



CMC Test Management and Methodology Overview

Combined Management Consultants (CMC) is a quality independent ERP, Project Management, Business and IT Consulting organisation.

CMC has over 29 years experience in providing Strategic ERP Consulting and Project Management Services to over 100 organisations across a range of industries including Distribution, Manufacturing, Warehouse Management, Supply Chain, Retail, Telecommunications, Finance and Government.

One of our specific areas of expertise is in supporting our clients with Collaborative Risk Based Testing (CRBT) Methodology, Test Strategy, Processes and Templates.

High Value Professional Services

The foundation of our portfolio of skills is Strategic ERP Consulting and Project Management expertise. We specialise in:

- **Strategic ERP Planning and Advice**
- **Business Process Analysis and Requirements Definition**
- **Program and Project Management**
- **Test Management and Testing Methodology**
- **Vendor and System Evaluation and Selection**
- **Tender Management and Vendor Facilitation**
- **Change Management, Transition and Training**
- **Quality Assurance Reviews**
- **Independent Steering Committee Representation**
- **Business Case Development**
- **Supply Chain and Distribution Consulting**
- **Networks and Infrastructure**



CMC utilises an internal QA and Review process for all our client engagements from Project Feasibility Assessment through to Post Implementation Review. In addition, a number of CMC directors and consultants have experience in ITIL Service Delivery framework implementation and have provided consulting services in this area to both private and public sector organisations.

Introduction to CRBT

Combined Management Consultants (CMC), have since 1990 been developing a pragmatically based testing methodology known as Collaborative Risk Based Testing (CRBT) that can be applied to either the System Testing, Integration Testing or Business Acceptance Testing requirements models. The methodology, which is based on a process flow definition and utilises templates, can be deployed in a very short time frame, using resources that are primarily skilled in business, not IT.

CMC provides the methodology to clients on a “no charge” basis wherever CMC testing resources have been engaged. Often the CMC resources are retained for the purpose of skills transfer, test strategy preparation and management of the testing activities.



CMC's Approach to Testing

The essential difference between CMC's Testing Method and other approaches is that CMC's approach is based being collaborative and focused on the risk elements of testing.

The process starts through the definition of a Test Strategy document. This document, like a Project Charter, defines the exact scope of the testing process as well as defining the roles to be performed by the participants in the process. Creating the Test Strategy involves analysing the testing objective (e.g. the software application) and dividing it into functional units. These functional units may be individual programs, modules or groups of functions packaged together for testing purposes.

The Business Sponsor and Subject Matter owners then decide the priority of the components encompassed within the testing scope. By determining the level of testing for each component, a series of metrics may be applied to enable the Test Strategy document to clearly define the time, cost and deliverables on which the testing will be founded.

CMC's Collaborative Risk Based Testing

The CRBT Methodology has some core elements that differentiate it from other test methods. For example:

- ✓ Functions to be tested are ranked according to risk and criticality.
- ✓ Test scenarios are derived for each function to be tested.
- ✓ The various test teams (Unit, System, Integration & UAT) meet to review the Testing Strategy to agree priorities, work distribution, opportunities for collaboration and re-use and resourcing models.
- ✓ Where appropriate, testing functions can be combined to optimise effort and outcomes.
- ✓ Effort is applied in proportion to risk and priority.

If tools such as Rational or Mercury are in use at a client site, the CMC Test Method underpins these tools and utilise the management and control capabilities of these tools.

Once the strategy has been agreed, the Test Team

"CMC's Collaborative Risk Based Testing Methodology was judged by an independent assessor as saving 2 full time employees (FTE's) from the Testing Team".

Ian Frew
Head of IT Development
Suncorp / GIO

will prepare their allocated parts of the various Test Packs and Plans (test scenarios, cases and scripts) to enable the testing to be conducted. Experience has shown that people without testing expertise can be fully productive with this method after a few days of working alongside CMC team members on the project.

CRBT History

CMC's CRBT Methodology was initially created following an evaluation of a number of standards designed to define the testing process. These included ASA (Australian Standard Association) and IEEE documentation available at the time (1990).

CMC found that the methods described in the standards documentation did not provide a starting point that inexperienced users could readily adopt, nor did it give clear indication on how a project focusing on testing could deliver quantifiable and predictable outcomes.

The CMC team collected elements from various sources, such as our experience in working with large consulting firms, standards documentation and courses attended etc. to distil an easy to use and simple methodology that could be provided to clients at no charge where CMC is engaged. CMC owns the Intellectual Property of the CMC Collaborative Risk Based Testing Method.

Over a period of several years and multiple weekend workshops, the framework for the methodology was firmly established. The initial engagements using the methodology focused on testing mainframe applications for Telstra, which enabled the method to be further refined to cater for both Business Acceptance and System Testing. The same approach has successfully been deployed for Performance Testing and Integration Testing.



Clients

CMC has had significant recognition and acceptance of the value of the underlying principles of our Collaborative Risk Based Test Method. Recently, CMC has worked with organisations such as Hutchison Telecom and Suncorp / GIO to integrate these foundations into their in-house Testing and Application Release Methodologies.

CMC has completed the loop for methodology based assignments, by providing skills transfer and training to test teams on the effective conduct and facilitation of Collaborative Risk Based Testing assessment workshops. This is essential if the benefits are to be gained from this approach.

CMC has conducted significant testing assignments for the following organisations:

- **Acumen Alliance (now Oakton) - Toyota**
- **Byvan Property Services**
- **Bradnam Group**
- **Dairy Farmers**
- **Environmental Protection Authority (EPA)**
- **Fantastic Holdings**
- **Gazal Apparel**
- **Hutchison Telecom**
- **Optus**
- **Oracle Australia**
- **Metcash**
- **Suncorp / GIO**
- **Techtronic Industries**
- **Telstra Payphone Services**

After each project, CMC leaves the client with a legacy of expertise and the methodology to be carried on by the internal teams that have been trained during the testing projects. This way not only have our clients had their solution delivered to a known level of quality; but also the increased skills and processes that are then understood by in-house resources; which can be subsequently redeployed without need to engage any further external consultants.



Conclusion

CMC's CRBT Methodology has a number of important aspects, but the overwhelming feature is the ability for untrained users to become productive from day one. The methodology has stood the test of time and has been successfully applied to many interesting and challenging projects, ranging from complex object oriented developments through to major scientific applications without requirement for enhancements or modification to the underlying framework.

The ability to collaboratively determine the risk and effort required for the testing process has enabled many of CMC's clients to budget for the testing more effectively. Significantly improved outcomes in terms of effort and quality of result can be realised.

The success of CMC's testing practice is based on the premise that in order for the task of testing to be conducted effectively, the method must be simple, straight forward and not based on expensive technology or tools.

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