Meanwhile in the Background…

András Velvárt

@vbandi | http://vbandi.dotneteers.net

pluralsight

Module Overview

- Background Tasks
- Updating Live Tiles
- Displaying a Notification
- Cortana

pluralsight

Background Tasks

- Lightweight classes that the OS runs in the background
- Class implements Windows.ApplicationModel.Background.IBackgroundTask
- Registered using BackgroundTaskBuilder

pluralsight

Background Task Triggers

- Timer,
- App,
- Internet / network changes,
- SMS,
- Time zone change,
- User presence,
- Battery Status,
- Etc.

pluralsight

Limitations

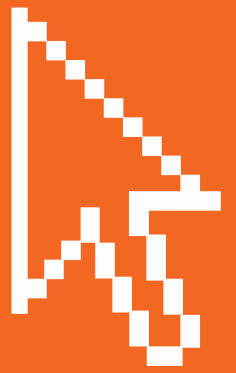
- Because of battery and performance reasons

	CPU Usage quota	Refresh time
not on lock screen	1 second	2 hours
on the lock screen	2 seconds	15 minutes

- Limitations on memory usage and network traffic

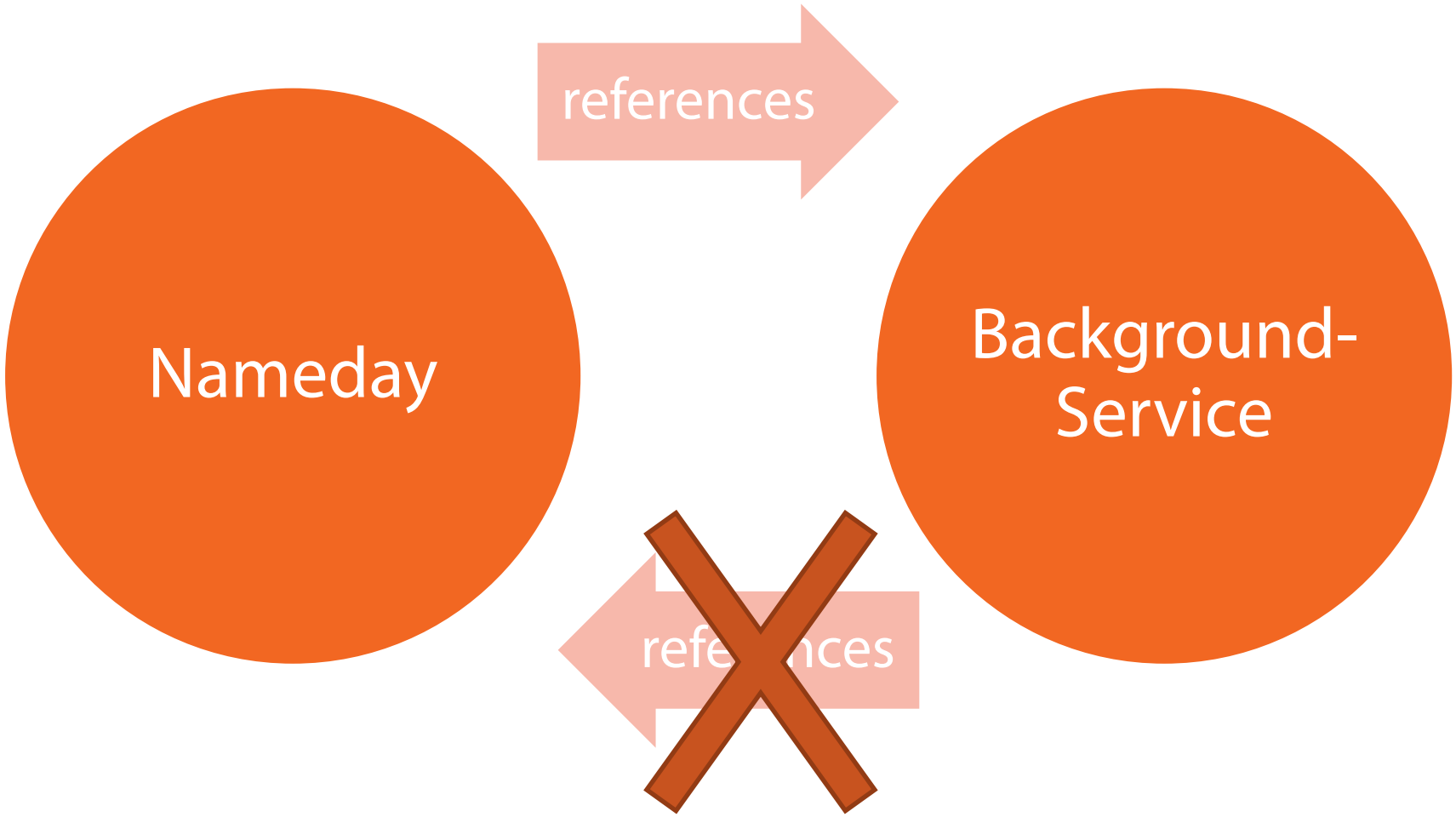
pluralsight

Registering a Background Task



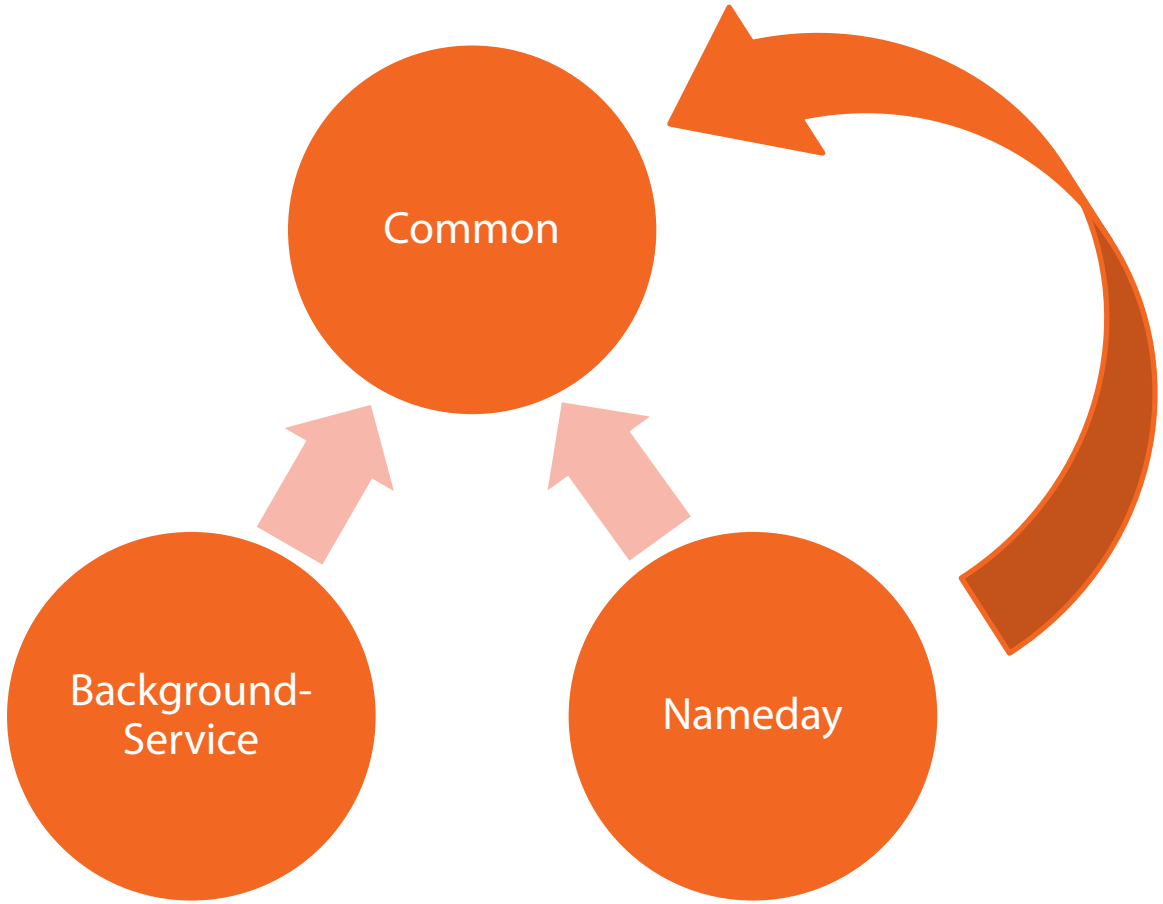
pluralsight

Hmmm…



pluralsight

Refactoring the Project



NamedayModel

NamedayRepository

Settings

ObservableObject

pluralsight

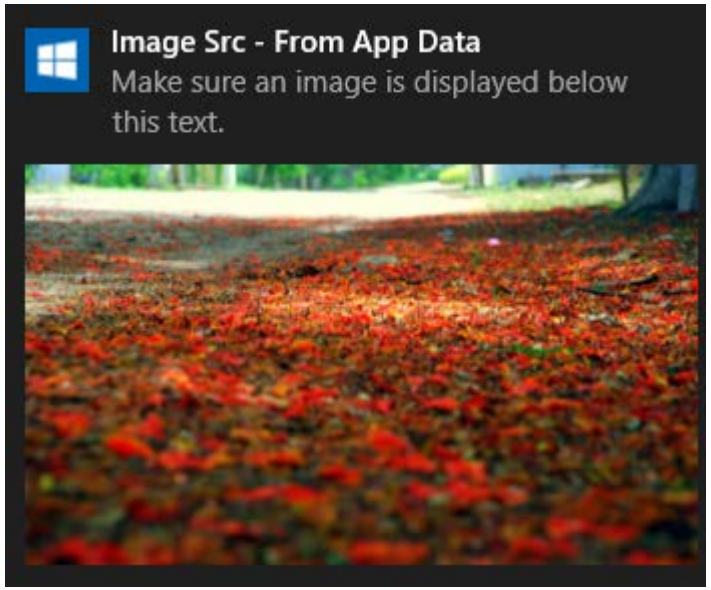
Refactoring the Project

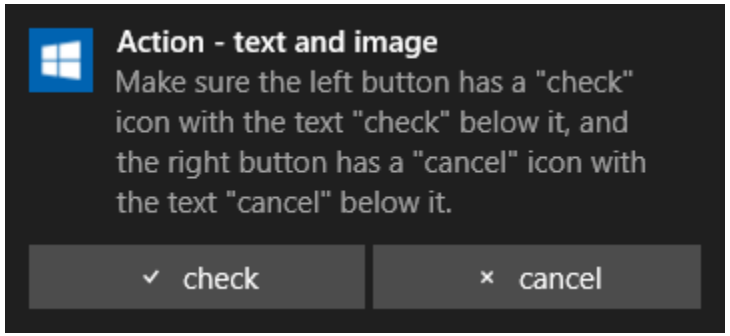
pluralsight

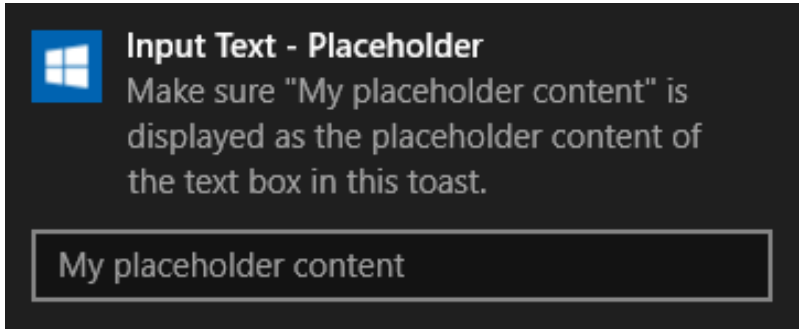
Implementing Notifications

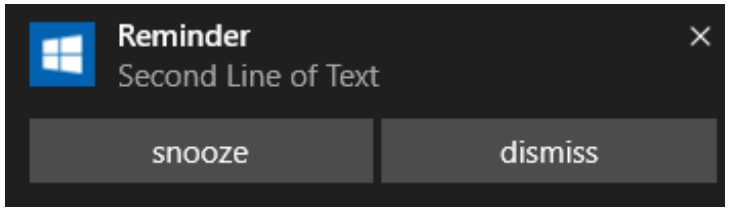
pluralsight

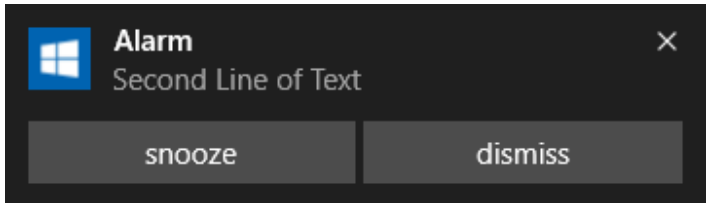
Just a Few Types of Toast Notifications

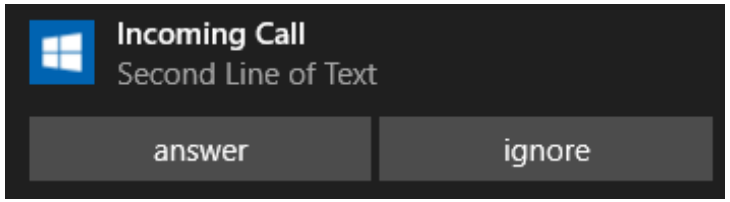










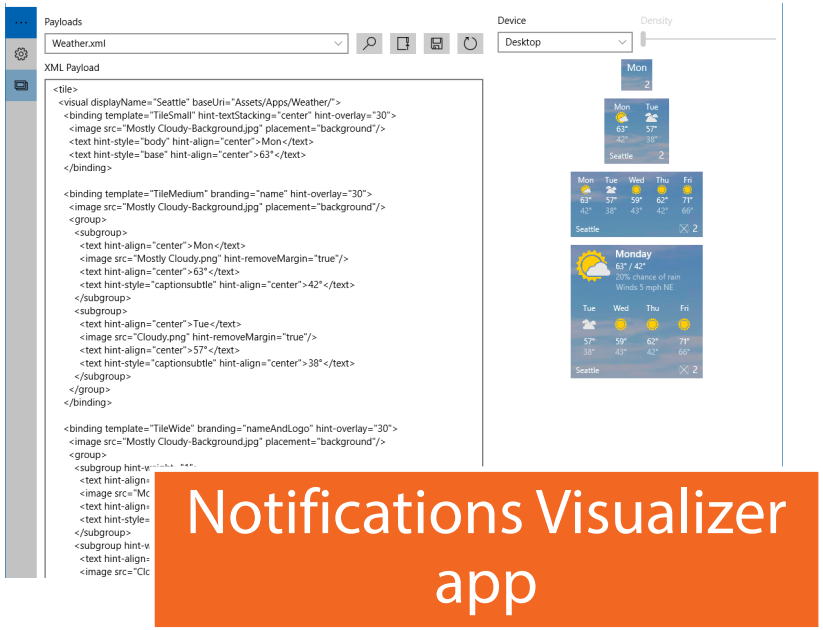


pluralsight

Live Tiles

pluralsight

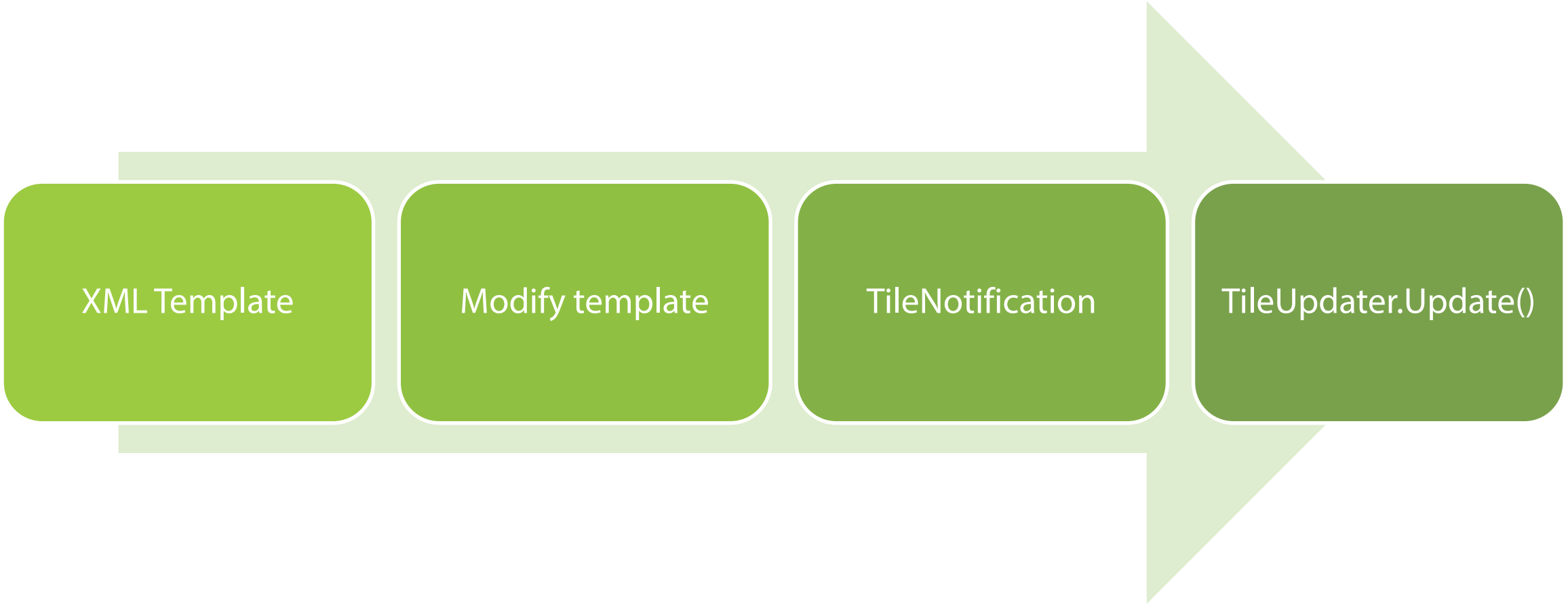
Live Tile Templates



Notifications Visualizer app

pluralsight

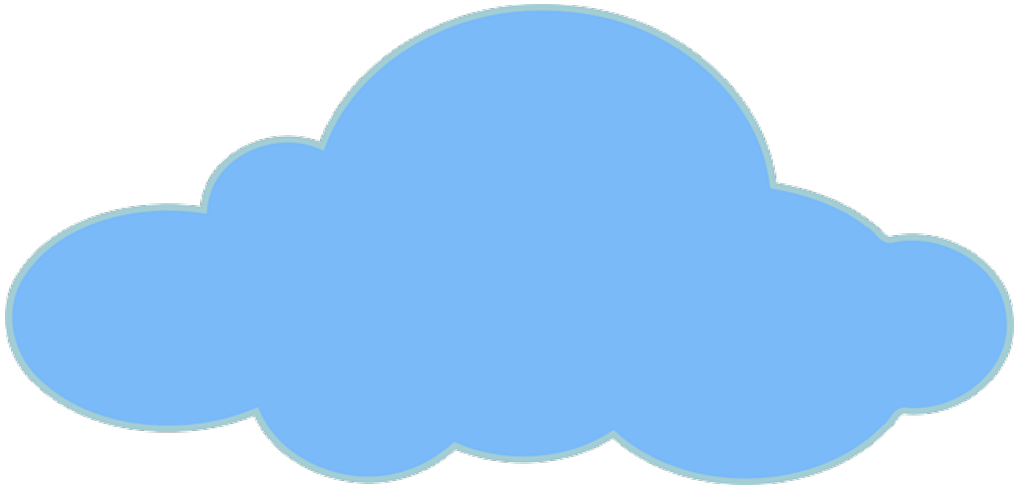
The Live Tile Process

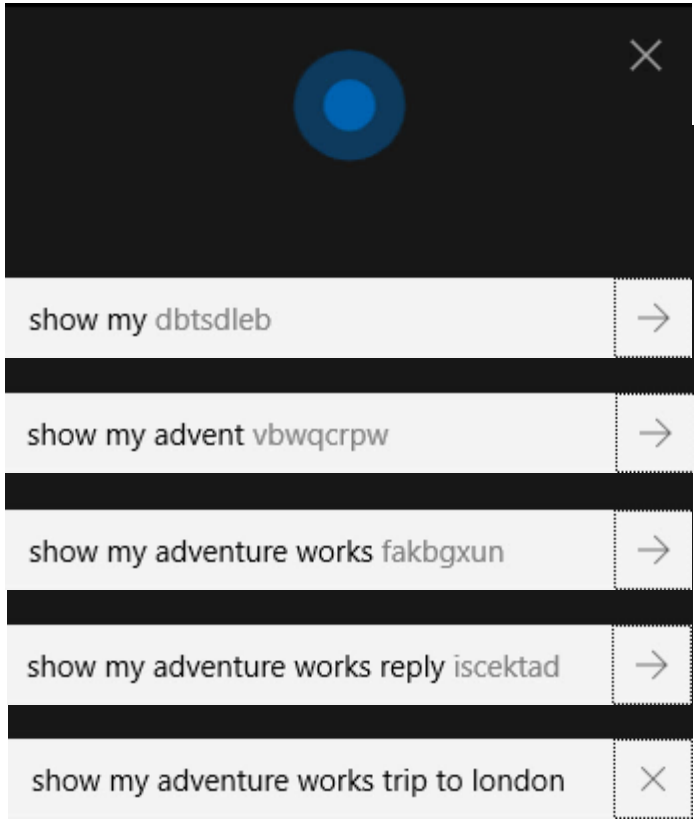


pluralsight

Hi, I'm Cortana.

How Does Cortana Work?





pluralsight

How Does Cortana Work?

+

pluralsight

The Voice Command Definition File

```
2  <VoiceCommands xmlns="http://schemas.microsoft.com/voicecommands/1.2">
3    <CommandSet xml:lang="en-us" Name="AdventureWorksCommandSet_en-us">
4      <CommandPrefix> Adventure Works, </CommandPrefix>
5      <Example> Show trip to London </Example>
6
27     <Command Name="cancelTripToDestination">
28       <Example> Cancel my trip to Las Vegas </Example>
29       <ListenFor RequireAppName="BeforeOrAfterPhrase">
30         cancel [my] trip to {destination}
31       </ListenFor>
32       <ListenFor RequireAppName="ExplicitlySpecified">
33         cancel [my] {builtin:AppName} trip to {destination}
34       </ListenFor>
35       <Feedback> Cancelling trip to {destination}</Feedback>
36     <VoiceCommandService Target="AdventureWorksVoiceCommandService"/>
37     </Command>
```

pluralsight

The Voice Command Definition File

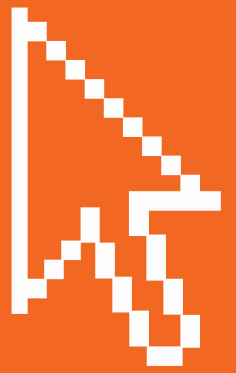
```
32        <ListenFor RequireAppName="ExplicitlySpecified">
33          cancel [my] {builtin:AppName} trip to {destination}
34        </ListenFor>
35        <Feedback> Cancelling trip to {destination}</Feedback>
36      <VoiceCommandService Target="AdventureWorksVoiceCommandService"/>
37      </Command>
38
39      <PhraseList Label="destination">
40        <Item>London</Item>
41        <Item>Las Vegas</Item>
42        <Item>Melbourne</Item>
43        <Item>Yosemite National Park</Item>
44      </PhraseList>
45    </CommandSet>
```

pluralsight

Cortana Voice Commands

pluralsight

A Conversation with Cortana



pluralsight

Summary

- Creating background tasks
- Background task limitations
- Displaying a notification
- Updating live tiles
- Cortana voice commands and conversation

pluralsight