

WIN03 – Come integrare le app con Cortana

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Grazie a



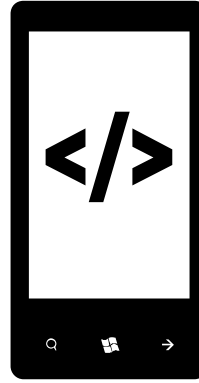
Platinum
Sponsor



Agenda

- Aggiungere Cortana alle app

Come procedere?



- Creare il file Voice Command Definition (VCD)
- Registrare il file VCD
- Gestire l'attivazione vocale

Creazione del VCD



Step 1



Step 2



Step 3

```
<?xml version="1.0" encoding="utf-8"?>
<VoiceCommands xmlns="http://schemas.microsoft.com/voicecommands/1.1">

  <CommandSet xml:lang="en-us" Name="englishCommands">

    <CommandPrefix>MSDN</CommandPrefix>
    <Example>How do I add Voice Commands to my application</Example>

    <Command Name="FindText">
      <Example>Find Install Voice Command Sets</Example>
      <ListenFor>Search</ListenFor>
      <ListenFor>Search for {dictatedSearchTerms}</ListenFor>
      <ListenFor>Find</ListenFor>
      <ListenFor>Find {dictatedSearchTerms}</ListenFor>
      <Feedback>Search on MSDN</Feedback>
      <Navigate Target="MainPage.xaml" />
    </Command>

    <Command Name="nlpCommand">
      <Example>How do I add Voice Commands to my application</Example>
      <ListenFor>{dictatedVoiceCommandText}</ListenFor>
      <Feedback>Starting MSDN...</Feedback>
      <Navigate Target="MainPage.xaml" />
    </Command>

    <PhraseTopic Label="dictatedVoiceCommandText" Scenario="Dictation">
      <Subject>MSDN</Subject>
    </PhraseTopic>

    <PhraseTopic Label="dictatedSearchTerms" Scenario="Search">
      <Subject>MSDN</Subject>
    </PhraseTopic>

  </CommandSet>
</VoiceCommands>
```



Creazione del VCD

```
<?xml version="1.0" encoding="utf-8"?>
<VoiceCommands xmlns="http://schemas.microsoft.com/voicecommands/1.1">
```

```
  <CommandSet xml:lang="en-us" Name="englishCommands">
```

```
    <CommandPrefix>MSDN</CommandPrefix>
```

```
    <Example>How do I add voice commands to my application</Example>
```

```
    <Command Name="FindText">
```

```
      <Example>Find Install Voice Command Sets</Example>
```

```
      <ListenFor>Search</ListenFor>
```

```
      <ListenFor>Search for {dictatedSearchTerms}</ListenFor>
```

```
      <ListenFor>Find</ListenFor>
```

```
      <ListenFor>Find {dictatedSearchTerms}</ListenFor>
```

```
      <Feedback>
```

```
      <Navigate
```

```
    </Command>
```

```
    <Command Name="nlpCommand">
```

```
      <Example>H
```

```
      <ListenFor
```

```
      <Feedback>
```

```
      <Navigate
```

```
    </Command>
```

```
    <PhraseTopic
```

```
      <Subject>M
```

```
    </PhraseTopic>
```

```
    <PhraseTopic Label="dictatedSearchTerms" Scenario="Search">
```

```
      <Subject>MSDN</Subject>
```

```
    </PhraseTopic>
```

```
  </CommandSet>
```

```
</VoiceCommands>
```

<CommandPrefix>MSDN</CommandPrefix>

Command Prefix

- Il nome dell'app o un nome che volete Cortana utilizzi
- Gli utenti possono usare entrambi per attivare l'app



Step 1



Step 2



Step 3



Creazione del VCD

```
<?xml version="1.0" encoding="utf-8"?>
<VoiceCommands xmlns="http://schemas.microsoft.com/voicecommands/1.1">
```

```
  <CommandSet xml:lang="en-us" Name="englishCommands">
```

```
    <CommandPrefix>MSDN</CommandPrefix>
```

```
    <Example>How do I add Voice Commands to my application</Example>
```

```
    <Command Name="FindText">
```

```
      <Example>Find Install Voice Command Sets</Example>
```

```
      <ListenFor>Search</ListenFor>
```

```
      <ListenFor>Search for {dictatedSearchTerms}</ListenFor>
```

```
      <ListenFor>Find</ListenFor>
```

```
      <ListenFor>Find {dictatedSearchTerms}</ListenFor>
```

```
      <Feedback>
```

```
      <Navigate
```

```
    </Command>
```

```
    <Command Name="nlpCommand">
```

```
      <Example>H
```

```
      <ListenFor
```

```
      <Feedback>
```

```
      <Navigate
```

```
    </Command>
```

```
    <PhraseTopic
```

```
      <Subject>M
```

```
    </PhraseTopic>
```

```
    <PhraseTopic Label="dictatedSearchTerms" Scenario="Search">
```

```
      <Subject>MSDN</Subject>
```

```
    </PhraseTopic>
```

```
  </CommandSet>
```

```
</VoiceCommands>
```

<Example>How do I add Voice Commands to my application**</Example>**

Example

- E' quello che l'utente può dire
- Si trova nella schermata "Cosa posso dire?"



Step 1



Step 2



Step 3



Creazione

```
<Command Name="FindText">
  <Example>Find Install Voice Command Sets</Example>
  <ListenFor>Search</ListenFor>
  <ListenFor>Search for {dictatedSearchTerms}</ListenFor>
  <ListenFor>Find</ListenFor>
  <ListenFor>Find {dictatedSearchTerms}</ListenFor>
  <Feedback>Search on MSDN</Feedback>
  <Navigate Target="MainPage.xaml" />
</Command>

<Command Name="nlpCommand">
  <Example>How do I add Voice Commands to my application</Example>
  <ListenFor>{dictatedVoiceCommandText}</ListenFor>
  <Feedback>Starting MSDN...</Feedback>
  <Navigate Target="MainPage.xaml" />
</Command>
```

Command

- Rappresenta l'intento dell'utente
- Contiene...
 - quello che l'utente può dire a Cortana
 - quello che Cortana può dire in risposta
 - quale azione verrà eseguita in risposta

```
<?xml version="1.0" encoding="utf-8" ?>
<VoiceCommands xmlns="http://schemas.microsoft.com/cortana/voicecommands/2014" />
```

```
<CommandSet xmlns="http://schemas.microsoft.com/cortana/voicecommands/2014" />
```

```
<CommandPreference>
  <Example>How do I add voice commands to my application?</Example>
  <ListenFor>{dictatedVoiceCommandText}</ListenFor>
  <Feedback>Starting MSDN...</Feedback>
  <Navigate Target="MainPage.xaml" />
</Command>
```

```
<Command Name="FindText">
  <Example>Find Install Voice Command Sets</Example>
  <ListenFor>Search</ListenFor>
  <ListenFor>Search for {dictatedSearchTerms}</ListenFor>
  <ListenFor>Find</ListenFor>
  <ListenFor>Find {dictatedSearchTerms}</ListenFor>
  <Feedback>Search on MSDN</Feedback>
  <Navigate Target="MainPage.xaml" />
</Command>
```

```
<Command Name="nlpCommand">
  <Example>How do I add voice commands to my application?</Example>
  <ListenFor>{dictatedVoiceCommandText}</ListenFor>
  <Feedback>Starting MSDN...</Feedback>
  <Navigate Target="MainPage.xaml" />
</Command>
```

```
<PhraseTopic>
  <Subject>Microsoft</Subject>
</PhraseTopic>
```

```
<PhraseTopic>
  <Subject>Microsoft</Subject>
</PhraseTopic>
```

```
</CommandSet>
```

```
</VoiceCommands>
```



Step 1



Step 2



Step 3



Creazione del VCD

```
<?xml version="1.0" encoding="utf-8"?>
<VoiceCommands xmlns="http://schemas.microsoft.com/voicecommands/1.1">
```

```
  <CommandSet xml:lang="en-us" Name="englishCommands">
```

```
    <CommandPrefix>MSDN</CommandPrefix>
```

```
    <Example>How do I add Voice Commands to my application</Example>
```

```
    <Command Name="FindText">
```

```
      <Example>Find Install Voice Command Sets</Example>
```

```
      <ListenFor>Search</ListenFor>
```

```
      <ListenFor>Search for {dictatedSearchTerms}</ListenFor>
```

```
      <ListenFor>Find</ListenFor>
```

```
      <ListenFor>Find {dictatedSearchTerms}</ListenFor>
```

```
      <Feedback>
```

```
      <Navigate
```

```
    </Command>
```

```
    <Command Name="nlpCommand">
```

```
      <Example>H
```

```
      <ListenFor
```

```
      <Feedback>
```

```
      <Navigate
```

```
    </Command>
```

```
    <PhraseTopic
```

```
      <Subject>M
```

```
    </PhraseTopic>
```

```
    <PhraseTopic Label="dictatedSearchTerms" Scenario="Search">
```

```
      <Subject>MSDN</Subject>
```

```
    </PhraseTopic>
```

```
  </CommandSet>
```

```
</VoiceCommands>
```

<Example>Find Install Voice Command Sets</Example>

Example

- E' quello che l'utente può dire
- Si trova nella schermata "Cosa posso dire?"



Step 1



Step 2



Step 3



Creazione del VCD

```
<?xml version="1.0" encoding="utf-8"?>
<VoiceCommands xmlns="http://schemas.microsoft.com/voicecommands/1.1">
```

```
  <CommandSet xml:lang="en-us" Name="englishCommands">
```

```
    <CommandPrefix>MSDN</CommandPrefix>
```

```
    <Example>How do I add Voice Commands to my application</Example>
```

```
    <Command Name="FindText">
```

```
      <Example>F
```

```
      <ListenFor>
```

```
      <ListenFor>
```

```
      <ListenFor>
```

```
      <ListenFor>
```

```
      <Feedback>
```

```
      <Navigate
```

```
    </Command>
```

```
    <Command Name="nlpCommand">
```

```
      <Example>H
```

```
      <ListenFor>
```

```
      <Feedback>
```

```
      <Navigate
```

```
    </Command>
```

```
    <PhraseTopic
```

```
      <Subject>M
```

```
    </PhraseTopic>
```

```
    <PhraseTopic Label="dictatedSearchTerms" Scenario="Search">
```

```
      <Subject>MSDN</Subject>
```

```
    </PhraseTopic>
```

```
  </CommandSet>
```

```
</VoiceCommands>
```

```
<ListenFor>Search</ListenFor>
<ListenFor>Search for {dictatedSearchTerms}</ListenFor>
<ListenFor>Find</ListenFor>
<ListenFor>Find {dictatedSearchTerms}</ListenFor>
```

ListenFor

- Una o più frasi
- Le frasi possono contenere degli "slot"
- Questi "slot" possono essere Phrase List o Phrase Topic



Step 1



Step 2



Step 3



Creazione del VCD

```
<?xml version="1.0" encoding="utf-8"?>
<VoiceCommands xmlns="http://schemas.microsoft.com/voicecommands/1.1">
```

```
  <CommandSet xml:lang="en-us" Name="englishCommands">
```

```
    <CommandPrefix>MSDN</CommandPrefix>
```

```
    <Example>How do I add Voice Commands to my application</Example>
```

```
    <Command Name="FindText">
```

```
      <Example>Find Install Voice Command Sets</Example>
```

```
      <ListenFor>Search</ListenFor>
```

```
      <ListenFor>Search for {dictatedSearchTerms}</ListenFor>
```

```
      <ListenFor>Find</ListenFor>
```

```
      <ListenFor>Find {dictatedSearchTerms}</ListenFor>
```

```
      <Feedback>
```

```
        <Navigate
```

```
      </Command>
```

```
    <Command Name="nlpCommand">
```

```
      <Example>H
```

```
      <ListenFor
```

```
      <Feedback>
```

```
      <Navigate
```

```
    </Command>
```

```
    <PhraseTopic
```

```
      <Subject>M
```

```
    </PhraseTopic>
```

```
    <PhraseTopic Label="dictatedSearchTerms" Scenario="Search">
```

```
      <Subject>MSDN</Subject>
```

```
    </PhraseTopic>
```

```
  </CommandSet>
```

```
</VoiceCommands>
```

<Feedback>Search on MSDN</Feedback>

Feedback

- La risposta che Cortana darà quando il comando sarà riconosciuto e prima che l'app venga lanciata
- Può contenere riferimenti a "slot", es.: "Cerca {dictatedSearchTerms} su MSDN"



Step 1



Step 2



Step 3



Creazione del VCD

```
<?xml version="1.0" encoding="utf-8"?>
<VoiceCommands xmlns="http://schemas.microsoft.com/voicecommands/1.1">
```

```
  <CommandSet xml:lang="en-us" Name="englishCommands">
```

```
    <CommandPrefix>MSDN</CommandPrefix>
```

```
    <Example>How do I add Voice Commands to my application</Example>
```

```
    <Command Name="FindText">
```

```
      <Example>Find Install Voice Command Sets</Example>
```

```
      <ListenFor>Search</ListenFor>
```

```
      <ListenFor>Search for {dictatedSearchTerms}</ListenFor>
```

```
      <ListenFor>Find</ListenFor>
```

```
      <ListenFor>Find {dictatedSearchTerms}</ListenFor>
```

```
      <Feedback>
```

```
      <Navigate
```

```
    </Command>
```

```
  <Command Name="nlpCommand">
```

```
    <Example>H
```

```
    <ListenFor>
```

```
    <Feedback>
```

```
    <Navigate
```

```
  </Command>
```

```
  <PhraseTopic
```

```
    <Subject>M
```

```
  </PhraseTopic>
```

```
  <PhraseTopic Label="dictatedSearchTerms" Scenario="Search">
```

```
    <Subject>MSDN</Subject>
```

```
  </PhraseTopic>
```

```
</CommandSet>
```

```
</VoiceCommands>
```

```
<Navigate Target="MainPage.xaml" />
```

Navigate

- L'azione da eseguire
- Richiesto solamente per le applicazioni Silverlight



Step 1



Step 2



Step 3



Creazione del VCD

```
<?xml version="1.0" encoding="utf-8"?>
<VoiceCommands xmlns="http://schemas.microsoft.com/voicecommands/1.1">
```

```
  <CommandSet xml:lang="en-us" Name="englishCommands">
```

```
    <CommandPref
    <Example>How
```

```
  <Command Nam
  <Example>F
```

```
    <ListenFor
    <ListenFor
    <ListenFor
    <Feedback>
    <Navigate
  </Command>
```

```
  <Command Name="nlpCommand">
    <Example>H
    <ListenFor
    <Feedback>
    <Navigate
  </Command>
```

```
    <PhraseTopic
    <Subject>M
  </PhraseTopic>
```

```
    <PhraseTopic Label="dictatedSearchTerms" Scenario="Search">
    <Subject>MSDN</Subject>
  </PhraseTopic>
```

```
  </CommandSet>
```

```
</VoiceCommands>
```

```
<PhraseTopic Label="dictatedVoiceCommandText" Scenario="Dictation">
  <Subject>MSDN</Subject>
</PhraseTopic>
```

```
<PhraseList Label="dictatedSearchTerms" Scenario="Search">
  <Subject>Cortana</Subject>
  <Subject>Voice commands</Subject>
</PhraseList>
```

Phrase Topic

- Suggerimenti per migliorare il riconoscimento
- Riconosciuto nel cloud, non nel device
- Aumenta significativamente il riconoscimento vocale (35% in meno di errori)



Step 1



Step 2



Step 3

Voice Command Phrase Topics

Windows Phone 8.0

```
<CommandSet xml:lang="en-us" Name="englishCommands">

  <CommandPrefix>MSDN</CommandPrefix>
  <Example>Find Voice Commands</Example>

  <Command Name="FindText">
    <Example>Find Windows Phone</Example>
    <ListenFor>Search</ListenFor>
    <ListenFor>Search {*}</ListenFor>
    <ListenFor>Search for {listSearchTerms}</ListenFor>
    <ListenFor>Find</ListenFor>
    <ListenFor>Find {*}</ListenFor>
    <ListenFor>Find {listSearchTerms}</ListenFor>
    <Feedback>Search on MSDN</Feedback>
    <Navigate Target="MainPage.xaml" />
  </Command>

  <PhraseList Label="listSearchTerms" Disambiguate="false">
    <Item>Voice Commands</Item>
    <Item>Windows Phone</Item>
  </PhraseList>

</CommandSet>
```

Semplice. Poco accurato.

Windows Phone 8.1

```
<CommandSet xml:lang="en-us" Name="englishCommands">

  <CommandPrefix>MSDN</CommandPrefix>
  <Example>How do I add Voice Commands to my application</Example>

  <Command Name="FindText">
    <Example>Find Install Voice Command Sets</Example>
    <ListenFor>Search</ListenFor>
    <ListenFor>Search for {dictatedSearchTerms}</ListenFor>
    <ListenFor>Find</ListenFor>
    <ListenFor>Find {dictatedSearchTerms}</ListenFor>
    <Feedback>Search on MSDN</Feedback>
    <Navigate Target="MainPage.xaml" />
  </Command>

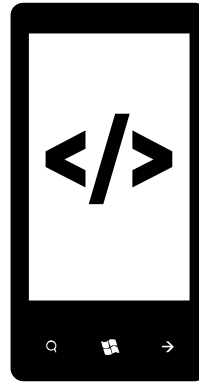
  <PhraseTopic Label="dictatedSearchTerms" Scenario="Search">
    <Subject>MSDN</Subject>
  </PhraseTopic>

</CommandSet>
```

Potente. Più accurato. Consente NLP.



Come procedere?



- Creare il file Voice Command Definition (VCD)
- Registrare il file VCD
- Gestire l'attivazione vocale

Registrazione del VCD

JavaScript

```
function registerVoiceCommands() {  
    var sf = Windows.Storage.StorageFile;  
    var vcm = Windows.Media.SpeechRecognition.VoiceCommandManager;  
    sf.getFileFromApplicationUriAsync(new Windows.Foundation.Uri("ms-appx:///vcd.xml"))  
        .then(function(file) {  
            vcm.installCommandSetsFromStorageFileAsync(file);  
        });  
}
```

C#

```
private async void RegisterVoiceCommands()  
{  
    Uri uriVoiceCommands = new Uri("ms-appx:///vcd.xml", UriKind.Absolute);  
    StorageFile file = await StorageFile.GetFileFromApplicationUriAsync(uriVoiceCommands);  
    await VoiceCommandManager.InstallCommandSetsFromStorageFileAsync(file);  
}
```



Step 1



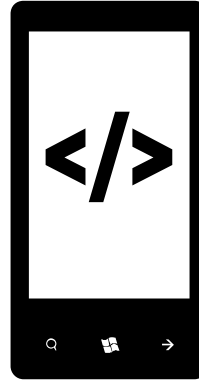
Step 2



Step 3



Come procedere?



- Creare il file Voice Command Definition (VCD)
- Registrare il file VCD
- Gestire l'attivazione vocale

Attivazione vocale



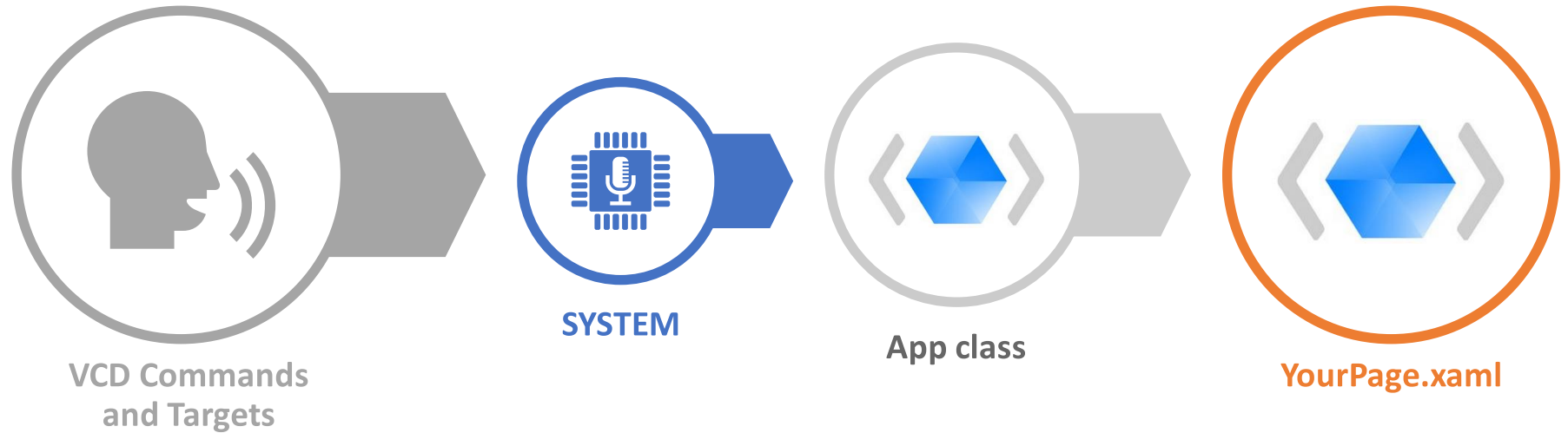
Step 1



Step 2



Step 3



- 1 Il sistema notifica la classe App specificando quale comando è stato usato
- 2 Il codice nella classe App avvia la navigazione alla pagina scelta
- 3 Il codice nella pagina eseguirà le azioni in base ai comandi ricevuti

Attivazione vocale



Step 1



Step 2



Step 3

```
// Windows Runtime App on Windows Phone 8.1, inside OnActivated override in App class
```

```
if (args.Kind == ActivationKind.VoiceCommand)
{
    VoiceCommandActivatedEventArgs vcArgs = (VoiceCommandActivatedEventArgs)args;

    string voiceCommandName = vcArgs.Result.RulePath.First(); // What command launched the app?

    switch (voiceCommandName) // Navigate to right page for the voice command
    {
        case "FindText": // User said "find" or "search"
            rootFrame.Navigate(typeof(MSDN.FindText), vcArgs.Result);
            break;

        case "nlpCommand": // User said something else
            rootFrame.Navigate(typeof(MSDN.NlpCommand), vcArgs.Result);
            break;
    }
}
```



Attivazione vocale

```
// Windows Runtime App on Windows Phone 8.1, inside OnActivated override in App class
```

```
if (args.Kind == ActivationKind.VoiceCommand)
{
```

```
    VoiceCom
```

```
    string v
```

```
    switch (
```

```
    {
```

```
        case "FindText": // User said "find" or "search"
```

1. In una Windows Runtime app, puoi decidere quale pagina lanciare dal metodo OnActivated
2. args.Kind ci dice se l'app è stata lanciata dai comandi vocali

```
        case "NlpCommand": // User said something else
```

```
            rootFrame.Navigate(typeof(MSDN.NlpCommand), vcArgs.Result);
```

```
            break;
```

```
    }
```

```
}
```



Step 1



Step 2



Step 3



Attivazione vocale

// Windows Runtime App on Windows Phone 8.1, inside OnActivated override in App class

```
if  
{  
    VoiceCommandActivatedEventArgs vcArgs = (VoiceCommandActivatedEventArgs)args;  
  
    // What command launched the app?  
    string voiceCommandName = vcArgs.Result.RulePath.First();  
  
    // Navigate to right page for the voice command  
    switch (voiceCommandName)
```

1. Se lanciata dai comandi vocali, args è un oggetto di tipo VoiceCommandActivatedEventArgs
2. Contiene un oggetto di tipo SpeechRecognitionResult
3. Il “voiceCommandName” ci serve per capire quale pagina lanciare

```
        rootFrame.Navigate(typeof(MSDN.NlpCommand), vcArgs.Result);  
        break;  
    }  
}
```



Step 1



Step 2



Step 3



Attivazione vocale

```
// Navigate to right page for the voice command
switch (voiceCommandName)
{
    case "FindText": // User said "find" or "search"
        rootFrame.Navigate(typeof(MSDN.FindText), vcArgs.Result);
        break;

    case "nlpCommand": // User said something else
        rootFrame.Navigate(typeof(MSDN.NlpCommand), vcArgs.Result);
        break;
}
```

Passiamo il comando direttamente alla nuova pagina, così che possa essere elaborato

```
case "nlpCommand": // User said something else
    rootFrame.Navigate(typeof(MSDN.NlpCommand), vcArgs.Result);
    break;
}
```

// Windows F

```
if (args.Kir
{
    VoiceCom
```

VoiceCom

string v

```
switch (
{
    case
```

case

}



Step 1



Step 2



Step 3



Attivazione vocale



Step 1



Step 2



Step 3

```
// Windows Runtime App on Windows Phone 8.1, inside OnNavigatedTo in FindText.xaml.cs
protected override void OnNavigatedTo(NavigationEventArgs e)
{
    // Get recognition result from parameter passed in frame.Navigate call
    SpeechRecognitionResult vcResult = e.Parameter as SpeechRecognitionResult;

    if (vcResult != null)
    {
        // What did the user say? e.g. MSDN, "Find Windows Phone Voice Commands"
        string recoText = vcResult.Text;

        // Store the semantics dictionary for later use
        IReadOnlyDictionary<string, IReadOnlyList<string>> semantics = vcResult.SemanticInterpretation.Properties;

        string voiceCommandName = vcResult.RulePath.First();

        if (voiceCommandName == "FindText")
        {
            // What did the user say, for named phrase topic or list "slots"? e.g. "Windows Phone Voice Commands"
            if (semantics.ContainsKey("dictatedSearchTerms"))
            {
                HandleFindTextWithSearchTerms(semantics["dictatedSearchTerms"][0]);
            }
            else
            {
                HandleNoSearchTerms();
            }
        }
        // Else handle other voice commands
    }
    navigationHelper.OnNavigatedTo(e)
}
```



Attivazione

```
// Windows Runtime App on Windows Phone 8.1, inside
// OnNavigatedTo in FindText.xaml.cs
protected override void OnNavigatedTo(NavigationEventArgs e)
{
    // Get recognition result from parameter passed in frame.Navigate call
    SpeechRecognitionResult vcResult = e.Parameter as SpeechRecognitionResult;

    if (vcResult != null)
    {
        // What did the user say? e.g. MSDN, "Find Windows Phone Voice Commands"
        string recoText = vcResult.Text;

        // Store the semantics dictionary for later use
        IReadOnlyDictionary<string, IReadOnlyList<string>> semantics =
            vcResult.SemanticInterpretation.Properties;

        string voiceCommandName = vcResult.RulePath.First();
    }
}
```

Che cosa fare nell'OnNavigatedTo

1. Prendere l'oggetto SpeechRecognitionResult passato
2. Recuperare altri parametri che arrivano dall'oggetto

```
if (voiceCommandName == "FindText")
{
    // ...
    if
    {
        // ...
    }
    else
    {
        HandleNoSearchTerms();
    }
}
// Else handle other voice commands
} navigationHelper.OnNavigatedTo(e)
}
```



Step 1



Step 2



Step 3



Attivazione vocale



Step 1



Step 2



Step 3

```
// Windows Runtime
protected override
{
    // Get recognized speech
    SpeechRecognition

    if (vcResult != null)
    {
        // What did the user say, for named phrase topic or list "slots"?
        // e.g. "Windows Phone Voice Commands"
        if (semantics.ContainsKey("dictatedSearchTerms"))
        {
            HandleFindTextWithSearchTerms(semantics["dictatedSearchTerms"][0]);
        }
        else
        {
            HandleNoSearchTerms();
        }
    }
}
```

```
if (voiceCommandName == "FindText")
{
    // What did the user say, for named phrase topic or list "slots"?
    // e.g. "Windows Phone Voice Commands"
    if (semantics.ContainsKey("dictatedSearchTerms"))
    {
        HandleFindTextWithSearchTerms(semantics["dictatedSearchTerms"][0]);
    }
    else
    {
        HandleNoSearchTerms();
    }
}
```

Cerca nel PhraseTopic la label "dictatedSearchTerms" per capire se l'utente ha detto, ad esempio, "Find 'articles about regular expressions'".

Dobbiamo gestire anche il caso in cui non ci siano parametri e l'utente abbia detto solo "Find".

```
// Else handle other voice commands
} navigationHelper.OnNavigatedTo(e)
}
```



Attivazione vocale



Step 1



Step 2



Step 3

```
// Windows Runtime App on Windows Phone 8.1, inside OnNavigatedTo in NlpCommand.xaml.cs
protected override void OnNavigatedTo(NavigationEventArgs e)
{
    base.OnNavigatedTo(e);

    // Get recognition result from parameter passed in frame.Navigate call
    SpeechRecognitionResult vcResult = e.Parameter as SpeechRecognitionResult;
    // Check for null!

    string commandMode = vcResult.SemanticInterpretation.Properties["commandMode"][0];

    if (commandMode == "voice") // Did the user speak or type the command?
    {
        SpeakText(audioPlayer, String.Format("MSDN app heard you say {0}", vcResult.Text));

        HandleNlpCommand(vcResult);
    }
    else if (commandMode == "text")
    {
        messageTextBox.Text = string.Format("Working on your request \"{0}\"", vcResult.Text);

        HandleNlpCommand(vcResult);
    }
}
```



Attivazione vocale



Step 1



Step 2



Step 3

```
// Windows Runtime App on Windows Phone 8.1, inside OnNavigatedTo In NlpCommand.xaml.cs
```

```
protected
```

```
{
```

```
bas
```

```
//
```

```
Spe
```

```
//
```

```
str
```

```
if
```

```
{
```

```
}
```

```
}  
els
```

```
{
```

```
messageTextBox.Text = string.Format("Working on your request \"{0}\"", vcResult.Text);
```

```
HandleNlpCommand(vcResult);
```

```
}
```

```
}
```

```
// Windows Runtime App on Windows Phone 8.1, in OnNavigatedTo in NlpCommand.xaml.cs
```

```
protected override void OnNavigatedTo(NavigationEventArgs e)
```

```
{
```

```
// Get recognition result from parameter passed in frame.Navigate call
```

```
SpeechRecognitionResult vcResult = e.Parameter as SpeechRecognitionResult;
```

```
string commandMode = vcResult.SemanticInterpretation.Properties["commandMode"][0];
```

In questo esempio, l'utente ha detto (o scritto) il nome dell'app e un comando che non è "Find" o "Search"

La pagina NlpCommand.xaml.cs è stata lanciata dalla classe App

Recupero il "commandMode" dall'oggetto di tipo SpeechRecognitionResult

```
messageTextBox.Text = string.Format("Working on your request \"{0}\"", vcResult.Text);
```

```
HandleNlpCommand(vcResult);
```

```
}
```

```
}
```



Attivazio

```
string commandMode = vcResult.SemanticInterpretation.Properties["commandMode"][0];

if (commandMode == "voice") // Did the user speak or type the command?
{
    SpeakText(audioPlayer, String.Format("MSDN voice heard you say {0}", vcResult.Text));

    HandleNlpCommand(vcResult);
}
else if(commandMode=="text")
{
    msgTextBox.Text= string.Format("Working on your request \"{0}\"", vcResult.Text);

    HandleNlpCommand(vcResult);
}
```

L'utente ha parlato o ha scritto il comando?

Attraverso la proprietà "commandMode" possiamo decidere come rispondere all'utente

```
else if(commandMode=="text")
{
    messageTextBox.Text = string.Format("Working on your request \"{0}\"", vcResult.Text);
    HandleNlpCommand(vcResult);
}
```



Step 1



Step 2



Step 3



Lingue supportate

- Cinese (PRC, HK, TW)
- Inglese (US, GB, India)
- Francese
- Tedesco
- Italiano
- Coreano (solo Windows 8.1)
- Polacco
- Portoghese
- Russo
- Spagnolo (Spagna, Messico)
- Giapponese

Per maggiori informazioni sulle feature e disponibilità:

<http://www.windowsphone.com/en-US/how-to/wp8/basics/feature-and-service-availability>

Lingue supportate



Step 1



Step 2



Step 3

```
<?xml version="1.0" encoding="utf-8"?>
<VoiceCommands xmlns="http://schemas.microsoft.com/voicecommands/1.1">
```

```
  <CommandSet xml:lang="en-us" Name="englishCommands">

    <CommandPrefix>MSDN</CommandPrefix>
    <Example>How do I add Voice Commands to my application</Example>

    <Command Name="FindText">
      <Example>Find Install Voice Command Sets</Example>
      <ListenFor>Find</ListenFor>
      <ListenFor>Find {dictatedSearchTerms}</ListenFor>
      <Feedback>Search on MSDN</Feedback>
    </Command>

    <PhraseTopic Label="dictatedSearchTerms" Scenario="Search">
      <Subject>MSDN</Subject>
    </PhraseTopic>

  </CommandSet>

  <CommandSet xml:lang="fr-fr" Name="frenchCommands">

    ...

  </CommandSet>
```

```
</VoiceCommands>
```



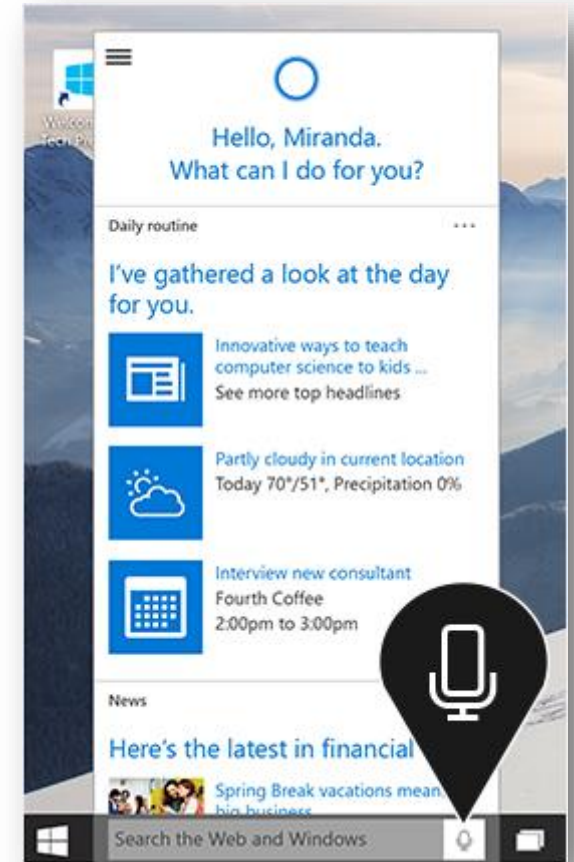
demo

Integrazione di Cortana

What's next...?

- Cortana sarà disponibile su tutti i device con Windows 10 (desktop, tablet, e phone)
- Nuovo modello ad eventi e interfaccia
- App sono in grado di registrarsi per gestire dei Task di Cortana
- Comandi vocali per applicazioni Web-Hosted

Altro...? 😊



Recap

- Creare un file VCD e localizzarlo nelle diverse lingue
- Registrare il file VCD
- Gestire l'attivazione dell'app
- Sample e documentazione
 - <https://msdn.microsoft.com/en-us/library/dn630430.aspx>

Q&A

Tutto il materiale di questa sessione su
<http://www.communitydays.it/>

Lascia subito il feedback su questa sessione,
potrai essere estratto per i nostri premi!

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