



NEWGEN

Newgen Quality System

NQS Orientation Session

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Connecting Enterprises. Transforming Experiences.

What to Expect...

- ❑ Quality Definition
- ❑ Newgen's Quality Journey
- ❑ Quality Policy
- ❑ NQS Structure
- ❑ Project Types
- ❑ Project Initiation
- ❑ Project Planning
- ❑ Project Execution
- ❑ Project Monitoring & Control
- ❑ Project Closure
- ❑ Time Management System

Quality Definition

- Quality – “Degree to which a set of inherent characteristic fulfils requirements.” – ISO
- Quality – “The degree to which a component, system or process meets specified requirements and/or user/customer needs and expectations.” - IEEE
- Software Quality - The totality of functionality and features of a software product that bear on its ability to satisfy stated or implied needs.

Past, Present, and Future Initiatives

- ISO 9001: Since 1998
- ISO 27001: Since 2007
- ISO 27017: Since 2019
- ISO 27018: Since 2019
- SOC 1 Type 2 Since 2015
- SOC 2 Type 2 + HITRUST: Since 2017
- CMMI Dev: Since 2009
- CMMI Svc: Since 2015
- PCI-DSS*
- HIPAA Compliance*
- GDPR Ready
- In progress
 - CSA STAR Certification

* Only on contractual basis, for Newgen managed cloud

Quality Policy

Newgen shall strive to:-

- ❑ Provide solutions to customers for management of business processes, enterprise content and customer communication for **mutual prosperity** and **happiness**.
- ❑ Meet and **exceed customer and partner requirements** by delivering first time right and on time, leading to their delight and business growth
- ❑ Comply with the Legal, Statutory, Regulatory and Contractual requirements.
- ❑ Make **continual improvement** in quality management system effectiveness.

NQS Structure

- <https://nms.newgensoft.com/nqs>
- Username: newgen
- Password: newgen
- Newgen Quality System
 - Quality Manual
 - Process
 - Guidelines
 - Templates
 - NQS Release Notes
 - Superseded NQS Versions



Accessing ISMS & NQS

While connecting to the Office network through VPN, you can access NQS and ISMS sites via the following links.

https://192.168.10.26/nqs

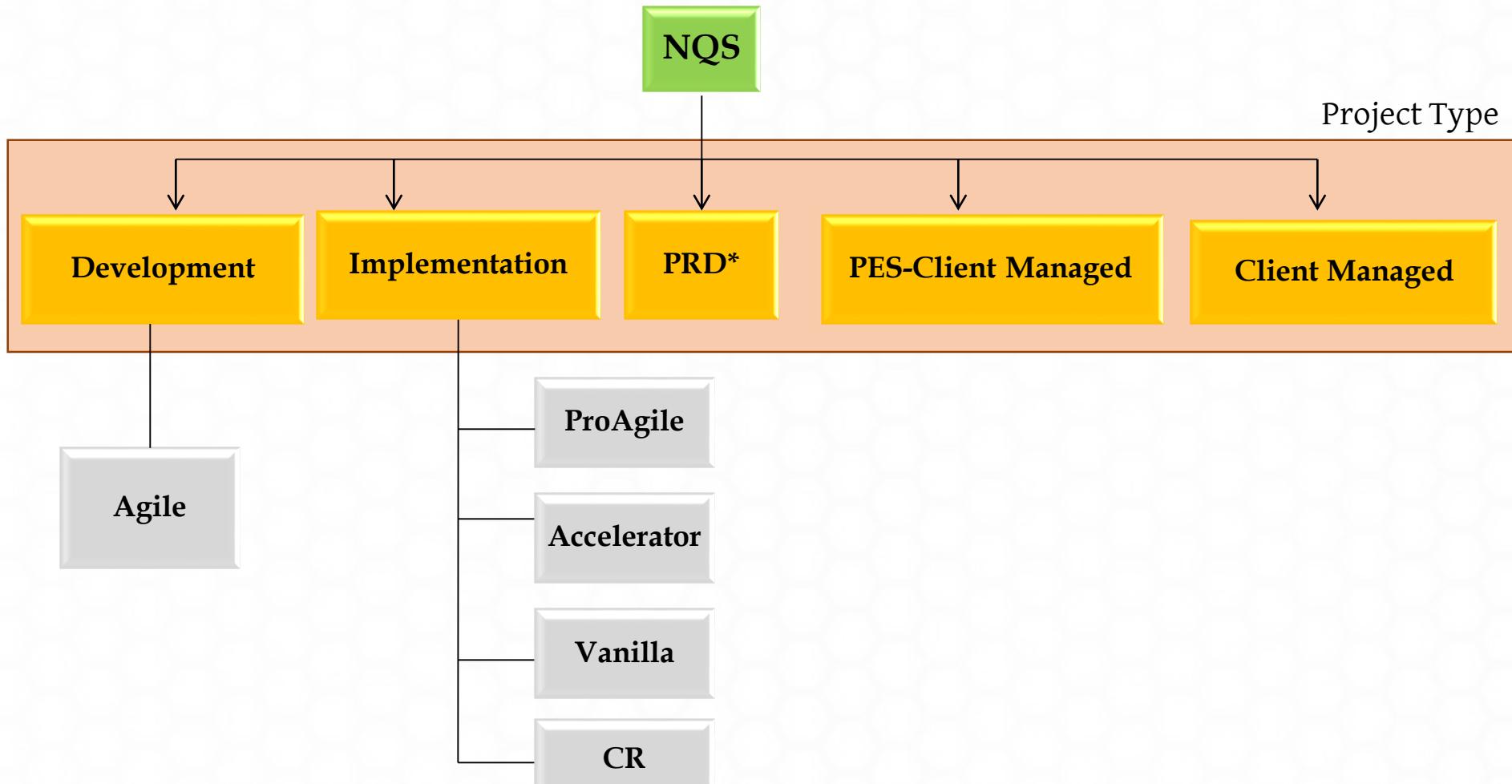
https://192.168.10.26/isms

Credentials for accessing above URL

- username: newgen
- password: newgen

Note: The above URLs are not accessible from outside Newgen network.

NEWGEN PROJECT TYPE AND SDLC



* Including VLOCR

Project Initiation

Project Initiation

- Project Registration in *THECOMPASS*
- Project Cost Calculation (Online Budget)
- Relationship Matrix
- KOM – I
- Client Kick-off meeting
- Project Initiation Approval

Project Initiation - Budget

Budget	Fixed fees	Products	Services	Expenses	Access
Company: * Sample Customer 	Revision type:				
Engagement: * Sample_Engagement 	Revision number:				
Project: Sample_Project - Sample Project 	Revision name:				
Budget name: * Sample Budget	Start date:				
Currency: USD	End date:				
	Contingency	0.00			
Comments:					
<input type="checkbox"/> Freeze budget					
Total revenue:	50,000.00		Total cost:	28,000.00	
Margin:	22,000.00		Margin %:	44.00	

Project Initiation- Relationship Matrix

Relationship/Responsibility Matrix									
Customer Name :									
Layers	Newgen		Customer		Objective	Proposed Agenda	Frequency	Mode of Communication	Escalation Criteria
	Name	Designation	Name	Designation					
Level C									
Level B	Project								
Level A	Project 1						Quarterly, Six Monthly, Yearly, etc.	Email, Con-Call, Client Site Visit etc	
							Monthly, Fortnightly etc		
	Project 2							Daily, thrice weekly etc	

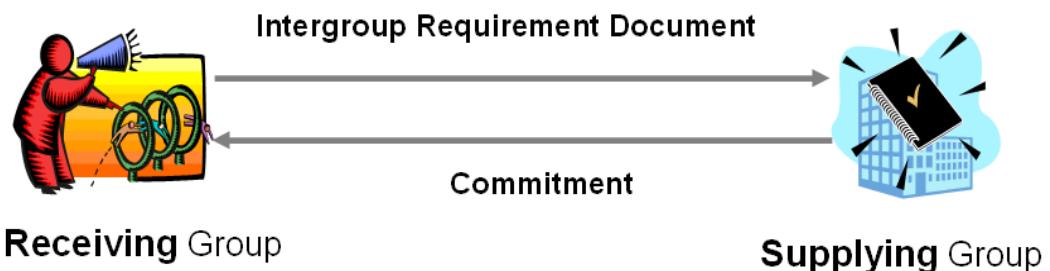
Note : Relationship Matrix can be part of client kick-off meeting

Inter Group Coordination

Intergroup Requirement Document					
<u>Ref No:</u>		<u>Date:</u>			
<u>Receiving Project Name:</u>		<u>Department Name:</u>			
Sr. No.	Requirement Description in Details.	Current Procedure (If Any)	Advantages by proposed Requirement/New Process	Delivery of Item required on or before	Acceptance Criteria
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					

Requested Department Name:
Requestor Name:
Approved by Name:

Signature:
Signature:



Note:

Inter-group requirement if applicable will be identified in KOM1

Project Planning

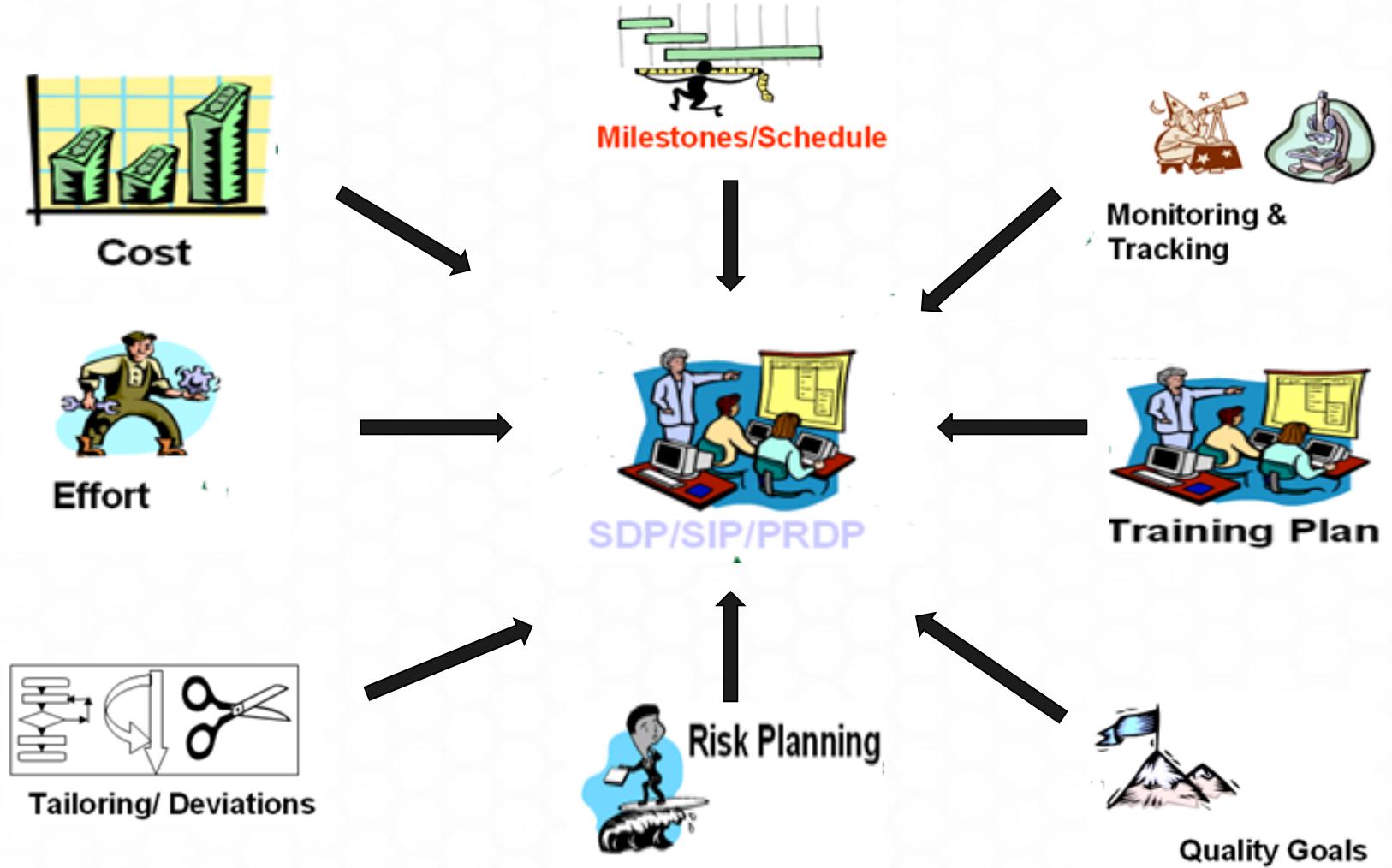
Project Planning

- Project Plan preparation *
- Project Scheduling Worksheet (WBS) *
- RMP *
- CMP
- Additional Details sheet (including DR Test Plan)
- Intergroup Requirement
- Project Plan Approval *
- Conduct KOM-II

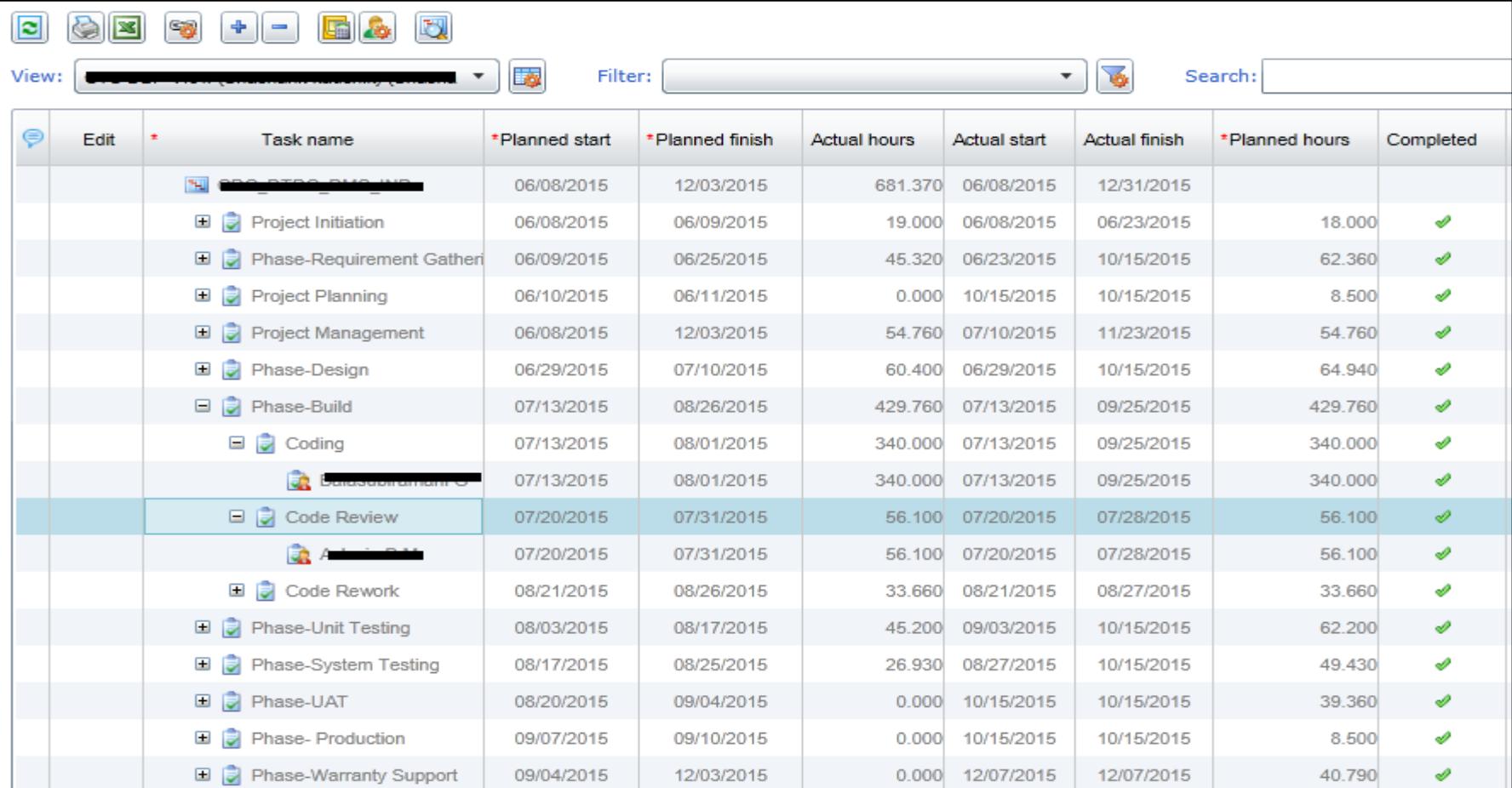


* THECOMPASS

Project Plan



Project Scheduling Worksheet- Work Breakdown Structure



The screenshot shows a software interface for project scheduling. At the top, there are various icons for file operations like Open, Save, Print, and Export. Below that is a toolbar with buttons for View, Filter, and Search. The main area is a grid table with the following columns: Edit, Task name, *Planned start, *Planned finish, Actual hours, Actual start, Actual finish, *Planned hours, and Completed.

Edit	Task name	*Planned start	*Planned finish	Actual hours	Actual start	Actual finish	*Planned hours	Completed
	PRO-PTRO-BMG-INR	06/08/2015	12/03/2015	681.370	06/08/2015	12/31/2015		
	+ Project Initiation	06/08/2015	06/09/2015	19.000	06/08/2015	06/23/2015	18.000	✓
	+ Phase-Requirement Gathering	06/09/2015	06/25/2015	45.320	06/23/2015	10/15/2015	62.360	✓
	+ Project Planning	06/10/2015	06/11/2015	0.000	10/15/2015	10/15/2015	8.500	✓
	+ Project Management	06/08/2015	12/03/2015	54.760	07/10/2015	11/23/2015	54.760	✓
	+ Phase-Design	06/29/2015	07/10/2015	60.400	06/29/2015	10/15/2015	64.940	✓
	- Phase-Build	07/13/2015	08/26/2015	429.760	07/13/2015	09/25/2015	429.760	✓
	Coding	07/13/2015	08/01/2015	340.000	07/13/2015	09/25/2015	340.000	✓
	Build and Integration	07/13/2015	08/01/2015	340.000	07/13/2015	09/25/2015	340.000	✓
	+ Code Review	07/20/2015	07/31/2015	56.100	07/20/2015	07/28/2015	56.100	✓
	A - P.M.	07/20/2015	07/31/2015	56.100	07/20/2015	07/28/2015	56.100	✓
	+ Code Rework	08/21/2015	08/26/2015	33.660	08/21/2015	08/27/2015	33.660	✓
	+ Phase-Unit Testing	08/03/2015	08/17/2015	45.200	09/03/2015	10/15/2015	62.200	✓
	+ Phase-System Testing	08/17/2015	08/25/2015	26.930	08/27/2015	10/15/2015	49.430	✓
	+ Phase-UAT	08/20/2015	09/04/2015	0.000	10/15/2015	10/15/2015	39.360	✓
	+ Phase- Production	09/07/2015	09/10/2015	0.000	10/15/2015	10/15/2015	8.500	✓
	+ Phase-Warranty Support	09/04/2015	12/03/2015	0.000	12/07/2015	12/07/2015	40.790	✓

Note: While assigning responsibilities to Team Members, ensure these are done in accordance with the principle of segregation of duties.

Project Scheduling Worksheet – Milestones

Milestone Examples:-

- *SRS Sign-off*
- *Design Specification – AR Review*
- *Site Readiness Checklist Execution*
- *UAT Sign-Off (Mandatory for ProAgile & Vanilla)*
- *Go Live (Mandatory for ProAgile & Vanilla)*
- *Configuration Completion (Mandatory for Vanilla)*
- *Deployment (Mandatory for Vanilla)*

Note: While assigning responsibilities to Team Members, ensure these are done in accordance with the principle of segregation of duties.

Project Scheduling Worksheet

Control Gates

Gate#	Name	Gate Pass
Gate 1	Kick-off Gate	Is team ready for Kick off meeting with Customer ?
Gate 2	Specification Gate	Is SRS/GAP document ready to be released to customer for Signoff ?
Gate 3	Design Gate	Is team ready to start with code development ?
Gate 4	Testing Gate	Is system ready to be released for System Testing?
Gate 5	UAT Gate	Is system ready to be released for UAT?
Gate 6	Completion Gate	Is closure meeting with Customer Done?

Note: Delivery Manager will be the Gate approver

Risk Management Plan

- ❑ Description (*Condition + Consequence*)
- ❑ Risk Category
- ❑ Probability
- ❑ Consequence
- ❑ Risk Exposure
- ❑ Risk Handling Procedure
- ❑ Mitigation Plan
- ❑ Contingency Plan
- ❑ Unanticipated Risks

Risk Management Plan

CREATE REQUEST

General *

Request Identification

Originating request:

Short description: *

Initiator: * 

Company: *

Engagement: *

Project: *

Type: * Risk

Product: *

Request priority: *

Request Information

Status: New

Assignment:

Category:

Subcategory:

Attachment

Risk Management Plan

Request Details	
Risk Handling Procedure:	Probability:
<input type="text"/>	<input type="text"/>
Consequence:	Risk Priority Index:
<input type="text"/>	<input type="text"/>
Mitigation Action Plan:	Contingency Action Plan:
<input type="text"/>	<input type="text"/>
Responsibility (Mitigation):	Responsibility (Contingency):
<input type="text"/>	<input type="text"/>
Occurrence History:	Unanticipated Risk:
<input type="text"/>	<input type="text"/>
Action Taken:	
<input type="text"/>	

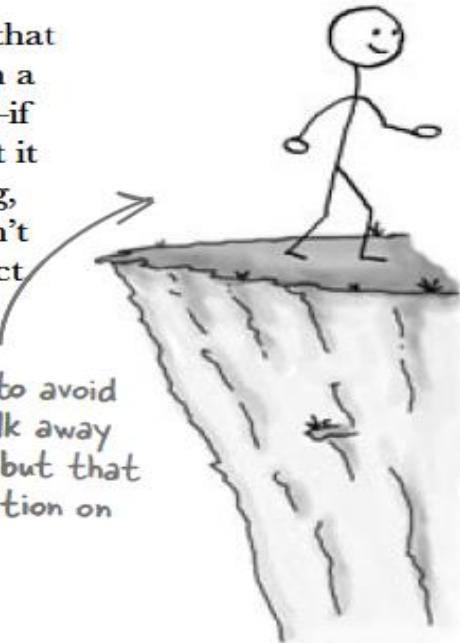
Inputs of Risk Identification

- ❑ Sales Handoff
- ❑ KOM I
- ❑ KBR Repository
- ❑ Org Level Risk repository in TheCompass

Risk Management Plan – Risk Handling Procedure

Avoid

The best thing that you can do with a risk is avoid it—if you can prevent it from happening, it definitely won't hurt your project



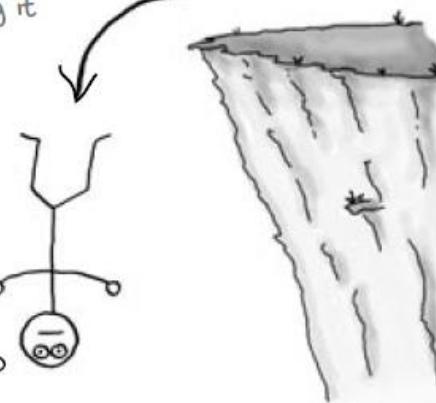
The easiest way to avoid this risk is to walk away from the cliff... but that may not be an option on this project

Accept

When you can't avoid, mitigate, or transfer a risk, then you have to accept it. But even when you accept a risk, at least you've looked at the alternatives and you know what will happen if it occurs.

If you can't avoid the risk, and there's nothing you can do to reduce its impact, then accepting it is your only choice.

Looks like falling is the best option.



Transfer

One effective way to deal with a risk is to pay someone else to accept it for you. The most common way to do this is to buy insurance.



Configuration Management Plan

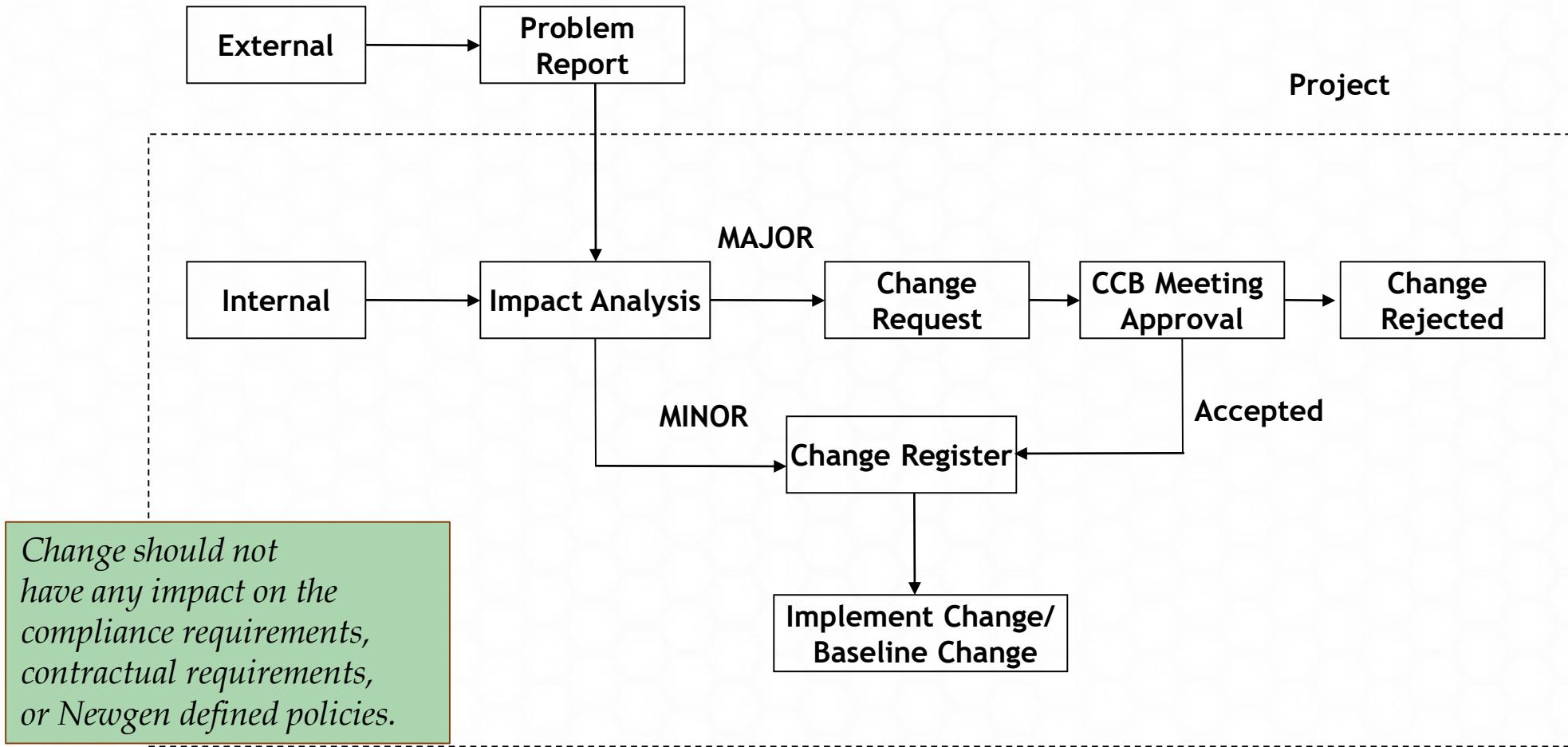
- ❑ CCB Composition
- ❑ Configuration Items
- ❑ Externally Supplied Components
- ❑ Baseline Identification & Strategy
- ❑ Naming & Version Numbering
- ❑ Repository Structure
 - Engineering artefacts (includes code): SVN
 - Defect Database: dart.newgen.co.in
 - Thecompass (Initiation Artefacts): thecompass.newgen.co.in
- ❑ Access Rights to Project Repository Folders
- ❑ Archival & Backup Procedure

Baseline

Six mandatory baseline:

- Prototyping Baseline
- Design Baseline
- Code Baseline
- Build Baseline
- Release Baseline
- Shipment Baseline

Change Management



Additional Details sheet

1 Third Party (COTS, Open Source) components (if any)*				
Sr. No.	Name of the component	Description	Verification Criteria*	Verifier (Project Role)

2 Customer Commitments / Dependencies				
Sr. No.	Dependency	Commitment (Reference document)	Commitment Date	Risk Identified (if any, mitigation in Risk Management Plan)

3 Stakeholder Involvement Plan			
Stage / Phase*	Name of Stakeholder	Type of Involvement (Role and Responsibility)	Type of record to be kept for showing proposed involvement

4 Training Plan					
Training Name	Duration (Man-Days)	Training Type	Training Mechanism	Audience	Faculty

5 Verification / Validation				
Work Product	Type	Method	Responsibility	Scope of review / Environment

Note: For Newgen Managed Cloud Engagements, prepare Engagement specific DR plan and get it approved from CIST Head'

Additional Details sheet

Disaster Recovery Plan		
DR Requirements		
Minimum no. of machine required to restore the business		
Recovery Time Objective (In Hours)		
Backup Reference No.		
Is Internet required? (Yes/No)		
Minimum No. of Scanner, Printer, Servers required to restore the business		
Any other project specific requirement.		
Hardware and Software details on machines' required for DR		
Machine Name	Machine Configuration	Software's
Recovery Verification Test (RVT) cases		
Sr. No.	RVT Test cases	Expected Result

Note: For Newgen Managed Cloud Engagements, prepare Engagement specific DR plan and get it approved from CIST Head'

KOM - II

- By: Project Manager
- When: After Plan approval
- Why:
 - Project Details
 - Sharing Milestones / Stages
 - Teams / Roles & Responsibility
 - Commitments – Team, Stakeholders & Intergroup Coordination



Project Execution

Project Execution



- Requirements - SRS
- Design Documents
- Coding
- Testing
- Release
- Misc –
 - Review Framework
 - FTM
 - 24 X 7 Production Support- Cloud Server Handover Presentation

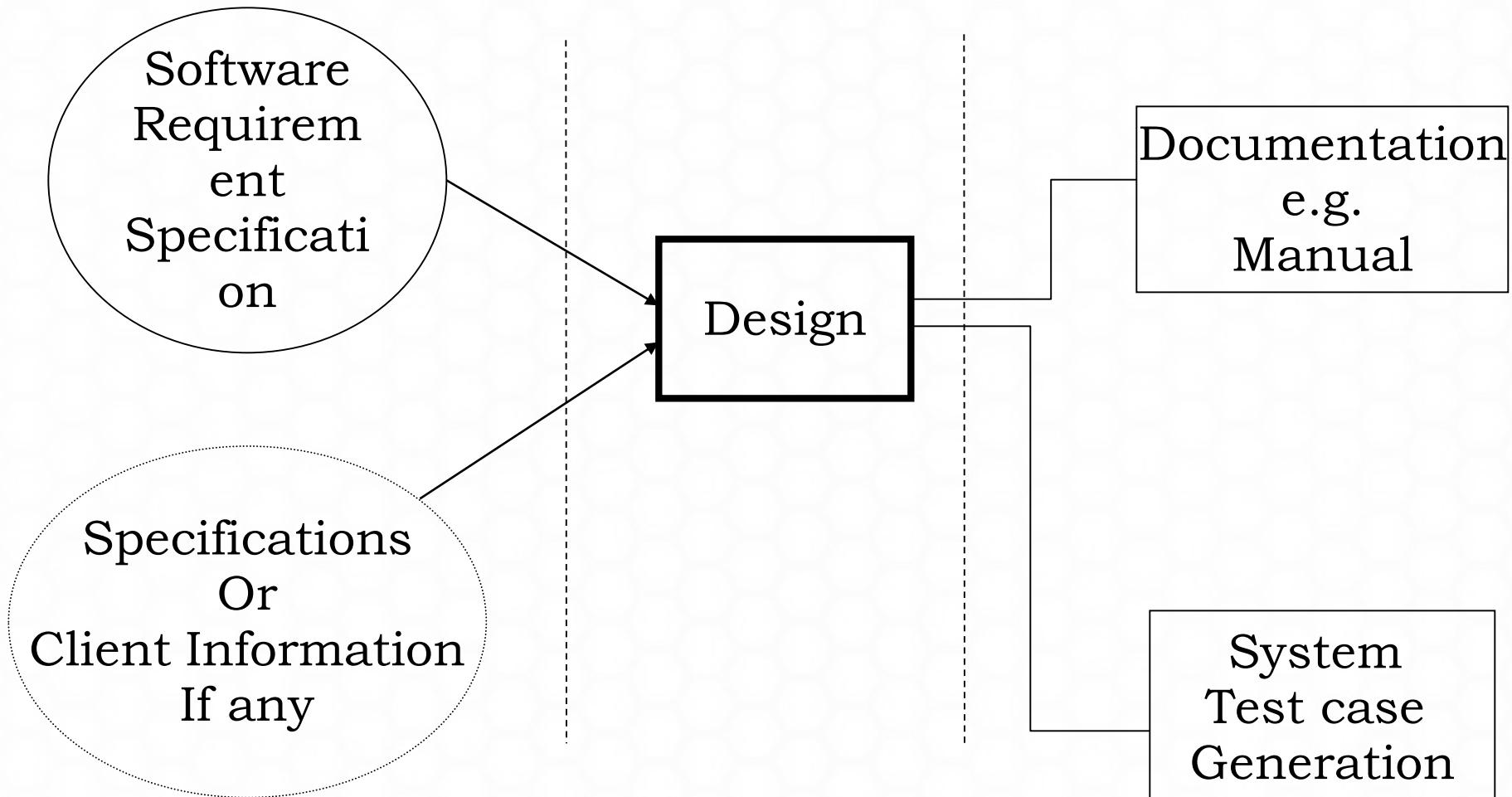
Software Requirements Specification

- Introduction (Purpose, Audience, Scope, References etc)
- Overall Description
- Product / Solution Features
- External Interface Requirements
- Non - Functional Requirements (Performance, Safety, Security etc)
- Other Requirements (Database, legal, internationalization etc)

Note:

- *SRS can be reviewed by COE / AR team*
- *Architecture Diagram in case of cloud projects must be reviewed by AR team and CISM*
- *In case of delay in SRS approval from customer (for Govt. projects only), internal steering committee approval will be considered as SRS approval for further activities.*
- *After SRS, further prototypes can be created in project till development starts.*
- *For any change identified during project execution, minutes of meeting shared with customer will be considered as approval for the change (for Govt. projects only)*

Design Specification



Design reflects how user Interfaces will look like & talks about the functional logic

Design Specification

- ❑ list of modules along with brief description of each module
- ❑ brief functionality of each module
- ❑ interface relationship among modules
 - User Interface
 - Hardware Interface
 - Software Interface
- ❑ dependencies between modules
- ❑ database tables identified along with key elements
- ❑ overall architecture diagrams along with technology details

Design Specification

- detailed functional logic of the module in pseudo code
- database tables with all elements including their type and size
- all interface details with complete API references (both requests and responses)
- all dependency issues
- error message listings
- complete input and outputs for a module

Note: *Design document must be reviewed by AR team.*

Coding

- File Header
- Function Header
- Formatting and Indentation
- Naming Convention
 - File
 - Function
 - Class
 - Variable
 - Constraints
 - Component
- Commenting
- Change History
 - Whenever base-lined source code is changed

File Header Structure

```
' File Name      : MyModule.bas
' Date written   : 12-May-10
' Author         : Developer name
'
' Purpose        : To demonstrate the module header comment
'                   structure
'
' Dependencies   : MyOther.bas(data handling module)
'                   COMCTL32.OCX (Windows Common Controls)
'
'
-----
' Author        Date       Change Description
'
' PAN          12-May-10  Added file dialog from Windows Common
'                   Controls.
'
-----
```

Note:

1. Source code must be reviewed using tool
2. All the code files shall be checked in on daily basis in SVN
3. When updating any existing file, ensure to mention the change history like name, date, purpose, bug ID



Level of Testing

- ❑ **Unit Testing** – Unit Testing is a procedure used to validate that a particular module of source code is working properly. This type of testing is done by the developer of the module.
- ❑ **Integration Testing** - Testing performed to expose faults in the interfaces and in the interaction between integrated components.
- ❑ **System Testing** - Testing a completely integrated system to verify that it meets all requirements.
- ❑ **User Acceptance Testing** - A test whereby real-life users are involved to evaluate the usability of a component or system.

Note:

1. *No customer data (ePHI/PII/SPI or CHD) shall be used for testing purpose. (in Development, UAT or other testing environment)*
2. *Security Testing (vulnerability assessment) is mandatory for all implementation projects (all SDLC's and all order values)*
3. *VA-PT is mandatory for Newgen cloud projects (Imp / PRD).*
 - *All high and medium alerts / defects must be closed.*

Customer Defect Categorization

Issues reported by any customers or employee of Newgen during Installation/ UAT/ Live monitoring and/or AMC/ATS support of Project/Product would be covered under customer queries (categorized as Defect, Requirement, Query and Performance issues).

DEFECT: An imperfection or deficiency in Newgen product/solution where it does not meet its specifications/implied requirements.

ENHANCEMENT: Modification of existing functionality(s), addition of any functionality(s), change or deletion of existing functionality(s) in the Newgen Product/Solution.

QUERY: Clarification or information request.

PERFORMANCE ISSUE: Newgen Product/Solution performance outside the agreed upon specification limits.

Internal Defect Categorization - Severity

Show Stopper

Catastrophic

Major

Minor

Cosmetic

Major Review

Minor Review

Applicable Stage - *Testing*

(Unit / Integration / System , Production & UAT)

Applicable Stage - *Reviews*

(SRS, Design, Code & Test Plan – Cases etc.)

Defect Database - DART

- Bug ID
- Description
- Severity
- Priority
- Category
- Detected in
- Introduced in
- Assigned to
- Status
- Planned / Actual Efforts
- Planned / Actual Dates
- Root Cause
- Work Products Impacted

Bug List: (4 of 479) [First](#) [Last](#) [Prev](#) [Next](#) [Show last search results](#)

[Bug 1025851](#) - Policy D213 --> RPD21315 --> Policy rule D213 is TRUE. Application will be declined. ([edit](#))

Status: CLOSED NOT A BUG (edit)	Reported: 2018-02-07 13:50 IST by Sachin . Jain
Modified: 2018-02-16 15:58 IST (History)	Modified: 2018-02-16 15:58 IST (History)
CC List: <input checked="" type="checkbox"/> Add me to CC list 1 user (edit)	Ignore Bug Mail: <input type="checkbox"/> (never email me about this bug)
See Also: (add)	*Classification Type: INTERNAL
	*Category: BUG
	*Detected In: SYSTEM / INTEGRATION TESTING
	COR ID/Test Case Ref.: [REDACTED]
	*Injected/Introduced In: CODING / CONFIGURATION
	*Injected By: [REDACTED]
	*Bug Communication Mode: DIRECT LOGGING
	Planned Start Date: <input type="text"/>
	Planned End Date: <input type="text"/>
	Planned Efforts (Hours): <input type="text"/>
	Actual Efforts (Hours): <input type="text"/>
	Actual Start Date: <input type="text"/>
	Actual End Date: <input type="text"/>
	Functionality (FTM Ref.): <input type="text"/>

Release Process

- Review results of Unit/Integration/System testing
- Remove all accounts from the system components/ application, Test and/or custom application accounts, user IDs, passwords and test data before releasing the solution to customer or before moving solution to the production environment
- Prepare release set-up & get release sign-off note signed-off from all stakeholders
- Prepare Release Note before deployment and production live and get approval from the authorized
- Release the set-up along with approved release note

Ref : Release Note

- Mode of Release
 - FTP
 - CD/DVD

Note: *Release sign-off note shall be sent to stakeholders 1-2 working days prior to release.*

During Live System Monitoring phase project status dashboard to be shared each 30 days

Review Framework Sheet

Checklist for reviewing following documents :-

1. Software Requirement Specification Document (SRS)
2. Design Document(s)
3. Source Code file(s)
4. Unit Test Plan & Cases
5. System Test Plan & Cases

Feature Traceability Matrix

REQUIREMENT / FEATURE TRACEABILITY MATRIX									
Group:		Date:							
Product:		Version							
Contract Req.	SRS Req.	Design Specification/ Ext. Spec. Ref No.	Int. Spec. Ref. No.	Unit Test Plan/Case Ref No.	Integration Test Plan/Case Ref No.	System Test Plan/Case Ref No.	Software Module/ Source Code	User Manual Header	Verified in UAT
<R1>									
<R2>									
<R3>									
<R4>									
<R5>									

Purpose :-

1. Traceability of each requirement from its point of origin, through each development phase and work product, to the delivered product.
2. Ensure that final product will meet all the requirements.
3. FTM is prepared during project planning and keeps on evolving throughout the project phases.

24 X 7 Production Support



Introduction to Newgen Client Management and Customer Support

Customer Name:

24 X 7 Production Support

- ❑ Level of Support (L1, L2 & L3)
- ❑ Flow of handling Helpdesk ticket
- ❑ Support Manager Responsibilities
- ❑ Severity Types and Definitions
- ❑ Response and Resolution Time
- ❑ Escalation Path
- ❑ Application Maintenance Plan
- ❑ Shared Responsibilities
- ❑ Compliance/Attestation/External Audit

Project Monitoring & Control



"Who wants to work late again, raise your hands."



Project Monitoring & Control

- ❑ Project Manager
 - ✓ Time Sheet Reviews
 - ✓ Milestone Tracking
 - ✓ Risk Monitoring
 - ✓ PM Review
 - ✓ WBS Update
 - ✓ SLA/Incident/Issue Monitoring
 - ✓ Senior Management Review
 - ✓ Project Metrics and Goal Performance
- ❑ Internal Auditors
 - ✓ CPMR (Internal Audit)

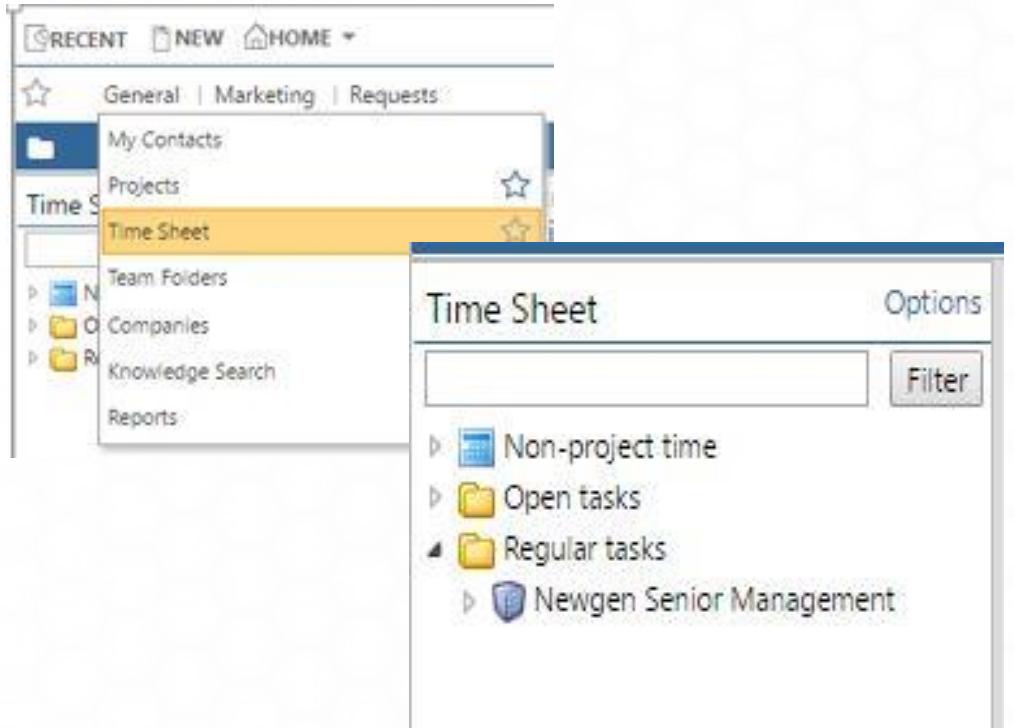
Project Closure



- ❑ Knowledge Base Report (KBR)
- ❑ Archival Request
- ❑ Closure Audit
- ❑ Completion Gate approval

TheCompass

TIMESHEET FILLING



Project Tasks

1. Design Generation
2. Design Review
3. Rework Design Gen.
4. Coding
5. UT, etc.

Non-Project Time

1. Appraisal Meeting
2. Training Attended
3. Training Delivered
4. Short Term Disability
5. Holiday & Leave, etc.

- ✓ 8.5 hours/day
- ✓ 42.5 hours / week

TIMESHEET FILLING

...cont

Time Sheet ◀ Week start: September 10, 2

Project	Task	Mon 10	T
Non-project time	Self Development		
<u>DirectDebitLite2.0</u>	KOM -I	1.00 99.00 8/16/2012	1.50

Remaining Hours ← ↓ Actual Effort

 ↓ ↓

% Complete Forecast Finish date

Status Update Save

Task status: Mark task as completed

Remaining hours: Next status update due on 9/18/2012

Percent complete: %

Forecast start:

Forecast finish:

Manager comment:

User comment:



NEWGEN

Thank you....

"What I hear, I forget.

What I see, I remember.

What I do, I understand."

For any queries or suggestion you can write to nqs@newgen.co.in



NEWGEN

Your Trusted Digital Transformation Partner