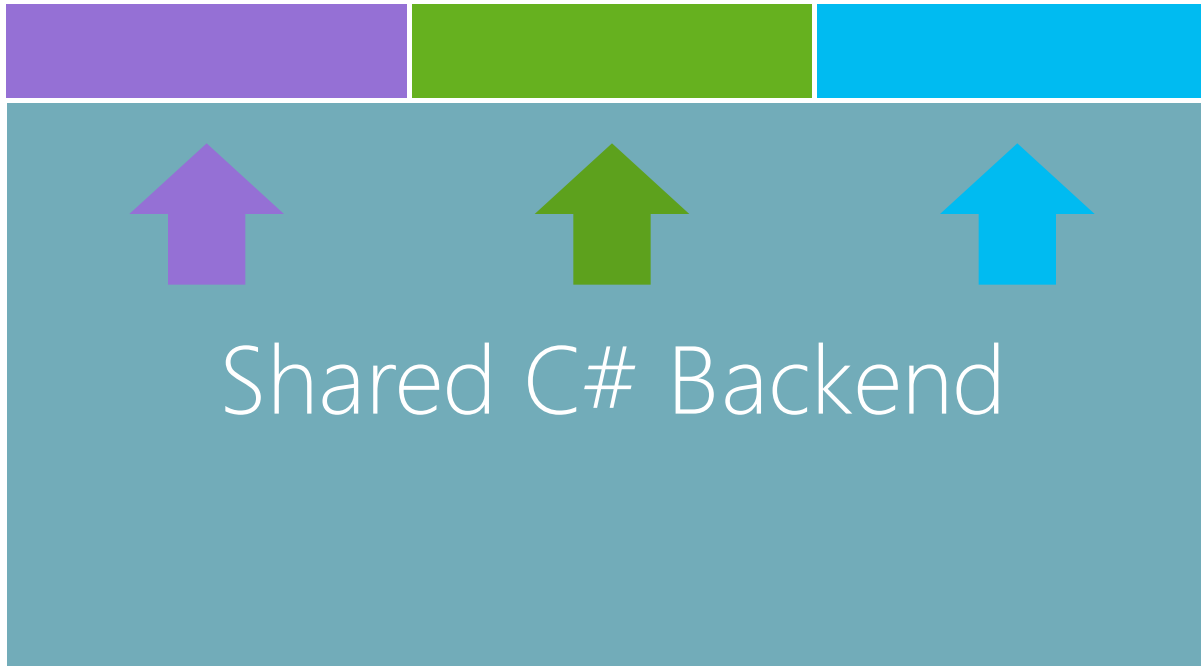
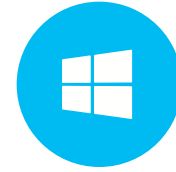


# Xamarin.Forms: Accessing Native Features with the Dependency Service

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@JamesMontemagno





UI+APIs

Battery  
GPS  
Lights  
Notifications  
Settings  
Text To Speech

UI + APIs

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GPS  
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UI + APIs

Battery  
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Text To Speech

Platform  
Specific Code

# Common Interface

ITextToSpeech



```
public interface ITextToSpeech  
{  
    void Speak (string text);  
}
```

# Text To Speech

AVSpeechSynthesizer



```
public void Speak (string text)
{
    var speechSynthesizer = new AVSpeechSynthesizer ();
    var speechUtterance = new AVSpeechUtterance (text)
    {
        Rate = AVSpeechUtterance.MaximumSpeechRate/4,
        Voice = AVSpeechSynthesisVoice.FromLanguage ("en-US"),
        Volume = 0.5f,
        PitchMultiplier = 1.0f
    };
    speechSynthesizer.SpeakUtterance (speechUtterance);
}
```

# Text To Speech

TextToSpeech



```
TextToSpeech speaker;  
string toSpeak;  
public void Speak (string text)  
{  
    toSpeak = text;  
    if (speaker == null)  
    {  
        speaker = new TextToSpeech (ctx, this);  
    }  
    else  
    {  
        var p = new Dictionary<string,string> ();  
        speaker.Speak (toSpeak, QueueMode.Flush, p);  
    }  
}  
public void OnInit (OperationResult status)  
{  
    //... more stuff  
}
```

# Text To Speech

SpeechSynthesizer



```
public async void Speak(string text)
{
    SpeechSynthesizer synth = new SpeechSynthesizer();
    await synth.SpeakTextAsync(text);
}
```

# Export & Use

```
[assembly: Xamarin.Forms.Dependency (typeof (TextToSpeech_iOS))]
```

```
Speak.Clicked += (sender, e) => {  
    DependencyService.Get<ITextToSpeech>().Speak("Hello from Xamarin Forms");  
};
```



Let's do it!

A Better Way



UI+APIs

Battery  
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Text To Speech



UI + APIs

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UI + APIs

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# Platform Specific Code

What if we didn't have to  
write this code?

What if we could access  
it from shared code?

Speak("Hello World");

AVSpeechSynthesizer



TextToSpeech



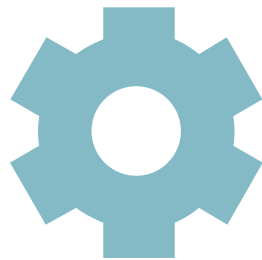
SpeechSynthesizer



# Plugins for Xamarin

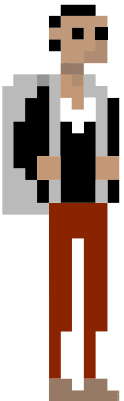
[github.com/xamarin/plugins](https://github.com/xamarin/plugins)

Common API



Let's use a plugin!

# 20 Minute Break



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