

**MapleWorks™ Technology**  
***Design Methodology***

**MapleWorks OnTrack™**



## Proven SDO methodology

The MapleWorks™ team assigned to collaborate on your software design project will use **MapleWorks OnTrack™**, a well-established software development outsourcing (SDO) methodology. The 5-stage model has been honed over 35 years of use designing software solutions for clients in the telecom market. The model combines the traditional software waterfall model with the current agile iterative software model. Our team's extensive, practical domain knowledge of these models means we will deliver high quality solutions that are on the mark.

## On-shore and on the mark

The not-so-secret-ingredient of a successful project is first-rate communications. To ensure your end solution is on the mark, our project manager will act as the liaison between your company and our company. Our project manager's regular communications with you – throughout the 5 stages of the OnTrack model – will give you confidence that MapleWorks will deliver a high quality solution that works, is on schedule, and on budget.

## The 5 stages

### Stage 1 | Assess Requirements



**Process description:** Stage 1 launches the project. MapleWorks executes a comprehensive investigation of your requirements, including but not limited to an exhaustive review of relevant documents that you can provide us, along with interviews with your subject matter experts (SME).

The goal of this phase is to understand and document the required product functionality and delivery expectations.

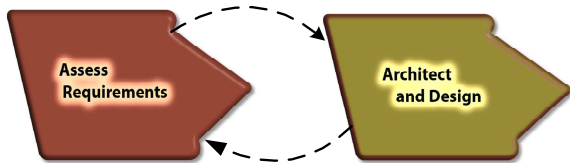
The project requirements document (PRD) states the project outcome expectations which includes our understanding of the feature requirements, coding, testing, & documentation expectations, and identifies the milestones and any demos to be provided. A dedicated engineering team, with the assistance of the project manager and customer, work closely to generate the Functional Specifications (FS) document and ensure that it adheres to the feature requirements.

The document is presented to your project prime and/or team. At this time, we bring to your attention any incongruities or risks identified with the project. Where possible mitigation and solutions will be provided.

**Deliverables:** (1) Project Requirements Document  
(2) Functional Specifications Document

**Criteria to move to stage 2:** At each stage of the process, MapleWorks requires your acceptance and agreement to move forward. This ensures collaboration in the early detection and resolution of any problems at each stage of the model, leading to your satisfaction with the overall project pace and deliverables. The criterion to move to the next stage is the signed Client Acceptance Agreement.

## Stage 2 | Architect and Design



**Process description:** In the second stage, the engineers develop a high-level engineering architecture & design, which defines all of the software components required in the end solution. The project manager works closely with the dedicated engineering team to produce the High Level Design (HLD) and Detailed Design (DD) specifications accounting for the Product Requirements and Functional Specifications. Often the Design Specification identifies or raises issues related to the original requirements. When this happens, the requirements are revisited and if necessary adjusted. At this point, the design is completed.

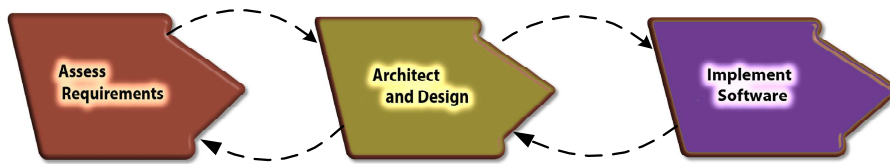
For some projects, prototyping will help to demonstrate the concept and to ensure that the expectations are met. When possible, software prototypes will be used. During this stage, the Feature and Acceptance Test Plans are also created.

The architecture & design is presented to the project prime and/or team. At this time, we bring to your attention any incongruities in expectations. If needed, a negotiation takes place if we need to make any trade-offs between functionality, time-to-market and costs.

**Deliverable:** (1) Detailed Design , and (2) Test Procedures (TP)  
*Optional:* (1) Software prototype and (2) High Level Design Specification

**Criteria to move to stage 3:** With the confidence that the Requirements are being fully met, approval through a Signed Client Acceptance Agreement enables the moving to the next stage.

### Stage 3 | Implement Software



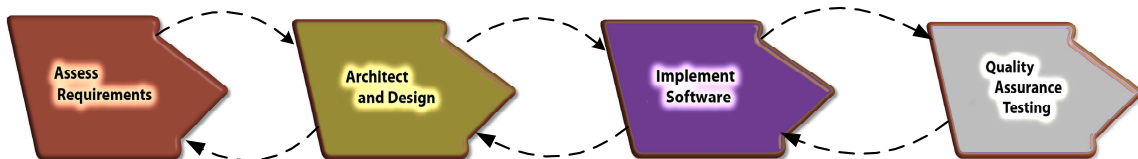
**Process description:** In the third stage, coding and documenting of the individual software components is performed. This is an iterative process. This can be based on the architecture and design developed in the previous stage. When applicable additional rapid prototyping techniques will be used.

Regularly scheduled code reviews accompany the implementation cycle, as well as development testing between modules to ensure compatibility. The engineering team conducts all of the testing up to this point. It is important that engineering takes responsibility for the quality of its design and code. As the implementation is performed, the design may be revisited to correct new found details.

**Deliverable:** (1) Alpha software, (2) development test results, (3) updated functional and design documents

**Criteria to move to stage 4:** Signed Client Acceptance Agreement

### Stage 4 | Quality Assurance Testing



**Process description:** The fourth stage is the testing of the individual software components. This is an iterative process where the software code is improved as a direct result of the testing performed.

The engineering team conducts all of the testing up to this point. Throughout the development and testing stages, engineering continues to take responsibility for the quality of its design and code.

During this stage, the Quality Assurance (QA) team tests the finished product and the engineering team helps in developing the test suites. The goal is for the product to make it through QA in no more than 1.5 testing cycles.

**Deliverables:** (1) QA test results, and (2) Beta software

**Criteria to move to stage 5:** Signed Client Acceptance Agreement

## Stage 5 | Acceptance and IP Transfer



**Process description:** In the fifth and final stage, the software is installed at your facility for testing. This is also known as the transfer of knowledge phase. At this stage, MapleWorks also provides training and documentation sufficient for you to maintain and extend your product.

The installation and support of your acceptance test is assigned to a team of engineers and service personnel. The goal is final acceptance within five days. At this stage, documentation is provided that enables you to maintain and extend the functionality of the product.

MapleWorks provides support at no charge for thirty (30) days following the transfer of IP.

**Deliverable:** (1) Final software

**Criterion to move to 30-day support period:** Signed Client Acceptance Agreement

### Additional Stage | Final Analysis Meeting

We take pride in our work. To ensure your overall satisfaction, we initiate a final analysis meeting between the key parties. We are flexible in the location – your place or ours. The goal of the exercise is to identify what went well and what we could have done better. MapleWorks believes in continuous improvement, which is why MapleWorks OnTrack has proven to be on the mark time and again.

### Quality Assessment | Meeting the Needs

In order to ensure that we are on the mark, the workmanship and deliverable quality is measured at each stage. Metrics are provided on:

- Customer Satisfaction  
This will be performed monthly throughout the project
- Timeliness  
At each stage, we report if we delivered according to the plan
- Defect Resolution  
During the Implement Software and Quality Assurance Testing stages, the number of defects found and resolved and their levels are tracked
- Testing Results  
During the Quality Assurance Testing stage, results will be provided including % of executed test cases, pass/failure rates, and number of defects identified.

## **About MapleWorks**

MapleWorks Technology, headquartered in Canada's Silicon Valley, is an experienced source of software development services for developers of network communications products for both the service provider and enterprise markets. The company delivers trustworthy on-shore engineering and technical support services. Unlike off-shore companies, MapleWorks has an experienced and expert resource base that commercializes technology on time and at about half the internal development cost. For more information, we invite you to visit our web site at [www.mapleworks.com](http://www.mapleworks.com).

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We invite clients who are looking for a trusted on-shore outsourcing partner, to get in touch with us by any of the phone or fax numbers above, or send an email to [info@mapleworks.com](mailto:info@mapleworks.com).



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