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(54) **SYSTEM AND METHOD FOR DESCRIBING METHOD PROCESS USING GUIDED ARCHITECTURAL DECISIONS**

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G06F 9/44 (2006.01)

(52) **U.S. Cl.** **717/101**

(58) **Field of Classification Search** 717/101
See application file for complete search history.

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Assistant Examiner — Junchun Wu
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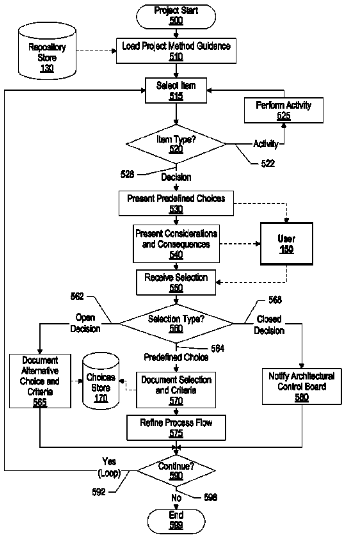
(57) **ABSTRACT**

A method author uses a method generator to create a customized project-specific method that includes first class decision elements. The decision elements are included in a meta model for a process framework, and describe actual decisions for a user to resolve. Once created, a method advisor uses the project-specific method to guide a user through architectural decisions by refining the project-specific method's process flow based upon the user's decisions. The refining includes removing activity elements and decision elements from the process flow that are not reachable by a path corresponding to the user's choice selection. The method advisor also stores the user's choice selections, along with considerations, conditions, and consequences, for the use to view at a later date.

16 Claims, 6 Drawing Sheets



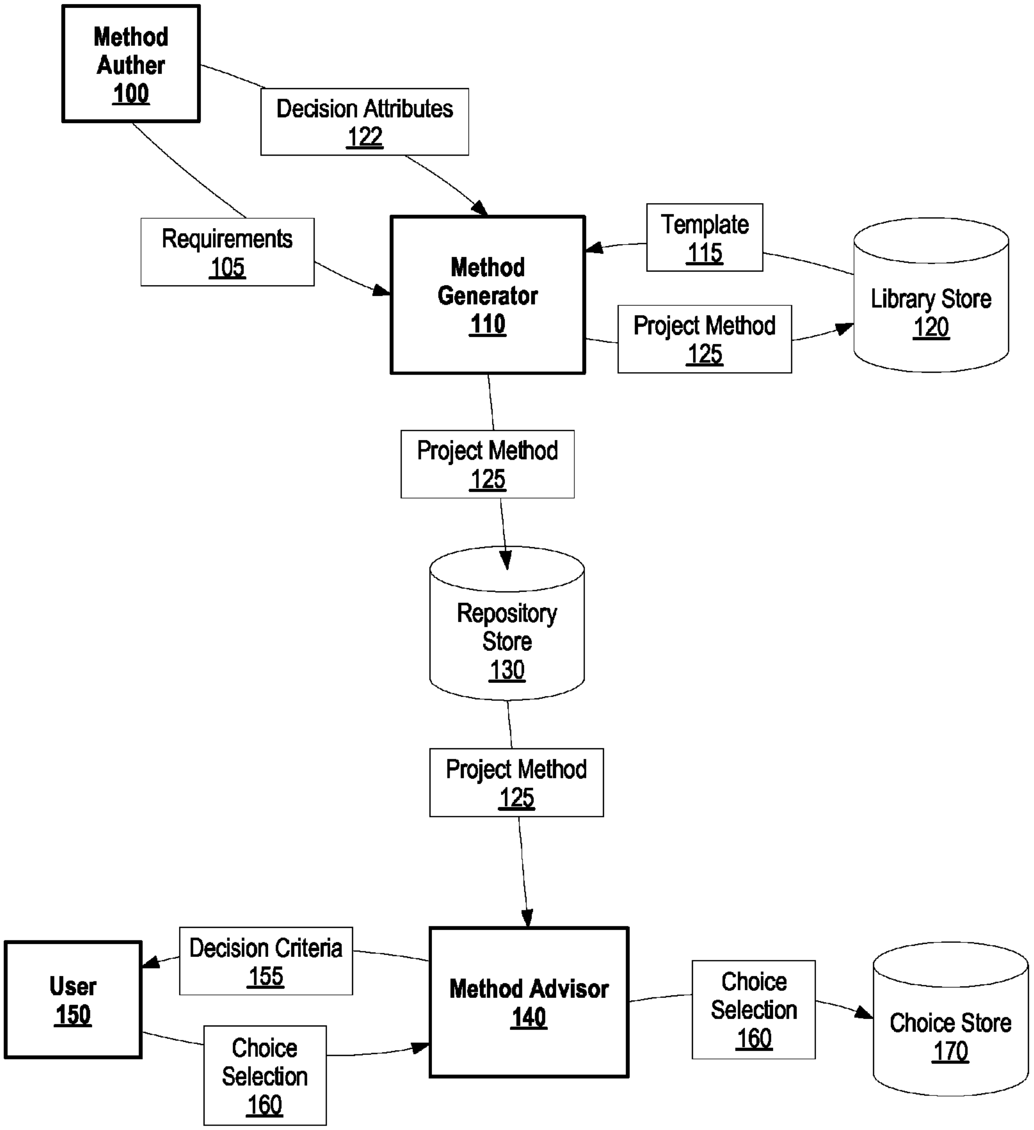

Method Auther 100
Decision Attributes 122
Requirements 105
Method Generator 110
Template 115
Library Store 120
Project Method 125
Project Method 125
Repository Store 130
Project Method 125
User 150
Decision Criteria 155
Method Advisor 140
Choice Selection 160
Choice Selection 160
Choice Store 170

FIG. 1

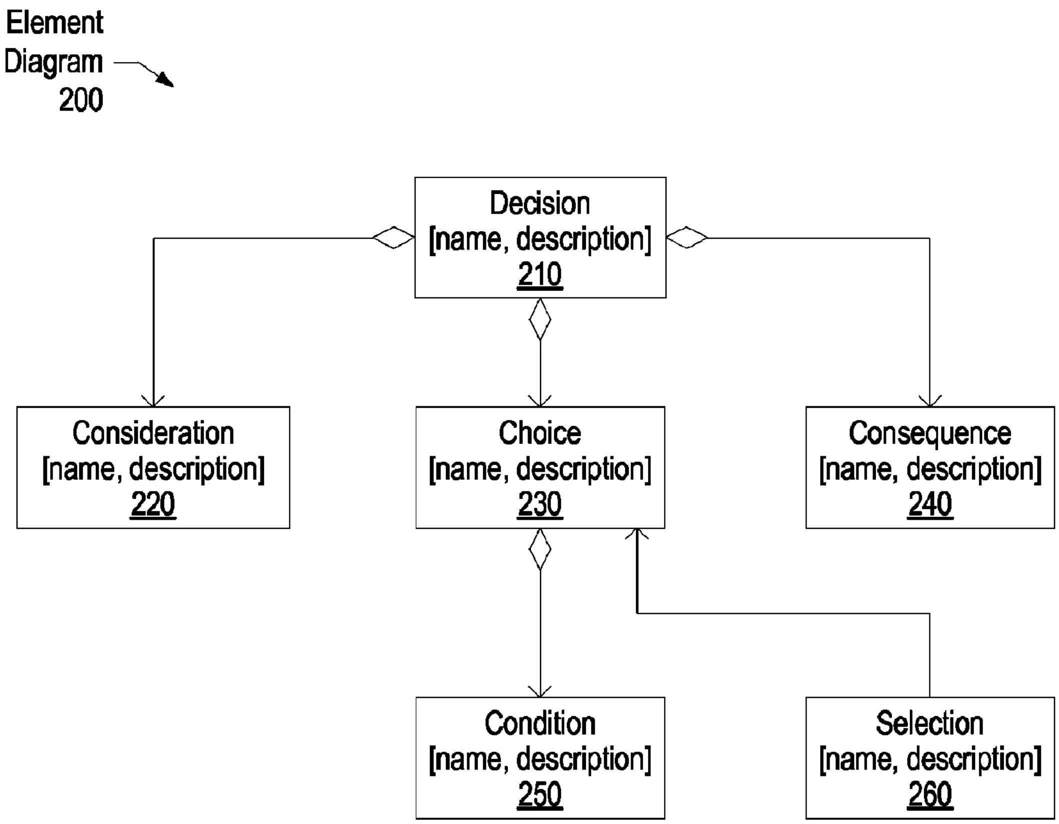

Element Diagram 200
Decision [name, description] 210
Consideration [name, description] 220
Choice [name, description] 230
Consequence [name, description] 240
Condition [name, description] 250
Selection [name, description] 260

FIG. 2

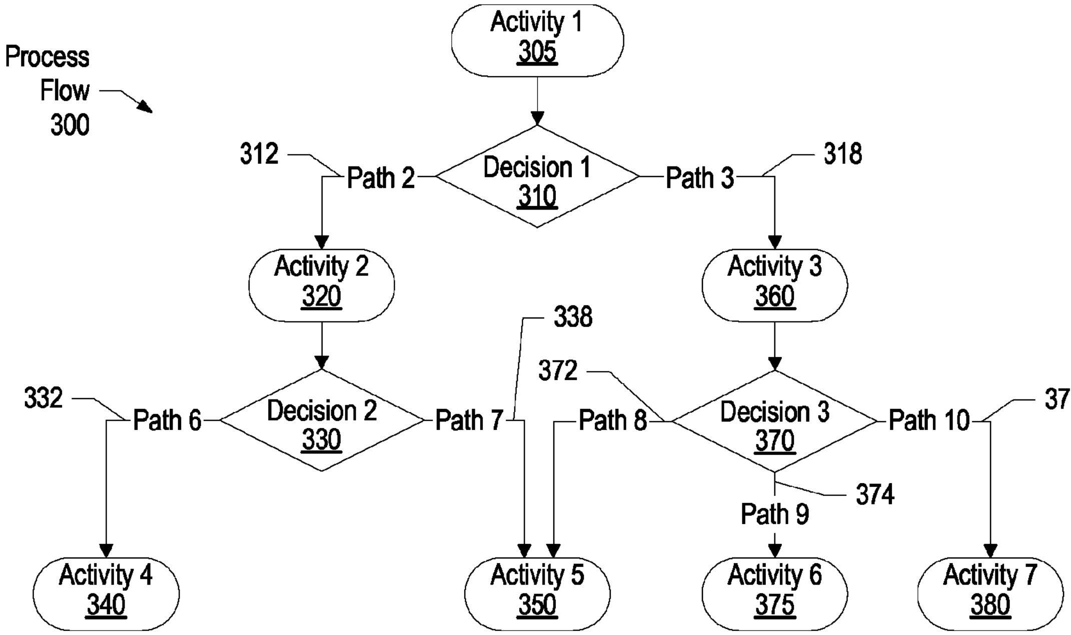

Process Flow 300
Activity 1 305
312
Path 2
Decision 1 310
Path 3
318
Activity 2 320
Activity 3 360
338
372
332
Path 6
Decision 2 330
Path 7
Path 8
Decision 3 370
Path 10
378
374
Path 9
Activity 4 340
Activity 5 350
Activity 6 375
Activity 7 380

FIG. 3A

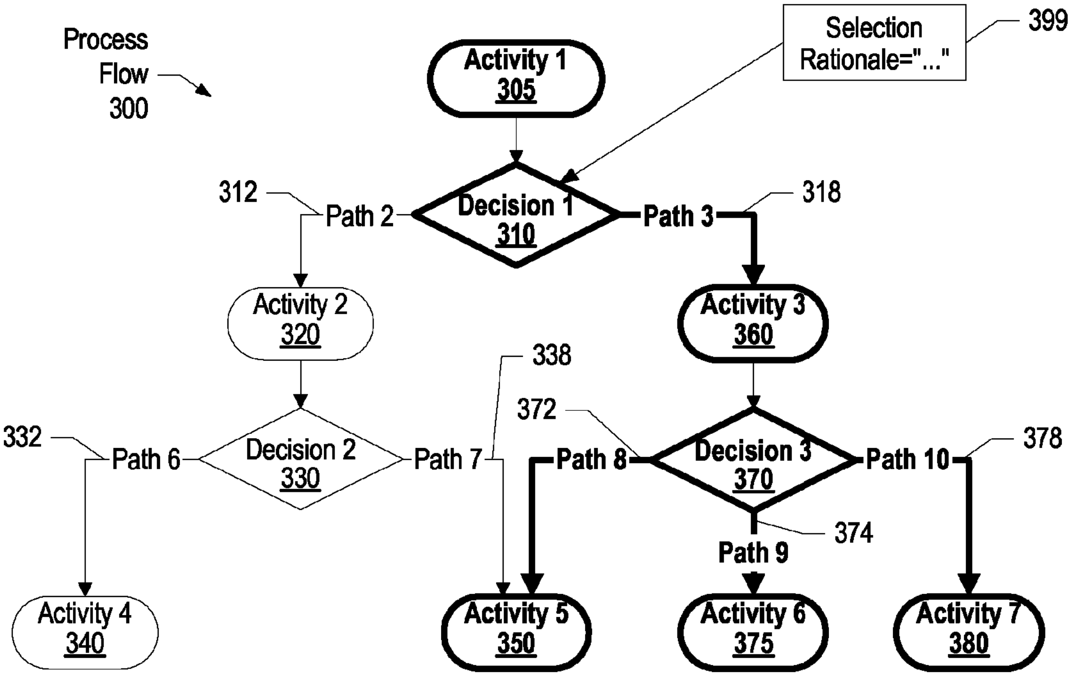

Process Flow 300
Selection Rationale="..."
399
Activity 1 305
312
Path 2
Decision 1 310
Path 3
318
Activity 2 320
Activity 3 360
338
372
332
Path 6
Decision 2 330
Path 7
Path 8
Decision 3 370
Path 10
378
374
Path 9
Activity 4 340
Activity 5 350
Activity 6 375
Activity 7 380

FIG. 3B

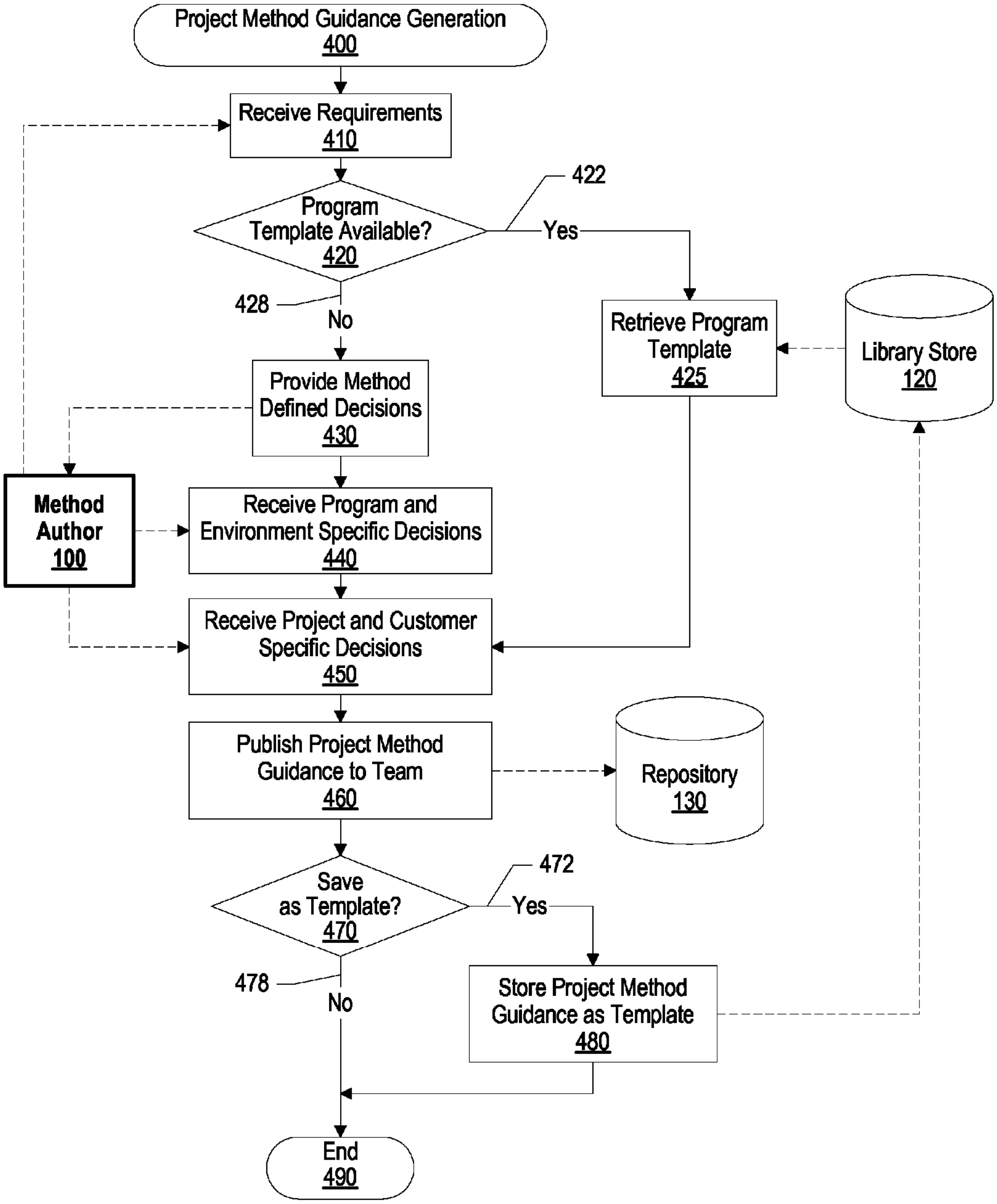

Project Method Guidance Generation
400
Receive Requirements
410
Program Template Available?
420
422
Yes
428
No
Retrieve Program Template
425
Library Store
120
Provide Method Defined Decisions
430
Method Author
100
Receive Program and Environment Specific Decisions
440
Receive Project and Customer Specific Decisions
450
Publish Project Method Guidance to Team
460
Repository
130
Save as Template?
470
472
Yes
478
No
Store Project Method Guidance as Template
480
End
490

FIG. 4

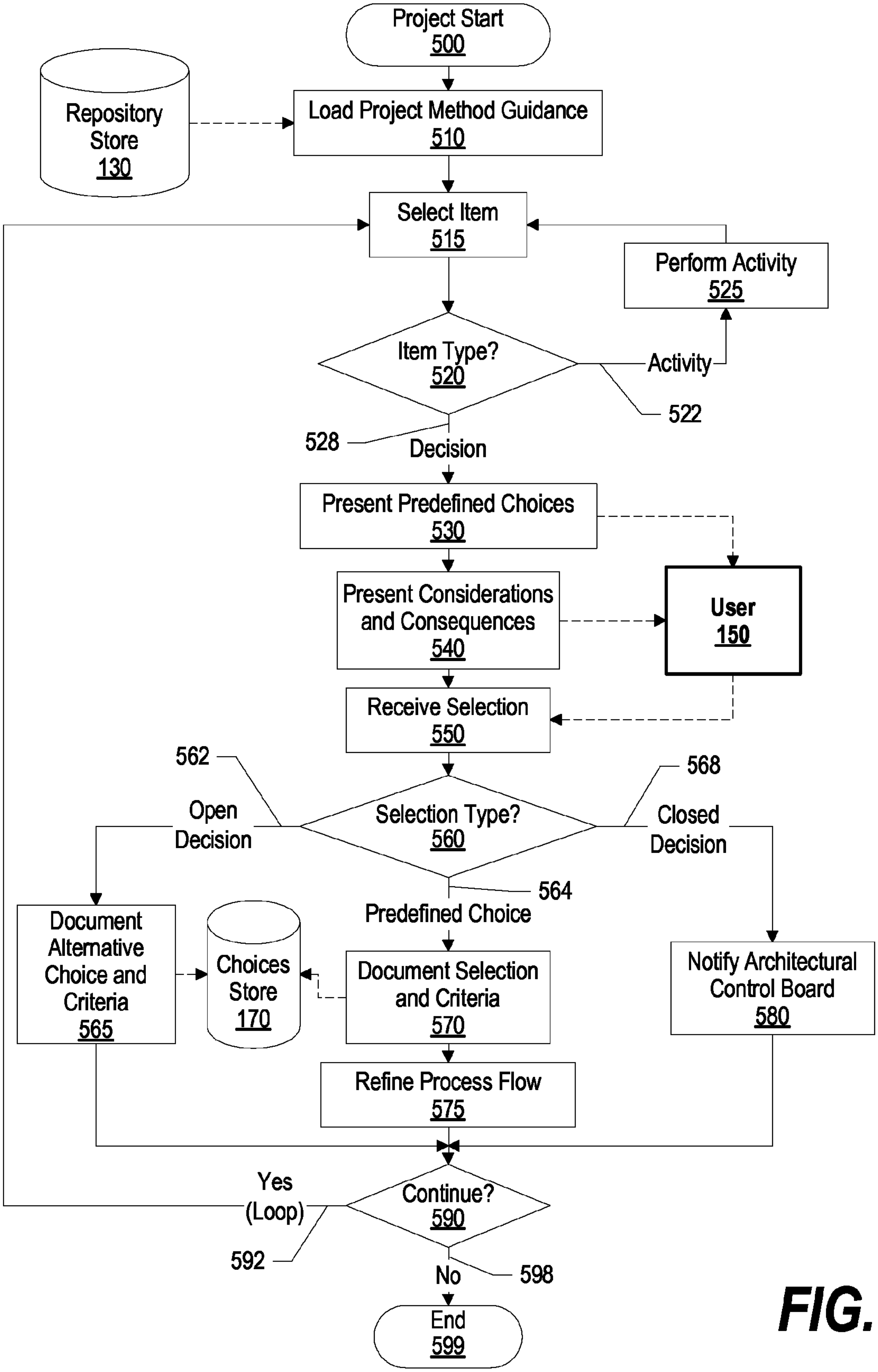

Project Start 500
Repository Store 130
Load Project Method Guidance 510
Select Item 515
Perform Activity 525
Item Type? 520
Activity
522
528
Decision
Present Predefined Choices 530
Present Considerations and Consequences 540
User 150
Receive Selection 550
562
568
Open Decision
Selection Type? 560
Closed Decision
564
Predefined Choice
Document Alternative Choice and Criteria 565
Choices Store 170
Document Selection and Criteria 570
Notify Architectural Control Board 580
Refine Process Flow 575
Yes (Loop)
Continue? 590
592
No
598
End 599

FIG. 5

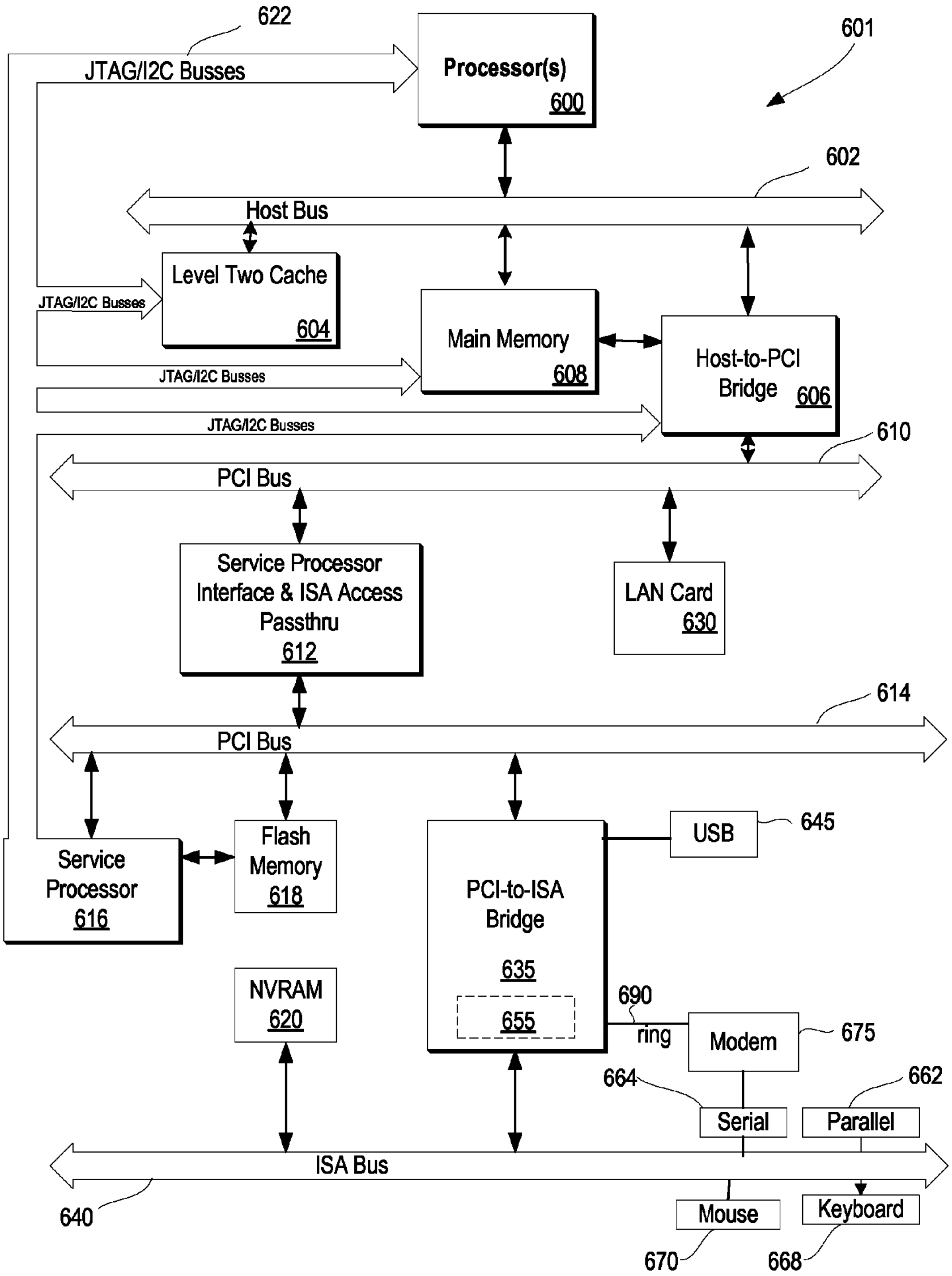

622
JTAG/I2C Busses
Processor(s)
600
601
602
Host Bus
Level Two Cache
604
JTAG/I2C Busses
Main Memory
608
Host-to-PCI
Bridge
606
JTAG/I2C Busses
JTAG/I2C Busses
610
PCI Bus
Service Processor
Interface & ISA Access
Passthru
612
LAN Card
630
614
PCI Bus
USB
645
Service
Processor
616
Flash
Memory
618
PCI-to-ISA
Bridge
635
655
690
ring
Modem
675
NVRAM
620
664
Serial
662
Parallel
ISA Bus
640
Mouse
Keyboard
670
668

Figure 6

SYSTEM AND METHOD FOR DESCRIBING METHOD PROCESS USING GUIDED ARCHITECTURAL DECISIONS

BACKGROUND OF THE INVENTION

1. Technical Field

The present invention relates to a system and method for creating a project-specific software development method that includes first class decision elements that guide and document a user's architectural decisions for a project.

2. Description of the Related Art

Today's software development method frameworks describe activities at a high level and describe decisions within the text of the activity description or supporting material. In addition, current processes that software development methods describe are focused on activities performed, which may include either implicit or explicit decisions for which a user is aware. In today's software development environment, it would be desirable to have a software development process that actively guides the user through an architectural decision process for the user's project.

SUMMARY

It has been discovered that the aforementioned challenges are resolved using a system and method for creating a project-specific software development method that includes first class decision elements that guide and document a user's architectural decisions. A method author uses a method generator to create a customized project-specific method that includes first class decision elements. In turn, a method advisor uses the customized project-specific method to guide a user through architectural decisions by refining the project-specific method's process flow based upon the user's decisions.

A method author provides project requirements to a method generator, which the method generator analyzes and determines whether a template exists in a template library that meets the project requirements. When a template meets the project requirements, the method generator retrieves the template, which may include program-specific decisions and/or environment-specific decisions that, as a result, allow the method author to create the project-specific method with less effort.

The method author provides decision attributes to the method generator, which may include program-specific decision attributes, environment-specific decision attributes, and/or project/customer-specific decision attributes. In turn, the method generator creates decision elements from the decision attributes and includes the decision elements in a project-specific method, which is stored in a repository. The project-specific method includes activity elements and decision elements that are linked together that comprise a process flow. In addition, the method author may instruct the method generator to store the project-specific method in the template library for later use with a different project.

Once stored in the repository, a user instructs a method advisor to retrieve the project-specific method. In turn, the method advisor describes the project-specific method, which proceeds through a series of steps to guide the user through architectural decisions based upon the project-specific method's process flow. While guiding the user through architectural decisions, the method advisor provides decision criteria to the user that correspond to the decision elements included in the project-specific method. The decision criteria include choices, considerations, and consequences.

The user reviews the decision criteria, and provides a choice selection to the method advisor. In turn, the method advisor refines the project-specific method's process flow based upon the choice selection, such as removing downstream activity elements and downstream decision elements from the process flow that are not reachable by a path corresponding to the choice selection. In addition, the method advisor stores the choice selection such that the user may review the choice selection at a later date. The method advisor continues to provide decision criteria for remaining decision elements and refines the project-specific method's process flow accordingly, thus guiding the user through the project's architectural decisions.

The foregoing is a summary and thus contains, by necessity, simplifications, generalizations, and omissions of detail; consequently, those skilled in the art will appreciate that the summary is illustrative only and is not intended to be in any way limiting. Other aspects, inventive features, and advantages of the present invention, as defined solely by the claims, will become apparent in the non-limiting detailed description set forth below.

BRIEF DESCRIPTION OF THE DRAWINGS

The present invention may be better understood, and its numerous objects, features, and advantages made apparent to those skilled in the art by referencing the accompanying drawings.

FIG. **1** is a diagram showing a method author creating a project-specific method that includes a first class decision element and a method advisor using the project-specific method to guide a user's architectural decisions;

FIG. **2** is an element diagram showing a decision element as a first class element that includes corresponding sub-elements;

FIG. **3**A is a process flow that includes various activity elements and decision elements;

FIG. **3**B is a process flow that a method advisor refines based upon a user's choice selections;

FIG. **4** is a flowchart showing steps taken in a method author generating a project-specific method that includes first class decision elements;

FIG. **5** is a flowchart showing steps taken in a method advisor guiding a user through architectural decisions using a project-specific method that includes first class decision elements; and

FIG. **6** is a block diagram of a computing device capable of implementing the present invention.

DETAILED DESCRIPTION

The following is intended to provide a detailed description of an example of the invention and should not be taken to be limiting of the invention itself. Rather, any number of variations may fall within the scope of the invention, which is defined in the claims following the description.

FIG. **1** is a diagram showing a method author creating a project-specific method that includes a first class decision element and a method advisor using the project-specific method to guide a user's architectural decisions. Method author **100** uses method generator **110** to create a customized project-specific method (project-specific method **125**) for use by user **150**. Method author **100** begins by providing requirements **105** to method generator **110**, such as Rational Method Composer. Method generator **110** analyzes requirements **105** and determines whether a template exists in library store **120** that meets requirements **105**. Library store **120** may be stored on a nonvolatile storage area, such as a computer hard drive.

When a template meets requirements **105**, method generator **110** retrieves the template (template **115**) from library store **120**. For example, template **115** may be a "delivery process" in RUP (Rational Unified Process), or an "engagement model" in GS Method (Global Services Method). Template **115** may include program specific decisions and environment-specific decisions that, as a result, allow method author **100** to create project-specific method **125** with less effort.

Method author **100** provides decision attributes **122** to method generator **110**, which may include program-specific decision attributes, environment-specific decision attributes, and/or project/customer-specific decision attributes. For example, a program-specific decision attribute may be "Selection of Deployment Platform"; an environmental decision attribute may be "Selection of Platform Version"; and a project/customer decision attribute may be "Selection of Hosting Location".

Method generator **110** creates decision elements from decision attributes **122** and includes the decision elements in project-specific method **125**, which is stored in repository store **130**. Project-specific method **125** includes activity elements and decision elements that are linked together that comprise a process flow (see FIG. **2**, **4**, and corresponding text for further details). In addition, method author **100** may instruct method generator **110** to store project-specific method **125** in library store **120** for later use as a template. Repository store **130** may be stored on a nonvolatile storage area, such as a computer hard drive.

Once stored in repository store **130**, user **150** instructs method advisor, such as the Process Advisor in Rational Software Architect, **140** to retrieve project-specific method **125** from repository store **130**. Method advisor **140** invokes project-specific method **125**, which proceeds through a series of steps to guide user **150** through architectural decisions based upon project-specific method **125**'s process flow.

While guiding user **150** through architectural decisions, method advisor **140** provides decision criteria **155** to user **150** that correspond to the decision elements included in project-specific method **125**. Decision criteria **155** include choices, considerations, and consequences. Choices are predefined choices from which user **150** may select, such as "CICS on zOS," "WebSphere Distributed," or "PHP." The user may also provide a choice selection that is not pre-defined (see FIG. **5** and corresponding text for further details). Considerations describe a consideration that user **150** should understand when making a decision. For example, "system performance" may be a consideration and, as a result, user **150** may not wish to choose PHP (Personal Home Page) as a platform. Consequences describe one or more consequences of a particular choice. For example, a consequence may inform user **150** that when choosing "CICS on zOS," user **150** must also have certain CICS web service connectors available.

User **150** reviews decision criteria **155**, and provides choice selection **160** to method advisor **140**. In turn, method advisor **140** refines project-specific method **125**'s process flow based upon choice selection **160**. Meaning, method advisor **140** removes activity elements and decision elements from the process flow that are not reachable by a path corresponding to choice selection **160** (see FIG. **3**B and corresponding text for further details). Method advisor **140** also stores choice selection **160** in choice store **170** such that user **150** may review choice selection **160** at a later date. Method advisor **140** continues to provide decisions criteria **155** for subsequent decisions and refine project-specific method **125**'s process flow accordingly, thus guiding user **150** through the project's architectural decisions.

FIG. **2** is an element diagram showing a decision element as a first class element that includes corresponding sub-elements. Element diagram **200** includes first class decision element **210** and a set of sub-elements that support decision element **210**. Decision element **200** is included into a meta model for process frameworks and describes an actual decision for a user to resolve, such as "Select runtime platform for identified service."

Choice sub-element **230** describes a possible set of predefined choices from which a user may select, such as "CICS on zOS," "WebSphere Distributed," or "PHP." Consideration sub-element **220** describes a consideration that the user should understand when making a decision. Each choice sub-element **230** has a set of corresponding considerations.

Consequence sub-element **240** describes one or more consequences of a particular choice. For example, a consequence may inform a user that when choosing "CICS on zOS," the user must have certain CICS web service connectors available. Condition sub-element **250** describes a condition under which a choice is restricted. For example, a condition may restrict a user's choice due to an earlier decision that requires all new services to be implemented in CICS.

Selection sub-element **260** captures a user's choice selection during process execution, which includes criteria used to make the decision and the rationale for the choice selection. For example, criteria may be based upon overall development cost and, as a result, a choice selection may chose to implement a project using CICS due to the number of available skilled method authors.

FIG. **3**A is a process flow that includes various activity elements and decision elements. Process flow **300** includes activity **1 305** and linked decision element **1 310**. Decision element **310** includes two predefined choices, which correspond to path **2 312** and path **3 318**. Both path **2 312** and path **3 318** lead to subsequent activities. Path **2 312** leads to activity **2 320** and linked decision element **2 330**. Decision element **2 330** includes two choices, which correspond to path **6 332** and path **7 338**. Path **6 332** leads to activity **4 340** and path **7 338** leads to activity **5 350**.

Referring back to decision **1 310**, path **3 318** leads to activity **3 360** and linked decision element **3 370**. Decision **3 370** includes three choices, which correspond to path **8 372**, path **9 374**, and path **10 378**. Path **8 372** leads to activity **5 350**. Path **9 374** leads to activity **6 375**. And, path **10 378** leads to activity **7 380**.

Based upon a user's choice selections, a method advisor removes particular downstream activity elements and downstream decision elements from process flow **300** in order to guide a user through an architectural decision process (see FIG. **3**B and corresponding text for further details).

FIG. **3**B is a process flow that a method advisor refines based upon a user's choice selections. A user performs activity **1 305** and the method advisor presents the user with a key decision, decision **1 310**. Decision **1 310** presents the choices, considerations and consequences to the user to allow the user to make the correct decision, which the method advisor documents along with the user's rationale.

FIG. **3**B shows that the user provides choice selection **399** to the method advisor, which selects path **3 318**. As a result, the project manager removes all of the downstream activity elements and downstream decision elements only reachable through path **2 312**, which encompasses removing activity element **2 320**, decision element **2 330**, and activity element **4 340**. In addition, the method advisor removes corresponding path **6 332** and path **7 338** from process flow **300**. However, since activity **5 550** is reachable from both path **2 312** and path **3 318**, activity **5 350** is still presented to the user. As a result, process flow now includes elements **350-380** and paths **372**, **374**, and **378**. for a user to choose.

FIG. **4** is a flowchart showing steps taken in a method author generating a project-specific method that includes first class decision elements. Processing commences at **400**, whereupon method author **100** provides project requirements at step **410**. A determination is made as to whether a program template exists in library store **120** that meets the requirements (decision **420**). For example, a project template may be a "delivery process" in RUP, or an "engagement model" in GS Method. Method author **100** and library store **120** are the same as that shown in FIG. **1**.

If a template is available, decision **420** branches to "Yes" branch **422** whereupon processing retrieves the program template from library store **120** at step **425**. On the other hand, if a template is not available, decision **420** branches to "No" branch whereupon processing provides method defined decisions to method author **100** at step **430**. Method author **100** reviews the set of decision attributes included in the library to see which decisions are applicable to the project. In one embodiment, these decisions that are included in a base method library are high-level and generic. Once reviewed, method author **100** provides program-specific and/or environment-specific decision attributes, which may include more detail (step **440**). Next, method author **100** provides customer and/or project specific decision attributes at step **450**.

At step **460**, processing publishes a project-specific method, which includes decision elements corresponding to the decision attributes discussed above, and stores the project-specific method in repository **130**. A user may then retrieve the project-specific method from repository **130**, which guides the user during architectural decisions (see FIG. **5** and corresponding text for further details). Repository **130** is the same as that shown in FIG. **1**.

A determination is made as to whether to save the project-specific method as a template (decision **470**). If processing should save the project-specific method as a template, decision **470** branches to "Yes" branch **472** whereupon processing stores the project-specific method as a template in library store **120**. On the other hand, if method author **100** does not wish to save the project-specific method as a template, decision **470** branches to "No" branch **478** bypassing project-specific method storing steps. Processing ends at **490**.

FIG. **5** is a flowchart showing steps taken in a method advisor guiding a user through architectural decisions using a project-specific method that includes first class decision elements. Processing commences at **500**, whereupon processing loads a project-specific method from repository store **130** (step **510**). A method author, such as method author **100** shown in FIG. **1**, previously generated the project-specific method (see FIG. **4** and corresponding text for further details). Repository store **130** is the same as that shown in FIG. **1**.

At step **515**, processing selects an item included in the project-specific method. A determination is made as to whether the item is a decision element or an activity element (decision **520**). If the item is an activity element, decision **520** branches to "Activity" branch **522** whereupon processing loops back to perform the activity (step **525**). This looping continues until the item is a decision element, at which point decision **520** branches to "Decision" branch **528**.

Processing presents predefined choices corresponding to the decision element to user **150** at step **530**. The predefined choices are stored in a choice sub-element that corresponds to the decision element. Processing also presents considerations and consequences to user **150** (step **540**). The considerations and consequences are also stored in sub-elements that correspond to the decision element (see FIG. **2** and corresponding text for further details). User **150** is the same as that shown in FIG. **1**.

Based upon the choices, considerations, and consequences, user **150** provides a choice selection at step **550**. A determination is made as to whether the choice selection is an open decision, a closed decision, or a predefined choice (decision **560**). For example, user **150** may not choose one of the predefined choices and, instead, provide an "open" choice selection or a "closed" choice selection. An open choice selection describes an alternative choice that is not included in the predefined choices. A closed choice selection constrains user **150** to choose between one or more documented choices.

If the choice selection is an open choice selection, decision **560** branches to "Open Choice" branch **562**, whereupon processing documents an alternative choice and its corresponding criteria in choices store **170**. On the other hand, if the choice is a closed choice selection, decision **560** branches to "Closed Choice" branch **568** whereupon processing notifies an architectural control board, which investigates the situation and takes appropriate action, such as adding a new predefined choice. Choices store **170** is the same as that shown in FIG. **1**.

On the other hand, if user **150** selects a predefined choice, decision **560** branches to "Predefined Choice" branch **564** whereupon processing stores the choice selection and its corresponding criteria in choices store **170**. At step **575**, processing refines the process flow based upon the choice selection. Meaning, processing removes downstream activity elements and downstream decision elements that are not reachable by a path corresponding to the choice selection (see FIG. **3**B and corresponding text for further details).

A determination is made as to whether to continue processing (decision **590**). If processing should continue, decision **590** branches to "Yes" branch **592**, which loops back to process another item. This looping continues until processing should terminate, at which point decision **590** branches to "No" branch **598**, whereupon processing ends at **599**.

FIG. **6** illustrates information handling system **601** which is a simplified example of a computer system capable of performing the computing operations described herein. Computer system **601** includes processor **600** which is coupled to host bus **602**. A level two (L2) cache memory **604** is also coupled to host bus **602**. Host-to-PCI bridge **606** is coupled to main memory **608**, includes cache memory and main memory control functions, and provides bus control to handle transfers among PCI bus **610**, processor **600**, L2 cache **604**, main memory **608**, and host bus **602**. Main memory **608** is coupled to Host-to-PCI bridge **606** as well as host bus **602**. Devices used solely by host processor(s) **600**, such as LAN card **630**, are coupled to PCI bus **610**. Service Processor Interface and ISA Access Pass-through **612** provides an interface between PCI bus **610** and PCI bus **614**. In this manner, PCI bus **614** is insulated from PCI bus **610**. Devices, such as flash memory **618**, are coupled to PCI bus **614**. In one implementation, flash memory **618** includes BIOS code that incorporates the necessary processor executable code for a variety of low-level system functions and system boot functions.

PCI bus **614** provides an interface for a variety of devices that are shared by host processor(s) **600** and Service Processor **616** including, for example, flash memory **618**. PCI-to-ISA bridge **635** provides bus control to handle transfers between PCI bus **614** and ISA bus **640**, universal serial bus

(USB) functionality **645**, power management functionality **655**, and can include other functional elements not shown, such as a real-time clock (RTC), DMA control, interrupt support, and system management bus support. Nonvolatile RAM **620** is attached to ISA Bus **640**. Service Processor **616** includes JTAG and I2C busses **622** for communication with processor(s) **600** during initialization steps. JTAG/I2C busses **622** are also coupled to L2 cache **604**, Host-to-PCI bridge **606**, and main memory **608** providing a communications path between the processor, the Service Processor, the L2 cache, the Host-to-PCI bridge, and the main memory. Service Processor **616** also has access to system power resources for powering down information handling device **601**.

Peripheral devices and input/output (I/O) devices can be attached to various interfaces (e.g., parallel interface **662**, serial interface **664**, keyboard interface **668**, and mouse interface **670** coupled to ISA bus **640**. Alternatively, many I/O devices can be accommodated by a super I/O controller (not shown) attached to ISA bus **640**.

In order to attach computer system **601** to another computer system to copy files over a network, LAN card **630** is coupled to PCI bus **610**. Similarly, to connect computer system **601** to an ISP to connect to the Internet using a telephone line connection, modem **665** is connected to serial port **664** and PCI-to-ISA Bridge **635**.

While FIG. **6** shows one information handling system that employs processor(s) **600**, the information handling system may take many forms. For example, information handling system **601** may take the form of a desktop, server, portable, laptop, notebook, or other form factor computer or data processing system. Information handling system **601** may also take other form factors such as a personal digital assistant (PDA), a gaming device, ATM machine, a portable telephone device, a communication device or other devices that include a processor and memory.

One of the preferred implementations of the invention is a client application, namely, a set of instructions (program code) in a code module that may, for example, be resident in the random access memory of the computer. Until required by the computer, the set of instructions may be stored in another computer memory, for example, in a hard disk drive, or in a removable memory such as an optical disk (for eventual use in a CD ROM) or floppy disk (for eventual use in a floppy disk drive), or downloaded via the Internet or other computer network. Thus, the present invention may be implemented as a computer program product for use in a computer. In addition, although the various methods described are conveniently implemented in a general purpose computer selectively activated or reconfigured by software, one of ordinary skill in the art would also recognize that such methods may be carried out in hardware, in firmware, or in more specialized apparatus constructed to perform the required method steps.

While particular embodiments of the present invention have been shown and described, it will be obvious to those skilled in the art that, based upon the teachings herein, that changes and modifications may be made without departing from this invention and its broader aspects. Therefore, the appended claims are to encompass within their scope all such changes and modifications as are within the true spirit and scope of this invention. Furthermore, it is to be understood that the invention is solely defined by the appended claims. It will be understood by those with skill in the art that if a specific number of an introduced claim element is intended, such intent will be explicitly recited in the claim, and in the absence of such recitation no such limitation is present. For non-limiting example, as an aid to understanding, the following appended claims contain usage of the introductory phrases "at least one" and "one or more" to introduce claim elements. However, the use of such phrases should not be construed to imply that the introduction of a claim element by the indefinite articles "a" or "an" limits any particular claim containing such introduced claim element to inventions containing only one such element, even when the same claim includes the introductory phrases "one or more" or "at least one" and indefinite articles such as "a" or "an"; the same holds true for the use in the claims of definite articles.

What is claimed is:

1. A computer-implemented method for guiding architectural decisions, the computer-implemented method comprising:

receiving decision attributes from a method author;

creating a decision element based upon the decision attributes, wherein the decision element is a first class element linked to an activity element;

linking a choice sub-element to the decision element, wherein the choice sub-element includes a first choice and a second choice;

incorporating the decision element in a project-specific method, wherein the project-specific method corresponds to a process flow that includes a plurality of decision elements coupled to a plurality of activity elements, the created decision element included in the plurality of decision elements and the linked activity element included in the plurality of activity elements;

publishing the project-specific method;

in response to publishing the project-specific method, receiving a choice selection from a user corresponding to the first choice; and

storing the choice selection corresponding to the first choice and criteria associated with the selection.

2. The method of claim **1** further comprising:

in response to receiving the choice selection, refining the process flow such that downstream activity elements and downstream decision elements that are only accessible by selecting the second choice are not provided to the user.

3. The method of claim **1** further comprising:

receiving a request from the user to view the stored choice selection and the stored criteria; and

in response to receiving the request, providing the stored choice selection and the stored criteria to the user.

4. The method of claim **3** wherein the providing results in the user being able to view one or more of the user's previous architectural decisions.

5. The method of claim **1** wherein, prior to receiving the choice selection, the method further comprises:

presenting the first choice and the second choice to the user; and

presenting one or more considerations and one or more consequences to the user that correspond to the first choice and the second choice.

6. The method of claim **1** wherein a consideration sub-element, a choice sub-element, and a consequence sub-element are linked to the decision element.

7. A computer program product stored on a tangible computer operable media, the tangible computer operable media containing instructions for execution by a computer, which, when executed by the computer, cause the computer to implement a method of guiding architectural decisions, the method comprising:

receiving decision attributes from a method author;

creating a decision element based upon the decision attributes, wherein the decision element is a first class element linked to an activity element;

linking a choice sub-element to the decision element, wherein the choice sub-element includes a first choice and a second choice;

incorporating the decision element in a project-specific method, wherein the project-specific method corresponds to a process flow that includes a plurality of decision elements coupled to a plurality of activity elements, the created decision element included in the plurality of decision elements and the linked activity element included in the plurality of activity elements;

publishing the project-specific method;

in response to publishing the project-specific method, receiving a choice selection from a user corresponding to the first choice; and

storing the choice selection corresponding to the first choice and criteria associated with the selection.

8. The computer program product of claim **7** wherein the method further comprises:

in response to receiving the choice selection, refining the process flow such that downstream activity elements and downstream decision elements that are only accessible by selecting the second choice are not provided to the user.

9. The computer program product of claim **8** wherein the method further comprises:

receiving a request from the user to view the stored choice selection and the stored criteria; and

in response to receiving the request, providing the stored choice selection and the stored criteria to the user, which results in the user being able to view one or more of the user's previous architectural decisions.

10. The computer program product of claim **8** wherein, prior to receiving the choice selection, the method further comprises:

presenting the first choice and the second choice to the user; and

presenting one or more considerations and one or more consequences to the user that correspond to the first choice and the second choice.

11. The computer program product of claim **7** wherein a consideration sub-element, a choice sub-element, and a consequence sub-element are linked to the decision element.

12. An information handling system for guiding architectural decisions, the information handling system comprising:

one or more processors;

a memory accessible by the processors;

one or more nonvolatile storage devices accessible by the processors; and

a set of instructions stored in the memory, wherein one or more of the processors executes the set of instructions in order to perform actions of:

receiving decision attributes from a method author;

creating a decision element based upon the decision attributes, wherein the decision element is a first class element linked to an activity element;

linking a choice sub-element to the decision element, wherein the choice sub-element includes a first choice and a second choice;

incorporating the decision element in a project-specific method, wherein the project-specific method corresponds to a process flow that includes a plurality of decision elements coupled to a plurality of activity elements, the created decision element included in the plurality of decision elements and the linked activity element included in the plurality of activity elements;

publishing the project-specific method;

in response to publishing the project-specific method, receiving a choice selection from a user corresponding to the first choice; and

storing the choice selection corresponding to the first choice and criteria associated with the selection.

13. The information handling system of claim **12** wherein the information handling system further comprises an additional set of instructions in order to perform actions of:

in response to receiving the choice selection, refining the process flow such that downstream activity elements and downstream decision elements that are only accessible by selecting the second choice are not provided to the user.

14. The information handling system of claim **13** further comprising an additional set of instructions in order to perform actions of:

receiving a request from the user to view the stored choice selection and the stored criteria; and

in response to receiving the request, providing the stored choice selection and the stored criteria to the user, which results in the user being able to view one or more of the user's previous architectural decisions.

15. The information handling system of claim **13** further comprising an additional set of instructions in order to perform actions of:

prior to receiving the choice selection, presenting the first choice and the second choice to the user; and

presenting one or more considerations and one or more consequences to the user that correspond to the first choice and the second choice.

16. The information handling system of claim **12** wherein a consideration sub-element, a choice sub-element, and a consequence sub-element are linked to the decision element.

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