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Software Traceability In An Agile Environment

Agenda

- Why Traceability
- Advantages
- Perceived Disadvantages
- Lifecycle Process
- Links
- Thoughts and Questions

Why Traceability

- Bi-directional Management of Requirements
 - Forward Traceability
 - Backward Traceability
- Facilitates the analysis of:
 - The Impact of Scope Changes
 - Missing Requirements
 - Definitive Completion of:
 - Coding
 - Verification
 - Validation

Advantages

- Definitive Answer that all:
 - User Needs have Requirements
 - Requirements have Design Elements
 - Design Elements are Coded
 - Code is Unit Tested
 - Code is included in the Application
 - Requirements are in the Application
 - User Needs are supported by the Application
- Fewer Coding and Testing Cycles
- Better Scope Change Analysis
- Effective Maintenance

Perceived Disadvantages

- Excessive Resource Effort
- Team Discord
- Too Detailed Tracing
- Not Applicable in an Agile Environment

Lifecycle Process Must Be:

- Understandable
- Thoroughly Documented
- Auditable
- Traceable

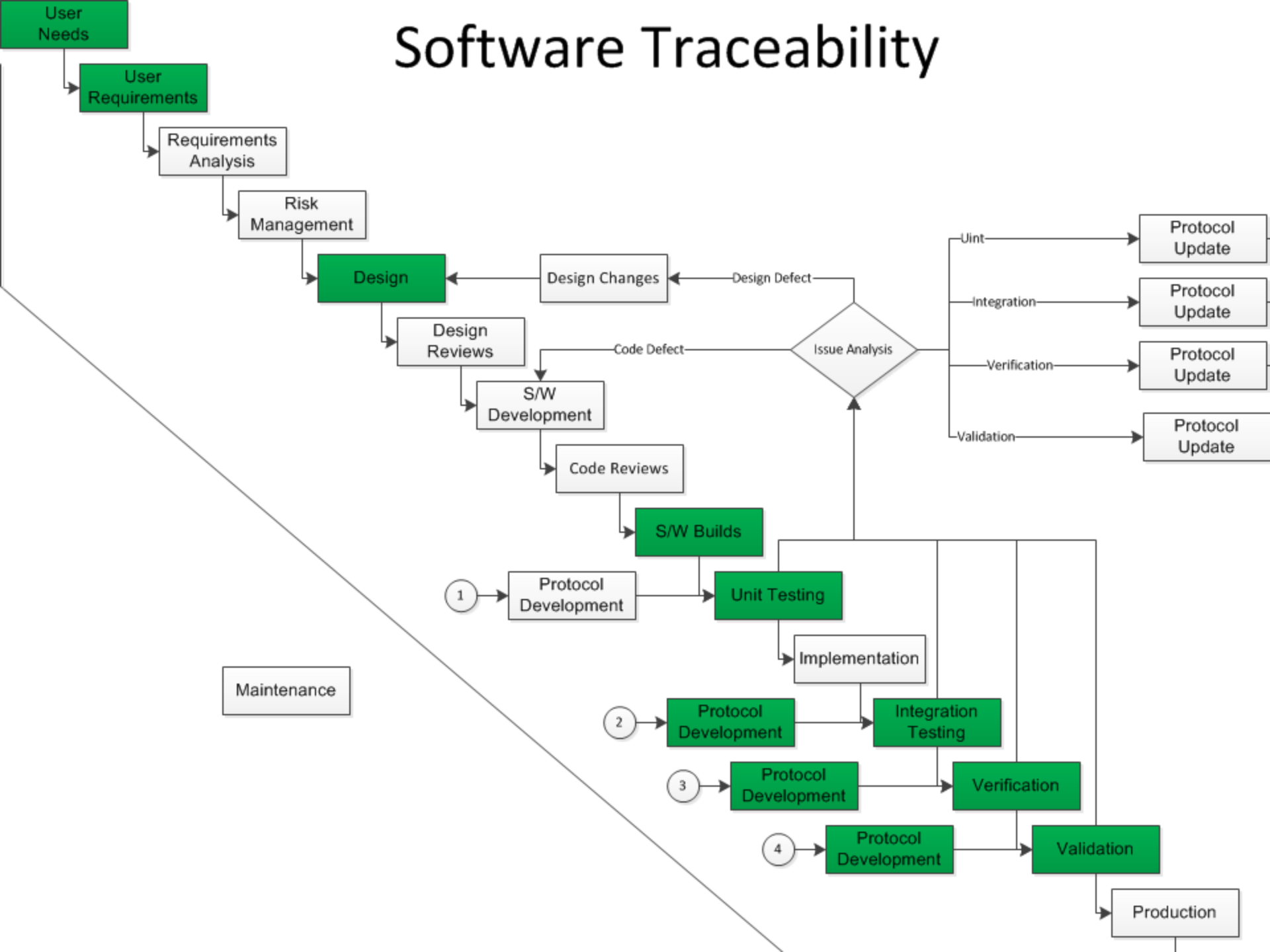
Software Lifecycle Process

- User Needs
- User Requirements
- Requirements Analysis
- Risk Management
- Design
- Design Reviews
- Design Changes
- Software Development
- Code Reviews
- Software Builds
- Unit Testing
- Implementation
- Integration Testing
- Verification
- Validation
- Production
- Release
- Maintenance

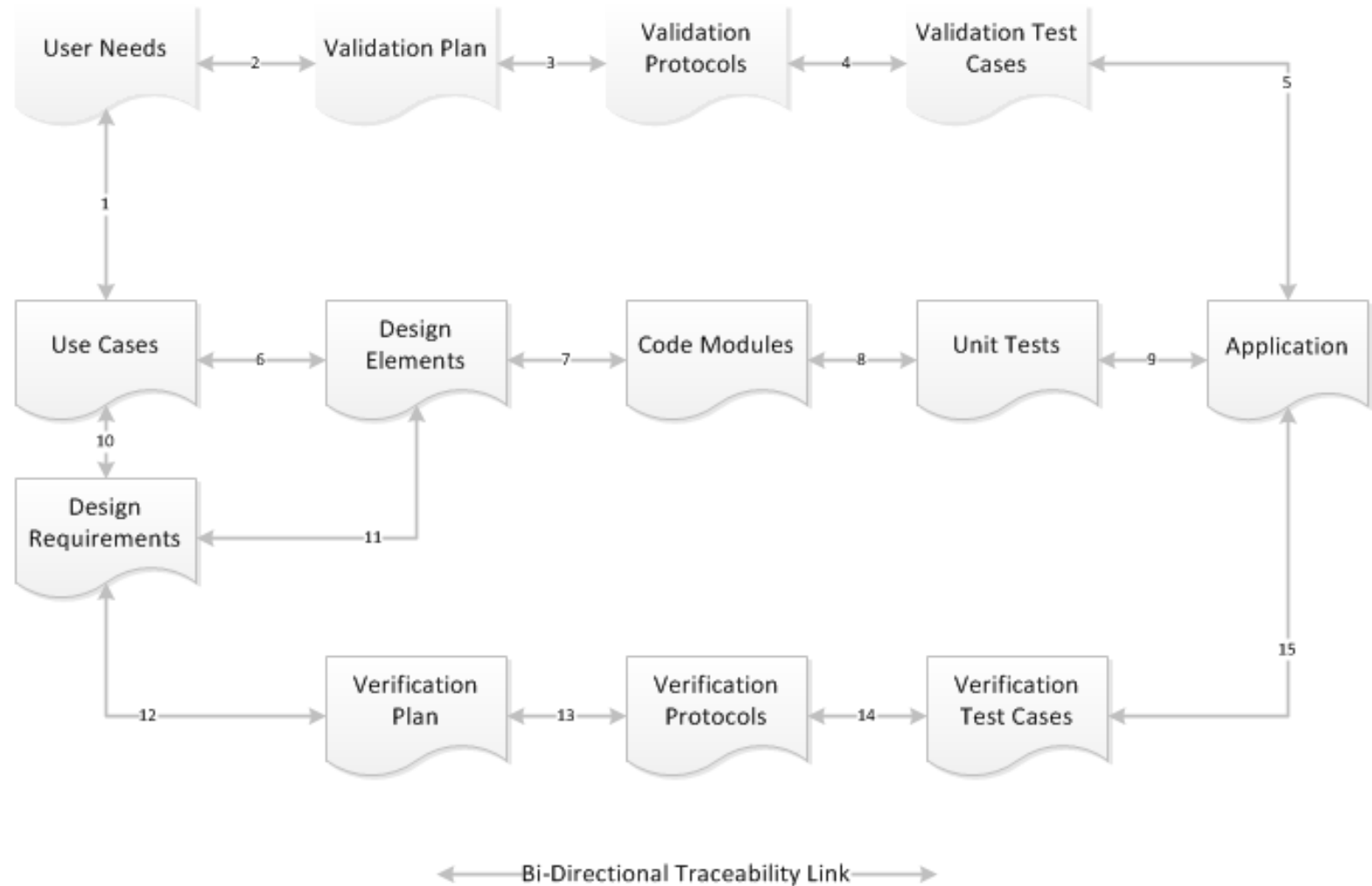
Links

- Software Traceability
- Overall Traceability
- Requirements Complete
- Design Complete
- Modules Complete
- Verification Protocols Complete
- Verification Complete
- Validation Protocols Complete
- Validation Complete

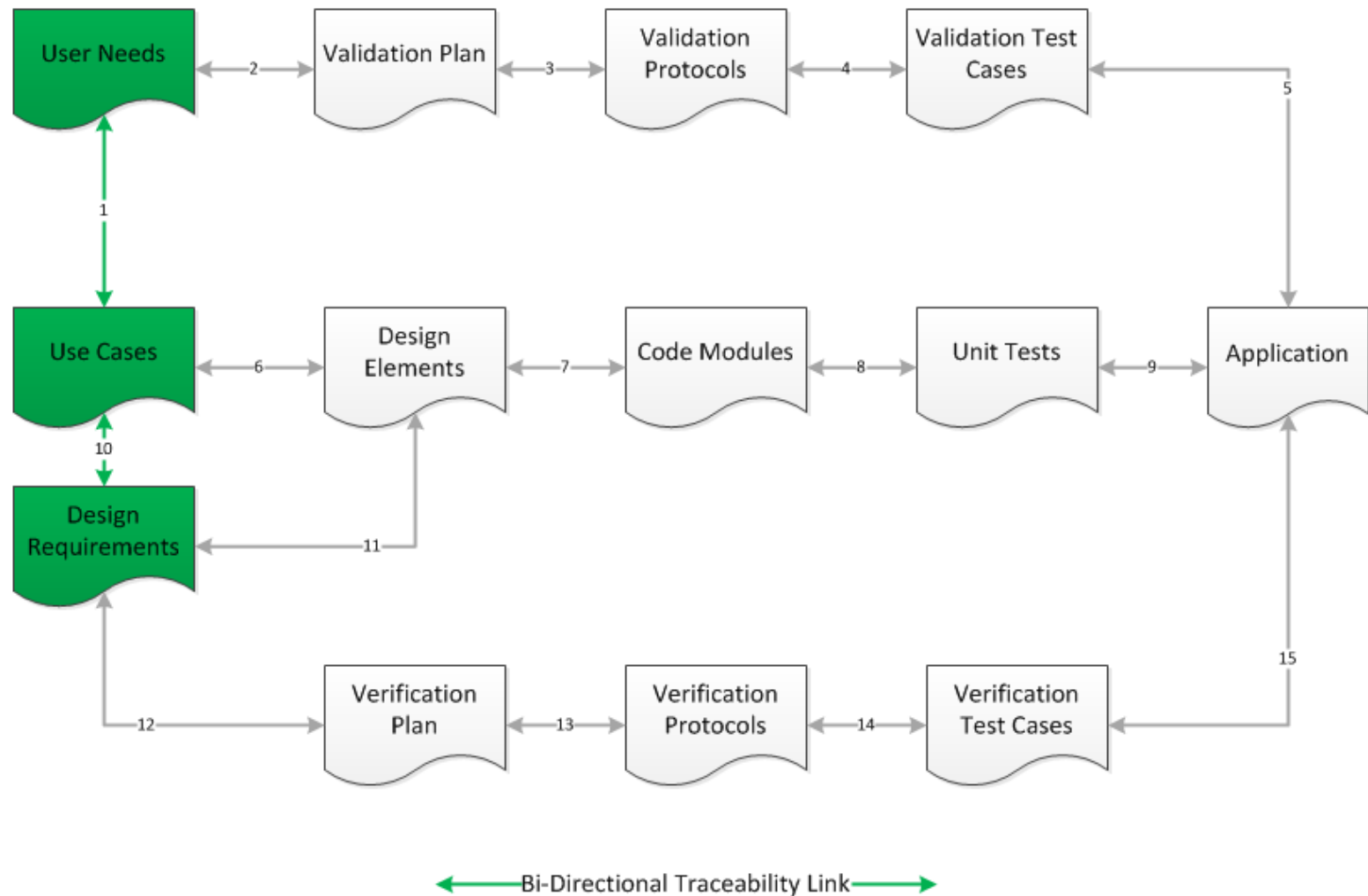
Software Traceability



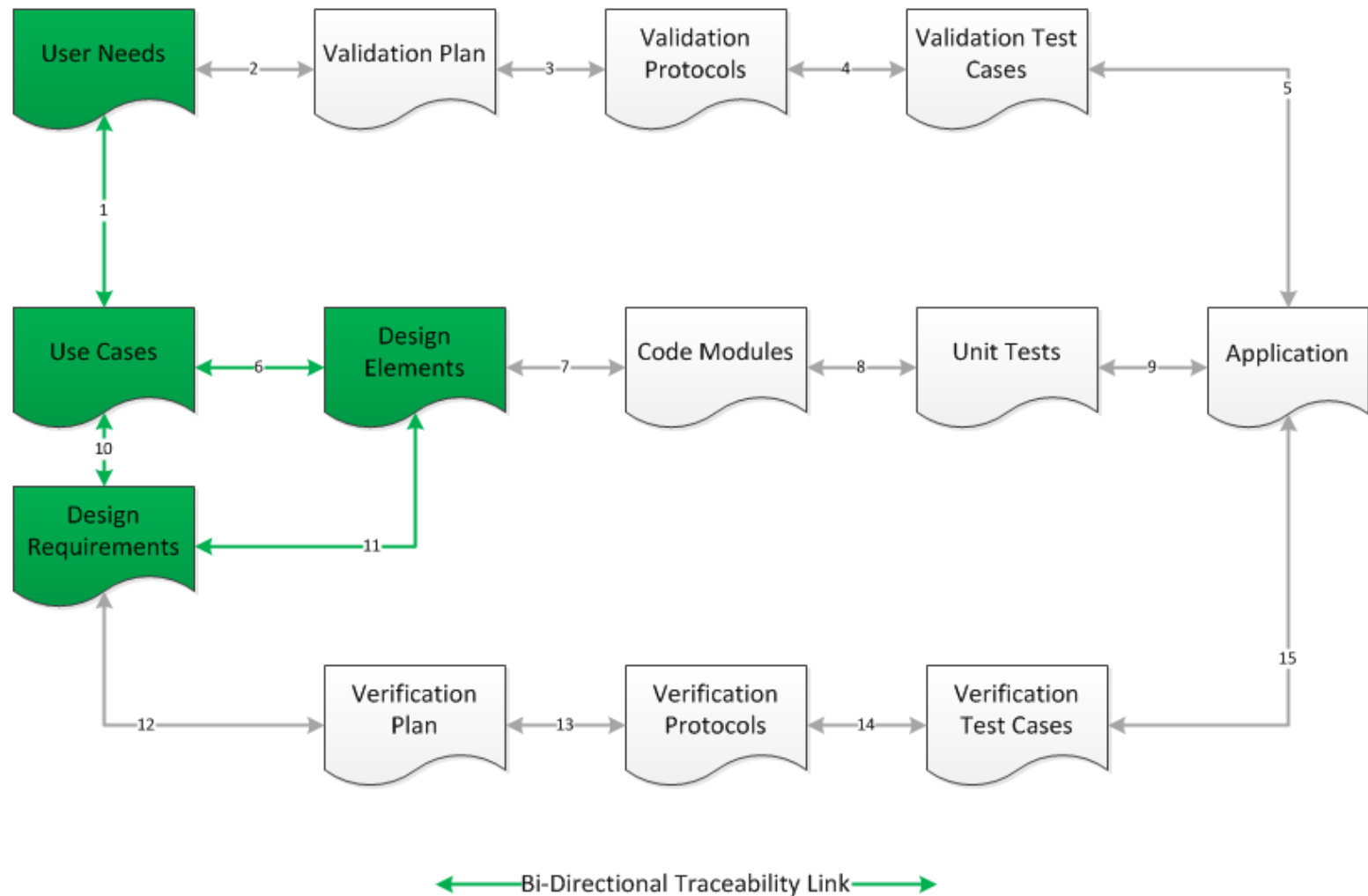
Overall Traceability



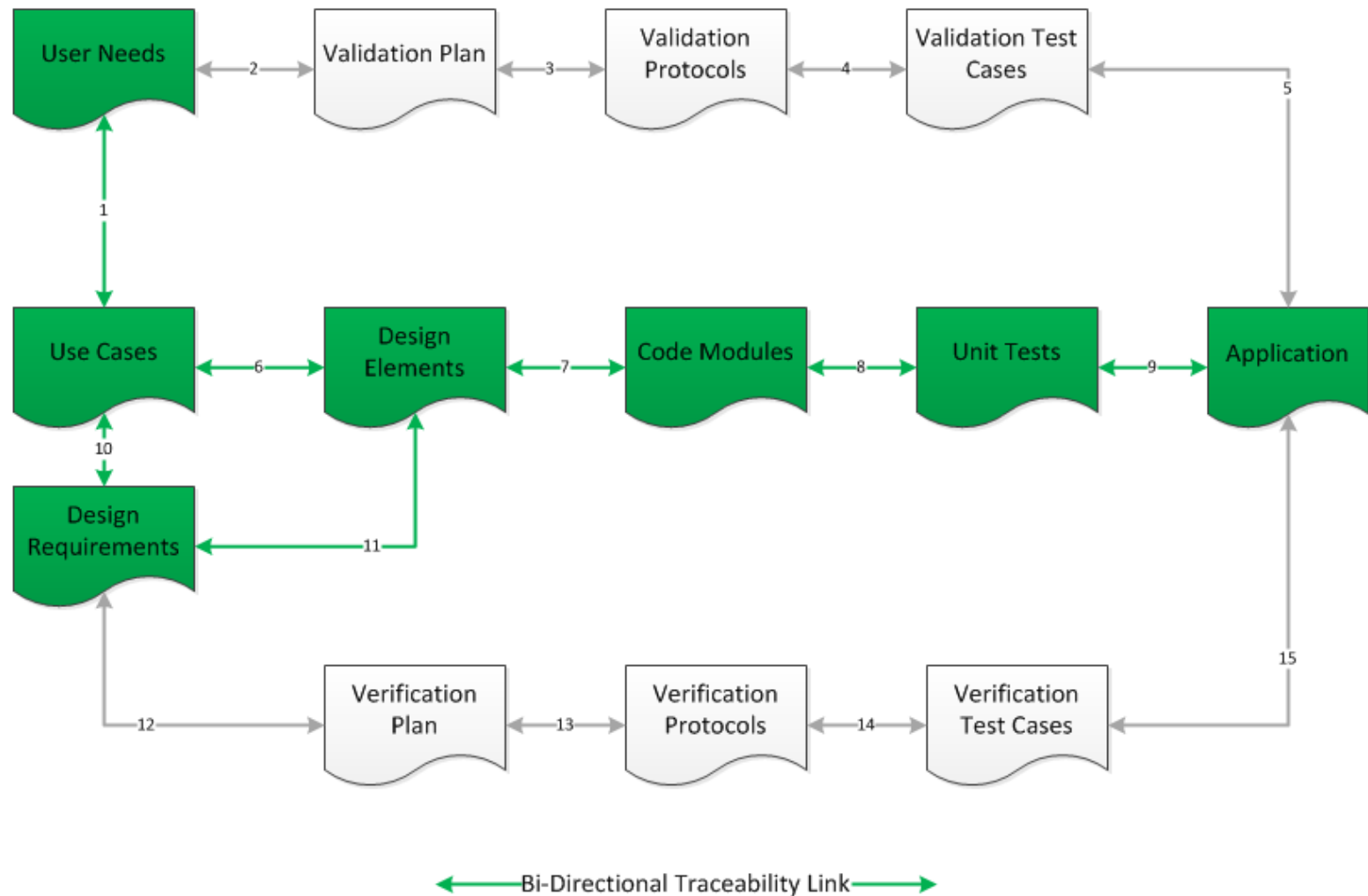
Requirements Complete



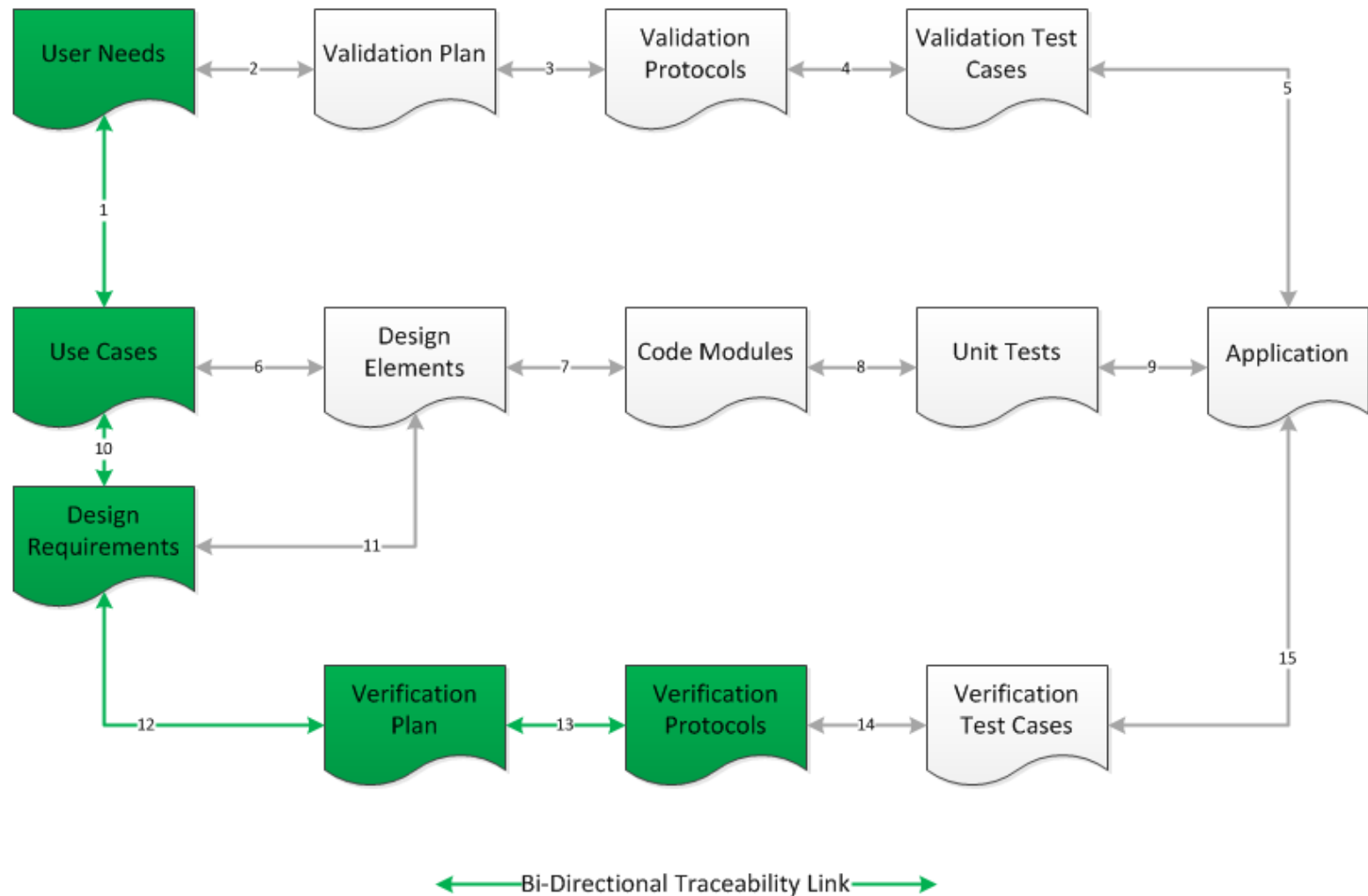
Design Complete



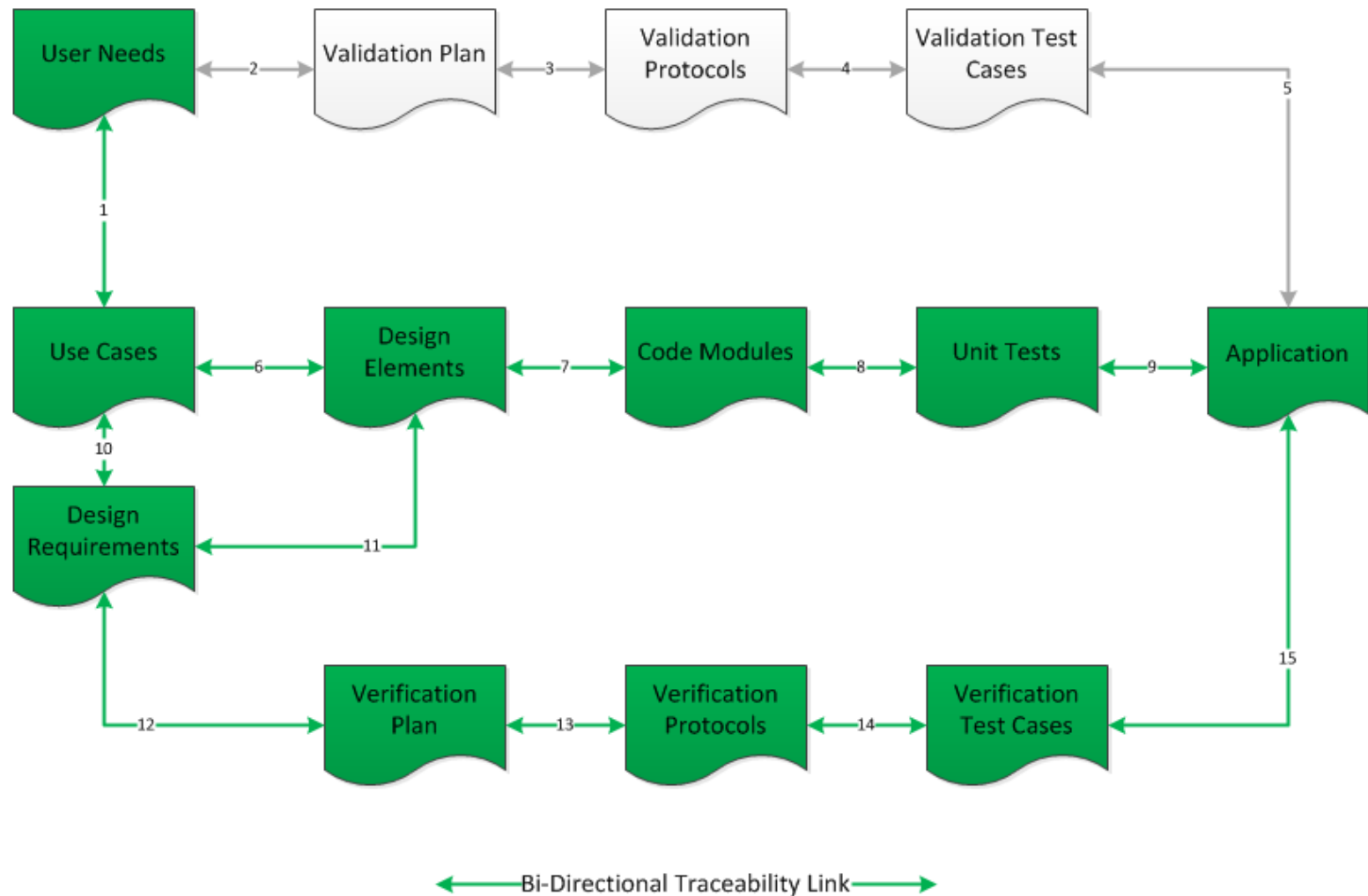
Modules Complete



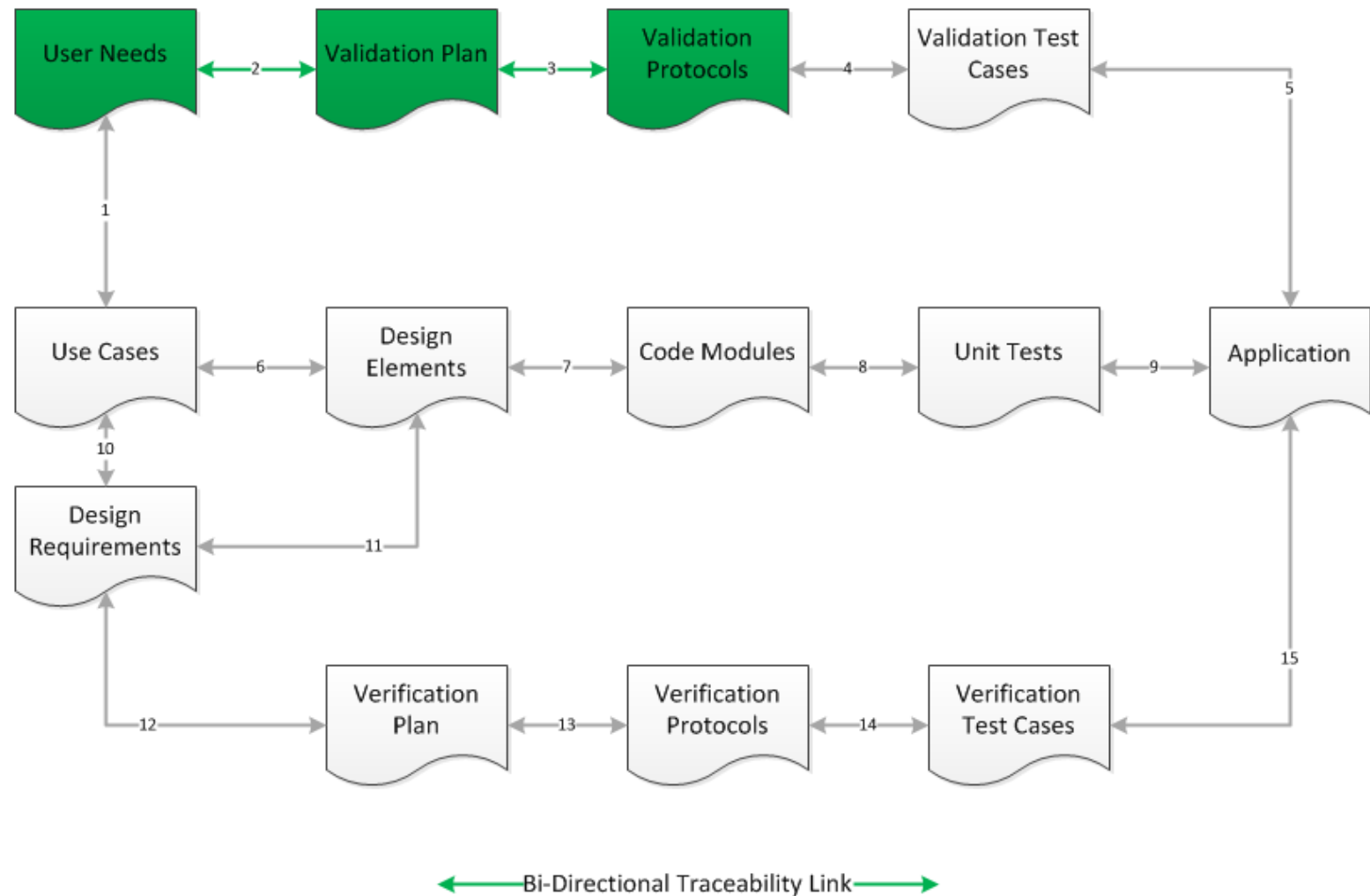
Verification Protocols Complete



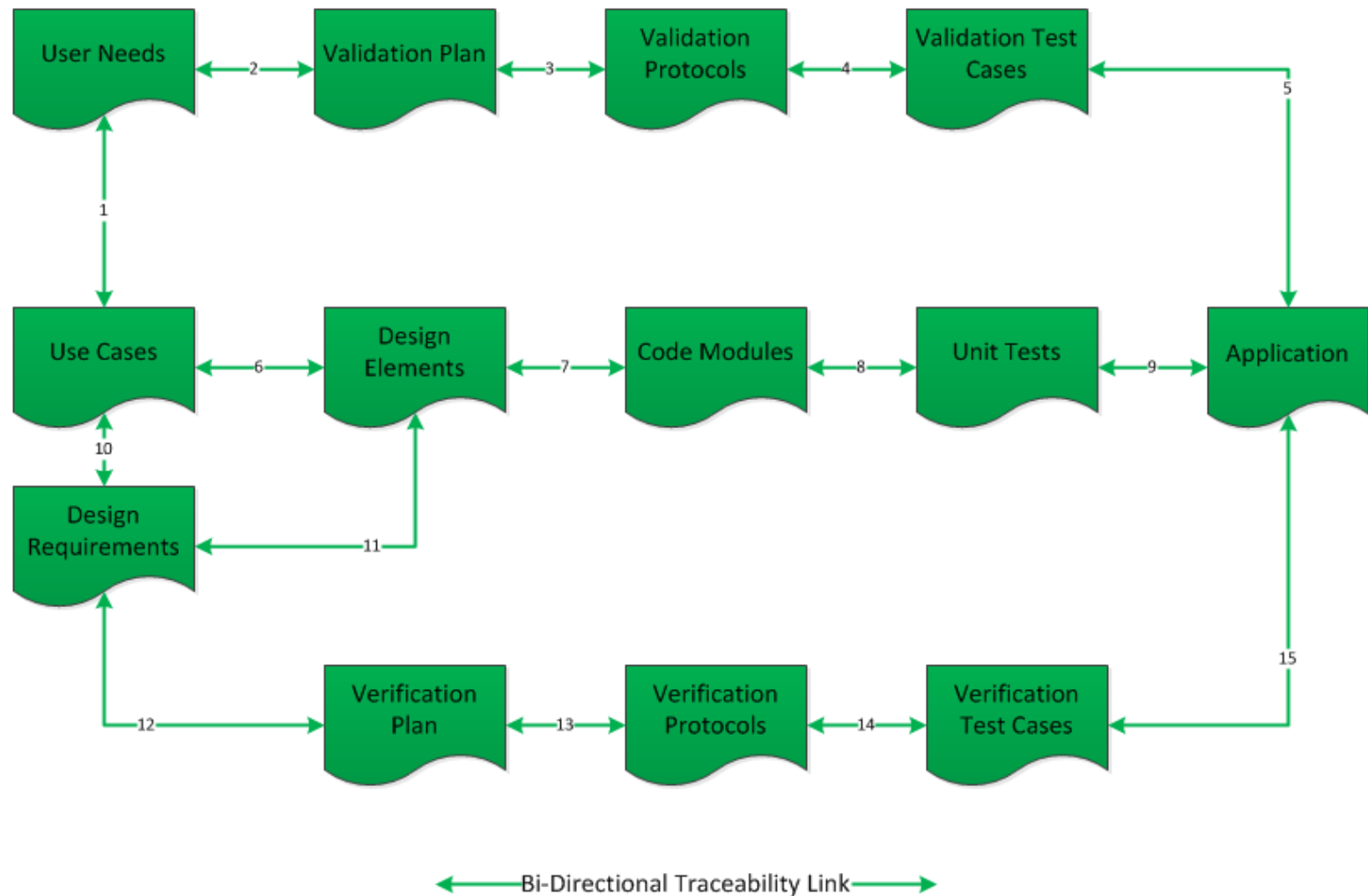
Verification Complete



Validation Protocols Complete



Validation Complete



Thoughts or Questions?