**Version History**

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| ***Ver. No.*** | ***Authors*** | ***Date*** | ***Reviewers*** | ***Review Date*** | ***Release Date*** |
| 1.0 | Application Development Team | 27-Aug-2018 | QMF | 31-Aug-2018 | 03-Sep-2018 |
| 2.0 | Application Development Team | 10-Dec-2019 | QMF | 13-Dec-2019 | 16-Dec-2019 |
| 3.0 | Application Development Team | 02-Nov-2020 | QMF | 06-Nov-2020 | 10-Nov-2020 |
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**Change History**

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| ***Ver. No.*** | ***Section*** | ***Date*** | ***Change Information*** | ***RFC No.*** |
| 1.0 | All | 03-Sep-2018 | New Release | - |
| 2.0 | All | 16-Dec-2019 | New Release | - |
| 3.0 | All | 10-Nov-2020 | Annual Review | - |
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**GUIDELINES FOR INFORMATION GATHERING, STUDY AND ANALYSIS**

1. **Objectives**

The objective of this document is to assist in gathering, studying and analyzing the requirements.

1. **Scope**

This document is applicable to all software engineering projects.

1. **Document Structure, Glossary of Terms, etc.**
2. Preliminary Preparations
3. Information gathering of Manual set-up
4. Information gathering of Automated set-up
5. Interviewing
6. Studying and Analyzing
7. **Preliminary Preparations**
8. The information to be studied before proceeding on-site for the Requirement Analysis phase are as follows :

* Proposal / Contract / Agreement / Statement of Work
* Organization write up, objectives
* Organization set-up for the related work (Organization Chart listing individuals and their related responsibilities, Functional Chart describing departments)
* Any relevant company manuals, guides that are in usewhich describe work processes, work flow, rules, if any
* Documentation of applications those fall within the scope of work, if available
* Computer network diagram/information of existing set-up with related explanations
* List of existing hardware, software with configurations and with users names
* Reference books / material on application domain knowledge

1. **Information Gathering of Manual Set-up**
2. Understand the work contents and flow
3. Collect input / output samples
4. Interview users to understand problems
5. Investigate interface requirements
6. Investigate performance requirements
7. Estimate data volumes
8. Investigate Data conversion requirements
9. **Information Gathering of Automated Set-up**
10. Discuss with the users, the system functionality and problems
11. Investigate possible causes of the problems
12. Collect data of the work contents and flow
13. Collect input / output samples
14. Investigate interface requirements
15. Investigate performance requirements
16. Estimate data volumes
17. Investigate Data conversion requirements
18. **Interviewing**
19. Meet with project co-ordinator for the following :

* Confirm scope of work and objectives
* Check Organization Structure
* Identify people to be met in each area. Check immediate leave plans, if any
* Schedule interviews, if possible
* Identify protocols, if any, that need to be followed
* Confirm deliverables expected at the end of the study
* Discuss reporting requirements with sponsor (frequency, report format)
* Confirm or bring up any issues about set up of work place and computers, software for our use
* Submit report of meeting with sponsor, listing out at the least major issues discussed, especially objectives and deliverables

1. Intimate interviewees at least a day before

* It is good to schedule the meeting in the morning before customer representatives begin their routine work
* Request to keep all related documents, outputs, any written document which may explain all or part of the individual’s job ready for the interview
* Prepare questions to be asked

1. Conduct interviews

* At start of the interview let the user know the objective of the interview
* Go to interviewee’s work-place (unless disturbed by telephone calls) to conduct the interview
* Ensure that the user is comfortable for the interview
* Advisable that two people conduct an interview so that while one is talking the other is ensuring that no questions are missed. Otherwise, if going alone for an interview, take a voice recorder. If using a voice recorder, take permission for use from the interviewee.
* Get interviewee to describe job function (during this identify separate functions)
* Collect (preferably filled in, live data) documents, outputs used in the work
* While interviewing identify entities
* If a document is not readily available, do not interrupt the discussion for getting the document unless you are not in a position to understand without the document. Instead, note down the documents to be collected and prepare a list of pending documents for the interviewee at the end of the interview
* Do not interrupt the interviewee while speaking
* Probe to identify deficiencies/problems with current work processes and requirements for future
* Identify volumes of transactions for any data, frequency of operations for work processes. Ensure that these figures are put in the report so that the interviewee confirms these
* Keep margins in the notes used during the interview. Margins may be used for putting down symbols for identifying :
  + Documents to be collected
  + Issue/tasks to be confirmed/done later
  + Name of other person/s to be met.
  + Problem/Deficiencies
  + Future Requirements
* Confirm hardware configuration (incl. Printer, modem etc. used), system software and application software used
* Probe and confirm whether the software / application / solution / service sought to be provided, are held legal and does not contradict with any and all regulatory requirements in the countries of execution and /or implementation

1. Post interview

* Prepare the meeting notes together, on the same day, covering what was discussed
* Prepare a Process and an ER diagram. (This helps clear any misconceptions among us first, besides with the client). May not need to prepare and submit an ER or Process diagram for each interviewee if only a small simple function, but definitely, for the overall picture

1. **Study and Analysis**
2. Identify problem/s
3. Identify possible solutions
4. Prepare context-level diagrams (with entities, etc.)
5. Prepare event lists and do mapping of entities,
6. Do necessary validations of the above
7. Investigate practicality of solutions