Programmable Automation

The Opportunity

In standard HubSpot workflows, you have a predefined menu of out-of-the-box automatable actions: send an email, trigger an ad, etc. But your business isn't cookie cutter, so your automation shouldn't be either. With programmable automation in Operations Hub, your automation is as flexible as your imagination. Create custom automation actions for every business process to keep your team efficient and your customers happy.

Feature Overview

Programmable Automation is an umbrella term for three specific features that enable you to write code in a workflow. Available on Operations Hub Professional and above.

Custom Code Workflow Actions

Knowledge Base

Custom Code Bot Actions

Knowledge Base

Webhooks in Workflows

Knowledge Base

Example Use Cases

CRM

Clean up CRM company data

When records meet certain criteria (e.g. a field is blank or an association is missing), ping external data tools to add details to the record, then automatically resolve or flag issues for manual correction.

Use pull integrations to enrich records

When a record is created in your system, fetch data from your other business tools or your own application. Add context to that record for your sales team from tools they don't have access to without them ever leaving HubSpot.

Operations

Run advanced calculations

Pull information from deals, products, line items, and custom objects to calculate commission for sales reps or partners.

Automate and control data

When a contact becomes an opportunity, automatically create a deal with pre-filled data, and control deal creation.

Click on the title of each use case to see more detailed guidance on what this workflow would look like.

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Marketing

Send email variants

You have four variations of emails in a campaign. Use a custom code action to randomly select a number from 1-4, then direct the workflow to send each email variant to 25% of your contacts.

Enrich leads with third-party data

Enroll any subset of contacts, such as when a lead fills out a form. Query another database and append that data to the HubSpot record. You could then fire an in-app message based on usage, if desired.

Sales

Rotate leads with third-party queries

When a new lead comes in, query another system to determine sales rep capacity, and route the lead in HubSpot based on that information.

Create advanced forecasts

When a deal is created, set a forecasted close date based on that rep's average time to close and average sales cycle to get more accurate forecasting that updates in real time.

Service

Manage service SLAs

Once a ticket is created, use the customer data to determine service level and send tickets to the right team members based on that level. Then, notify agents if SLA is approaching or unmet.

Manage capacity-based ticket assignment

When a new ticket is created, check the current workload of logged-in agents and assign the ticket based on who has the greatest capacity.

Best Practices

	Custom code action	Webhook in workflow
When to recommend	• Someone on the team can write code but not enough to build a full custom extension or integration (e.g. Ops specialist who can write Javascript). • The trigger for the code action to run should take place in HubSpot. We use regular workflow enrollment triggers to execute code snippets. • An API key is available for authentication, or no authentication is needed / no OAuth 2.0 is required. • They want to receive data from the other application back into HubSpot (e.g. Look up a value from an external system and use it later in the workflow.)	• Customer has a publicly accessible API endpoint/webhook URL that accepts data as a POST request in the format that HubSpot will deliver it. • Customer doesn’t need specific information about the contact. It's okay if everything about the contact gets sent along.

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	Custom code action	Webhook in workflow
When not to recommend	• Needs to sync HubSpot engagements with external system (can't trigger re-enrollment in workflows from engagements). • Needs to post page view data, email event data, or campaign data to another system. • Needs a true, fully bi-directional sync. (Use Marketplace, Data Sync, or a custom integration instead.) • OAuth 2.0 is required.	• The action they need does not require posting data to another system (e.g. format phone number). • They need to customize what data is sent to the service. • They do not need to receive any data back in HubSpot from the system they post data to.

Get Help

Professional Services

Good for guidance on implementation

Technical Consulting is available to provide guidance on implementing one workflow-based process using programmable automation. This offering does not include writing code for a customer.

Learn more

Developer Resources

Good for specific code troubleshooting

The HubSpot Developer Slack space and the HubSpot Developer forums are community-based resources available to help with specific code troubleshooting.

Join the Slack community

Explore the forum

Partners

Good for complex integrations or custom coding needs

If more extensive support is needed and/or an internal technical resource isn't available to write the necessary code, one of HubSpot's Solutions Partners can help.

Find a partner