“Great things are not done by impulse, but by a series of small things brought together.”

– Vincent Van Gogh
## Publication Record

<table>
<thead>
<tr>
<th>Version Number</th>
<th>Date Issued</th>
<th>Primary Author</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0 (partial number when in Draft)</td>
<td>Xxx</td>
<td>xxx</td>
<td>Initial Release</td>
</tr>
</tbody>
</table>


Table of Contents

1 Introduction ........................................................................................................................................... 6
2 EAMF-Augmented Solution/Software Development Lifecycle for Sample Application XXX .......... 6
  2.1 Project Governance Standard ........................................................................................................ 6
  2.2 Using the EAMF Methodology as Part of an SDLC ...................................................................... 6
  2.3 Project Management Detailed ...................................................................................................... 6
  2.4 Wiki-Based Project Collaboration ............................................................................................... 6
3 EAMF Requirements Model Engineering ......................................................................................... 6
  3.1 Requirements Engineering for Sample Application XXX .......................................................... 6
    3.1.1 Requirements Definition Methodology .................................................................................. 6
    3.1.2 Requirements Relationships ................................................................................................. 6
    3.1.3 Suggested Requirements Definition Steps ............................................................................ 6
    3.1.4 Tests Requirements Definition Methodology ......................................................................... 6
    3.1.5 Requirements and Tests Management .................................................................................. 6
    3.1.2 RequisitePro Implementation Details .................................................................................. 6
  3.2 EAMF Requirements Model Engineering for Sample Application XXX ..................................... 6
    3.2.1 EAMF Framework and Methodology Aspects ....................................................................... 6
    3.2.2 EAMF Catalog Database ..................................................................................................... 8
    3.2.1.1 Project Requirements Model Categories ........................................................................... 7
    3.2.1.2 EAMF Requirements Model Relationships ....................................................................... 7
    3.2.1.3 Mapping Requirements into the EAMF Requirements Model ........................................ 8
    3.2.1.4 Reasoning about Business Entities’ Dependencies and Goals ........................................ 8
    3.2.1.5 Documenting Requirements Modeling Activities ............................................................ 8
    3.2.1.6 Populating Requirements Model Categories ..................................................................... 8
    3.2.1.7 Building Requirements Models Iteratively ...................................................................... 8
    3.2.2 EAMF Requirements Model Engineering Implementation for Sample Application XXX .... 8
      3.2.2.1 Sparx Systems EA Implementation Details ..................................................................... 8
      3.2.2.2 IBM Rational ReqPro Implementation Details .............................................................. 8
      3.2.2.3 Additional EAMF Implementation Tools ....................................................................... 8
      3.2.2.4 EAMF Catalog Database ................................................................................................ 8
  3.3 Requirements Engineering and EAMF Requirements Model Engineering for Sample Application XXX ............. 8
    3.3.1 Requirements Definition for Sample Application XXX .......................................................... 8
    3.3.2 EAMF Requirements Model Engineering for Sample Application XXX .................................. 8
      3.3.2.1 Mapping Requirements into the EAMF Requirements Model ........................................ 8
      3.3.2.2 Reasoning about Business Entities’ Dependencies and Goals ........................................ 8
4 Business Architecture Model Development Methodology ...................................................................... 8
  4.1 Analysis ........................................................................................................................................... 8
    4.1.1 EAMF Framework and Methodology Aspects ....................................................................... 8
    4.1.2 EAMF Business Architecture Analysis Implementation ......................................................... 9
      4.1.2.1 Sparx Systems EA Implementation Details ....................................................................... 9
      4.1.2.2 Additional EAMF Implementation Tools ......................................................................... 9
9.2 Methodology Summary .............................................................................................................12

9.1 Construction Approach............................................................................................................11

8.4 Enterprise Architecture Aspects for Sample Application XXX ................................................11

8.3 Business, Information, Application, and Technology Architecture Oversight Aspects ............11

8.2 Governance Aspects ..................................................................................................................11

7.4 Technology Architecture for Sample Application XXX ...........................................................11

7.3 Methodology Summary .............................................................................................................11

7.2 Design.....................................................................................................................................11

7.1 Analysis .....................................................................................................................................10

6.4 Application Architecture for Sample Application XXX ...........................................................11

6.3 Methodology Summary .............................................................................................................10

6.2 Design.....................................................................................................................................10

6.1 Analysis .....................................................................................................................................10

5.4 Information Architecture for Sample Application XXX ...........................................................10

5.3 Methodology Summary .............................................................................................................10

5.2 Design.....................................................................................................................................10

5.1 Analysis .....................................................................................................................................10

4.4 Business Architecture for Sample Application XXX ...............................................................10

4.3 Methodology Summary .............................................................................................................10

4.2 Design.....................................................................................................................................9

4.1 EAMF Framework and Methodology Aspects ........................................................................9

4.1.1 URN Design Model Elicitation ..............................................................................................9

4.1.2 Business Architecture Reuse Constraints Elicitation ..........................................................9

4.1.3 Business Architecture Patterns Constraints Elicitation .......................................................9

4.1.4 Business Architecture Model Elicitation ..............................................................................9

4.2.2 EAMF Business Architecture Design Implementation ..........................................................9

4.2.2.1 Sparx Systems EA Implementation Details .....................................................................9

4.2.2.2 Additional EAMF Implementation Tools ........................................................................9

4.2.1 EAMF Framework and Methodology Aspects ........................................................................9

4.2.1.1 URN Design Model Elicitation ..........................................................................................9

4.2.1.2 Business Architecture Reuse Constraints Elicitation ........................................................9

4.2.1.3 Business Architecture Patterns Constraints Elicitation ....................................................9

4.2.1.4 Business Architecture Model Elicitation .........................................................................9

4.4.1 Business Architecture High-Level Analysis for Sample Application XXX ................................9

4.4.1.1 Identifying Entities and their Relationships ......................................................................9

4.4.1.2 Business Use Case Modeling ............................................................................................9

4.4.1.3 Documenting the Conceptual Business Architecture ......................................................10

4.4.1.4 Business Process Modeling via URN Modeling ...............................................................10

4.4.1.5 Organization and Location Modeling ..............................................................................10

4.4.1.6 Identifying Candidate Business Patterns .........................................................................10

4.4.1.7 Identifying Candidate Reference Projects ......................................................................10

4.4.2 Business Architecture High-Level Design for Sample Application XXX ................................10

4.4.2.1 URN Design Model Elicitation ..........................................................................................10

4.4.2.2 Business Architecture Reuse Constraints Elicitation ........................................................10

4.4.2.3 Business Architecture Patterns Constraints Elicitation ....................................................10

4.4.2.4 Business Architecture Model Elicitation .........................................................................10

4.4.3 Business Architecture Detailed Analysis for Sample Application XXX ................................10

4.4.4 Business Architecture Detailed Design for Sample Application XXX ................................10

5 Information Architecture Development Methodology ......................................................................10

6 Application Architecture Development Methodology .....................................................................10

7 Technology Architecture Development Methodology ......................................................................11

8 Enterprise Architecture Development Methodology ........................................................................11

9 EAMF-Based Solution Construction Aspects ...............................................................................11

9.1 Construction Approach .............................................................................................................11

9.1.1 Construction Methodology ..................................................................................................11

9.1.2 Construction Methodology Implementation .........................................................................12

9.2 Methodology Summary .............................................................................................................12
9.3 Sample Application XXX Construction .................................................. 12

10 EAMF-Based Solution Transition Aspects ............................................. 12
  10.1 Transition Approach ........................................................................... 12
  10.1.1 Transition Methodology ............................................................... 12
  10.1.2 Transition Methodology Implementation ...................................... 12
  10.2 Methodology Summary .................................................................... 12
  10.3 Sample Application XXX Transition ................................................. 12

11 EAMF-Based Project Collaboration Framework ..................................... 12
  11.1 Collaboration Shell ........................................................................... 12
  11.2 Requirements Engineering Artifacts Visibility ............................... 12
  11.3 EAMF Artifacts Visibility ................................................................. 12
  11.4 Software Development Artifacts Visibility ...................................... 12
  11.5 Software Artifacts Visibility ............................................................ 12
  11.6 Maintenance Artifacts Visibility ..................................................... 12
  11.7 EAMF-Based Project Collaboration Framework for Sample Application XXX .................................................. 12

12 Conclusion: ......................................................................................... 13

Glossary ................................................................................................... 14

References ............................................................................................... 15

Appendix A: IBM Rational ReqPro Partial Report for Sample Application XXX .................................................. 16
Appendix B: Business Architecture Artifacts Catalog for Sample Application XXX .................................................. 16
Appendix C: Information Architecture Artifacts Catalog for Sample Application XXX .................................................. 16
Appendix D: Application Architecture Artifacts Catalog for Sample Application XXX .................................................. 16
Appendix E: Technology Architecture Artifacts Catalog for Sample Application XXX .................................................. 16
Appendix F: Enterprise Architecture Artifacts Catalog for Sample Application XXX .................................................. 16
Appendix G: Construction Artifacts Catalog for Sample Application XXX .................................................. 16
Appendix H: Transition Artifacts Catalog for Sample Application XXX .................................................. 16
Appendix I: Collaboration Framework Artifacts Catalog for Sample Application XXX .................................................. 16
Appendix J: EAMF Framework Summarized ............................................ 16
Appendix K: EAMF UML 2.0 Metamodel ................................................. 16
Table of Figures
1 Introduction

2 EAMF-Augmented Solution/Software Development Lifecycle for Sample Application XXX

2.1 Project Governance Standard

2.2 Using the EAMF Methodology as Part of an SDLC

2.3 Project Management Detailed

2.4 Wiki-Based Project Collaboration

3 EAMF Requirements Model Engineering

3.1 Requirements Engineering for Sample Application XXX

3.1.1 Requirements Definition Methodology

3.1.1.1 Project Requirements Types and Categories

3.1.1.2 Requirements Relationships

3.1.1.3 Suggested Requirements Definition Steps

3.1.1.4 Tests Requirements Definition Methodology

3.1.1.5 Requirements and Tests Management

3.1.2 RequisitePro Implementation Details

3.2 EAMF Requirements Model Engineering for Sample Application XXX

3.2.1 EAMF Framework and Methodology Aspects
3.2.1.1 Project Requirements Model Categories

3.2.1.2 EAMF Requirements Model Relationships
3.2.1.3 Mapping Requirements into the EAMF Requirements Model
3.2.1.4 Reasoning about Business Entities’ Dependencies and Goals
3.2.1.5 Documenting Requirements Modeling Activities
3.2.1.6 Populating Requirements Model Categories
3.2.1.7 Building Requirements Models Iteratively
3.2.2 EAMF Requirements Model Engineering Implementation for Sample Application XXX
3.2.2.1 Sparx Systems EA Implementation Details
3.2.2.2 IBM Rational ReqPro Implementation Details
3.2.2.3 Additional EAMF Implementation Tools
3.2.2.4 EAMF Catalog Database

3.3 Requirements Engineering and EAMF Requirements Model Engineering for Sample Application XXX
3.3.1 Requirements Definition for Sample Application XXX
3.3.2 EAMF Requirements Model Engineering for Sample Application XXX
3.3.2.1 Mapping Requirements into the EAMF Requirements Model
3.3.2.2 Reasoning about Business Entities’ Dependencies and Goals

4 Business Architecture Model Development Methodology

4.1 Analysis
4.1.1 EAMF Framework and Methodology Aspects
4.1.1.1 Identifying Entities and their Relationships
4.1.1.2 Business Use Case Modeling
4.1.1.3 Documenting the Conceptual Business Architecture
4.1.1.4 Business Process Modeling via URN Modeling
4.1.1.5 Organization and Location Modeling
4.1.1.6 Identifying Candidate Business Patterns
4.1.1.7 Identifying Candidate Reference Projects

4.1.2 EAMF Business Architecture Analysis Implementation
4.1.2.1 Sparx Systems EA Implementation Details
4.1.2.2 Additional EAMF Implementation Tools

4.2 Design
4.2.1 EAMF Framework and Methodology Aspects
4.2.1.1 URN Design Model Elicitation
4.2.1.2 Business Architecture Reuse Constraints Elicitation
4.2.1.3 Business Architecture Patterns Constraints Elicitation
4.2.1.4 Business Architecture Model Elicitation
4.2.2 EAMF Business Architecture Design Implementation
4.2.2.1 Sparx Systems EA Implementation Details
4.2.2.2 Additional EAMF Implementation Tools

4.3 Methodology Summary

4.4 Business Architecture for Sample Application XXX
4.4.1 Business Architecture High-Level Analysis for Sample Application XXX
4.4.1.1 Identifying Entities and their Relationships
4.4.1.2 Business Use Case Modeling
4.4.1.3 Documenting the Conceptual Business Architecture
4.4.1.4 Business Process Modeling via URN Modeling
4.4.1.5 Organization and Location Modeling
4.4.1.6 Identifying Candidate Business Patterns
4.4.1.7 Identifying Candidate Reference Projects
4.4.2 Business Architecture High-Level Design for Sample Application XXX
4.4.2.1 URN Design Model Elicitation
4.4.2.2 Business Architecture Reuse Constraints Elicitation
4.4.2.3 Business Architecture Patterns Constraints Elicitation
4.4.2.4 Business Architecture Model Elicitation
4.4.3 Business Architecture Detailed Analysis for Sample Application XXX
4.4.4 Business Architecture Detailed Design for Sample Application XXX

5 Information Architecture Development Methodology

5.1 Analysis

5.2 Design

5.3 Methodology Summary

5.4 Information Architecture for Sample Application XXX

6 Application Architecture Development Methodology

6.1 Analysis
6.2 Design

6.3 Methodology Summary

6.4 Application Architecture for Sample Application XXX

7 Technology Architecture Development Methodology

7.1 Analysis

7.2 Design

7.3 Methodology Summary

7.4 Technology Architecture for Sample Application XXX

8 Enterprise Architecture Development Methodology

8.1 Business Strategy Aspects

8.2 Governance Aspects

8.3 Business, Information, Application, and Technology Architecture Oversight Aspects

8.4 Enterprise Architecture Aspects for Sample Application XXX

9 EAMF-Based Solution Construction Aspects

9.1 Construction Approach

9.1.1 Construction Methodology
9.1.2 Construction Methodology Implementation

9.2 Methodology Summary

9.3 Sample Application XXX Construction

10 EAMF-Based Solution Transition Aspects

10.1 Transition Approach
   10.1.1 Transition Methodology
   10.1.2 Transition Methodology Implementation

10.2 Methodology Summary

10.3 Sample Application XXX Transition

11 EAMF-Based Project Collaboration Framework

11.1 Collaboration Shell

11.2 Requirements Engineering Artifacts Visibility

11.3 EAMF Artifacts Visibility

11.4 Software Development Artifacts Visibility

11.5 Software Artifacts Visibility

11.6 Maintenance Artifacts Visibility

11.7 EAMF-Based Project Collaboration Framework for Sample Application XXX
12Conclusion:
# Glossary

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## References

<table>
<thead>
<tr>
<th>Information</th>
<th>Source</th>
</tr>
</thead>
</table>


Appendix A: IBM Rational ReqPro Partial Report for Sample Application XXX

Appendix B: Business Architecture Artifacts Catalog for Sample Application XXX

Appendix C: Information Architecture Artifacts Catalog for Sample Application XXX

Appendix D: Application Architecture Artifacts Catalog for Sample Application XXX

Appendix E: Technology Architecture Artifacts Catalog for Sample Application XXX

Appendix F: Enterprise Architecture Artifacts Catalog for Sample Application XXX

Appendix G: Construction Artifacts Catalog for Sample Application XXX

Appendix H: Transition Artifacts Catalog for Sample Application XXX

Appendix I: Collaboration Framework Artifacts Catalog for Sample Application XXX

Appendix J: EAMF Framework Summarized

Appendix K: EAMF UML 2.0 Metamodel