteria that must be met to complete the</p>

Input	Type	Description
		activity and save the record.

Advanced inputs

After configuring the required inputs for your activity, you can also choose to configure advanced inputs. On the Configure your activity screen, select **Advanced View** to display these advanced inputs. The advanced view also lets you access the Activity Experience section. In this section, you can set values for the activity's properties and components that render in user-facing views of your process. For more information, see [Activity experience](#).

Input	Type	Description
Assignment Group	Reference.Group [sys_user_group]	<p>Group responsible for completing the task associated with the activity.</p> <p>Note:</p> <p>Use qualifiers to restrict data that is available in the field.</p> <p>Supports reference qualifiers and advance qualifiers. For more information, see Reference qualifiers.</p> <p>Returns all matching results (no maximum).</p>

Input	Type	Description
Assigned To	Reference.User [sys_user]	<p>User responsible for completing the task associated with the activity.</p> <p>Note:</p> <p>Use qualifiers to restrict data that is available in the field.</p> <p>Supports reference qualifiers and advance qualifiers. For more information, see Reference qualifiers.</p> <p>Returns all matching results (no maximum).</p>
Display Fields	String	Comma-separated list of fields to display above the user form.
Footer	String	Footer text to display to end users
Show Attachments	True/False	Option to include attachments in the user form.
Show SLA	True/False	Option to show SLA countdown details for the task.

Input	Type	Description
Show Checklist	True/False	Option to show record checklist items.

Outputs

These outputs can provide data to other activities in your process. You can access this data as activity inputs when you configure your activity:

Output	Type	Description
Table	Table Name	Name of the table associated with the activity.
Record	Reference.Task[task]	Reference to the record associated with the activity.

Related concepts

- [Activity definitions](#)
- [Activity executions](#)
- [Interactive activities](#)
- [Non-Interactive activities](#)

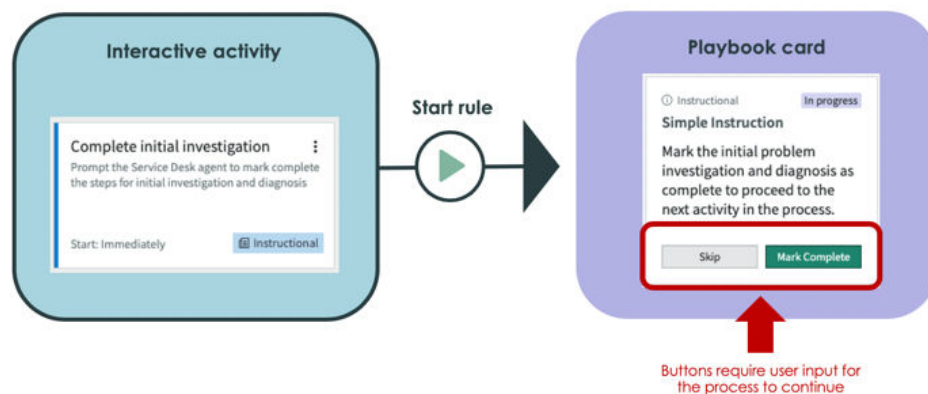
Related reference

- [Start with delay input properties](#)
- [Create Task activity](#)
- [Instruction activity](#)

Interactive activities

An interactive activity prompts a user for input in a Workspace playbook experience when your process runs.

An interactive activity requires user input and can't proceed to completion without processing that user input. Agents can provide input for an interactive activity within an activity card for a Workspace Playbook. For example, if your activity requires a user to enter work notes for a record, you can configure the activity inputs to prompt a Workspace agent to add work notes information in the Playbook card.



To learn how to design a process with interactive activities, see [design an automated process](#).

- [Adobe Sign activities](#)

Enable agents and fulfillers to collect electronic signatures during a playbook run, via Automation Engine's Adobe Sign spoke.

- [Advanced Instruction activity](#)

Display detailed instructions to guide end users through your process.

- [Checklist Task activity](#)

Pause the process and prompt the end user to complete all items in a task checklist.

- [Collect User Data activity](#)

Pause the process and prompt the end user to enter data for use later in the process.

- [Create Record activity](#)

Pause the process and prompt the end user to create a record in a form view.

- [Create Child Case activity](#)

Enable agents and fulfillers to create a child case during a playbook run.

- [Create Child Task activity](#)

Enable agents and fulfillers to create a child task during a playbook run.

- [DocuSign activities](#)

Enable agents and fulfillers to collect electronic signatures during a playbook run, via Automation Engine's DocuSign spoke.

- [Guided Decision activity](#)

Choose a decision tree from your Guided Decisions framework to step agents through how to proceed with a task.

- [Microsoft Teams activities](#)

Enable agents and fulfillers to send direct messages and post in Microsoft Teams channels during a playbook run, via Automation Engine's Microsoft Teams spoke.

- [Request Multi-Level Approval activity](#)

Enable agents and fulfillers to submit an approval requests to first and second-level managers during a playbook run.

- [Request Ad Hoc Approval activity](#)

Enable agents and fulfillers to specify which user(s) should complete approval request(s) during a playbook run.

- [Request Manager Approval activity](#)

Enable agents and fulfillers to submit an approval request to a manager during a playbook run.

- [Send Email activity](#)

Create an email from previously gathered or generated data.

- [Show Knowledge Article activity](#)

Display a knowledge article to end users.

- [Show List of Records activity](#)

Display a list records that match a set of conditions.

- [Slack activities](#)

Enable agents and fulfillers to send direct messages and post in Slack channels during a playbook run, via Automation Engine's Slack spoke.

- [Two Step Instruction activity](#)

Display a different message to end users based on the current activity state. You can specify an initial state message, a skipped state message, and a completed state message.

- [Update Record activity](#)

Update a record with the field values you specify.

- [View Approval Requests activity](#)

Display a list of approval requests from within Playbook Experience.

- [Wait For Condition activity](#)

Pause the process until a record has field values that match a set of conditions.

Related concepts

- [Activity definitions](#)
- [Activity executions](#)

- [Non-Interactive activities](#)

Related reference

- [Start with delay input properties](#)
- [Create Task activity](#)
- [Instruction activity](#)
- [User Form activity](#)

Adobe Sign activities

Enable agents and fulfillers to collect electronic signatures during a playbook run, via Automation Engine's Adobe Sign spoke.

Roles and availability

- These activities are available as an application in the ServiceNow Store. Users with the pd_admin or pd_author can add these activities to a process definition.
- You must have access to Automation Engine's Adobe Sign spoke.

Inputs

Open the activity properties panel and configure your activity to add values for the following inputs. If the input value varies, use the pill-picker to show where to get the value. To learn more about the pill-picker, see .

Input	Type	Description
Label	String	Title to display as activity and playbook card.
Description	String	Information to display about activity usage or outcome.

Input	Type	Description
Condition to run	Condition Builder	Criteria that must be met to run the activity. You can use the output data from prior activities to build the conditions to run this activity.
When to start	Choice	<p>Option to specify when the activity runs. Options include</p> <ul style="list-style-type: none"> • With Previous - the activity runs at the same time as the previous activity • After Previous - the activity only runs after the previous activity completes running • Immediately - the activity runs immediately without waiting for other activities
Start with delay	True/False	Option to wait for a duration of time before running an activity or lane. When enabled, this input displays the Start with delay input properties .
Group record	Choice	Record that represents the group connection and credential alias.

Input	Type	Description
Attachment	Choice	File or document to be signed.
Participants email	String	List of signatory email addresses.
Email body	String	Message displayed to signatories.

Outputs

Your signed document, available for review.

Advanced Instruction activity

Display detailed instructions to guide end users through your process.

Roles and availability

- This activity is available as a Process Automation Designer common activity. Users with the admin, pd_admin, pd_author, or pd_content_author can add this activity to a process definition.

Inputs

Open the activity properties panel and configure your activity to add values for the following inputs. If the input value varies, use the pill-picker to show where to get the value. To learn more about the pill-picker, see .

Input	Type	Description
Label	String	Title to display as activity and playbook card.
Description	String	Information to display about activity usage or outcome.

Input	Type	Description
Condition to run	Condition Builder	Criteria that must be met to run the activity. You can use the output data from prior activities to build the conditions to run this activity.
When to start	Choice	<p>Option to specify when the activity runs. Options include</p> <ul style="list-style-type: none"> • With Previous - the activity runs at the same time as the previous activity • After Previous - the activity only runs after the previous activity completes running • Immediately - the activity runs immediately without waiting for other activities
Start with delay	True/False	Option to wait for a duration of time before running an activity or lane. When enabled, this input displays the Start with delay input properties .
Title	String	Title displayed to end users.

Input	Type	Description
Description	String	Details to display in the message to end users.
Wait for user input	Choice	Option to pause the process until the end user manually completes or skips the activity.

Advanced inputs

After configuring the required inputs for your activity, you can also choose to configure advanced inputs. On the Configure your activity screen, select **Advanced View** to display these advanced inputs. The advanced view also lets you access the Activity Experience section. In this section, you can set values for the activity's properties and components that render in user-facing views of your process. For more information, see [Activity experience](#).

Input	Type	Description
Assignment Group	Reference.Group [sys_user_group]	Group responsible for completing the task associated with the activity.

Input	Type	Description
		<p>Note:</p> <p>Use qualifiers to restrict data that is available in the field.</p> <p>Supports reference qualifiers and advance qualifiers. For more information, see Reference qualifiers.</p> <p>Returns all matching results (no maximum).</p>
Assigned To	Reference.User [sys_user]	User responsible for completing the task associated with the activity.

Input	Type	Description
		<p>Note:</p> <p>Use qualifiers to restrict data that is available in the field.</p> <p>Supports reference qualifiers and advance qualifiers. For more information, see Reference qualifiers.</p> <p>Returns all matching results (no maximum).</p>
Tagline	String	Header tagline to display to end users
Footer	String	Footer text to display to end users

Outputs

These outputs can provide data to other activities in your process. You can access this data as activity inputs when you configure your activity:

Output	Type	Description
Record	Reference.Task [task]	Reference to the record associated with the activity.

Checklist Task activity

Pause the process and prompt the end user to complete all items in a task checklist.

Roles and availability

- This activity is available as a Process Automation Designer common activity. Users with the admin, pd_admin, pd_author, or pd_content_author can add this activity to a process definition.

Inputs

Open the activity properties panel and configure your activity to add values for the following inputs. If the input value varies, use the pill-picker to show where to get the value. To learn more about the pill-picker, see .

Input	Type	Description
Label	String	Title to display as activity and playbook card.
Description	String	Information to display about activity usage or outcome.
Condition to run	Condition Builder	Criteria that must be met to run the activity. You can use the output data from prior activities to build the conditions to run this activity.
When to start	Choice	Option to specify when the activity runs. Options include <ul style="list-style-type: none"> With Previous - the activity runs at the same time as the previous activity

Input	Type	Description
		<ul style="list-style-type: none"> • After Previous - the activity only runs after the previous activity completes running • Immediately - the activity runs immediately without waiting for other activities
Start with delay	True/False	Option to wait for a duration of time before running an activity or lane. When enabled, this input displays the Start with delay input properties .
Checklist Template	Reference.Task [task]	Checklist template used to complete the task. If you need to create a checklist template, see .

Input	Type	Description
		<p>Note:</p> <p>Use qualifiers to restrict data that is available in the field.</p> <p>Supports reference qualifiers and advance qualifiers. For more information, see Reference qualifiers.</p> <p>Returns all matching results (no maximum).</p>
Task	Reference.Task [task]	Reference to the Task record to update.

Input	Type	Description
		<p>Note:</p> <p>Use qualifiers to restrict data that is available in the field.</p> <p>Supports reference qualifiers and advance qualifiers. For more information, see Reference qualifiers.</p> <p>Returns all matching results (no maximum).</p>
Show SLA	True/False	Option to show SLA countdown details for the task.
Can Skip	True/False	Option to allow end users to skip this activity and continue the process.

Advanced inputs

After configuring the required inputs for your activity, you can also choose to configure advanced inputs. On the Configure your activity screen, select **Advanced View** to display these advanced inputs. The advanced view also lets you access the Activity Experience section. In this section, you can set values for the activity's properties and components that render in user-facing views of your process. For more information, see [Activity experience](#).

Input	Type	Description
Skip Assignment Group	Reference.Group [sys_user_group]	<p>Group that is allowed to skip this activity when the Can Skip option is enabled.</p> <p>Note:</p> <p>Use qualifiers to restrict data that is available in the field.</p> <p>Supports reference qualifiers and advance qualifiers. For more information, see Reference qualifiers.</p> <p>Returns all matching results (no maximum).</p>
Skip Assigned To	Reference.User [sys_user]	<p>User that is allowed to skip this activity when the Can Skip option is enabled.</p>

Input	Type	Description
		<p>Note:</p> <p>Use qualifiers to restrict data that is available in the field.</p> <p>Supports reference qualifiers and advance qualifiers. For more information, see Reference qualifiers.</p> <p>Returns all matching results (no maximum).</p>

Outputs

These outputs can provide data to other activities in your process. You can access this data as activity inputs when you configure your activity:

Output	Type	Description
Checklist Task	Reference.Task [task]	Task record to update when this activity completes.

Collect User Data activity

Pause the process and prompt the end user to enter data for use later in the process.

Roles and availability

This activity is available as a Process Automation Designer common activity. Users with the admin, pd_admin, pd_author, or pd_content_author can add this activity to a process definition.

Inputs

Open the activity properties panel and configure your activity to add values for the following inputs. If the input value varies, use the pill-picker to show where to get the value. To learn more about the pill-picker, see .

Input	Type	Description
Label	String	Title to display as activity and playbook card.
Description	String	Information to display about activity usage or outcome.
Condition to run	Condition Builder	Criteria that must be met to run the activity. You can use the output data from prior activities to build the conditions to run this activity.
When to start	Choice	Option to specify when the activity runs. Options include <ul style="list-style-type: none"> With Previous - the activity runs at the same time as the previous activity After Previous - the activity only runs after the previous

Input	Type	Description
		activity completes running <ul style="list-style-type: none"> Immediately - the activity runs immediately without waiting for other activities
Start with delay	True/False	Option to wait for a duration of time before running an activity or lane. When enabled, this input displays the Start with delay input properties .

Advanced inputs

After configuring the required inputs for your activity, you can also choose to configure advanced inputs. On the Configure your activity screen, select **Advanced View** to display these advanced inputs. The advanced view also lets you access the Activity Experience section. In this section, you can set values for the activity's properties and components that render in user-facing views of your process. For more information, see [Activity experience](#).

Input	Type	Description
Assignment Group for this Process Step	Reference.Group [sys_user_group]	Assignment group allowed to perform this process activity.

Input	Type	Description
		<p>Note:</p> <p>Use qualifiers to restrict data that is available in the field.</p> <p>Supports reference qualifiers and advance qualifiers. For more information, see Reference qualifiers.</p> <p>Returns all matching results (no maximum).</p>
Assigned to this Process Step	Reference.User [sys_user]	User allowed to perform this process activity.

Input	Type	Description
		<p>Note:</p> <p>Use qualifiers to restrict data that is available in the field.</p> <p>Supports reference qualifiers and advance qualifiers. For more information, see Reference qualifiers.</p> <p>Returns all matching results (no maximum).</p>
User form for data collection	Choice	Type of input form used to collect data. Options include Create Record, Create Task, Email, Manual Activity, Record Created, and Update Record.
Wait for user input	Choice	Option to pause the process until the end user manually completes or skips the activity.

Outputs

These outputs can provide data to other activities in your process. You can access this data as activity inputs when you configure your activity:

Output	Type	Description
Record	Reference.Flow Data	Reference to record containing collected data.

Create Record activity

Pause the process and prompt the end user to create a record in a form view.

Roles and availability

- This activity is available as a Process Automation Designer common activity. Users with the admin, pd_admin, pd_author, or pd_content_author can add this activity to a process definition.

Inputs

Open the activity properties panel and configure your activity to add values for the following inputs. If the input value varies, use the pill-picker to show where to get the value. To learn more about the pill-picker, see .

Input	Type	Description
Label	String	Title to display as activity and playbook card.
Description	String	Information to display about activity usage or outcome.
Condition to run	Condition Builder	Criteria that must be met to run the activity. You can use the output data from prior activities to build the conditions to run this activity.

Input	Type	Description
When to start	Choice	<p>Option to specify when the activity runs. Options include</p> <ul style="list-style-type: none"> • With Previous - the activity runs at the same time as the previous activity • After Previous - the activity only runs after the previous activity completes running • Immediately - the activity runs immediately without waiting for other activities
Start with delay	True/False	<p>Option to wait for a duration of time before running an activity or lane. When enabled, this input displays the Start with delay input properties.</p>
Table	Table Name	<p>Table in which to insert new record.</p>
Create Record View	String	<p>Form view to use for record creation. If you don't provide a form view, the system uses the default view.</p>

Input	Type	Description
		Note: Many form views are not supported in Workspace.
Template Fields	Template Value	Field values to set during record creation.

Outputs

These outputs can provide data to other activities in your process. You can access this data as activity inputs when you configure your activity:

Output	Type	Description
Table	Table Name	Table containing new record.
Create Record View	String	Form view used for record creation.
Record Created	Sys ID	Unique identifier of the record that this activity created.

Design considerations

Create form views for activities that you want to render in a Workspace playbook

Use a form view to display only the fields your users need to create a record. Your view should display required fields or those fields validated by other business logic. See [View Management](#).

Run non-interactive activities before interactive activities

While a Create Record activity interactively gathers data from users, it prevents the process from starting any dependent activities. For example, a Create Record activity would prevent starting **After Previous** activities,

which may be in other lanes. Where possible, design your processes to run non-interactive activities before interactive activities that could block them.

Create Child Case activity

Enable agents and fulfillers to create a child case during a playbook run.

Roles and availability

These activities are available as an application in the ServiceNow Store. Users with the `pd_admin` or `pd_author` can add these activities to a process definition.

Inputs

Open the activity properties panel and configure your activity to add values for the following inputs. If the input value varies, use the pill-picker to show where to get the value. To learn more about the pill-picker, see .

Input	Type	Description
Label	String	Title to display as activity and playbook card.
Description	String	Information to display about activity usage or outcome.
Condition to run	Condition Builder	Criteria that must be met to run the activity. You can use the output data from prior activities to build the conditions to run this activity.
When to start	Choice	Option to specify when the activity runs. Options include

Input	Type	Description
		<ul style="list-style-type: none"> • With Previous - the activity runs at the same time as the previous activity • After Previous - the activity only runs after the previous activity completes running • Immediately - the activity runs immediately without waiting for other activities
Start with delay	True/False	Option to wait for a duration of time before running an activity or lane. When enabled, this input displays the Start with delay input properties .
Parent	Choice	Parent record of the child case.
Assignment Group	Choice	User group that the child case is assigned to.
Assigned To	Choice	User that the child case is assigned to.
Short Description	String	Summary of the child case.

Input	Type	Description
Description	String	Detailed information to display about the child case.
Priority	Choice	Prioritization level of the child case.
Collect data from user	True/False	Option to pause the process until the end user manually completes or skips the activity.

Outputs

Your child case record.

Create Child Task activity

Enable agents and fulfillers to create a child task during a playbook run.

Roles and availability

These activities are available as an application in the ServiceNow Store. Users with the pd_admin or pd_author can add these activities to a process definition.

Inputs

Open the activity properties panel and configure your activity to add values for the following inputs. If the input value varies, use the pill-picker to show where to get the value. To learn more about the pill-picker, see .

Input	Type	Description
Label	String	Title to display as activity and playbook card.

Input	Type	Description
Description	String	Information to display about activity usage or outcome.
Condition to run	Condition Builder	Criteria that must be met to run the activity. You can use the output data from prior activities to build the conditions to run this activity.
When to start	Choice	<p>Option to specify when the activity runs. Options include</p> <ul style="list-style-type: none"> • With Previous - the activity runs at the same time as the previous activity • After Previous - the activity only runs after the previous activity completes running • Immediately - the activity runs immediately without waiting for other activities
Start with delay	True/False	Option to wait for a duration of time before running an activity or lane. When enabled, this input displays the Start with delay input properties .

Input	Type	Description
Parent	Choice	Parent record of the child task.
Assignment Group	Choice	User group that the child task is assigned to.
Assigned To	Choice	User that the child task is assigned to.
Short Description	String	Summary of the child task.
Description	String	Detailed information to display about the child task.
Priority	Choice	Prioritization level of the child task.
Collect data from user	True/False	Option to pause the process until the end user manually completes or skips the activity.

Outputs

Your child task record.

DocuSign activities

Enable agents and fulfillers to collect electronic signatures during a playbook run, via Automation Engine's DocuSign spoke.

Roles and availability

- These activities are available as an application in the ServiceNow Store. Users with the pd_admin or pd_author can add these activities to a process definition.

- You must have access to Automation Engine's DocuSign spoke.

Inputs

Open the activity properties panel and configure your activity to add values for the following inputs. If the input value varies, use the pill-picker to show where to get the value. To learn more about the pill-picker, see .

Label	String	Title to display as activity and playbook card.
Description	String	Information to display about activity usage or outcome.
Condition to run	Condition Builder	Criteria that must be met to run the activity. You can use the output data from prior activities to build the conditions to run this activity.
When to start	Choice	<p>Option to specify when the activity runs. Options include</p> <ul style="list-style-type: none"> • With Previous - the activity runs at the same time as the previous activity • After Previous - the activity only runs after the previous activity completes running • Immediately - the activity runs

		immediately without waiting for other activities
Start with delay	True/False	Option to wait for a duration of time before running an activity or lane. When enabled, this input displays the Start with delay input properties .
Attachment	Choice	File or document to be signed.
Email subject	String	Subject of the email sent to signatories.
Email body	String	Message displayed to signatories.
Signatory	Choice	User record from the sys_user table that specifies who the signature request is sent to.
DocuSign account	String	Account record from the sn_docusign_spoke_accounts table that specifies where the signature request is sent from.

Outputs

Your signed document, available for review.

Guided Decision activity

Choose a decision tree from your Guided Decisions framework to step agents through how to proceed with a task.

Roles and availability

This activity is available with a subscription to App Engine or Customer Service Management (CSM). For more information on how to enable this activity for use in Process Automation Designer, see [Activate Process Automation Designer for Customer Service Management \(CSM\)](#).

Inputs

Open the activity properties panel and configure your activity to add values for the following inputs. If the input value varies, use the pill-picker to show where to get the value. To learn more about the pill-picker, see .

Input	Type	Description
Label	String	Title to display as activity and playbook card.
Description	String	Information to display about activity usage or outcome.
Condition to run	Condition Builder	Criteria that must be met to run the activity. You can use the output data from prior activities to build the conditions to run this activity.
When to start	Choice	Option to specify when the activity runs. Options include <ul style="list-style-type: none"> With Previous - the activity runs at the

Input	Type	Description
		<p>same time as the previous activity</p> <ul style="list-style-type: none"> • After Previous - the activity only runs after the previous activity completes running • Immediately - the activity runs immediately without waiting for other activities
Start with delay	True/False	Option to wait for a duration of time before running an activity or lane. When enabled, this input displays the Start with delay input properties .

Advanced inputs

After configuring the required inputs for your activity, you can also choose to configure advanced inputs. On the Configure your activity screen, select **Advanced View** to display these advanced inputs. The advanced view also lets you access the Activity Experience section. In this section, you can set values for the activity's properties and components that render in user-facing views of your process. For more information, see [Activity experience](#).

Input	Type	Description
Decision Tree	Reference	The Decision Tree [ga_decision_tree] record whose decision inputs and guidance you want to show to agents in the

Input	Type	Description
		<p>Workspace playbook. For more information on how to set up the Guided Decisions framework, see Guided Decisions for Customer Service Management.</p> <p>Note:</p> <p>Use qualifiers to restrict data that is available in the field.</p> <p>Supports reference qualifiers and advance qualifiers. For more information, see Reference qualifiers.</p> <p>Returns all matching results (no maximum).</p>
Task	Reference	The triggering Case [sn_customerservice_case] record.

Input	Type	Description
		<p>Note:</p> <p>Use qualifiers to restrict data that is available in the field.</p> <p>Supports reference qualifiers and advance qualifiers. For more information, see Reference qualifiers.</p> <p>Returns all matching results (no maximum).</p>

Outputs

There are no outputs for this activity.

Microsoft Teams activities

Enable agents and fulfillers to send direct messages and post in Microsoft Teams channels during a playbook run, via Automation Engine's Microsoft Teams spoke.

Roles and availability

- These activities are available as an application in the ServiceNow Store. Users with the pd_admin or pd_author can add these activities to a process definition.
- You must have access to Automation Engine's Microsoft Teams spoke.

Inputs

Open the activity properties panel and configure your activity to add values for the following inputs. If the input value varies, use the pill-picker to show where to get the value. To learn more about the pill-picker, see .

Input	Type	Description
Label	String	Title to display as activity and playbook card.
Description	String	Information to display about activity usage or outcome.
Condition to run	Condition Builder	Criteria that must be met to run the activity. You can use the output data from prior activities to build the conditions to run this activity.
When to start	Choice	<p>Option to specify when the activity runs. Options include</p> <ul style="list-style-type: none"> • With Previous - the activity runs at the same time as the previous activity • After Previous - the activity only runs after the previous activity completes running • Immediately - the activity runs immediately without

Input	Type	Description
		waiting for other activities
Start with delay	True/False	Option to wait for a duration of time before running an activity or lane. When enabled, this input displays the Start with delay input properties .
Chat type	Choice	Choose whether to post to a Microsoft Teams channel or direct message.
Message	String	Message text to display to end users.
Team ID	String	Sender of the Microsoft Teams message.
Channel name	String	Microsoft Teams channel that the message is posted in.
To members	String	Microsoft Teams user that the message is sent to.

Outputs

Your message posted in a Microsoft Teams channel or sent as a direct message.

Request Multi-Level Approval activity

Enable agents and fulfillers to submit an approval requests to first and second-level managers during a playbook run.

Roles and availability

These activities are available as an application in the ServiceNow Store. Users with the pd_admin or pd_author can add these activities to a process definition.

Inputs

Open the activity properties panel and configure your activity to add values for the following inputs. If the input value varies, use the pill-picker to show where to get the value. To learn more about the pill-picker, see .

Input	Type	Description
Label	String	Title to display as activity and playbook card.
Description	String	Information to display about activity usage or outcome.
Condition to run	Condition Builder	Criteria that must be met to run the activity. You can use the output data from prior activities to build the conditions to run this activity.
When to start	Choice	Option to specify when the activity runs. Options include <ul style="list-style-type: none"> With Previous - the activity runs at the same time as the previous activity After Previous - the activity only runs after the previous

Input	Type	Description
		<p>activity completes running</p> <ul style="list-style-type: none"> Immediately - the activity runs immediately without waiting for other activities
Start with delay	True/False	Option to wait for a duration of time before running an activity or lane. When enabled, this input displays the Start with delay input properties .
Assigned to	Choice	Individual user who the first and second level manager approval requests are generated for.
Due date	Date/Time	Date the approvals are due by.
Comments	String	Option for the approvers to add comments in the approval requests.
Table	Choice	Table that you want to choose the associated record from.
Record	Choice	Associated record for the approval requests.

Outputs

The state of your approval requests.

Request Ad Hoc Approval activity

Enable agents and fulfillers to specify which user(s) should complete approval request(s) during a playbook run.

Roles and availability

These activities are available as an application in the ServiceNow Store. Users with the pd_admin or pd_author can add these activities to a process definition.

Inputs

Open the activity properties panel and configure your activity to add values for the following inputs. If the input value varies, use the pill-picker to show where to get the value. To learn more about the pill-picker, see .

Input	Type	Description
Label	String	Title to display as activity and playbook card.
Description	String	Information to display about activity usage or outcome.
Condition to run	Condition Builder	Criteria that must be met to run the activity. You can use the output data from prior activities to build the conditions to run this activity.
When to start	Choice	Option to specify when the activity runs. Options include

Input	Type	Description
		<ul style="list-style-type: none"> • With Previous - the activity runs at the same time as the previous activity • After Previous - the activity only runs after the previous activity completes running • Immediately - the activity runs immediately without waiting for other activities
Start with delay	True/False	Option to wait for a duration of time before running an activity or lane. When enabled, this input displays the Start with delay input properties .
Approver	Choice	Individual users that will receive approval requests.
Approver group	Choice	User Group that will receive approval requests.
Table	Choice	Table that you want to choose the associated record from.
Record	Choice	Associated record for the approval requests.

Outputs

- Records of your approval requests.
- The states of your approval requests.

Request Manager Approval activity

Enable agents and fulfillers to submit an approval request to a manager during a playbook run.

Roles and availability

These activities are available as an application in the ServiceNow Store. Users with the `pd_admin` or `pd_author` can add these activities to a process definition.

Inputs

Open the activity properties panel and configure your activity to add values for the following inputs. If the input value varies, use the pill-picker to show where to get the value. To learn more about the pill-picker, see .

Input	Type	Description
Label	String	Title to display as activity and playbook card.
Description	String	Information to display about activity usage or outcome.
Condition to run	Condition Builder	Criteria that must be met to run the activity. You can use the output data from prior activities to build the conditions to run this activity.

Input	Type	Description
When to start	Choice	<p>Option to specify when the activity runs. Options include</p> <ul style="list-style-type: none"> With Previous - the activity runs at the same time as the previous activity After Previous - the activity only runs after the previous activity completes running Immediately - the activity runs immediately without waiting for other activities
Start with delay	True/False	<p>Option to wait for a duration of time before running an activity or lane. When enabled, this input displays the Start with delay input properties.</p>
Table name	Choice	<p>Table that you want to choose the associated record from.</p>
Record	Choice	<p>Associated record for the approval request.</p>
Approver	Choice	<p>Individual user that will receive approval requests.</p>

Input	Type	Description
Due date	Date/Time	Date the approval is due by.
Comments	String	Option for the approver to add comments in the approval request.

Outputs

Record of your approval request.

Send Email activity

Create an email from previously gathered or generated data.

Roles and availability

This activity is available as a Process Automation Designer common activity. Users with the admin, pd_admin, pd_author, or pd_content_author can add this activity to a process definition.

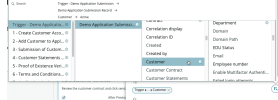
Inputs

Open the activity properties panel and configure your activity to add values for the following inputs. If the input value varies, use the pill-picker to show where to get the value. To learn more about the pill-picker, see .

Input	Type	Description
Label	String	Title to display as activity and playbook card.
Description	String	Information to display about activity usage or outcome.
Condition to run	Condition Builder	Criteria that must be met to run the activity.

Input	Type	Description
		You can use the output data from prior activities to build the conditions to run this activity.
When to start	Choice	<p>Option to specify when the activity runs. Options include</p> <ul style="list-style-type: none"> • With Previous - the activity runs at the same time as the previous activity • After Previous - the activity only runs after the previous activity completes running • Immediately - the activity runs immediately without waiting for other activities
Start with delay	True/False	Option to wait for a duration of time before running an activity or lane. When enabled, this input displays the Start with delay input properties .
To	List of Users	Recipient list for the email. There are 3 ways to configure this field:

Input	Type	Description
		<ul style="list-style-type: none"> Enter email addresses as strings if you want the emails to go to the same addresses every time. <p>When the email address varies, use the pill picker to reference where the recipient email address is. For example, if you wanted to automatically notify people when their credit card application gets rejected, each applicant has a different email address.</p> <p>You would use the pill picker to reference the customer record from the trigger. The trigger for the process is the submission of the application, and includes the customer's email address in its data.</p>

Input	Type	Description
		 <ul style="list-style-type: none"> For Playbook Experience, you can also leave the field blank if you want to prompt agents or fulfillers to enter this information during the playbook run. <p>Note: This field can be edited during a playbook run.</p>
Cc	List of Users	Cc recipient list for the email.
Subject	String	Subject of the email.
Body	HTML	Body of the email.
Wait for user input	Choice	Option to pause the process until the end user manually completes or skips the activity.
Tagline	String	Activity tagline to display to end users.
Record fields	Reference	Any additional record fields you want in the email.

Input	Type	Description
		Note: This field cannot be edited during a playbook run.
Footer	String	<p>Footer content for your email. You can enter a footer as a string, or use the pill picker to reference data (e.g. a timestamp) that you want to display at the bottom of the email.</p> <p>Note: This field cannot be edited during a playbook run.</p>
Form View	String	<p>The name of the Form View in the playbook activity card.</p> <p>Note: This field cannot be edited during a playbook run.</p>
Form fields	Reference	<p>Any additional fields you want in the playbook activity card.</p> <p>Note: This field cannot be edited during a playbook run.</p>

Advanced inputs

After configuring the required inputs for your activity, you can also choose to configure advanced inputs. On the Configure your activity screen, select **Advanced View** to display these advanced inputs. The advanced view also lets you access the Activity Experience section. In this section, you can set values for the activity's properties and components that render in user-facing views of your process. For more information, see [Activity experience](#).

Input	Type	Description
Assigned To	Reference.User [sys_user]	<p>User responsible for completing the task associated with the activity.</p> <p>Note:</p> <p>Use qualifiers to restrict data that is available in the field.</p> <p>Supports reference qualifiers and advance qualifiers. For more information, see Reference qualifiers.</p> <p>Returns all matching results (no maximum).</p>
Assignment Group	Reference.Group [sys_user_group]	<p>Group responsible for completing the task associated with the activity.</p>

Input	Type	Description
		<p>Note:</p> <p>Use qualifiers to restrict data that is available in the field.</p> <p>Supports reference qualifiers and advance qualifiers. For more information, see Reference qualifiers.</p> <p>Returns all matching results (no maximum).</p>
To Email Address	String	Comma-separated list of email addresses.
Cc Email Address	String	Comma-separated list of copied email addresses.
Bcc	List of Users	Bcc blind copy recipient list for the email.
Bcc Email Address	String	Comma-separated list of blind copied email addresses.
Target Record	Reference.Task [task]	Reference to the record that the system attaches the email to.

Input	Type	Description
		<p>Note:</p> <p>Use qualifiers to restrict data that is available in the field.</p> <p>Supports reference qualifiers and advance qualifiers. For more information, see Reference qualifiers.</p> <p>Returns all matching results (no maximum).</p>
Table	Table Name	Table containing activity or process data.

Outputs

These outputs can provide data to other activities in your process. You can access this data as activity inputs when you configure your activity:

Output	Type	Description
Record	Reference.Task[task]	Reference to record created.
Email	Reference.Notification[syseven_email_action]	Reference to the newly created email notification record

Show Knowledge Article activity

Display a knowledge article to end users.

Roles and availability

- This activity is available as a Process Automation Designer common activity. Users with the admin, pd_admin, pd_author, or pd_content_author can add this activity to a process definition.

Inputs

Open the activity properties panel and configure your activity to add values for the following inputs. If the input value varies, use the pill-picker to show where to get the value. To learn more about the pill-picker, see .

Input	Type	Description
Label	String	Title to display as activity and playbook card.
Description	String	Information to display about activity usage or outcome.
Condition to run	Condition Builder	Criteria that must be met to run the activity. You can use the output data from prior activities to build the conditions to run this activity.
When to start	Choice	Option to specify when the activity runs. Options include <ul style="list-style-type: none"> With Previous - the activity runs at the same time as the previous activity

Input	Type	Description
		<ul style="list-style-type: none"> After Previous - the activity only runs after the previous activity completes running Immediately - the activity runs immediately without waiting for other activities
Start with delay	True/False	Option to wait for a duration of time before running an activity or lane. When enabled, this input displays the Start with delay input properties .
Title	String	Title displayed to end users.
Knowledge Article	Reference.Knowledge [kb_knowledge]	Knowledge article displayed to end users.

Input	Type	Description
		<p>Note:</p> <p>Use qualifiers to restrict data that is available in the field.</p> <p>Supports reference qualifiers and advance qualifiers. For more information, see Reference qualifiers.</p> <p>Returns all matching results (no maximum).</p>
Wait for user input	Choice	Option to pause the process until the end user manually completes or skips the activity.

Advanced inputs

After configuring the required inputs for your activity, you can also choose to configure advanced inputs. On the Configure your activity screen, select **Advanced View** to display these advanced inputs. The advanced view also lets you access the Activity Experience section. In this section, you can set values for the activity's properties and components that render in user-facing views of your process. For more information, see [Activity experience](#).

Input	Type	Description
Assignment Group	Reference.Group [sys_user_group]	<p>Group responsible for completing the task associated with the activity.</p> <p>Note:</p> <p>Use qualifiers to restrict data that is available in the field.</p> <p>Supports reference qualifiers and advance qualifiers. For more information, see Reference qualifiers.</p> <p>Returns all matching results (no maximum).</p>
Assigned To	Reference.User [sys_user]	<p>User responsible for completing the task associated with the activity.</p>

Input	Type	Description
		<p>Note:</p> <p>Use qualifiers to restrict data that is available in the field.</p> <p>Supports reference qualifiers and advance qualifiers. For more information, see Reference qualifiers.</p> <p>Returns all matching results (no maximum).</p>

Outputs

These outputs can provide data to other activities in your process. You can access this data as activity inputs when you configure your activity:

Output	Type	Description
Record	Reference.Task[task]	Reference to the record associated with the activity.

Show List of Records activity

Display a list records that match a set of conditions.

Roles and availability

- This activity is available as a Process Automation Designer common activity. Users with the admin, pd_admin, pd_author, or pd_content_author can add this activity to a process definition.

Inputs

Open the activity properties panel and configure your activity to add values for the following inputs. If the input value varies, use the pill-picker to show where to get the value. To learn more about the pill-picker, see .

Input	Type	Description
Label	String	Title to display as activity and playbook card.
Description	String	Information to display about activity usage or outcome.
Condition to run	Condition Builder	Criteria that must be met to run the activity. You can use the output data from prior activities to build the conditions to run this activity.
When to start	Choice	Option to specify when the activity runs. Options include <ul style="list-style-type: none"> With Previous - the activity runs at the same time as the previous activity After Previous - the activity only runs after the previous

Input	Type	Description
		activity completes running <ul style="list-style-type: none"> Immediately - the activity runs immediately without waiting for other activities
Start with delay	True/False	Option to wait for a duration of time before running an activity or lane. When enabled, this input displays the Start with delay input properties .
Table	Table Name	Table containing records you want to display to end users.
Fields to show	String	Comma-separated list of fields to display as columns of a list.
Wait for user input	Choice	Option to pause the process until the end user manually completes or skips the activity.

Advanced inputs

After configuring the required inputs for your activity, you can also choose to configure advanced inputs. On the Configure your activity screen, select **Advanced View** to display these advanced inputs. The advanced view also lets you access the Activity Experience section. In this section, you can set values for the activity's properties and components that render in user-facing views of your process. For more information, see [Activity experience](#).

Input	Type	Description
Assignment Group	Reference.Group [sys_user_group]	<p>Group responsible for completing the task associated with the activity.</p> <p>Note:</p> <p>Use qualifiers to restrict data that is available in the field.</p> <p>Supports reference qualifiers and advance qualifiers. For more information, see Reference qualifiers.</p> <p>Returns all matching results (no maximum).</p>
Assigned To	Reference.User [sys_user]	<p>User responsible for completing the task associated with the activity.</p>

Input	Type	Description
		<p>Note:</p> <p>Use qualifiers to restrict data that is available in the field.</p> <p>Supports reference qualifiers and advance qualifiers. For more information, see Reference qualifiers.</p> <p>Returns all matching results (no maximum).</p>
Conditions	Condition Builder	Criteria that you want your list of records to meet.

Outputs

These outputs can provide data to other activities in your process. You can access this data as activity inputs when you configure your activity:

Output	Type	Description
Record	Reference.Task [task]	Reference to the record associated with the activity.
Fields	String	Comma-separated list of system field names to display as columns in the list.

Slack activities

Enable agents and fulfillers to send direct messages and post in Slack channels during a playbook run, via Automation Engine's Slack spoke.

Roles and availability

- These activities are available as an application in the ServiceNow Store. Users with the pd_admin or pd_author can add these activities to a process definition.
- You must have access to Automation Engine's Slack spoke.

Inputs

Open the activity properties panel and configure your activity to add values for the following inputs. If the input value varies, use the pill-picker to show where to get the value. To learn more about the pill-picker, see .

Input	Type	Description
Label	String	Title to display as activity and playbook card.
Description	String	Information to display about activity usage or outcome.
Condition to run	Condition Builder	Criteria that must be met to run the activity. You can use the output data from prior activities to build the conditions to run this activity.
When to start	Choice	Option to specify when the activity runs. Options include

Input	Type	Description
		<ul style="list-style-type: none"> • With Previous - the activity runs at the same time as the previous activity • After Previous - the activity only runs after the previous activity completes running • Immediately - the activity runs immediately without waiting for other activities
Start with delay	True/False	Option to wait for a duration of time before running an activity or lane. When enabled, this input displays the Start with delay input properties .
Channel/Member ID	String	Slack channel or member that the message is sent to.
Message	String	Message text to display to end users.
Blocks	String	Code blocks to include in the message to end users.
Username	String	Sender of the Slack message.

Input	Type	Description
Icon	String	Slack user profile icon of the sender.
Collect data from user	True/False	Option to pause the process until the end user manually completes or skips the activity.

Outputs

Your message posted in a Slack channel or sent as a direct message.

Two Step Instruction activity

Display a different message to end users based on the current activity state. You can specify an initial state message, a skipped state message, and a completed state message.

Roles and availability

- This activity is available as a Process Automation Designer common activity. Users with the admin, pd_admin, pd_author, or pd_content_author can add this activity to a process definition.

Inputs

Open the activity properties panel and configure your activity to add values for the following inputs. If the input value varies, use the pill-picker to show where to get the value. To learn more about the pill-picker, see .

Input	Type	Description
Label	String	Title to display as activity and playbook card.
Description	String	Information to display about activity usage or outcome.

Input	Type	Description
Condition to run	Condition Builder	Criteria that must be met to run the activity. You can use the output data from prior activities to build the conditions to run this activity.
When to start	Choice	<p>Option to specify when the activity runs. Options include</p> <ul style="list-style-type: none"> • With Previous - the activity runs at the same time as the previous activity • After Previous - the activity only runs after the previous activity completes running • Immediately - the activity runs immediately without waiting for other activities
Start with delay	True/False	Option to wait for a duration of time before running an activity or lane. When enabled, this input displays the Start with delay input properties .
Initial Message	String	Message text to display to end users

Input	Type	Description
		when the activity state is In Progress.
Completed Message	String	Message text to display to end users when the activity state is Completed.
Skipped Message	String	Message text to display to end users when the activity state is Skipped.

Advanced inputs

After configuring the required inputs for your activity, you can also choose to configure advanced inputs. On the Configure your activity screen, select **Advanced View** to display these advanced inputs. The advanced view also lets you access the Activity Experience section. In this section, you can set values for the activity's properties and components that render in user-facing views of your process. For more information, see [Activity experience](#).

Input	Type	Description
Assignment Group	Reference.Group [sys_user_group]	Group responsible for completing the task associated with the activity.

Input	Type	Description
		<p>Note:</p> <p>Use qualifiers to restrict data that is available in the field.</p> <p>Supports reference qualifiers and advance qualifiers. For more information, see Reference qualifiers.</p> <p>Returns all matching results (no maximum).</p>
Assigned To	Reference.User [sys_user]	User responsible for completing the task associated with the activity.

Input	Type	Description
		<p>Note:</p> <p>Use qualifiers to restrict data that is available in the field.</p> <p>Supports reference qualifiers and advance qualifiers. For more information, see Reference qualifiers.</p> <p>Returns all matching results (no maximum).</p>

Outputs

These outputs can provide data to other activities in your process. You can access this data as activity inputs when you configure your activity:

Output	Type	Description
Record	Reference.Task[task]	Reference to the record associated with the activity.

Update Record activity

Update a record with the field values you specify.

Roles and availability

- This activity is available as a Process Automation Designer common activity. Users with the admin, pd_admin, pd_author, or pd_content_author can add this activity to a process definition.

Inputs

Open the activity properties panel and configure your activity to add values for the following inputs. If the input value varies, use the pill-picker to show where to get the value. To learn more about the pill-picker, see .

Input	Type	Description
Label	String	Title to display as activity and playbook card.
Description	String	Information to display about activity usage or outcome.
Condition to run	Condition Builder	Criteria that must be met to run the activity. You can use the output data from prior activities to build the conditions to run this activity.
When to start	Choice	Option to specify when the activity runs. Options include <ul style="list-style-type: none"> With Previous - the activity runs at the same time as the previous activity After Previous - the activity only runs after the previous

Input	Type	Description
		<p>activity completes running</p> <ul style="list-style-type: none"> Immediately - the activity runs immediately without waiting for other activities
Start with delay	True/False	Option to wait for a duration of time before running an activity or lane. When enabled, this input displays the Start with delay input properties .
Table	Table Name	Table containing the record to update.
Record	Reference	Reference to the record you want to update.

Input	Type	Description
		<p>Note:</p> <p>Use qualifiers to restrict data that is available in the field.</p> <p>Supports reference qualifiers and advance qualifiers. For more information, see Reference qualifiers.</p> <p>Returns all matching results (no maximum).</p>
Fields	Template Value	Field values to change during record update.
Wait for user input	Choice	Option to pause the process until the end user manually completes or skips the activity.

Advanced inputs

After configuring the required inputs for your activity, you can also choose to configure advanced inputs. On the Configure your activity screen, select **Advanced View** to display these advanced inputs. The advanced view also lets you access the Activity Experience section. In this section, you can set values for the activity's properties and components that render in user-facing views of your process. For more information, see [Activity experience](#).

Input	Type	Description
Assignment Group	Reference.Group [sys_user_group]	<p>Group responsible for completing the task associated with the activity.</p> <p>Note:</p> <p>Use qualifiers to restrict data that is available in the field.</p> <p>Supports reference qualifiers and advance qualifiers. For more information, see Reference qualifiers.</p> <p>Returns all matching results (no maximum).</p>
Assigned To	Reference.User [sys_user]	<p>User responsible for completing the task associated with the activity.</p>

Input	Type	Description
		<p>Note:</p> <p>Use qualifiers to restrict data that is available in the field.</p> <p>Supports reference qualifiers and advance qualifiers. For more information, see Reference qualifiers.</p> <p>Returns all matching results (no maximum).</p>
Fields to show after update	String	Comma-separated list of fields to display for an updated record.

Outputs

These outputs can provide data to other activities in your process. You can access this data as activity inputs when you configure your activity:

Output	Type	Description
Table	Table Name	Table containing updated record.
Record	Document ID	Reference to record updated.

Design considerations

Create form views for activities that you want to render in a Workspace playbook

Use a form view to display only the fields your users need to update a record. Your view should display required fields or those fields validated by other business logic. See [View Management](#).

Run non-interactive activities before interactive activities

If an Update Record activity interactively gathers data from users, it prevents the process from starting any dependent activities. For example, an Update Record activity would prevent starting **After Previous** activities, which may be in other lanes. Where possible, design your processes to run non-interactive activities before interactive activities that could block them.

View Approval Requests activity

Display a list of approval requests from within Playbook Experience.

Roles and availability

These activities are available as an application in the ServiceNow Store. Users with the pd_admin or pd_author can add these activities to a process definition.

Inputs

Open the activity properties panel and configure your activity to add values for the following inputs. If the input value varies, use the pill-picker to show where to get the value. To learn more about the pill-picker, see .

Input	Type	Description
Label	String	Title to display as activity and playbook card.

Input	Type	Description
Description	String	Information to display about activity usage or outcome.
Condition to run	Condition Builder	Criteria that must be met to run the activity. You can use the output data from prior activities to build the conditions to run this activity.
When to start	Choice	<p>Option to specify when the activity runs. Options include</p> <ul style="list-style-type: none"> • With Previous - the activity runs at the same time as the previous activity • After Previous - the activity only runs after the previous activity completes running • Immediately - the activity runs immediately without waiting for other activities
Start with delay	True/False	Option to wait for a duration of time before running an activity or lane. When enabled, this input displays the Start with delay input properties .

Input	Type	Description
Table	Choice	Table that you want to choose the approval requests from.
Conditions	Condition Builder	Criteria that you want your list of approval requests to meet.

Advanced Inputs

After configuring the required inputs for your activity, you can also choose to configure advanced inputs. On the Configure your activity screen, select **Advanced View** to display these advanced inputs. The advanced view also lets you access the Activity Experience section. In this section, you can set values for the activity's properties and components that render in user-facing views of your process. For more information, see [Activity experience](#).

Input	Type	Description
Order by	String	Field you want to use to sort a list of records.
Sort Type	Choice	Option to sort records alphabetically or reverse alphabetically.
Max Results	Integer	Maximum number of results to display to end users.

Wait For Condition activity

Pause the process until a record has field values that match a set of conditions.

Roles and availability

- This activity is available as a Process Automation Designer common activity. Users with the admin, pd_admin, pd_author, or pd_content_author can add this activity to a process definition.

Inputs

Open the activity properties panel and configure your activity to add values for the following inputs. If the input value varies, use the pill-picker to show where to get the value. To learn more about the pill-picker, see .

Input	Type	Description
Label	String	Title to display as activity and playbook card.
Description	String	Information to display about activity usage or outcome.
Condition to run	Condition Builder	Criteria that must be met to run the activity. You can use the output data from prior activities to build the conditions to run this activity.
When to start	Choice	Option to specify when the activity runs. Options include <ul style="list-style-type: none"> With Previous - the activity runs at the same time as the previous activity After Previous - the activity only runs after the previous

Input	Type	Description
		<p>activity completes running</p> <ul style="list-style-type: none"> Immediately - the activity runs immediately without waiting for other activities
Start with delay	True/False	<p>Option to wait for a duration of time before running an activity or lane. When enabled, this input displays the Start with delay input properties.</p>
Record	Reference	<p>Reference to the record that pauses the process until conditions match.</p>

Input	Type	Description
		<p>Note:</p> <p>Use qualifiers to restrict data that is available in the field.</p> <p>Supports reference qualifiers and advance qualifiers. For more information, see Reference qualifiers.</p> <p>Returns all matching results (no maximum).</p>
Table	Table Name	Table containing the record to update.
Conditions	Template Value	Criteria that a record must meet for the process to continue.

Advanced inputs

After configuring the required inputs for your activity, you can also choose to configure advanced inputs. On the Configure your activity screen, select **Advanced View** to display these advanced inputs. The advanced view also lets you access the Activity Experience section. In this section, you can set values for the activity's properties and components that render in user-facing views of your process. For more information, see [Activity experience](#).

Input	Type	Description
Enable timeout	Choice	Option to time out the Wait for Condition activity if the conditions aren't met after a specified Duration.
Duration	Date/Time	Amount of time to wait before the activity times out and its state is set to Skipped. This input requires setting the Enable timeout input.
Schedule	Choice	Schedule used to compute duration values. This input requires setting the Enable timeout input.

Outputs

The Wait for Condition activity has no outputs.

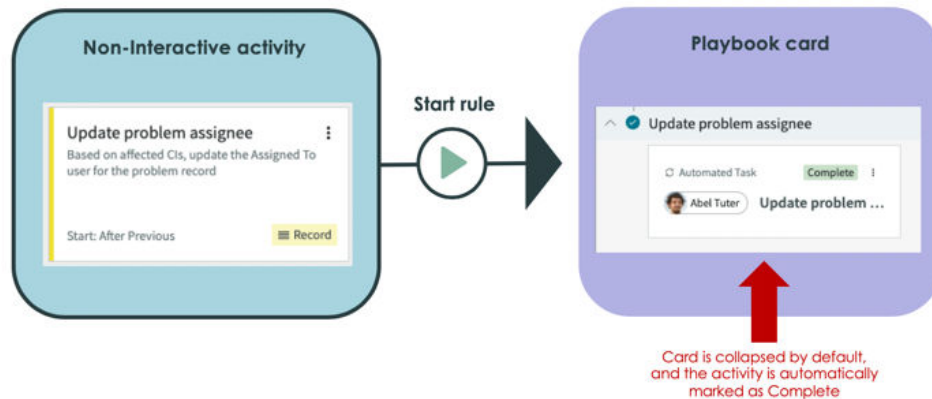
Non-Interactive activities

A non-interactive activity runs entirely behind-the-scenes on the Now Platform® and doesn't require any user input.

A non-interactive activity is an entirely automated operation on the Now Platform which doesn't require any user input to proceed to completion. Non-interactive activities still render in a Workspace Playbook, but only display information to agents. Configure the activity inputs for an interactive activity so that the activity is a fully automated operation on the Now Platform.

When non-interactive activities run, they automatically proceed to completion or are skipped. For example, if your activity automatically

updates the Assigned To user for a record, the Playbook card can display the newly updated Assigned To user's name to the Workspace agent, but the card's status is automatically set to Complete.



To learn how to design a process with non-interactive activities, see [design an automated process](#).

- **Automated Create Record activity**

Create a record without pausing the process to ask for user input. When the activity runs, it immediately creates the record and continues to the next activity in the process. The record must meet server-side validation rules such as data policies, business rules and dictionary-defined mandatory fields but ignores UI policies.

- **Automated Send Email activity**

Create an email from previously gathered or generated data without pausing the process to ask for user input. When the activity runs, it immediately sends the email and continues to the next activity in the process.

- **Automated Update Record activity**

Update a record without pausing the process to ask for user input. When the activity runs, it immediately updates the record and continues to the next activity in the process. The record must meet server-side validation rules such as data policies, business rules and dictionary-defined mandatory fields but ignores UI policies.

- [Look Up Records activity](#)

Find system records that match a set of conditions.

Related concepts

- [Activity definitions](#)
- [Activity executions](#)
- [Interactive activities](#)

Related reference

- [Start with delay input properties](#)
- [Create Task activity](#)
- [Instruction activity](#)
- [User Form activity](#)

Automated Create Record activity

Create a record without pausing the process to ask for user input. When the activity runs, it immediately creates the record and continues to the next activity in the process. The record must meet server-side validation rules such as data policies, business rules and dictionary-defined mandatory fields but ignores UI policies.

Roles and availability

- This activity is available as a Process Automation Designer common activity. Users with the admin, pd_admin, pd_author, or pd_content_author can add this activity to a process definition.

Inputs

Open the activity properties panel and configure your activity to add values for the following inputs. If the input value varies, use the pill-picker to show where to get the value. To learn more about the pill-picker, see .

Input	Type	Description
Label	String	Title to display as activity and playbook card.
Description	String	Information to display about activity usage or outcome.
Condition to run	Condition Builder	Criteria that must be met to run the activity. You can use the output data from prior activities to build the conditions to run this activity.
When to start	Choice	<p>Option to specify when the activity runs. Options include</p> <ul style="list-style-type: none"> • With Previous - the activity runs at the same time as the previous activity • After Previous - the activity only runs after the previous activity completes running • Immediately - the activity runs immediately without waiting for other activities
Start with delay	True/False	Option to wait for a duration of time

Input	Type	Description
		before running an activity or lane. When enabled, this input displays the Start with delay input properties .
Table Name	Table Name	Table in which you want to create a new record.
Fields	Template Value	Field values to set during record creation.

Outputs

These outputs can provide data to other activities in your process. You can access this data as activity inputs when you configure your activity:

Output	Type	Description
Table Name	Table Name	Table containing new record.
Record	Reference.Task [task]	Reference to record created.

Automated Send Email activity

Create an email from previously gathered or generated data without pausing the process to ask for user input. When the activity runs, it immediately sends the email and continues to the next activity in the process.

Roles and availability

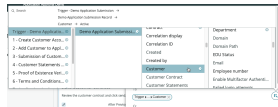
- This activity is available as a Process Automation Designer common activity. Users with the admin, pd_admin, pd_author, or pd_content_author can add this activity to a process definition.

Inputs

Open the activity properties panel and configure your activity to add values for the following inputs. If the input value varies, use the pill-picker to show where to get the value. To learn more about the pill-picker, see .

Input	Type	Description
Label	String	Title to display as activity and playbook card.
Description	String	Information to display about activity usage or outcome.
Condition to run	Condition Builder	Criteria that must be met to run the activity. You can use the output data from prior activities to build the conditions to run this activity.
When to start	Choice	<p>Option to specify when the activity runs. Options include</p> <ul style="list-style-type: none"> • With Previous - the activity runs at the same time as the previous activity • After Previous - the activity only runs after the previous activity completes running • Immediately - the activity runs immediately without

Input	Type	Description
		waiting for other activities
Start with delay	True/False	Option to wait for a duration of time before running an activity or lane. When enabled, this input displays the Start with delay input properties .
To	List of Users	<p>Recipient list for the email. There are 3 ways to configure this field:</p> <ul style="list-style-type: none"> • Enter email addresses as strings if you want the emails to go to the same addresses every time. • <p>When the email address varies, use the pill picker to reference where the recipient email address is. For example, if you wanted to automatically notify people when their credit card application gets rejected, each applicant has a</p>

Input	Type	Description
		<p>different email address.</p> <p>You would use the pill picker to reference the customer record from the trigger. The trigger for the process is the submission of the application, and includes the customer's email address in its data.</p>  <ul style="list-style-type: none"> For Playbook Experience, you can also leave the field blank if you want to prompt agents or fulfillers to enter this information during the playbook run. <p>Note: This field can be edited during a playbook run.</p>
Cc	List of Users	Cc recipient list for the email.
Subject	String	Subject of the email.
Body	HTML	Body of the email.

Advanced inputs

After configuring the required inputs for your activity, you can also choose to configure advanced inputs. On the Configure your activity screen, select **Advanced View** to display these advanced inputs. The advanced view also lets you access the Activity Experience section. In this section, you can set values for the activity's properties and components that render in user-facing views of your process. For more information, see [Activity experience](#).

Input	Type	Description
To Email Address	String	Comma-separated list of email addresses.
Cc Email Address	String	Comma-separated list of copied email addresses.
Bcc	List of Users	Bcc blind copy recipient list for the email.
Bcc Email Address	String	Comma-separated list of blind copied email addresses.
Target Record	Reference.Task [task]	Reference to the record that the system attaches the email to.

Input	Type	Description
		<p>Note:</p> <p>Use qualifiers to restrict data that is available in the field.</p> <p>Supports reference qualifiers and advance qualifiers. For more information, see Reference qualifiers.</p> <p>Returns all matching results (no maximum).</p>
Table	Table Name	Table containing activity or process data.

Outputs

These outputs can provide data to other activities in your process. You can access this data as activity inputs when you configure your activity:

Output	Type	Description
Record	Reference.Task[task]	Reference to record created.
Email	Reference.Notification[syseven_email_action]	Reference to the newly created email notification record

Automated Update Record activity

Update a record without pausing the process to ask for user input. When the activity runs, it immediately updates the record and continues to the next activity in the process. The record must meet server-side validation rules such as data policies, business rules and dictionary-defined mandatory fields but ignores UI policies.

Roles and availability

- This activity is available as a Process Automation Designer common activity. Users with the admin, pd_admin, pd_author, or pd_content_author can add this activity to a process definition.

Inputs

Open the activity properties panel and configure your activity to add values for the following inputs. If the input value varies, use the pill-picker to show where to get the value. To learn more about the pill-picker, see .

Input	Type	Description
Label	String	Title to display as activity and playbook card.
Description	String	Information to display about activity usage or outcome.
Condition to run	Condition Builder	Criteria that must be met to run the activity. You can use the output data from prior activities to build the conditions to run this activity.
When to start	Choice	Option to specify when the activity runs. Options include

Input	Type	Description
		<ul style="list-style-type: none"> • With Previous - the activity runs at the same time as the previous activity • After Previous - the activity only runs after the previous activity completes running • Immediately - the activity runs immediately without waiting for other activities
Start with delay	True/False	Option to wait for a duration of time before running an activity or lane. When enabled, this input displays the Start with delay input properties .
Record	Reference	Reference to the record you want to update.

Input	Type	Description
		Note: Use qualifiers to restrict data that is available in the field. Supports reference qualifiers and advance qualifiers. For more information, see Reference qualifiers . Returns all matching results (no maximum).
Table	Table Name	Table containing the record to update.
Fields	Template Value	Field values to change during record update.

Outputs

These outputs can provide data to other activities in your process. You can access this data as activity inputs when you configure your activity:

Output	Type	Description
Table	Table Name	Table containing updated record.
Record	Reference.Task[task]	Reference to record updated.

Look Up Records activity

Find system records that match a set of conditions.

Roles and availability

- This activity is available as a Process Automation Designer common activity. Users with the admin, pd_admin, pd_author, or pd_content_author can add this activity to a process definition.

Inputs

Open the activity properties panel and configure your activity to add values for the following inputs. If the input value varies, use the pill-picker to show where to get the value. To learn more about the pill-picker, see .

Input	Type	Description
Label	String	Title to display as activity and playbook card.
Description	String	Information to display about activity usage or outcome.
Condition to run	Condition Builder	Criteria that must be met to run the activity. You can use the output data from prior activities to build the conditions to run this activity.
When to start	Choice	Option to specify when the activity runs. Options include <ul style="list-style-type: none"> With Previous - the activity runs at the same time as the previous activity

Input	Type	Description
		<ul style="list-style-type: none"> • After Previous - the activity only runs after the previous activity completes running • Immediately - the activity runs immediately without waiting for other activities
Start with delay	True/False	Option to wait for a duration of time before running an activity or lane. When enabled, this input displays the Start with delay input properties .
Table	Table Name	Table whose records you want to look up.
Conditions	Condition Builder	Criteria that you want your list of records to meet.

Advanced inputs

After configuring the required inputs for your activity, you can also choose to configure advanced inputs. On the Configure your activity screen, select **Advanced View** to display these advanced inputs. The advanced view also lets you access the Activity Experience section. In this section, you can set values for the activity's properties and components that render in user-facing views of your process. For more information, see [Activity experience](#).

Input	Type	Description
Order by	String	Field you want to use to sort a list of records.
Sort Type	Choice	Option to sort records alphabetically or reverse alphabetically.
Max Results	Integer	Maximum number of results to display to end users.

Outputs

These outputs can provide data to other activities in your process. You can access this data as activity inputs when you configure your activity:

Output	Type	Description
Records	Records	References to the records that meet your specified conditions
Count	Integer	Number of records found