WebMAP2 Frequently Asked Questions

Q: How do I get WebMAP2?

A: WebMAP2 is still in pre-release while we test it on customer code. You can apply for the beta at: http://mobilize.hs-sites.com/mobilize-webmap-beta. However, if you're interested in a more immediate solution, we provide migration services to modernize your application to the Web -- using the same technology -- with different service engagement models.

Q: What is the .NET to HTML5 Code Analyzer?

A: We've created a tool which counts your lines of C# code, files, external references and more. The tool enables us to tell you what it takes to migrate your application to a modern web architecture using HTML5, JavaScript, and MVVM architecture. The tool creates a report that can be viewed in a browser. The tool counts:

- Lines of code
- Comments
- Files
- Projects
- External references
- Components
- and more.

Q: Does the assessment file contain confidential information?

A: No. The tool doesn't send us any source code, just meta data about your projects.

Q: How much does WebMAP2 cost?

A: It depends on your source code and your target platform:

- WebMAP2 pricing is based on the numbers of lines of code in your project (excepting comments, blanks, etc.)
- If you're starting from VB6, you need to first convert your code to .NET using the VBUC. Then
 you can convert the code from .NET to HTML5 using WebMAP. We have a special "doublejump"
 price for VB6 projects.
- Projects that originate in .NET only require a license for WebMAP2.

Q: How do you estimate cost?

A: Pricing for services is based on the size and complexity of your project. WebMAP2 automates the code conversion but there's other work involved such as unit testing and user acceptance testing. Also, there are challenges that are specific to changing the application from a desktop environment to a web/cloud-enabled architecture.

Q: How does the Telerik license work?

A: WebMAP uses the Telerik KendoUI Professional library to render the HTML5 UI. You will need a license which you can get from Telerik directly at http://www.telerik.com/purchase.aspx. We can also target other HTML UI frameworks to meet the customers' requirements. Contact us at info@mobilize.net for more information.

Q: Is the resulting interface responsive? Is it ready for devices?

A: The resulting application is "functionally equivalent" to the original application. That means that it will look and act the same as the originating application. WebMAP2 creates a standard HTML5/CSS UI so you can now take the code and add functionality such as responsive UI. Since layout is controlled by cascading style sheets (CSS) you can immediately make modifications to how the app looks on different form factors.

Q: Does the app support web services, SOA, SaaS?

A: The app is architected for modern platforms (see below for more details). You can take the source code and add functionality to take advantage of web services, SOA and SaaS. An initial service layer is created around all the UI elements. More work is necessary to make it truly SOA. Our migration tools are fully customizable and new mappings can be added.

Q: Please explain the overall architecture

A: The architecture is based on Microsoft MVVM and MVC frameworks:

- As a web application its architecture consists of both a back end (server) and a front end (client).
 The back end architecture is built on top of ASP.NET MVC 4/5 architecture. The front end
 architecture uses a Single Page Architecture structure, and it relies on JavaScript MVVM
 frameworks to provide a clean and maintainable front end layer.
- The application business code is re-architected to remove dependencies from legacy and platform-dependent technologies like Windows Forms.
- View Models are extracted from Forms and user controls. Business logic is modified to use the view models.
- Modern techniques like inversion of control (IoC) containers, which are commonly used in MVC applications, are used for dependency injection.
- ViewModels on the client are kept in sync with the Models on the server automatically so it is transparent for the developer to pass information between the client and server. This is also optimized to send only the "deltas" of information, reducing the bandwidth used by the app.

Q: What are the specific elements of the target platform?

- Backend: Currently we use ASP.NET MVC 4/5 and Unity for IoC. We can use other IoC containers including AutoFact, Ninject and Windsor Castle to suit specific requirements.
- Front End: we use jQuery and the Telerik KendoUI Professional Framework on top of HTML5 and CSS. The client-side scripting is generated using TypeScript.

Q: Can I use another flavor of Javascript/MVVM/HTML framework? Angular, Knockout, Bootstrap?

A: We are currently working on adding Bootstrap support but we don't have availability date yet. Our tools are built with extensibility in mind, so we are able to customize it to use other frameworks.

Q: What about third party controls?

A: Currently, the most common VB6 third party controls are supported and we add more every day. When you run our assessment tool, we can tell you what can and cannot be mapped. Customizations are available to map patterns and controls that are unique to your code.

Q: Do you use EWIs like in the VBUC?

A: Yes. But we use them less frequently than in the VBUC.

Q: How do you estimate the remaining effort after the migration?

A: We use the assessment tool to measure the different PME (properties, methods and events) used by the application and collect some other statistics. We then use that to compare with our tables of currently supported PMEs and features, and we estimate the amount of work to add the missing elements or solve other important challenges detected during assessment. That provides a ballpark number.

Q: Can I convert VB.NET?

A: It is not currently supported in WebMAP2 but our services team can convert VB.NET projects to C# and HTML5.

Q: I want <u>ASP.NET</u> MVC. Is this possible?

A: Yes. That is our base platform. By default though, we use a single-page architecture instead of the more common ASP.NET MVC architecture which has different views per action method. If necessary we could customize our tools and add support for things like dynamic views (with Razor) instead of the static HTML templates that we use as views.

Q: We want to change the application for the new platform. Does it still make sense to migrate?

A: Yes. As migration experts we are already used to that reality and the <u>Migration Blueprint</u> will establish how, when, and how often we will integrate application changes and any other steps.

Q: How do I sell this to the "users"? The migration does not give them any benefit.

A: It definitely gives them benefits. End users get easier installation as well as the major benefit of mobility. They will be able to access the system from their preferred browser and even from their tablet and smartphone.

Q: Can I immediately move the site to the cloud?

A: In most cases all you need to do is just publish to the cloud directly from Visual Studio. Taking advantage of some cloud features such as automatic scalability might require additional work depending on the way your current application was built. A <u>Migration Blueprint</u> will help you understand the effort.

Q: I want to change the login mechanism to use [ASP.Net Auth/OAuth/FB Auth/Google Auth]. Can this be done during the migration?

A: Yes, via our migration services.

Q: Can you generate REST services?

A: This is something we're looking into automating. In the meantime, creating a services layer is a natural follow-on project that is simplified with the improved architecture.

Q: Will the site be as fast as it is now?

A: Yes. The direct output will perform well but will also require some manual tuning to get to optimal performance.

Q: How do you handle access to my [scanner/printer/x-ray machine] once the app is on a web architecture?

A: We have several options here. We can have an OCX/applet or a client app that allows the web app to interact with devices or we can provide a web based solution or in some cases these devices can be connected to a shared server. There are workarounds that vary from app to app.

Q: How do you handle Office APIs or Office integration in my application?

We provide guidance and examples for manually changing your code and we also have services available. If your application uses the office APIs to read and/or write office documents, then you can replace the Office APIs with libraries like:

- Office365
- NPOI
- Open XML Office SDK
- Aspose

We can provide guidance and services if you need more complicated app integration.

Q: If you start from .NET, do you also upgrade the .NET framework?

A: Yes, by default WebMap generates a solution based on ASP.NET MVC5, targeting the .NET Framework 4.5.

Q: The VBUC trial license is for up to 10KLOC but I have 12KLOC. How can I use the trial?

A: We can get you a license for a trial larger than 10KLOC. If your app is a LOT larger than that, we suggest splitting off some code for evaluation purposes. Email info@mobilize.net to get a larger license. If you want to use the VBUC to **analyze** an application larger than the 10K LOC, then you don't need a larger license and you can analyze applications no matter how big they are.

Q: Is there a limit to the number of lines of code that WebMAP2 supports?

A: No. WebMAP2 can handle applications of any size.

Q: Is the analyzer tool limited to apps of 10KLOC or smaller?

A: No, the analysis tool can work on apps of any size.

Q: How many lines of code are in the SKS sample app?

A: About 8700 lines of VB6.

Q: Can WebMAP migrate code related to FTP connections?

A: We change very little of the business logic code and then only to do things like implement IoC. However, if you have code running on the client side that makes sense on Windows but not on HTML running over HTTP then you will have to re-think how to solve that problem. The platforms are fundamentally different and this is where most re-work comes from. In most of the cases though, FTP access is done through a third party library and this library will probably behave the same way once it is moved to a web server.

Q: Can I implement business intelligence (BI) architecture?

A: The tool assists you in migrating existing C#/.NET client server apps to a modern web architecture. These changes do not affect the overall application concepts or data sources. If you have a functional BI architecture running on .NET we can migrate the client side to HTML so you can deploy it on a browser.

Q: Will migrating with this tool affect the performance of my Crystal Reports modules?

A: No.

Q: Can you convert report layouts?

A: No.

Q: How do you handle QA when you do the migration?

A: The goal of the project is a functionally equivalent version of your current application but moved to the new platform and architecture. The standard methodology assumes our clients deliver us a set of test cases along with the application source code of the application. Tests which run on the current app will pass on the new app; however, in the cases where the specific test doesn't map exactly to HTML (for example, the test assumes the app is connected to a local hardware device), new replacement tests must be devised. Our QA department will run whatever test suites you provide.

Q: Can we do our own QA?

A: Certainly. We have to do some basic validation after building the app that it runs, but you can have your own QA department handle most of the work and log bugs in our database. Also, we have different engagement models where we can do basic testing on the application or we can execute the full set of test cases. Your QA team involvement will depend on the engagement model we jointly define for the project.

Q: We want you to do the migration, but corporate security policies prevent the code from leaving our facility. Can you handle this?

A: Yes, we work with this situation frequently. We can put engineers on site at your facility, and also we can use a VPN to access your code on your source control system.

Q: Why does the migrated solution have so many folders/files/stuff?

A: We implement several technologies in order to ensure that you have a well-behaved, performant web application. These include ASP.NET/MVC, JQuery, KendoUI, JSON and more. A great deal of the generated code comes from these frameworks and tools. However, we generate a main web project that follows a very standard ASP.NET MVC structure.

Q: Great, but I'm NOT familiar with all that stuff and I have to maintain this app. Where do I start?

A: We are working with established training organizations to provide you with on-site classroom training for your development team focused on your new application, its architecture, and how to maintain it. Also, whenever we execute one of these projects we add engineering time for on-site training of your team and help you get started with the new technology.

Q: I don't have time to learn all this stuff.

A: We will happily keep your new app current for you. Please contact us at info@mobilize.net for more information.

Q: Can you host my new web app?

A: Yes, we can provide web hosting, laaS, etc. with major cloud vendors so you don't have to worry about hardware, uptime, deployment, or support.