

# Validating the Model



Thomas Claudius Huber

@thomasclaudiush | [www.thomasclaudiushuber.com](http://www.thomasclaudiushuber.com)

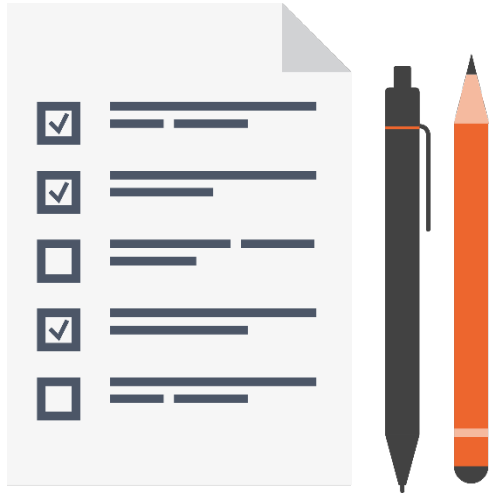
# The Model-wrapper Functionality

Change notification

Change tracking

Validation

# Module Outline



Extend the FriendWrapper with validation

Ensure functionality with unit tests

The validation we build is based on

- INotifyDataErrorInfo
- Data Annotations

# The Interface INotifyDataErrorInfo

Validation Rules

Exceptions

IDataErrorInfo

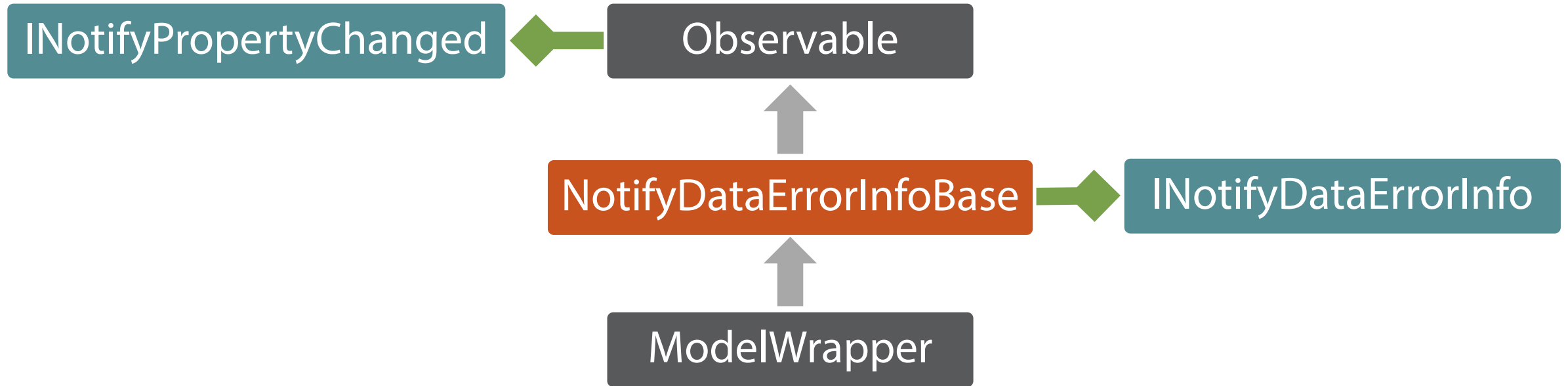
INotifyDataErrorInfo

# The Interface INotifyDataErrorInfo

Namespace  
System.ComponentModel

```
public interface INotifyDataErrorInfo
{
    bool HasErrors { get; }
    IEnumerable GetErrors(string propertyName);
    event EventHandler<DataErrorsChangedEventArgs> ErrorsChanged;
}
```

# Implement INotifyDataErrorInfo in a Base Class



# Using Data Annotations

Assembly / Namespace  
System.ComponentModel.DataAnnotations

Validation attributes

Required

EmailAddress

StringLength

CustomValidation

...

```
[Required(ErrorMessage = "Firstname is required")]  
public string FirstName { get; set; }
```

# Using Data Annotations

```
[Required(ErrorMessage = "Firstname is required")]  
public string FirstName { get; set; }
```

How to validate?

Validator

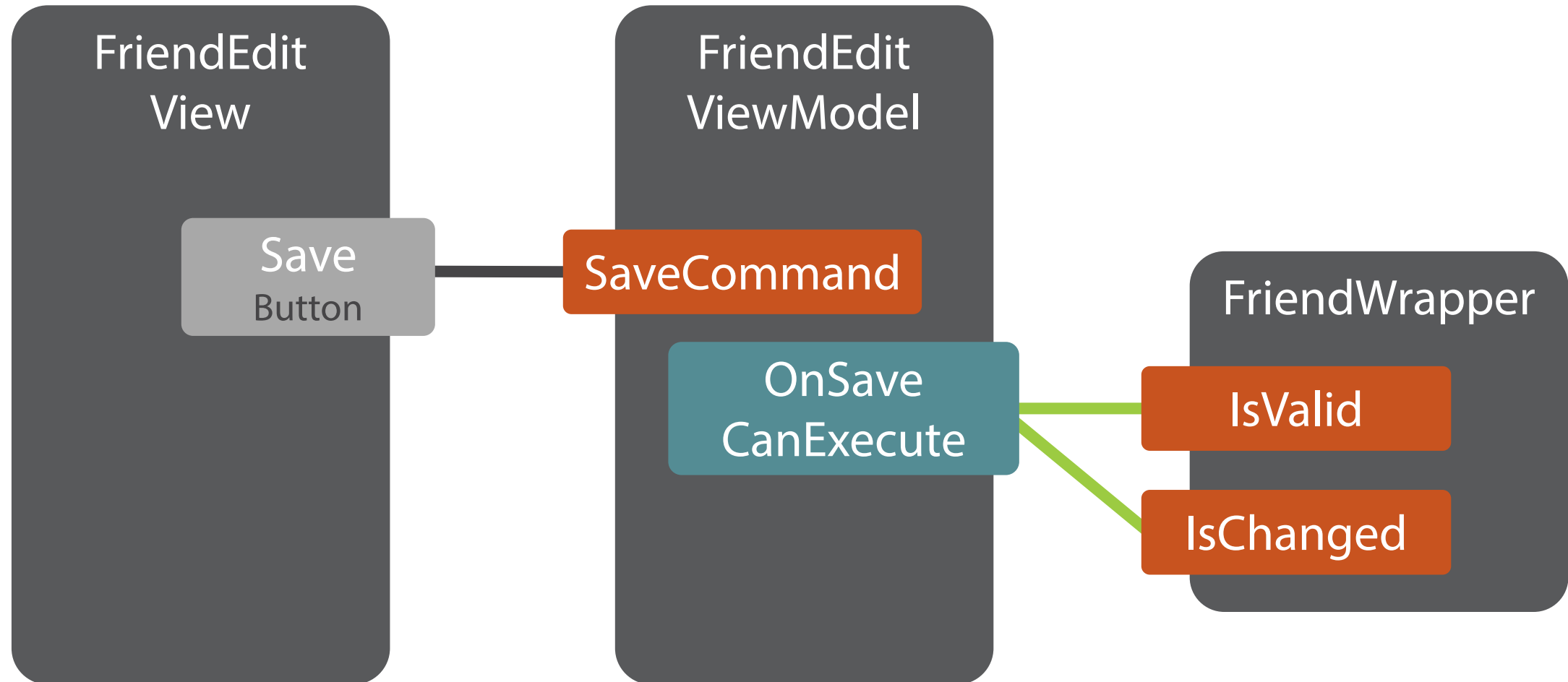
ValidationContext

ValidationResult

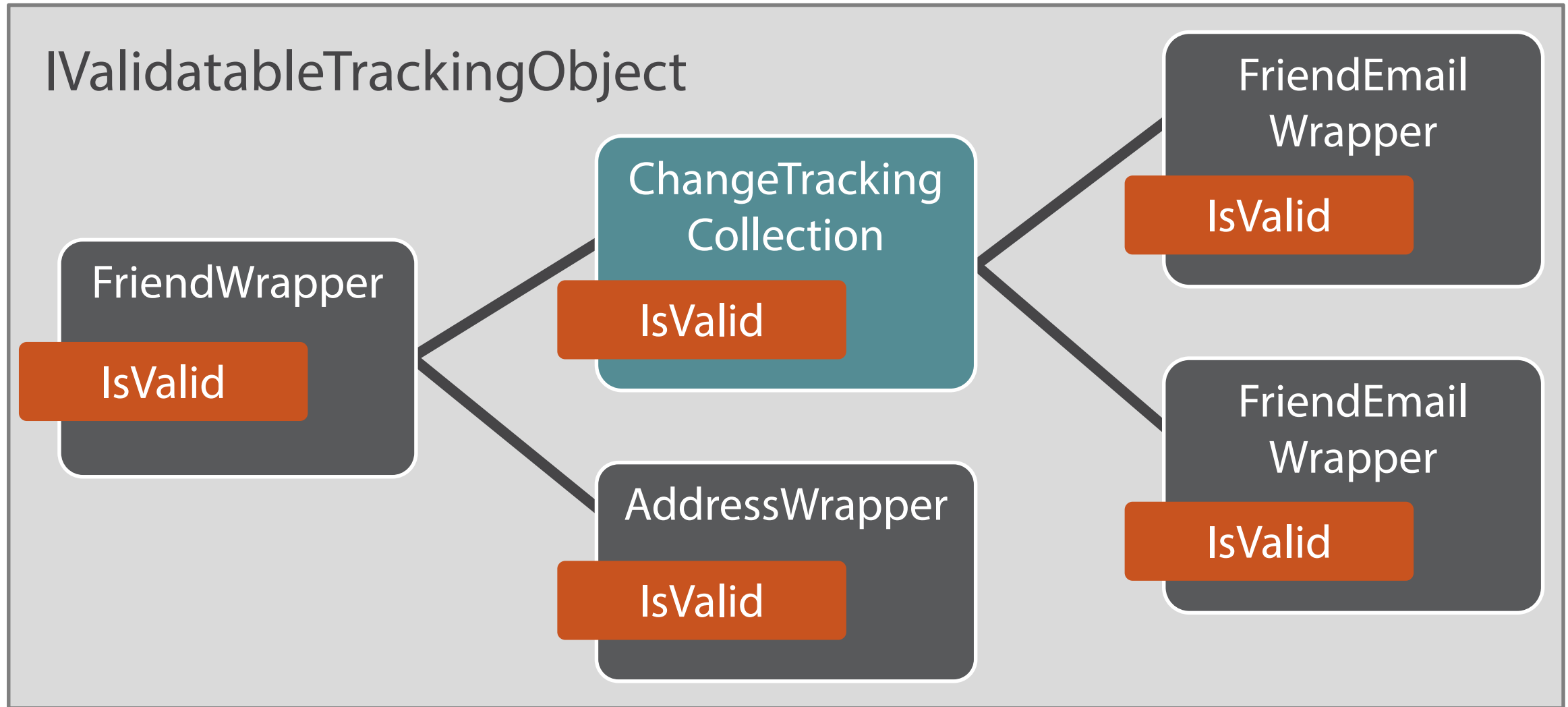
```
FriendWrapper friend = ...  
  
var results = new List<ValidationResult>();  
var context = new ValidationContext(friend)  
                { MemberName = nameof(friend.FirstName) };  
Validator.TryValidateProperty(friend.FirstName, context, results);
```



# Add an IsValid-property to the ModelWrapper



# The IsValid-property of the FriendWrapper



# Validate on Class-level with IValidatableObject

System.ComponentModel.DataAnnotations

Property validation ➡ Required, EmailAddress ...

Class-level validation ➡ IValidatableObject



```
IEnumerable<ValidationResult> Validate(ValidationContext validationContext);
```



```
Validator.TryValidateObject(...);
```

# Summary

INotifyDataErrorInfo  
implementation

Data Annotations

FriendWrapper with  
validation