

ATP RTC Bus Services Information System for Windows Smartphones

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Abstract: India is rightly termed as sub-continent for its diversity and heterogeneity. Indian Railways are extensive but can't provide necessary links between the villages and villages to towns and cities. Road Transportation is popular, familiar, cheaper and important transportation system for transporting the passengers and goods. Road Transportation system is only the single powerful factor on which the economic, social and political activities of a nation depend. APSRTC is one of the major transportation for the people in Andhra Pradesh. According to this service, people are able to travel from one place to another place. Lack of appropriate information about buses for transportation, mainly for passengers to travel various places can causing lot of nervousness among the traveller. This system provides the information about all the bus service travel from anantapur through the windows mobile app.

Keywords: Transportation, Roadways, Windows mobile, APSRTC.

I. INTRODUCTION

Buses are an important means of Public Transport in India. Particularly in the countryside and remote areas where the rail network cannot be accessed and airline operations are few or non-existent. Due to this social significance, public bus transport is predominantly owned and operated by public agencies, and most state governments operate bus services through a State Road Transport Corporation.

Andhra Pradesh State Road Transport Corporation (or APSRTC) is the state-owned road transport corporation in the southern Indian state of Andhra Pradesh. The network connects cities, towns and villages in Andhra Pradesh. It was established in 1932 as a unit of Nizam's State Railways - Road Transport Division. Later by the States Reorganisation Act Andhra Pradesh formed with merger of Hyderabad State with Andhra state.

In this system, the information is provided which is related to anantapur district RTC bus service through the windows Smartphone's by using the windows store.

II. LITERATURE SURVEY

The A.P.S.R.T.C is the second largest public sector transport undertaking in the country. Before independence, passenger transport existed in private sector in coastal Andhra and Rayalaseema regions, and in the public sector in Telangana region. In the princely state of Hyderabad, 16 Governments had taken over the responsibility of providing both Rail and Road Transport. Passenger Road Transport was also provided by Nizam State Railway to connect its stations to their hinterlands. In course of time, a separate corporation was set up to handle Road Transport was nationalized in phases and the APSRTC extended its services to all districts.

Windows Phone Store (previously Windows Phone Marketplace) is a digital distribution platform developed by Microsoft for its Windows Phone platform that allows users to browse and download applications that have been

developed by third parties. Like much of the new Windows products.

C# is designed to work with Microsoft's .Net platform. Microsoft's aim is to facilitate the exchange of information and services over the Web, and to enable developers to build highly portable applications. C# simplifies programming through its use of Extensible Mark up Language (XML) and Simple Object Access Protocol (SOAP) which allow access to a programming object or method without requiring the programmer to write additional code for each step. Because programmers can build on existing code, rather than repeatedly duplicating it, C# is expected to make it faster and less expensive to get new products and services to market.

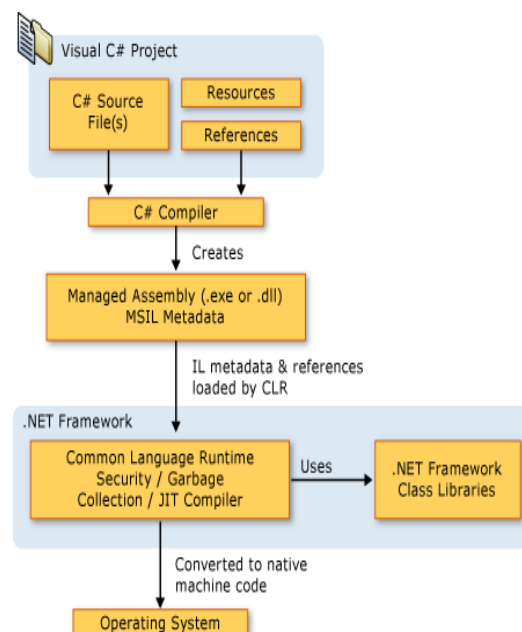


Fig.1 Block diagram of C# project

C# is an elegant and type-safe object-oriented language that enables developers to build a variety of secure and robust applications that run on the .NET Framework. You can use C# to create Windows client applications, XML Web services, distributed components, client-server applications, database applications, and much, much more. Visual C# provides an advanced code editor, convenient user interface designers, integrated debugger, and many other tools to make it easier to develop applications based on the C# language and the .NET Framework.

.NET Framework Platform Architecture

C# programs run on the .NET Framework, an integral component of Windows that includes a virtual execution system called the common language runtime (CLR) and a unified set of class libraries. The CLR is the commercial implementation by Microsoft of the common language infrastructure (CLI), an international standard that is the basis for creating execution and development environments in which languages and libraries work together seamlessly.

Source code written in C# is compiled into an intermediate language (IL) that conforms to the CLI specification. The IL code and resources, such as bitmaps and strings, are stored on disk in an executable file called an assembly, typically with an extension of .exe or .dll. An assembly contains a manifest that provides information about the assembly's types, version, culture, and security requirements.

When the C# program is executed, the assembly is loaded into the CLR, which might take various actions based on the information in the manifest. Then, if the security requirements are met, the CLR performs just in time (JIT) compilation to convert the IL code to native machine instructions. The CLR also provides other services related to automatic garbage collection, exception handling, and resource management. Code that is executed by the CLR is sometimes referred to as "managed code," in contrast to "unmanaged code" which is compiled into native machine language that targets a specific system. The following diagram illustrates the compile-time and run-time relationships of C# source code files, the .NET Framework class libraries, assemblies, and the CLR.

III. PROPOSED SYSTEM

APSRTC is committed to provide consistently high quality of services and to continuously improve the services through a process of teamwork for the utmost satisfaction of the passengers and to attain a position of pre-eminence in the Bus Transport sector. These can develop the Microsoft app by using the C# and XAML.

C# and XAML has been a very popular choice for writing Windows Store apps. It is the choice for apps such as Netflix, Hulu Plus, Fresh Paint, Sky Drive, Ever note Touch, Reader, Alarms, Movie Moments, Maps, OneNote, Lync, and many, many more. It is also the implementation choice for many core experiences in Windows, such as the PC Settings app, the Search app, and new Contact/Calendar functionality in Windows 8.1.

The XAML team has stated that their goal is to be the high fidelity, high performance framework for any scenario. Then why does Microsoft provide so many choices? The idea is to enable you to work with whatever is most comfortable for you, whatever best leverages your existing assets, or whatever most naturally consumes the third-party SDK you must use. Your choice can have other benefits. HTML tends to be the best choice if you need to support your versions of your app on non-Microsoft platforms or a website. XAML is best at interoperability, as it's easy to mix both HTML and DirectX content in a XAML app.

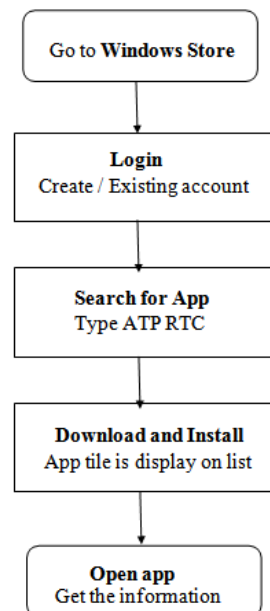


Fig 2. Block diagram to access the windows app

DirectX, the best choice for hardcore games, provides the most potential for getting the highest performance. Common perceptions of performance differences between the UI frameworks are often wrong, however. It's important to realize that no matter which of the three UI frameworks you use, about 80% of their core implementation is identical, the Windows APIs are the same, and the graphics are hardware accelerated. Although DirectX offers the most potential for getting the highest performance, you have to do a lot of work to realize that potential! Often, a C#/XAML implementation can outperform a simple C++/DirectX implementation due to the impressive optimizations that the XAML UI Framework does on your behalf. Not only that, but the XAML UI Framework gives you a number of additional features automatically, such as accessibility and localization. Although your choice of language is generally dictated by your choice of UI Framework, each language has its strengths. JavaScript benefits from a large community that produces interesting libraries. C# has the best features for writing concise asynchronous code, and doesn't have the same multithreading limitations that plague JavaScript. C++ provides the most potential for getting the highest performance.

(Does that line sound familiar?) Of course, you have to earn that performance, and you have to be especially careful with how you mix standard C and C++ code with the C++/CX code that is needed to communicate with Windows.

Submitting to the Windows Store

Once your app is finished, you can submit it to the Windows Store via items on the **Store** menu in Visual Studio Express, or via the **Project, Store** menu in other editions of Visual Studio. The Visual Studio integration works in concert with pages on the Windows Dev Center website to help you complete your submission. Before doing this, however, you have some tasks to complete:

→ **Set up your developer account** at <http://dev.windows.com>, get it verified, and fill out your payout and tax information. This can take a couple of days for an individual account, or a couple of weeks for a business account.

→ **Reserve your app name** with the Windows Store, as it requires each app's name to be unique. You can reserve names at any time, and you have up to a year to submit the app before losing each reservation. You can also reserve additional names for other languages.

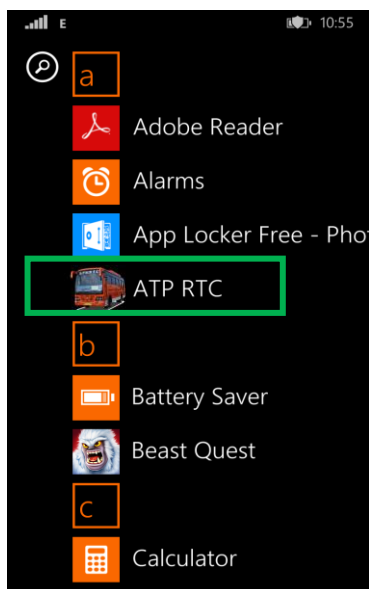


Fig 3.Installed windows app

→ **Download, install, and run the Windows App** from the Windows Dev Center. This tests your app for violations that cause it to fail the Windows Store certification process, so running it in advance can save you a lot of time.

The Windows Store certification process consists of three parts:

→ **Technical checks.** This is simply running the Windows App Certification Kit on your app. If you pass its tests before submitting your app, you should have nothing to worry about here.

→ **Security checks.** This ensures that your software isn't infected with a virus, which again should not be a concern for most developers.

→ **Content checks.** This is the trickiest part of the process and, unlike the other two, is performed manually by human reviewers. Reviewers ensure that the app does what it claims to do and follows all the app certification requirements published in the Windows Dev Center.

The very first certification requirement is that the app "must offer customers unique, creative value or utility," so Hello Real World is bound to fail this requirement. This requirement may be obvious, but there are some requirements that often surprise people and cause many apps to fail certification:

→ If your app requires a network capability, you must write a privacy statement that explains what data you collect, how you store or share it, how users can access the collected data, and so on. Requirement 4.1 in the Windows Dev Center helps you figure out how to write one. Furthermore, a link to the statement must be reachable from the Settings pane for your app, and the same link must be included in your listing in the Windows Store. See Chapter 21, "Supporting Charms," for information about adding content to the Settings pane.

→ You must select an appropriate age rating, using guidelines from the Windows Dev Center. For example, most apps that share personal information must be rated at least 12+. Regardless of your app's rating, its listing for the Windows Store cannot contain content that is considered too mature for a 12+ rating.

→ You must provide descriptions and screenshots for every language you support. If your app is only partially localized for some languages, you must mention this in your listing.

IV. CONCLUSION

This system proposed service information about Anantapur RTC Bus services, which will provide the each and every bus details which is travelling from Anantapur to various places and also shows the distance and travelling time to the user who wants to travel through RTC services. This system provides information according to types of buses for both the cities and villages from the anantapur.

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