



Visual Studio **LIVE!** | San Diego
EXPERT SOLUTIONS FOR .NET DEVELOPERS

Enhancing UWP Experiences with Fluent Design

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Owner
Champion DS

Level: Introductory to Intermediate.

Code Again for the First Time!

Visual Studio 25 YEARS OF CODING INNOVATION

Microsoft Design Language

Introduced with
Windows 8

First real attempt
of providing design
guidance to
developers

Guidelines on
layout,
interactions, styles,
etc

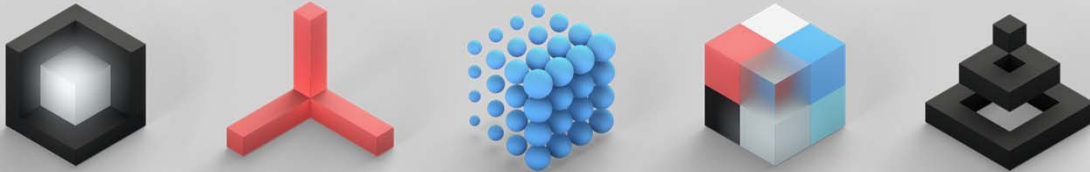
Consideration in
app submission

Effect was
suggestions
became
requirements

TILEAPOLZA



Fluent Design System



Fluent Design Principles

ADAPTIVE

Feels natural on any device

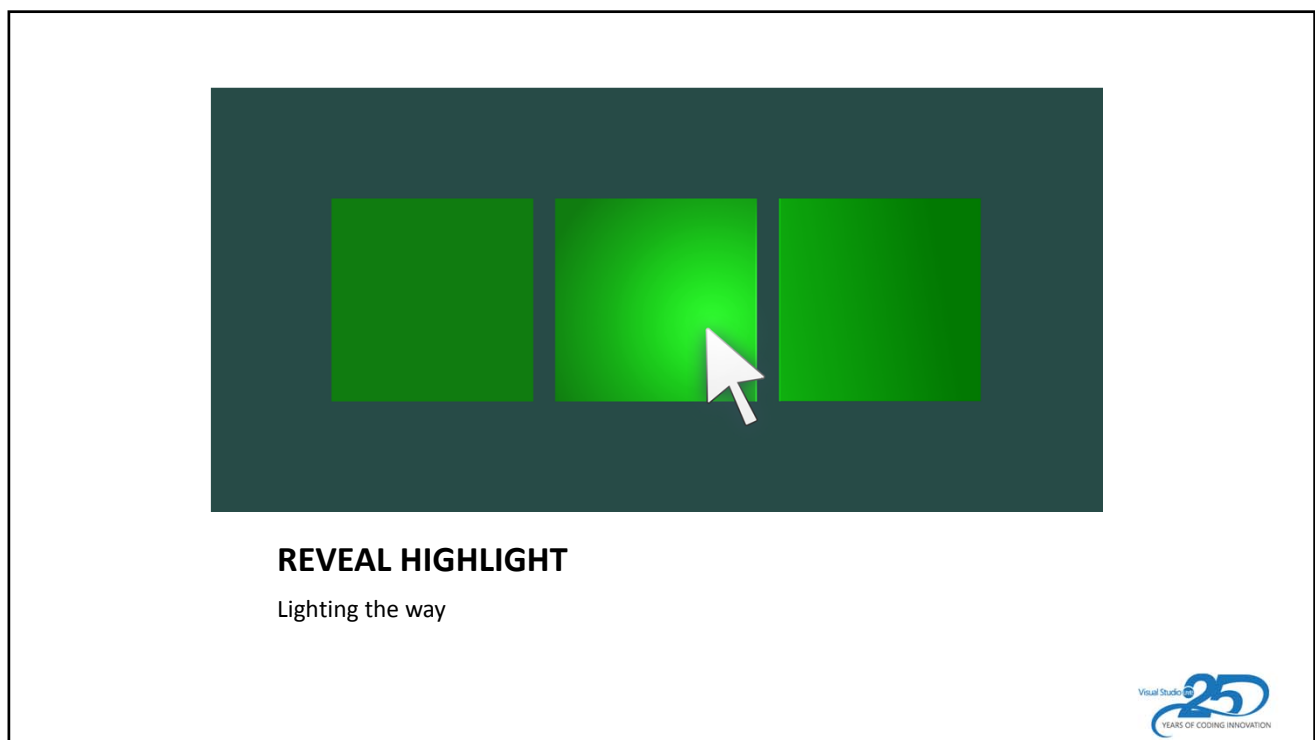
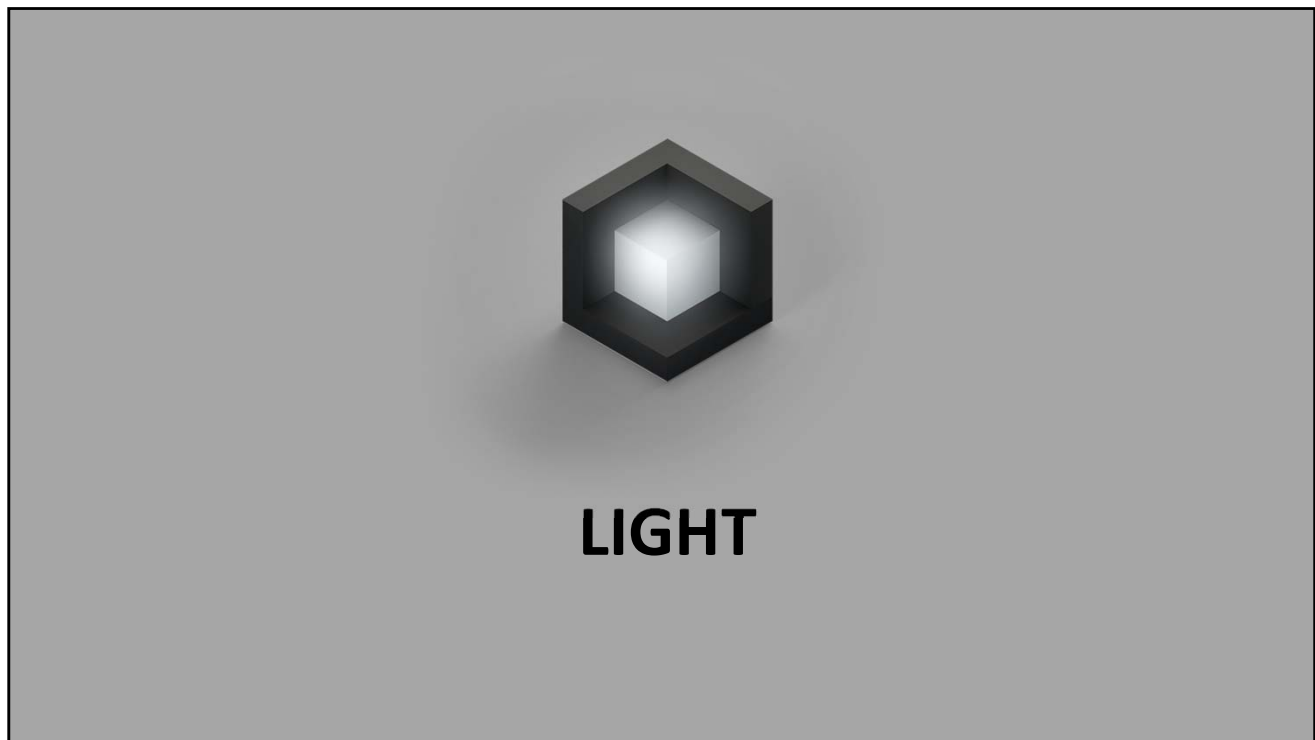
EMPATHETIC

Intuitive and powerful

BEAUTIFUL

Engaging and immersive



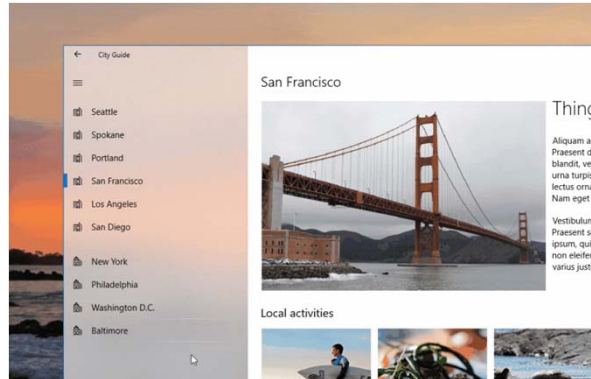


Reveal Highlight

Shows interactive space by highlighting the elements borders

Identifies actionable areas to the user, such as commands

Ideal for devices such as mouse or pointer



Adding to Controls

Automatically Enabled

- ListView
- GridView
- TreeView
- NavigationView
- MediaTransport Control
- CommandBar

Enable by Style

- Button
- ToggleButton
- RepeatButton
- AppBarButton
- AppBarToggleButton





REVEAL FOCUS

Show them where they are at

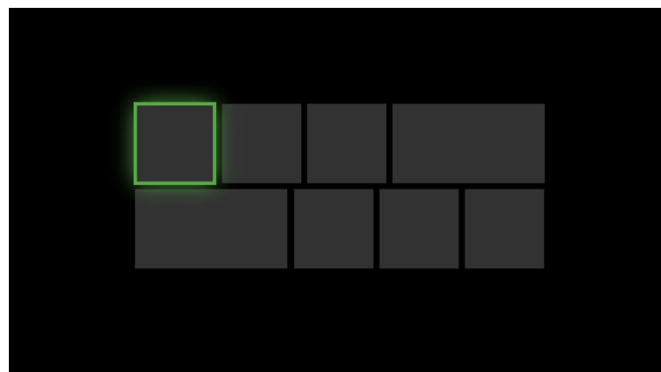


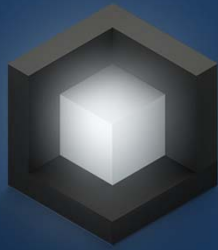
Reveal Focus

Uses an animated glow to define a border

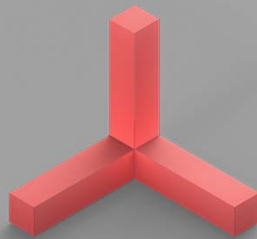
Designs for 10 foot experiences to draw attention

Perfect for devices such as Xbox, Surface Hub, or HoloLens





DEMO



DEPTH

Depth and UIs

Depth helps users make sense of a 2-D world

Historically used in games, but now branching out

Perfect for communicating importance in a UI



PARALLAX VIEW

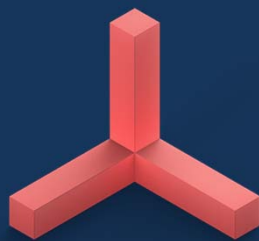
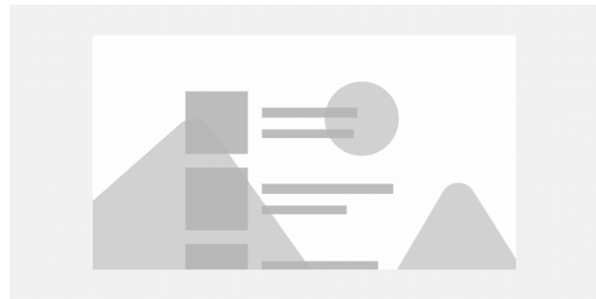
Depth through motion



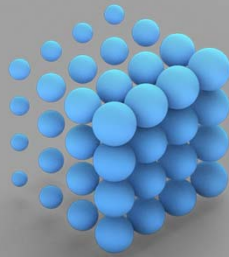
Parallax View

Depth based view to make the foreground look closer than the background

Works by moving across a small section of the background image during scrolling



DEMO



MOTION

Principle : Physical

Motion should mimic the physical world

Movement is a direct result of manipulation and should match velocity

Objects should affect the objects around them

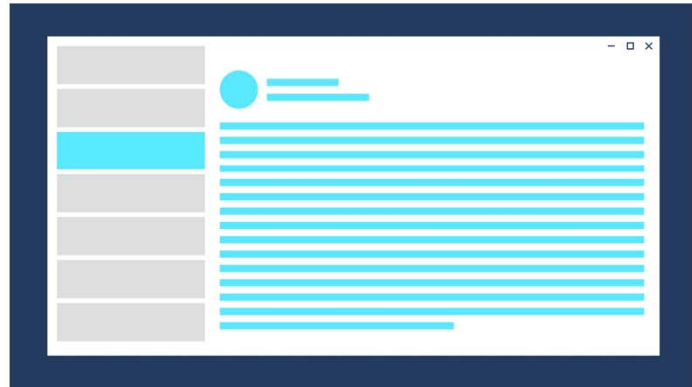


Principle : Functional

Motion should have purpose and intent

Guides user through complex screens

Great for increasing perceived performance

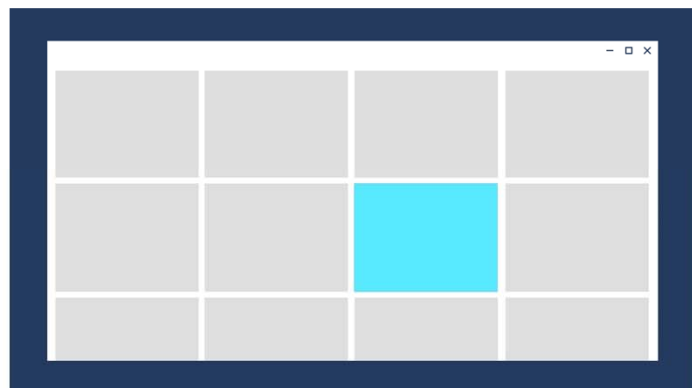


Principle : Continuous

Fluid movement draws users eyes

Stitches together a user's tasks, making it feel more natural

Objects can move and morph between screens



Principle : Contextual

Provides feedback to the user based

Should feel appropriate to the action on the form factor

Should tie back to the user's interaction

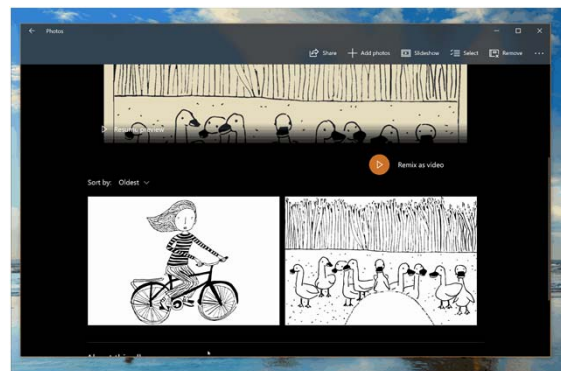


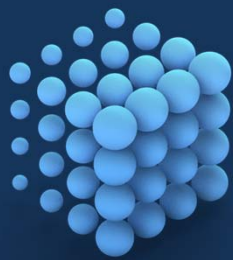
Pointer Enter/Exit Effects

Highlight area of interaction

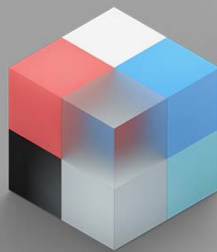
Display additional information

Subtle movement like zoom in and out





DEMO



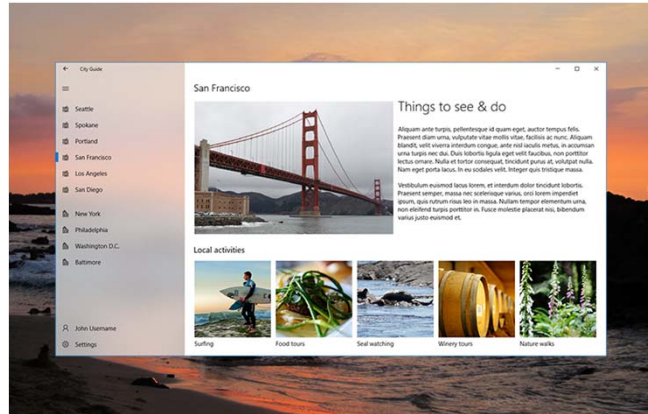
MATERIAL

Material in UIs

The real world is made of textures and materials

Effectively translating that into your apps will make them feel more natural

Been around awhile, remember the plastic and glass buttons of the 90's?



ACRYLIC MATERIAL

Beauty through texture

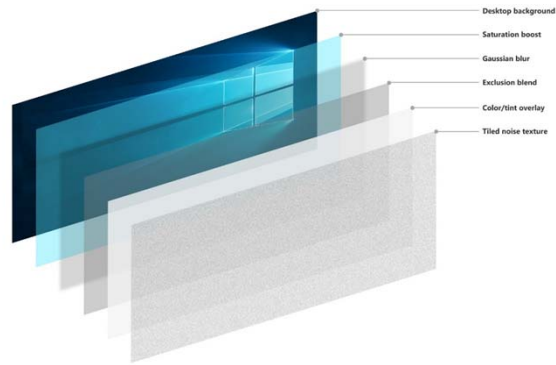


Acrylic

Is available as a brush inside of UWP

Use a single acrylic panel or multiple to simulate depth

CPU intensive, Windows will disable if resources are low



System Accent Colors

User selected system accent colors are available as brushes

Using accent colors gives a level of personalization to your app

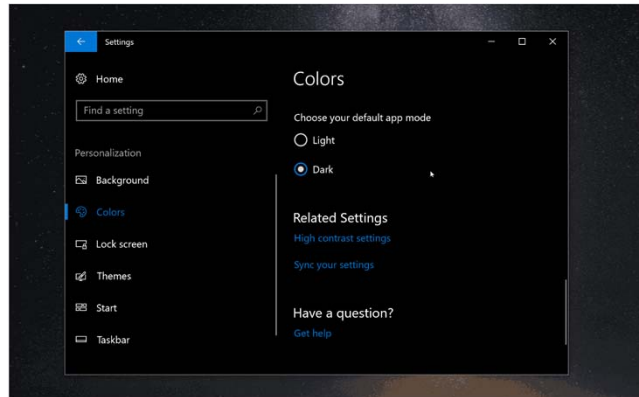
Example Calculator app using it for math function buttons



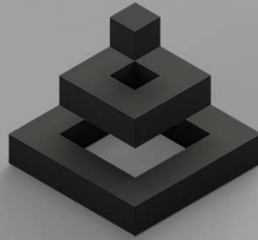
Theming

Users can select from light, dark, and a high contrast themes

Apps can implement themes at app and page level



DEMO



SCALE

Design for Multiple Devices

UI should fit the device

App should take advantage of the features available on each device

Just because it can run on any device, doesn't mean it shouldn't be optimized for each device



Create a responsive layout

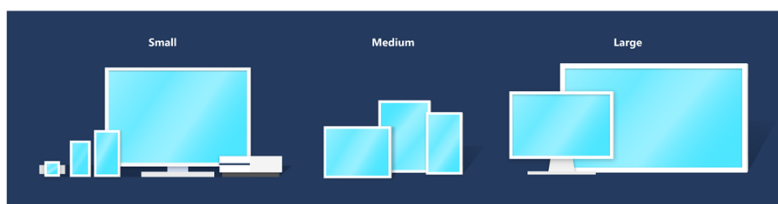
Layouts should move with size of the app

Optimize for inputs as well as layout

Goes a long way towards supporting multiple devices



Design for break points



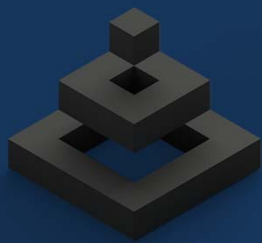
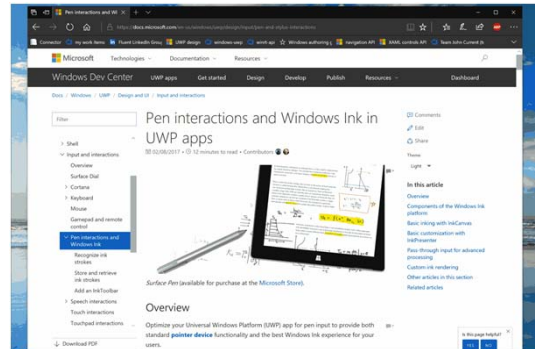
Size class	Breakpoints	Typical screen size (diagonal)	Devices	Window sizes
Small	640px or less	4" to 6"; 20" to 65"	Phones, TVs	320x569, 360x640, 480x854
Medium	641px to 1007px	7" to 12"	Phablets, tablets	960x540
Large	1008px or greater	13" and larger	PCs, laptops, Surface Hubs	1024x640, 1366x768, 1920x1080



Inking

First class citizen in
Windows 10

Available in Edge, Photos,
Maps, etc

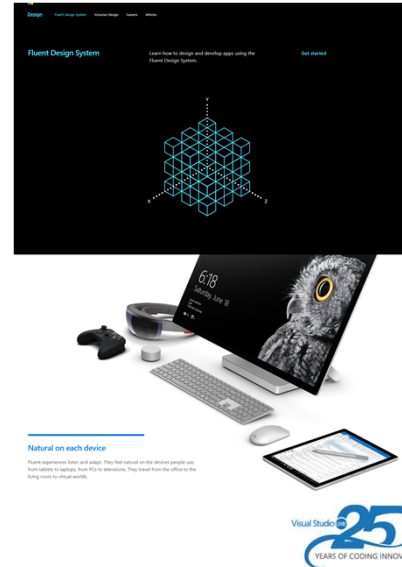


DEMO

Learn more about FLUENT

<http://fluent.microsoft.com>

- Documentation
- Code Samples
- Design Toolkits



THANK YOU

QUESTIONS OR COMMENTS?

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