

Exploring the Configuration API

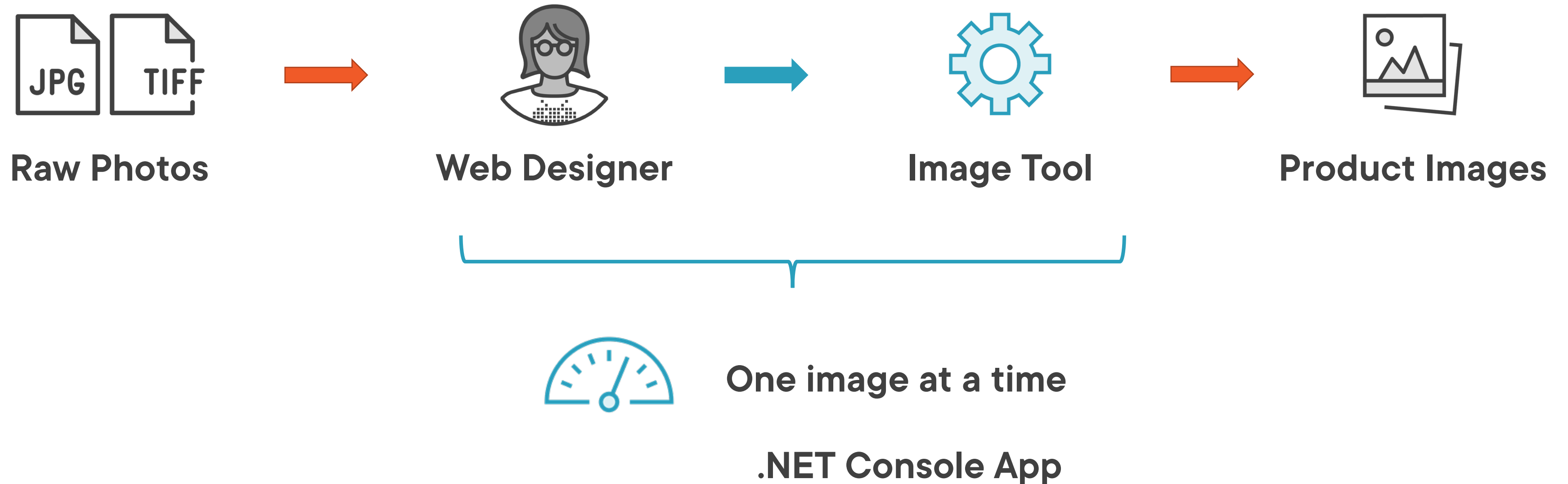


Matthew Tester

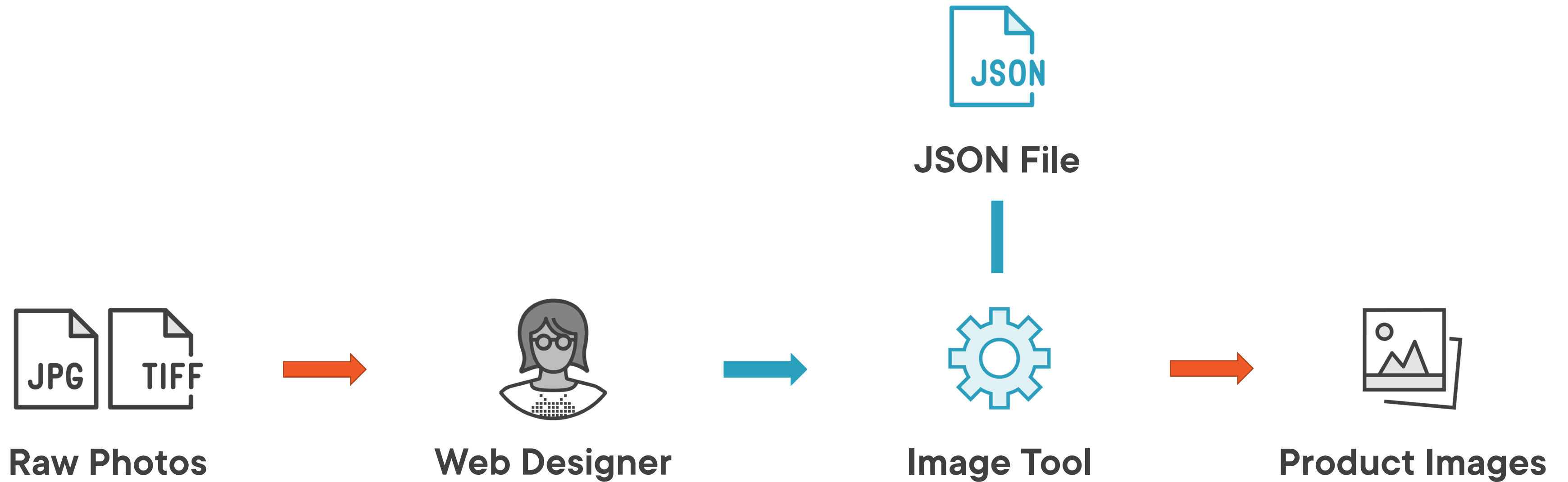
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Carved Rock Fitness: Image Process

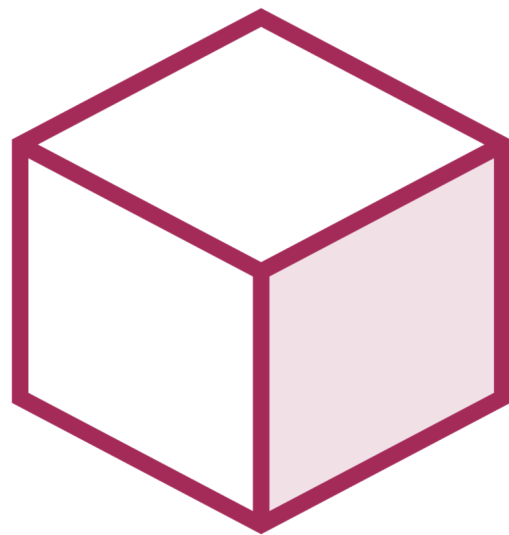


Carved Rock Fitness: Image Process



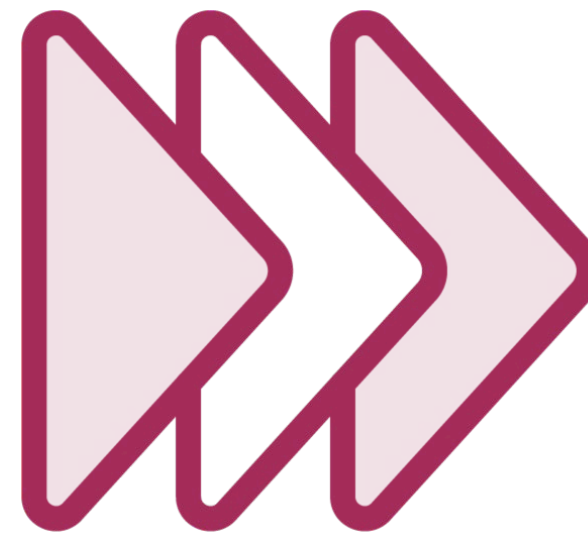
Carved Rock Fitness: Image Process

.NET Console project template does not include configuration



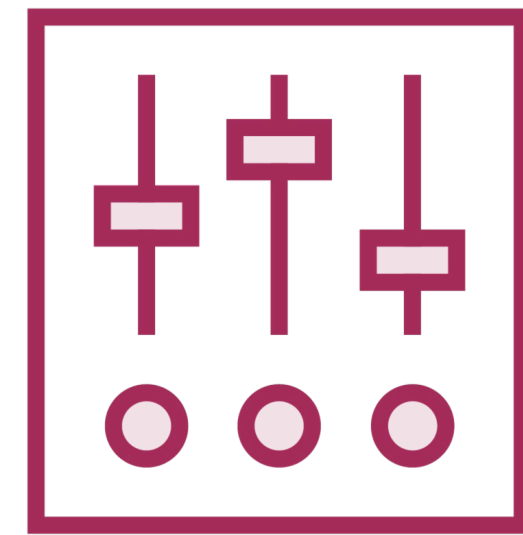
NuGet Package

Add NuGet package for
JSON provider



Include Provider

Include the JSON
provider



Build Config

Read configuration
values

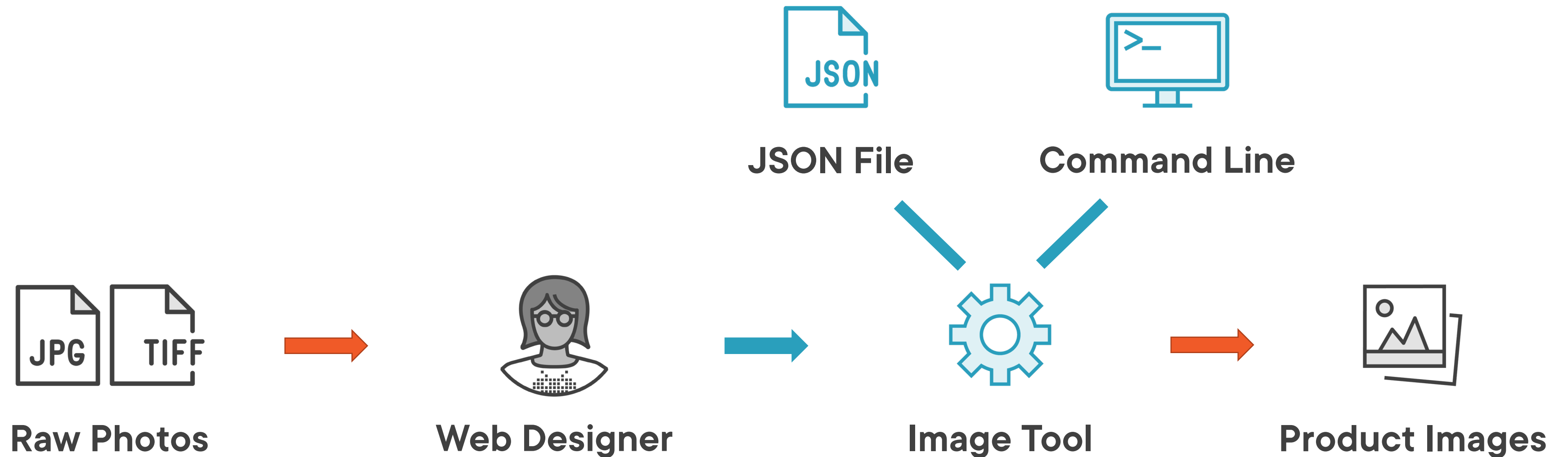
Demo



Read configuration from a JSON file

- Add Configuration API
- Use JSON configuration provider
- Read configuration values

Carved Rock Fitness: Image Process



Command Line Parameters

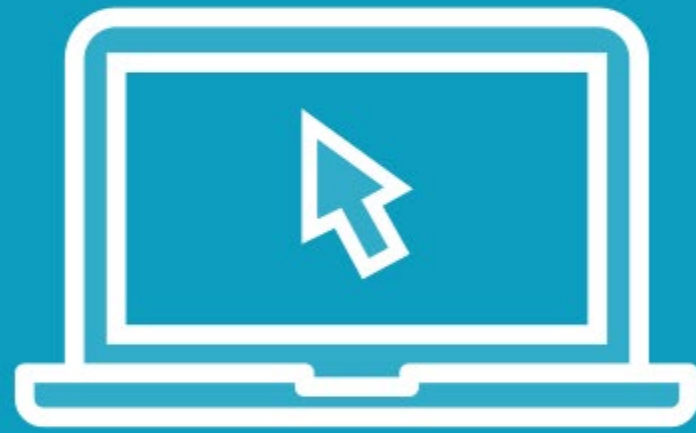
```
dotnet run backpack.jpg --thumbnailWidth 96
```

```
dotnet run backpack.jpg /thumbnailWidth 96
```

```
dotnet run backpack.jpg --thumbnailWidth=96
```

```
dotnet run backpack.jpg /thumbnailWidth=96
```

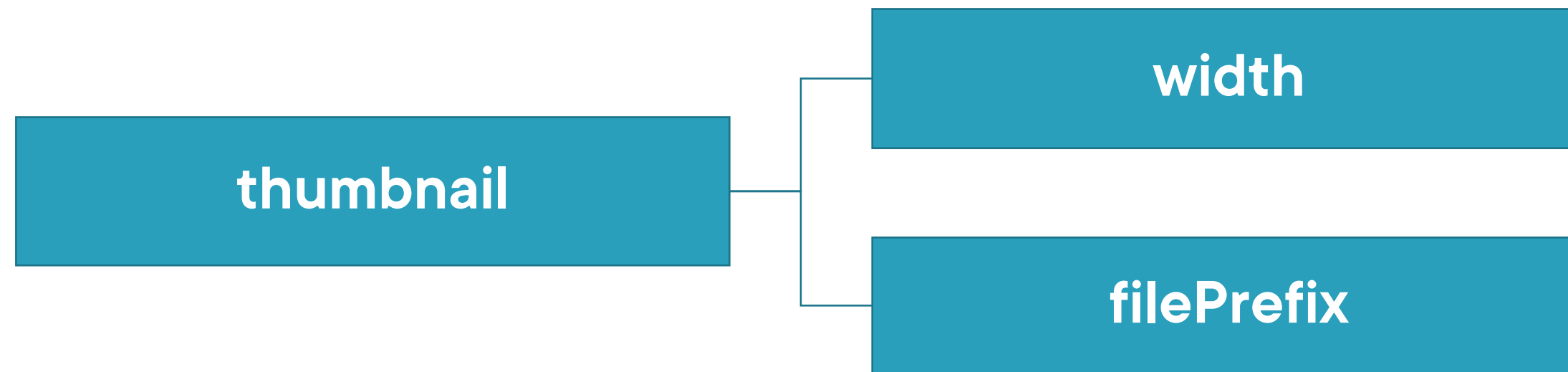
Demo



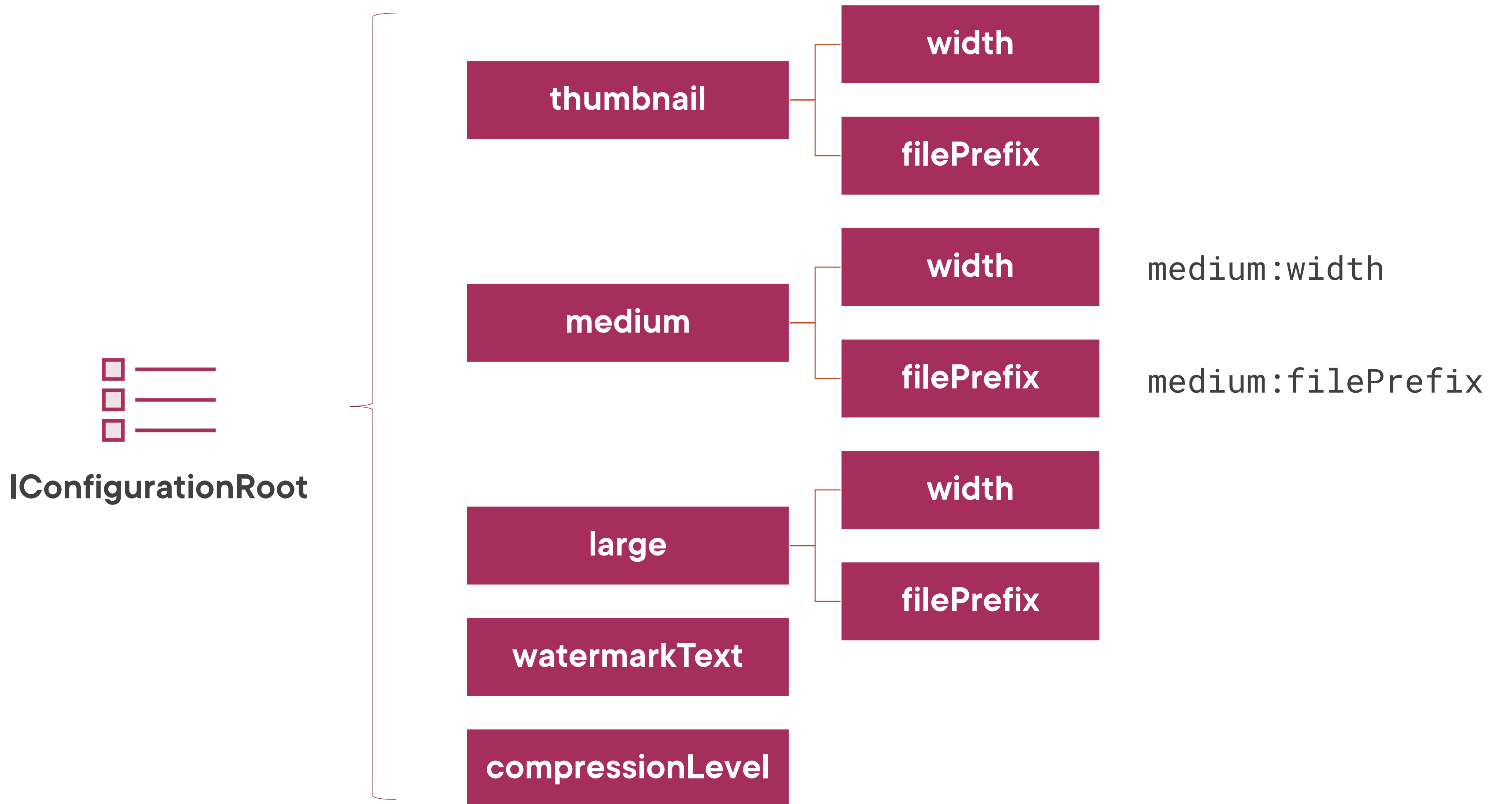
Keep related configuration together

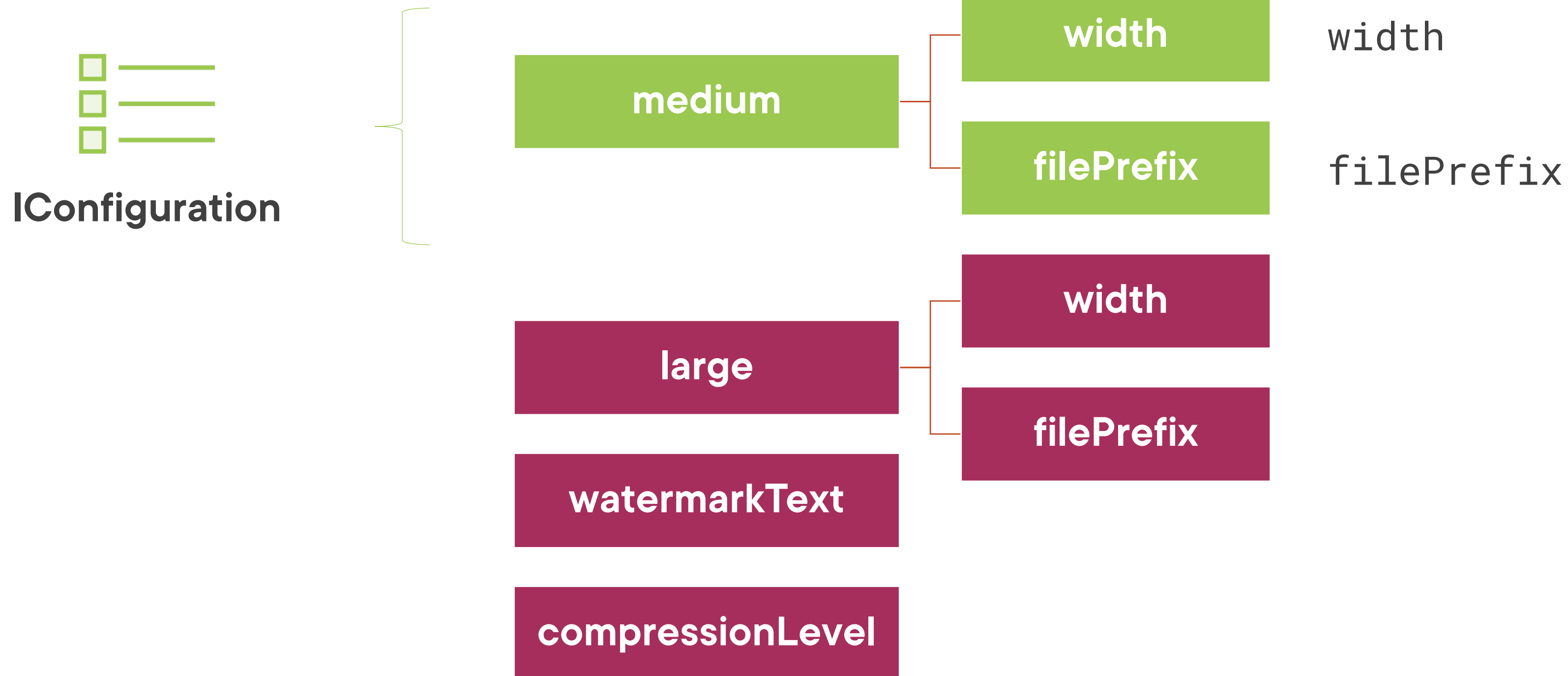
- Grouping configuration using sections
- See the effect on keys

Configuration Sections



| Key | Value |
|----------------------|------------|
| thumbnail:width | 48 |
| Thumbnail:filePrefix | thumbnail- |





Configuration vs. Strongly Typed Configuration

Using IConfiguration

No IntelliSense

All values are strings

No type checking

High maintenance for string keys

Using Strongly Typed Configuration

IntelliSense

Handling of types

Runtime errors and type checking

Better maintainability and structuring

Demo



Specify default values for missing configuration

- Define default values in code
- Use Bind method

Summary



Console Applications have no configuration by default

- **Microsoft.Extensions.Configuration.***

Use multiple providers together

- **JSON files**
- **Command-line parameters**

Configuration classes

- **ConfigurationBuilder**
- **IConfiguration and IConfigurationRoot**

Summary



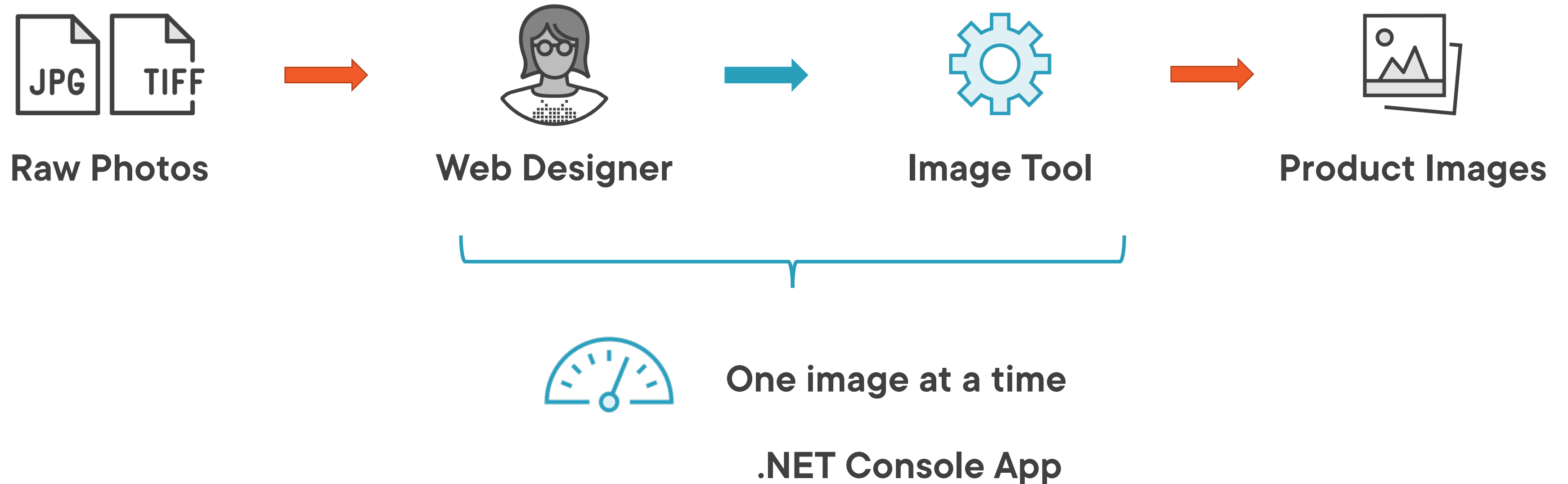
Keep related configuration together

- Use configuration sections
- Understand key format

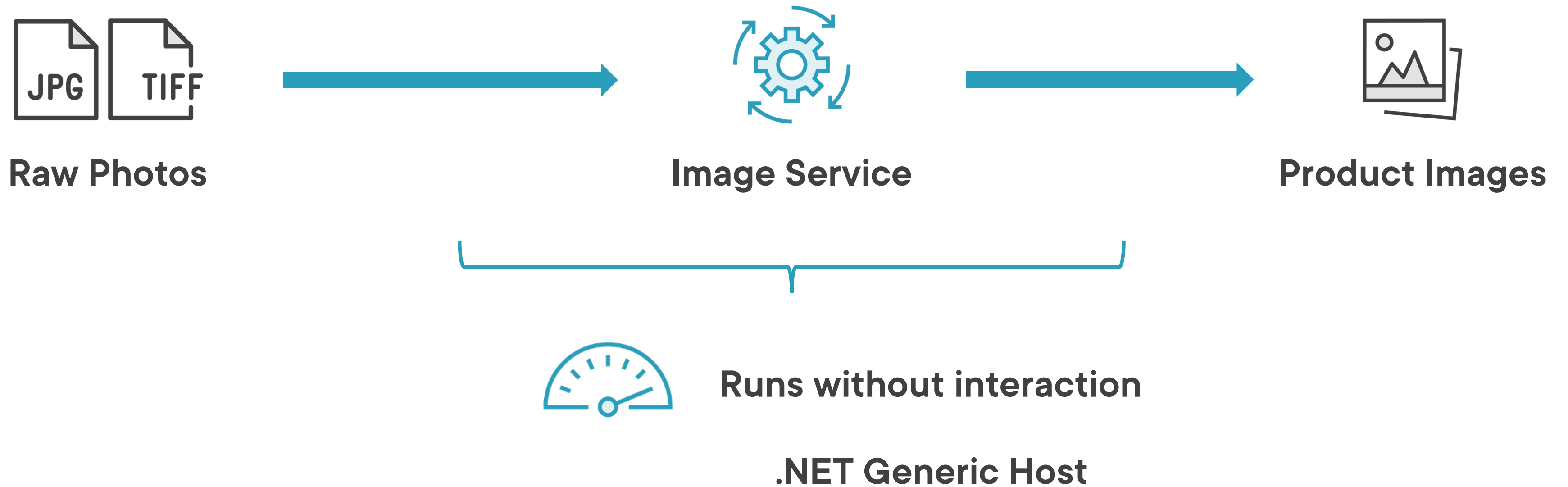
Strongly-typed configuration

- Use `Get()` to bind to object properties
- Specify default values using `Bind()`

Carved Rock Fitness: Image Process



Carved Rock Fitness: Image Process



Up Next:

Using the .NET Generic Host
