IT Methodology Webinar

A Context for IT Methodology

PROJECTinsight®

Project & Portfolio Management Software

Initiate Project Intelligence®

Things to Know…

- All participants will be on mute
- Questions are welcome
- Ask questions in the question box
- We **DO NOT** send out PDU certificates
- May be valid for PDU credit (**self-report session)**

  - For more information check out article on Webinars and PDUs

  http://www.projectinsight.net/support/kb/webinars-and-pdus

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Moderator

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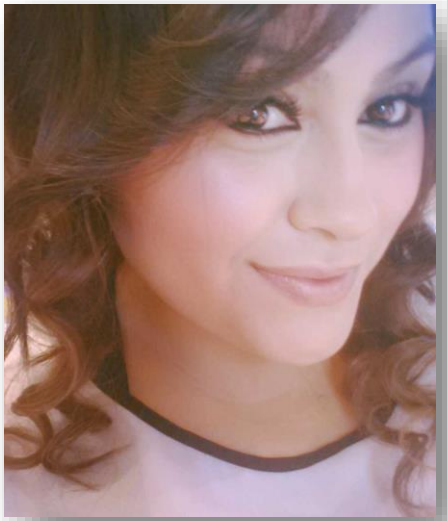

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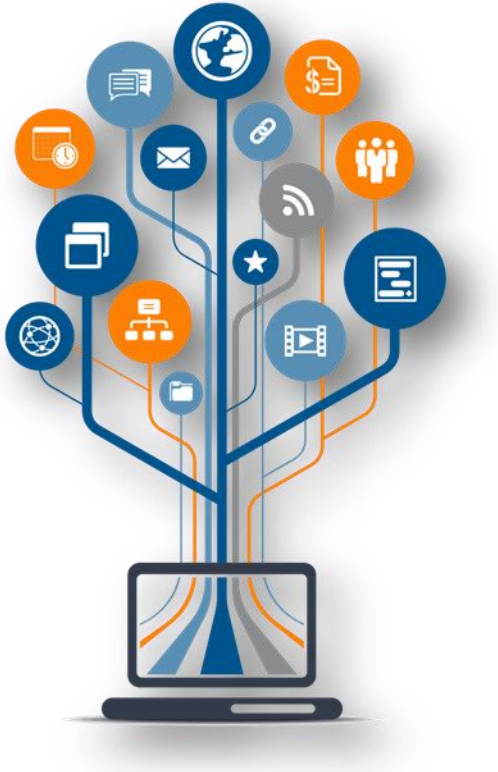

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- Request info: www.projectinsight.net

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Presenter

Cameron Watson

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Who's on the call?

- I am a Project Manager
- I am a Business or Operational Manager
- I am a software developer or software tester
- I am a member of an organizational PMO, governance or quality assurance function
- I want a better understanding of IT Methodology

PROJECTinsight

Who is QAIassist?

- Established 2007 – Ottawa, Canada
- Nurturing organizational efficiency through IT Methodology knowledge & expertise
- Support and promote a community with evolving IT Methodology knowledge and expertise
- Maintain, optimize, promote and support the delivery of IT methodology products and lifecycles proven to increase operational performance
- Administration and oversight of QAIassist Integrated Methodology (QAIassist-IM) and formal certifications – “Foundation” & “Practitioner”
- Support practitioners and authorized affiliates in acquiring and delivering IT Methodology knowledge and expertise

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IT Methodology Webinar Audience

- **Nurturing efficiency through IT Methodology knowledge & expertise across the globe**
  - Over 200 countries
  - Wide array of industries (manufacturing, banking, health, insurance, consulting)
  - More than 50 unique webinars
- **Over 10,000 webinar registrants**
  - Executives
  - Operational & Delivery Managers
  - Project Managers
  - Business Analysts and Architects
  - Application Developers & Testers
  - Corporate PMO, Quality Assurance, Continuous Improvement
  - Consultants

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QAIassist 2017 Series - Goals

- Share IT Methodology knowledge
- Develop IT methodology understanding & expertise
- Provide additional insight into several IT (project management, software development, software testing) methodologies
- Discuss best practices on incorporating an organizational IT methodology
- Promote ongoing dialog and feedback with webinar audience (questions, email, survey)

2016 Survey Results

- IT Methodology experience and knowledge level of webinar audiences is varied
  - "Fledgling" seeking to acquire general and conceptual IT Methodology information
  - "Veterans" and seeking "nuts and bolts" and more detailed IT Methodology information
  - Most attendees are seeking more interaction and dialog (questions, polls, surveys, feedback) throughout the webinar sessions

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2017 Schedule

- **The 3rd Wednesday of Every Month**
  - 8:00 am Pacific - 11:00 am Eastern Time
- **IT Methodology Concepts (60 mins)**
  - This series of six webinars will be presented on a bi-monthly basis. Each webinar will provide you with a context, overview, terminology and general understanding of information technology (IT) methodology.
- **IT Methodology – Tutorials (45 mins)**
  - This series of five webinars will be presented on a bi-monthly basis. Each session is designed to offer a more “hands on” perspective – bridging the concepts into a practical utilization.

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2017 Concept Sessions

- **The 3rd Wednesday of Month (Jan, Mar, May, Jul, Sept, Nov)**
  - 8:00 am Pacific - 11:00 am Eastern Time
- **IT Methodology Concepts (60 mins)**
  - A Context for IT Methodology - (Jan)
  - Apply PM Fundamentals to IT - (Mar)
  - Leverage the Software Development Lifecycle - (May)
  - Explore the Software Testing Lifecycle - (Jul)
  - Incorporate Organizational Process Governance - (Sept)
  - Implementing IT Methodology - (Nov)

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2017 Tutorial Sessions

- **The 3rd Wednesday of Month (Feb, Apr, Jun, Aug, Oct)**
  - 8:00 am Pacific - 11:00 am Eastern Time
- **IT Methodology Tutorials (60 mins)**
  - Applying IT Methodology to Project Initiation - (Feb)
  - Project Planning & Design with IT in Mind - (Apr)
  - Executing Projects with IT Methodologies - (Jun)
  - Project Control & Verification - (Aug)
  - Project Close & Delivery - (Oct)

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A Context for IT Methodology
Concept I – Goals

- Establish a context for the term “IT Methodology”
- Introduce general “IT Methodology” concepts

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A Context for IT Methodology
Concepts I – Agenda

- IT Methodology - general context
- IT Methodology - as a “noun” and a “verb”
- IT Methodology constructs and hierarchy - “noun” (lifecycles, phases, deliverables)
- IT Methodology - “verb” (waterfall, agile, spiral, RAD)
- IT Methodology structure & deliverable examples - “noun” (project management, software development, software testing)
- IT Methodology - organizational compatibility and benefits
- Recap

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Methodology
Terms, Terms, Terms

- ISO(900XXX)
- Agile
- CMMI
- ITIL
- Waterfall
- Rational Unified Process (RUP)
- QAIassist (IM)
- PMI
- Six-Sigma
- Prince2
- COBIT

And More Terms…

- IT Framework, IT Methodology, IT Lifecycle
  - Non Standard usage in terminology
  - Terms are used interchangeably between organizations and across the IT industry
  - Examples include
    - Project Management — Methodology/Lifecycle/Framework
    - Software Development — Methodology/Lifecycle (SDLC)/Framework
    - Software Testing — Methodology/Lifecycle/Framework
  - Every IT organization is using an IT Methodology or IT Lifecycle or IT Framework

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IT Methodology Context

- Organizational Frameworks
  - ISO(900XXX), CMMI, Six-Sigma, ITIL, COBIT
- Methodologies/Lifecycles (noun)
  - Rational Unified Process (RUP), QAIassist (IM), PMI, Prince2
- Methodologies/Lifecycles (verb)
  - Waterfall, Spiral, Agile, RAD, etc

IT Methodology Context

- **Organizational Frameworks**
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  - Waterfall, Spiral, Agile, RAD, etc

IT Methodology Frameworks - Generalities

- ISO (xxx), SEI-CMMI, Six Sigma, ITIL, COBIT
  - Broad in Scope – organizational wide
  - Process based – pre-defined criteria (interpretive)
  - Quality Management component
  - Process Metric and Process Improvement components
  - Certified Practitioners formally trained
  - Public recognition for organizational certification
  - Primarily implemented at large sized organizations

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Frameworks – ISO (XXX)

- ISO – **I**nternational **O**rganization for **S**tandardization
  - Founded 1946 – ISO translates to “equal”
  - Centralized in Geneva, Switzerland – 161 countries represented
  - Largest developer and publisher of international standards
  - ie 9001 – Quality Management, 14001 – Environmental Management
  - Predefined criteria, certified auditors
  - Formal audits completed and recorded
  - Accreditation recognized
  - Reference - http://www.iso.org/iso/home.html

Frameworks – SEI/CMMI

- SEI/CMMI – Software Engineering Institute (Capability Maturity Model – Integrated) – transferred to CMMI Institute (Carnegie Mellon University)
  - United States Department of Defense and Carnegie Mellon University /Software Engineering Institute (SEI) – early 1990's
  - Located in Pittsburgh, Pennsylvania – implemented worldwide
  - Software Engineering, computer security, process management and improvement
  - Formal assessments performed and recorded – accreditation recognized
  - Reference – http://www.sei.cmu.edu/cmmi/
  - Reference - http://cmmiinstitute.com/

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Frameworks – Six Sigma

- Six Sigma – Business Management Strategy – Quality Management
  - Business and Manufacturing Processes – Motorola mid 1980's
  - Improve the quality of process outputs by identifying and removing the causes of process defects (errors) and minimizing variability
  - Implemented worldwide – statistical methods based on defined sequence of steps and has quantified financial targets (cost reduction and/or profits)
  - Implementation via Qualified/Certified resources – Black Belt, Blue Belt
  - Dependent on internal operational processes

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Frameworks – ITIL

- ITIL – **I**nformation **T**echnology **I**nfrastructure **L**ibrary
  - Registered trademark owned by the United Kingdom's – Office of Government Commerce
  - Widely used approach for IT Service Management – service desk, application management, IT operations, technical management
  - Aimed at aligning IT services with business objectives
  - Pre-scribes tasks, procedures and checklists (non organizational specific) used by an organization to establish a minimum level of competency
  - Implemented worldwide - by organizations (certified practitioners)
  - Reference – www.itil-officialsite.com/

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Frameworks – ISACA/COBit

- ISACA maintains COBIT, which helps IT professionals and enterprise leaders fulfill their IT governance and management responsibilities, and delivers value to business
  - Created by Information Systems Audit and Control Association (ISACA) -1967
  - Original acronym “COBIT” (**C**ontrol **OB**jectives for **I**nformation and related **T**echnology) - 1967
  - Pre-defined processes used to manage Information Technology
  - Four IT Domains (Plan and Organize, Acquire and Implement, Deliver and Support, Monitor and Evaluate)
  - Implemented around the world
  - Reference - http://www.isaca.org/Knowledge-Center/COBIT/Pages/Overview.aspx

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Frameworks – Summary

- **ISO (xxx)**
  - Largest developer and publisher of international standards, multiple frameworks including 9001 – Quality Management, 14001 – Environmental Management
- **SEI/CMMI**
  - Software Engineering, computer security, process management and improvement
- **Six Sigma**
  - Improve the quality of business and manufacturing process outputs by identifying and removing the causes of process defects (errors) and minimizing variability
- **ITIL**
  - Aimed at aligning IT services with business objectives, widely used approach for IT Service Management – service desk, application management, IT operations, technical management
- **COBIT**
  - Helps IT professionals and enterprise leaders fulfill their IT governance and management responsibilities, and delivers value to business

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IT Methodology Context

- **Organizational Frameworks**
  - **ISO(900XXX), CMMI, Six-Sigma, ITIL, COBIT**
- Methodologies/Lifecycles (noun)
  - Rational Unified Process (RUP), QAIassist (IM), PMI, Prince2
- Methodologies/Lifecycles (verb)
  - Waterfall, Spiral, Agile, RAD, etc

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- **Methodologies/Lifecycles (verb)**
  - **Waterfall, Spiral, Agile, RAD, etc**

IT Methodology – noun & verb

IT Methodology – Map & Journey

- Methodologies/Lifecycles - “noun”
  - The roadmap
  - Rational Unified Process (RUP), QAIassist (IM) , PMI, Prince2
- Methodologies/Lifecycles - “verb”
  - The journey taken along the road
  - Waterfall, Spiral, Agile, RAD , Prototyping, etc

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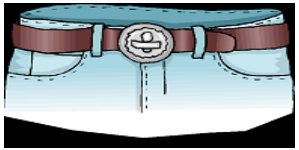
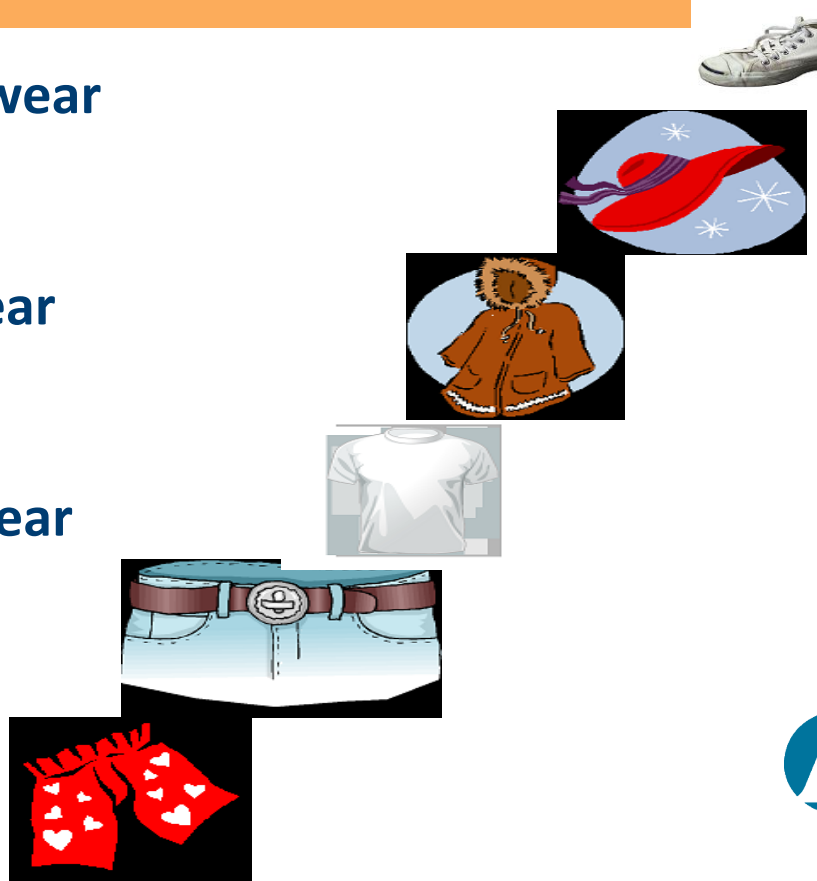
IT Methodology – ‘Noun’
Getting Dressed Analogy



- **Footwear** (shoes, sandals, etc.)
- **Outer wear** (jacket, coat, etc.)
- **Leg Wear** (pants, skirt, etc.)
- **Torso Wear** (shirt, sweater, etc.)
- **Underwear** (briefs, boxers, etc.)
- **Headwear** (hat, visor, etc.)

IT Methodology – ‘Noun’
Getting Dressed Analogy

- Would you put on Outer wear before Torso wear ?
- Would you put on Footwear before Leg wear ?
- Would you put on Headwear before Underwear ?



IT Methodology – ‘Noun’
Quiz I

- **Which of the following sequences would you use to get dressed ?**

  (a) head wear, footwear, torso wear, outer wear, underwear, leg wear

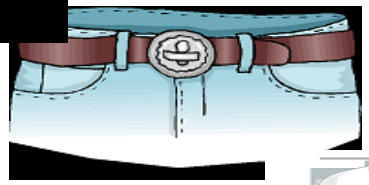
  (b) footwear, torso wear, outer wear, underwear, leg wear, headwear

  (c) torso wear, outer wear, headwear, footwear, underwear, leg wear

  (d) underwear, leg wear, headwear, footwear, outer wear, torso wear

  (e) none of the above

IT Methodology – ‘Noun’
Quiz I – Sequence Matters



- **Underwear** (briefs, boxers, etc.)
- **Leg-wear** (pants, skirt, etc.)
- **Torso-wear** (shirt, sweater, etc.)
- **Outerwear** (jacket, coat, etc.)
- **Headwear** (hat, visor, etc.)
- **Footwear** (shoes, sandals, etc.)

IT Methodology/Lifecycle - Noun

- All Methodologies/Lifecycles (RUP, QAIassist-IM, PMI, Prince2) define, utilize and rely on their own pre-defined structure, naming conventions, and terminology
- Hierarchy/Structure
  - Methodology/Lifecycle (ie Project Management, Software Development , Software Testing)
  - Phase/Stage (ie Initiate, Planning, Design, Closeout)
  - Deliverable/Artifact/Work Product (ie Project Charter, Testing Strategy)
  - Activity (tasks performed to complete deliverables, artifacts, work products)

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“Deliverable/Artifact/Work Product” versus “Activity”

Building a House

- Deliverable (Artifact, Work Product)
  - Blue Prints
  - Foundation completed
  - Windows installed
- Activity (non-Deliverable, non-Artifact, non Work Product)
  - Meeting with Architect to review Blue Prints
  - Mixing concrete to pour the foundation
  - Authorizing purchase of the wood needed to complete the window frame

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“Deliverable/Artifact/Work Product” versus “Activity”

Building an IT Application

- Deliverable (Artifact, Work Product)
  - Business Case
  - Project Plan
  - User Acceptance Test Plan
- Activity (non-Deliverable, non-Artifact, non Work Product)
  - Reviewing business need with Operational Management, Business Analysts and End-Users
  - Meeting with Stakeholders to acquire approval of Project Plan
  - Discussing User Acceptance Testing objectives and priorities with testing team

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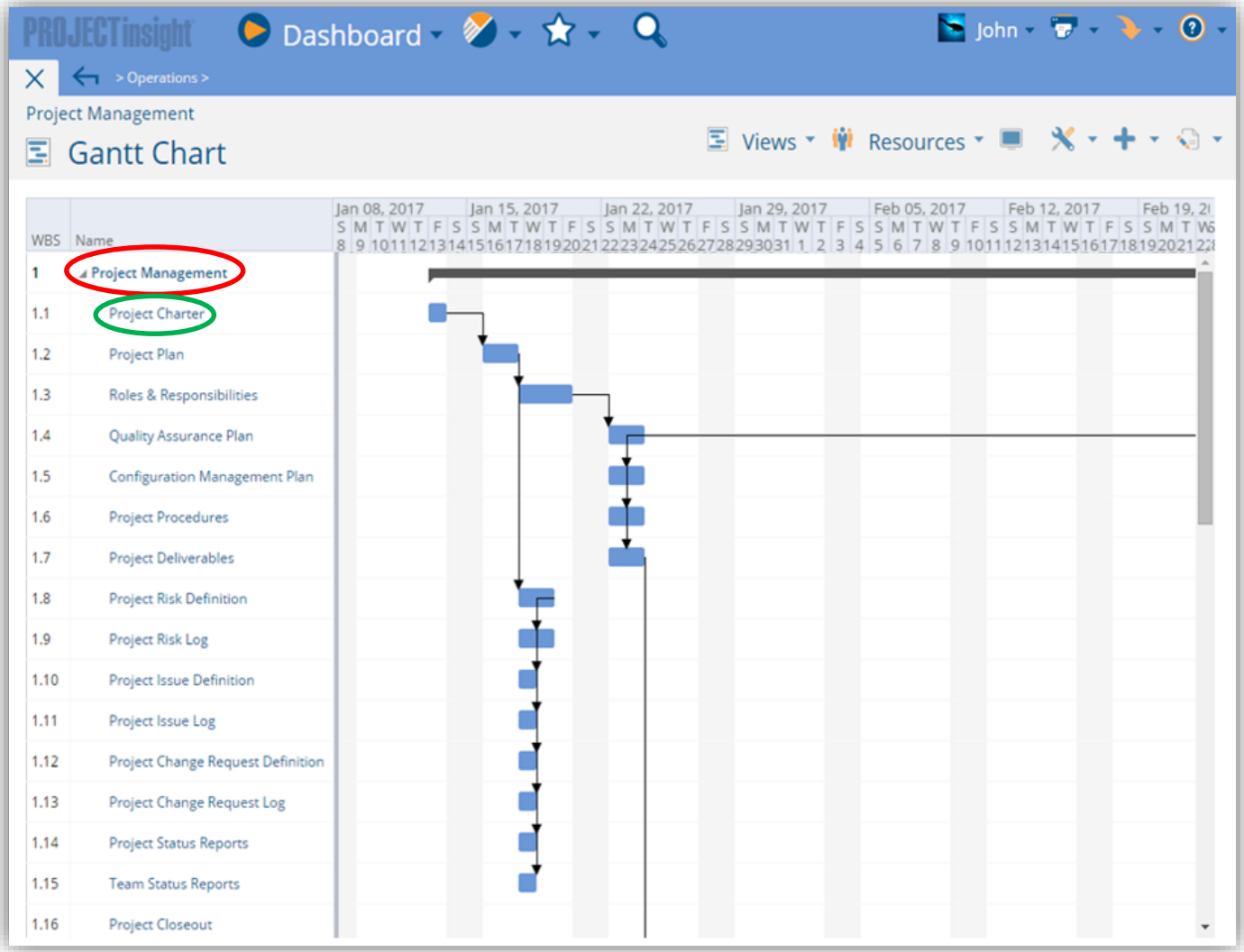
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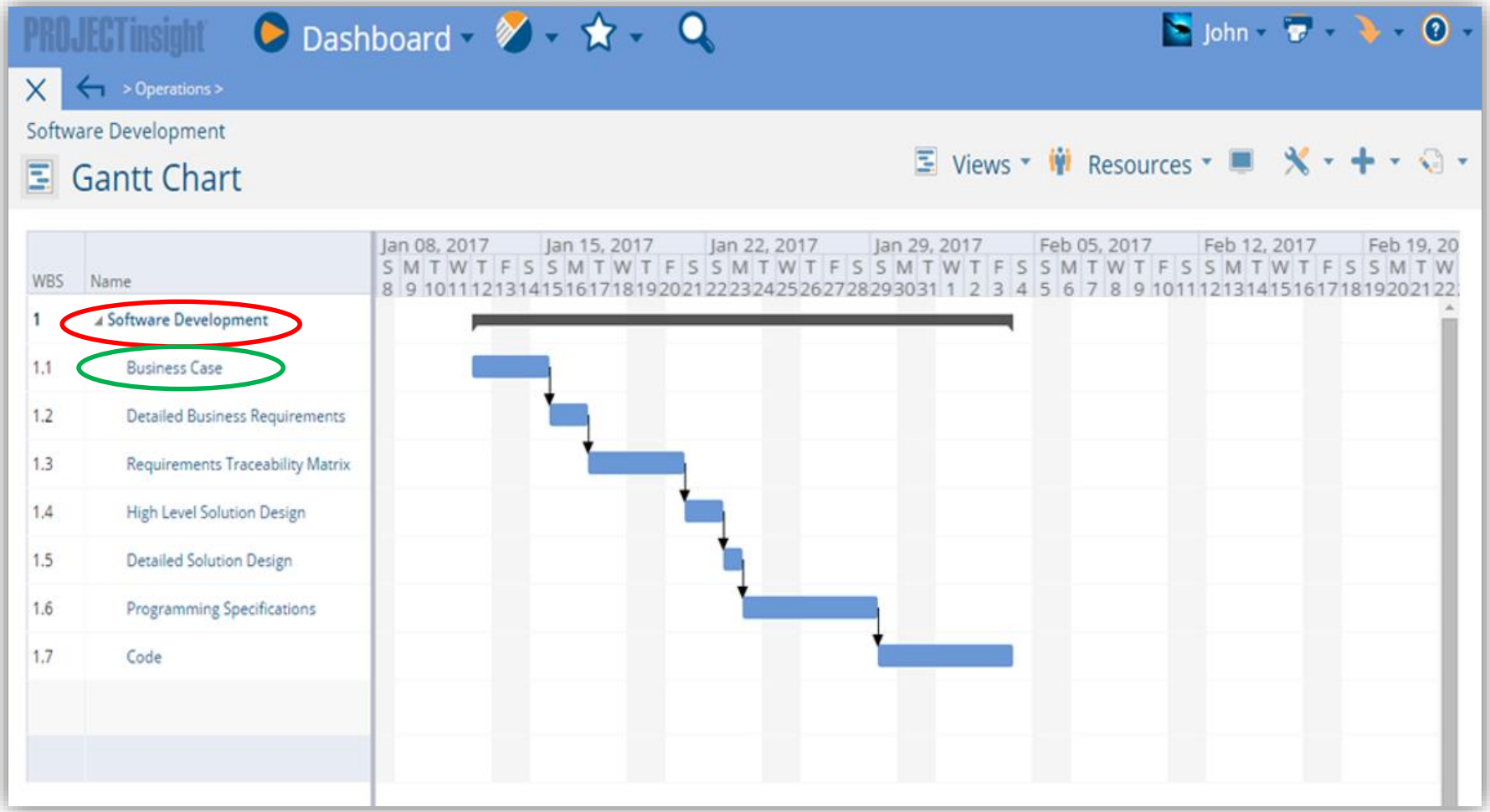
Jan 08, 2017
Jan 15, 2017
Jan 22, 2017
Jan 29, 2017
Feb 05, 2017
Feb 12, 2017
1 Project Management
1.1 Project Charter
1.2 Project Plan
1.3 Roles & Responsibilities
1.4 Quality Assurance Plan
1.5 Configuration Management Plan
1.6 Project Procedures
1.7 Project Deliverables
1.8 Project Risk Definition
1.9 Project Risk Log
1.10 Project Issue Definition
1.11 Project Issue Log
1.12 Project Change Request Definition
1.13 Project Change Request Log
1.14 Project Status Reports
1.15 Team Status Reports
1.16 Project Closeout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Name
1 Software Development
1.1 Business Case
1.2 Detailed Business Requirements
1.3 Requirements Traceability Matrix
1.4 High Level Solution Design
1.5 Detailed Solution Design
1.6 Programming Specifications
1.7 Code
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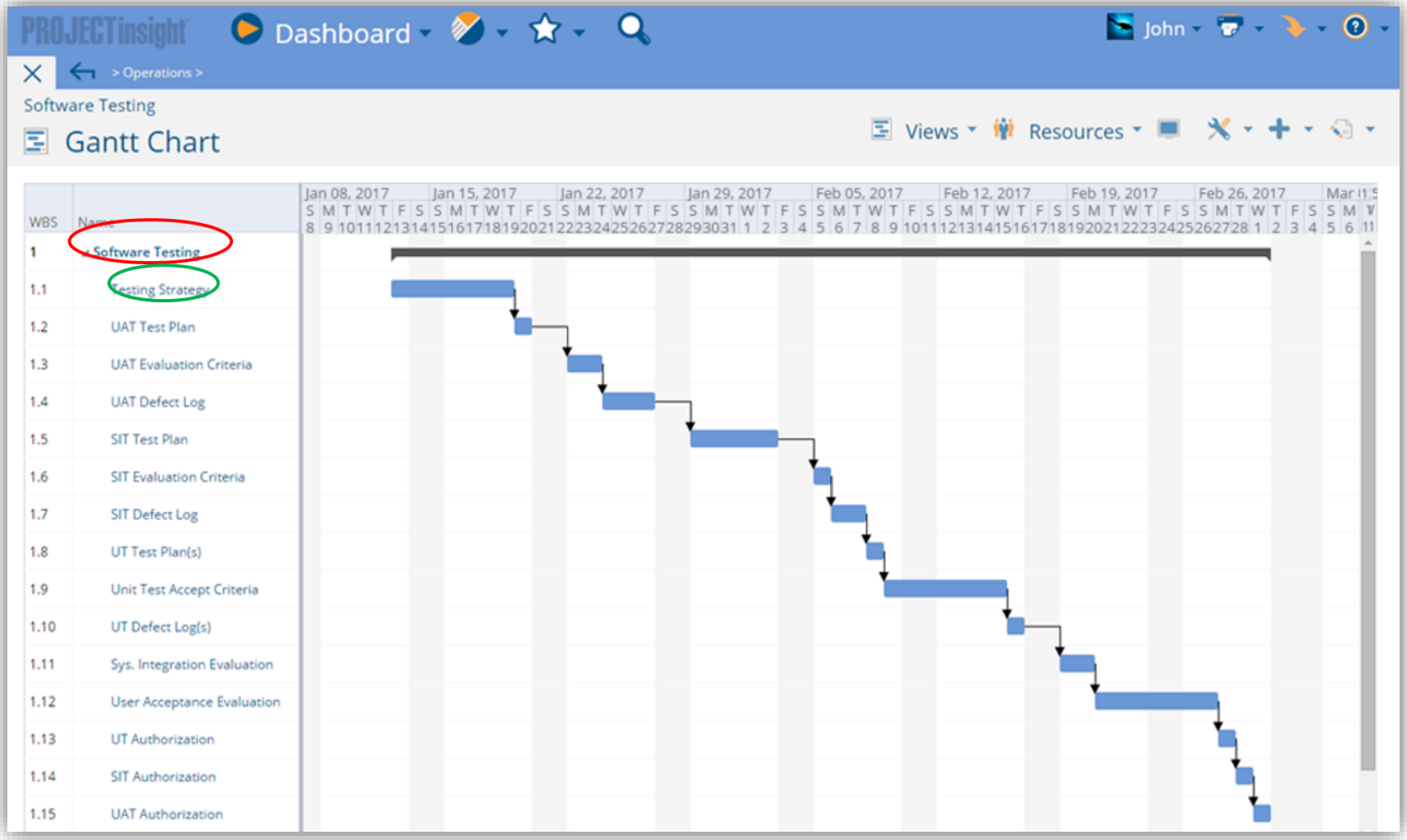
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1 Software Testing
1.1 Testing Strategy
1.2 UAT Test Plan
1.3 UAT Evaluation Criteria
1.4 UAT Defect Log
1.5 SIT Test Plan
1.6 SIT Evaluation Criteria
1.7 SIT Defect Log
1.8 UT Test Plan(s)
1.9 Unit Test Accept Criteria
1.10 UT Defect Log(s)
1.11 Sys. Integration Evaluation
1.12 User Acceptance Evaluation
1.13 UT Authorization
1.14 SIT Authorization
1.15 UAT Authorization
Jan 08, 2017
Jan 15, 2017
Jan 22, 2017
Jan 29, 2017
Feb 05, 2017
Feb 12, 2017
Feb 19, 2017
Feb 26, 2017

“Deliverable/Artifact/Work Product” Status

- **Draft** - Deliverable has been identified, assigned and is in the process of being drafted/completed
- **Review** - “Draft” deliverable has been completed and submitted for “review” and “authorization”
- **Approved/Archived** - “Reviewed” deliverable has been “Authorized” by designated stakeholders and put under configuration management
- **Applied** - Information within “Authorized” deliverable is being referenced and/or utilized within another deliverable

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“Deliverable/Artifact/Work Product” Attributes

- **Tangible (pre-defined informational requirements)**
  - can be identified and defined (resource, completion dates, cost) on Project Schedule
  - can be assigned (populating information requirements) to project team member(s)
  - can be referenced by project team members to support creation of other deliverables
  - can be formally reviewed and officially authorized
  - will alter in status (authored, reviewed, approved, archived, referenced) throughout life of project
  - Project Schedule used to reflect evolving deliverable status/progress (risks, issues, percentage complete)
  - can be placed under formal configuration management – re: with evolving status
  - can be accessed for future reference (application support and maintenance)

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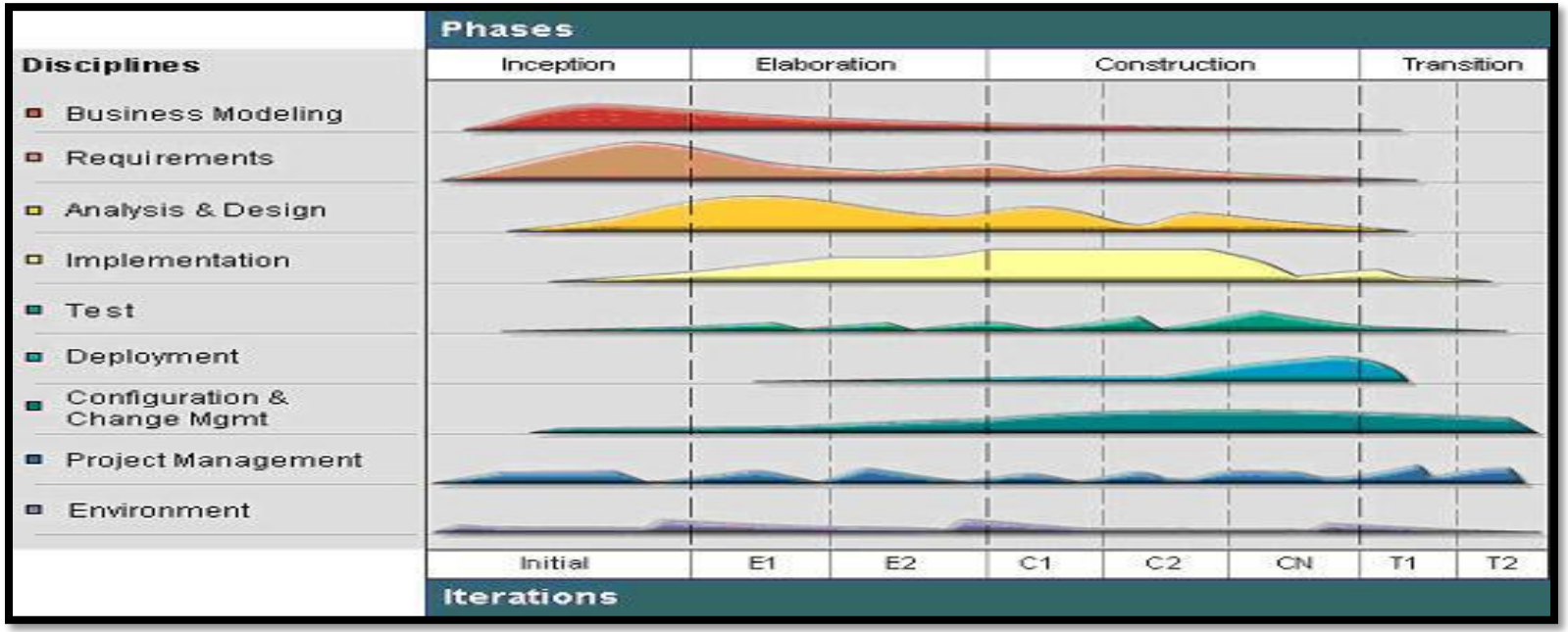
Noun – IBM's Rational Unified Process (RUP)



Noun – IBM's Rational Unified Process (RUP)

- Iterative software development process used by project teams for developing software
- Origin/Objectives
  - Developed by Rational Software (division of IBM) – 2003
  - Software development and maintenance
  - Adaptive approach (Rational) applying the Unified Process
  - Implemented around the world
  - Primarily leveraged by large sized business
  - Reference - http://www-01.ibm.com/software/awdtools/rup/

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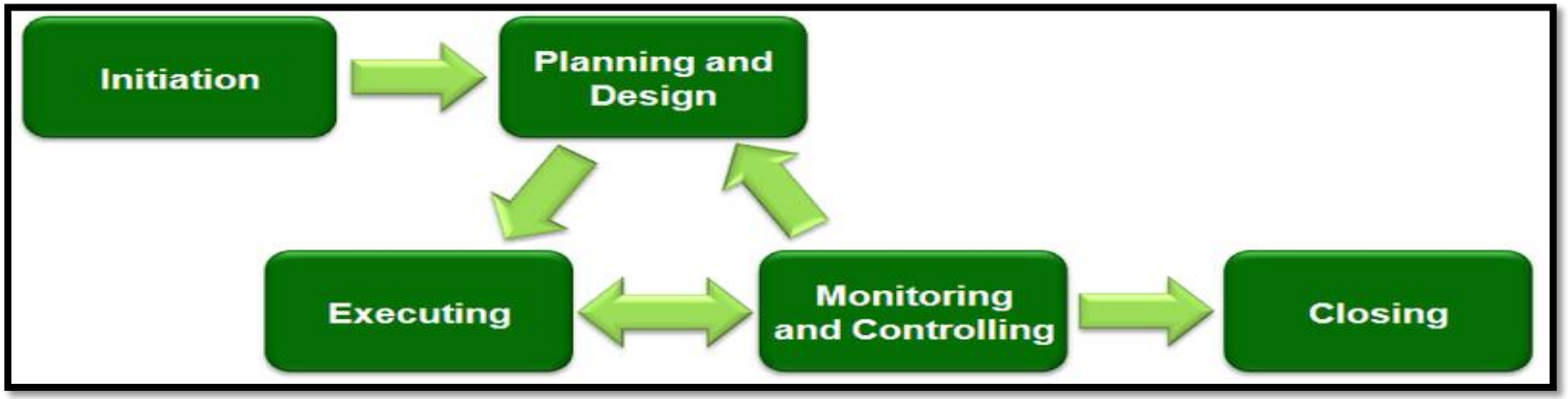
Noun - Project Management Institute (PMI) Methodology



Noun - Project Management Institute (PMI) Methodology

- Create and maintain standards that provide processes, guidelines, rules and characteristics for project management (US based)
- Origin/Objectives
  - Establish and promote Project Management standards & best practices
  - Maintain a Project Management Body of Knowledge
  - Train and Certify Project Management practitioners (PMP designation)
  - Ensure certified practitioners remain current and informed on project management practices
  - Reference - http://www.pmi.org/

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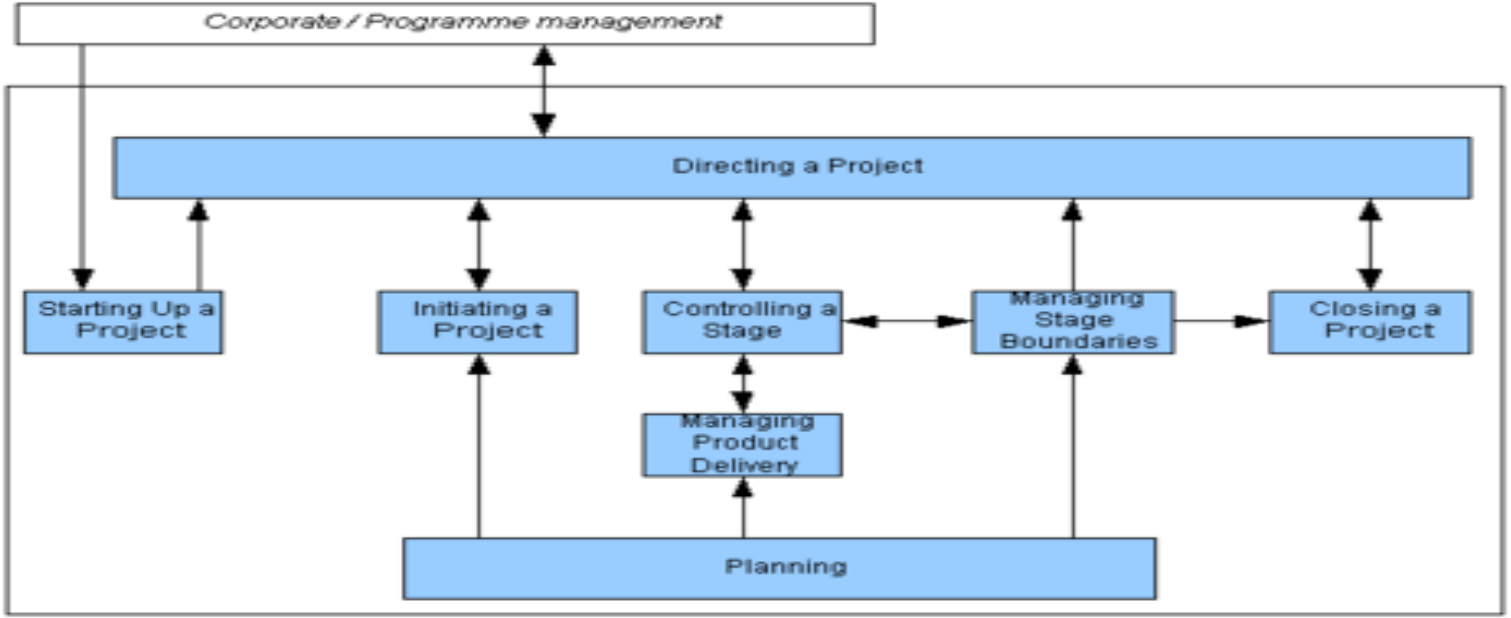
Noun – Prince2 – Project Management Methodology



Noun – Prince2 – Project Management Methodology

- Structured Project Management Method endorsed by the UK government as the project management standard for public projects (UK based)
- Origin/Objectives
  - Acronym for "**PR**ojects **IN C**ontrolled **E**nvironments **2**"
  - Encompasses the management, control and organization of a project
  - Process driven Project Management Methodology
  - Complementary to PMI conventions
  - Reference - http://www.prince-officialsite.com/

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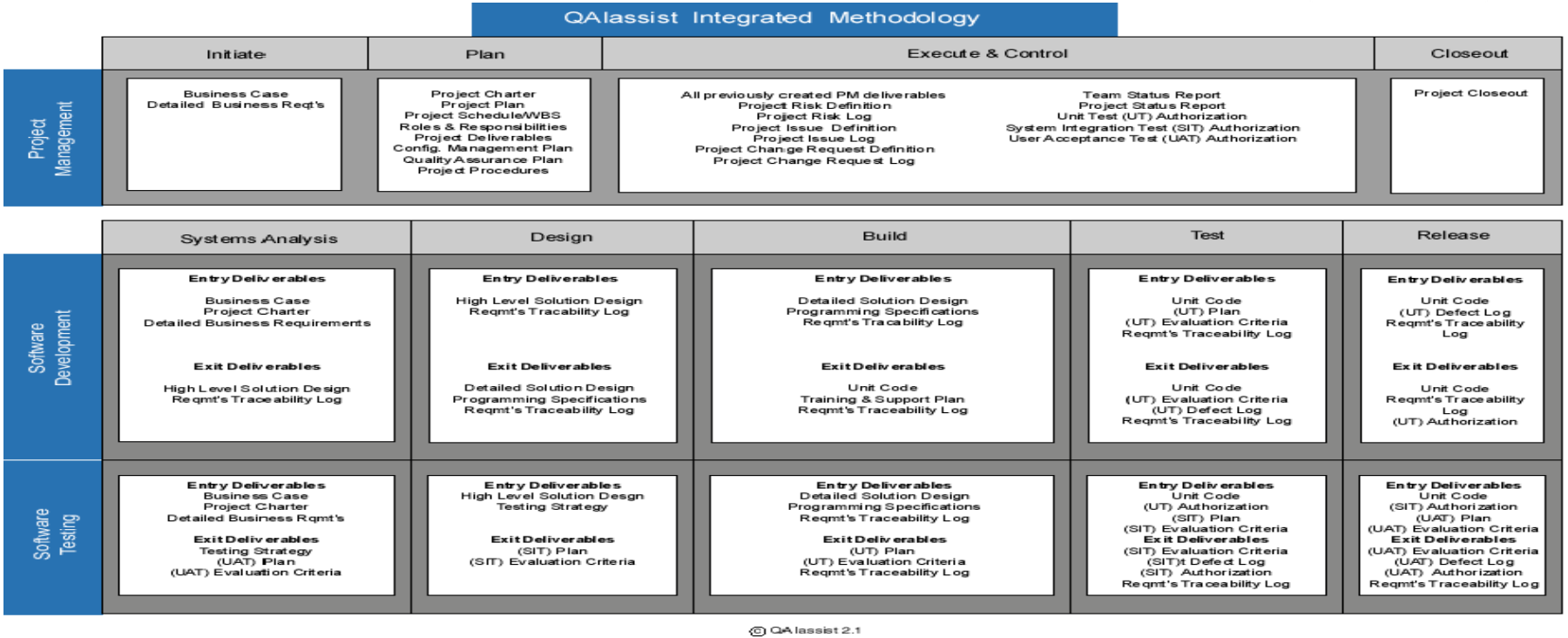
QAIassist Integrated Methodology



Noun – Summary

- Rational Unified Process (RUP) - iterative software development process used by project teams for developing software

- PMI - create and maintain standards that provide processes, guidelines, rules and characteristics for project management (US based)

- Prince2 - Structured Project Management Method endorsed by the UK government as the project management standard for public projects (UK based)

- QAIassist Integrated Methodology (IM) - integrated (project management, software development, software testing) methodology to increase IT performance

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Noun – QAIassist – Integrated Methodology (IM)

- Scalable integrated (project management, software development, software testing) IT methodology to increase operational performance through and efficient development and maintenance of business products/applications/functionality
- Origin/Objectives
  - Establish and promote IT Methodology standards & best practices
  - Maintain an IT Methodology Body of Knowledge
  - Train and Certify IT Methodology constituency (“Foundation” & “Practitioner”)
  - Ensure certified practitioners remain current on IT Methodology practices
  - Reference - http://www.qaiassist.com/integrated_methodology.html

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Noun – Quiz II

- **Which of the following IT methodologies (noun) would deliver the greatest benefit ?**

  (a) Rational Unified Process (RUP)

  (b) Prince2

  (c) PMI

  (d) QAIassist-IM

  (e) it depends

QAI assist

A Context for IT Methodology
Concepts I – Agenda

- IT Methodology - general context
- IT Methodology - as a “noun” and a “verb”
- **IT Methodology constructs and hierarchy - “noun” (lifecycles, phases, deliverables)**
- IT Methodology - “verb” (waterfall, agile, spiral, RAD)
- IT Methodology structure & deliverable examples - “noun” (project management, software development, software testing)
- IT Methodology - organizational compatibility and benefits
- Recap

QAI assist

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QAI assist

IT Methodology – Map & Journey

- **Methodologies/Lifecycles - "noun"**
  - **The roadmap**
  - **Rational Unified Process (RUP), QAIassist (IM) , PMI, Prince2**
- Methodologies/Lifecycles - "verb"
  - The journey taken along the road
  - Waterfall, Spiral, Agile, RAD , Prototyping, etc

IT Methodology – Map & Journey

- Methodologies/Lifecycles - “noun”
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Methodology/Lifecycle – Verb

- "Waterfall" Methodology/Lifecycle
  - a single iteration through the methodology/lifecycle (noun)
  - deliverables/artifacts defined, assigned, and documented
  - formal structure required
- "Agile" Methodology/Lifecycle
  - more than a single iteration through a methodology/lifecycle (noun)
  - limited deliverable creation
  - formal structure not required

QAI assist

Methodology/Lifecycle – Sample Project

- Design, Build and Test an Accounting Application
  - Functionality 1 — Accounts Receivable
  - Functionality 2 — Accounts Payable
  - Functionality 3 — Payroll

QAI assist

Methodology/Lifecycle – Verb

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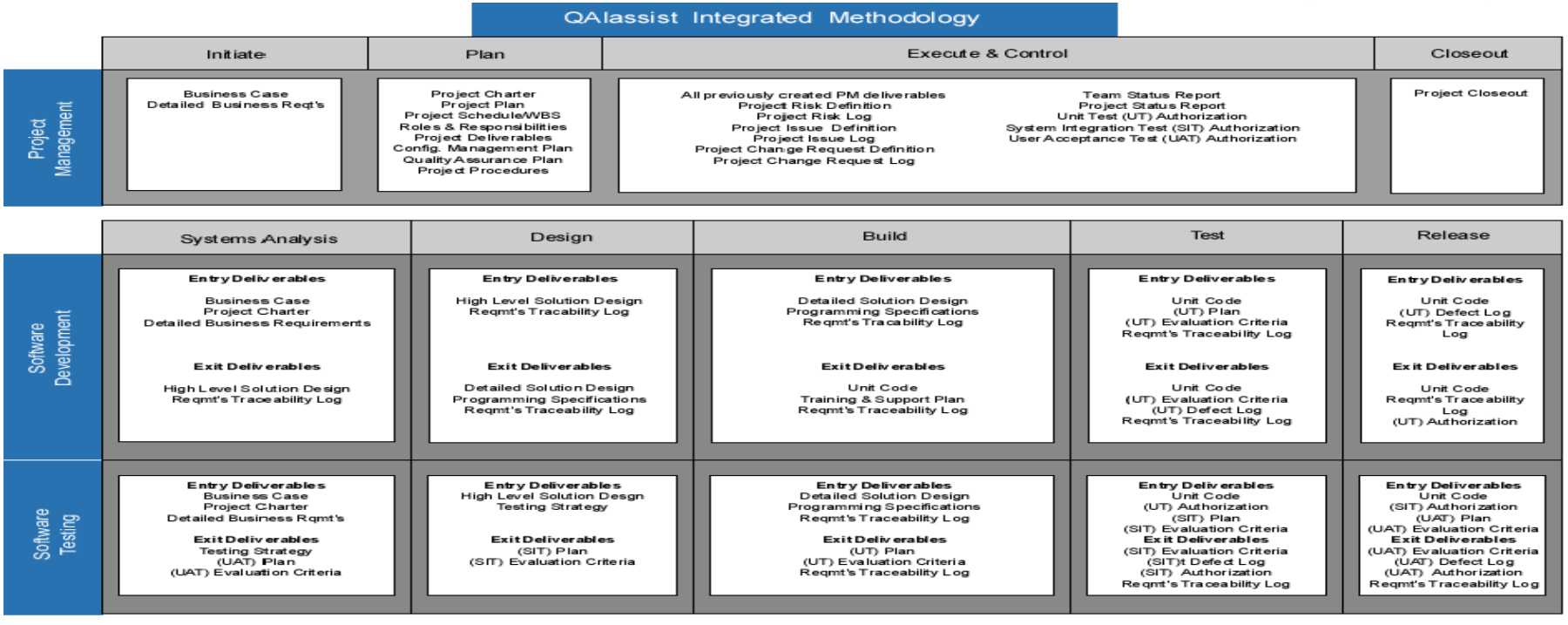
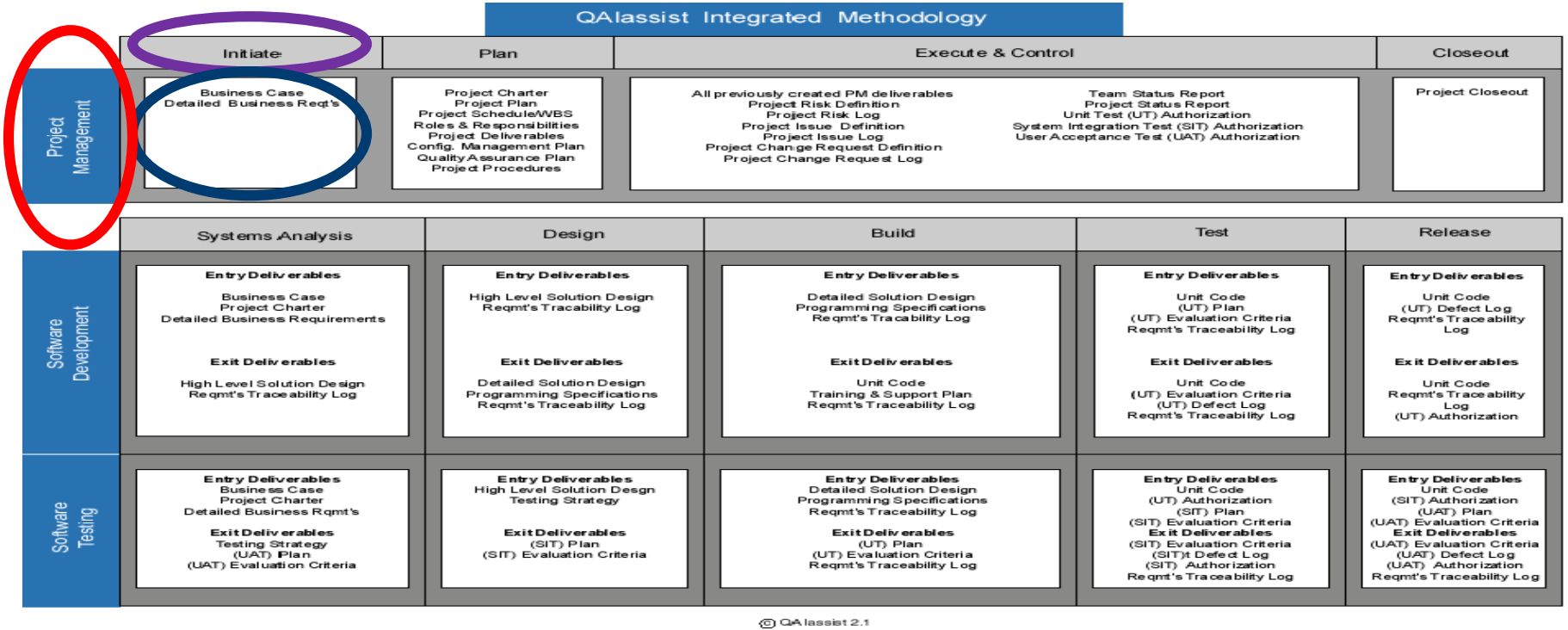
QAI assist

QAIassist Integrated Methodology



IT Methodology - Waterfall

One Iteration (Accounts Receivable, Accounts Payable, Payroll)



IT Methodology - Waterfall

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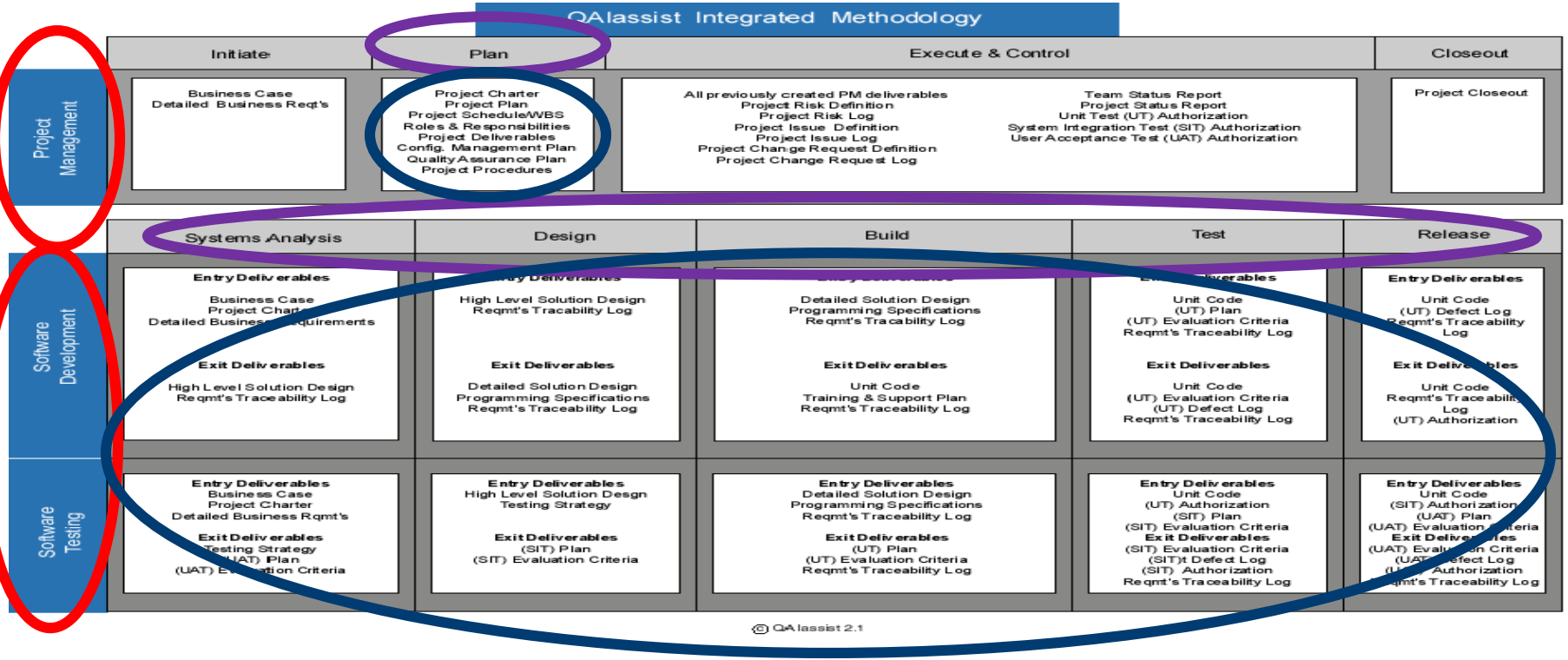

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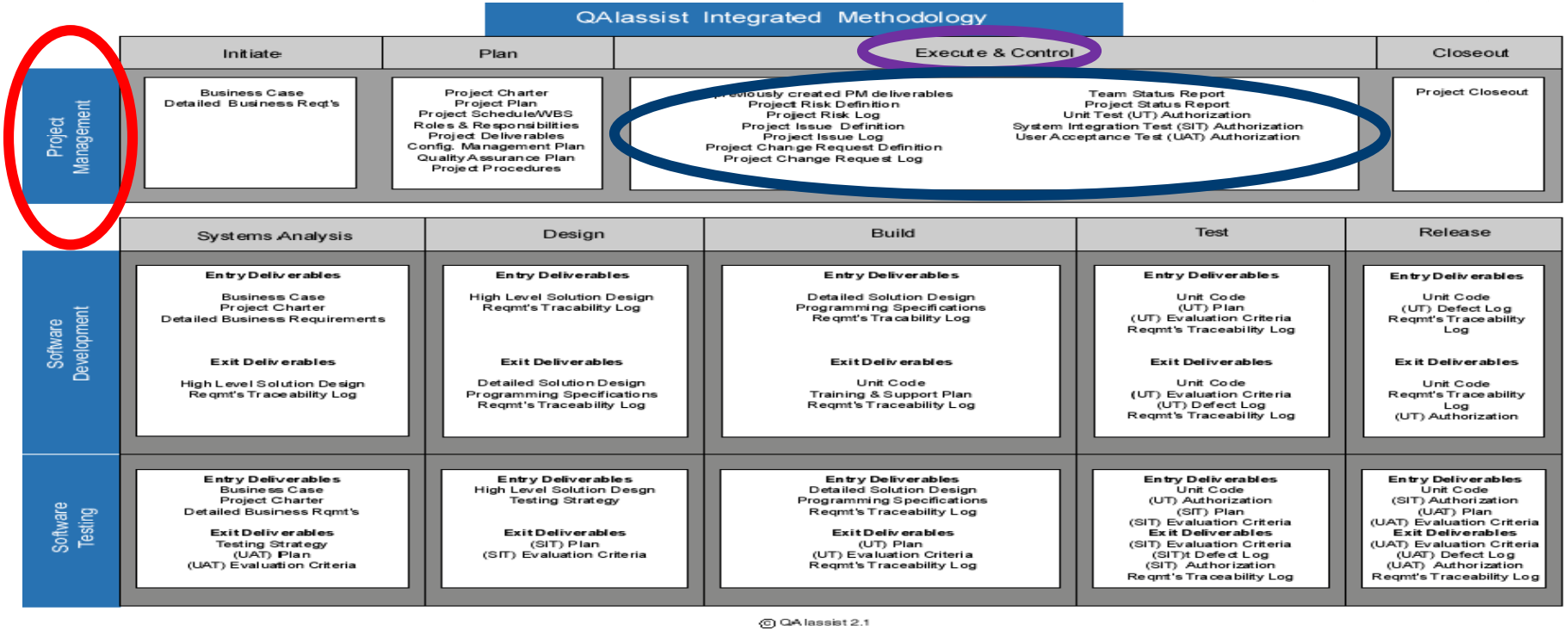

IT Methodology - Waterfall

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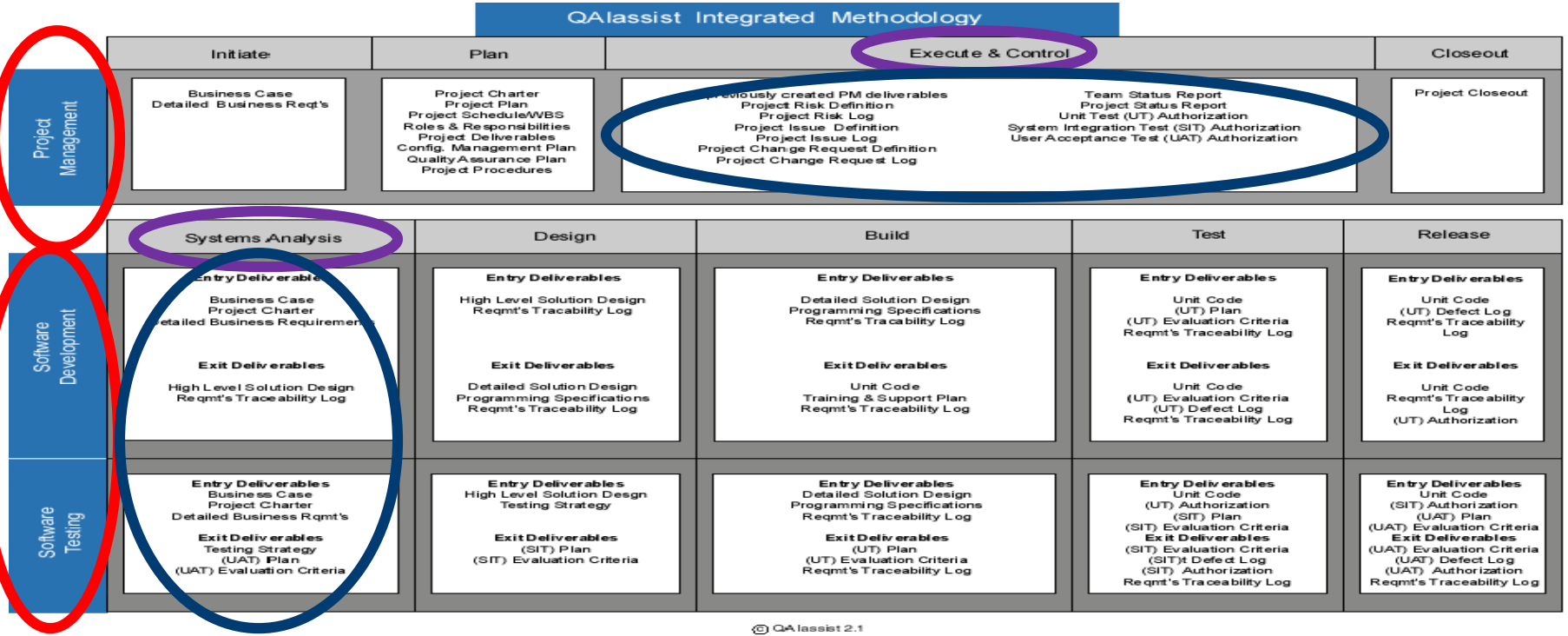

IT Methodology - Waterfall

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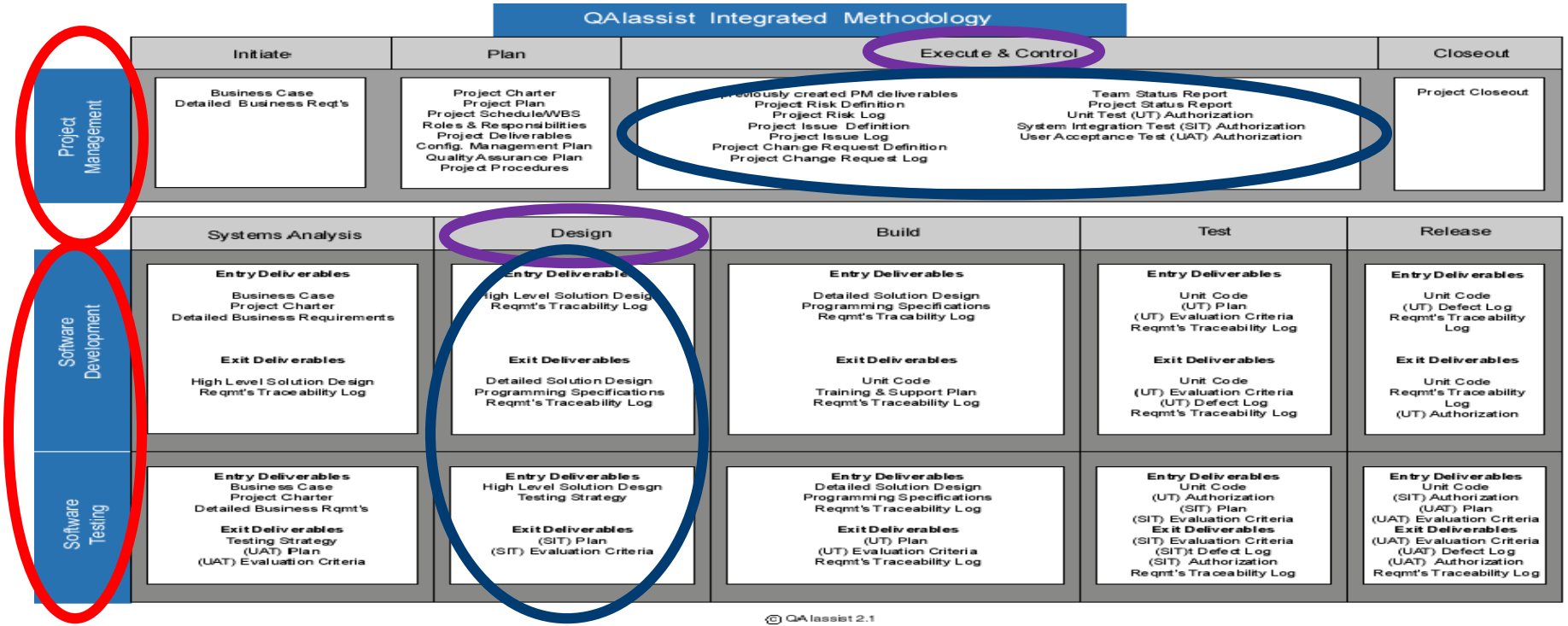

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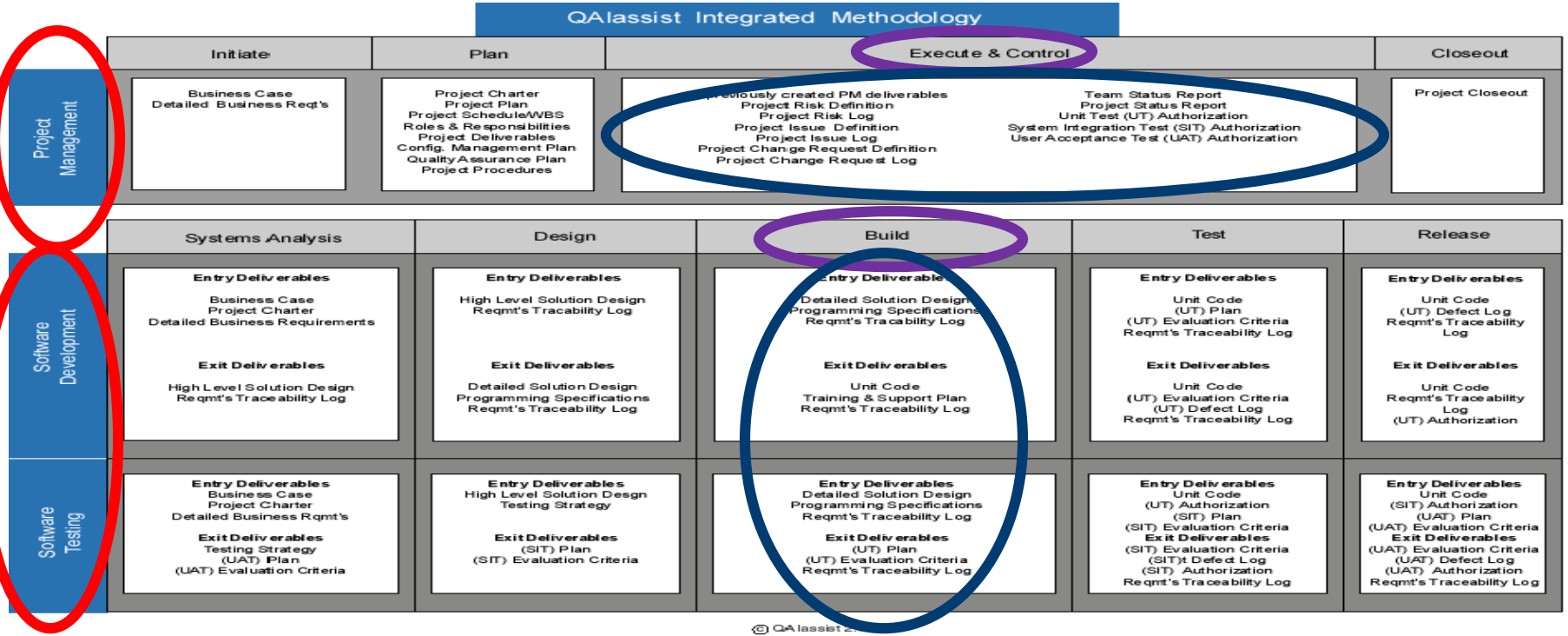

IT Methodology - Waterfall

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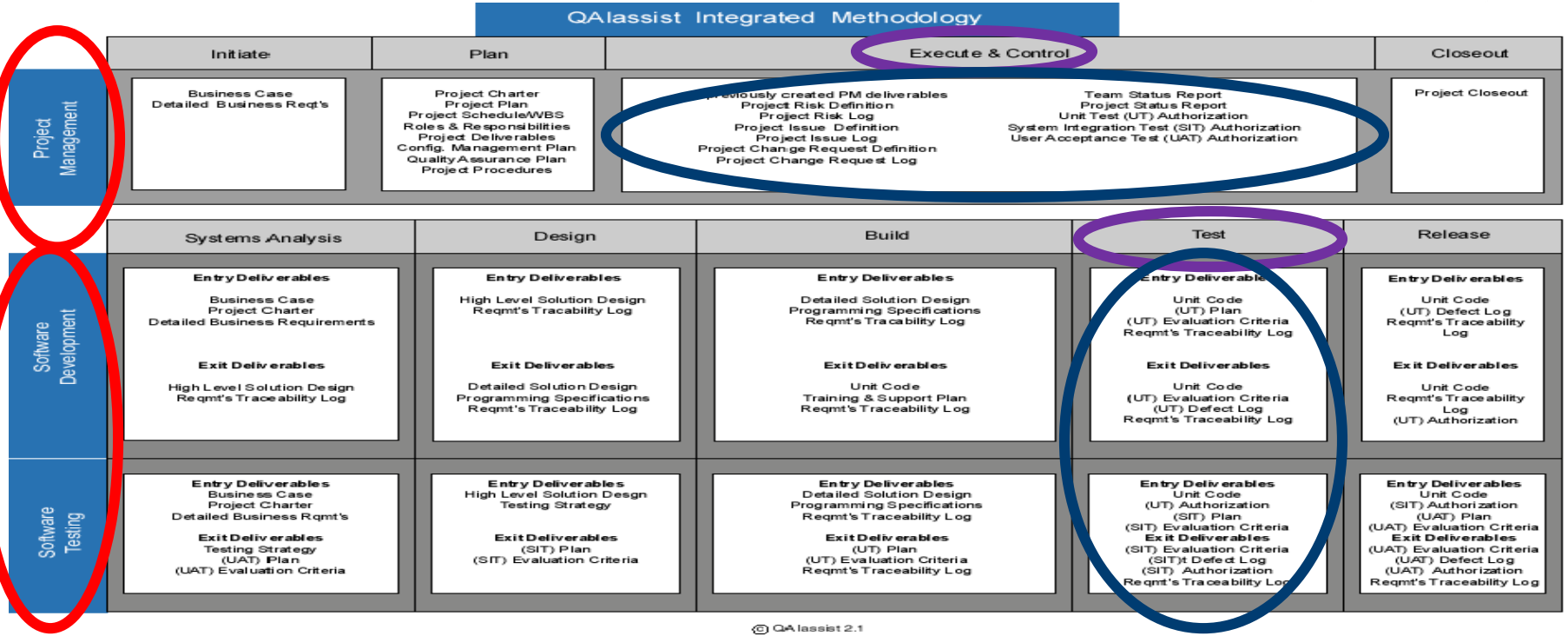

IT Methodology - Waterfall

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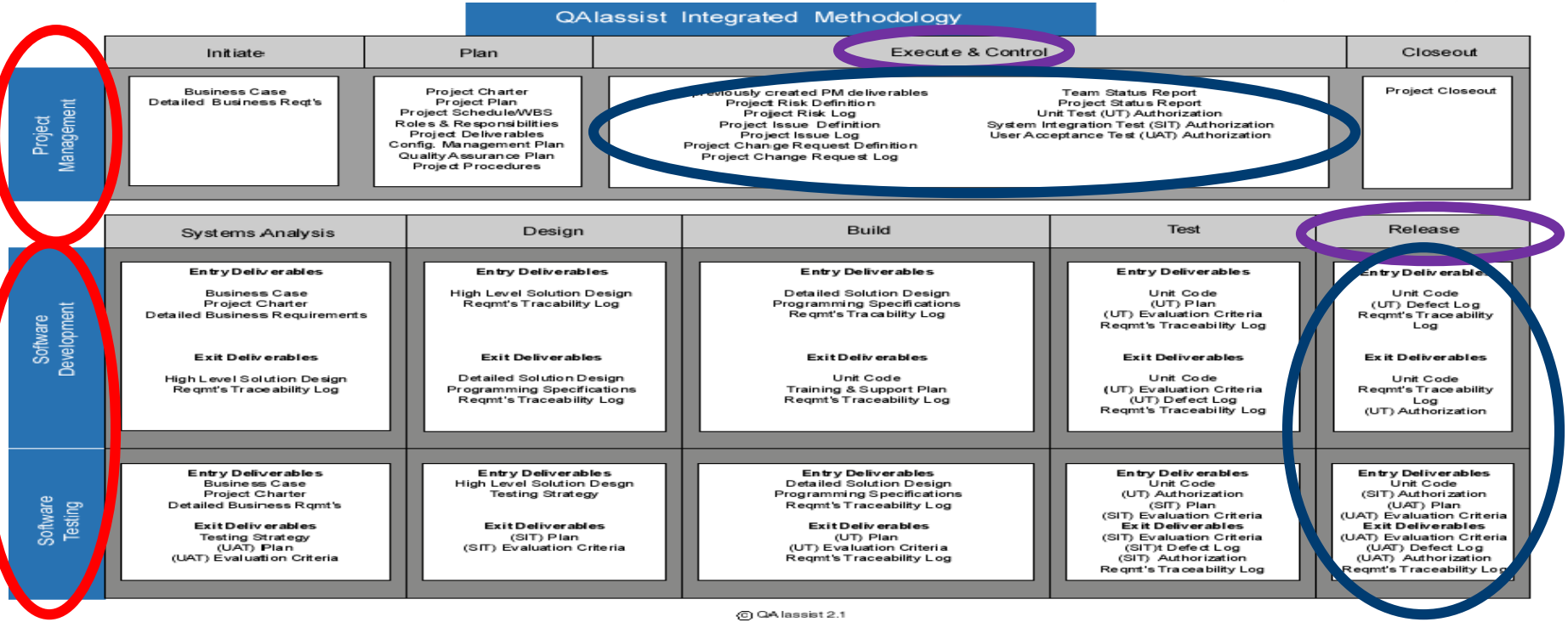
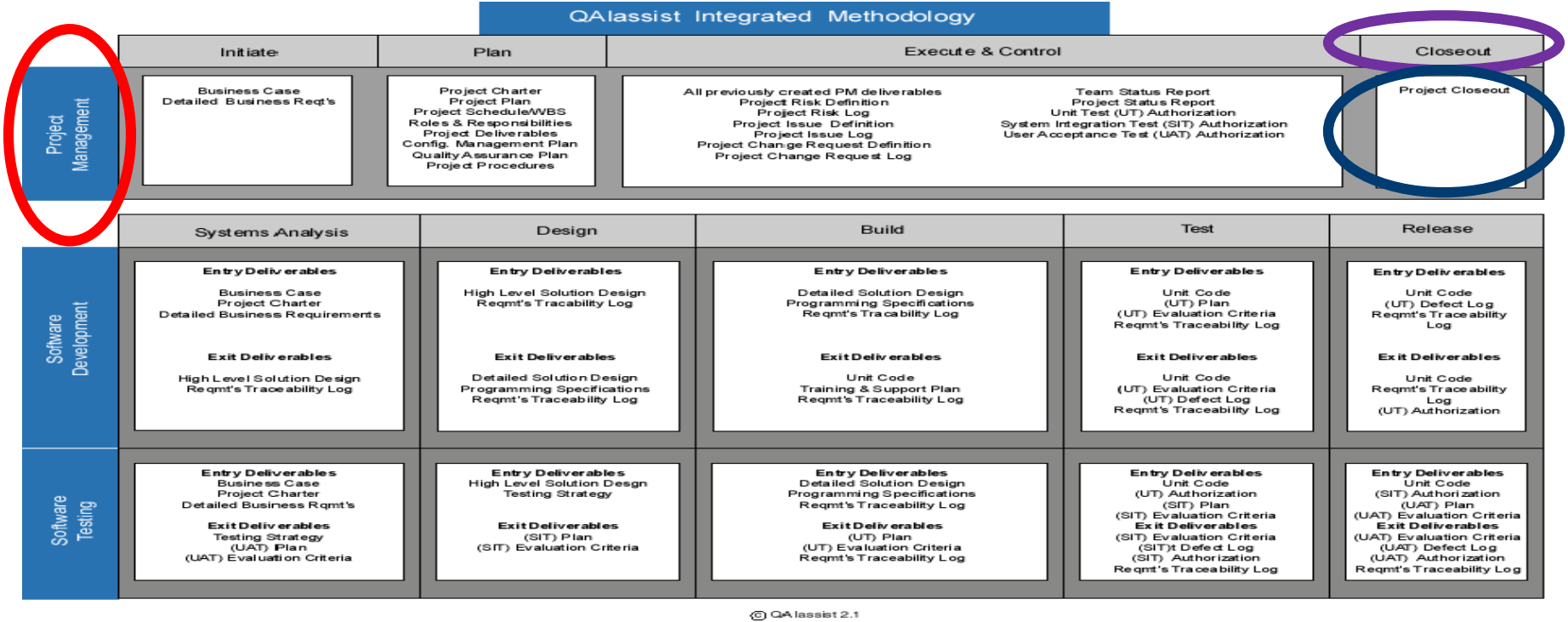


IT Methodology - Waterfall

One Iteration (Accounts Receivable, Accounts Payable, Payroll)



Methodology/Lifecycle – Verb

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QAI assist

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QAI assist

Methodology/Lifecycle – Sample Project

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QAI assist

Methodology/Lifecycle – Sample Project

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  - Functionality 2 Accounts Payable
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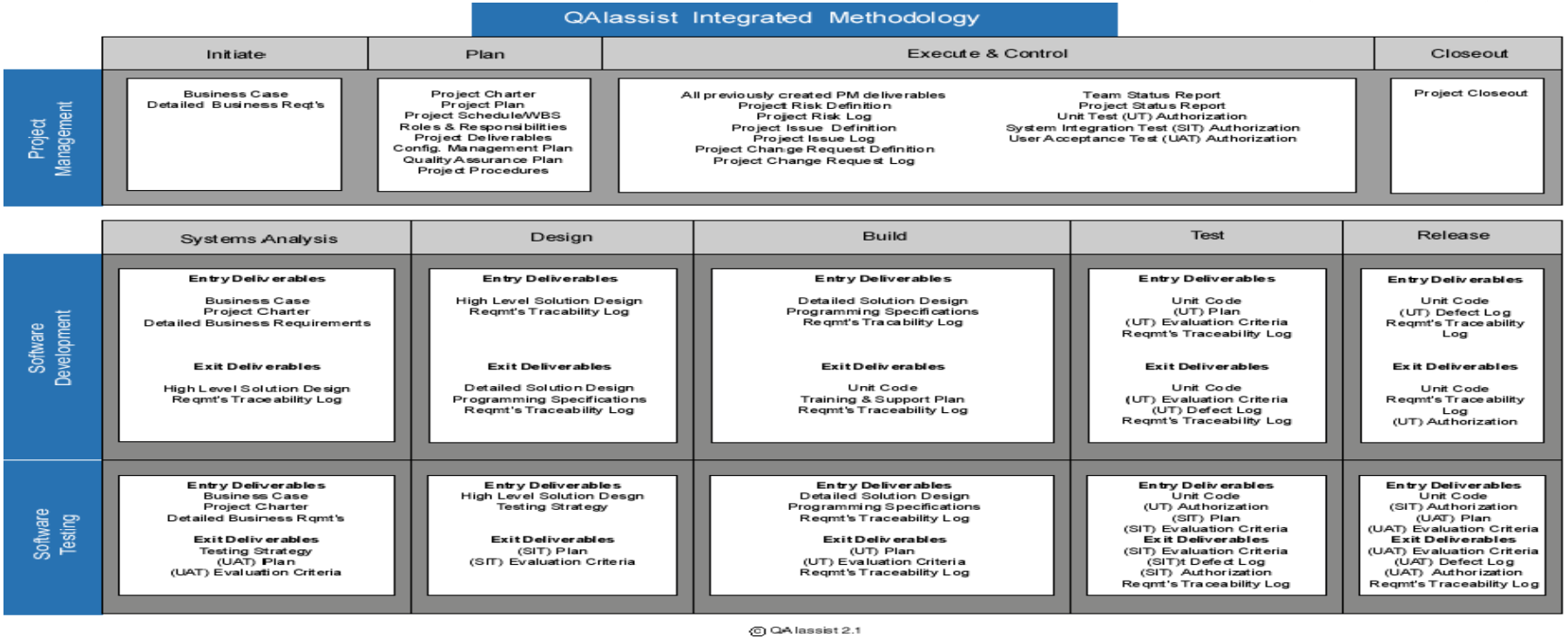
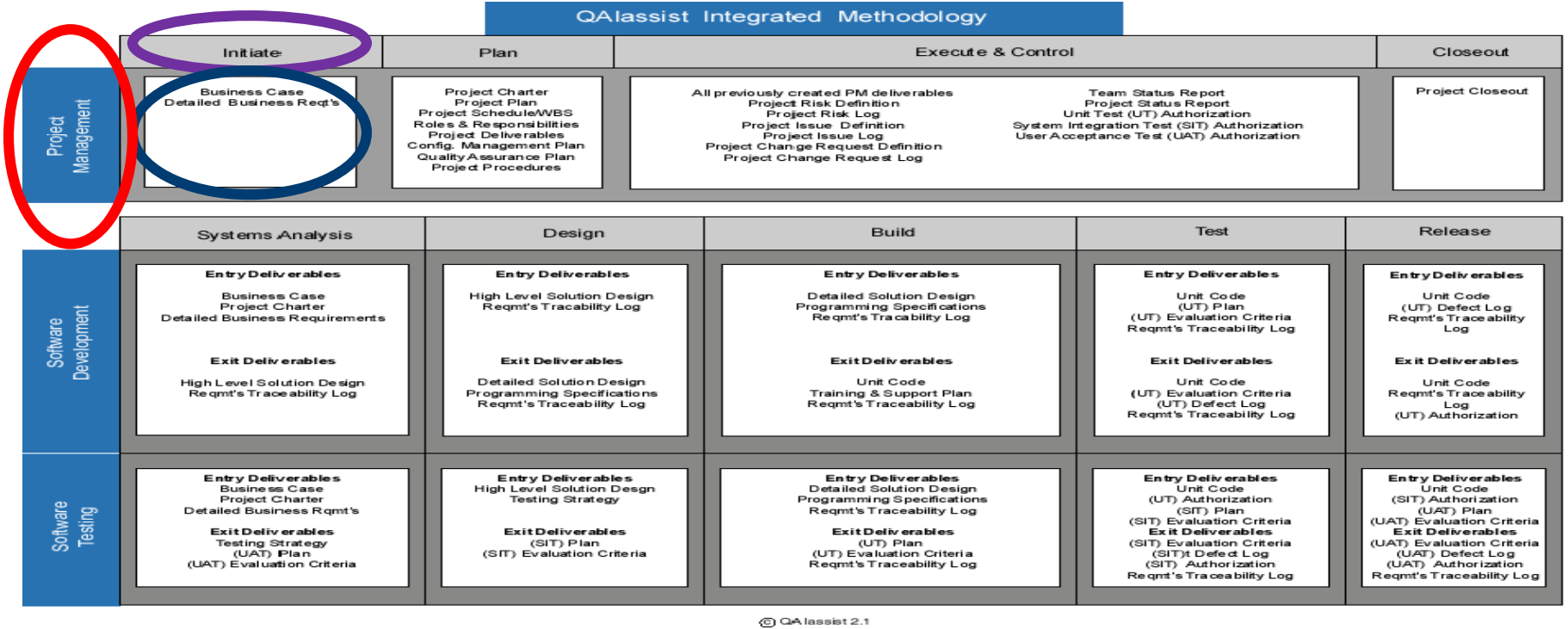
QAI assist

QAIassist Integrated Methodology



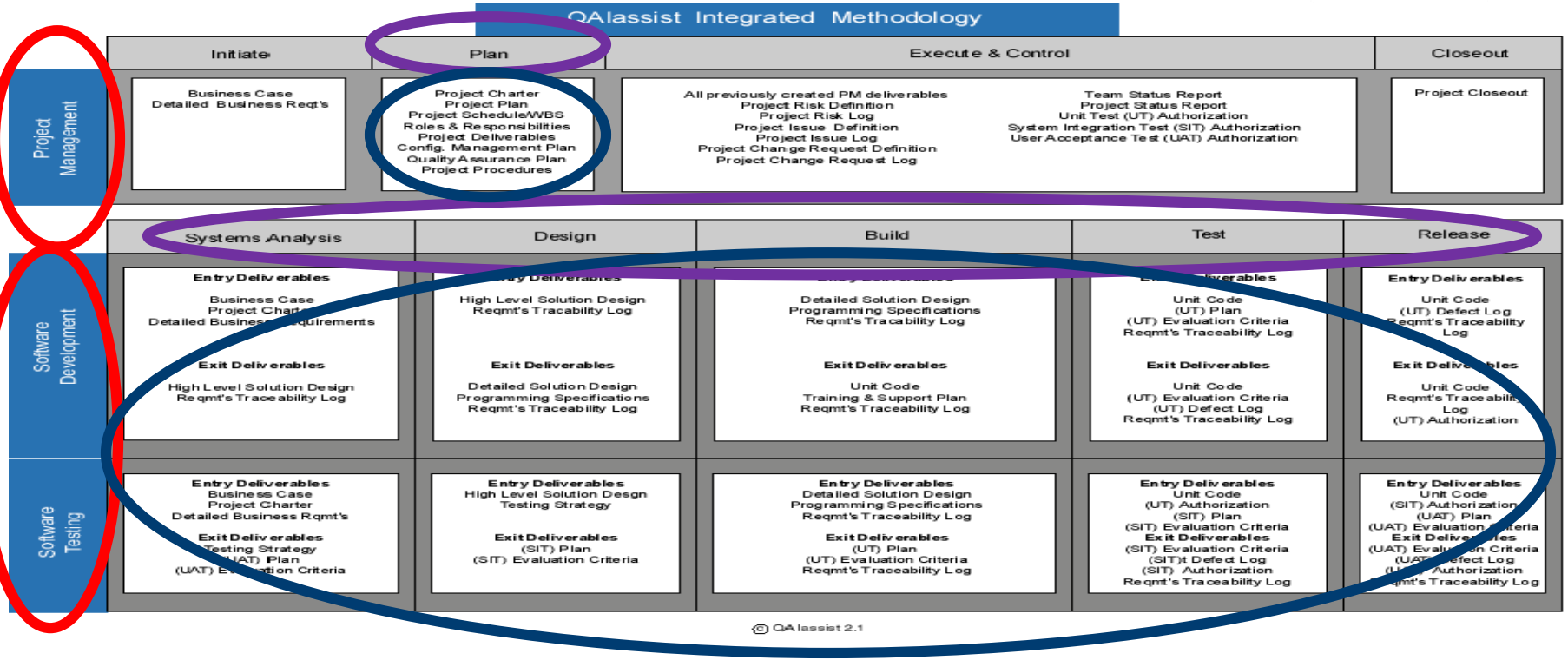
IT Methodology - Agile

1st Iteration (Accounts Receivable, Accounts Payable, Payroll)



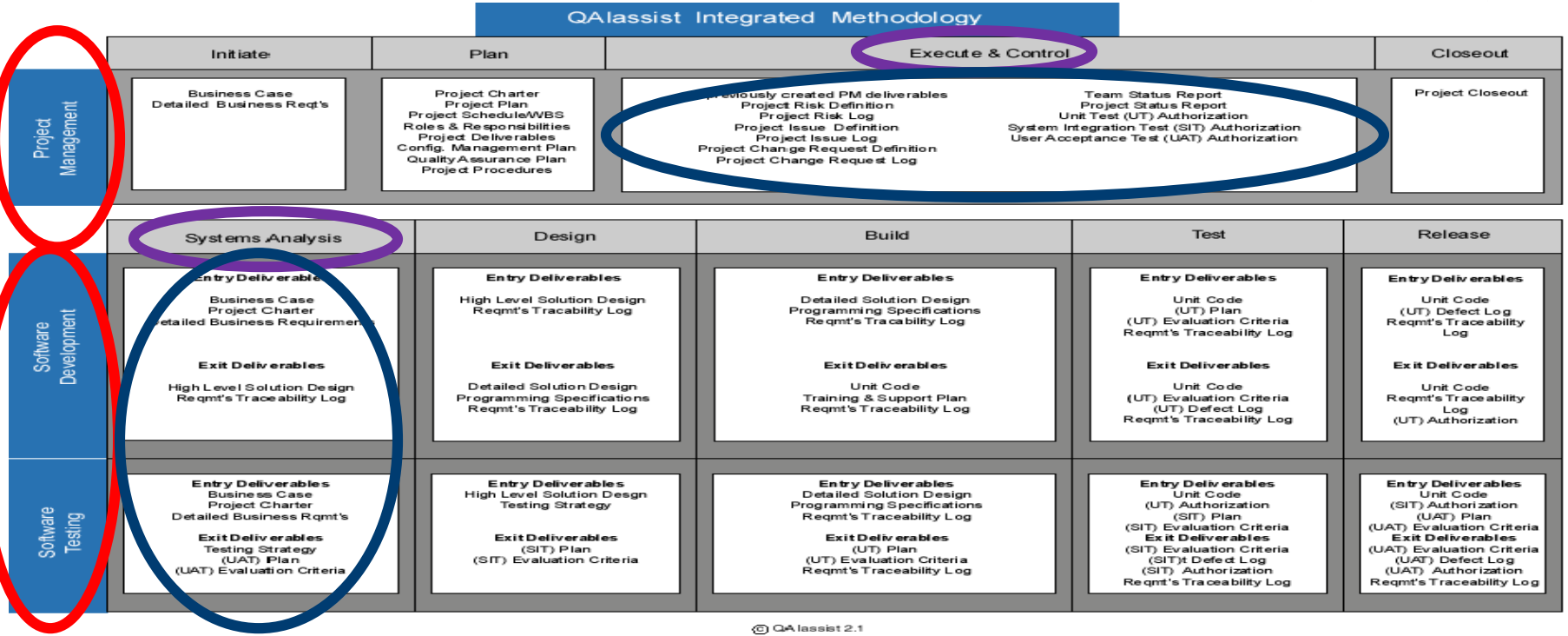
IT Methodology - Agile

1st Iteration (Accounts Receivable, Accounts Payable, Payroll)



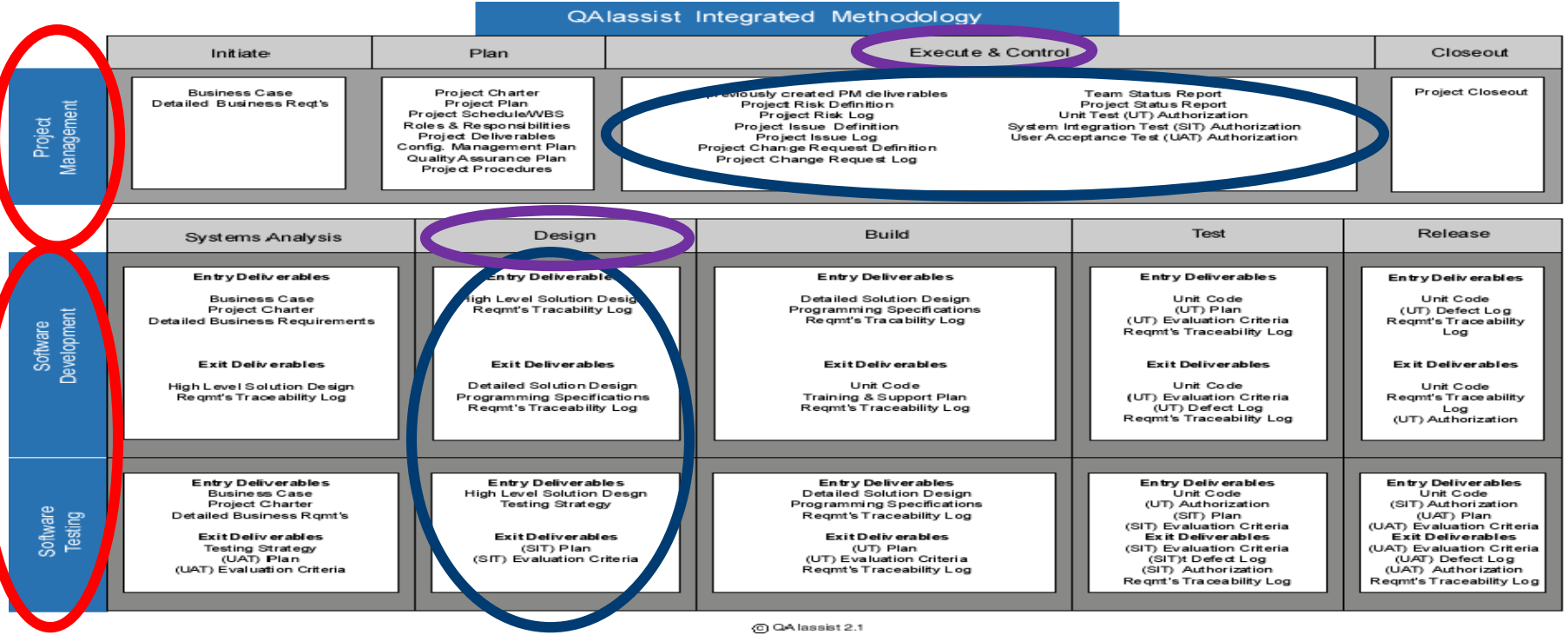
IT Methodology - Agile

1st Iteration (Accounts Receivable)



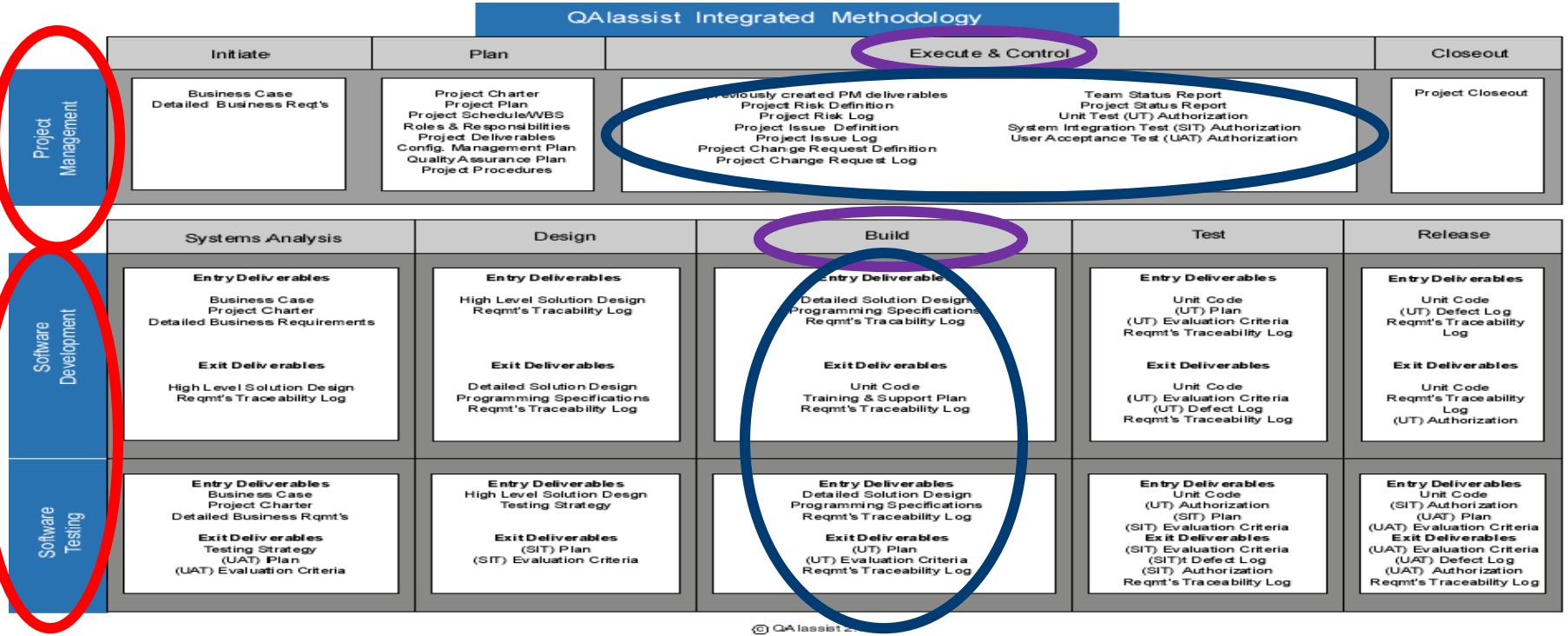
IT Methodology - Agile

1st Iteration (Accounts Receivable)



IT Methodology - Agile

1st Iteration (Accounts Receivable)



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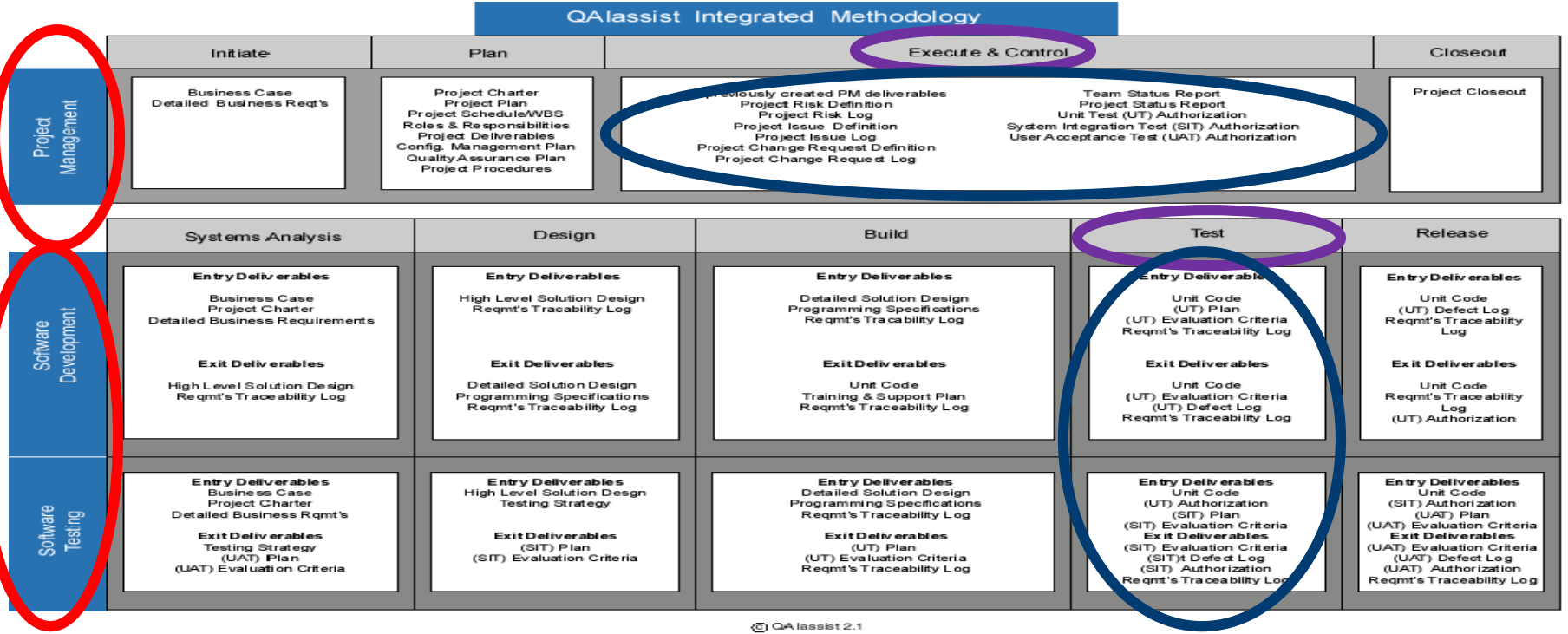

IT Methodology - Agile

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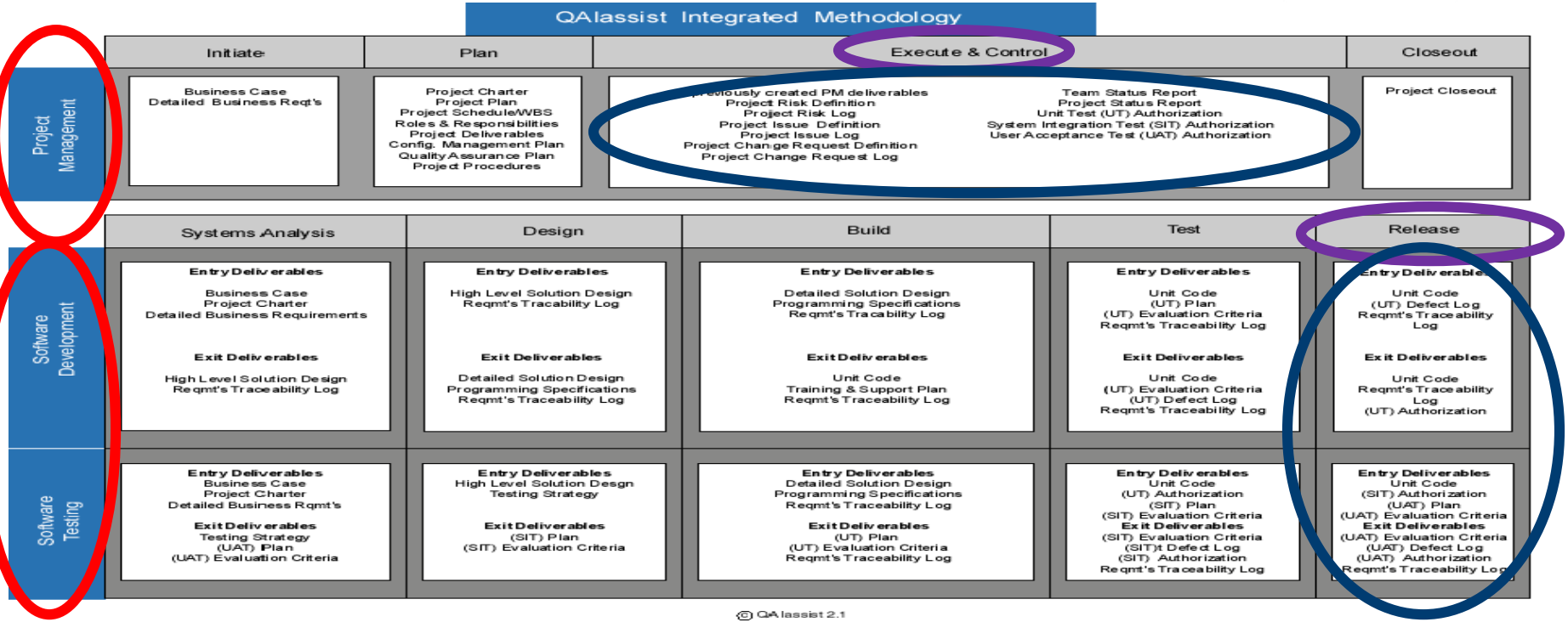

Methodology/Lifecycle – Sample Project

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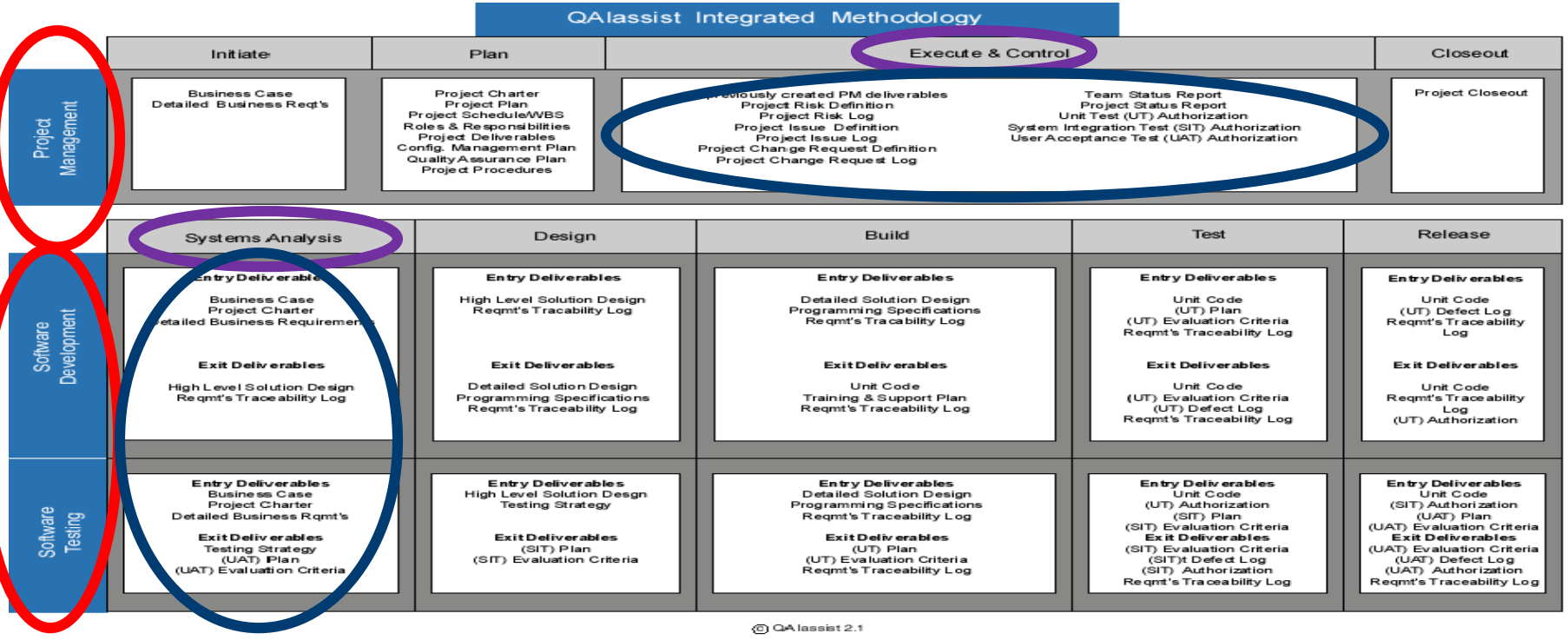
QAI assist

IT Methodology - Agile

2nd Iteration (Accounts Payable)



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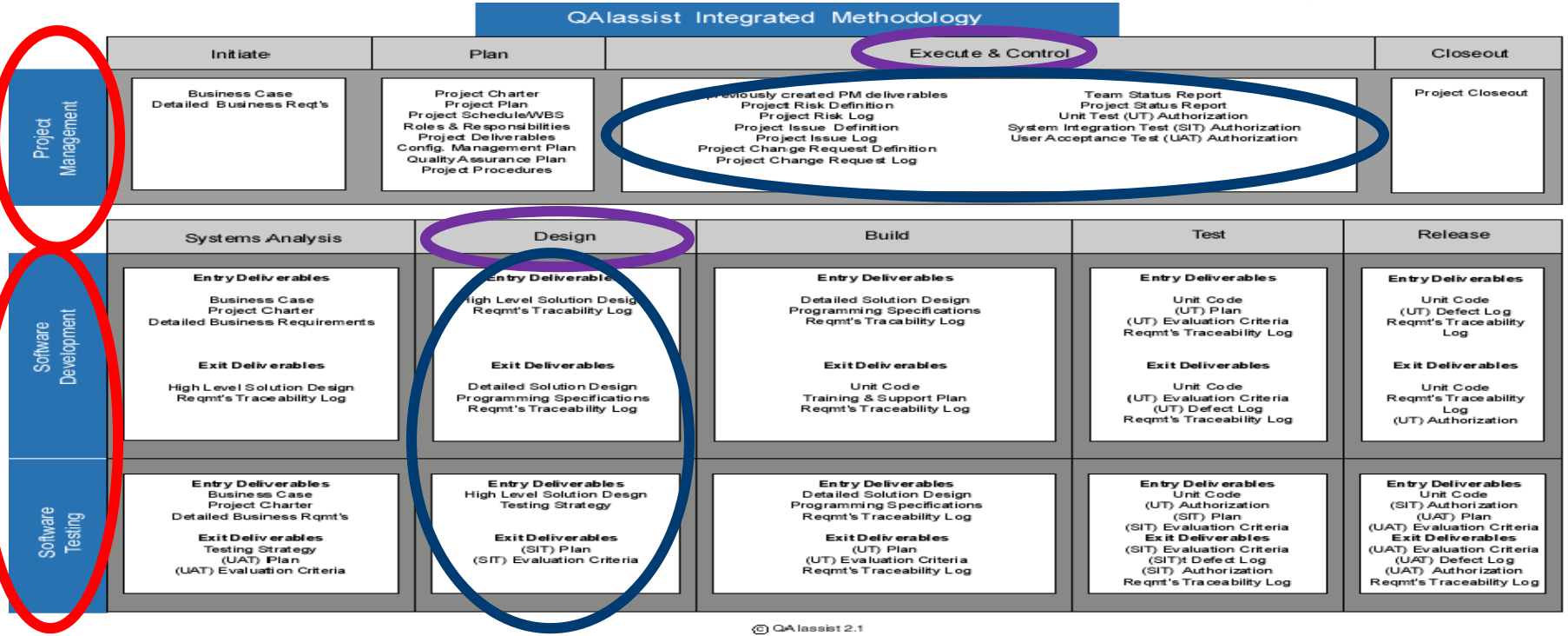

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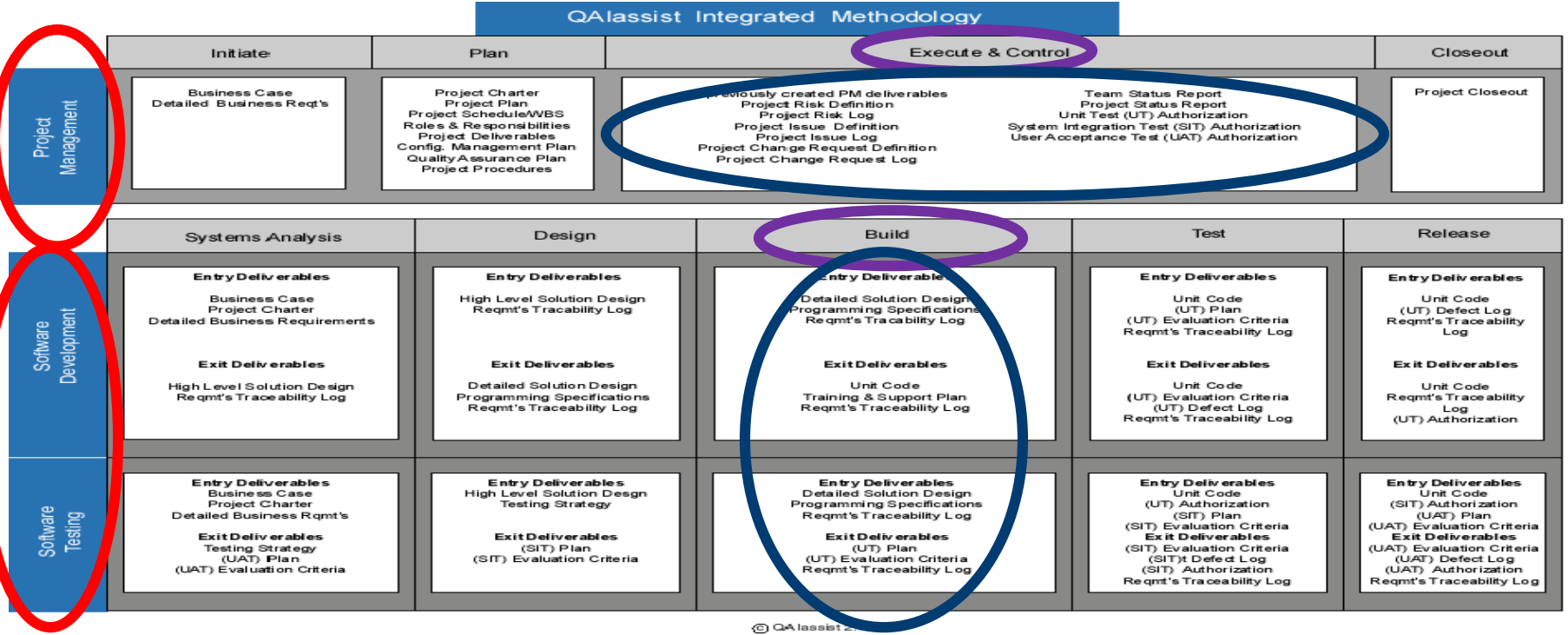

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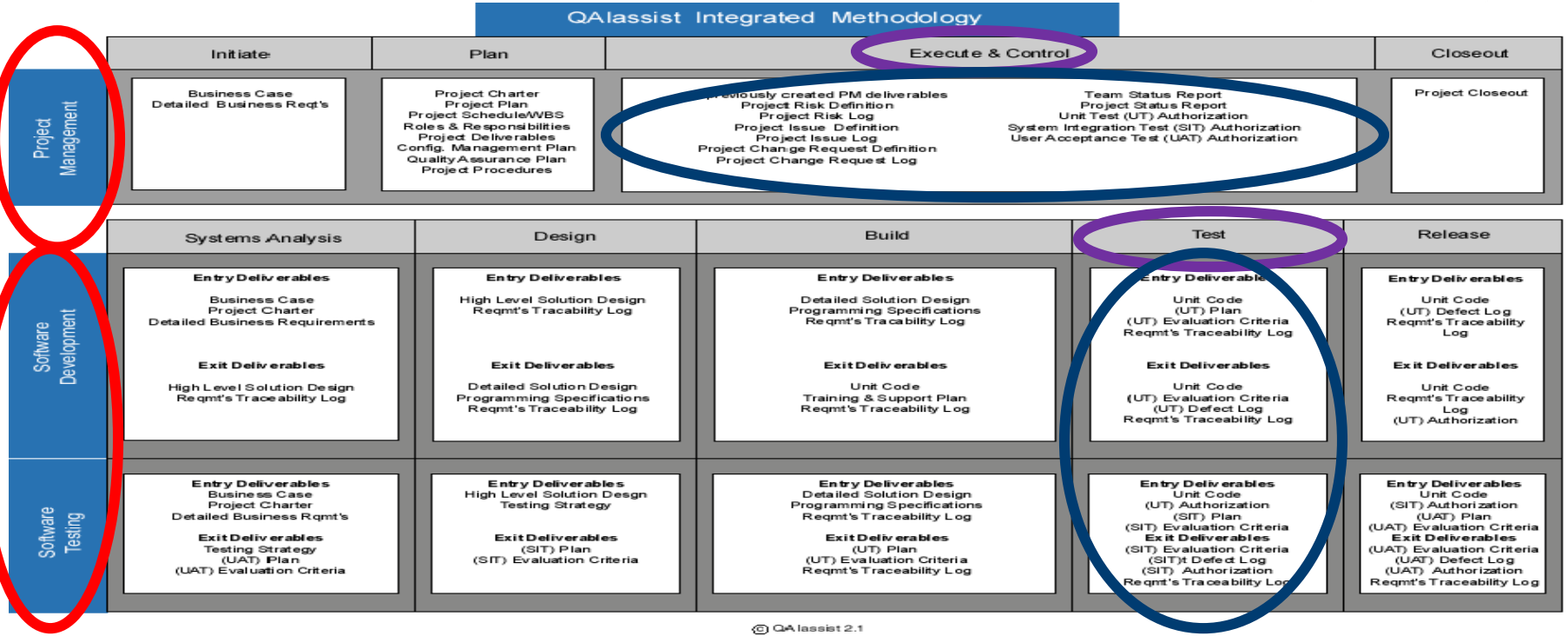

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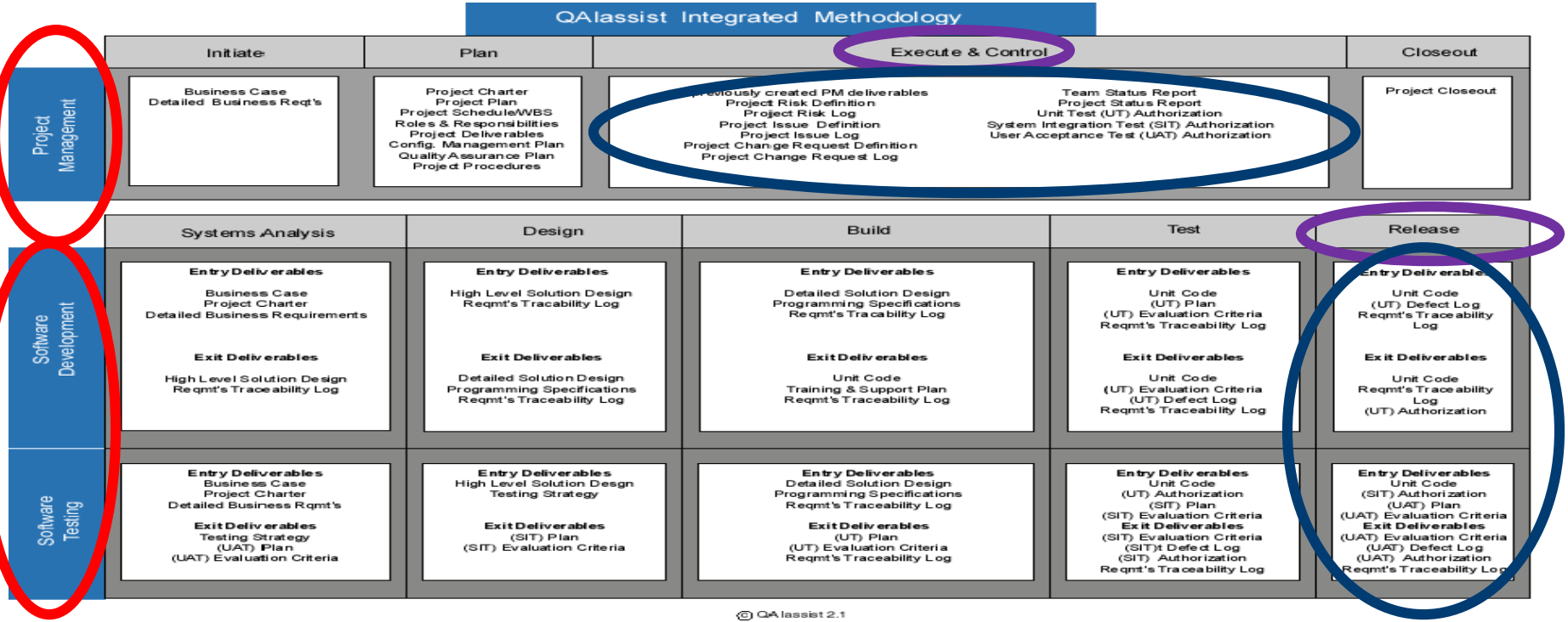

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QAI assist

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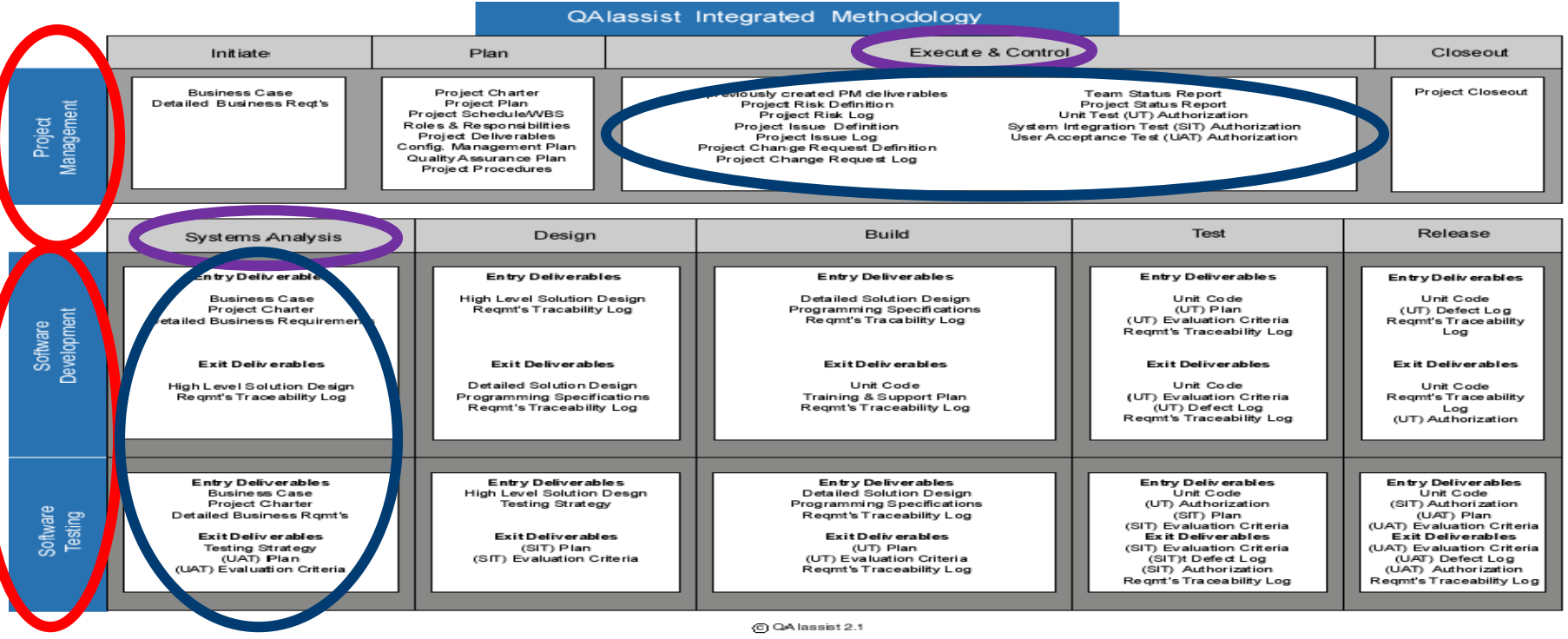
3rd Iteration (Payroll)



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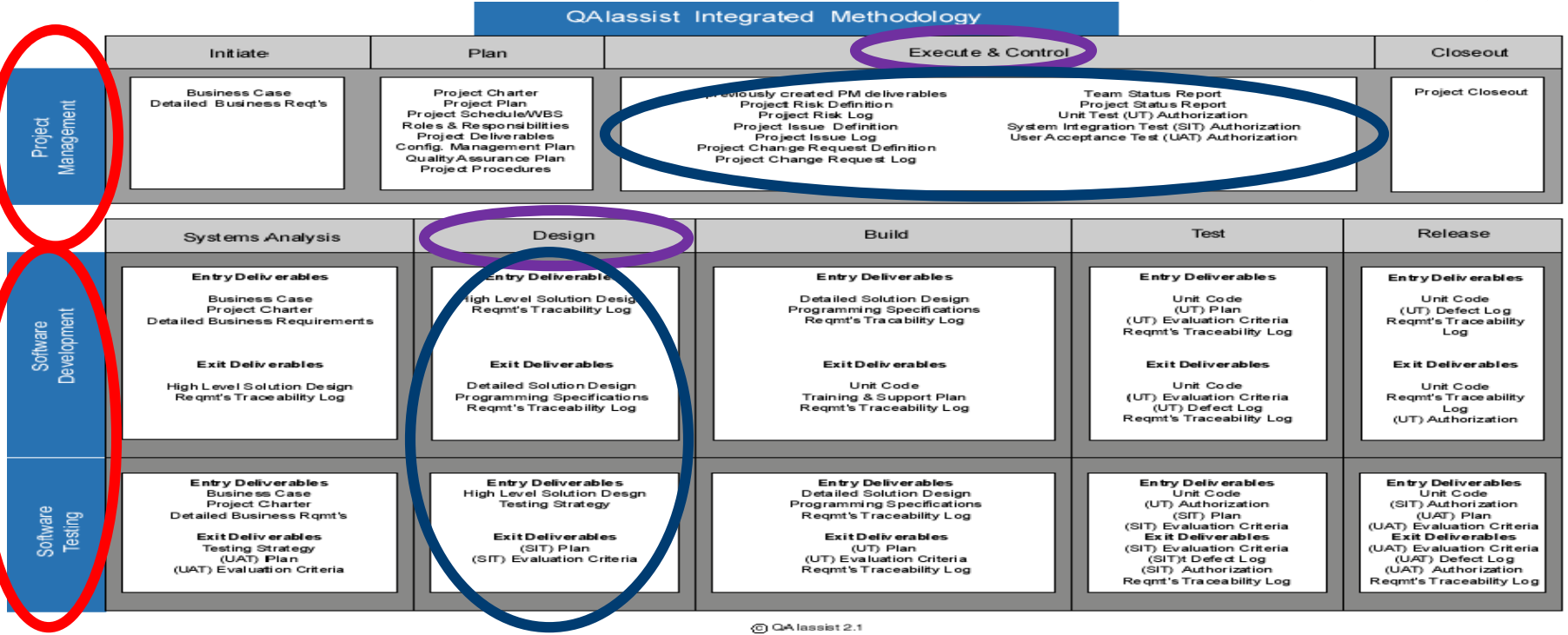

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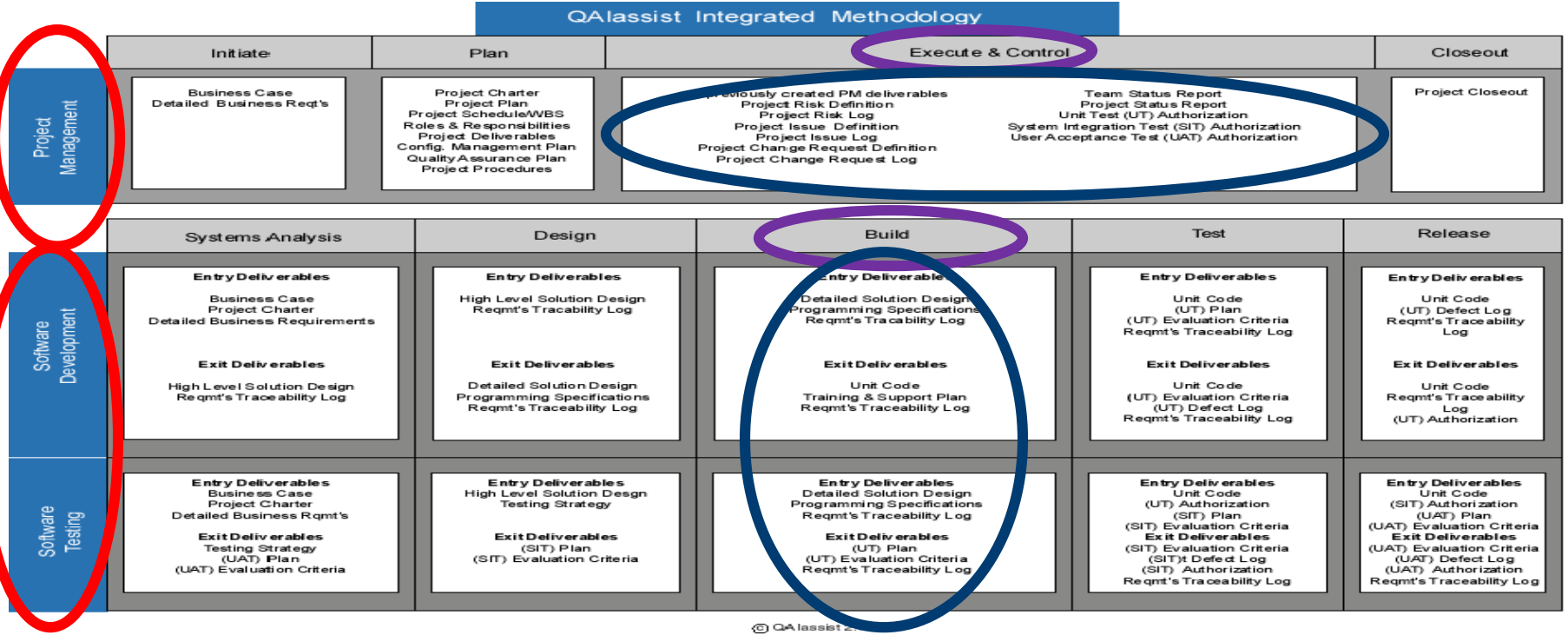

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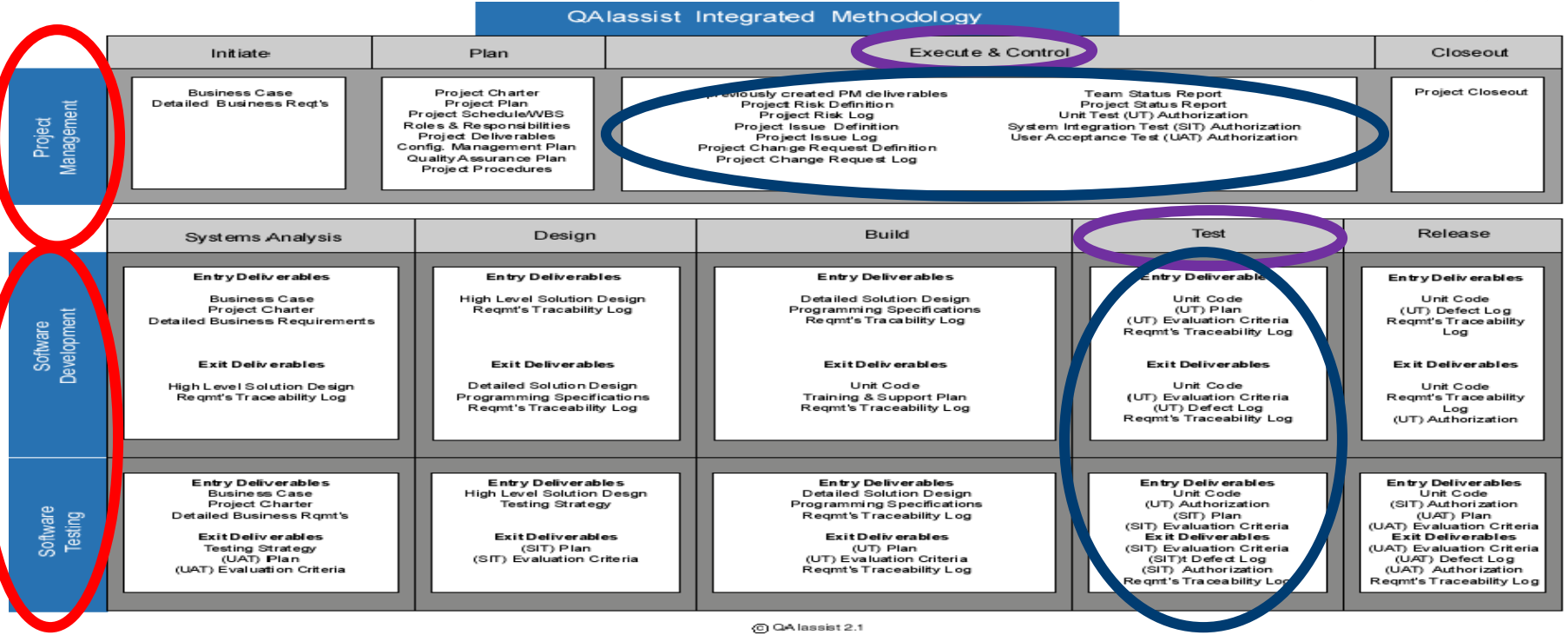

IT Methodology - Agile

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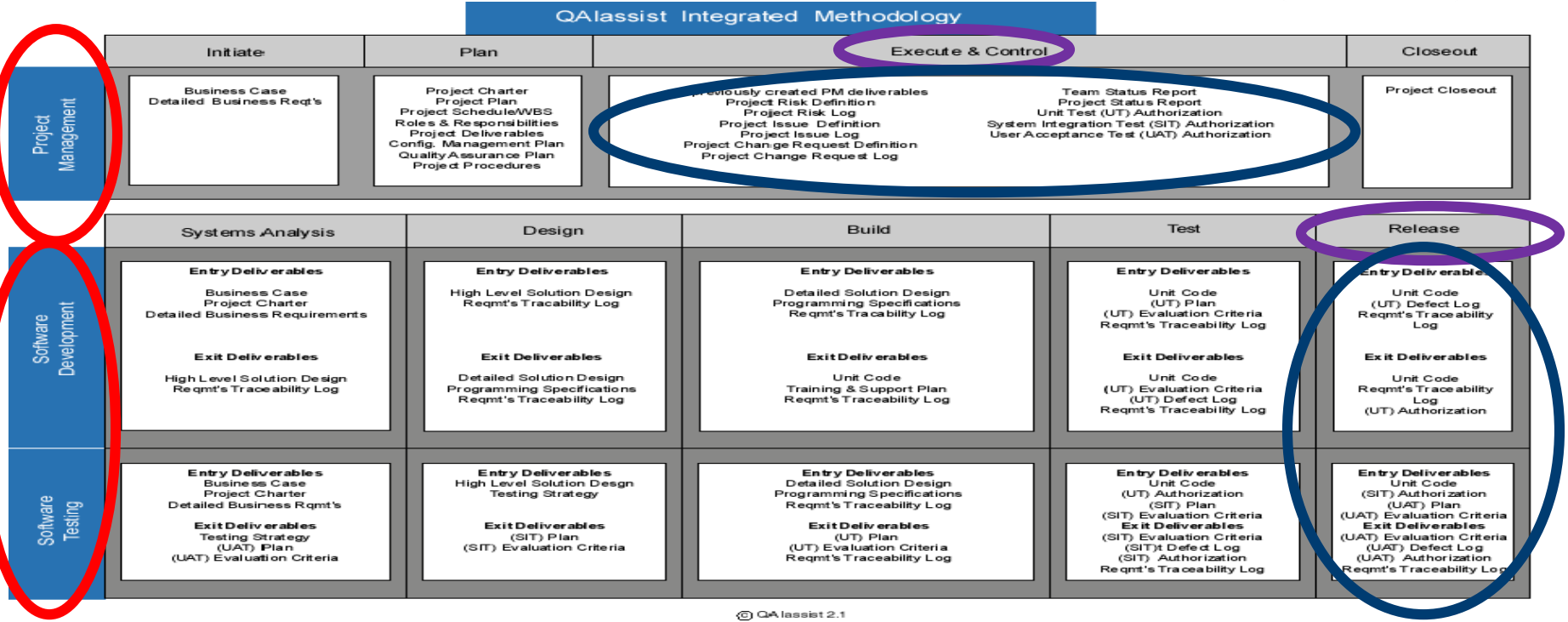

Methodology/Lifecycle – Sample Project

- Design. Build and Test an Accounting Application
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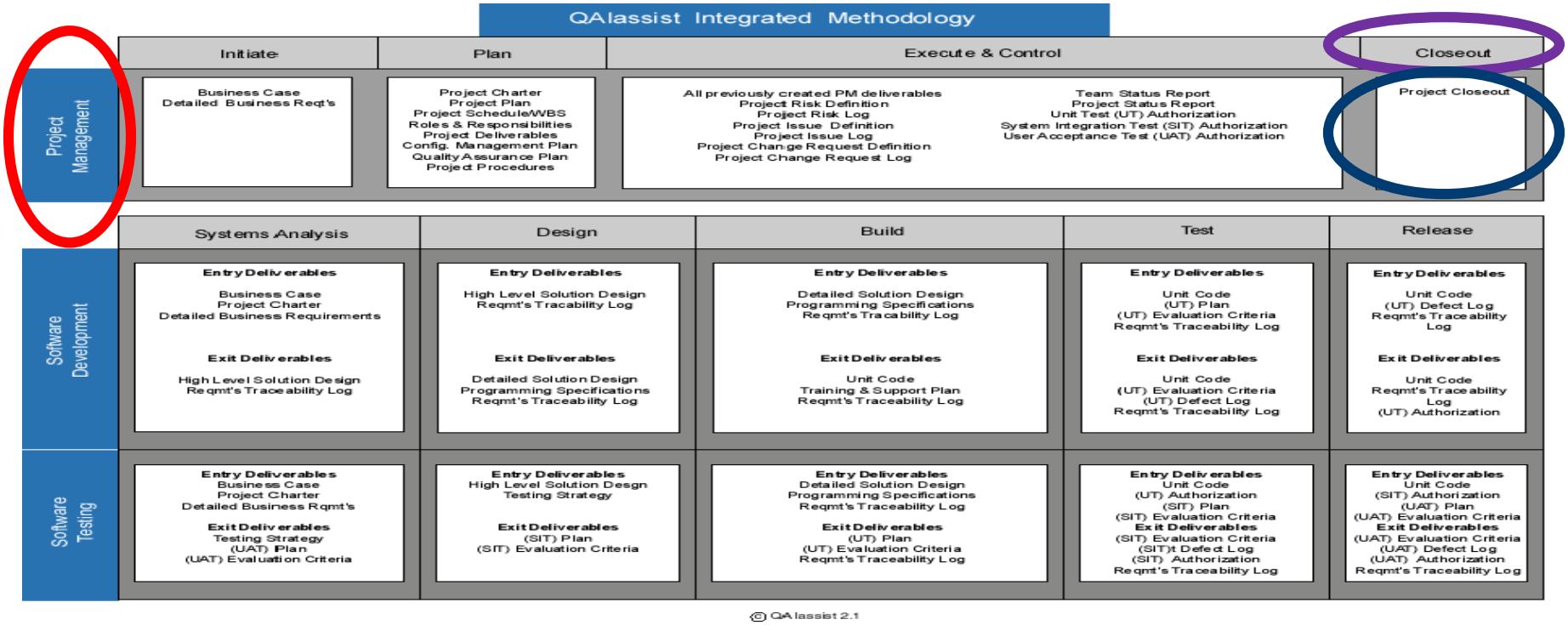
  - Functionality 3 — Payroll — **3rd Iteration**

QAI assist

QAIassist Integrated Methodology



Verb – Quiz III

- **Which of the following IT methodologies (verb) would deliver the greatest benefit ?**

  (a) Agile

  (b) Prototyping

  (c) RAD

  (d) Waterfall

  (e) it depends

QAI assist

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QAI assist

“Deliverable/Artifact/Work Product” versus “Activity”

Building an IT Application

- Deliverable (Artifact, Work Product)
  - Business Case
  - Project Plan
  - User Acceptance Test Plan
- Activity (non-Deliverable, non-Artifact, non Work Product)
  - Reviewing business need with Operational Management, Business Analysts and End-Users
  - Meeting with Stakeholders to acquire approval of Project Plan
  - Discussing User Acceptance Testing objectives and priorities with testing team

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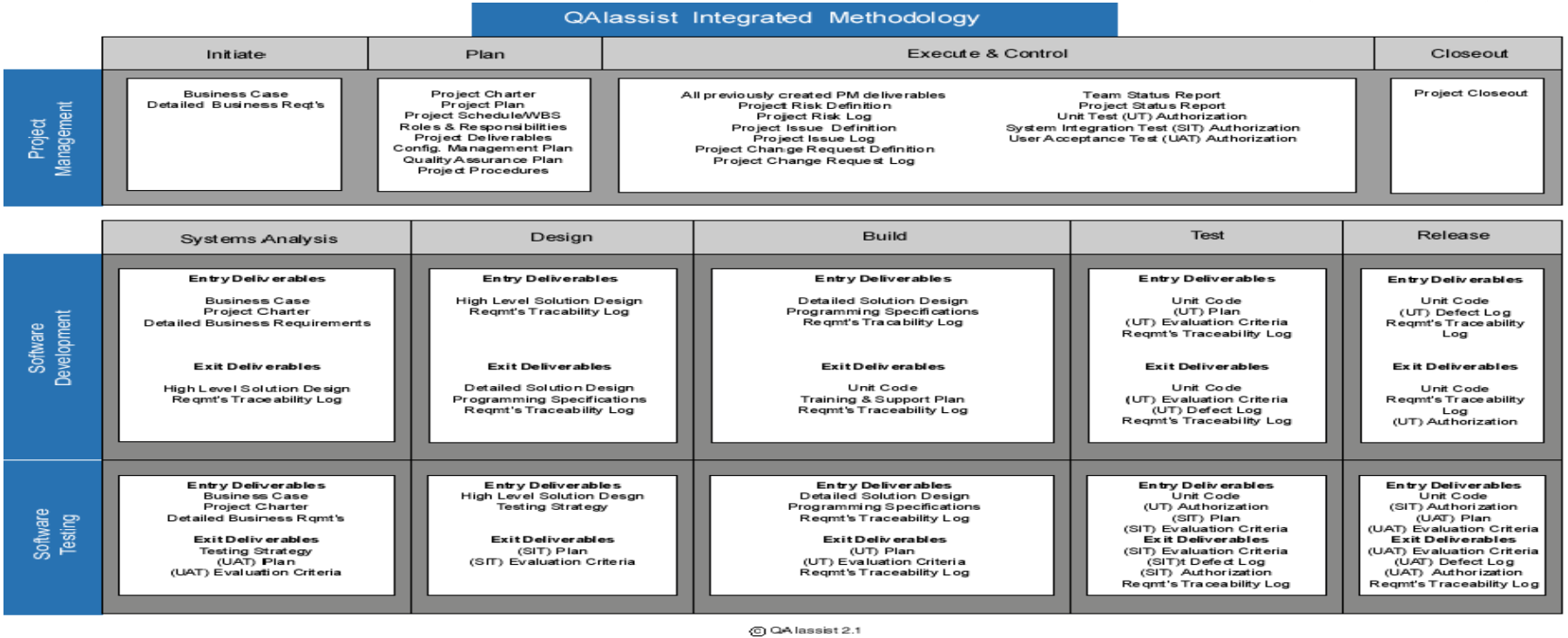
“Deliverable/Artifact/Work Product” Construct/Format - see example

- Fixed Sections (always populated)
  - Title Page
  - Deliverable Details (Author, Creation Date, Version, Status, etc)
  - Deliverable History, Reviewers, Sign Off
  - Table of Contents (as per deliverable)
  - Context (purpose of the deliverable)
- Variable Sections (based on pre-defined informational requirements)
  - Structure/format defined as per deliverable (ie a Project Charter deliverable does not have the same pre-defined informational requirements as a Testing Strategy deliverable)

QAI assist

QAIassist Integrated Methodology



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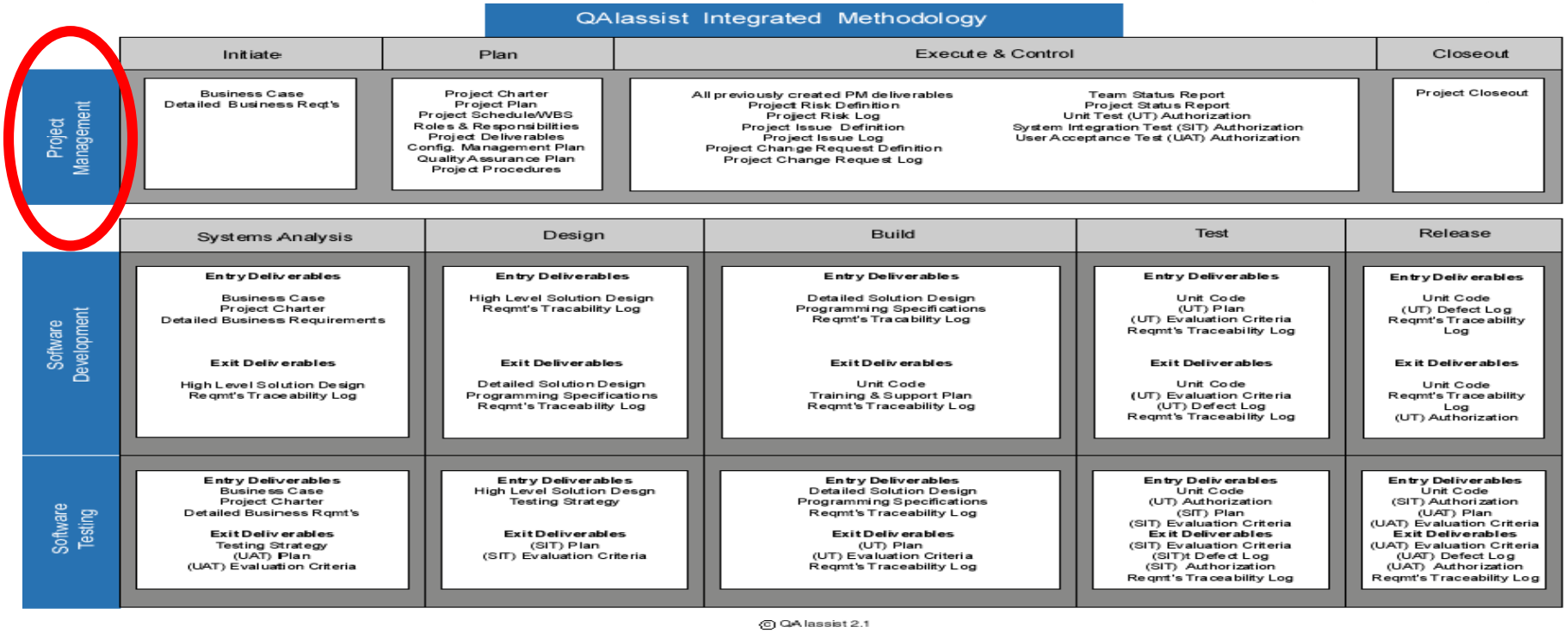
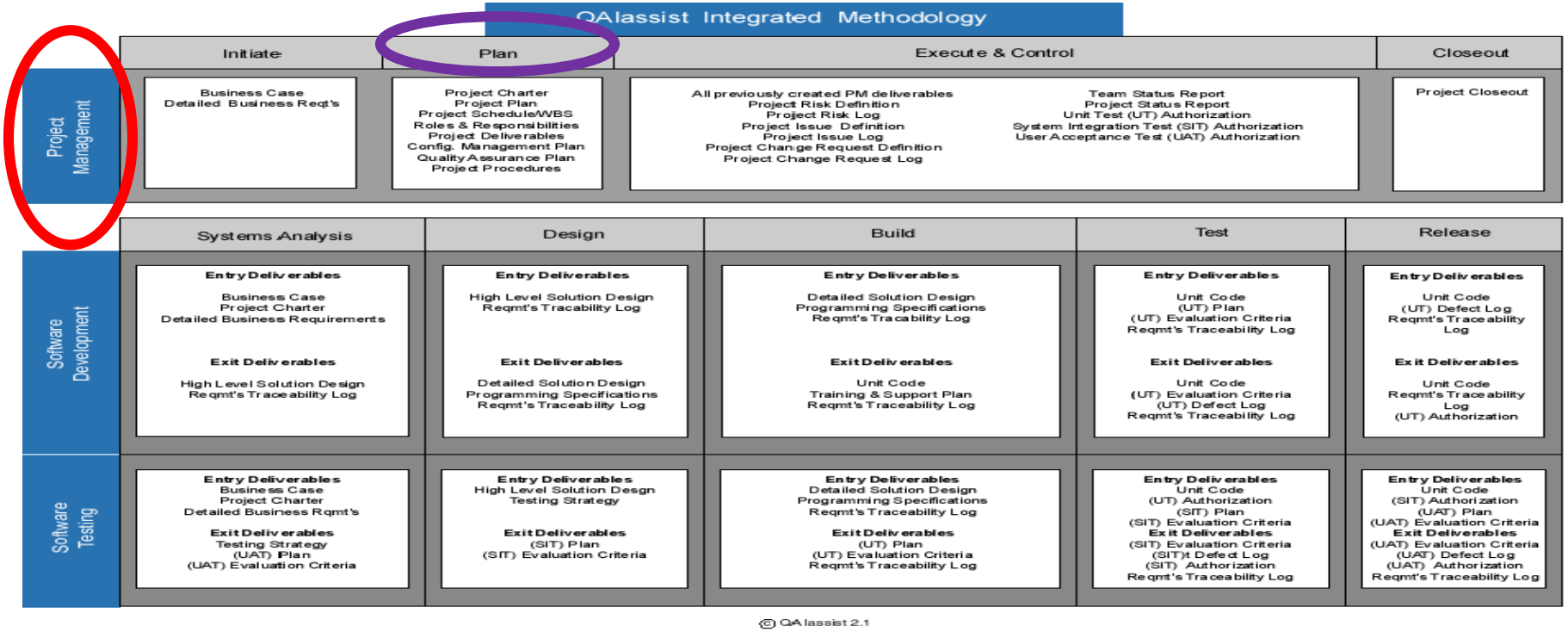


QAIassist - Project Management Methodology

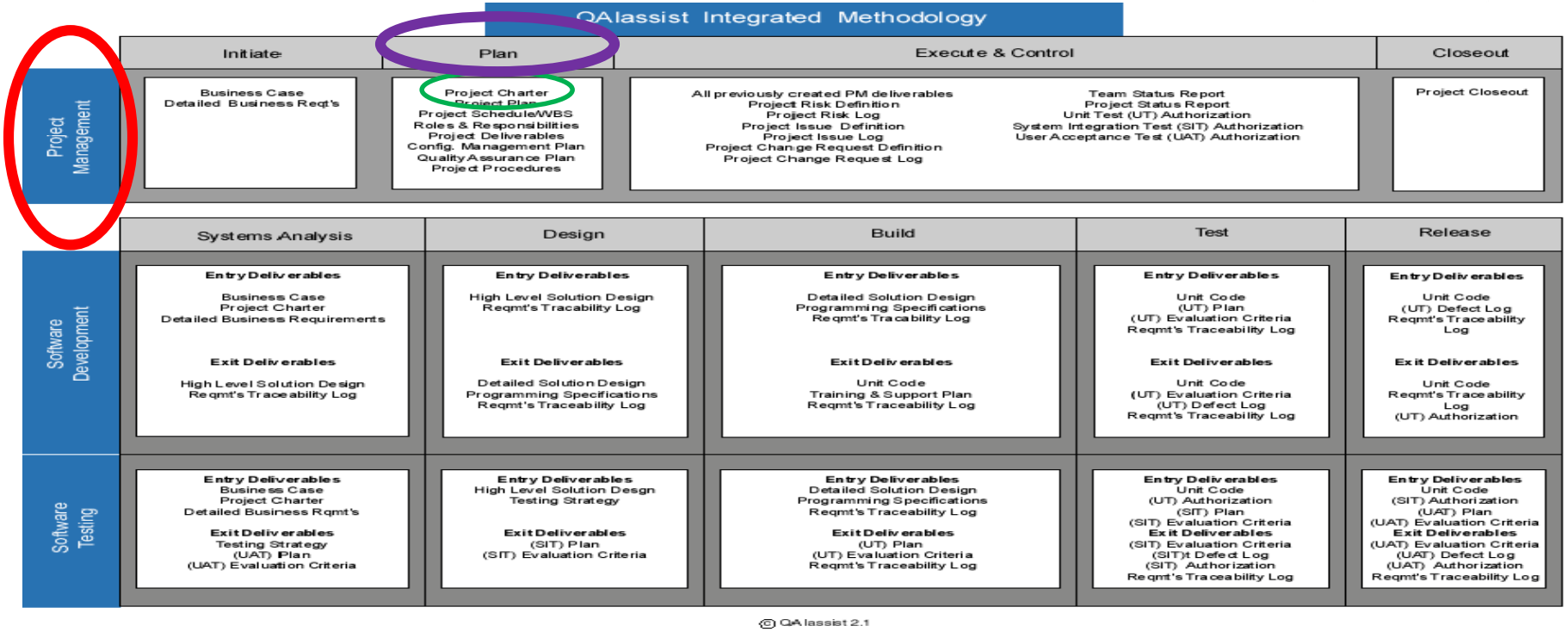
- The Project Management(PM) methodology/lifecycle focuses on initiating, planning and delivering a business solution. Phases include:
  - Initiate
  - Planning
  - Executing & Controlling
  - Closeout

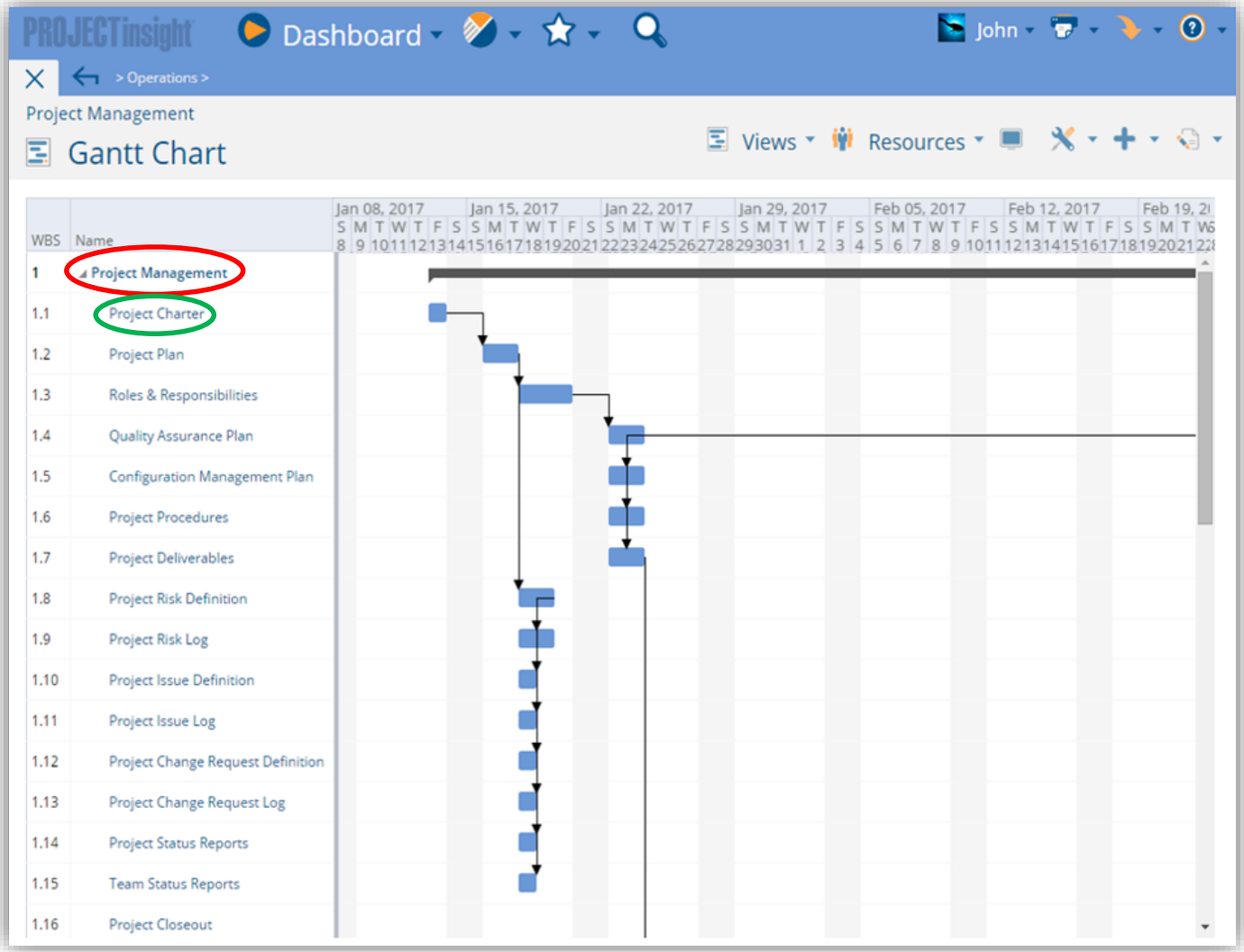
QAI assist

QAlassist Integrated Methodology



QAlassist Integrated Methodology




PROJECTinsight
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John
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Project Management
Gantt Chart
Views
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WBS
Name
Jan 08, 2017
Jan 15, 2017
Jan 22, 2017
Jan 29, 2017
Feb 05, 2017
Feb 12, 2017
1 Project Management
1.1 Project Charter
1.2 Project Plan
1.3 Roles & Responsibilities
1.4 Quality Assurance Plan
1.5 Configuration Management Plan
1.6 Project Procedures
1.7 Project Deliverables
1.8 Project Risk Definition
1.9 Project Risk Log
1.10 Project Issue Definition
1.11 Project Issue Log
1.12 Project Change Request Definition
1.13 Project Change Request Log
1.14 Project Status Reports
1.15 Team Status Reports
1.16 Project Closeout

QAIassist - Project Management Methodology

Project Charter (see sample)

- **Project Management** (lifecycle)
- **Plan** (phase name)
  - **Project Charter** deliverable is used to identify and initiate a project. It establishes a starting point (goal posts) for a project and evolves with the project through implementation. It establishes a high level definition for a project – informational requirements may include
    - Purpose
    - Scope
    - Budget
    - Team Structure
    - Risks & Issues

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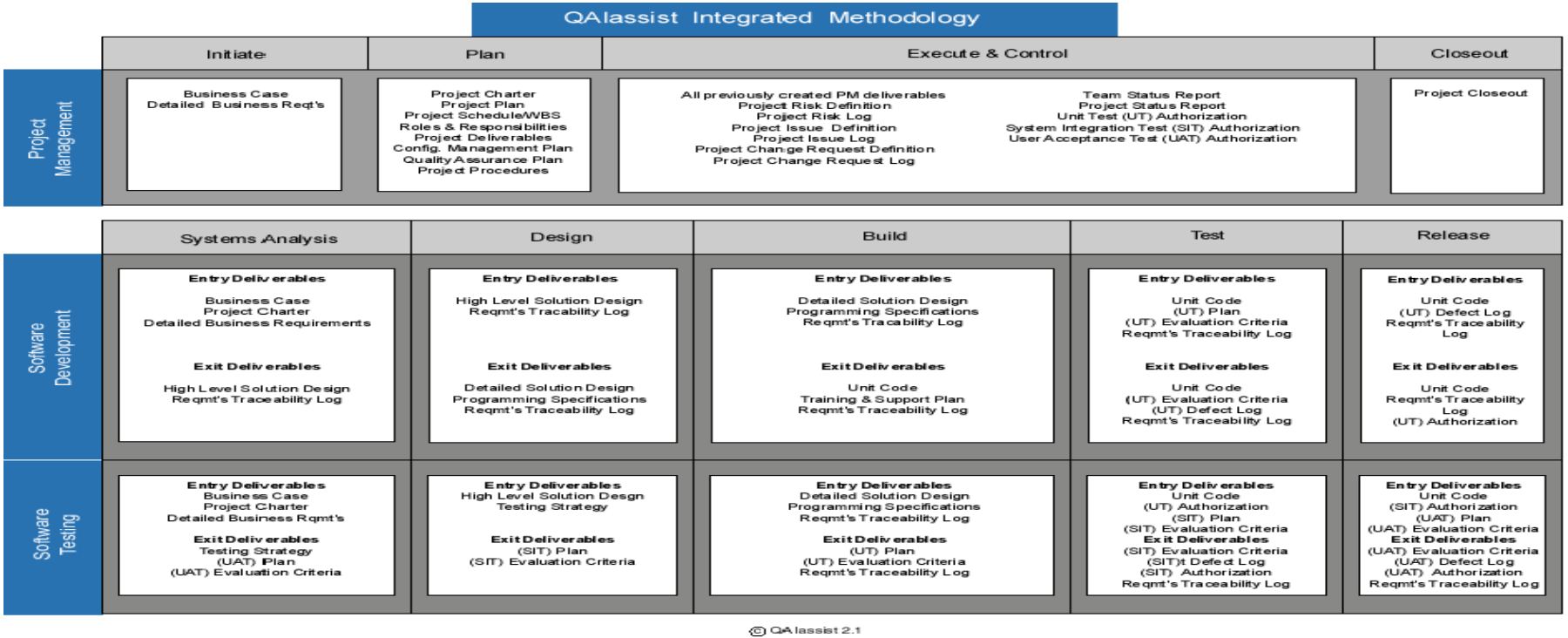
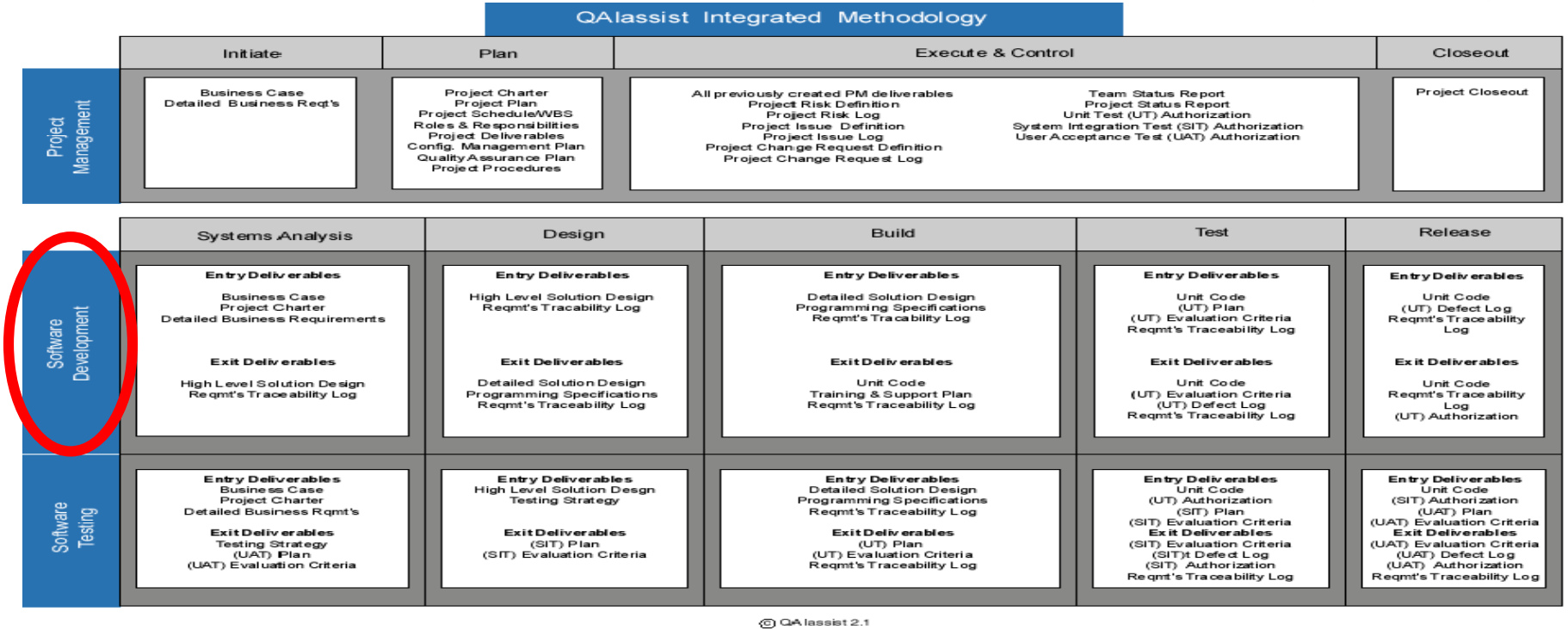
QAIassist Integrated Methodology



QAIassist Integrated Methodology

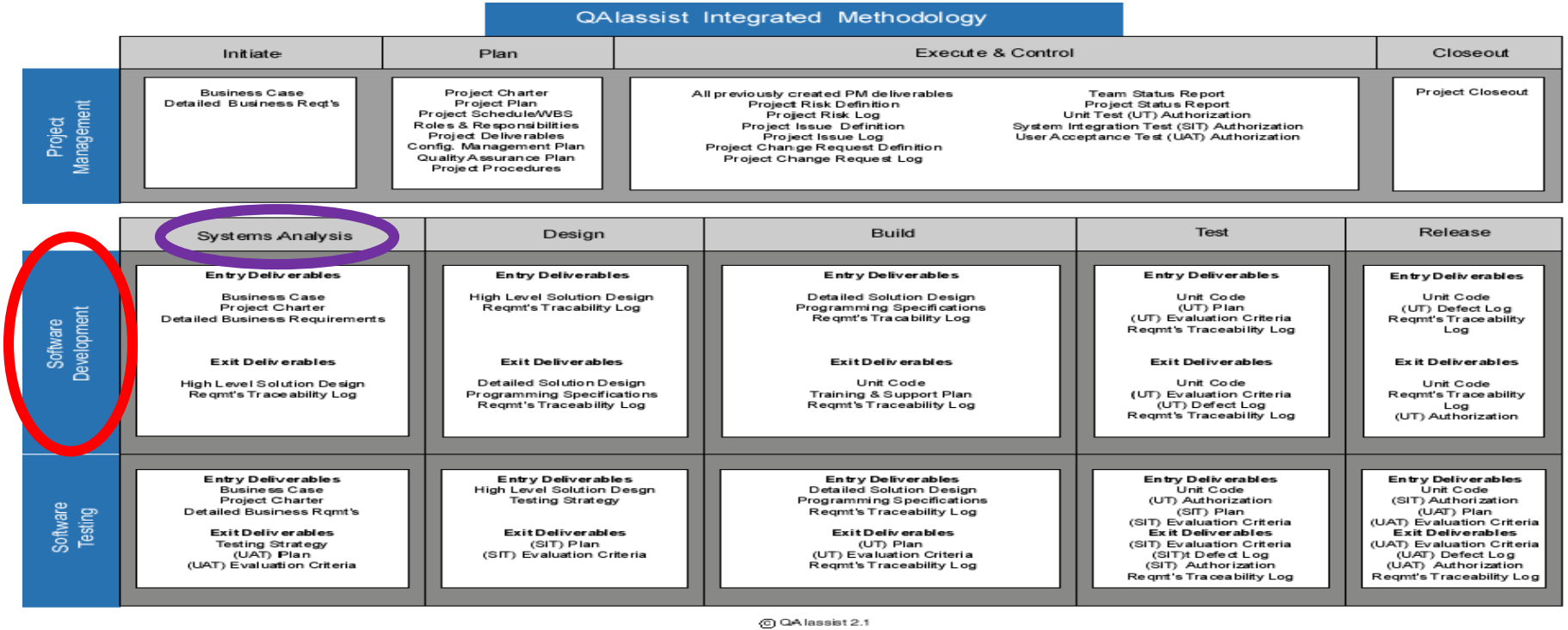


QAIassist – Software Development Methodology

- The Software Development (SDLC) methodology/lifecycle focuses on defining, designing, building, unit testing and delivering a business solution. Phases include
  - System Analysis
  - Design
  - Build
  - Test
  - Release

QAI assist

QAIassist Integrated Methodology



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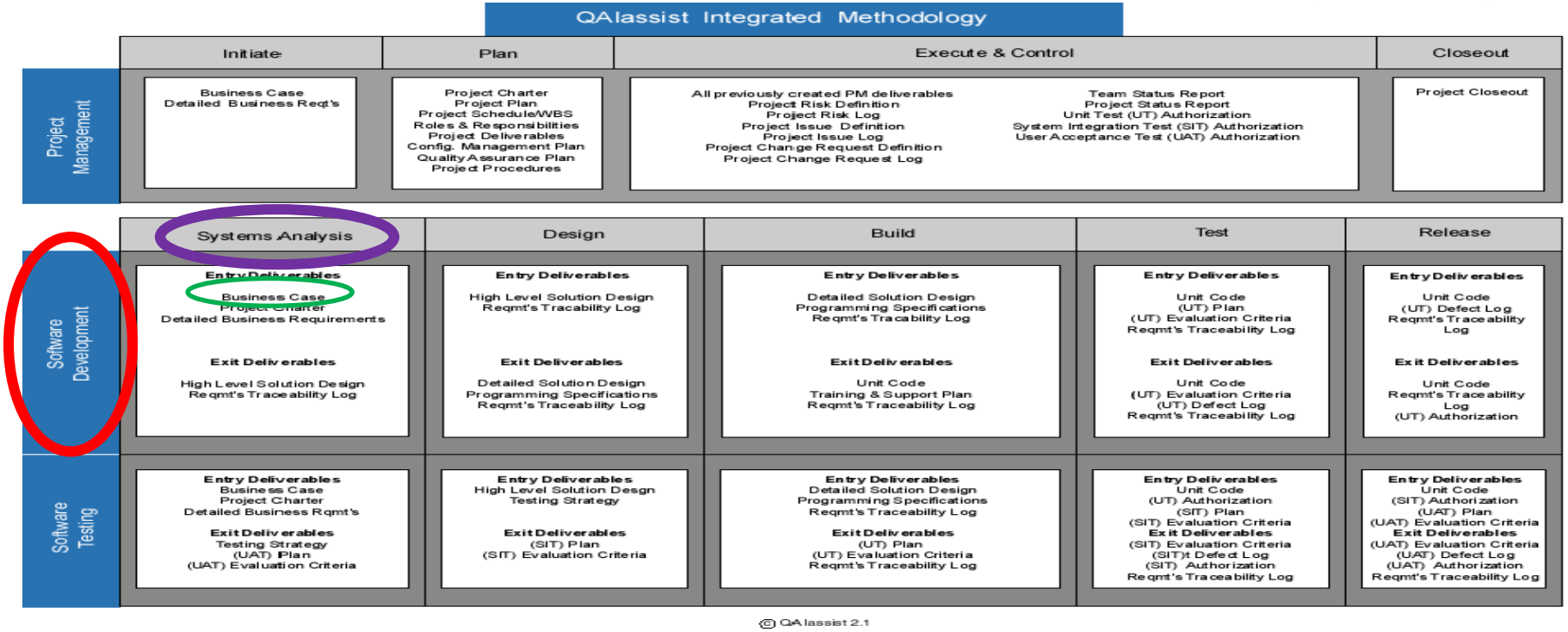

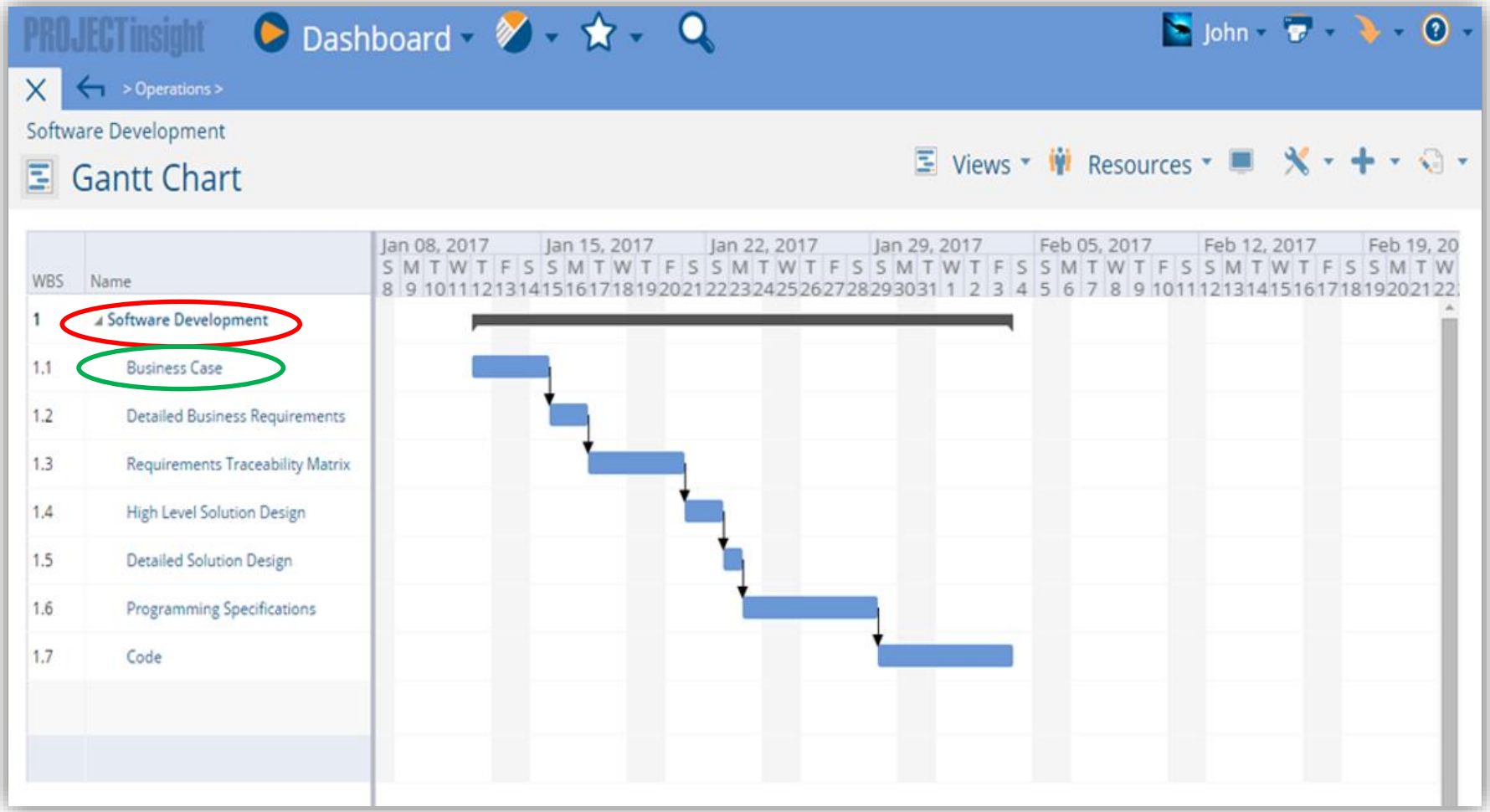
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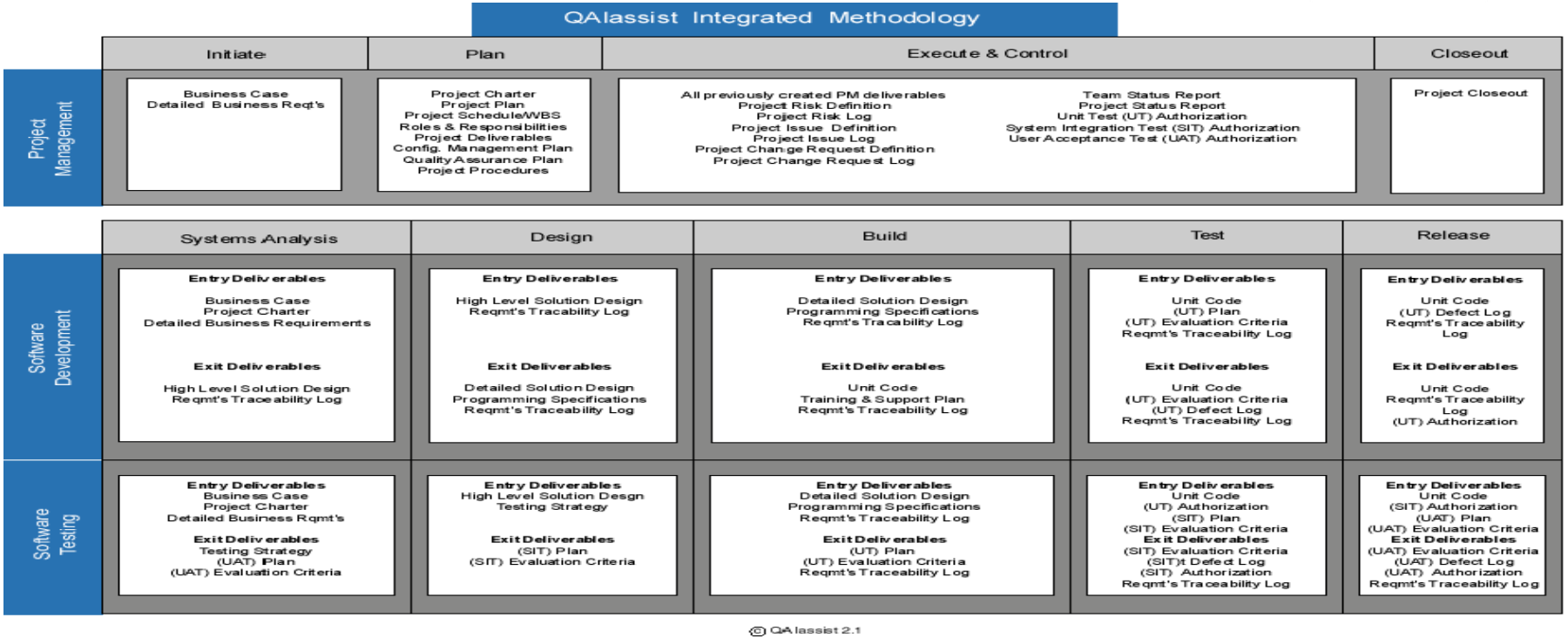
1 Software Development
1.1 Business Case
1.2 Detailed Business Requirements
1.3 Requirements Traceability Matrix
1.4 High Level Solution Design
1.5 Detailed Solution Design
1.6 Programming Specifications
1.7 Code
Jan 08, 2017
Jan 15, 2017
Jan 22, 2017
Jan 29, 2017
Feb 05, 2017
Feb 12, 2017
Feb 19, 20

QAIassist – Software Development (SDLC) Methodology
Business Case (see sample)

- **Software Development** (lifecycle/methodology)
- **Initiate** (phase name)
- **Business Case** deliverable is used to identify and document a business need. It is used to clarify the business need and the organizational benefits that can be derived – informational requirements may include
  - Business Needs
  - Benefits
  - Organizational Effects
  - Constraints
  - Estimated Costs

QAI assist

QAIassist Integrated Methodology



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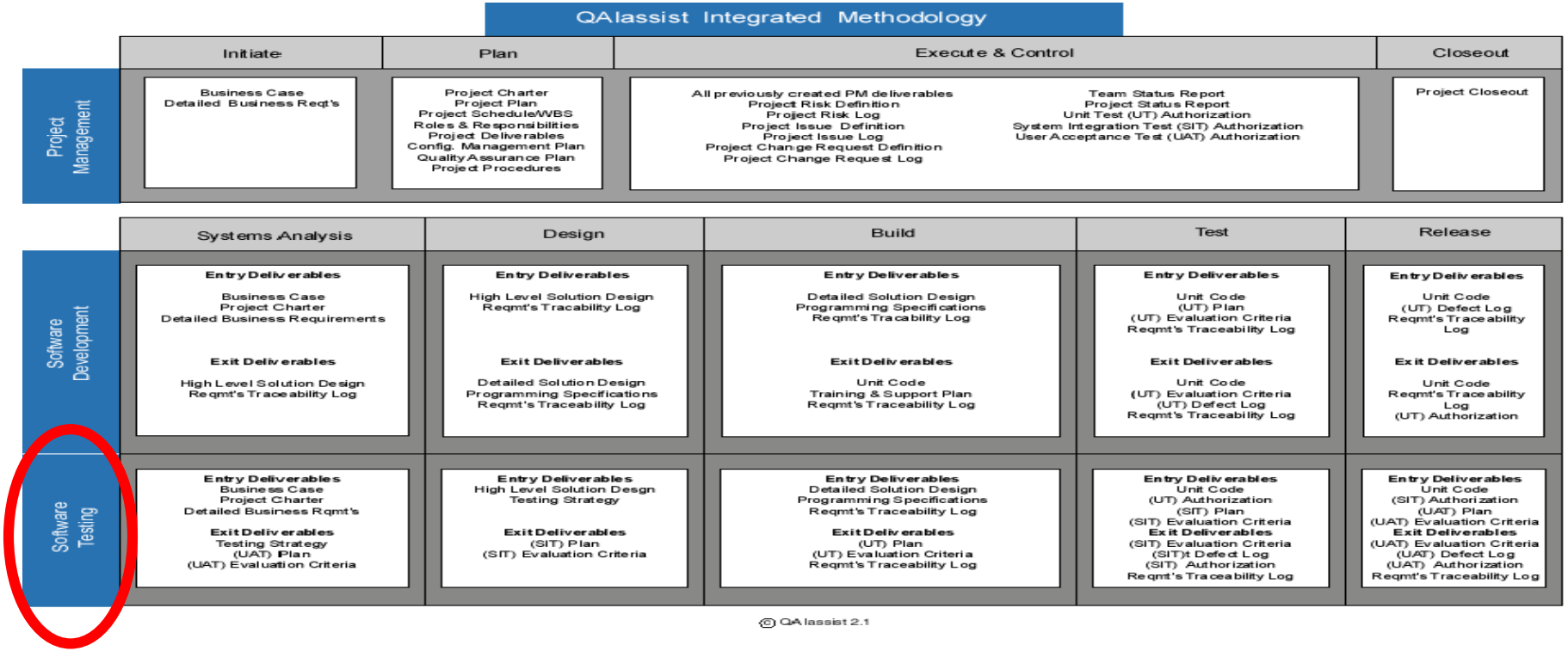
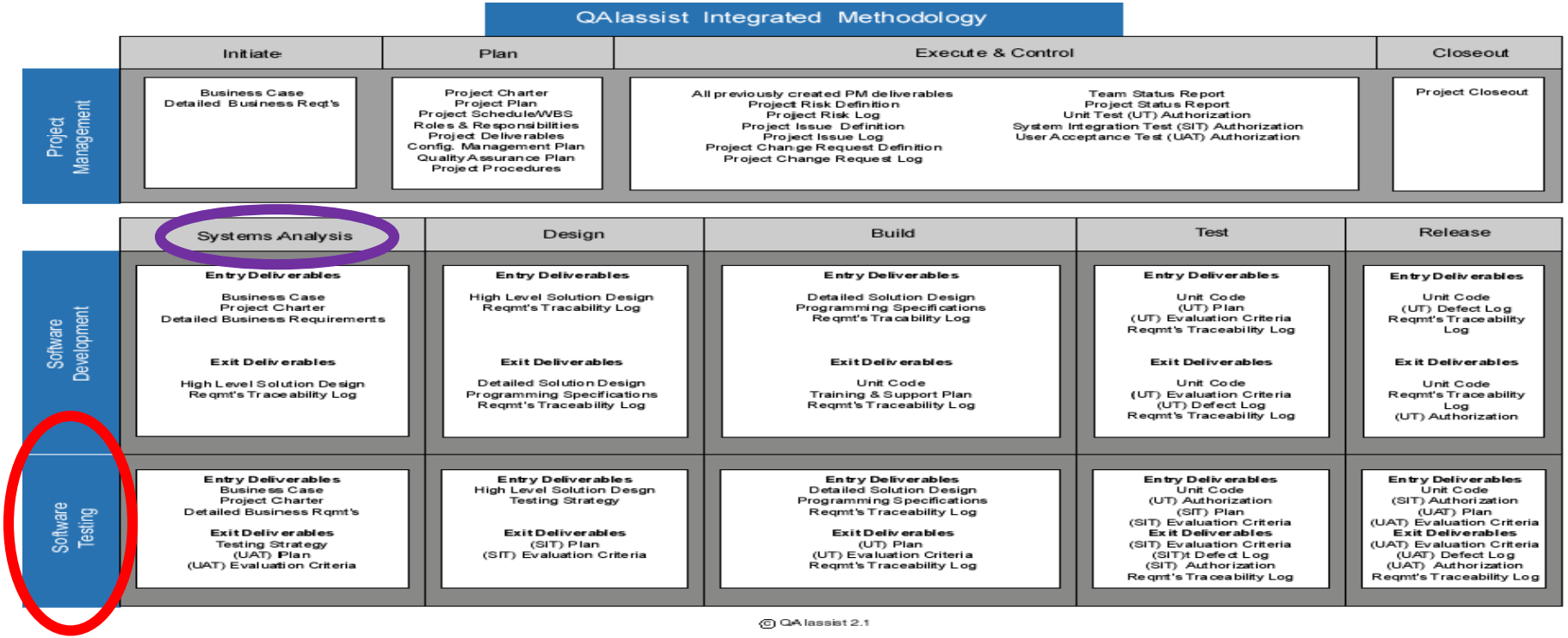


QAIassist – Software Testing Methodology

- The Software Testing (ST) methodology/lifecycle focuses on identifying the business solution criteria, verifying the business solution meets the business requirement, and validation that the functionality addresses the business need. Phases include:
  - System Analysis
  - Design
  - Build
  - Test
  - Release

QAI assist

QAIassist Integrated Methodology



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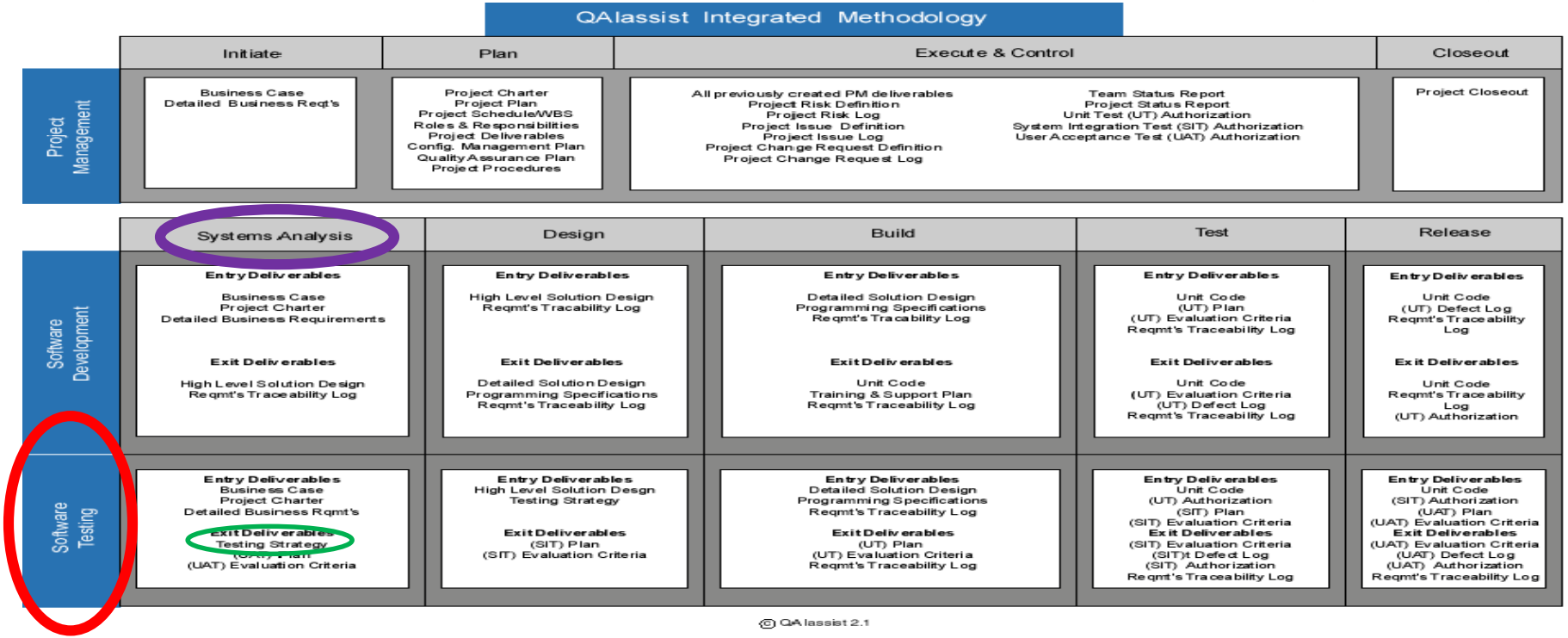

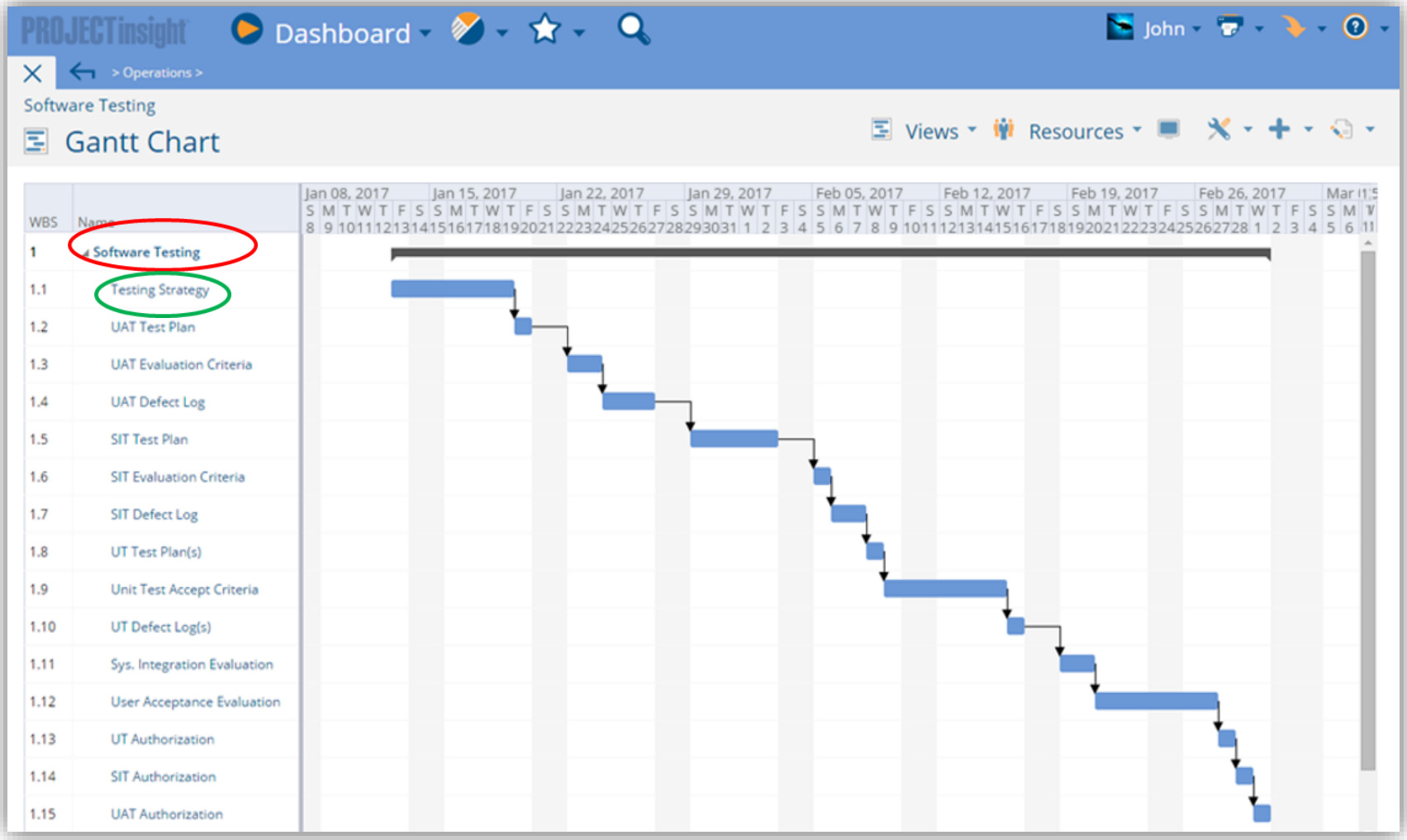
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1 Software Testing
1.1 Testing Strategy
1.2 UAT Test Plan
1.3 UAT Evaluation Criteria
1.4 UAT Defect Log
1.5 SIT Test Plan
1.6 SIT Evaluation Criteria
1.7 SIT Defect Log
1.8 UT Test Plan(s)
1.9 Unit Test Accept Criteria
1.10 UT Defect Log(s)
1.11 Sys. Integration Evaluation
1.12 User Acceptance Evaluation
1.13 UT Authorization
1.14 SIT Authorization
1.15 UAT Authorization
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Jan 15, 2017
Jan 22, 2017
Jan 29, 2017
Feb 05, 2017
Feb 12, 2017
Feb 19, 2017
Feb 26, 2017

QAIassist – Software Testing (STLC) Methodology

Testing Strategy (see sample)

- **Software Testing** (lifecycle/methodology)
- **Initiate** (phase name)
- **Testing Strategy** deliverable is used to establish and layout the testing objectives and audiences – it will define the high level testing tasks and activities that will be performed to deliver a solution into a production environment – informational requirements may include
  - Objectives
  - Audiences
  - Activities
  - Testing Deliverables
  - Acceptance Criteria

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Methodology Fundamentals - 101

- Viable IT methodologies (noun and verb) are designed to help not hinder
- IT methodologies (noun) are applicable for a wide range of IT Methodologies (verb) and delivery approaches (waterfall, spiral, agile, RAD, prototyping, etc)
- No hard or specific rules (ie iterations, frequency of iterations, deliverables to be completed) of how an IT methodology (noun) can best be applied or leveraged by an organization or project team
- No silver bullet - if the perfect combination of IT Methodology (noun) and IT Methodology (verb) existed, every project team and organization would be using it

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Methodology Fundamentals - 102

- Deliverables (and content) may be re-usable from one project to another
- Not every deliverable of every phase has to be completed for every project - any and every deliverable to be completed must add value (cost, schedule, quality) to the project
- Not every section or sub-section of every deliverable has to be completed for every project - information used to populate every deliverable must add value (cost, schedule, quality) to the project

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A Context for IT Methodology
Concepts I – Agenda

- IT Methodology - general context
- IT Methodology - as a “noun” and a “verb”
- IT Methodology constructs and hierarchy - “noun” (lifecycles, phases, deliverables)
- IT Methodology - “verb” (waterfall, agile, spiral, RAD)
- **IT Methodology structure & deliverable examples - “noun” (project management, software development, software testing)**
- IT Methodology - organizational compatibility and benefits
- Recap

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Methodology Benefits – “Project” Context

- **On Time** – project teams are able to scale and leverage the phases and deliverables to effectively deliver projects and functionality
- **Within Budget** – familiarity and recurring usage provides project teams a tool they can reuse to consistently deliver applications within budget
- **Built In “Quality”** – structure ensures project teams are working on the right deliverables for the right reasons to deliver the right solutions

Methodology Benefits – “Process” Context

- **Common IT Process** – applying a methodology /lifecycle to IT development and maintenance activities contributes to a standard organizational approach (adhering to budget, schedule, quality, resource flexibility)
- **Quality Assurance & Governance** – applying a methodology/lifecycle provides the basis for organizational process management - verifying and evaluating how organizational staff are utilizing the process
- **Metric – Basis for Improvement** – applying an organizational methodology/lifecycle provides the basis for assessing its usage and how it can be approved upon

Organizational Compatibility Considerations

- Operational Structure - every organization is structured differently, methodologies/lifecycles (noun or verb) must be customized and optimized within that structure
- Strategic Objectives - every organization has different strategic objectives (ie time to market, cost of goods, quality) methodologies/lifecycles (noun and verb) can contribute to those objectives
- Tools - every organization utilizes and maintains its own IT infrastructure and tool suite, methodologies/lifecycles must align and be compatible with this infrastructure and tool suite

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- IT Methodology - organizational compatibility and benefits
- **Recap**

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Acknowledgements

- ISO (xxx) http://www.iso.org/iso/home.html
- SEI/CMMI http://www.sei.cmu.edu/cmmi/ http://cmmiinstitute.com/
- ITIL http://www.itil-officialsite.com/
- COBIT http://www.isaca.org/Knowledge-Center/COBIT/Pages/Overview.aspx
- RUP http://www-01.ibm.com/software/awdtools/rup/
- PMI http://www.pmi.org/
- PRINCE2 http://www.prince-officialsite.com/
- QAIassist http://www.qaiassist.com/integrated_methodology.html

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Body of Knowledge

- Methodology/Lifecycle/Deliverables – www.qaiassist.com
  - Project Management, Software Development, Software Testing
- Body of Knowledge (Library) – www.qaiassist.com
  - **Methodology Origin** – origins of methodology – identifies the differences between the path we take (noun) and how we proceed (verb) down that path
  - **Context & Overview** – provides a general overview of IT Methodology and how it can be applied within an organization
  - **Deliverable Descriptions** - provides general descriptions for all the deliverables of the QAIassist Integrated Methodology

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Until Next Session…

- **Keep Posing your Questions** – call or send your questions in (Denise and/or Cameron)
- **Explore the QAIassist Body of Knowledge** – refer to the QAIassist Body of Knowledge (sample deliverables, whitepapers, blog articles) – (www-qaiassist.com)
- **QAIassist Practitioner** - find out more about becoming QAIassist certified "Foundation", "Practitioner"
- **Tell your friends** - tell your friends, coworkers and colleagues about the Project Insight/QAIassist webinars – invite them to join us at the next session
- **Continuing Follow Up** – send out a survey at the completion of every webinar, follow up with attendees to obtain their suggestions and recommendation

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Moderator

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Marketing

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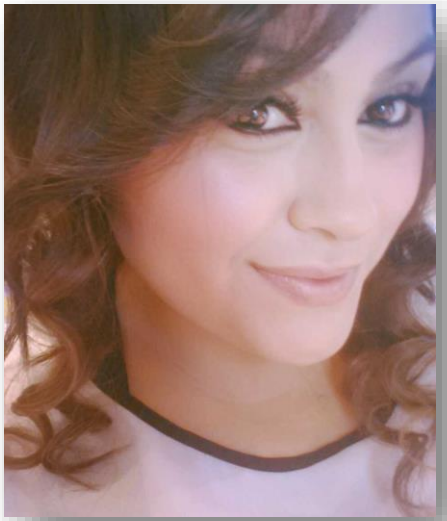

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