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CartoType Documentation

Learn more about CartoType.

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buy a license. You will be able
to create a test application and
find out whether CartoType is
the right solution for you. The
evaluation SDKs have a few
restrictions, including placing a
watermark on every map, but
provide access to the complete
API (application programming
interface) and all features
including graphics-

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contact us.

By clicking on any of the links on this page, or by using the SDK material or demonstration programs, or source code, however acquired, you accept the terms of the CartoType Evaluation License and you also accept that neither CartoType Ltd, nor any owners,

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downloading, installing or
using the SDK, or by any
programs built using the SDK,
and that the SDK is not
warranted fit for any particular
use and is for evaluation use
only and may not be used for
any commercial purpose.

To uninstall any of these SDKs,
all you need to do is delete the
files from your computer.

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southern coast of England, chosen because of its good mix of features: urban, rural, and coastal. Please contact us if you need a map of any particular area for evaluation purposes.

Sample Code

The source code for most of

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/CartoType-Public. The code is supplied under the permissive MIT license.

Release notes

The current version of the CartoType SDK is release 8.4. It was released on 20th February 2023.

The current build is 8.4.24.

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added missing feature types to
all APIs

fixed #116: setResolutionDpi
doesn't work on Android

it is now possible to create a
Framework object without
specifying a font: a small built-
in font is used

fixed #120: new route is not
automatically displayed after
re-routing when off route

distance off route tolerance

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fixed #127: cannot wrap label on to two lines

fixed #128: cannot place label under icon

fixed incorrect deserialisation of large 32-bit integers

--- 8.4.28 ---

fixed #133: first turn is nil in iOS

fixed #131: found-object polygons are not completely

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The Android SDK

The Android SDK allows you to use CartoType with the Android operating system. You use the CartoType Android API, which gives you access to all the features of CartoType: loading maps, adding your own objects to the map, panning, zooming,

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the following folders:

libs: an .AAR (Android archive) called cartotype.aar, which is the CartoType library. Add it to your Android Studio project as a dependency.

font: standard fonts; for simple CartoType use you need load only DejaVuSans.ttf

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doc: licenses and acknowledgments for third-party libraries

Android demo program with source code

CartoTypeMaps is a full-featured sample program for CartoType on Android. It's provided as an Android Studio

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mode. You can set the start or
end of a route using a long
press. Other features are
available from the menus.
**CartoTypeMaps is ready to
run**. Just download the code or
use git to clone the repository
(git clone https://github.com
/CartoType/CartoType-
Public.git). Then load the
project src/demo
/android_demo/CartoTypeMaps

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version: CartoTypeMaps as an APK file (235Mb download). You can install it on your Android phone or tablet. It comes with a map of London and the surrounding area. You can easily load other maps if you prefer.

The iOS SDK

The iOS SDK allows you to

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in Objective C, which gives you access to all functionality.

Note: in order to avoid linker errors when using the -ObjC flag, you need to have at least one ".cpp" (C++) or ".mm" (Objective C++) source file in your own project, even if it's an empty one. If your project has ".m" (Objective C) and ".h" files only you will get linker errors

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containing the header files and compiled libraries for the simulator and device targets as a zip file. A sample map, style sheets, fonts, and tools including makemap, the map building program, are also included. It contains SDKs for both iOS on a device and and iOS on a simulator. The SDKs are in the **ios** folder and are delivered as **.xcframework**

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make sure that they are shipped with the app: select your app in Xcode, then select your build under TARGETS, then Build Phases -> Embed Frameworks, then add both CartoType.xcframework and MetalANGLE.xcframework, and tick 'Code Sign On Copy'.

(If you are upgrading to a new version of the CartoType iOS

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select your project, then click on 'delete' opposite 'derived data'. Then close Xcode, reopen your project, clean it and rebuild. Thanks to TigerCoding for this tip from StackOverflow.)

iOS demo program with source code

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different profiles, turn by turn
navigation, finding placenames
and addresses, night mode,
and perspective mode. You can
set the start or end of a route
using a long press. Other
features are available from
toolbar buttons.

iOS sample project

To build and run the app, open

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license() function in
AppDelegate.swift so that it
supplies your license key. You
will need to sign the app using
your Apple developer
certificate.

You can then run it in the
simulator or on an iOS device.

The C# (.NET) SDK

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using CartoType in just a few
lines of code, as shown in the
C# demo program included
with the SDK. The .NET SDK
(documented here) gives you
access to all CartoType
features, including map, style
sheet and font loading, route
calculation, navigation and
address searching. It also gives
access to graphics acceleration
using OpenGL ES 2.0.

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that uses the CartoType DLL, with its source code and data files. An XML documentation file is also supplied. As long as it is kept in the same place as the DLL it will provide tool-tip help for some of the functions.

Note: if you have trouble adding the DLL to your project, in particular if you get a message starting "could not

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'This file came from another computer and might be blocked to help protect this computer', click 'Unblock' to the right of that text; **(ii)** if that doesn't work try installing, or re-installing, the Visual C++ Redistributable for Visual Studio 2019 (please google that phrase to find the current download link).

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The zip file creates a single
directory called
CartoTypeDemo when
unzipped.

Useful locations

The CartoType .NET DLL

- release version:
  CartoTypeDemo\windows

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project files:

- CartoTypeDemo\windows \CartoTypeDemo.sln
- CartoTypeDemo\windows \CartoTypeDemo.csproj

Data files

- sample map: map\isle_of_wight.ctm1
- standard style sheet:

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They need to be accessible to any application using the CartoType .NET SDK.

Another style sheet and extra fonts are also to be found in the style and font folders. It's always a good idea to load DroidSansFallback as well as any other fonts, because it provides characters for many

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The Windows SDK

This SDK (documented here)
supports CartoType
development for desktop
versions of Windows from
Windows XP through Windows
8.
The CartoType Windows SDK
supports development using
standard Windows, or using

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release mode libraries for
desktop Windows, built using
Microsoft Visual Studio 2019
for the x64 platform.

The zip file creates a single
directory called CartoType
when unzipped.

Useful locations

Libraries and executables

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\(makemap, mapinfo,
encrypt_file): CartoType\bin
\17.0\x64\Release

There are also directories with
the same names but with DLL
appended: CartoType\bin
\17.0\x64\ReleaseDLL, etc.
They contain libraries linked to
the C++ runtime library as a
DLL, not statically. These
libraries can be used with Qt.

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Qt to build and run the sample
Maps App.

Headers

- CartoType\src\main\base;
  you need include only one
  header file, cartotype.h, to
  use the CartoType C++ API

Visual Studio solution and
project files for the
demonstration program

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\isle_of_wight.ctm1

- standard style sheet:
  CartoType\style
  \standard.ctstyle
- standard font: CartoType\font
  \DejaVuSans.ttf

Another style sheet and extra
fonts are also to be found in
the style and font folders.

The Linux SDK

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developments using various
GUI frameworks including Qt.

Download link: Linux SDK

This is a 20Mb zip file
containing a folder called
cartotype-linux-sdk, which
contains the following folders:

bin: the release-mode
evaluation CartoType library

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and other libraries needed for Qt builds.

font: standard fonts; for simple CartoType use you need load only DejaVuSans.ttf

header: the C++ header files; you need to include only header file, cartotype.h, to use CartoType

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Linux SDK notes

- The CartoType Linux library is built for 64-bit Intel platforms.
- You may need to add the option -lpthread to the linker options, otherwise you might get a linker error for pthread_create.
- Set the compiler option +std=c++14, because

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you are using GCC 4.9 or
earlier.

Demos

CartoType
demonstration
applications

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The
Maps
App

Developers choose CartoType

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exceptional
service.

PRODUCTS DEVELOPERS

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