**CENTRE** TM (Common Enterprise Resource)

# Systems and Software Engineering Platform designed for CMMI compliance

**Capability Maturity Model Integration (CMMI)** is a process improvement approach that provides organizations with the essential elements of effective processes. **CMMI** helps integrate traditionally separate organizational functions, set process improvement goals and priorities, provide guidance for quality processes, and provide a point of reference for appraising current processes. (Software Engineering Institute, SEI web-site, <u>www.sei.cmu.edu/cmmi/general/</u>)

**CENTRE** is a software product designed, authored and produced by **Integration Technologies Group Inc. CENTRE** is composed of configurable modules intended to provide compliance with **CMMI** process areas and **ISO** clauses while increasing organizational efficiency, effectiveness and continual improvement.

**Integration Technologies Group Inc. (ITG)**, <u>www.itgonline.com</u>, is a systems and software engineering company founded in 1984 and headquartered in Falls Church, Virginia, USA. ITG is ISO 20000-1:2005, ISO 9001:2008 and ISO 27001:2005 registered. As well, the company is an SEI member and partner and has been externally appraised twice at CMMI Level 3.

This document contains brief descriptions of **CENTRE CMMI** Software features which cover specific and generic evidence of compliance for practices required by **CMMI for Development Version 1.2** process areas. As with all process improvement methodologies and industry best practices, management commitment, quality record collection, analysis and processing are required to achieve improvement objectives and successful appraisals and registrations.

**CENTRE** was developed to facilitate today's Best Practices Certifications and process improvement methodologies. By using **CENTRE**, businesses can increase efficiencies across key business processes and satisfy many of the requirements stipulated by the **SEI** and international standards boards. Some of the benefits that may be derived by implementing compliance with **CMMI** process areas are:

- Improved Quality of Output
- Increased Accuracy of Estimates
- Earlier Identification of Defects
- Accurate Measurements of Processes
- Higher Operational Efficiency
- Cost Reduction and Integration with Industry Standards

As a result, an organization using **CENTRE** will be recognized as delivering successful service to its clients and constituents with dependably high-quality and consistent methods and practices. The **CENTRE CMMI** Software 1.2 implementation includes 'CENTRE ISO 9001:2008' Quality Management System elements which are:

### **CENTRE - Document Control System (DCS) CENTRE - Records Control System (RCS)**

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CENTRE - Human Resources CENTRE - Meeting Management CENTRE - Customer Satisfaction Surveys CENTRE - Supply Chain Management CENTRE - Ad-Hoc Report Writer

These elements are described in more detail in the **CENTRE ISO 9001:2008** Compliance Package - White Paper.

### Disclaimer

Use of CENTRE modules or similar software alone does not result in organizational CMMI conformance. Documented procedures, defined processes and work instructions, staff training and internal audits of Process Areas compliance are needed to prepare an organization for a CMMI appraisal. The ITG CENTRE Document Control System (DCS) contains documentation that describes the ITG Quality Management System and consists principally of the following documents:

- Business Quality Manual (BQM) in conformance with ISO 9001:2008,
- Information Technology Services Management manual (ITSM) in conformance with ISO 20000-1:2005,

• Information Security Management System manual (ISMS) in conformance with ISO 27001:2005,

• Corporate process workflow, Quality Procedures and Quality Work Instructions.

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### **CENTRE CMMI Specific & Generic Evidence Elements:**

### **CENTRE – Decision Analysis and Resolution**

# SP 1.1 Establish and maintain guidelines to determine which issues are subject to a formal evaluation process.

**CENTRE Evidence**: The direct evidence for conformance with this Specific Practice is contained in Quality Procedure QP-14, Decision Analysis and Resolution.

DOCUMENT#	TITLE	AUTHOR	DCS SUBMISSION DATE	DB INFO REVISED
617-V3	Procedure - Decision Analysis and Resolution, ITG QP-14 - Executive Management	Michael Angelakis	10/6/2005 1:47:00 PM	10/29/2008 3:40:04 PM

## Procedure: Decision Analysis and Resolution ITG QP-14

### **Purpose:**

This procedure defines the company-wide standards for the formal process that is used to evaluate identified alternatives against established criteria in compliance with the ITG Business Quality Manual (BQM) Section 8, Measurement, Analysis and Improvement.

#### Scope:

This procedure applies to all departments engaged in decisions regarding the following areas:

Commercial-off-the-Shelf (COTS) Software Acquisitions Business Continuity Plans Real Estate Acquisitions and Management Infrastructure Change Management Investments and Financial Instruments Business Process Change Management Organizational Innovations

### **References:**

Work Instruction: Decision Analysis and Resolution, ITG QWI-22 ISO 9001:2000, Section: 8.5.2, Corrective Action

#### **Definitions:**

Decision Analysis and Resolution: Actions taken to establish scope and goals, evaluate assumptions, investigate alternatives, identify risks/mitigation plans and reach decisions with the most desirable outcomes.

### **Responsibility:**

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This procedure designates Department Managers, Project Managers and Management Review Boards as the authorized staff/entities that collect, measure and analyze relevant data.

### **Procedure (incorporate inputs and outputs):**

Relevant Staff	Identify decision as subject to the contents of this procedure.
	Collect, prepare and disseminate data for evaluation. Approve and
	supervise implementation of the contents of this procedure.
Staff Members	Assist with the implementation processes in accordance to relevant
	Work Instructions.
Q/A Staff Members	Audit and validate compliance.

### Records

CENTRE, Projects, DAR records

# SP 1.2 Establish and maintain the criteria for evaluating alternatives, and the relative ranking of these criteria

**CENTRE Evidence**: The direct evidence supporting compliance with this specific Practice is contained in QP-14, in Quality Work Instruction QWI-22 and in DAR records.

DOCUMENT#	TITLE	AUTHOR	DCS SUBMISSION DATE	DB INFO REVISED
618-V1	Work Instruction - Decision Analysis and Resolution, ITG QWI-22 - Executive Management	Michael Angelakis	10/6/2005 1:54:00 PM	10/30/2008 3:56:00 PM

## Work Instruction: Decision Analysis and Resolution ITG QWI-22

### Purpose:

This instruction designates Analysis and Resolution as required processes for all decisions involving the functional areas described in ITG QP-14, Decision Analysis and Resolution.

## Scope:

This instruction applies to company-wide operations.

## **Definitions:**

Decision Analysis and Resolution: Actions taken to establish scope and goals, evaluate assumptions, investigate alternatives, identify risks/mitigations and reach decisions with most desirable outcomes.

Scope: Overview of issue to be resolved, resources required, time limitations, and options under evaluation.

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## **Responsibility:**

This work instruction designates Department Managers, Project Managers and Management Review Boards as the authorized staff/entities that collect, measure, analyze relevant data and make decisions as required.

## **Instructions:**

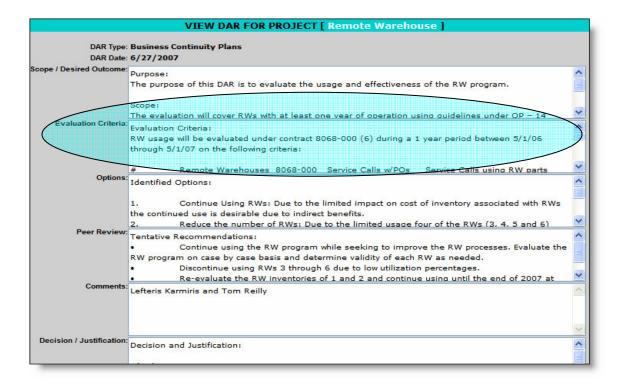
- Designate relevant decision as subject to QP-14.
- Establish scope and desired outcome.
- Establish evaluation criteria.
- Identify available options.
- Produce a table that contains and compares strengths, weaknesses and risks for each option.
- Disseminate data for peer review where applicable.
- Evaluate input(s)/comments.
- Select applicable decision alternative and record justification.
- Post records in the Document Control System (DCS) subject to security considerations, or,
- Make entry into the Records Control System (RCS) regarding the nature and location the relevant DAR records.

## **Records:**

DAR records in DCS/RCS

DAR Record – Evaluation Criteria

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### SP 1.3 Identify alternative solutions to address issues.

**CENTRE Evidence**: As seen in response to Specific Practice 1.2 the direct evidence for this specific Practice are contained in the DAR record as "Options".

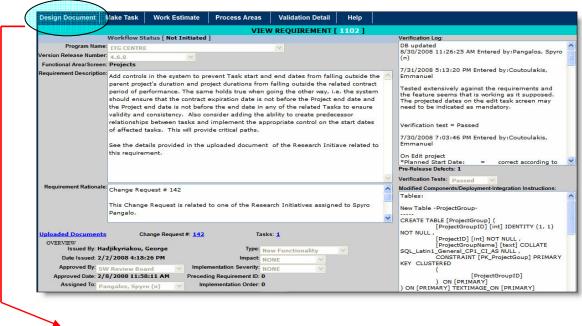
### SP 1.4 Select the evaluation methods.

**CENTRE Evidence**: The direct evidence demonstrating compliance with this Specific Practice is contained in Chance, Requirements, and DAR records.

### SP 1.5 Evaluate alternative solutions using the established criteria and methods.

**CENTRE Evidence**: Alternative solutions, selection criteria and rationale for selected options are contained in the Change Analysis, Design document and DAR records and to the extent that the appraised project contains such requirements may be used as direct evidence for compliance with this specific practice.

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EDIT DESIGN SPECIFICATION FOR REQUIREMENT [ 1102 ] /2008 4:18:26 PM Created By: Hadiikyriakou, Date Created: 2/2/20 riakou, George Date Last Updated: 5/12/2008 11:17:18 AM Last Updated By: Hadjikyriakou, Geo Modify the business logic and generate Java script massages upon Save to prevent inconcist date ranges between Proojects and Tasks on the following ASPs: NewTask.asp EditTask.asp EditProject.asp and COMs: BO\_Task BO\_Project DA\_Task DA\_Project If there is a Predecessor Task make sure that the Start Date starts after the end of the En of the Predecessor Task. The following Columns should added to Table Task: GroupNumber small int SequenceNumber small int The Tasks of a Project with the same GroupNumber assigned, should be linked through the PrivTasKID. The SequenceNumber will be updated to reflect the order of the tasks (through traversing the link list) any time the PrivTasKID is updated. Peer Review Performed: 🗸 Issue Identified: Reviewed By: Hadjikyriakou, George Date Reviewed: 5/7/2008 9:30:58 AM 

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Change Request Record					
	VIEW CH	ANGE REC	QUEST[ 82 ]		
	Workflow Status [ No	-	-		
		edure #12 to	to reflect "Tailoring Guidelines"		
	Minor Change	~	Desired Completion Date: 4/11/2007		
	Documentation	~			
	Executive Manageme		▼		
Proposed Change: Include a "Tailoring Guidelines" sub-process within QP-12					
conformance/justification:	Process improvement	t and CMMI i	requirement		
	new Kequiteriterit				
	Chang	e Request D	Documents		

Change Analysi	s Record	
	VIEW ANALYSIS FOR CHANGE REQUEST [ 82 ]	
Describe the potential risks, impacts, and business benefits associated with the change request	There are no risks associated with this change. The benefits include better awareness of contract implmentation procedures, and improved stakeholder involvement.	
		$\sim$
Identify and describe a		
methodology for reverting or remedying the change if found unsatisfactory after implementation:		

### SP 1.6 Select solutions from the alternatives based on the evaluation criteria.

**CENTRE Evidence**: Artifacts that may be used as direct evidence for compliance with this Specific Practice is contained in DAR records.

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