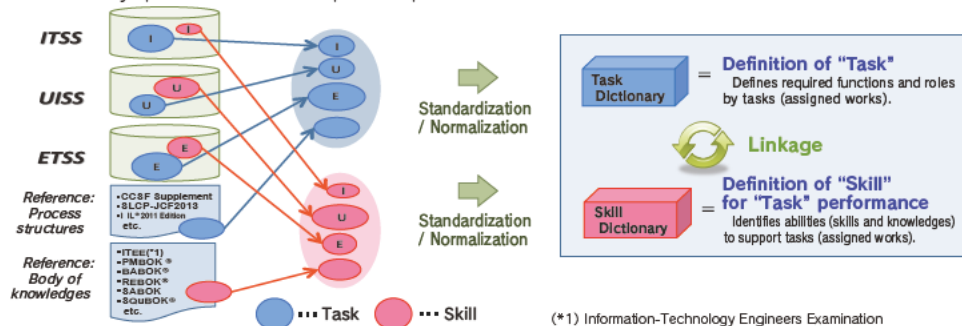


1 i Competency Dictionary

The i Competency Dictionary (iCD) was released as a structured dictionary composed of the "Task Dictionary" and the "Skill Dictionary". The "Task Dictionary" contains the tasks for any business using information technology in any companies, while the "Skill Dictionary" provides the skills required to perform those tasks.



2-3 Task Profiles

"Task Profiles" helps an organization to understand tasks when selecting tasks from the Task Dictionary to define own tasks. The profiles are classified based on task features and characteristics by their corresponding business/function or development target, as described below.

- Business type-based: Identifies tasks by the organizational position or business category
- Development target/method-based: Identifies tasks by the type of development target/method
- New business-based: Identifies tasks by the type of new businesses
- Role-based: Identifies business roles and associated tasks as a reference

Business type-based	Development target-based	Development method-based	New business-based
Internal information system development rationalization	Application systems	IT consulting	Cloud business creation
System integration development	Infrastructure systems	Software product development	Cloud business architect
Software product development	Software product	Embedded software development	Cloud architect
Embedded software development	Embedded software	Website construction and operation	Business analyst
Website construction and operation	Websites	System operation services (contract operations work)	Data analysis specialist
System operation services (contract operations work)	Waterfall	System operation services (data center management)	Data utilization
System operation services (data center management)	Agile	IT consulting	Data utilization systems engineer
IT consulting	Package utilization	Application systems	Consultant (information management)
Application systems	Cloud business creation	Infrastructure systems	IT architect (security architecture)
Infrastructure systems	Cloud business architect	Software product	Security administrator (information security administrator)
Software product	Cloud architect	Embedded software	Security administrator (IS security administrator)
Embedded software	Business analyst	Websites	Security administrator (incident handler)
Websites	Data analysis specialist	Waterfall	Security manager (embedded security)
Agile	Data utilization	Agile	IT specialist (security)
Package utilization	Data utilization systems engineer	Package utilization	Information security management
Cloud business creation	Consultant (information management)	Cloud business creation	Program manager
Cloud business architect	IT architect (security architecture)	Cloud business architect	Value create
Cloud architect	Security administrator (information security administrator)	Cloud architect	Business model design
Business analyst	Security administrator (IS security administrator)	Business analyst	Service create
Data analysis specialist	Security administrator (incident handler)	Data analysis specialist	
Data utilization	Security manager (embedded security)	Data utilization systems engineer	
Data utilization systems engineer	IT specialist (security)	Consultant (information management)	
IT architect (security architecture)	Information security management	IT architect (security architecture)	
Security administrator (information security administrator)	Program manager	Security administrator (information security administrator)	
Security administrator (IS security administrator)	Value create	Security administrator (incident handler)	
Security administrator (incident handler)	Business model design	Security manager (embedded security)	
Security manager (embedded security)	Service create	IT specialist (security)	
IT specialist (security)		Information security management	
Information security management		Program manager	
Program manager		Value create	
Value create		Business model design	
Business model design		Service create	
Service create			

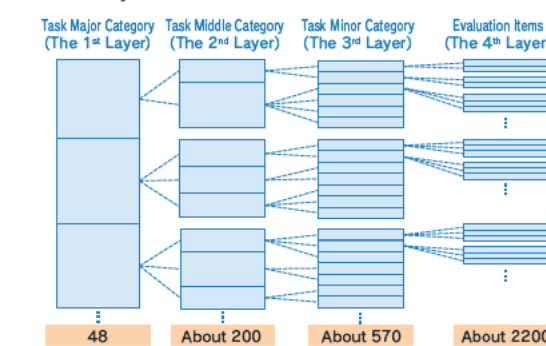
2-1 Task Dictionary Chart

The Task Dictionary Chart represents the task structure composed of the business lifecycle as vertical line (strategy, planning, development, utilization, evaluation/improvement) and tasks associated with entire lifecycle as horizontal line (Management/Control, and Promotion/Support). This chart is a bird's-eye view of the entire Task Dictionary on the Major Category level and can be used in the formulation of their own tasks.

Lifecycle	Planning & Execution			Management & Control			Promotion & Support		
	Strategy	Planning	Development	Utilization	Evaluation & Improvement	Management & Control	Promotion & Support	Management & Control	Promotion & Support
Lifecycle	ST01	PL01	DV01	US01	EV01	MC01	CM01	MC02	CM02
	ST02	PL02	DV02	US02	EV02	MC03	CM03	MC04	CM03
	ST03	DV03	DV04	US03	EV03	MC05	CM04	MC06	CM05
	DV04	DV05	DV06	US04	EV04	MC07	CM05	MC08	CM06
	DV05	DV06	DV07	US05	EV05	MC09	CM06	MC09	CM07
	DV06	DV07	DV08		EV06				
	DV07	DV08	DV09						
	DV08	DV09	DV10						
	DV09	DV10	DV11						
	DV10	DV11	DV12						
	DV11	DV12	DV13						
	DV12	DV13	DV14						
	DV13	DV14							
	DV14								

2-2 Task Dictionary structure

The Task Dictionary is comprised of four layers that are divided into three task layers plus the Task Evaluation Items layer.



- 48, About 200, About 570, About 2200
- Features**
- Provides wide-scale, comprehensive tasks with regard to IT business referring major process structures(right "References").
 - Task evaluation items (approx. 2,200 items) are provided to evaluate task performance.
- References**
- CCSF(V1 -Supplement)
 - SLCP-JCF 2013
 - ESPR Ver.2.0
 - ITIL® 2011 Edition etc.

2-4 Examples of Task Evaluation Diagnostic Level and Criteria

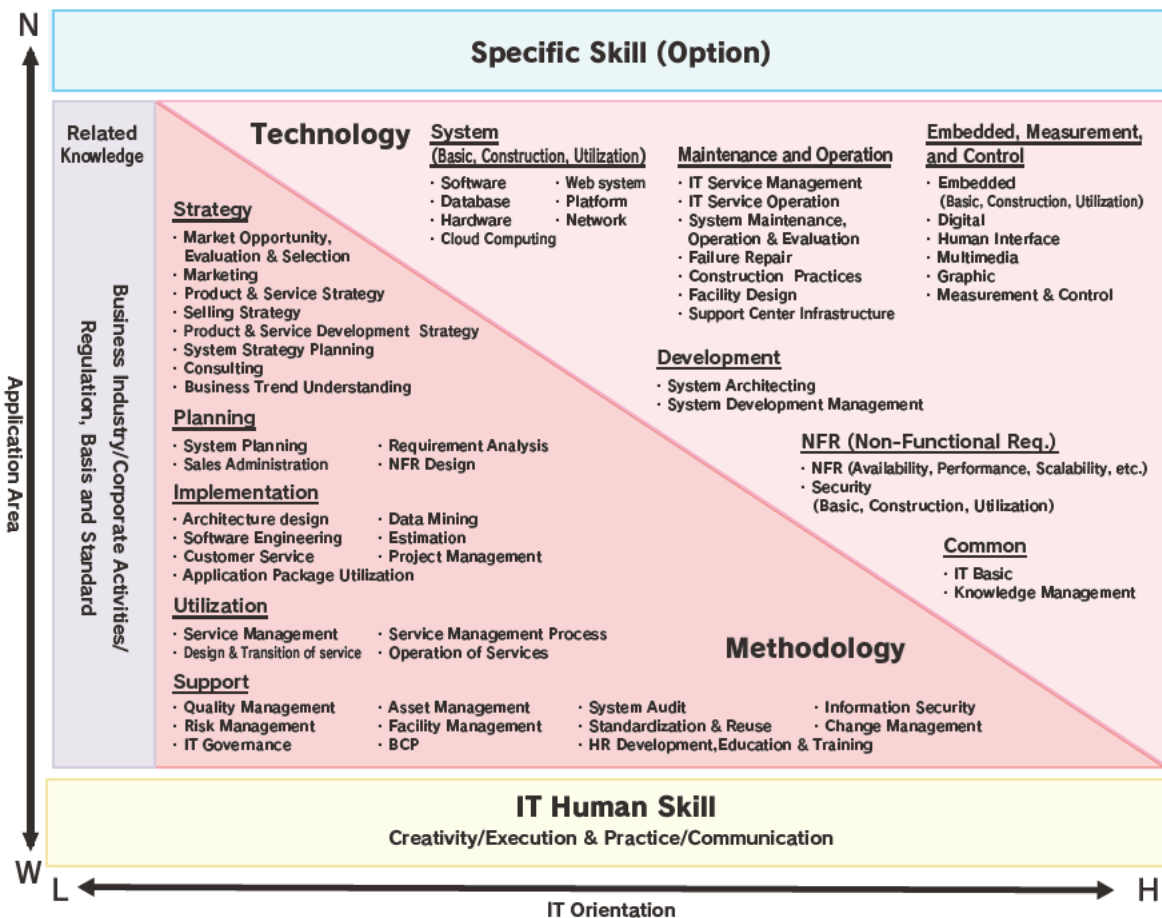
Diagnostic Level	Diagnostic Criteria
L0	No knowledge or experience
L1	Has knowledge based on training
L2	Can carry out with support or has such experience
L3	Can carry out independently or has such experience
L4	Can instruct others or has such experience

iCD IPA English Search

This handbook is intended to understand an overview of the iCD. Please refer to the web site for more details.

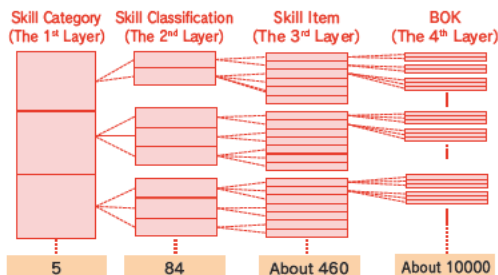
3-1 Skill Dictionary Chart

The Skill Dictionary Chart is a bird's-eye view of the entire Skill Dictionary on the 1st and 2nd skill layers. The Skill Dictionary is divided into five categories based on the skill characteristics: methodology, technology, related knowledge, IT human skill, and specific skill (optional). This chart represents a skill structure on the perspectives of the IT orientation (Horizontal line: High-Low) and the application area (Vertical line: Wide-Narrow).



3-2 Skill Dictionary Structure

Skills are capabilities required to handle associated knowledge items to execute a task. The Skill Dictionary is comprised of four layers divided into three skill layers plus Associated Knowledge Items (approx. 10,000 knowledge items). The Skill Dictionary refers major Body of Knowledges and skill standards in the world.



- Features**
- Structuralizes the comprehensive skills and knowledges required for IT business based on the knowledge items of the major references.
 - The skill category consist of 5 categories : methodology, technology, related knowledge, IT human skill, and specific skill (user definition area).
- Reference**
- ITEE (Information-Technology Engineers Examination)
 - J07
 - PMBOK
 - BABOK etc.

3-4 Skills Proficiency Criteria

Level	Description	Criteria 1	Criteria 2	Criteria 3
Level 7	Skills at the level of an industry leader who has influence on the market			
Level 6	Skills at the level of a recognized contributor to the industry			
Level 5	Skills at the level of a recognized contributor within affiliated associations and organizations			
Level 4	Level at which one is able to produce optimal solutions that take into account non-functional requirements, step outside of established tactics, and pass the advanced information technology examinations	Has mastered and can select the most suitable methods, and can freely apply the methods according to the situation	Is able to discuss what needs to be done with senior management within the industry or business they are involved in	
Level 3	Is able to create functional requirements and to work independently under limited circumstances	Is able to apply the proper method according to the problem, and has utilized the methods on-site and drawn conclusions	Has proposed solutions to the IT-related problem points in the industry and businesses they are involved in	
Level 2	Has implementation experience, and is able to use and apply the technology if instructions are available	Is able to perform analysis using the method, or is able to use the methodology under guidance	Understands the IT-related problem points in the industry and businesses they are involved in	
Level 1	Has knowledge, and understands lectures and presentations of the technical content	Understands lectures and presentations about the method, understands and can explain what it is, and understands textbooks about it	Understands and can explain what kind of industry and business they are involved in, and understands public information such as annual reports	
Category		Technology	Methodology	Related Knowledge

3-3 Job list

The Job list includes the professions needed for IT business from various perspectives and shows mandatory skill items of the Skill Dictionary for the profession.

Origin	Job category	Specialized field	
ITSS	Marketing		
	Sales		
	Consultant		
	IT architect		
	Project management		
	IT specialist	Platforms	
		Networks	
		Databases	
		Common application infrastructure	
		System management	
Application specialist	Software development		
	Customer service		
	IT service management		
	Education		
	Security		
UISS	Business strategist		
	IS strategist		
	Program manager		
	IS analyst		
	IS architect		
	Project manager		
	Application designer		
	System designer		
	IS operations		
	IS administrator		
	Security administrator		
	IS staff	Management of information equipment and information assets	
		Business Continuity Planning	
		Compliance	
		Human Resource Management	
Contract Management			
IT auditor	Embedded systems		
	Embedded application development		
	Embedded platform development		
	Embedded software development		
	Embedded system related technologies		
ETSS	Product manager		
	System architect		
	Project manager		
	Bridge SE		
	Development process improvement specialist		
	Domain specialist		
	Software engineer		
	Development environment engineer		
	QA specialist		
	Test engineer		
Information security human resources	Consultant		
	IT architect		
	Security administrator		
	Security manager		
	Information security management		
Future IT human resources	Information security auditor		
	Enterprise architecting		
	Business development		
	Architecture design		
	Program management		
Human resources required for the large scale projects of IT companies	Business visualization		
	Application services development		
	Project management		
	Technical services development		
	Enterprise architecting		
	Business creation		
	Application services development		
	Operation analytics		
	Project management		
	Technical services management		
Human resources required for the user company information system division	Service creation		
	Operation analytics		
	Technical engineering		
	IT business creator		
	Business architect		
	Cloud architect		
	Business analyst		
	Data analysis specialist		
	Data utilization systems engineer		
	Human resources required for internet related companies	Cloud human resources	
Data scientist			
Business analyst			
Data analysis specialist			
Data utilization systems engineer			

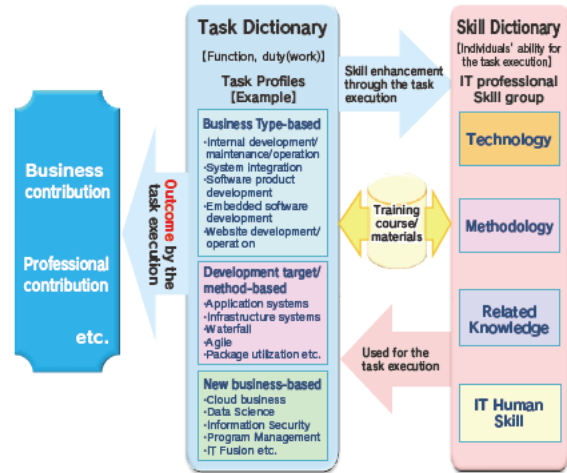
4 Task x Skill Correspondence Table (abstract)

This table indicates skills strongly required by each task.

Task Minor Category Code	Skill Classification Code	Skill Category	Skill Classification	Task Minor Category	Skill Items
S11000010	S11000010	Methodology	(Strategy) Marketing	Brand product strategy methods	
S10010070	S10010070	Methodology	(Strategy) Market research	Market research methods	
S10010060	S10010060	Methodology	(Strategy) Market research	Market research methods	
S10010050	S10010050	Methodology	(Strategy) Market research	Market research methods	
S110010040	S110010040	Methodology	(Strategy) Business management	Business management	
S110010030	S110010030	Methodology	(Strategy) Business management	Business management	
S110010020	S110010020	Methodology	(Strategy) Business management	Business management	
S110010010	S110010010	Methodology	(Strategy) Business management	Business management	
S110010000	S110010000	Methodology	(Strategy) Business management	Business management	

5 Relationship between Task and Skill

An organization demands the task execution from an individual. And the individual acquires skills through task execution. Some skills also can be acquired from attending the education course or getting the certification. The chart shows these relationship between the Task Dictionary and the Skill Dictionary.



6 Release history

- ◆Apr/12/2017 Announced iCD V2
- ◆Jul/15/2016 Announced iCD V1
- ◆Jun/30/2015 Announced iCD Trial version

Jun/2017