



TMS FNC WebBrowser DEVELOPERS GUIDE

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Index

Getting Started	3
Installation.....	3
Navigating to a URL	5
Loading HTML.....	5
Loading files.....	5
Executing JavaScript	5
Using Events	6

Getting Started

Included in the TMS FNC Core is a WebBrowser that can display web pages, HTML and load files such as PDF files. The WebBrowser also allows executing scripts and catch the result in a callback.

To get started with the WebBrowser, add the `FMX.TMSFNCWebBrowser`, `VCL.TMSFNCWebBrowser`, `LCLTMSFNCWebBrowser` or `WEBCLib.TMSFNCWebBrowser` depending on the chosen framework. The WebBrowser class is called `TTMSFNCWebBrowser`, and the code is shareable between the four supported frameworks. (In TMS WEB Core, the `TTMSFNCWebBrowser` is a DIV that can display HTML, navigate functionality is not supported).

Installation

Before the `TTMSFNCWebBrowser` can be used there are a couple of things that need to be done depending on the chosen platform. Below are the steps to take when you want to use the `TTMSFNCWebBrowser` for each platform/operating system separately.

iOS/macOS

iOS/macOS is no longer supporting `UIWebView/WebView` classes and has switched to `WKWebView`. This wasn't an issue previously, but Apple has recently created a document that is stating to: "no longer accepting applications that uses the `UIWebView/WebView` classes starting from April 2020". (<https://developer.apple.com/news/?id=12232019b>). The `TTMSFNCWebBrowser` has changed switched internally to `WKWebView` to accommodate to these changes. It requires the WebKit framework. Adding frameworks to your iOS/macOS SDK inside IDE is explained at the following page: <https://www.tmssoftware.com/site/frameworks.asp>

Android

No additional steps needed for basic browser functionality. In case you encounter errors of missing libraries during deployment, please follow instructions at the following page:

<https://www.tmssoftware.com/site/androidjs.asp>

Windows (Edge Chromium)

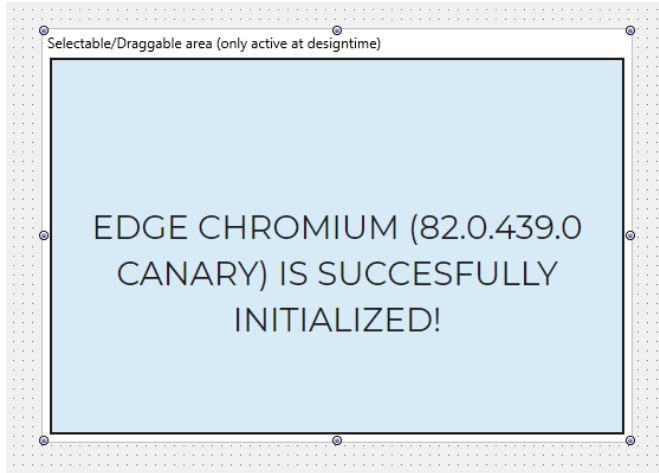
- 1) Install one of the Inside Channel versions of Edge Chromium from the following page: <https://www.microsoftedgeinsider.com/nl-nl/download>

Alternatively, the default version can be download from the following page: <https://www.microsoft.com/en-us/edge>

We have tested the installation against v82 (Canary build). Earlier versions are not supported. Newer version updates need to be tested first, as each update might potentially break your application. Please before installing, check the version number and ask us for an update in case you are having troubles getting the browser to run. Microsoft will also push out Edge Chromium through Windows Updates.

- 2) Make sure the `WebView2Loader_x86.dll` and `WebView2Loader_x64.dll` are copied under `System32` and `SysWow64` folders. The dlls can be found after installation in the source directory under the folder "Edge Support". Please note that these dlls are also necessary when deploying your application!
- 3) Start the IDE and drop an instance of `TTMSFNCWebBrowser` on the form. The border around the webbrowser at designtime is for moving/selecting it. The blue box indicating the Edge

Chromium is initialized, is interactable and is a live browser instance. You should see the following when the browser is successfully initialized:



Navigating to a URL

After creating an instance of the TTMSFNCWebBrowser, navigating to a web page is as simple as using the code below.

```
procedure TForm1.Browse;
begin
  TMSFNCWebBrowser1.URL := 'https://www.tmssoftware.com';
end;
```

or

```
procedure TForm1.Browse;
begin
  TMSFNCWebBrowser1.Navigate('https://www.tmssoftware.com');
end;
```

Loading HTML

Loading fully functional HTML/JavaScript can be done with the following code:

```
procedure TForm1.LoadFromHTML;
begin
  TMSFNCWebBrowser1.LoadHTML('<b>This is HTML!</b>');
end;
```

Loading files

Files such as PDF files, images, HTML files and many more can be loaded with the LoadFile method:

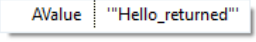
```
procedure TForm1.LoadFromFile;
begin
  TMSFNCWebBrowser1.LoadFile('MyPDF.pdf');
end;
```

Executing JavaScript

Executing JavaScript is supported and can also be used in combination with a return value callback. Below is a sample code snippet that shows how to execute JavaScript and get a return value.

```
TMSFNCWebBrowser1.ExecuteJavascript('function test(param){ return param + "_returned";}
test("Hello");');
procedure(const AValue: string)
begin
  TTMSFNCUtils.Log(AValue);
end
);
```

```
TMSFNCWebBrowser1.ExecuteJavascript('function test(param){ return param + "_returned";} test("Hello");',  
procedure(const AValue: string)  
begin  
  TMSFNCUtils.Log(AValue);  
end  
) ;
```



Using Events

The TTMSFNCWebBrowser exposes 2 important events: OnBeforeNavigate and OnNavigateComplete. It allows you as a developer to retrieve to which page/URL the webbrowser is navigating to and also allows you to block navigation. Below is a sample that blocks access to a certain page within <https://www.tmssoftware.com>.

```
procedure TForm1.TMSFNCWebBrowser1BeforeNavigate(Sender: TObject;  
  var Params: TTMSFNCCustomWebBrowserBeforeNavigateParams);  
begin  
  Params.Cancel := Params.URL.Contains('tmsfnccore.asp');  
end;
```