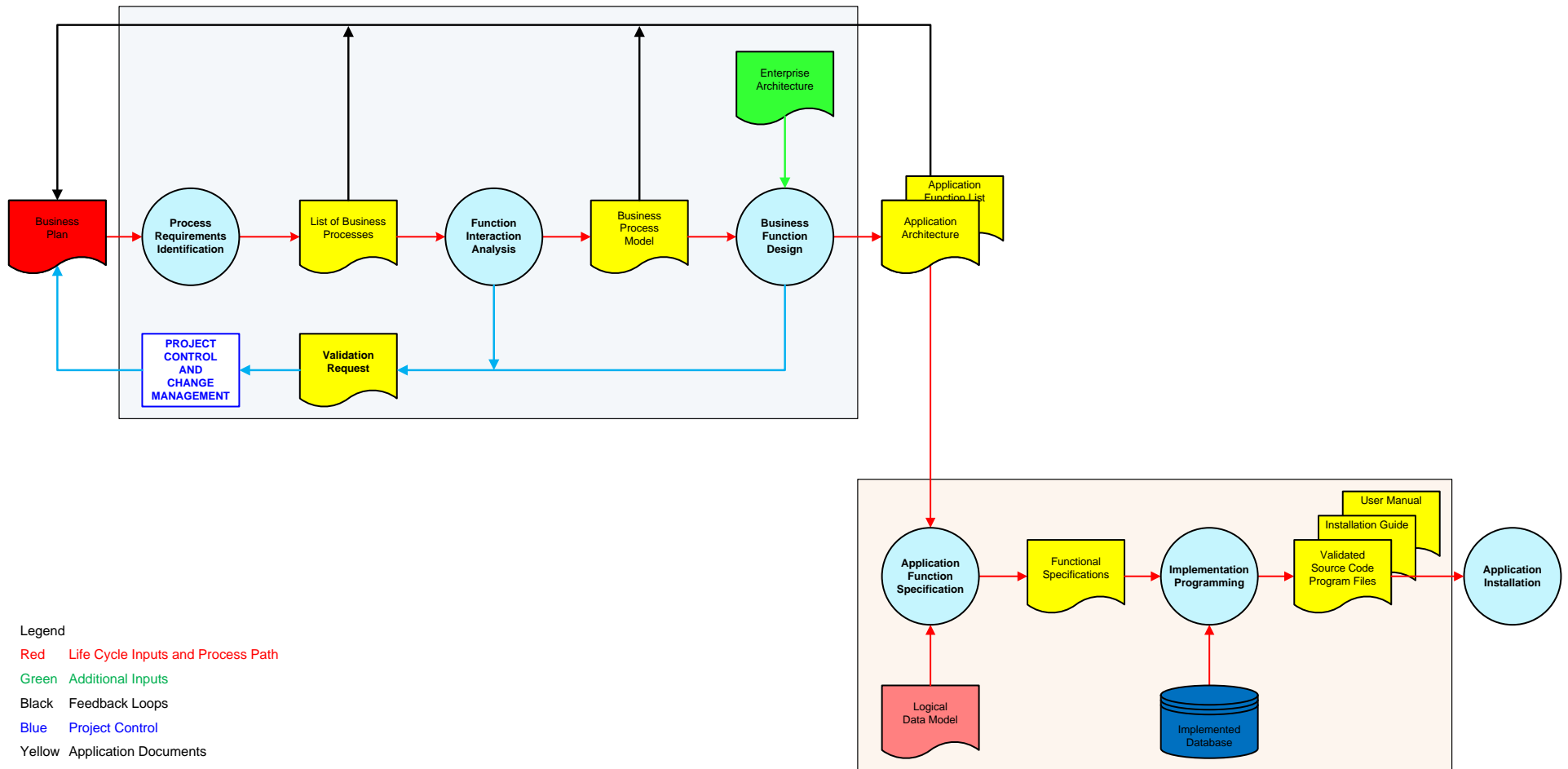# Software Development Life Cycle

1. INTRODUCTION

Progressing down through the rows of the Zachman Framework from top to bottom, in the Function column, one can trace-out the Software Development Life Cycle (SDLC) which is a de facto standard across the Business Automation Industry. The SDLC has been used since the early 1970's (Royce) to implement business processes and create executable code.

The SDLC moves from a list of named business processes in the scope level through decomposition and detailed description of the functions to the list of deliverables. Each level is a more detailed description of the business process until the description is in a programming language at the component level. The final deliverables are the programs at the leaves of a tree describing the business processes at various levels of detail. The SDLC has no way of determining what is a complete set of branches at each level, so there is no limit on the scope of the project.

The SDLC is a methodology that specifies what you need to know and the dependencies between the deliverables, not how to how to manage the process to achieve the final deliverables. The project management techniques, not the SDLC, determine the processes, sequence, timing and resources needed to achieve the project goals.

2. SDLC DIAGRAM

Legend

Red	Life Cycle Inputs and Process Path
Green	Additional Inputs
Black	Feedback Loops
Blue	Project Control
Yellow	Application Documents

3. TIMING ISSUES

There are two timing issue for the SDLC:

1. The logical data model must be complete before the SDLC project enters the specification phase.
2. The database must be complete, tested and loaded with data before the SDLC project enters the implementation phase

Both of these issues are addressed by the Database Development Life Cycle in the Automation Development Framework.

4. REFERENCES

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Zachman, John https://www.zachman.com/about-the-zachman-framework

Royce, Winston W., "Managing the Development of Large Software Systems", *Proceedings of IEEE WESCON* 26 August 25-28,1970, Los Angeles, USA