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Do not be afraid to ask!

A Quick Chat About

SOMF Contextual Modeling

For architects, business analysts, system analysts, software developers, modelers, team leaders, and managers

Use the SOMF modeling capabilities for enterprise architecture, application architecture, service-oriented architecture (SOA), and Cloud Computing projects.

SOMF is empowered by Sparx Systems Enterprise Architect modeling platform

Before you start reading: Remember, according to SOMF, a service is any piece of software your organization owns, such a routine, application, library, business process, Web service, etc...

What is Contextual Modeling?

Think about contextual modeling as of a simple way to describe the capabilities of a software component. So what are capabilities? Obviously, capabilities pertain to service functionality, name, specialty, and role that it plays in a production environment .

Capabilities are also known as operations that a software component can provide. In other words, it is all about the context of service abilities and not its structural formation.

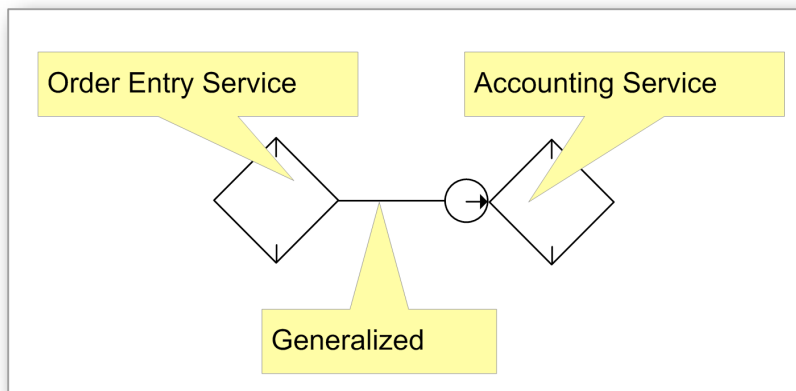
So, contextual modeling is the art of manipulating the context of a service to perfect its offerings and performance.

Types of Contextual Modeling

Before we take a look at some examples, it is important to mention that SOMF offers contextual modeling in four different ways: Generalization, Specification, Expansion, and Contraction. Please do not get bugged down by these terms, let us see some examples.

What is Contextual Generalization?

Contextual generalization is simply the process of elevating a service abstraction level beyond its current state. To better understand this statement, let us take a look at the following example.



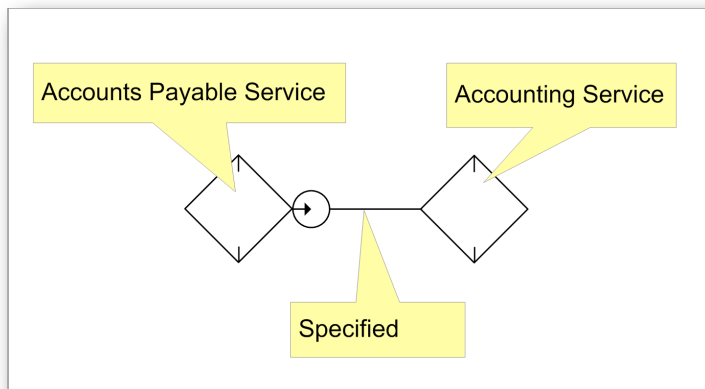
Contextual Generalization of a Service

In the above illustration the Order Entry Service abstraction level is raised. The resulting product is Accounting Service, a more generalized name, which indicates an increase in service functionality scope.

To accomplish this, simply use the "Generalized" symbol and point the encircled arrow to the yielding generalized service.

What is Contextual Specification?

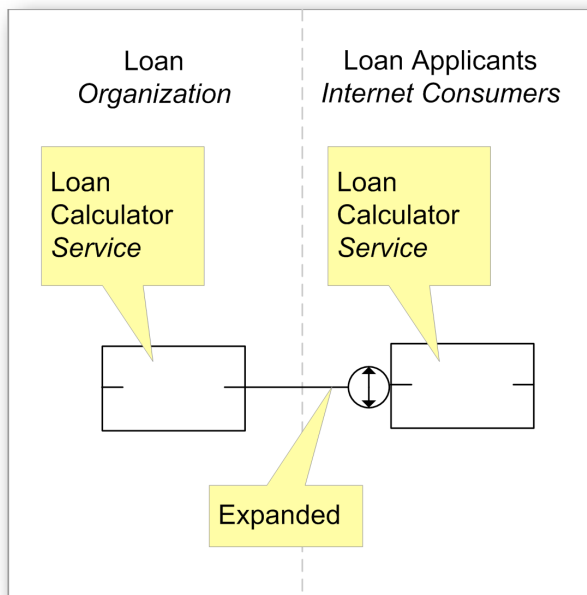
Contextual specification is simply the process of reducing a service abstraction level and trimming down its functionality. Consider the below diagram that uses the “Specified” symbol to denote reduction of service functionality scope. Note that the Accounting Service contextual aspect is reduced, yielding an Accounts Payable Service, which is a subset of accounting offerings.



Contextual Specification of a Service

What is Contextual Expansion

Contextual expansion is all about increasing service influence and offerings across an organization or beyond its boundary. Unlike the contextual generalization discussed earlier, the contextual expansion calls for increasing a service's consumer base.

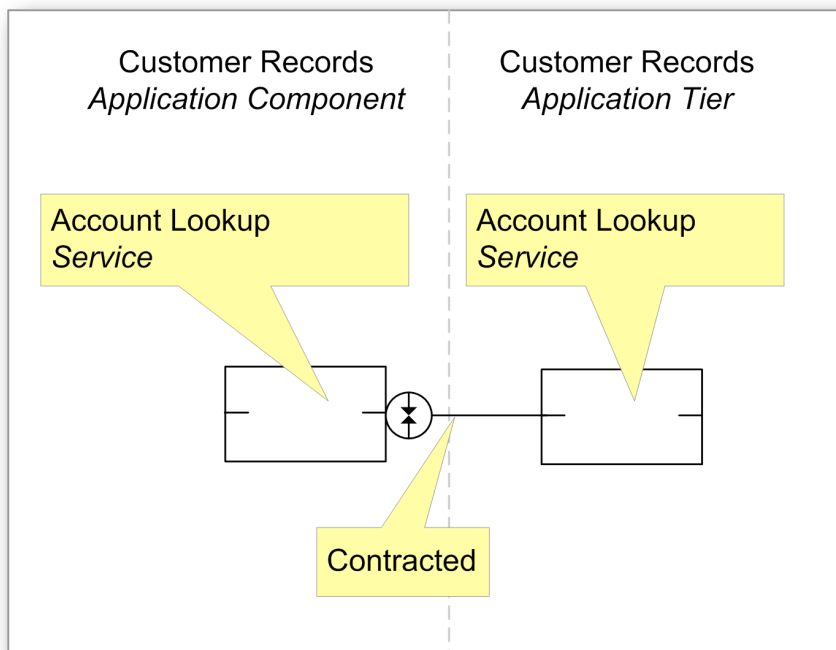


Contextual Expansion of a Service

Note that in the above example we used the “Expanded” symbol to denote the expansion of the Loan Calculator Service beyond the Loan Organization boundary. Now the Loan Calculator Service can be used by Loan Applicants Internet Consumers.

What is Contextual Contraction

Finally, contextual contraction is about reducing a service's consumer base and decreasing its influence across the organization. This modeling operation typically limits accessibility to a service. Consider the following contextual contraction example.



Contextual Contraction of a Service

Note that in the above example the Account Lookup Service offerings are eliminated from Customer Records Application Tier to the Customer Records Application Component. In other words, the consumer base of this service is also decreased.

To learn more about contextual analysis and modeling patterns and the usage of these modeling techniques for enterprise architecture, application architecture, service-oriented architecture (SOA), and cloud computing projects refer to these books:

