Navigating Your Application with Region Navigation

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Agenda

Understanding Region Navigation

Using Region Navigation

View/ViewModel Participation

Passing Parameters

Basic Region Navigation

Adding views to a Region

Move between views in a Region

URI based

- Navigate using a string
- Acts as a unique key
- Requires registration

ContentRegion

Registering Views for Navigation

```
//view registration

ContainerRegistry.RegisterForNavigation<ViewA>();
```

Registering Views for Navigation

```
//view registration

ContainerRegistry.RegisterForNavigation<ViewA>();



//view registration with custom name

ContainerRegistry.RegisterForNavigation<ViewA>("CustomName");
```

Registering Views with ViewModels

```
//view registration

ContainerRegistry.RegisterForNavigation<ViewA, ViewAViewModel>();



//view registration with custom name

ContainerRegistry.RegisterForNavigation<ViewA, ViewAViewModel>("CustomName");
```

Perform Region Navigation

```
IRegionManager regionManager = …;

regionManager.RequestNavigate("RegionName", "ViewA");
```

Perform Region Navigation

```
IRegionManager regionManager = …;

regionManager.RequestNavigate("RegionName", "ViewA");


IRegion region = regionManager.Regions["RegionName"];

region.RequestNavigate("ViewA");
```

Knowing When Navigation Is Complete

```
regionManager.RequestNavigate("ContentRegion", "ViewA", NavigationCompleted);


void NavigationCompleted(NavigationResult result)

{

}
```

Demo

Basic region navigation

View/ViewModel Participation

Know when a View/ViewModel has been navigated to

Know when a View/ViewModel has been navigated away from

Decide when to create a new View/ViewModel instance or use an existing

INavigationAware

```
public interface INavigationAware
{

  void OnNavigatedTo(NavigationContext navigationContext);



}
```

INavigationAware

```csharp
public interface INavigationAware
{
  void OnNavigatedTo(NavigationContext navigationContext);


  void OnNavigatedFrom(NavigationContext navigationContext);



}
```
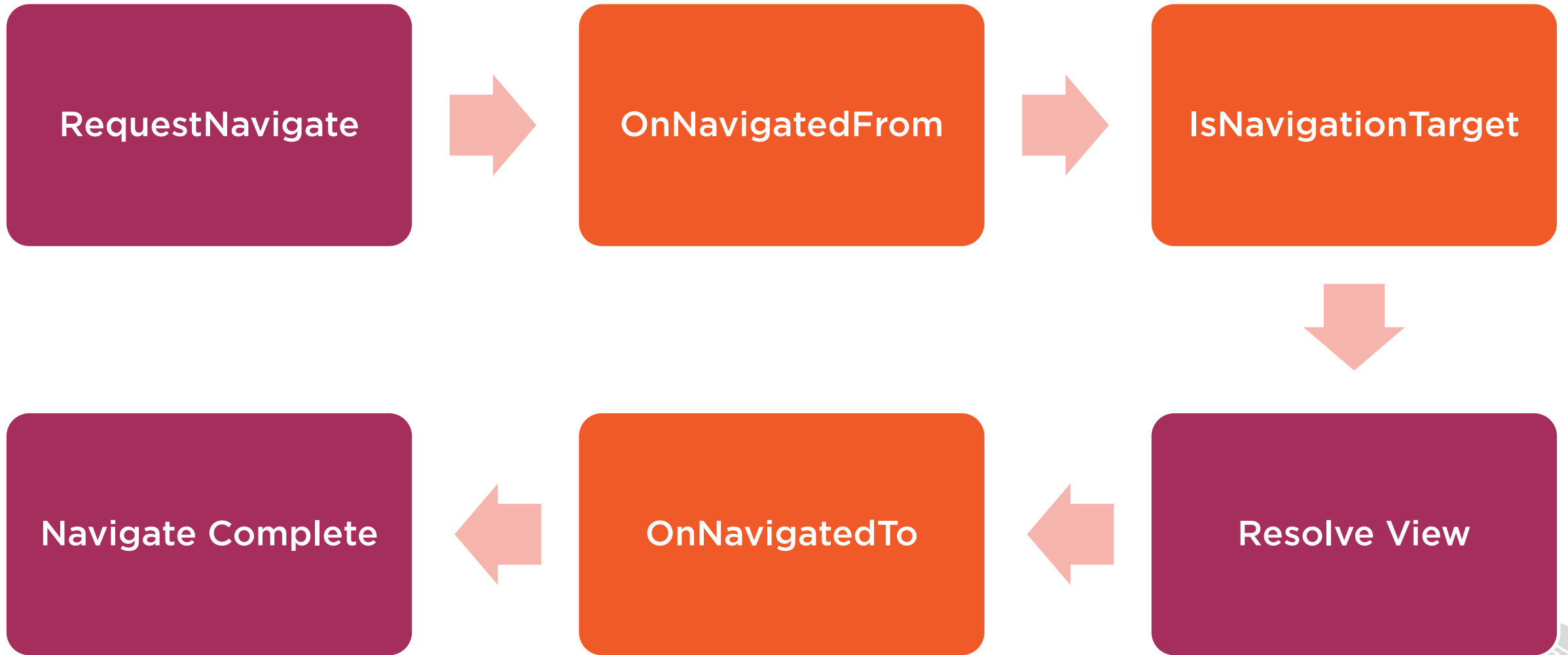
INavigationAware

```csharp
public interface INavigationAware
{
  void OnNavigatedTo(NavigationContext navigationContext);


  void OnNavigatedFrom(NavigationContext navigationContext);


  bool IsNavigationTarget(NavigationContext navigationContext);
}
```

INavigationAware Process

RequestNavigate → **OnNavigatedFrom** → **IsNavigationTarget**

Navigate Complete ← **OnNavigatedTo** ← **Resolve View**

Demo

Implementing INavigationAware

Passing Parameters

Get data from one View/ViewModel to another

Pass parameters

- NavigationParameters class

- Append to navigation URI

- Use both

Creating Parameters

```
var navParams = new NavigationParameters();

navParams.Add("firstName", "Brian");

navParams.Add("age", 40);
```

Creating Parameters

```
var navParams = new NavigationParameters();

navParams.Add("firstName", "Brian");

navParams.Add("age", 40);


RegionManager.RequestNavigate("RegionName", "MainPage", navParams);
```

Creating Parameters

```
var navParams = new NavigationParameters();

navParams.Add("firstName", "Brian");

navParams.Add("age", 40);


RegionManager.RequestNavigate("RegionName", "MainPage", navParams);


RegionManager.RequestNavigate("RegionName", "MainPage?id=3&isNew=false");
```

Creating Parameters

```
var navParams = new NavigationParameters();

navParams.Add("firstName", "Brian");

navParams.Add("age", 40);


RegionManager.RequestNavigate("RegionName", "MainPage", navParams);


RegionManager.RequestNavigate("RegionName", "MainPage?id=3&isNew=false");


RegionManager.RequestNavigate("RegionName", "MainPage?id=3&isNew=false", navParams);
```

Passing Parameters

Get data from one View/ViewModel to another

Pass parameters

- NavigationParameters class
- Append to navigation URI
- Use both

Receive parameters

- INavigationAware
- NavigationContext.Parameters

Reading Parameters

```
void OnNavigatedTo(NavigationContext navigationContext)

{



}
```

Reading Parameters

```csharp
void OnNavigatedTo(NavigationContext navigationContext)

{

    //option 1

    var id = (int)navigationContext.Parameters["id"];




}
```

Reading Parameters

```csharp
void OnNavigatedTo(NavigationContext navigationContext)

{

    //option 1

    var id = (int)navigationContext.Parameters["id"];



    //option 2

    var id = navigationContext.Parameters.GetValue<int>("id");

}
```

Demo

How to pass parameters

Summary

Understanding Region Navigation

Using Region Navigation

View/ViewModel Participation

Passing Parameters