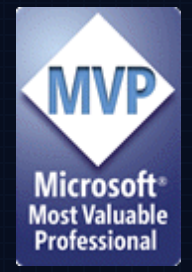
Windows Phone 8 Developer Camp

Part 1: App Life Cycle

Ariel Ben Horesh
Founder, Director of Apps
CodeValue
arielbh@codevalue.net

Pavel Yosifovich
CTO
CodeValue
pavely@codevalue.net



Teal Lime Pink Orange Blue Red Green Brown Purple

Agenda

- Part 1
  - Introduction
  - Application life cycle & state management
  - Background agents
- Part 2
  - The Walla application
- Part 3
  - Integrating with WP8 features

Sample application

Demo

Application Life Cycle

Application Lifecycle

User is interacting with the app in the foreground (Running)

App can become

- Dormant – user moved away from the app
  - E.g. pressed the Start button
- Tombstoned – the app is removed from memory, but some state is maintained (maximum of 5 apps)
- Terminated – killed entirely, no trace left (extreme memory pressure)

Fast Resume

- Fast resume is new to Windows Phone 8
- If enabled
  - Launching the app again causes switch to the app if present in the backstack
- Edit the WMAppManifest.xml manually to enable

Fast resume

Demo

Managing state

- The PhoneApplicationService class exposes events related to the app life cycle
  - Launched, Deactivated, Activated, Closing
- Saving state in isolated storage
  - Persistent
  - Typically saved with a DataContractSerializer

State management

Demo

Background agents

Background agents

- Normally an application in the background cannot execute code
  - Background agents allow some CPU consumption even when the app is not in the foreground
- Several types of background agents are supported
  - Periodic tasks
  - Background transfers

Background agents

Demo

Summary

Correct state management increases user satisfaction

There are ways to execute code in the background

Questions?