Getting started with OS APIs

In a recent blog post, we provided an Introduction to Ordnance Survey APIs, exploring the 8 main APIs which OS offers. Now that you know more about the APIs we have available, you might want to dive on in and start creating your own maps and services for your website or app.

So, where do you start?

Useful links

OS APIs can easily be accessed in HTML using some basic JavaScript alongside other mapping APIs such as Mapbox (free with premium options) or Leaflet (free and open-source). In the table below, we've included some quick links so you can easily navigate to the information you need.

We have documentation on each API; an overview, how to get started, and technical specification. We've also mocked up some coding examples so you're not starting empty-handed.

We also have a series of Tutorials you can access via the OS Data Hub.

API	Used for:	Links
OS Maps API	Up-to-date, detailed basemap into which you can port new data, and other APIs	Overview Getting started Technical specification Code example
OS Features API	Additional layers of geospatial data, such as buildings, roads, greenspaces and more	Overview Getting started Technical specification Code example
OS Vector Tile API	Data visualisation and custom, interactive maps	Overview Getting started Technical specification Code example
OS Names API	Location lookup services	Overview Getting started

		Technical specification Code example
OS Linked Identifiers API	Identify the links between properties, streets, and OS MasterMap identifiers e.g., UPRNs	Overview Getting started Technical specification Code example
OS Match & Cleanse API	Match, correct, and validate addresses - cleanse existing address data	Overview Getting started Technical specification
OS Places API	Edit out-of-date or partial location data, and add unique references	Overview Getting started Technical specification Code example
OS Downloads API	Automating discovery and download of OS OpenData	Overview Getting started Technical specification

Case studies

In case you'd like more information on our APIs in more of a 'real world' situation, we have plenty of examples of customer success stories and case studies. Have a read to discover how our APIs can be used effectively.

OS Places API

NHS Digital used the OS Places API to efficiently capture the addresses of people requesting Covid-19 home testing kits via the Gov.uk website, as part of the government's national testing strategy.

With a national demand for testing kits, NHS Digital required trusted and accurate addressing data to support their operations. The OS Places API 'Capture and Verification' feature, meant that when someone with potential Covid-19 symptoms needed to order a home testing kit, our addressing data enabled them to enter a postcode and easily select their address from a drop-down list. The OS Places API could also be quickly integrated with the NHS Digital's current online ordering systems.

This function ensures only 'clean' and up-to-date addresses are captured, allowing for efficient delivery of tests to anywhere in Great Britain, especially during periods of high demands. As well as reassuring NHS Digital that kits are being delivered correctly, introducing the OS Places API has crucially sped up the online user journey and removed the need for manual address entries which can result in less successful deliveries.

Read the full story here: https://www.ordnancesurvey.co.uk/newsroom/blog/os-data-and-services-support-nhs-digital-in-distribution-of-millions-of-covid-19-home-testing

OS Vector Tile API

Iventis provides a collaborative planning platform for the organisers of the world's largest and most complex events, such as the World Cup or Olympic Games. Events like these can span whole cities and countries and require city-wide transportation systems to crowd management within a venue. Geospatial information and mapping are therefore crucial.

Iventis uses the OS Vector Tile API to fetch mapping data, and integrate with computer-aided design (CAD) and building information modelling (BIM) imagery, to provide a seamless and powerful mapping experience. This greatly benefits the planning processes for the multiple teams and stakeholders involved.

Read the full story here: https://www.ordnancesurvey.co.uk/newsroom/blog/using-os-data-to-plan-major-events

The OS Vector Tile API has also been used as a valuable asset during the Coronavirus pandemic. Tower Hamlets Council, an area of numerous high-rise housing blocks, has used the OS Vector Tile API to pull in OS MasterMap building height data.

This has allowed them to analyse where Covid-19 cases may be in relation to these housing blocks. Any blocks experiencing higher numbers of Covid-19 cases are then identified as needing the right support for residents.

Read the full story here: https://www.ordnancesurvey.co.uk/newsroom/blog/os-data-supports-tower-hamlets-councils-covid-19-response

OS Features API

Given the number of data layers available in the OS Features API – buildings, roads, rivers, hospitals, playing fields, contours and more – it enables custom and in-depth data analysis. From finding the nearest greenspaces to calculating how much of an area is built on, OS Features API can help connect detailed geospatial data. What you then use it for can depend entirely on your organisation's requirements.

Balkerne has used the OS Features API for location intelligence risk analytics for its customers. Our OS Features API helps the organisation achieve an advanced understanding of their property areas that are at risk of flooding.

Read the full story here: https://www.ordnancesurvey.co.uk/newsroom/blog/removing-the-data-management-burden-with-the-os-features-api

Combining APIs

There are success stories of APIs used individually; there are also success stories of them being combined. APIs are the building blocks and can be combined and customised to create bespoke solutions.

For example, PropertyData, a UK-centric platform that provides residential property market data and analytics functionality, has combined the OS Maps, Features, and Places APIs.

The OS Maps API creates a mapping base layer, upon which PropertyData can combine property datasets. They then used the OS Features API, sourcing building information to work out the percentage of a plot that has been built on. And then they introduced the OS Places API, receiving AddressBase classification data, to make educated guesses about planning use class.

Read the full story here: https://www.ordnancesurvey.co.uk/newsroom/blog/developer-how-combining-three-os-apis-improves-propertydatas-analytics-functionality

What will you build?

Be sure to use our useful links, code examples, and tutorials to get you up and running with our OS APIs. We offer these tools to help you build your own geospatial solutions, but what you make with them is down to you. If you're seeking inspiration, visit our Products page to browse the options available, and you could visit our Partners page to see what our Partner network (and possibly, your competitors) have come up with.

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