

AS316991

OK Forge! Using Google Voice to Construct Design-Automation Revit

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Learning Objectives

- Design Automation for Revit
- Actions on Google
- Resources for Forge Development

Description

This class will demonstrate how Forge consumers can incorporate Google voice technology into their Enterprise Forge software implementations. We'll walk through an application where a field tech equipped with nothing but a cell phone can send voice commands to dynamically create BIM 360 issues or design alterations.

Speaker(s)

Dimitrii Pokrovskii is a Technical Consultant with Autodesk Global Consulting Delivery. Dimitrii is focused on Enterprise Forge integrations and web application solution design and development. Dimitrii works closely with the BIM 360 and Autodesk Forge Product teams to communicate new product needs and features. He is specifically focused on Business Intelligence, Virtualization & Workflow automation.

Tim Burnham is a Solution Architect with Autodesk Global Consulting Delivery who focuses on improving enterprise processes through software automation. He's authored a handful of Autodesk Consulting service offerings such as Model Performance Analytics and Health Check tools mainly focusing on Revit, Navisworks and AutoCAD technology.

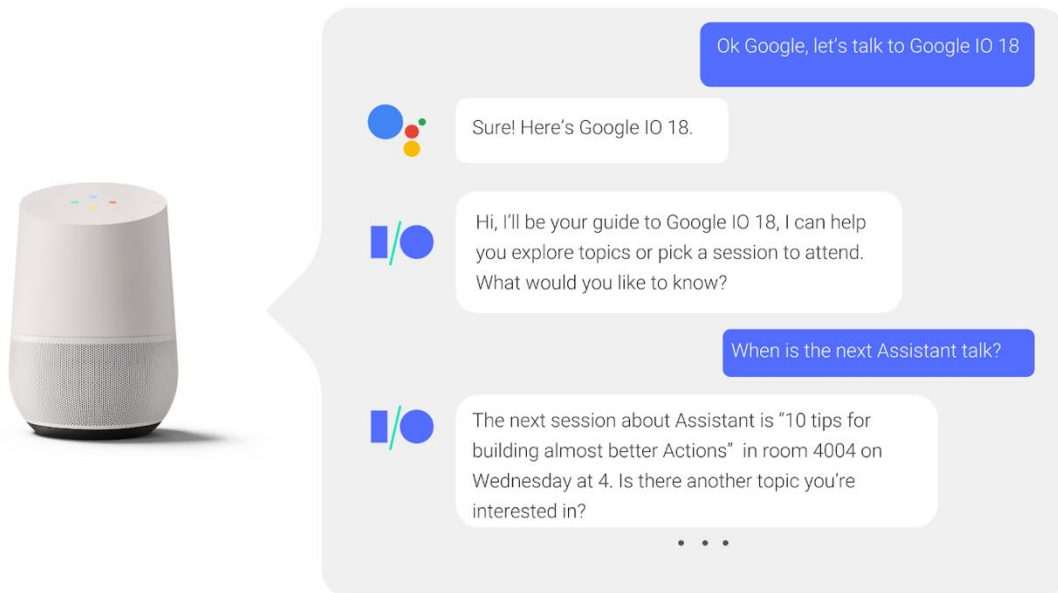
Actions on Google

<https://developers.google.com/assistant>

Codelab – Build Your First Actions for Google

The best way to start learning is to spend 1 hour to finish the first code lab provided by Google. In this lesson you will build a simple conversational Action with these features:

- Users can start a conversation by explicitly calling your Action by name, which then responds with a greeting message.
- Once in conversation, users are prompted to provide their favorite color. Your Action parses the user's input to extract the information it needs (namely, the color parameter).
- If a color is provided, your Action processes the color parameter to auto-generate a "lucky number" to send back to the user and the conversation ends.
- If no color is provided, your Action sends the user additional prompts until the parameter is extracted.
- Users can explicitly leave the conversation at any time.



<https://codelabs.developers.google.com/codelabs/actions-1/#1>

Codelab – Building Actions using the Local Development SDK

Once you have built your first action we would recommend doing the same thing but instead of just using DialogFlow using the full SDK designed for local development. In this codelab, you'll build a sophisticated conversational Action with multiple features:

- Supports deep links to directly launch the user into certain points of dialog.
- Uses utilities provided by the Actions on Google platform to fetch the user's name and address them personally.
- Responds with follow-up questions to further the conversation.
- Presents users with a rich visual response complete with sound effects.

<https://codelabs.developers.google.com/codelabs/actions-2/#2>

Forge / BIM 360 Development

Forge Development Resource Center

<https://forge.autodesk.com/>

Coding Samples:

<https://forge.autodesk.com/code-samples>

<https://github.com/Autodesk-Forge>

Forge Design Automation API Tutorial (v3):

<https://forge.autodesk.com/en/docs/design-automation/v3/tutorials/revit/>

PostMan scripts for creating Design Automation building blocks:

<https://github.com/Autodesk-Forge/forge-tutorial-postman/tree/master/DA4Revit>