

Tekla Structures and Revit API & .Net Core

If you have been using Tekla Structures or Revit APIs you know that these APIs target Microsoft .Net Framework. Perhaps most of the time you will not have an issue using .Net Framework but there might be occasions or reasons where applications is better developed using .Net Core, which is the next generation of .Net from Microsoft. In such scenarios, a workaround is required to allow .Net Core apps to communicate with Tekla Structures or Revit APIs.

Please let me hear from you if you have found an easy and straightforward solution to use these APIs in .Net Core apps without implementing an inter-process communication channel or a wrapper around the API.

In case you are like me you are still looking into this, then perhaps you might find some of my findings helpful. I have recently looked at our old and hated friend “COM Interop” to interoperate between Tekla API and .NET Core apps using an in-process COM component written in .Net Framework to facilitate communication between .Net Core apps and Tekla Structures API. The component is just a wrapper that marshals the calls to the APIs. In case you are interested to see how this is implemented, mature but not complete implementation for a COM component that shows how to interoperate between Tekla API and .NET Core apps using COM interop can be found here. As part of testing this, I converted a few of Tekla Structures API samples from .Net Framework to .Net Core to test the solution. I believe a similar COM component can be developed for Revit API.

With time we will see more and more third-party libraries and frameworks developed with .Net Core with less or no support for .Net Framework. And at the same time, I don’t see any near-future plans from Tekla or Autodesk to migrate their API to .Net Core. Obviously, such migration will not be an easy task at all. However, in the meantime, I believe that both companies or/and the community can work on providing an open source solution to allow apps developed using .Net Core apps to access their APIs.

For the Tekla and Revit API developers out there, please let me know your thoughts on the above.