**Choose between image classification and object detection models**

**Custom Vision**

Azure AI Custom Vision is an image recognition service that lets you build, deploy, and improve your own image identifier models. An image identifier applies labels to images according to their visual characteristics. Each label represents a classification or object. Custom Vision allows you to specify your own labels and train custom models to detect them.

**How it works**

The Custom Vision service uses a machine learning algorithm to analyze images for custom features. You **submit sets of images** that do and don't have the visual characteristics you're looking for. Then you **label the images** with your own labels (tags) at the time of submission. The algorithm trains to this data and calculates its own accuracy by testing itself on the same images. Once you've trained your model, you can test, retrain, and eventually use it in your image recognition app to [classify images](https://learn.microsoft.com/en-us/azure/ai-services/custom-vision-service/getting-started-build-a-classifier) or [detect objects](https://learn.microsoft.com/en-us/azure/ai-services/custom-vision-service/get-started-build-detector). You can also [export the model](https://learn.microsoft.com/en-us/azure/ai-services/custom-vision-service/export-your-model) for offline use.

**Classification and object detection**

Custom Vision functionality can be divided into two features.

* [**Image classification**](https://learn.microsoft.com/en-us/azure/ai-services/custom-vision-service/getting-started-build-a-classifier) applies one or more labels to an entire image.
* [**Object detection**](https://learn.microsoft.com/en-us/azure/ai-services/custom-vision-service/get-started-build-detector) is similar, but it returns the coordinates in the image where the applied label(s) are found.

**Use case optimization**

The Custom Vision service is optimized to quickly recognize major differences between images, so you can start prototyping your model with a small amount of data. It's generally a good start to use 50 images per label. However, the service isn't optimal for detecting subtle differences in images (for example, detecting minor cracks or dents in quality assurance scenarios).

Additionally, you can choose from several variations of the Custom Vision algorithm that are optimized for images with certain subject material—for example, landmarks or retail items.

**How to use Custom Vision**

The Custom Vision Service is available as a set of native SDKs and through a web-based interface on the [Custom Vision portal](https://customvision.ai/). You can create, test, and train a model through either interface or use both together.

**Supported browsers for Custom Vision web portal**

The Custom Vision portal can be used by the following web browsers:

* Microsoft Edge (latest version)
* Google Chrome (latest version)

**Backup and disaster recovery**

As a part of Azure, Custom Vision Service has components that are maintained across multiple regions. Service zones and regions are used by all of our services to provide continued service to our customers.

**Data privacy and security**

As with all of the Azure AI services, developers using the Custom Vision service should be aware of Microsoft's policies on customer data

**Data residency**

Custom Vision doesn't replicate data outside of the specified region, except for one region, **NorthCentralUS**, where there is no local Azure Support.

**Limits and quotas**

There are two tiers of keys for the Custom Vision service. You can sign up for a F0 (free) or S0 (standard) subscription through the Azure portal. This page outlines the limitations of each tier.



