

APPENDIX D

A PROPOSED BREAKDOWN FOR A COMPONENT INTEGRATION KNOWLEDGE AREA

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One of the topics whose inclusion in the Guide was hotly debated is Component Integration. While it certainly is an important part of software practice today, there were disagreements about the existence of a generally accepted body of knowledge on that topic. One of the reviewers proposed the breakdown presented here. It was decided to include it as an appendix to make sure that discussions about the topic and about this view would start as soon as possible. It is therefore a jumpstart breakdown, intended to be discussed in the following phase of the project. That is the procedure that was used for the other ten Knowledge Areas. Future efforts concerning this topic will be announced on the project web site.

1. Component Integration

A. Component definition

1. Interface specification
2. Protocol specification
3. Off-the-shelf components

B. Reference model

1. Patterns
2. Frameworks
3. Standard architectures
4. Semantic interoperability

C. Reuse

1. Type of reuse
2. Re-engineering
3. Reuse repositories
4. Cost/Benefit Analysis

2. Application Integration

A. Planning

1. Environments definition
2. Software integration strategies
3. Data integration strategies

B. Selection

1. Applications selection
2. Services selection
3. Components selection
4. Communication protocols selection
5. Integration standards selection

C. Implementation

1. Software assembly
2. Data conversion
3. Integration Testing
4. Deployment