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(54) Title: ENHANCED SYSTEM, METHOD AND MEDIUM FOR CERTIFYING AND ACCREDITING REQUIREMENTS COMPLIANCE

(57) Abstract: A computer-assisted system, method and medium for enabling a user to select at least one of a plurality of predefined process steps to create a tailored sequence of process steps that can be used to assess the risk of and/or determine the suitability of a target system to comply with at least one predefined standard, regulation and/or requirement.

ENHANCED SYSTEM, METHOD AND MEDIUM FOR CERTIFYING AND ACCREDITING REQUIREMENTS COMPLIANCE

RELATED APPLICATIONS

This application claims priority from application serial number 09/946,164, filed September 5, 2001, entitled "Enhanced System, Method and Medium for Certifying and Accrediting Requirements Compliance," which is incorporated herein by reference.

BACKGROUND OF THE INVENTION

Field of the Invention

The present invention relates generally to the field of certification and accreditation (C&A) and, more particularly, to a computer-implemented system method and medium for C&A that automates target system configuration discovery and enables users to tailor a sequence of requirements and/or activities that can be used to assess the risk of and/or determines the suitability of a target system to comply with at least one predefined standard, regulation and/or requirement.

Background Description

The general purpose of C&A is to certify that automated information systems adequately protect information in accordance with data sensitivity and/or classification levels. In accordance with Department of Defense (DoD) Instruction 5200.40, dated December 30, 1997, entitled DoD Information Technology Security Certification and Accreditation Process (DITSCAP), which is incorporated herein by reference in its entirety, certification can be defined as the comprehensive evaluation of the technical and non-technical features of an information technology (IT) system and other safeguards, made in support of the accreditation process, to establish the extent that a particular design and implementation meets a set of specified security requirements. Similarly, as used herein, accreditation can be defined as a formal declaration by a designated approving authority that an IT system is approved to operate in a particular security mode using a prescribed set of safeguards at an acceptable level of risk. In general, DISTSCAP is utilized by the DoD for identifying and documenting threats and vulnerabilities that pose risk to critical information systems. DITSCAP compliance generally means that security risk posture is considered acceptable and that potential liability for system "owners" is mitigated.

The C&A process typically involves a number of policies, regulations, guidelines, best practices, etc. that serve as C&A criteria. Conventionally, the C&A process is typically a labor intensive exercise that can require multiple skill sets over a period of time typically spanning 6-12 months. In particular, collecting data pertaining to a network configuration undergoing C&A is done manually by, for example, entering a system hardware configuration, operating system and/or application software package(s) associated with each node (e.g., IP address) on a network undergoing C&A. Several organizations and/or individuals may also be involved in the processes of selecting

applicable standards, regulations and/or test procedures, and assembling test results and other information into a DITSCAP compliant package. There is therefore a need to substantially automate the network configuration data collection process, and format the data so that it can be used with, for example, a C&A system that substantially automates the process of performing security risk assessments, certification test procedure development, system configuration guidance, and residual risk acceptance.

SUMMARY OF THE INVENTION

To address the deficiencies of conventional schemes as indicated above, at least some embodiments of the present invention provide a system, method and medium that automates or substantially automates, and can provides users the ability to customize, the security C&A process in a manner that enhances and facilitates security risk assessments, certification test procedure development, system configuration guidance, and/or residual risk acceptance.

In an exemplary embodiment, the C&A process can be automated in accordance with, for example, any of DoD's DITSCAP requirements, National Information Assurance Certification and Accreditation Process (NIACAP) requirements, and U.S. Treasury / Internal Revenue Service (IRS) requirements. The present invention is not, however, limited to these requirements/standards, applications and/or environments, and may also be used in conjunction with other government and civilian/private sector organizations requiring risk management and guidance.

An exemplary embodiment according to the present invention contemplates a browser based solution that automates, for example, at least the DITSCAP, NIACAP, and IRS security processes. At least some embodiments of the present invention envision use of five primary elements: 1) gathering information, 2) analyzing requirements, 3) testing requirements, 4) performing risk assessment, and 5) generating certification documentation based on an assessment of the first four elements. In an exemplary first embodiment, predefined steps for executing these five elements are provided. In an exemplary second embodiment, users have the ability customize one or more of the five elements by, for example, selecting a portion of the predefined steps associated with one or more of the five primary elements associated with the first embodiment. Additional features of at least some embodiments of the present invention pertain to automatically sending e-mail alerts upon, for example, the occurrence of certain C&A-related events, a program management feature where one or more steps or events can be designated as being prerequisite to commencement of one or more other steps or events, and/or substantially automating network configuration discovery and formatting of the network configuration data for use with the five elements.

Still referring to the five elements mentioned above, the information gathered primarily relates to a description of a target system to be certified, and its respective components and operating environment (e.g., workstation manufacturer and model, operating system and version, secret, or top secret operating environment, etc.). The requirements analysis generally involves selecting a list of

standards and/or regulations with which the system must or should comply. The user may optionally input his or her own standards/regulations and/or additional requirements. Once information is gathered and the requirements analysis is provided, the system intelligently selects a set of test procedures against which the system is tested. The user can also optionally add or delete test procedures to those initially selected by the system. Upon completion of testing, the risk assessment provides as output an estimate of the risk level for each individual test failed. Each of the failed tests are also collectively considered and used to evaluate the risk level of the target system as a whole. Then, documentation can be printed that includes information pertaining to the first four elements that would enable an accreditation decision to be made based on the inputs and outputs respectively provided and generated in the first four elements.

It is to be understood that the invention is not limited in its application to the details of construction and to the arrangements of the components set forth in the following (or previous) description or illustrated in the drawings. The invention is capable of other embodiments and of being practiced and carried out in various ways.

BRIEF DESCRIPTION OF THE DRAWINGS

The Detailed Description including the description of a preferred structure as embodying features of the invention will be best understood when read in reference to the accompanying figures wherein:

FIG. 1 is an exemplary high level flowchart of a method contemplated by at least some embodiments of the present invention;

FIG. 2 is an exemplary introductory screen shot corresponding to the flow chart provided in FIG. 1;

FIG. 3 is an exemplary user login screen shot;

FIG. 4 is an exemplary project definition screen shot;

FIG. 5 is an exemplary project definition screen shot showing user selection of either civilian or Department of Defense applicability;

FIG. 6 is an exemplary block diagram of a certification and accreditation (C&A) system assessment aspect and an associated network and/or target system contemplated by at least some embodiments of the present invention;

FIG. 7 is an exemplary block diagram of a target system discovery engine contemplated by at least some embodiments of the present invention;

FIG. 8 is an exemplary embodiment of a target system configuration file format;

FIG. 9 is an exemplary illustration of the target system scanning and profiling relationships;

FIG. 10 is an exemplary edit platform category screen shot;

FIG. 11 is an exemplary flow chart of the requirements analysis process as contemplated by at least some embodiments of the present invention;

FIG. 12 is an exemplary screen shot used to generate a security requirements traceability matrix (SRTM);

FIG. 13 is an exemplary screen shot showing a display of a SRTM;

FIG. 14 is an exemplary flow chart illustrating the testing process as contemplated by at least some embodiments of the present invention;

FIG. 15 is an exemplary screen shot showing how test plan information can be edited;

FIG. 16 is an exemplary screen shot illustrating how a user can select an existing test procedure and/or create a new test procedure and associate the test procedure(s) with one or more requirements;

FIG. 17 is an exemplary flow diagram of a method for generating equipment tests contemplated by at least some embodiments of the present invention;

FIG. 18 is an exemplary screen shot showing how a user can add a test procedure;

FIG. 19 is an exemplary screen shot showing how a user can edit a test procedure;

FIGs. 20A and 20B are exemplary screen shots that enable a user to enter test results;

FIG. 21 is an exemplary high level flow diagram of the risk assessment method according to at least some embodiments contemplated by the present invention;

FIG. 22 is a table showing three different levels of illustrative threat categories;

FIG. 23 is an exemplary screen shot showing a portion of the illustrative threat categories of FIG. 22;

FIG. 24 is an exemplary scheme by which the risk of an individual test failure is assessed in accordance with at least some embodiments contemplated by the present invention;

FIG. 25 is an exemplary flow diagram of a method of assessing overall system risk in accordance with at least some embodiments contemplated by the present invention;

FIG. 26 is an exemplary flow diagram of the publishing process in accordance with at least some embodiments contemplated by the present invention;

FIG. 27 is an exemplary screen shot showing how a user can select a portion of a document for publishing;

FIG. 28 is an exemplary screen shot that enables a user to edit and/or view a portion of a document prior to publishing;

FIG. 29 is an exemplary screen shot showing how a user can select a portion of a document for publishing;

FIG. 30 is an exemplary screen shot illustrating how a user can publish a portion of a document;

FIG. 31 is an exemplary screen shot of the Work Product Manager (WPM) that enables the addition of an organization;

FIG. 32 is an exemplary screen shot of the WPM the that displays information pertaining to Work Breakdown Structures (WBSs);

FIG. 33 is an exemplary screen shot that enables a user to add a new WBS;

FIG. 34 is an exemplary screen shot that shows Work Products (WPs) that are associated with a WBS;

FIG. 35 is an exemplary screen shot that can be used to associate one or more Process Steps (PSs) with a WP;

FIG. 36 is an exemplary screen shot that illustrates a hierarchy of prerequisite WPs;

FIG. 37 is an exemplary screen shot that allows users to add and/or edit information pertaining to roles/titles and/or reactors;

FIG. 38 is an exemplary screen shot that displays and facilitates the addition of information pertaining to a role/title;

FIG. 39 is an exemplary screen shot that enables a user to add a role/title;

FIG. 40 is an exemplary screen shot that shows a reactor that is associated with a particular organization;

FIG. 41 is an exemplary screen shot that allows a user to add a reactor;

FIG. 42 is an exemplary screen shot that allows a user to view projects and/or add a project;

FIG. 43 is an exemplary screen shot that allows a user to add/define a project;

FIG. 44 is an exemplary screen shot that allows a user to select for a project either the classic or workflow methodology;

FIG. 45 is an exemplary screen shot that allows a user to define project access;

FIG. 46 is an exemplary screen shot that allows a user to set project notifications, view project analysts, and/or assign analysts to a project;

FIG. 47 is an exemplary screen shot that allows a user to set project notification;

FIG. 48 is an exemplary screen shot that allow a user to view project notification for a particular user, and/or add additional notification parameters;

FIG. 49 is an exemplary screen shot that allows a user to set notification parameters for a particular user;

FIG. 50 is an exemplary flow diagram of the WPM process;

FIG. 51 illustrates one example of a central processing unit for implementing a computer process in accordance with a computer implemented embodiment of the present invention;

FIG. 52 illustrates one example of a block diagram of internal hardware of the central processing unit of FIG. 51;

FIG. 53 is an illustrative computer-readable medium upon which computer instructions can be embodied;

FIG. 54 is an exemplary network implementation of the present invention;

FIG. 55 shows an exemplary structure in accordance with the present invention; and

FIG. 56 is an exemplary entity relationship diagram that describes the attributes of entities and the relationship among them.

DETAILED DESCRIPTION

Referring now to the drawings, and more particularly to FIG. 1, a high level flow diagram is shown that provides an overview of the method according to the present invention. In the first step, information is gathered pertaining to the system or network undergoing C&A, as is indicated by block 100. The information gathered typically relates to a description of the system to be certified, and its respective components and operating environment (e.g., workstation manufacturer and model, operating system and version, secret, or top secret operating environment, etc.). As will be described in further detail herein, at least some embodiments of the present invention advantageously automate collection of certain information pertaining to the network undergoing C&A. Alternatively, the information pertaining to the network undergoing C&A can be manually entered.

As indicated above, aspects of at least some embodiments of the present invention are described in accordance with DoD's DITSCAP requirements. However, it should be understood that such description is only by way of example, and that the present invention contemplates use with regard to any number of types of requirements or environments. In addition, within its use with regard to DITSCAP requirements, it should be understood that many of the various aspects and selection options are also exemplary, as is the fact that information is shown as being entered via a web browser.

The requirements analysis generally involves selecting (by a human and/or some automated procedure) a list of standards and/or regulations that the system must, or should, comply with. This is indicated by block 102. Optionally, selection of additional standards/regulations and/or requirements by a user is also contemplated. At least some embodiments of the present invention then contemplate automatically displaying/listing each requirement that comprises the current security requirements traceability matrix (SRTM), which is derived from the selected set of standards and/or regulations that the system must comply with. Additionally, the user will be able to customize the current SRTM by either adding, editing and/or deleting requirements. As known to those skilled in the art, a SRTM can be a table used to trace project lifecycle activities (e.g., testing requirements) and/or work products to the project requirements. The SRTM can be used to establish a thread that traces, for example, testing and/or compliance requirements from identification through implementation. A SRTM can thus be used to ensure that project objectives and/or requirements are satisfied and/or completed.

Once information is gathered 100 and the requirements analysis 102 is provided, the system can intelligently select a set of test procedures against which the system is tested, as indicated by block 104. The test procedures are selected in a manner so that successful completion of the test procedures will render the system undergoing C&A to satisfy the SRTM requirements.

Upon completion of testing 104, the risk assessment step (as indicated by block 106) then involves assessing for each test failure (should any exist) the vulnerability of the system, as well as the level of the threat as determined by the information gathered. The risk assessment 106 provides as output an estimate of the risk level for each individual test failed. Each of the failed tests are also collectively considered and used to evaluate the risk level of the system as a whole. Then,

documentation can be optionally printed 108 that includes information pertaining to the first four elements that would enable an accreditation decision to be made based on the inputs and outputs respectively provided and generated in the first four blocks (i.e., 100, 102, 104, 106). Each block shown in FIG. 1 (i.e., 100, 102, 104, 106 and 108) will be discussed in further detail herein. FIG. 2 is an exemplary screen shot corresponding to the blocks (100, 102, 104, 106, 108) provided in FIG. 1. Further information pertaining to the system and method according to the present invention can be found in the following document: WEB C&A™ 2001 User Guide DITSCAP/NIACAP, dated August 27, 2001 (available from Xacta Corporation, Ashburn, VA), which is incorporated herein by reference in its entirety.

FIG. 3 shows an exemplary access control screen shot (e.g., for access to some or all aspects of the present invention as indicated above). Each user can optionally be required to input a valid user name and password, which provides them with access to only the information for which they are responsible. The system can also optionally exclude the password and access feature, providing users access to a set of predetermined and/or default information.

Information Gathering

FIGs. 4-5 show selected exemplary screen shots of aspects of the information gathering 100 process. Specifically, FIG. 4 shows project definition information, which is assumed to have been selected by tab 402. Fields such as project name 430, project version 432, project acronym 434, project description 436, department 438, and service 440 can be provided as being part of the project definition. The project name 430 field is preferably a read-only field, provided for information only. The project version field 432 enables the numeric version of the system undergoing C&A to be entered, if applicable. The project acronym field 434 is optionally used to provide an acronym for the project. The project description field 436 can be used to provide a detailed description of the project (e.g., mission statement, function, features, and/or capabilities of the system being accredited). The department field 438 can be used to identify the Government (or civilian) department under which this system is being accredited. As shown, the current choice is DoD. The service field 440 is used to identify the Service/Agency under which this system is being accredited. As shown, the current choices are Army, Navy, Marine Corps, Air Force, OSD, and Other. Each of the above-identified fields can be tailored to suit a particular need and/or application.

FIG. 5 shows how a user can select, via a conventional pulldown menu, either civilian or DoD service from field 438. As disclosed in Application Serial No. 09/794,386, other menus can be provided that, for example, enable a user to select a military service branch (e.g., Army, Air Force, Marine Corps, OSD, or other), and to input Information Technology Security (ITSEC) parameters (that can pertain to, for example, interfacing mode, processing mode, attribution mode, mission-reliance factor, accessibility factor, accuracy factor, information categories, system class level, and certification analysis level, as explained in DoD Instruction 5200.40) of the system being accredited. In addition, as

disclosed in Application Serial No. 09/794,386, menus can also be provided that allow a user to, for example, select a security level (e.g., secret, unclassified, sensitive, etc.) and related information, and/or provide context sensitive help.

FIG. 6, shows a high level system diagram that provides an overview of the target system assessment aspect 600 (hereinafter system 600) and an associated network or target system 612 according to at least some embodiments of the present invention. As used herein, a network can be defined as two or more objects that are directly or indirectly interconnected. Referring now to FIG. 6, a network interface 608 provides an interface to one or more networks 612 having one or more network devices 614a-n operatively connected thereto. The network interface 608 can be a conventional RJ-11 or other similar connection to a personal computer or other computer that facilitates electronic interchange with the network 612.

Network Discovery Engine

As shown in FIG. 7, at least some embodiments of the present invention contemplate that the network discovery engine 606 comprises three separate modules: a network scanner 702, a host profiler 704, and a profile integrator 706. As will be discussed in further detail herein, the network discovery engine 606, via the network interface, collects information such as IP Address, hostname, media access control (MAC) address, operating system (OS), and OS version for one or more network devices (e.g., 614a-n).

Network Scanner

The network scanner 702 scans a network segment 614 (comprised of network devices 614a-n) and reports the results to a network scan file 708 (e.g., a text file). Network devices 614a-n can be any devices that, for example, have an Internet Protocol (IP) address associated therewith (or that have some other mechanism by which the devices/components can be identified). The network scanner 702 can scan through a specified range of IP addresses associated with each respective network device 614a-e within the network segment 614.

The network discovery engine 606 can utilize conventional network topology discovery techniques such as transmission control protocol (TCP)/user datagram protocol (UDP) port interrogation, and/or simple network management protocol (SNMP) queries, and receive network configuration information provided by such technique(s). Network topology information can optionally be manually added via the user interface 602. Upon entering or providing one or more IP address (e.g., a range of IP addresses), the host name of a network device 614a-n can be obtained by using, for example, a getHostName (or similarly named) function that will query a network device 614a-n for a host name. Functionally, the getHostName function can scan one or more domain naming service (DNS) servers internally and optionally over, for example, the World Wide Web to try and resolve the IP address (i.e., match the IP address with its respective host name). In the case of a MAC address, the

initial sweep of, for example, a network segment 614 can have one or more Internet Control Message Protocol (ICMP) requests. One such request can be a "ping request." The packet returned from such a ping request can include, for example, the MAC address of the host device. Similarly, during a port sweep/interrogation, the OS family (e.g., Unix, Windows, etc.) and version can generally be determined. Regarding SNMP queries, if a queried network device 614a-n is SNMP enabled, additional information (e.g., device manufacturer, model, application software), etc. can generally be obtained. Finally, if a network device 614a-n utilizes (e.g., has installed thereon) an Enterprise Management (EM) software/system, the system 600 can scan the EM database (or an extract or portion thereof) associated with a particular network device 614a-n to obtain additional detailed information on each network device 614a-n in the IP range.

The network scanner 702 can obtain the following information relating to network devices 614a-e (which correspond to the network segment 614 under consideration): IP Address, hostname, media access control (MAC) address, operating system (OS), and OS version. This information can be written to a network scan text file 708. The MAC address, as used herein is a hardware address that uniquely identifies each node of a network. In IEEE 802 networks, for example, the Data Link Control (DLC) layer of the Open System Interconnection (OSI) Reference Model is divided into two sublayers: the Logical Link Control (LLC) layer and the Media Access Control (MAC) layer. The MAC layer interfaces directly with the network media. Consequently, each different type of network media requires a different MAC layer. On networks that do not conform to the IEEE 802 standards but do conform to the OSI Reference Model, the node address is called the Data Link Control (DLC) address.

Host Profiler

The host profiler 704 can produce a host profile file 710 (e.g., a text file) containing information such as hardware configuration, operating system and patch levels, installed software list, etc. Host profilers 704 can optionally be provided to accommodate different classes of hosts (e.g., Windows-based machines, UNIX-based machines, etc.). The host profile can be conventional enterprise management software developed by, for example, Tivoli Systems Inc., Austin Texas, or by Computer Associates International, Inc., Islandia, New York.

Using conventional system commands, operating system application program interface (API) calls, registry calls, etc., the host profiler 704 can determine information about the hardware configuration, operating system options, installed software, etc. of each network device 614a-e within a particular network segment 614. This information for each host 614a-e can be recorded in the host profile file 710. The data in the host profile file 710 can then be used to supplement the information about the respective host in the network scan file 708. A host profile text file 710 can contain information about more than one host.

Profile Integrator

The profile integrator 706 enables information from host profile file 710 to be added to an existing network scan file 708. The profile integrator 706 takes the data in one or more host profile text files 710 and integrates the data into an existing network scan text file 708.

Network Scan File

The network scan file 708 can utilize the conventional Microsoft .INI type file format. As will be appreciated by those skilled in the art, an .INI file is a file that contains startup information required to launch a program or operating system. In general, the network scan file 708, which can be an ASCII file, can identify particular network devices 614a-e by using the form <parameter>=<value>, where <parameter> is the name of the particular item of information, and <value> is the value of that item of information for the network device 614a-e under consideration. For example, as shown in FIG. 8 at 808a, the IPAddress = 192.168.0.10 indicates the identified host responded at the specified IP address.

As further shown in FIG. 8, the network scan file 708 can begin with a [Network] section 802 that describes the overall network being scanned. The network (e.g., network 612) name is Xacta, as indicated at 802a. Each network segment (e.g., 614) can be described by a [Segment] section 806. The network segment is called Office, as indicated at 807. At 806a, the network name Xacta is again provided. The Office segment has IP addresses in the 192.168.0.0-255 subnet, as indicated at 806b. The subnet was scanned twice: once on 12-01-2000, and once on 12-15-2000, as indicated at 806c and 806d, respectively.

A [Host] section 808, 810 can also be provided for each network device (e.g., 614a-e) within the network segment 614. The IPAddress 808a, MAC 808b, Hostname 808c, OS 808d, and Version 808e are the basic information collected by the network scanner 702. At 810, the information collected by the host profiler 704, which has been integrated into the network scan file 708 by the profile integrator 706, includes: IPAddress 810a, MAC 810b, Hostname 810c, OS 810d, and Version 810e, mfr 810f, model 810g, CPU 810h, CPU Qty 810i, CPU Speed 810j, RAM 810k, Disk Space 810l, and Software 810m-p. The host profile file 710 can use the same file format (e.g., .INI) as the network scan file 708. The profile integrator 706 can integrate one or more host profile files 710 with a network can file 708. Each [Host] sections (e.g., 810) can either have their own separate host profile files 710. Alternatively, two or more host sections 810 can be included in a host profile file.

FIG. 9 illustrates an exemplary schema 900 that can be used in conjunction with network discovery. As shown, the schema 900 comprises: platform categories 902 (comprising categories 902a-n), network 612 (comprising network devices 614a-n), and software inventory 906 (comprising application software programs/packages 906a-n).

Platform category elements 902a-n represent generic categories of equipment that lie within the accreditation boundary (e.g., network segment 614) that includes the components (e.g., network devices 614a-e) that are associated with the network segment 614 being accredited. Representative

platform categories can include desktop computer, laptop computer, mainframe computer, handheld device, hub, etc.. Platform categories generally represent typical configuration(s) of the network devices 614a-n that belong to a particular platform category. As used herein, an accreditation boundary can be defined as the network devices (e.g., 614a-e) that comprise the network segment 614 (or target system) being accredited. There can also be one or more devices that are associated with the network segment 614 being accredited, but that are outside of the accreditation boundary and thus not included in the accreditation. Equipment outside the accreditation boundary can include equipment/services as a DNS used to translate the host names to IP addresses.

With regard to platform category elements 902a-n, the typical office LAN might consist of the following platform categories: file server, mail server, network printer, router, switch, and workstation. Information about each platform category 902a-n can include hardware specifications (e.g., manufacturer, model, CPU, memory, etc.) and OS specifications (e.g., OS name, version, patches, etc.). Since the platform categories 902a-n are generic, and numerous actual network devices 614a-n generally exist, the hardware and OS specifications of a platform category 902a-n will represent the typical configuration expected of network devices that belong to a particular platform category (e.g., network devices 614a, 614b, 614c and 614i belong to equipment category 902b).

Network devices 614a-n represent actual pieces of equipment within the accreditation boundary. Each network device 614a-n belongs to one of the exemplary platform categories 902a-n, as discussed above. Upon assignment to a platform category 902a-n, each network device 614a-n can "inherit" (or is assumed to have) the generic information (e.g., hardware and OS specs) of its assigned category. A user, via user interface 602, can then optionally add, delete and/or edit information. Network devices 614a-n are assigned to a platform category (e.g., 902a) to facilitate test procedure generation, as will be discussed in further detail herein, particularly with regard to FIG. 17.

Software inventory elements 906a-n represent application programs (i.e., operating systems are not included). The system 600 can form an association between one or more software elements 906a-n and one or more platform category element 614a-n (e.g., an association is formed between software elements 906a, 906b, 906c and platform category 902a). When such an association is formed, the software is considered to be installed on all equipment in that platform category 902a-n. Similarly, the system 600 can form associations between a software element 906a-n and a network device 614a-n. Such an association indicates that the software is actually installed on the associated network device 614a-n, but that the software element is not necessarily installed on every network device in a given platform category 902a-n.

Network configuration information can also be manually entered into the system 600. For example, returning to FIG. 4, when project hardware tab 414 is activated, a menu as shown in FIG. 10 can be provided. The menu allows a user to, for example, edit information pertaining to the Platform Category 1002 via a Description field 1004. Information pertaining to the Estimated Quantity 1006, Test Strategy, and IP Address Range 1010 can be provided. As shown, the menu also allow a user

to edit hardware specs 1014 such as the Hardware Family, Manufacturer, Model, Serial Number, Location, etc.

Database Tables

At least some embodiments according to the present invention contemplate a database structure with at least the following tables that can be utilized to accommodate the network scanning and profiling features. The exemplary data dictionary disclosed herein provides additional details pertaining to the following tables.

WCA_ProjPlatCat Table – contains a row for each defined platform category.

WCA_ProjEquipInven Table – contains a row for each piece of equipment.

WCA_ProjSWInven Table – contains a row for each defined software element.

WCA_ProjPlatSW Table – contains a row for each defined association between a software inventory element and a platform category (for each project); each such association indicates that the software element is typically installed on members of the associated platform category.

WCA_ProjEquipSW Table – contains a row for each defined association between a software inventory element and an equipment inventory element (for each project); each such association indicates that the software element is actually installed on that particular piece of equipment.

WCA_OSSource Table – contains a row for each 'standard' operating system, including family (NT, UNIX, or Other), manufacturer, name, version, etc.

WCA_SWSource Table – contains a row for each 'standard' software application, including family (e.g. database, network OS, etc.), manufacturer, name, version, etc.

Certification and Accreditation Engine

As will be explained in further detail herein, once information has been collected (either manually or via an automated process, each as described above) pertaining to devices 614a-e belonging to the network segment 614, the certification and accreditation engine 614, can select compliance requirements/standards and test procedures applicable to the C&A under consideration. A user can also select requirements/standards and/or test procedures by using, for example, user interface 602.

Additional Information Gathering

Returning again to FIG. 4, when project personnel tab 408 is activated, a menu (not shown) can be provided that enables a user to enter information identifying all the project personnel associated with the accreditation effort. The personnel are preferably identified by the role, as discussed below, that they serve in the accreditation process. At least one entry for each role is preferably defined for the project.

For example, the following fields can be provided in a menu (not shown) subsequent to clicking the personnel tab 408:

- Role Name – The role associated with the accreditation team member. The available choices can be:

Accreditation Team Lead - The person in charge of the accreditation effort, usually the Project Manager.

Accreditation Team Member - All the members of the accreditation team (analysts, testers, etc.).

Certification Authority (CA) - Person in charge of the system certification.

Certification Authority POC - Point of Contact (POC) to the CA.

DAA - Designated Approving Authority. Person ultimately responsible for the accreditation of the system.

DAA POC - Point of Contact (POC) to the DAA.

ISSO - Information System Security Officer. Person responsible for the security implementation of the system being accredited.

- Organization Responsible - Organization responsible for the design and development of the system being accredited.
- Organization Responsible POC - Point of Contact to the Organization responsible.
- Program Manager - Program manager of the system being accredited.
- User Representative - Representative from the user community.
- Title – The title associated with the accreditation team member (Mr., Ms. or Dr., etc.)
- First Name – The first, middle initial, and last name of the accreditation team member.
- Office – The office (e.g., Office of the Assistant Deputy for Policy and Planning) of the accreditation team member.
- Office Designation – The office designation of the accreditation team member. For example, if the office is the Office of the Assistant Deputy for Policy and Planning, then the office designation may be ADS-P.
- Organization – An organization that is associated with the accreditation team member.
- Work Address – A work address if applicable for the accreditation team member (include city, state and zip code).
- Work Phone – A work phone number for the accreditation team member.
- Work Fax – A work fax number if applicable for the accreditation team member.
- Email Address – An email address if applicable for the accreditation team member.

When the project schedule tab 412 of FIG. 4 is activated, a screen can appear (not shown) that provides the capability to describe and store each project milestones for the system being accredited. Fields such as milestone title, milestone date, and milestone description can be provided.

When project hardware tab 414 is activated, a menu as shown in FIG. 10 can be provided. The menu allows a user to, for example, Edit/Delete H/W 472, enter various Platform Information 474, CPU information 476, and/or Memory/Storage Information 478. This information can be modified to reflect changes in system configurations throughout the information gathering requirements analysis and testing phases.

When project operating system 416 is activated, a menu (not shown) that enables a user to manually, in addition to or in lieu of the automated process heretofore, describe and store operating systems associated with the system hardware is provided. The ability to enter information pertaining to multiple operating systems (OS) on each hardware platform can be provided. Fields are provided to enable a user to enter information pertaining to the OS Name (e.g., Windows NT, AIX, HP UX, etc.), OS Type (e.g., NT, UNIX, etc.), OS Manufacturer (e.g., Microsoft, Hewlett Packard, IBM, etc.), OS Version (the numeric value of the operating system version), OS Options (a list of all OS options (if any) obtained for this platform), OS Patches (a list of OS patches (if any) that have been installed on the platform), OS Description (a detailed description of the operating system, possibly including the basic features, and any functions unique to the system being accredited).

When project application tab 418 is activated, a project application screen appears (not shown) that can provide the analyst with the ability to manually, in addition to or in lieu of the automated process described heretofore, describe and store applications associated with the system hardware/OS combinations. The following exemplary fields can be provided: Application Name (the name of the application), Application Type (the type of application on the system being accredited – e.g., database, office automation, e-mail server, etc.), Application Manufacturer (the name of the application manufacturer), Application Version (the numeric version of the application), Application Options (a list of the options associated with the application (if any)), Application Patches (a list of the patches associated with the application), and Application Description (a detailed description of the application).

When system interfaces tab 420 is activated, a menu (not shown) is provided that provides the user the ability to describe and store the flow of information into and out of the accredited system. The system interfaces entries can describe each of the internal and external interfaces identified for the system. The following exemplary fields can be provided: Interface Name (an internal or external name associated with the system interface), and Interface Description (a detailed description of the internal or external system interface, which preferably includes a statement of the significant features of the interface as it applies to the entire system, as well as a high level diagram of the communications links and encryption techniques connecting the components of the information system, associated data communications, and networks).

When system data flow tab 422 is activated, a menu (not shown) is provided that can provide the user the ability to describe and store the flow of information within the accredited system. System data flow entries can describe the flow of information to each of the external interfaces identified for the system. The following exemplary fields can be provided: Data Flow Short Name (a brief user-

defined name associated with the system data flow), and Data Flow Description (a detailed description of the data flow associated with the external interface, which preferably includes a statement of the purpose of the external interface and the relationship between the interface and the system, as well as the type of data and the general method for data transmission, if applicable).

When accreditation boundary tab 424 is activated, a menu (not shown) that provides the user with the ability to describe and store the identification of components that are associated with the system being accredited, but are outside of the accreditation boundary (i.e., not included in the accreditation). This category might include such equipment/services as, for example, a domain naming service (DNS) used to translate the host names to IP addresses. The DNS might not be part of the atomic system being accredited, but is required for most communication activities. The following exemplary fields can be provided: Accreditation Boundary Name (a name associated with the external system component), and Accreditation Boundary Description (a detailed description of the external system component, which preferably includes the function that this component/service provides the system being accredited and its relationship to the system).

When project threat tab 426 is activated, a menu (not shown) appears that provides the user the ability to quantify the threat environment where the system is intended to operate. If the system is targeted to operate in multiple locations, the environmental condition that results in the higher or highest level of risk can be selected. The following exemplary fields can be provided: Location (CONUS (CONtinental US) or OCONUS (Outside CONtinenal US) as the primary operating location for the system), System Communications (the primary means of information transfer to external systems, such as No LAN, Local LAN Only, SIPRNET (SECRET Internet Protocol Router Network), NIPRNET (Unclassified but Sensitive Internet Protocol Router Network), Internet, etc.), Connection (the types of connection – e.g., wireless, dial-up, or protected distribution system (PDS), etc.), Training Competency Level (e.g., administrator, maintenance personnel, user, etc.), Installation Facility (the operating environment of the system at its intended end site), Natural Disaster Susceptibility (e.g., fire, flood, lightning, volcano, earthquake, tornado, etc.), and Custom Components.

When project appendices tab 428 is activated, a menu (not shown) that provides the user the ability to identify external documents that are associated with the C&A is provided. These appendices can optionally include references to other documents, or consist of the contents of other documents that are accessible via a computer-implemented embodiment of the present invention. Representative appendices that may be derived are: System Concept of Operations, Information Security Policy, System Rules of Behavior, Incident Response Plan, Contingency Plans, Personnel/Technical Security Controls, Memoranda of Agreement, Security, Education, Training and Awareness Plan, and Certification and Accreditation Statement.

Tabs 402-428 can be activated in any order, and do not need to be activated sequentially. Also, each tab can be optionally customized to contain different, fewer, or additional fields relative to the

fields discussed above. Further, the tabs (402 – 428) can be arranged differently. Fewer or additional tabs can also be provided to suit a particular application or need.

Requirements Analysis

The system configuration captured in the step of block 100 of Fig. 1 is used as input for the determination of the requirements indicated by block 102. The process of editing and/or determining/selecting those requirements is shown in FIG. 11. In at least some embodiments contemplated by the present invention, the Requirements Analysis step is related to the Accreditation Type 404 and Project Security 406 information stored in the step indicated by block 100. In at least some embodiments, data is entered and saved in the Accreditation Type 404 and Project Security 406 fields provided before beginning the Requirements Analysis step indicated by block 102.

In an exemplary embodiment, a general purpose computer on which the present invention operates will have stored thereon or have access to a repository of security regulations and test procedures from various government and/or civilian departments, agencies, organizations, etc (e.g., such as those from DITSCAP). In step 1102 (FIG. 11a), and based at least in part on the information entered in step 100, pertinent regulations will be selected from this repository, upon which to build a security requirement traceability matrix (SRTM) for the C&A. The SRTM, as discussed above, can be a mapping of one or more test procedures to each individual requirement within a requirements document. Satisfactory completion of the respective one or more test procedures that can be mapped to each requirement is generally considered to render the requirement satisfied. However, the user has the flexibility to view and modify 1104 the SRTM as desired to meet the specific needs of the systems being accredited by, for example, adding and/or deleting one or more tests to/from the SRTM, and/or editing one or more of the test procedures to, for example, include additional testing requirements. If the user decides to modify a test procedure, the specified test procedure displayed 1106. The user can then modify and save the revised test procedure 1108. The user can then either end the editing process or continue to modify another security document 1110.

FIG. 12 shows an exemplary Generate Baseline SRTM screen shot. In at least some embodiments of the present invention, clicking the Requirements Analysis tab 1201 from the application menu will switch control to the Generate Baseline SRTM screen. As shown, FIG. 12 provides a menu that provides a list of pre-packaged (i.e., shipped with the application) regulations documents (1202 – 1222) for the user to select. Each regulations document (1202 – 1222) contains specific requirements, one or more of which may be utilized when performing the C&A. All unmarked check boxes (e.g., check boxes associated with documents 1202, 1206, 1210, 1212, 1214, 1216, and 1218) represent unselected Regulations Documents, and thus do not factor into the requirements analysis step 102 for the particular project under consideration.

After selections have been made, either by the user by, for example, clicking the appropriate boxes associated with documents (e.g., 1204, 1208, 1220 and 1224), and/or by the system, the

application will provide a Display SRTM screen as shown in FIG. 13. Additionally, FIG. 13 may display any optional user-defined requirements as determined at FIG. 12, 1226. FIG. 13 particularly shows pertinent portions of DoD 5200.5, selected in FIG. 12 (1208), that are applicable to the C&A at hand.

Testing

With the security requirements traceability matrix in place (a portion of which is illustratively shown in FIG. 13), the user proceeds to the testing step 104. In at least some embodiments of the present invention, user interfaces will be provided, in accordance with the steps shown in FIG. 14, for the user to have the system 600 generate one or more test procedures, and/or add and/or edit test plan information 1402, associate all the requirements to test procedures 1404, add and/or edit test procedures 1406, enter test results 1408, and/or publish test results 1410. Any of the above steps can optionally be repeated as needed, as indicated in decision step 1412. Each of these steps will be discussed in further detail herein.

An Edit Test Plan Information screen, corresponding to step 1402, is shown in FIG. 15. The exemplary input fields on the screen are Expected Date of Test 1502, Planned Location of Procedure 1504, Test Resources 1506, Test Personnel 1508, and Remarks 1510.

FIG. 16 is an Associate Requirements screen, corresponding to step 1404, which illustrates how a user can manually select a test procedure to associate it with at least one requirement selected. As indicated in the descriptive text block 1602, a user can select a source requirements document 1604. Upon clicking on the associate icon 1606, a list of test procedures (not shown) can be displayed. The user can then select one or more of the test procedures within the test procedure database (as discussed above) and associate it/them with the selected source document 1604. A user can also create a new security test and evaluation procedure (ST&E) 1608 or certification test and evaluation (CT&E) procedure1610, by clicking on the respective icon. After the user enters the respective CT&E and/or ST&E information into a form presented on a new menu (not shown), the user can save the procedure(s) and optionally associate the procedure(s) via the Associate icon, as described above. As discussed in Application Serial No. 09/794,386, the process described in FIG. 16 can also be automated.

Test Procedure Generation

The certification and accreditation (C&A) engine 604 can generate test procedures, corresponding to step 1406, in accordance with the method shown in FIG. 17. In an exemplary embodiment of the system 600, the C&A engine 604 receives network configuration information from the network discovery engine 606 and compare the network configuration information with approved hardware and/or software standards, which can advantageously provide a substantially continuous and dynamic risk management process.

The system 600 can select one or more tests associated with each standard, regulation, etc. selected as discussed with regard to FIG. 12. For each selected test 1702 and for each platform category 1704, the C&A engine 604 can determine whether there is a test strategy associated therewith 1706. For each given platform category 902a-n, test strategies can include, for example, test one network device 614a-n associated with the platform category, test some network devices 614a-n associated with that category, or test all network devices 614a-n associated with the platform category.

If there is not a test strategy associated with the platform category 902a-n currently under consideration, the process terminates 1718 without generating an instance of the test 1702 currently under consideration. If there is a test strategy associated with the platform category 902a-n currently under consideration, then a determination is made 1708 as to whether there are any network devices 614a-n associated with the platform category 902a-n selected at block 1704. If there are no network devices 614a-n associated with the platform category selected at block 1704, then one test procedure can be generated 1710 for the test category. The test procedure generated can be a generic test procedure that would cover all or substantially all of any network devices 614a-n that may be added to the platform category in the future. If there is at least one network device 614a-n associated with the platform category selected at block 1704, a determination is made as to whether the network device is to be tested 1712. If no, the process ends 1718; if yes, a test procedure is generated for that equipment piece 1714. The test procedure that will be generated can depend upon the hardware configuration, operating system, and application programs for the particular network device 614a-n, as determined by business rules and/or decision logic within the certification and accreditation engine 604. Finally, a determination is made as to whether there is additional equipment 1716. If no, the process ends 1718; if yes, the process returns to decision step 1712.

FIG. 18 is a screen illustrating how a user can enter a new test procedure. As shown, the input fields on the screen are Test Title 1802, Category 1804, I, O, T, D (where I represents interview, O represents observation, T represents text, and D represents documentation review) 1806, Test Procedure 1808, and Expected Result 1810. If Associate 1812 is selected, then a new row is preferably created in the test procedure data base with the data entered in the input fields provided.

As previously discussed, the certification and accreditation engine 604 contains decision logic whereby test procedures can be intelligently selected for the C&A at hand by using the system information specified in step 100 and the requirements analysis step 102. As discussed above in the context of the SRTM, one or more test procedures within the test procedure database can be mapped to, linked with, and/or otherwise associated with each of the individual requirements within each respective requirements document (FIG. 12). As shown in FIG. 19, one or more of the test procedures intelligently selected by the present invention for the C&A at hand can be edited. In a preferred embodiment, the user will be able to edit any of fields 1802, 1804, 1806, 1808 and/or 1810. As disclosed in Application Serial No. 09/794,386, the user can also edit the test procedure once it has been entered.

FIG. 20A is a screen that enable a user to enter test results. As shown, at least some embodiments of the present invention contain the following exemplary columns: Category 2002, Test Title 2004, Operating System (OS) 2006, Hardware 2008, Test Procedure 2010 (which enables a user to view the details of the test procedure), Associate Requirements 2012 (which allows the user to view which requirements a particular test procedure is associated with), Enter Results 2014, Complete 2016 (which provides an indication of whether the test procedure has been completed), and Result 2018 (which provides an indication of whether the test procedure has passed or failed). (It should be appreciated, however, that various embodiments of the present invention contemplate that the present invention automatically initiates the test, and obtains the results, without the need for any additional manual entry steps).

FIG. 20B is an exemplary screen that appears when the Enter Results 2014 icon is pressed that is associated with a particular test procedure. For example, in FIG. 20A, if icon 2014a is pressed, the a screen appearing similar in format to FIG. 20B will appear with the Test Title 1802 corresponding to the test contained in row 2002a of FIG. 20A (e.g., Cannot Log On Directly as Root from Remote System/Terminal). As shown, the Test Title 1802, Category 1804, Equipment Under Test 1901, I, O, T, D 1806, Test Procedure 1808 and/or Expected Result 1810 and fields also preferably appear within this screen. Also, Result field 2020 appears, which allows the user to enter the test result (e.g., pass or fail). Tester field 2022 enables the tester to provide his name, and Date 2024 that the test was conducted. Finally, the tester is able to enter any Notes pertaining to the test 2026.

Risk Assessment

Once the testing step 104 has been completed and the results recorded, the risk assessment step 106 commences, as indicated by sub-headings a-d below.

a) Generate Project Threat Profile (step 2102)

As shown in FIG. 21, at step 2102, at least some embodiments of the present invention generate a project threat profile, which is a score for each of the generic threat elements (e.g., fire, flood, hardware, power, software design error, etc.) as will be discussed in further detail herein. In at least some embodiments, the user performing the C&A is presented with a series of questions pertaining to the environment for which the C&A will be performed. (This information could also be obtained in an automated fashion using any number of known techniques). The present invention will then estimate the threat level based on the operators' answer. The value assigned to each of the generic threat elements is applicable to each test procedure associated with the particular system undergoing C&A. A user can optionally change any of the system determined threat element scores for one or more of the generic threat elements. Exemplary values for generic threat elements are as follows:

Threat Element Score	Interpretation
N	Threat element is not applicable to this project or has negligible likelihood of occurrence
L	Threat element has low likelihood of occurrence for this project
M	Threat element has medium likelihood of occurrence for this project
H	Threat element has high likelihood of occurrence for this project

For example, generic threat elements 1-29, as defined in FIG. 22, may have a project threat profile as follows:

MHNLLLLMMMMMLLLMMMMLLLLLLLNN

corresponding, respectively, to elements 1-29. For this project threat profile, the threat of a flood is thus considered high.

FIG. 23 shows an exemplary Threat Environment screen, which shows the calculated level of risk based on the information that was provided in step 100. As per at least some embodiments, the present invention automatically calculates the risk, which is indicated under the Calculated Value 2302 heading. This could be accomplished in any number of ways based upon data obtained during the current and/or testing phase, as indicated above. The User Defined Value 2234 preferably defaults to the corresponding Calculated Value 2302 for a given threat environment element (e.g., 1, 2, 3, etc.). However the user/analyst has the opportunity to optionally override the calculated risk rating by clicking on the User Defined Value 2204 for each corresponding threat element. As previously discussed, exemplary available choices are negligible, low, medium, or high, although they could also be, e.g., numerical in nature.

b) Threat Correlation String (step 2104)

In step 2104, a threat correlation for each failed test procedure is accessed. Specifically, each test procedure used in the C&A for the system being evaluated is, in at least some embodiments of the present invention, coded with a threat correlation string, with each character in the string representing one of the generic threat elements in the same order as they exist in the project threat profile as shown, for example, in FIG. 22. The test procedure database preferably contains these codes. Each character in the threat correlation string contains a score that indicates the relative potential of a given threat to exploit a vulnerability caused by failure of this particular test. An exemplary scoring system is as follows:

Threat Correlation Score	Interpretation
N	Threat element is not applicable to this vulnerability (or has negligible potential to exploit it)
L	Threat element has low potential for exploit of this vulnerability
M	Threat element has medium exploit potential for this vulnerability
H	Threat element has high exploit potential for this vulnerability

Thus, for example, failure of a particular test may mean that the system being tested is highly vulnerable to Floods. To indicate this, the character in the threat correlation string corresponding to Floods would contain a score of "H."

c) Determine Risk Profile for Each Failed Test Procedure (step 2106)

As indicated at step 2106, the risk profile for each test procedure is determined. Specifically, for each test failure, the threat correlation string contained within each test procedure, as determined at step 2104, is applied against the project threat profile as determined at step 2102.

For example, the project threat profile above, given as:

MHNLLLLMMMMMLLLMMMMLLLLLLLLNN

may have a test procedure with the following threat correlation sting:

HHNMHLMNHHHMLNNNHLMLHNNLHHLMH

In this case, in accordance with an exemplary process according to at least some embodiments of the present invention, the combined risk profile string as determined in accordance with FIG. 24 would be:

MHNLMLLNMMMMLLLNMLMLMLLMMLNN

For a given row of FIG. 24, and given the first two values contained in the first two columns corresponding to that row, we have discovered and determined that the values contained in the third column of the row can be used a measure or risk.

The highest risk level in the combined string for a given test procedure is preferably used as the risk level for the failure of that test procedure. Thus, for the combined string above, the risk level for a failure of the test procedure is high, since there is an H in the second position. Similarly, if M were the highest risk level that appears in a combined string, then the risk level for a failure of that test procedure would be medium, etc.

d) Determine Overall System Level Risk (step 2108)

In addition to the individual risk level scores for each test failure as determined in step 2106, an overall risk level for the project is also determined as indicated by step 2108. As shown in FIG. 25, in at least some embodiments, of the present invention, the overall system risk level is defined as the highest of the individual risk elements. Thus, if it is determined that any element in the risk profile associated with the failure of any given test procedure is "high" (as indicated by decision block 2502), then the overall risk for the system is high as indicated by a block 2504. If the risk profile associated with the failure of any given test procedure is "medium" (as indicated by decision block 2506), then the overall risk for the system is medium as indicated by a block 2508 when no high risk test failures are present. If the risk profile associated with the failure of any given test procedure is "low " (as indicated by decision block 2510), then the overall risk for the system is low when no high risk or medium risk failures are present, as indicated by a block 2512. If the risk profile associated with the failure of any given test procedure is "negligible" then the overall risk for the system is negligible, as indicated by a block 2514, when no high risk, medium risk, or low risk failures are present. The user also can have the ability to override the overall system risk level as determined in accordance with the above methodology. In such a case, the user will also be able to optionally provide explanatory text to accompany the overall user-defined system risk level.

Publishing

In the publishing step 108, the present invention collates the results of the certification process and optionally generates the documents needed for accreditation. The present invention takes the information gathered during the steps corresponding to blocks 100, 102, 104 and 106, and reformats the information by, for example, organizing it into to appropriate documents, document subsections or subparagraphs, sections and/or appendices, etc.

As shown in FIG. 26, the invention allows a user to select a document or subsection thereof for publishing 2602, and to optionally input and/or review the information thereof 2604. As shown in FIG. 27, to view the document subsection thereof, the user simply clicks on the section name 2702. As shown in FIG. 28, the user can then edit the selection subsection 2702. The user can optionally edit, input information, or review the existing text 2604 or add to it, or even upload graphics if desired to further customize the final document. If the user chooses to publish the document or subsection under consideration 2606, the publishing function 2808, as shown in FIG. 29, can also, as previously discussed, generate any Appendices desired by the user and/or required by, for example, the DITSCAP (DoD Instruction 5200.40). At decision step 2810, the process can either be repeated for another document or subsection, or terminated. Fig. 30 shows an exemplary screen shot that enables a user to publish 2902 the acronym list 2902 selected in FIG. 29. The present invention also contemplates that accreditation can be automated, so that no accreditation agency is needed. In this embodiment, when

sufficient test related results and/or information is provided to the computer 3102, the method according to the present invention can automatically determine that accreditation requirements have been satisfied.

Work Product Manager

At least some embodiments of the present invention provide a "front end" (called Work Product Manager (WPM)) that, inter alia, allows a user to customize a C&A and/or add workflow functionality to the C&A process. By using the WPM, work products (a unit of work) can be defined. Each one of these work products can, for example, be opened, submitted, and approved by a user (e.g., an analyst). When one of these events takes place, an e-mail or other electronic notification can be sent to the appropriate user(s). The present invention thus provides an e-mail Notification Setup Graphical User Interface (GUI) that enables users to define and enter, for example, Role/Title, Users, and work product notifications in support of the e-mail notification functionality.

In accordance with at least some embodiments of the present invention, the WPM provides, for example, electronic control and authorization of access to documents, notification of designated individuals when a predefined event occurs, document approval, tracking, status reporting, and tracking of edits and/or document revisions. The WPM of the present invention also advantageously provides for the revision, approval, and release of documents in a collaborative environment. In addition, the WPM of the present invention also can help ensure that published content (e.g., a C&A report or portion thereof) is accurate and timely, providing for the automated document release and/or user notification for time-sensitive documents or content.

The WPM enables users to define a Work Breakdown Structure (WBS) (collection of units of work) that resemble a company's best practices. WPM provides a GUI that can be used to notify users when the state of a Work Product changes.

The following terms and associated definitions associated with the WPM are provided:

Process Step (PS): A unit of work that normally corresponds, for example, to a screen display.

Work Product (WP): A unit of work within WPM that consists, for example, of one or more PSs.

Work Breakdown Structure (WBS): A set of WPs that can comprise the complete work flow for a project (e.g., a C&A).

Submittal: When work is completed on a WP, an analyst with appropriate permission can submit it for approval. Submittal can also lock the information in the WP so no further change can take place.

Approval: An analyst with appropriate permission can approve a submitted WP. In accordance with at least some embodiments of the present invention, when a WP is approved, its content preferably remains locked. Subsequent WPs may then become available for work.

Disapproval: An analyst with appropriate permission can disapprove a submitted WP. In accordance with at least some embodiments of the present invention, when a WP is disapproved, its content is unlocked so that further work may be done to complete it.

Prerequisite: WPs within a WBS can be set up with dependencies. In accordance with at least some embodiments of the present invention, any given WP may be configured so that it only becomes available for work when certain prerequisite WPs have been approved.

Reopening: An analyst with appropriate permission can reopen an already-approved WP if new information has become available and the WP must be revised. In accordance with at least some embodiments of the present invention, reopening preferably unlocks the information in the WP so that it may be revised. Subsequent WPs with dependencies may once again become unavailable for work.

FIG. 31 is an exemplary screen shot of the WPM that enables the addition of one or more organizations (e.g., a corporation (and/or one or more divisions and/or subsidiaries thereof), a non-profit organization (and/or one or more components thereof), government department or agency (and/or one or more portions thereof)), each of which can have, for example, one or more projects (e.g., a C&A) associated therewith. FIG. 31 thus conveniently enables one or more projects to be associated with one or more organizations (or portions thereof).

The WBS generally defines the process flow for the project. FIG. 31, associated with Site Administration tab 3101a, enables a system administrator, for example, to add an organization via button 3102. When button 3102 is selected, a subsequent screen(s) (not shown) appears that enables an administrator to enter information such as a customer ID 3106 and/or Organization 3108 name. A list of Users 3110 for the organization, existing organization Projects 3112, and Audit 3114 information (which can also be viewed by selecting tab 3101f) enables a user to select and/or search for a project name by, for example, entering the project name and/or other parameters associated with the project (e.g., the date that the project was created and/or worked on). A project name can also be entered via Projects 3112. The system can provide to the user, based upon the user entered data, any changes made, for example, to any project PSs and/or other information (e.g., Test Procedures). A complete list of all changes made to a project can be provided via Audit 3114 icon (and/or Audit tab 3101f). A list of Master Administrators who can, for example, add an organization can also be viewed via button 3104.

Once an organization has been added, Users 3110 associated with the organization can add a WBS by, for example, selecting the Project 3112 icon associated with the Organization 3108 of interest, which will take the user to an exemplary screen shot such as shown in FIG. 32. Via FIG. 32, a user can select one of the Add WBS buttons 3204, as will be explained in further detail with regard to FIGs. 33-36. Once an organization has been entered, information pertaining to the WBS (Work Breakdown Structure) 3208 and Publishing Format 3210 are preferably displayed. A user can also Edit 3212 and/or Delete 3214 a WBS once it has been entered.

Upon selecting one of the Add WBS buttons 3204, an exemplary display such as shown in FIG. 33 preferably appears, where a user begins the process of creating a tailored sequence of PSs. The user can enter a New WBS Name* 3304. The asterisk (*) can optionally be utilized to indicate to the user that data entry is mandatory. While creating a tailored sequence of PSs, the user can also optionally use either a predefined (e.g., shipped with the system) sequence of PSs, or base the new sequence of PSs of a sequence of tailored sequence steps that the user has previously defined. WBS A associated with each or any of the DITSCAP, NIACAP and/or Treasury/IRS methodologies can therefore be a predefined sequence of PSs, whereas WBS B associated with each or any of the DITSCAP, NIACAP and/or Treasury/IRS methodologies can be a tailored sequence steps that the user has previously defined. Any number WBSs that use either predefined or tailored sequence steps can be associated with each of the DITSCAP, NIACAP and/or Treasury/IRS methodologies. This feature of the present invention advantageously allows a user to customize his own WBS, by utilizing an existing WBS to expedite the process.

In this regard, the user can select, for example, a predefined or user-tailored DISTCAP 3306, NIACAP 3308, or Treasury / IRS 3310 Work Breakdown Structure (WBS) upon which to base the WBS entered at 3304. Thus, if the user wants to model the WBS after one of the DITSCAP 3306, NIACAP 3308, or Treasury / IRS Work Breakdown Structures (e.g., WBS A 3312), the user could select one of the six shown WBSs (with two being shown under each of the DITSCAP 3306, NIACAP 3308, and Treasury / IRS 3310 WBSs). Alternatively, the user can create a new WBS that is not based on a DITSCAP, NIACAP, or Treasury / IRS WBS by selecting the OK button 3314 without selecting one of the six shown WBSs.

As shown in FIG. 34, once a WBS 3401 has been added, Work Products (WPs) for the WBS 3401 can be added by selecting one of the Add Work Product 3402 buttons. When an Add Work Product 3402 button is selected, an exemplary display such as shown in FIG. 35 appears, where a user can enter a Work Product Name 3504. The Available Process Steps are shown in window 3506, from which the user can select which Process Steps he wishes to associate with the Work Product Name 3504. The Selected Process Steps are shown in window 3508. The user can add process steps via window 3506 one at a time by selecting button 3514, or add all available process steps by selecting button 3518. Selected process steps can similarly be removed from window 3508 by clicking buttons 3516 and 3520, respectively.

The user can also select Prerequisite Work Products that are displayed in window 3510, which, when selected, are the WPs that must be completed before the Work Product entered at 3504 can begin. One or more prerequisite work products individually can be added via button 3522, whereas all prerequisite work products can simultaneously be added via button 3526. Prerequisite work products can be similarly removed by selecting buttons 3524 and 3528, respectively. Selections can be saved by selecting button 3530, canceled by selecting button 3532, and reset by selecting button 3534. Selecting cancel button 3532 can, for example, return the user to the previous screen, whereas selecting reset button 3534 can reset FIG. 35 to its default.

Returning now to FIG. 34, the user can enter a Description 3408 for a selected WP. By selecting an Edit icon 3410, the user will be returned to FIG. 35, where the WP can be edited. The user can also delete a WP by selecting the Delete 3412 icon associated with the WP that the user wishes to delete. The user can either save the WP(s) by selecting the Save 3404 icon, or cancel any changes by selecting the Cancel 3406 icon. Finally, the user can run an integrity check by selecting icon 3414, which will display a screen such as (but not necessarily the one) shown in FIG. 36.

FIG. 36 shows an illustrative user-defined workflow. As shown, WP Definition 3602 must be completed before starting the Requirements 3604 and Components 3606 WPs. The Requirements 3604 and Components 3606 WPs, in turn, must be completed before starting the Cert Level 3608 WP. The remaining listed WPs follow the same prerequisite pattern. FIG. 36 can be used by a user to ensure that prerequisites are properly defined, and to avoid a situation such as defining a project where two WPs are prerequisites for each other.

FIG. 37 is an exemplary screen shot that enables a user to add and/or edit information pertaining to Roles/Titles 3702 and/or Reactors (e.g., a user) for a particular Organization 3706. FIG. 37 can appear by selecting, for example, React tab 3101b. If a user selects the Roles/Titles icon 3702, he will preferably be taken to an exemplary screen such as shown in FIG. 38.

Exemplary roles can be, for example, at least one of: certification and accreditation analyst, computer security incident response capabilities representative, privacy advocates office representative, disclosure office representative, vulnerabilities office representative, technical contingency planning document representative, request for information system originator, owner of business system, certification and accreditation request for information system coordinator, critical infrastructure protection representative, system point of contact, principal accrediting authority, certification and accreditation administrator, and certification and accreditation chief.

With regard to FIG. 38, any Role(s) and/or Title(s) associated with the Organization 3706 are shown. Specifically, in FIG. 38, the Role/Title 3806 of Approver is shown, as is a Description 3808 of the Role/Title 3808. By selecting Edit icon 3810, the user can edit information pertaining to the Role/Title 3806 and/or Description 3808 thereof. By selecting the Delete 3812 icon, the user can delete a user-defined Role/Title (e.g., Approver). By selecting the Add Role/Title button 3804, the user will be advanced to an exemplary screen such as shown by FIG. 39.

FIG. 39 is an exemplary screen shot that enables a user to add a Role/Title. In order to define a Title*, the user must provide a role/title name in text box 3904. The asterisk (*) indicates that the field is mandatory. Other symbols and/or characters can also be used to designate mandatory fields. In the Description: text box 3906, the user can optionally enter a description of the Title (e.g., Approver). The user can save the results by selecting the Save button 3908. Selecting the Reset button 3910 can reset the screen, for example, to its default condition. Clicking Cancel button 3912 can return the user to, for example, the previous screen.

FIG. 40 is an exemplary screen shot that shows a reactor (e.g., user) associated with a particular organization. The First Name 4004, Last Name 4006, Email 4008, Telephone 4010, and Title 4012 of each user is displayed. Additional or less information for each user can also be displayed. By selecting Edit icon 4014, the user can edit information pertaining to a reactor. By selecting the Delete 4016 icon, the user can delete a reactor (e.g., Robert Jones). By selecting the Add Reactor button 4002, the user will be taken to an exemplary screen such as shown by FIG. 41, which allows a user to add a reactor. Via text boxes 4104, 4106, 4108 and 4110, a user can add information pertaining to the reactor's First Name, Last Name, Email, and Telephone, respectively. Via, for example, pull down menu 4112, the user can also associate a title/role with the reactor. As previously discussed, roles/titles can be defined, for example, via FIG. 39. As previously noted, an asterisk (*) next to a field name (e.g., First Name*) indicates that the user must provide information associated therewith. The user can save the results by selecting the Save button 4114. Selecting the Reset button 4116 will preferably reset the screen to its default condition. Selecting the Cancel button 4118 can return the user to, for example, the previous screen.

FIG. 42 is an exemplary screen shot that allows a user to view projects and/or add a project. FIG. 42 can appear when a user, for example, selects Projects tab 3101c. To add a project, the use can select the Add Project button 4202, which will preferably take the user to an exemplary screen as shown in FIG. 43. Via text boxes 4302 and 4304, a user can add information pertaining to the Project Name*, and Description*, respectively. In one embodiment of the present invention, users can also be provided (by, for example, the assignor and/or licensor of the present invention) a Subscription Key* 4306, which can be used, for example, to unlock the application (e.g., the FIGs. described herein pertaining to, for example, screen shots). In at least some embodiments, a system administrator, for example, can assign a client/user a matching (e.g., paired) subscription key and organization, each of which must be correctly entered to gain access to the system. Similarly, a project name can also be associated with a subscription key. In addition, in accordance with at least some embodiments, the Subscription Key* 4306 can also encompass the expiration date (e.g., the date at which a user's and/or organization's access terminates), publishing format (e.g., DITSCAP, NIACAP, or Treasury / IRS), and department/services name (e.g., DoD/Navy, Treasury/IRS). Via the Status* field 4307, a user can designate whether the project is Active or Inactive. In accordance with at least some embodiments of the present invention, users can access at least a portion of one or more projects (e.g.,

one or more PSs) to which they have been granted user rights, whereas users (other than, for example, a system administrator) would not be granted access to any portion of a project having an inactive status. If a user selects the Copy from an existing project box 4308, the user can use another project as the baseline for the project currently being defined. The user can select the Reset button 4312, which will reset the screen to its default condition. Clicking Cancel button 4118 can return the user to, for example, the previous screen. If the user selects the Continue button 4310, the user can be advanced to, for example, a subsequent screen, such as shown in FIG. 44, which allows a user to select, for example, a project using either the DITSCAP Classic 4402 (generally associated with, for example, FIGs. 1-30) or DITSCAP Workflow 4404 methodology (generally associated with, for example, FIGs. 31-55).

FIG. 45 is an exemplary screen shot that allows a user to define project access for a given Project 4502 and WBS 4404 associated therewith. For each WP shown at 4501 (e.g., Definition, Requirements, etc.), the user can determine whether other users associated with the project can Read 4506, Write 4508, Submit 4512, or Approve 4514 each respective WP. If the user checks None 4510, other users will preferably not have access to any of the Read 4506, Write 4508, Submit 4512, or Approve 4514 functions. The user can save the results by selecting the Save button 4516. Selecting the Reset button 4518 will reset the screen to its default condition. Clicking Cancel button 4520 can return the user to, for example, the previous screen.

FIG. 46 is an exemplary screen shot, similar to FIG. 42, that shows two projects, the WPM Project and Project A. The Set Notifications 4208 icon, Project Analysts 420 icons, and Assign Analysts 4212 icons appear in accordance with how the projects have been defined. Specifically, the absence of a Set Notification 2408 icon for Project A indicates that no users associated with Project A will receive an electronic notification upon the occurrence of a predefined event.

FIG. 47 is an exemplary screen shot that allows a user to set project notification by selecting, for example, a Set Notification 4208 icon such as shown in FIG. 48. As shown in FIG. 47, notification can be set for each Work Product 4706. For example, by selecting the Set Notification 4708 icon associated with the WP Definition 4710, the user can be advanced to a screen such as shown in FIG. 48, which allows a user to view project notification for a particular user, and/or add additional notification parameters. As shown, the WP, which has been illustratively selected via FIG. 47, is Definition 4802. FIG. 48 shows that user Robert Jones will be notified (as indicated by the five Ys) when the WP Definition is opened by another user 4808, submitted by another user 4810, reopened by another user 4812, or disapproved 4816. In accordance with at least some embodiments of the present invention, the notifications shown in FIG. 48 (and other notifications generally) can be implemented by, for example, using state changes in the WP. For example, upon approval of a WP, state changes for the approved WP (and/or additional WPs) could trigger the opening of any successor WPs.

Selecting the Edit 4816 icon associated with a user (e.g., Robert Jones) will allow a user to edit the notifications for that particular user (e.g., change one or more Y to an N, which would indicate that

the user would not be notified upon the occurrence of the event for which no has been selected). A user can also delete all notifications for a user (e.g., Robert Jones) associated with a WP (e.g., Definition), by selecting the Delete icon 4820 for that particular user. If the user selects the Add Notification icon, he will preferably be advanced to a screen such as shown in FIG. 49.

FIG. 49 is an exemplary screen shot that allows a user to set notification parameters for a particular user. The WP Definition remains under consideration, as indicated at 4802. Via, for example, the pulldown menu at 4904, the user can select the Title (User)* for which he wishes to set notification(s) 4904. As shown at 4906, the user (e.g., Robert Jones) can either be notified, or not notified, when the WP Definition is Opened, Submitted, Re-Opened, Approved, or Disapproved. The user can save the results by selecting the Save button 4910. Selecting the Reset button 4912 will reset the screen to its default condition. Clicking Cancel button 4914 can return the user to, for example, the previous screen.

FIG. 50 is an exemplary flow diagram of the WPM process. At decision step 5002, the user determines whether to add a WBS. If no WBS is added, the process ends 5024. If the user decides to add a WBS, at decision step 5004 the user determines whether to base the new WBS on an existing WBS. If the user bases the new WBS on an existing WBS, the user selects an existing WBS at block 5006 (by, for example, FIG. 33). If the user does not base the new WBS on an existing WBS, the user indicates that an existing WBS will not be used (by for example, clicking on the OK button 3314 in FIG. 33 without selecting a DISTCAP 3306, NIACAP 3308, or Treasury / IRS 3310 WBS). At block 5010, the user adds one or more WPs to the WBS and, at decision step 5012, determines whether there will be any prerequisite WPs before beginning another WP. If, as discussed, for example, with regard to FIG. 35, there are prerequisite steps, the user adds the prerequisite steps at block 5014. If there are no prerequisite steps, or after block 5014, the user adds roles associated with the WBS (as discussed, for example, with regard to FIGs. 38-39). At block 5018, the user adds reactors to the WBS (as discussed, for example, with regard to FIGs. 40-41). At decision step 5020, the user determines whether any of the reactors need to be notified upon, for example, the opening, completion, or commencement of a WP. If it is determined that any of the reactors should be notified, the user sets user notification(s) (as discussed, for example, with regard to FIGs. 47-49). If no user notification is required, or after user notification is set at block 5022, the process ends 5024.

Computer Implementation

The techniques of the present invention may be implemented on a computing unit such as that depicted in FIG. 51. In this regard, FIG. 51 is an illustration of a computer system which is also capable of implementing some or all of the computer processing in accordance with at least some computer implemented embodiments of the present invention. The procedures described herein are presented in terms of program procedures executed on, for example, a computer or network of computers (as shown, for example, in FIG. 54).

Viewed externally, in FIG. 51, a computer system designated by reference numeral 5100 has a computer portion 5102 having disk drives 5104 and 5106. Disk drive indications 5104 and 5106 are merely symbolic of a number of disk drives which might be accommodated by the computer system. Typically, these could include a floppy disk drive 5104, a hard disk drive (not shown externally) and a CD ROM indicated by slot 5106. The number and type of drives vary, typically with different computer configurations. Disk drives 5104 and 5106 are in fact optional, and for space considerations, are easily omitted from the computer system used in conjunction with the production process/apparatus described herein.

The computer system 5100 also has an optional display 5108 upon which information, such as the screens illustrated in, for example, FIGs. 4-10, etc. may be displayed. In some situations, a keyboard 5110 and a mouse 5112 are provided as input devices through which input may be provided, thus allowing input to interface with the central processing unit 5102. Then again, for enhanced portability, the keyboard 5110 is either a limited function keyboard or omitted in its entirety. In addition, mouse 5112 optionally is a touch pad control device, or a track ball device, or even omitted in its entirety as well, and similarly may be used as an input device. In addition, the computer system 5100 may also optionally include at least one infrared (or radio) transmitter and/or infrared (or radio) receiver for either transmitting and/or receiving infrared signals.

Although computer system 5100 is illustrated having a single processor, a single hard disk drive and a single local memory, the system 5100 is optionally suitably equipped with any multitude or combination of processors or storage devices. Computer system 5100 is, in point of fact, able to be replaced by, or combined with, any suitable processing system operative in accordance with the principles of the present invention, including hand-held, laptop/notebook, mini, mainframe and super computers, as well as processing system network combinations of the same.

FIG. 52 illustrates a block diagram of the internal hardware of the computer system 5100 of FIG. 51. A bus 5202 serves as the main information highway interconnecting the other components of the computer system 5100. CPU 5204 is the central processing unit of the system, performing calculations and logic operations required to execute a program. Read only memory (ROM) 5206 and random access memory (RAM) 5208 constitute the main memory of the computer 5102. Disk controller 5210 interfaces one or more disk drives to the system bus 5202. These disk drives are, for example, floppy disk drives such as 5104 or 5106, or CD ROM or DVD (digital video disks) drive such as 5212, or internal or external hard drives 5214. As indicated previously, these various disk drives and disk controllers are optional devices.

A display interface 5218 interfaces display 5208 and permits information from the bus 5202 to be displayed on the display 5108. Again as indicated, display 5108 is also an optional accessory. For example, display 5108 could be substituted or omitted. Communications with external devices, for example, the other components of the system described herein, occur utilizing communication port 5216. For example, optical fibers and/or electrical cables and/or conductors and/or optical

communication (e.g., infrared, and the like) and/or wireless communication (e.g., radio frequency (RF), and the like) can be used as the transport medium between the external devices and communication port 5216. Peripheral interface 5220 interfaces the keyboard 5110 and the mouse 5112, permitting input data to be transmitted to the bus 5202.

In alternate embodiments, the above-identified CPU 5204, may be replaced by or combined with any other suitable processing circuits, including programmable logic devices, such as PALs (programmable array logic) and PLAs (programmable logic arrays). DSPs (digital signal processors), FPGAs (field programmable gate arrays), ASICs (application specific integrated circuits), VLSIs (very large scale integrated circuits) or the like.

In general, it should be emphasized that the present invention can be implemented in hardware, software or a combination thereof. In such embodiments, the various components and steps would be implemented in hardware and/or software to perform the functions of the present invention. Any presently available or future developed computer software language and/or hardware components can be employed in such embodiments of the present invention. For example, at least some of the functionality mentioned above could be implemented using Visual Basic, C, C++, or any assembly language appropriate in view of the processor(s) being used. It could also be written in an interpretive environment such as Java and transported to multiple destinations to various users.

One of the implementations of the invention is as sets of instructions resident in the random access memory 5208 of one or more computer systems 5100 configured generally as described above. Until required by the computer system, the set of instructions may be stored in another computer readable memory, for example, in the hard disk drive 5214, or in a removable memory such as an optical disk for eventual use in the CD-ROM 5212 or in a floppy disk (e.g., floppy disk 5302 of FIG. 53) for eventual use in a floppy disk drive 5104, 5106. Further, the set of instructions (such as those written in Java, HyperText Markup Language (HTML), Extensible Markup Language (XML), Standard Generalized Markup Language (SGML), and/or Structured Query Language (SQL)) can be stored in the memory of another computer and transmitted via a transmission medium such as a local area network or a wide area network such as the Internet when desired by the user. One skilled in the art knows that storage or transmission of the computer program medium changes the medium electrically, magnetically, or chemically so that the medium carries computer readable information.

FIG. 54 is an exemplary network implementation of (and/or utilized by) at least some embodiments of the present invention. As shown, one or more computer systems 5100 can be operationally connected to a network 5401 such the Internet, a LAN, WAN, or the like. The network implementation of at least some embodiments of the present invention enables two or more users to collaboratively work, via the network 5401, on one or more C&As. The computer portion 5102a comprises a WEB C&A component 5402 (generally corresponding, for example to FIGs. 1-30) and a Work Product Manager (WPM) component 5405 (generally corresponding, for example, to FIGs. 31-

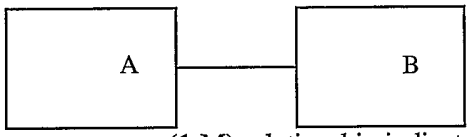
55). WEB C&A component 5402 and WPM component 5404 are shown separately to indicate that the WPM is an optional aspect of the WEB C&A component, and is not required for the operation thereof.

FIG. 55 shows an alternative structure of WEB C&A component 5402 and WPM component 5404. Specifically, the WEB C&A component 5402 and the WPM component can be combined into a single module 5502. Module 5502, in turn, can comprise process step module 5504, test procedure module 5506, threat element score generation module 5508, risk assessment module 5510, and printing module 5512. In accordance with at least some embodiments of the present invention, process step module 5504 enables the user to choose one or more of the plurality of predefined process steps pertaining to collecting information descriptive of at least one aspect of the target system hardware and/or software, and/or a physical environment in which the target system operates. In accordance with at least some embodiments of the present invention, test procedure module 5506 enables the system and/or user to select at least one test procedure against which the target system is tested to satisfy at least one predefined standard, regulation and/or requirement. In accordance with at least some embodiments of the present invention, threat element score generation module 5508 generates a score for each of a plurality of threat elements, each score indicating a likelihood of that threat element affecting and/or impacting the target system. In accordance with at least some embodiments of the present invention, risk assessment module 5510 obtains a threat correlation indication associated with the one or more test procedures, and determines a risk assessment by comparing each score generated by threat element score generation module 5508 with a corresponding threat correlation indication. The threat correlation indication indicates a relative potential of one or more given threats to exploit a vulnerability caused by a failure of said at least one test procedure. Finally, in accordance with at least some embodiments of the present invention, printing module 5512 can be used to print a documentation package that will enable a determination to be made whether the target system complies with the at least one predefined standard, regulation and/or requirement. Of course, it should be understood that the present invention contemplates other configurations of modules, and is not limited to the specific structural implementation noted above. For example, the modules do not necessarily have to have the discrete or "bright line functionality" as discussed above; that is the modules may predominately have the functionality as described, but also include some functionality of another module or modules (e.g. process step module 5504 may, in certain embodiments, include a portion of the functionality of, for example, the test procedure module 5506 and/or the threat element score generation module).

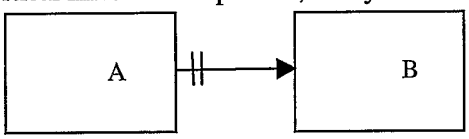
FIG. 56 is an entity relationship diagram (ERD) that describes the attributes of entities and the relationships among them, and illustrates the basic data abstraction of an embodiment of the system. As known to those skilled in the art, an ERD is a conceptual representation of real world objects and the relationships between them. It defines information that the systems create, maintain, process, and delete, as well as the inherent relationships that are supported by the database (i.e., data store).

At least some embodiments of the present invention can utilize a relational database to store and organize all information such as, for example, test procedures, standards/regulations, and user entered information. The design of an embodiment of the database is provided in the ERD shown in FIG. 56. The database is initially populated with security requirements, test procedures and related information to facilitate the operation of the system. As information is entered by the user and calculated by the system, it is also recorded in the database. At least some embodiments of the present invention produce output documentation that can be formatted in accordance with, for example, DITSCAP and/or NIACAP standard(s).

The ERD shown in FIG. 56 uses conventional notation. Each entity, as shown in FIG. 56, comprises a rectangular box. A one-to-one (1:1) relationship indicates that each occurrence of entity A is related to only one of entity B and each occurrence of B is related to only one occurrence of A. A 1:1 relationship is indicated by a single line connecting two entities.

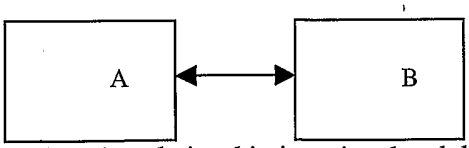


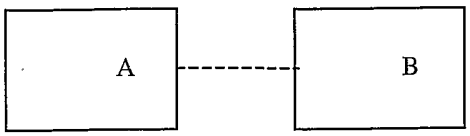
A one-to-many (1:M) relationship indicates that each occurrence of entity A is related to one or more occurrences of entity B, but each occurrence of entity B is related to only one occurrence of entity A. The two vertical lines shown below indicate that entity A is associated only with entity B. If the two vertical lines are not present, entity A can be associated with two or more entities (e.g., B, C and/or D).



A many-to-many (N:M) relationship shows that each occurrence of entity A is related to one or more occurrence ity B, and each occurrence of entity B is related to one or more occurrences of entity A.

If there can be occurrences of one entity that are not related to at least one occurrence of the other entity, then the relationship is optional and this is shown by the use of a dashed line.





As known to those skilled in the art, a data dictionary, as provided below, defines and specifies the data elements in the system. The data dictionary shown below can be used either as a stand-alone system or as an integral part of the database. Data integrity and accuracy is better ensured in the latter case.

An instance of an entity shown in FIG. 56 will represent one or more lines associated with the Table column in the data dictionary provided below (i.e., an entity shown in FIG. 56 can have many data items/attributes). These data items, representing an attribute of each respective entity to which it belongs, are shown in each line of the data dictionary. The data dictionary also provides the DataType (e.g., varchar, bit, decimal, char, text, int, etc.), and Length (in characters) of the field. The Precision column is applicable only to numerical data and represents the maximum number of significant digits. The Null column indicates whether the field defaults to a null value. FIGs. 56 and the data dictionary can be used to produce, for example, the SQL code required to create the data structures in the database.

The tables below provides an exemplary data dictionary that can be used with the ERD of FIG. 56.

Table Report

Database summary

Target DBMS: Microsoft SQL Server
Number of tables: 104
Number of columns: 731
Number of indexes: 8
Number of foreign keys: 69
Last map date: 1/1/1970

Extended attributes:
PRIMARY

Tables	Columns	Indexes	Foreign keys	Notes
WPM_WPSrc	5	0	0	
WPM_WPPrereqSrc	3	0	0	
WPM_WBSSrc	5	0	0	
WPM_StateTranLkp	3	0	0	
WPM_State	2	0	0	
WPM_PSSrc	7	0	1	
WPM_ProjXEE	6	0	1	
WPM_ProjWPHistory	7	0	1	
WPM_ProjWP	6	0	1	
WPM_ProjPS	7	0	2	
WPM_ProjPrereq	3	0	1	
WPM_ProjEventRules	4	0	1	
WPM_ProjDefPerm	3	0	1	
WPM_ProjAnalystPerm	4	0	2	
WPM_OrgWP	6	0	1	
WPM_OrgWBS	5	0	1	
WPM_OrgPS	8	0	1	
WPM_OrgPrereq	4	0	1	
WPM_OrgEventRules	5	0	1	
WPM_EventRulesSrc	4	0	0	
WCA_TestProcSrc	17	0	0	
WCA_SysUserCategory	3	0	0	
WCA_SWSource	7	0	0	
WCA_SwFamilyLookup	4	0	0	
WCA_StaticLookup	1	0	0	
WCA_StaticLkpDtl	3	0	1	
WCA_Stages	2	0	0	
WCA_SecRqmtSrc	13	0	1	
WCA_SecReqCritQ	3	0	0	
WCA_SecRegSrc	13	0	1	
WCA_RiskLvlCode	2	0	0	
WCA_RiskDetermin	3	1	1	
WCA_PublishFmt	2	0	0	
WCA_ProjUserAccess	4	0	2	
WCA_ProjUser	2	0	1	
WCA_ProjThreatEnv	21	0	1	
WCA_ProjTestProc	34	0	1	
WCA_ProjSysThreat	5	0	1	
WCA_ProjSystemUser	8	0	1	
WCA_ProjSysLvlRisk	4	0	1	

WCA_ProjSysInterf	4	0	1
WCA_ProjSWInven	9	0	0
WCA_ProjRqmt	23	1	1
WCA_ProjRiskElem	18	0	1
WCA_ProjReference	12	0	1
WCA_ProjPlatSW	3	0	1
WCA_ProjPlatCat	30	0	1
WCA_ProjPersonnel	19	0	1
WCA_ProjParaFig	9	0	1
WCA_ProjMilestone	6	0	1
WCA_ProjFileData	4	0	1
WCA_ProjFile	6	0	1
WCA_ProjEventStatus	7	0	1
WCA_ProjEquipSW	3	0	1
WCA_ProjEquipInven	30	0	1
WCA_Project	21	1	1
WCA_ProjDocTTL	8	0	1
WCA_ProjDocPara	7	0	1
WCA_ProjDefinitions	4	0	1
WCA_ProjDefAccess	3	0	2
WCA_ProjDataFlow	4	0	1
WCA_ProjConTestRes	23	1	1
WCA_ProjCleanStat	5	0	1
WCA_ProjCkListRes	4	0	1
WCA_ProjCharDtl	4	0	2
WCA_ProjAppdxFile	11	0	1
WCA_ProjAcronym	4	0	1
WCA_ProjAcBoundary	4	0	1
WCA_PageAttrs	6	0	0
WCA_OSSource	7	0	0
WCA_OsFamilyLookup	4	0	0
WCA_OrgUser	2	1	1
WCA_Organization	3	0	0
WCA_MLSecClass	6	0	0
WCA_MinSeCkListSrc	6	0	0
WCA_MarkerLookup	4	0	0
WCA_LookupMgr	8	0	0
WCA_LevelDetermin	6	0	0
WCA_InfoCategory	5	0	0
WCA_HwFamilyLookup	4	0	0
WCA_HelpExampleSrc	13	0	0
WCA_DocTmplSrc	6	0	0
WCA_DocParaTTLSrc	6	0	0
WCA_DeptServCode	4	1	0
WCA_DefSecRegSrc	3	0	1
WCA_DefinitionSrc	5	0	1
WCA_ClassWeight	5	0	0
WCA_CharSrc	1	0	0
WCA_AuditObjects	4	0	0
WCA_AuditLog	19	0	0
WCA_ApplEventSrc	5	0	0
WCA_AppdxTTLSrc	5	0	0
WCA_AcronymSrc	5	0	1
UserRole	3	0	2
UserPwdHistory	3	0	1
TableKeys	3	0	0

RoleLogin	4	0	0
RCT_ProjWPActor	11	0	2
RCT_OrgTitleDefn	4	0	1
RCT_OrgActorDefn	7	0	2
InstallHistory	2	1	0
dtproperties	7	0	0
AppUser	8	1	0
AppProps	4	0	0

AppProps

Owner: dbo
Target DB name: WCA310_D
Number of columns: 4
Number of indexes: 0
Number of foreign keys: 0

Extended attributes:
OnFileGroup PRIMARY
Clustered PK Yes

Columns	Data type	Allow NULLs	Value/Range
PropName	varchar(255)	Not allowed	
PropVal	varchar(255)	Allowed	
AppName	varchar(20)	Not allowed	
PropDate	datetime	Allowed	

Column details

1. PropName
Physical data type: varchar(255)
Allow NULLs: Not allowed

2. PropVal
Physical data type: varchar(255)
Allow NULLs: Allowed

3. AppName
Physical data type: varchar(20)
Allow NULLs: Not allowed

4. PropDate
Physical data type: datetime
Allow NULLs: Allowed

AppUser

Owner: dbo
Target DB name: WCA310_D
Number of columns: 8
Number of indexes: 1
Number of foreign keys: 0

Extended attributes:

OnFileGroup PRIMARY
Clustered PK No

Columns	Data type	Allow NULLs	Value/Range
userID	decimal(18,0)	Not allowed	
userName (U1)	varchar(25)	Not allowed	
userPassword	varchar(50)	Not allowed	
firstName	varchar(20)	Allowed	
lastName	varchar(20)	Allowed	
phoneNumber	varchar(30)	Allowed	
pwdLastChanged	datetime	Allowed	
userEmail	varchar(50)	Allowed	

Indexes	Columns	Sort order
IX_AppUser_UserName (U1)	userName	Ascending

Foreign keys	Child	Parent
FK_UserPwdHistory_AppUser	UserPwdHistory.userID	userID
FK_UserRole_User	UserRole.userID	userID
FK_WPM_ProjAnalystPerm_AppUser	WPM_ProjAnalystPerm.userID	userID

Column details

1. userID
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

2. userName (U1)
Physical data type: varchar(25)
Allow NULLs: Not allowed

3. userPassword
Physical data type: varchar(50)
Allow NULLs: Not allowed

4. firstName
Physical data type: varchar(20)
Allow NULLs: Allowed

5. lastName
Physical data type: varchar(20)
Allow NULLs: Allowed

6. phoneNumber
Physical data type: varchar(30)
Allow NULLs: Allowed

7. pwdLastChanged
Physical data type: datetime
Allow NULLs: Allowed

8. userEmail
Physical data type: varchar(50)
Allow NULLs: Allowed

Index details

IX_AppUser_UserName
Column(s): userName (Asc)
Unique: Yes
Extended attributes:
OnFileGroup PRIMARY
CLUSTERED No
IGNORE_DUP_KEY No
FILLFACTOR 90
PAD_INDEX No
DROP_EXISTING No
STATISTICS_NORECOMPUTE No

dtproperties

Owner: dbo
Target DB name: WCA310_D
Number of columns: 7
Number of indexes: 0
Number of foreign keys: 0

Extended attributes:
OnFileGroup PRIMARY
TextImageOnGroup PRIMARY
Clustered PK Yes

Columns	Data type	Allow NULLs	Value/Range
id	int identity	Not allowed	
objectid	int	Allowed	
property	varchar(64)	Not allowed	
value	varchar(255)	Allowed	
lvalue	image	Allowed	
version	int	Not allowed	
uvalue	nvarchar(255)	Allowed	

Column details

1. id
Physical data type: int identity
Allow NULLs: Not allowed

2. objectid
Physical data type: int
Allow NULLs: Allowed

3. property
Physical data type: varchar(64)
Allow NULLs: Not allowed

4. value
Physical data type: varchar(255)
Allow NULLs: Allowed

5. lvalue
Physical data type: image
Allow NULLs: Allowed

6. version

Physical data type: int
Allow NULLs: Not allowed

7. uvalue
Physical data type: nvarchar(255)
Allow NULLs: Allowed

InstallHistory

Owner: dbo
Target DB name: WCA310_D
Number of columns: 2
Number of indexes: 1
Number of foreign keys: 0

Extended attributes:
OnFileGroup PRIMARY
Clustered PK No

Columns	Data type	Allow NULLs	Value/Range
InstallDesc (I1)	varchar(50)	Not allowed	
InstallDate (I1)	datetime	Not allowed	

Indexes	Columns	Sort order
IX_InstallHistory (I1)	InstallDesc	Ascending
	InstallDate	Ascending

Column details

1. InstallDesc (I1)
Physical data type: varchar(50)
Allow NULLs: Not allowed

2. InstallDate (I1)
Physical data type: datetime
Allow NULLs: Not allowed

Index details

IX_InstallHistory
Column(s): InstallDesc (Asc)
InstallDate (Asc)
Unique: No
Extended attributes:
OnFileGroup PRIMARY
CLUSTERED No
IGNORE_DUP_KEY No
FILLFACTOR 0
PAD_INDEX No
DROP_EXISTING No
STATISTICS_NORECOMPUTE No

RCT_OrgActorDefn

Owner: dbo

Target DB name: WCA310_D
Number of columns: 7
Number of indexes: 0
Number of foreign keys: 2

Extended attributes:
OnFileGroup PRIMARY
Clustered PK Yes

Columns	Data type	Allow NULLs	Value/Range
actorID	int	Not allowed	
titleID (FK)	int	Not allowed	
fName	varchar(50)	Not allowed	
lname	varchar(30)	Not allowed	
email	varchar(50)	Not allowed	
phoneNumber	varchar(50)	Allowed	
orgID (FK)	decimal(18,0)	Not allowed	

Foreign keys	Child	Parent
FK_RCT_ActorDefn_RCT_TitleDefn	titleID	RCT_OrgTitleDefn.titleID
FK_RCT_ActorDefn_WCA_Organization	orgID	WCA_Organization.orgID
FK_RCT_WPActor_RCT_ActorDefn	RCT_ProjWPActor.actorID	actorID

Column details

1. actorID
Physical data type: int
Allow NULLs: Not allowed

2. titleID (FK)
Physical data type: int
Allow NULLs: Not allowed

3. fName
Physical data type: varchar(50)
Allow NULLs: Not allowed

4. lname
Physical data type: varchar(30)
Allow NULLs: Not allowed

5. email
Physical data type: varchar(50)
Allow NULLs: Not allowed

6. phoneNumber
Physical data type: varchar(50)
Allow NULLs: Allowed

7. orgID (FK)
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

Foreign key details (child)

FK_RCT_ActorDefn_RCT_TitleDefn

Definition: **Child** **Parent**
titleID RCT_OrgTitleDefn.titleID

Relationship type: Non-Identifying
Cardinality: One -to- Zero-or-More
Allow NULLs: Not allowed
Verb phrase: hasFK_RCT_ActorDefn_RCT_TitleDefn
Inverse phrase: is of
Ref. Integrity on update: No Action
Ref. Integrity on delete: No Action

FK_RCT_ActorDefn_WCA_Organization

Definition: **Child** **Parent**
orgID WCA_Organization.orgID

Relationship type: Non-Identifying
Cardinality: One -to- Zero-or-More
Allow NULLs: Not allowed
Verb phrase: hasFK_RCT_ActorDefn_WCA_Organization
Inverse phrase: is of
Ref. Integrity on update: No Action
Ref. Integrity on delete: No Action

RCT_OrgTitleDefn

Owner: dbo
Target DB name: WCA310_D
Number of columns: 4
Number of indexes: 0
Number of foreign keys: 1

Extended attributes:
OnFileGroup PRIMARY
Clustered PK Yes

Columns	Data type	Allow NULLs	Value/Range
titleID	int	Not allowed	
titleDesc	varchar(100)	Not allowed	
titleAcronym	varchar(20)	Not allowed	
orgID (FK)	decimal(18,0)	Not allowed	

Foreign keys	Child	Parent
FK_RCT_TitleDefn_WCA_Organization	orgID	WCA_Organization.orgID
FK_RCT_ActorDefn_RCT_TitleDefn	RCT_OrgActorDefn.titleID	titleID

Column details

1. titleID
Physical data type: int
Allow NULLs: Not allowed

2. titleDesc
Physical data type: varchar(100)
Allow NULLs: Not allowed

3. titleAcronym
Physical data type: varchar(20)
Allow NULLs: Not allowed

4. orgID (FK)
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

Foreign key details (child)
FK_RCT_TitleDefn_WCA_Organization

Definition: **Child** **Parent**
orgID WCA_Organization.orgID

Relationship type: Non-Identifying
Cardinality: One -to- Zero-or-More
Allow NULLs: Not allowed
Verb phrase: hasFK_RCT_TitleDefn_WCA_Organization
Inverse phrase: is of
Ref. Integrity on update: No Action
Ref. Integrity on delete: No Action

RCT_ProjWPActor

Owner: dbo
Target DB name: WCA310_D
Number of columns: 11
Number of indexes: 0
Number of foreign keys: 2

Extended attributes:
OnFileGroup PRIMARY
Clustered PK Yes

Columns	Data type	Allow NULLs	Value/Range
PID (FK)	decimal(18,0)	Not allowed	
WPID	decimal(18,0)	Not allowed	
actorID (FK)	int	Not allowed	
openNotify	char(1)	Not allowed	
submitNotify	char(1)	Not allowed	
approveNotify	char(1)	Not allowed	
disapproveNotify	char(1)	Not allowed	
openAttachment	varchar(100)	Allowed	
submitAttachment	varchar(100)	Allowed	
approveAttachment	varchar(100)	Allowed	
disapproveAttachment	varchar(100)	Allowed	

Foreign keys	Child	Parent
FK_RCT_WPActor_RCT_ActorDefn	actorID	RCT_OrgActorDefn.actorID
FK_RCT_WPActor_WCA_Project	PID	WCA_Project.PID

Column details

1. PID (FK)
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

2. WPID
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

3. actorID (FK)
Physical data type: int
Allow NULLs: Not allowed

4. openNotify
Physical data type: char(1)
Allow NULLs: Not allowed

5. submitNotify
Physical data type: char(1)
Allow NULLs: Not allowed

6. approveNotify
Physical data type: char(1)
Allow NULLs: Not allowed

7. disapproveNotify
Physical data type: char(1)
Allow NULLs: Not allowed

8. openAttachment
Physical data type: varchar(100)
Allow NULLs: Allowed

9. submitAttachment
Physical data type: varchar(100)
Allow NULLs: Allowed

10. approveAttachment
Physical data type: varchar(100)
Allow NULLs: Allowed

11. disapproveAttachment
Physical data type: varchar(100)
Allow NULLs: Allowed

Foreign key details (child)

FK_RCT_WPActor_RCT_ActorDefn

Definition: **Child** **Parent**
actorID RCT_OrgActorDefn.actorID

Relationship type: Identifying
Cardinality: One -to- Zero-or-More
Allow NULLs: Not allowed

Verb phrase: hasFK_RCT_WPActor_RCT_ActorDefn
Inverse phrase: is of
Ref. Integrity on update: No Action
Ref. Integrity on delete: No Action

FK_RCT_WPActor_WCA_Project

Definition: **Child** **Parent**
PID WCA_Project.PID

Relationship type: Identifying
Cardinality: One -to- Zero-or-More
Allow NULLs: Not allowed
Verb phrase: hasFK_RCT_WPActor_WCA_Project
Inverse phrase: is of
Ref. Integrity on update: No Action
Ref. Integrity on delete: No Action

RoleLogin

Owner: dbo
Target DB name: WCA310_D
Number of columns: 4
Number of indexes: 0
Number of foreign keys: 0

Extended attributes:
OnFileGroup PRIMARY
Clustered PK No

Columns	Data type	Allow NULLs	Value/Range
roleID	varchar(10)	Not allowed	
dbRoleName	varchar(255)	Not allowed	
dbRolePassword	varchar(255)	Not allowed	
dbPwdLastChanged	datetime	Allowed	

Foreign keys	Child	Parent
FK_UserRole_RoleLogin	UserRole.roleID	roleID

Column details

1. roleID
Physical data type: varchar(10)
Allow NULLs: Not allowed

2. dbRoleName
Physical data type: varchar(255)
Allow NULLs: Not allowed

3. dbRolePassword
Physical data type: varchar(255)
Allow NULLs: Not allowed

4. dbPwdLastChanged
Physical data type: datetime

Allow NULLs: Allowed

TableKeys

Owner: dbo
Target DB name: WCA310_D
Number of columns: 3
Number of indexes: 0
Number of foreign keys: 0

Extended attributes:
OnFileGroup PRIMARY
Clustered PK No

Columns	Data type	Allow NULLs	Value/Range
TableName	varchar(30)	Not allowed	
ColumnName	varchar(30)	Not allowed	
KeyValue	decimal(18,0)	Not allowed	

Column details

1. TableName
Physical data type: varchar(30)
Allow NULLs: Not allowed

2. ColumnName
Physical data type: varchar(30)
Allow NULLs: Not allowed

3. KeyValue
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

UserPwdHistory

Owner: dbo
Target DB name: WCA310_D
Number of columns: 3
Number of indexes: 0
Number of foreign keys: 1

Extended attributes:
OnFileGroup PRIMARY
Clustered PK No

Columns	Data type	Allow NULLs	Value/Range
userID (FK)	decimal(18,0)	Not allowed	
userPassword	varchar(50)	Not allowed	
lastModified	datetime	Not allowed	

Foreign keys	Child	Parent
FK_UserPwdHistory_AppUser	userID	AppUser.userID

Column details

1. userID (FK)
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

2. userPassword
Physical data type: varchar(50)
Allow NULLs: Not allowed

3. lastModified
Physical data type: datetime
Allow NULLs: Not allowed

Foreign key details (child)
FK_UserPwdHistory_AppUser

Definition: **Child** **Parent**
userID AppUser.userID

Relationship type: Identifying
Cardinality: One -to- Zero-or-More
Allow NULLs: Not allowed
Verb phrase: hasFK_UserPwdHistory_AppUser
Inverse phrase: is of
Ref. Integrity on update: No Action
Ref. Integrity on delete: No Action

UserRole

Owner: dbo
Target DB name: WCA310_D
Number of columns: 3
Number of indexes: 0
Number of foreign keys: 2

Extended attributes:
OnFileGroup PRIMARY
Clustered PK No

Columns	Data type	Allow NULLs	Value/Range
userID (FK)	decimal(18,0)	Not allowed	
roleID (FK)	varchar(10)	Not allowed	
status	char(1)	Allowed	

Foreign keys	Child	Parent
FK_UserRole_User	userID	AppUser.userID
FK_UserRole_RoleLogin	roleID	RoleLogin.roleID

Column details
1. userID (FK)
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

2. roleID (FK)

Physical data type: varchar(10)
Allow NULLs: Not allowed

3. status
Physical data type: char(1)
Allow NULLs: Allowed

Foreign key details (child)

FK_UserRole_User

Definition: **Child** **Parent**
userID AppUser.userID

Relationship type: Identifying
Cardinality: One -to- Exactly-1
Allow NULLs: Not allowed
Verb phrase: hasFK_UserRole_User
Inverse phrase: is of
Ref. Integrity on update: No Action
Ref. Integrity on delete: No Action

FK_UserRole_RoleLogin

Definition: **Child** **Parent**
roleID RoleLogin.roleID

Relationship type: Non-Identifying
Cardinality: One -to- Zero-or-More
Allow NULLs: Not allowed
Verb phrase: hasFK_UserRole_RoleLogin
Inverse phrase: is of
Ref. Integrity on update: No Action
Ref. Integrity on delete: No Action

WCA_AcronymSrc

Owner: dbo
Target DB name: WCA310_D
Number of columns: 5
Number of indexes: 0
Number of foreign keys: 1

Extended attributes:
OnFileGroup PRIMARY
TextImageOnGroup PRIMARY
Clustered PK No

Columns	Data type	Allow NULLs	Value/Range
acronym	varchar(50)	Not allowed	
asDescription	text	Allowed	
department (FK)	int	Not allowed	
service (FK)	int	Not allowed	
applPubFormat	varchar(50)	Allowed	

Foreign keys	Child	Parent
FK_WCA_AcronymSrc_WCA_DeptServCode	department service	WCA_DeptServCode.department WCA_DeptServCode.service

Column details

1. acronym
Physical data type: varchar(50)
Allow NULLs: Not allowed

2. asDescription
Physical data type: text
Allow NULLs: Allowed

3. department (FK)
Physical data type: int
Allow NULLs: Not allowed

4. service (FK)
Physical data type: int
Allow NULLs: Not allowed

5. applPubFormat
Physical data type: varchar(50)
Allow NULLs: Allowed

Foreign key details (child)

FK_WCA_AcronymSrc_WCA_DeptServCode

Definition: **Child** **Parent**
department WCA_DeptServCode.department
service WCA_DeptServCode.service

Relationship type: Non-Identifying
Cardinality: One -to- Zero-or-More
Allow NULLs: Not allowed
Verb phrase: hasFK_WCA_AcronymSrc_WCA_DeptServCode
Inverse phrase: is of
Ref. Integrity on update: No Action
Ref. Integrity on delete: No Action

WCA_AppdxTTLSrc

Owner: dbo
Target DB name: WCA310_D
Number of columns: 5
Number of indexes: 0
Number of foreign keys: 0

Extended attributes:
OnFileGroup PRIMARY
Clustered PK No

Columns	Data type	Allow NULLs	Value/Range
document	varchar(50)	Allowed	
title	varchar(255)	Allowed	
letter	varchar(50)	Allowed	
applPubFormat	varchar(50)	Not allowed	
appendixType	varchar(50)	Not allowed	

Column details

1. document
Physical data type: varchar(50)
Allow NULLs: Allowed

2. title
Physical data type: varchar(255)
Allow NULLs: Allowed

3. letter
Physical data type: varchar(50)
Allow NULLs: Allowed

4. applPubFormat
Physical data type: varchar(50)
Allow NULLs: Not allowed

5. appendixType
Physical data type: varchar(50)
Allow NULLs: Not allowed

WCA_ApplEventSrc

Owner: dbo
Target DB name: WCA310_D
Number of columns: 5
Number of indexes: 0
Number of foreign keys: 0

Extended attributes:
OnFileGroup PRIMARY
Clustered PK No

Columns	Data type	Allow NULLs	Value/Range
EventID	varchar(50)	Not allowed	
StageName	varchar(50)	Allowed	
Category	varchar(50)	Allowed	
Severity	char(30)	Allowed	
PubFormat	varchar(10)	Allowed	

Column details

1. EventID
Physical data type: varchar(50)
Allow NULLs: Not allowed

2. StageName

Physical data type: varchar(50)
Allow NULLs: Allowed

3. Category
Physical data type: varchar(50)
Allow NULLs: Allowed

4. Severity
Physical data type: char(30)
Allow NULLs: Allowed

5. PubFormat
Physical data type: varchar(10)
Allow NULLs: Allowed

WCA_AuditLog

Owner: dbo
Target DB name: WCA310_D
Number of columns: 19
Number of indexes: 0
Number of foreign keys: 0

Extended attributes:
OnFileGroup PRIMARY
TextImageOnGroup PRIMARY
Clustered PK No

Columns	Data type	Allow NULLs	Value/Range
id	int	Not allowed	
PID	int	Allowed	
ProjectName	varchar(250)	Allowed	
TableName	varchar(25)	Allowed	
KeyValues	varchar(250)	Allowed	
StageName	varchar(50)	Allowed	
ProcessStep	varchar(255)	Allowed	
PageID	varchar(50)	Allowed	
UserID	decimal(18,0)	Allowed	
IPAddress	varchar(16)	Not allowed	
ActionDesc	text	Allowed	
ActionStatus	char(20)	Allowed	
ActionTime	datetime	Not allowed	
EventType	varchar(50)	Allowed	
ErrorMessage	text	Allowed	
UserName	varchar(25)	Allowed	
orgID	decimal(18,0)	Allowed	
orgName	varchar(50)	Allowed	
sessionID	varchar(50)	Allowed	

Column details

1. id
Physical data type: int
Allow NULLs: Not allowed

2. PID
Physical data type: int

Allow NULLs: Allowed

3. ProjectName
Physical data type: varchar(250)
Allow NULLs: Allowed

4. TableName
Physical data type: varchar(25)
Allow NULLs: Allowed

5. KeyValues
Physical data type: varchar(250)
Allow NULLs: Allowed

6. StageName
Physical data type: varchar(50)
Allow NULLs: Allowed

7. ProcessStep
Physical data type: varchar(255)
Allow NULLs: Allowed

8. PageID
Physical data type: varchar(50)
Allow NULLs: Allowed

9. UserID
Physical data type: decimal(18,0)
Allow NULLs: Allowed

10. IPAddress
Physical data type: varchar(16)
Allow NULLs: Not allowed

11. ActionDesc
Physical data type: text
Allow NULLs: Allowed

12. ActionStatus
Physical data type: char(20)
Allow NULLs: Allowed

13. ActionTime
Physical data type: datetime
Allow NULLs: Not allowed

14. EventType
Physical data type: varchar(50)
Allow NULLs: Allowed

15. ErrorMessage
Physical data type: text
Allow NULLs: Allowed

16. UserName
Physical data type: varchar(25)

Allow NULLs: Allowed

17. orgID
Physical data type: decimal(18,0)
Allow NULLs: Allowed

18. orgName
Physical data type: varchar(50)
Allow NULLs: Allowed

19. sessionID
Physical data type: varchar(50)
Allow NULLs: Allowed

WCA_AuditObjects

Owner: dbo
Target DB name: WCA310_D
Number of columns: 4
Number of indexes: 0
Number of foreign keys: 0

Extended attributes:
OnFileGroup PRIMARY
Clustered PK No

Columns	Data type	Allow NULLs	Value/Range
id	int	Not allowed	
tblName	varchar(25)	Allowed	
tblKeys	varchar(4000)	Allowed	
tblAction	varchar(25)	Not allowed	

Column details

1. id
Physical data type: int
Allow NULLs: Not allowed

2. tblName
Physical data type: varchar(25)
Allow NULLs: Allowed

3. tblKeys
Physical data type: varchar(4000)
Allow NULLs: Allowed

4. tblAction
Physical data type: varchar(25)
Allow NULLs: Not allowed

WCA_CharSrc

Owner: dbo
Target DB name: WCA310_D
Number of columns: 1

Number of indexes: 0
Number of foreign keys: 0

Extended attributes:
OnFileGroup PRIMARY
Clustered PK No

Columns	Data type	Allow NULLs	Value/Range
charName	varchar(50)	Not allowed	

Foreign keys	Child	Parent
FK_WCA_ProjCharDtl_WCA_CharSrc	WCA_ProjCharDtl.charName	charName

Column details

1. charName
Physical data type: varchar(50)
Allow NULLs: Not allowed

WCA_ClassWeight

Owner: dbo
Target DB name: WCA310_D
Number of columns: 5
Number of indexes: 0
Number of foreign keys: 0

Extended attributes:
OnFileGroup PRIMARY
Clustered PK No

Columns	Data type	Allow NULLs	Value/Range
ID	int	Not allowed	
characteristic	varchar(255)	Allowed	
alternative	varchar(255)	Allowed	
weight	float	Allowed	
applPubFormat	varchar(50)	Not allowed	

Column details

1. ID
Physical data type: int
Allow NULLs: Not allowed

2. characteristic
Physical data type: varchar(255)
Allow NULLs: Allowed

3. alternative
Physical data type: varchar(255)
Allow NULLs: Allowed

4. weight
Physical data type: float
Allow NULLs: Allowed

5. applPubFormat
Physical data type: varchar(50)
Allow NULLs: Not allowed

WCA_DefinitionSrc

Owner: dbo
Target DB name: WCA310_D
Number of columns: 5
Number of indexes: 0
Number of foreign keys: 1

Extended attributes:
OnFileGroup PRIMARY
TextImageOnGroup PRIMARY
Clustered PK No

Columns	Data type	Allow NULLs	Value/Range
term	varchar(255)	Not allowed	
definition	text	Allowed	
department (FK)	int	Not allowed	
service (FK)	int	Not allowed	
applPubFormat	varchar(50)	Allowed	

Foreign keys	Child	Parent
FK_WCA_DefinitionSrc_WCA_DeptServCode	department service	WCA_DeptServCode.department WCA_DeptServCode.service

Column details

1. term
Physical data type: varchar(255)
Allow NULLs: Not allowed

2. definition
Physical data type: text
Allow NULLs: Allowed

3. department (FK)
Physical data type: int
Allow NULLs: Not allowed

4. service (FK)
Physical data type: int
Allow NULLs: Not allowed

5. applPubFormat
Physical data type: varchar(50)
Allow NULLs: Allowed

Foreign key details (child)
FK_WCA_DefinitionSrc_WCA_DeptServCode

Definition: **Child** **Parent**
department WCA_DeptServCode.department
service WCA_DeptServCode.service

Relationship type: Non-Identifying
Cardinality: One -to- Zero-or-More
Allow NULLs: Not allowed
Verb phrase: hasFK_WCA_DefinitionSrc_WCA_DeptServCode
Inverse phrase: is of
Ref. Integrity on update: No Action
Ref. Integrity on delete: No Action

WCA_DefSecRegSrc

Owner: dbo
Target DB name: WCA310_D
Number of columns: 3
Number of indexes: 0
Number of foreign keys: 1

Extended attributes:
OnFileGroup PRIMARY
Clustered PK No

Columns	Data type	Allow NULLs	Value/Range
department	int	Not allowed	
service	int	Not allowed	
regID (FK)	int	Not allowed	

Foreign keys	Child	Parent
FK_WCA_DefSecReg_Src_WCA_SecReg_Src	regID	WCA_SecRegSrc.regID

Column details

1. department
Physical data type: int
Allow NULLs: Not allowed

2. service
Physical data type: int
Allow NULLs: Not allowed

3. regID (FK)
Physical data type: int
Allow NULLs: Not allowed

Foreign key details (child)

FK_WCA_DefSecReg_Src_WCA_SecReg_Src

Definition: **Child** **Parent**
regID WCA_SecRegSrc.regID

Relationship type: Identifying
Cardinality: One -to- Zero-or-More
Allow NULLs: Not allowed
Verb phrase: hasFK_WCA_DefSecReg_Src_WCA_SecReg_Src
Inverse phrase: is of
Ref. Integrity on update: No Action
Ref. Integrity on delete: No Action

WCA_DeptServCode

Owner: dbo
Target DB name: WCA310_D
Number of columns: 4
Number of indexes: 1
Number of foreign keys: 0

Extended attributes:
OnFileGroup PRIMARY
Clustered PK No

Columns	Data type	Allow NULLs	Value/Range
department	int	Not allowed	
service	int	Not allowed	
departmentName (U1)	varchar(50)	Not allowed	
serviceName (U1)	varchar(50)	Not allowed	

Indexes	Columns	Sort order
IX_WCA_DeptServCode (U1)	departmentName	Ascending
	serviceName	Ascending

Foreign keys	Child	Parent
FK_WCA_AcronymSrc_WCA_DeptServCode	WCA_AcronymSrc.department WCA_AcronymSrc.service	department service
FK_WCA_DefinitionSrc_WCA_DeptServCode	WCA_DefinitionSrc.department WCA_DefinitionSrc.service	department service
FK_WCA_SecRegSrc_WCA_DeptServCode	WCA_SecRegSrc.department WCA_SecRegSrc.service	department service

Column details

1. department
Physical data type: int
Allow NULLs: Not allowed

2. service
Physical data type: int
Allow NULLs: Not allowed

3. departmentName (U1)
Physical data type: varchar(50)
Allow NULLs: Not allowed

4. serviceName (U1)
Physical data type: varchar(50)
Allow NULLs: Not allowed

Index details

IX_WCA_DeptServCode
Column(s): departmentName (Asc)
serviceName (Asc)
Unique: Yes
Extended attributes:
OnFileGroup PRIMARY
CLUSTERED No
IGNORE_DUP_KEY No
FILLFACTOR 90
PAD_INDEX No
DROP_EXISTING No
STATISTICS_NORECOMPUTE No

WCA_DocParaTTLSrc

Owner: dbo
Target DB name: WCA310_D
Number of columns: 6
Number of indexes: 0
Number of foreign keys: 0

Extended attributes:
OnFileGroup PRIMARY
Clustered PK No

Columns	Data type	Allow NULLs	Value/Range
title	varchar(60)	Not allowed	
paragraph	varchar(50)	Not allowed	
document	varchar(50)	Not allowed	
applPubFormat	varchar(50)	Not allowed	
paragraphLevel	int	Not allowed	
paragraphType	varchar(50)	Allowed	

Column details

1. title
Physical data type: varchar(60)
Allow NULLs: Not allowed

2. paragraph
Physical data type: varchar(50)
Allow NULLs: Not allowed

3. document
Physical data type: varchar(50)
Allow NULLs: Not allowed

4. applPubFormat

Physical data type: varchar(50)
Allow NULLs: Not allowed

5. paragraphLevel
Physical data type: int
Allow NULLs: Not allowed

6. paragraphType
Physical data type: varchar(50)
Allow NULLs: Allowed

WCA_DocTmplSrc

Owner: dbo
Target DB name: WCA310_D
Number of columns: 6
Number of indexes: 0
Number of foreign keys: 0

Extended attributes:
OnFileGroup PRIMARY
TextImageOnGroup PRIMARY
Clustered PK No

Columns	Data type	Allow NULLs	Value/Range
instance	int	Not allowed	
dtsText	text	Allowed	
notes	varchar(50)	Allowed	
document	varchar(50)	Not allowed	
paragraph	varchar(255)	Not allowed	
applPubFormat	varchar(50)	Not allowed	

Column details

1. instance
Physical data type: int
Allow NULLs: Not allowed

2. dtsText
Physical data type: text
Allow NULLs: Allowed

3. notes
Physical data type: varchar(50)
Allow NULLs: Allowed

4. document
Physical data type: varchar(50)
Allow NULLs: Not allowed

5. paragraph
Physical data type: varchar(255)
Allow NULLs: Not allowed

6. applPubFormat

Physical data type: varchar(50)
Allow NULLs: Not allowed

WCA_HelpExampleSrc

Owner: dbo
Target DB name: WCA310_D
Number of columns: 13
Number of indexes: 0
Number of foreign keys: 0

Extended attributes:
OnFileGroup PRIMARY
TextImageOnGroup PRIMARY
Clustered PK Yes

Columns	Data type	Allow NULLs	Value/Range
ID	int	Not allowed	
page	varchar(50)	Allowed	
applPubFormat	varchar(50)	Not allowed	
type	varchar(50)	Allowed	
title	varchar(100)	Allowed	
helptext	text	Allowed	
height	int	Not allowed	
width	int	Not allowed	
seeAlso	int	Allowed	
pageID	varchar(50)	Not allowed	
heading	varchar(100)	Not allowed	
stgID	decimal(18,0)	Allowed	
paragraph	varchar(50)	Allowed	

Column details

1. ID
Physical data type: int
Allow NULLs: Not allowed

2. page
Physical data type: varchar(50)
Allow NULLs: Allowed

3. applPubFormat
Physical data type: varchar(50)
Allow NULLs: Not allowed

4. type
Physical data type: varchar(50)
Allow NULLs: Allowed

5. title
Physical data type: varchar(100)
Allow NULLs: Allowed

6. helptext
Physical data type: text
Allow NULLs: Allowed

7. height
Physical data type: int
Allow NULLs: Not allowed

8. width
Physical data type: int
Allow NULLs: Not allowed

9. seeAlso
Physical data type: int
Allow NULLs: Allowed

10. pageID
Physical data type: varchar(50)
Allow NULLs: Not allowed

11. heading
Physical data type: varchar(100)
Allow NULLs: Not allowed

12. stgID
Physical data type: decimal(18,0)
Allow NULLs: Allowed

13. paragraph
Physical data type: varchar(50)
Allow NULLs: Allowed

WCA_HwFamilyLookup

Owner: dbo
Target DB name: WCA310_D
Number of columns: 4
Number of indexes: 0
Number of foreign keys: 0

Extended attributes:
OnFileGroup PRIMARY
Clustered PK No

Columns	Data type	Allow NULLs	Value/Range
hwFamily	varchar(50)	Not allowed	
rank	int	Not allowed	
type	char(10)	Not allowed	
hwID	decimal(18,0)	Not allowed	

Column details

1. hwFamily
Physical data type: varchar(50)
Allow NULLs: Not allowed

2. rank
Physical data type: int

Allow NULLs: Not allowed

3. type
Physical data type: char(10)
Allow NULLs: Not allowed

4. hwID
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

WCA_InfoCategory

Owner: dbo
Target DB name: WCA310_D
Number of columns: 5
Number of indexes: 0
Number of foreign keys: 0

Extended attributes:
OnFileGroup PRIMARY
Clustered PK No

Columns	Data type	Allow NULLs	Value/Range
infoCatID	int	Not allowed	
infoCatName	varchar(60)	Allowed	
infoCatValue	varchar(5)	Allowed	
rank	int	Allowed	
weight	float	Not allowed	

Column details

1. infoCatID
Physical data type: int
Allow NULLs: Not allowed

2. infoCatName
Physical data type: varchar(60)
Allow NULLs: Allowed

3. infoCatValue
Physical data type: varchar(5)
Allow NULLs: Allowed

4. rank
Physical data type: int
Allow NULLs: Allowed

5. weight
Physical data type: float
Allow NULLs: Not allowed

WCA_LevelDetermin

Owner: dbo

Target DB name: WCA310_D
Number of columns: 6
Number of indexes: 0
Number of foreign keys: 0

Extended attributes:
OnFileGroup PRIMARY
Clustered PK No

Columns	Data type	Allow NULLs	Value/Range
ID	int	Not allowed	
weightedTotalMin	float	Allowed	
weightedTotalMax	float	Allowed	
class	int	Allowed	
description	varchar(255)	Allowed	
applPubFormat	varchar(50)	Not allowed	

Column details

1. ID
Physical data type: int
Allow NULLs: Not allowed

2. weightedTotalMin
Physical data type: float
Allow NULLs: Allowed

3. weightedTotalMax
Physical data type: float
Allow NULLs: Allowed

4. class
Physical data type: int
Allow NULLs: Allowed

5. description
Physical data type: varchar(255)
Allow NULLs: Allowed

6. applPubFormat
Physical data type: varchar(50)
Allow NULLs: Not allowed

WCA_LookupMgr

Owner: dbo
Target DB name: WCA310_D
Number of columns: 8
Number of indexes: 0
Number of foreign keys: 0

Extended attributes:
OnFileGroup PRIMARY
Clustered PK No

Columns	Data type	Allow NULLs	Value/Range
webCaLookupsID	decimal(18,0)	Not allowed	
tableName	varchar(50)	Not allowed	
columnName	varchar(50)	Not allowed	
lkupDescription	varchar(50)	Allowed	
wlSize	decimal(18,0)	Allowed	
displayable	char(1)	Allowed	
required	char(1)	Allowed	
valuesLkTabName	varchar(30)	Allowed	

Column details

1. webCaLookupsID
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

2. tableName
Physical data type: varchar(50)
Allow NULLs: Not allowed

3. columnName
Physical data type: varchar(50)
Allow NULLs: Not allowed

4. lkupDescription
Physical data type: varchar(50)
Allow NULLs: Allowed

5. wlSize
Physical data type: decimal(18,0)
Allow NULLs: Allowed

6. displayable
Physical data type: char(1)
Allow NULLs: Allowed

7. required
Physical data type: char(1)
Allow NULLs: Allowed

8. valuesLkTabName
Physical data type: varchar(30)
Allow NULLs: Allowed

WCA_MarkerLookup

Owner: dbo
Target DB name: WCA310_D
Number of columns: 4
Number of indexes: 0
Number of foreign keys: 0

Extended attributes:
OnFileGroup PRIMARY
Clustered PK No

Columns	Data type	Allow NULLs	Value/Range
marker	varchar(50)	Not allowed	
sqlStatement	varchar(1000)	Not allowed	
retrievalType	varchar(50)	Not allowed	
errorMessageText	varchar(255)	Allowed	

Column details

1. marker
Physical data type: varchar(50)
Allow NULLs: Not allowed

2. sqlStatement
Physical data type: varchar(1000)
Allow NULLs: Not allowed

3. retrievalType
Physical data type: varchar(50)
Allow NULLs: Not allowed

4. errorMessageText
Physical data type: varchar(255)
Allow NULLs: Allowed

WCA_MinSeCkListSrc

Owner: dbo
Target DB name: WCA310_D
Number of columns: 6
Number of indexes: 0
Number of foreign keys: 0

Extended attributes:
OnFileGroup PRIMARY
TextImageOnGroup PRIMARY
Clustered PK No

Columns	Data type	Allow NULLs	Value/Range
sectionName	varchar(255)	Not allowed	
question	varchar(50)	Not allowed	
testText	text	Allowed	
questionSort	decimal(18,0)	Allowed	
applPubFormat	varchar(50)	Allowed	
validQuestion	char(1)	Allowed	

Column details

1. sectionName
Physical data type: varchar(255)
Allow NULLs: Not allowed

2. question
Physical data type: varchar(50)
Allow NULLs: Not allowed

3. testText

Physical data type: text
Allow NULLs: Allowed

4. questionSort
Physical data type: decimal(18,0)
Allow NULLs: Allowed

5. applPubFormat
Physical data type: varchar(50)
Allow NULLs: Allowed

6. validQuestion
Physical data type: char(1)
Allow NULLs: Allowed

WCA_MLSecClass

Owner: dbo
Target DB name: WCA310_D
Number of columns: 6
Number of indexes: 0
Number of foreign keys: 0

Extended attributes:
OnFileGroup PRIMARY
Clustered PK No

Columns	Data type	Allow NULLs	Value/Range
ID	int	Allowed	
maxDateClass	varchar(255)	Allowed	
minUserClear	varchar(255)	Allowed	
case1	varchar(255)	Allowed	
case2	varchar(255)	Allowed	
case3	varchar(255)	Allowed	

Column details

1. ID
Physical data type: int
Allow NULLs: Allowed

2. maxDateClass
Physical data type: varchar(255)
Allow NULLs: Allowed

3. minUserClear
Physical data type: varchar(255)
Allow NULLs: Allowed

4. case1
Physical data type: varchar(255)
Allow NULLs: Allowed

5. case2
Physical data type: varchar(255)

Allow NULLs: Allowed

6. case3
Physical data type: varchar(255)
Allow NULLs: Allowed

WCA_Organization

Owner: dbo
Target DB name: WCA310_D
Number of columns: 3
Number of indexes: 0
Number of foreign keys: 0

Extended attributes:
OnFileGroup PRIMARY
Clustered PK No

Columns	Data type	Allow NULLs	Value/Range
orgID	decimal(18,0)	Not allowed	
orgName	varchar(50)	Not allowed	
orgDescription	varchar(255)	Not allowed	

Foreign keys	Child	Parent
FK_RCT_ActorDefn_WCA_Organization	RCT_OrgActorDefn.orgID	orgID
FK_RCT_TitleDefn_WCA_Organization	RCT_OrgTitleDefn.orgID	orgID
FK_WCA_OrgUser_WCA_Organization	WCA_OrgUser.orgID	orgID
FK_WCA_Project_WCA_Organization	WCA_Project.orgID	orgID
FK_WPM_OrgEventRules_WCA_Organization	WPM_OrgEventRules.orgID	orgID
FK_WPM_OrgPrereq_WCA_Organization	WPM_OrgPrereq.orgID	orgID
FK_WPM_OrgPS_WCA_Organization	WPM_OrgPS.orgID	orgID
FK_WPM_OrgWBS_WCA_Organization	WPM_OrgWBS.orgID	orgID
FK_WPM_OrgWP_WCA_Organization	WPM_OrgWP.orgID	orgID

Column details

1. orgID
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

2. orgName
Physical data type: varchar(50)
Allow NULLs: Not allowed

3. orgDescription
Physical data type: varchar(255)
Allow NULLs: Not allowed

WCA_OrgUser

Owner: dbo
Target DB name: WCA310_D

Number of columns: 2
Number of indexes: 1
Number of foreign keys: 1

Extended attributes:
OnFileGroup PRIMARY
Clustered PK No

Columns	Data type	Allow NULLs	Value/Range
orgID (FK,I1)	decimal(18,0)	Not allowed	
userID	int	Not allowed	

Indexes	Columns	Sort order
IX_WCA_OrgUser (I1)	orgID	Ascending

Foreign keys	Child	Parent
FK_WCA_OrgUser_WCA_Organization	orgID	WCA_Organization.orgID

Column details

1. orgID (FK,I1)
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

2. userID
Physical data type: int
Allow NULLs: Not allowed

Index details

IX_WCA_OrgUser
Column(s): orgID (Asc)
Unique: No
Extended attributes:
OnFileGroup PRIMARY
CLUSTERED No
IGNORE_DUP_KEY No
FILLFACTOR 90
PAD_INDEX No
DROP_EXISTING No
STATISTICS_NORECOMPUTE No

Foreign key details (child)

FK_WCA_OrgUser_WCA_Organization

Definition: **Child** **Parent**
orgID WCA_Organization.orgID

Relationship type: Non-Identifying
Cardinality: One -to- Zero-or-More
Allow NULLs: Not allowed
Verb phrase: hasFK_WCA_OrgUser_WCA_Organization
Inverse phrase: is of
Ref. Integrity on update: No Action
Ref. Integrity on delete: No Action

WCA_OsFamilyLookup

Owner: dbo
Target DB name: WCA310_D
Number of columns: 4
Number of indexes: 0
Number of foreign keys: 0

Extended attributes:
OnFileGroup PRIMARY
Clustered PK No

Columns	Data type	Allow NULLs	Value/Range
osFamily	varchar(50)	Not allowed	
rank	int	Not allowed	
type	char(10)	Not allowed	
osID	decimal(18,0)	Not allowed	

Column details

1. osFamily
Physical data type: varchar(50)
Allow NULLs: Not allowed

2. rank
Physical data type: int
Allow NULLs: Not allowed

3. type
Physical data type: char(10)
Allow NULLs: Not allowed

4. osID
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

WCA_OSSource

Owner: dbo
Target DB name: WCA310_D
Number of columns: 7
Number of indexes: 0
Number of foreign keys: 0

Extended attributes:
OnFileGroup PRIMARY
Clustered PK No

Columns	Data type	Allow NULLs	Value/Range
osReference	varchar(50)	Not allowed	
osFamily	varchar(20)	Allowed	
osMfr	varchar(50)	Allowed	
osName	varchar(50)	Allowed	

osVersion	varchar(50)	Allowed
osPatchLevel	varchar(50)	Allowed
Type	char(1)	Allowed

Column details

1. osReference
Physical data type: varchar(50)
Allow NULLs: Not allowed

2. osFamily
Physical data type: varchar(20)
Allow NULLs: Allowed

3. osMfr
Physical data type: varchar(50)
Allow NULLs: Allowed

4. osName
Physical data type: varchar(50)
Allow NULLs: Allowed

5. osVersion
Physical data type: varchar(50)
Allow NULLs: Allowed

6. osPatchLevel
Physical data type: varchar(50)
Allow NULLs: Allowed

7. Type
Physical data type: char(1)
Allow NULLs: Allowed

WCA_PageAttrs

Owner: dbo
Target DB name: WCA310_D
Number of columns: 6
Number of indexes: 0
Number of foreign keys: 0

Extended attributes:
OnFileGroup PRIMARY
Clustered PK Yes

Columns	Data type	Allow NULLs	Value/Range
pageID	varchar(50)	Not allowed	
stgID	decimal(18,0)	Not allowed	
appPageTitle	varchar(50)	Not allowed	
appPageHeading	varchar(50)	Allowed	
processStep	varchar(50)	Not allowed	
servlet	varchar(255)	Not allowed	

Foreign keys	Child	Parent
FK_WPM_ProjPS_WCA_PageAttrs	WPM_ProjPS.pageID	pageID

FK_WPM_PSSrc_WCA_PageAttrs	WPM_PSSrc.pageID	pageID

Column details

1. pageID
Physical data type: varchar(50)
Allow NULLs: Not allowed

2. stgID
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

3. appPageTitle
Physical data type: varchar(50)
Allow NULLs: Not allowed

4. appPageHeading
Physical data type: varchar(50)
Allow NULLs: Allowed

5. processStep
Physical data type: varchar(50)
Allow NULLs: Not allowed

6. servlet
Physical data type: varchar(255)
Allow NULLs: Not allowed

WCA_ProjAcBoundary

Owner: dbo
Target DB name: WCA310_D
Number of columns: 4
Number of indexes: 0
Number of foreign keys: 1

Extended attributes:
OnFileGroup PRIMARY
TextImageOnGroup PRIMARY
Clustered PK No

Columns	Data type	Allow NULLs	Value/Range
PID (FK)	decimal(18,0)	Not allowed	
pabName	varchar(50)	Not allowed	
pabDescription	text	Not allowed	
adID	decimal(18,0)	Not allowed	

Foreign keys	Child	Parent
FK_WCA_ProjAcBound	PID	WCA_Project.PID

Column details

1. PID (FK)
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

2. pabName
Physical data type: varchar(50)
Allow NULLs: Not allowed

3. pabDescription
Physical data type: text
Allow NULLs: Not allowed

4. adID
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

Foreign key details (child)
FK_WCA_ProjAcBound

Definition: **Child** **Parent**
PID WCA_Project.PID

Relationship type: Non-Identifying
Cardinality: One -to- Zero-or-More
Allow NULLs: Not allowed
Verb phrase: hasFK_WCA_ProjAcBound
Inverse phrase: is of
Ref. Integrity on update: No Action
Ref. Integrity on delete: No Action

WCA_ProjAcronym

Owner: dbo
Target DB name: WCA310_D
Number of columns: 4
Number of indexes: 0
Number of foreign keys: 1

Extended attributes:
OnFileGroup PRIMARY
TextImageOnGroup PRIMARY
Clustered PK No

Columns	Data type	Allow NULLs	Value/Range
ID	int	Not allowed	
PID (FK)	decimal(18,0)	Not allowed	
acronym	varchar(50)	Allowed	
description	text	Allowed	

Foreign keys	Child	Parent
FK_WCA_ProjAcronym	PID	WCA_Project.PID

Column details

1. ID
Physical data type: int
Allow NULLs: Not allowed

2. PID (FK)
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

3. acronym
Physical data type: varchar(50)
Allow NULLs: Allowed

4. description
Physical data type: text
Allow NULLs: Allowed

Foreign key details (child)
FK_WCA_ProjAcronym

Definition: **Child** **Parent**
PID WCA_Project.PID

Relationship type: Non-Identifying
Cardinality: One -to- Zero-or-More
Allow NULLs: Not allowed
Verb phrase: hasFK_WCA_ProjAcronym
Inverse phrase: is of
Ref. Integrity on update: No Action
Ref. Integrity on delete: No Action

WCA_ProjAppdxFile

Owner: dbo
Target DB name: WCA310_D
Number of columns: 11
Number of indexes: 0
Number of foreign keys: 1

Extended attributes:
OnFileGroup PRIMARY
Clustered PK No

Columns	Data type	Allow NULLs	Value/Range
ID	decimal(18,0)	Not allowed	
PID (FK)	decimal(18,0)	Not allowed	
letter	varchar(50)	Not allowed	
title	varchar(255)	Allowed	
shortTitle	varchar(255)	Allowed	
author	varchar(255)	Allowed	
afDate	varchar(255)	Allowed	
version	varchar(50)	Allowed	
url	varchar(255)	Allowed	
appendixCFlag	char(10)	Allowed	
fileID	decimal(18,0)	Not allowed	

Foreign keys	Child	Parent
FK_WCA_ProjAppdxFiile	PID	WCA_Project.PID

Column details

1. ID
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

2. PID (FK)
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

3. letter
Physical data type: varchar(50)
Allow NULLs: Not allowed

4. title
Physical data type: varchar(255)
Allow NULLs: Allowed

5. shortTitle
Physical data type: varchar(255)
Allow NULLs: Allowed

6. author
Physical data type: varchar(255)
Allow NULLs: Allowed

7. afDate
Physical data type: varchar(255)
Allow NULLs: Allowed

8. version
Physical data type: varchar(50)
Allow NULLs: Allowed

9. url
Physical data type: varchar(255)
Allow NULLs: Allowed

10. appendixCFlag
Physical data type: char(10)
Allow NULLs: Allowed

11. fileID
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

Foreign key details (child)

FK_WCA_ProjAppdxFiile

Definition: **Child** **Parent**
PID WCA_Project.PID

Relationship type: Non-Identifying
Cardinality: One -to- Zero-or-More
Allow NULLs: Not allowed
Verb phrase: hasFK_WCA_ProjAppdxFiile

Inverse phrase: is of
Ref. Integrity on update: No Action
Ref. Integrity on delete: No Action

WCA_ProjCharDtl

Owner: dbo
Target DB name: WCA310_D
Number of columns: 4
Number of indexes: 0
Number of foreign keys: 2

Extended attributes:
OnFileGroup PRIMARY
Clustered PK No

Columns	Data type	Allow NULLs	Value/Range
PID (FK)	decimal(18,0)	Not allowed	
charName (FK)	varchar(50)	Not allowed	
stringValue	varchar(50)	Not allowed	
weight	float	Allowed	

Foreign keys	Child	Parent
FK_WCA_ProjCharDtl_WCA_CharSrc	charName	WCA_CharSrc.charName
FK_WCA_ProjCharDtl_WCA_Project	PID	WCA_Project.PID

Column details

1. PID (FK)
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

2. charName (FK)
Physical data type: varchar(50)
Allow NULLs: Not allowed

3. stringValue
Physical data type: varchar(50)
Allow NULLs: Not allowed

4. weight
Physical data type: float
Allow NULLs: Allowed

Foreign key details (child)

FK_WCA_ProjCharDtl_WCA_CharSrc

Definition: **Child** **Parent**
charName WCA_CharSrc.charName

Relationship type: Identifying
Cardinality: One -to- Zero-or-More
Allow NULLs: Not allowed
Verb phrase: hasFK_WCA_ProjCharDtl_WCA_CharSrc

Inverse phrase: is of
Ref. Integrity on update: No Action
Ref. Integrity on delete: No Action

FK_WCA_ProjCharDtl_WCA_Project

Definition: **Child** **Parent**
PID WCA_Project.PID

Relationship type: Identifying
Cardinality: One -to- Zero-or-More
Allow NULLs: Not allowed
Verb phrase: hasFK_WCA_ProjCharDtl_WCA_Project
Inverse phrase: is of
Ref. Integrity on update: No Action
Ref. Integrity on delete: No Action

WCA_ProjCkListRes

Owner: dbo
Target DB name: WCA310_D
Number of columns: 4
Number of indexes: 0
Number of foreign keys: 1

Extended attributes:
OnFileGroup PRIMARY
Clustered PK No

Columns	Data type	Allow NULLs	Value/Range
PID (FK)	decimal(18,0)	Not allowed	
sectionName	varchar(255)	Not allowed	
question	varchar(50)	Not allowed	
result	varchar(50)	Allowed	

Foreign keys	Child	Parent
FK_WCA_ProjCkListRes_WCA_Project	PID	WCA_Project.PID

Column details

1. PID (FK)
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

2. sectionName
Physical data type: varchar(255)
Allow NULLs: Not allowed

3. question
Physical data type: varchar(50)
Allow NULLs: Not allowed

4. result
Physical data type: varchar(50)
Allow NULLs: Allowed

Foreign key details (child)

FK_WCA_ProjCkListRes_WCA_Project

Definition: **Child** **Parent**
PID WCA_Project.PID

Relationship type: Identifying
Cardinality: One -to- Zero-or-More
Allow NULLs: Not allowed
Verb phrase: hasFK_WCA_ProjCkListRes_WCA_Project
Inverse phrase: is of
Ref. Integrity on update: No Action
Ref. Integrity on delete: No Action

WCA_ProjCleanStat

Owner: dbo
Target DB name: WCA310_D
Number of columns: 5
Number of indexes: 0
Number of foreign keys: 1

Extended attributes:
OnFileGroup PRIMARY
Clustered PK No

Columns	Data type	Allow NULLs	Value/Range
PID (FK)	decimal(18,0)	Not allowed	
baselineMod	char(1)	Not allowed	
platCatMod	char(1)	Not allowed	
equipInvenMod	char(1)	Not allowed	
conTestResultMod	char(1)	Not allowed	

Foreign keys	Child	Parent
FK_WCA_ProjCleanStat_WCA_Project	PID	WCA_Project.PID

Column details

1. PID (FK)
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

2. baselineMod
Physical data type: char(1)
Allow NULLs: Not allowed

3. platCatMod
Physical data type: char(1)
Allow NULLs: Not allowed

4. equipInvenMod
Physical data type: char(1)
Allow NULLs: Not allowed

5. conTestResultMod
Physical data type: char(1)
Allow NULLs: Not allowed

Foreign key details (child)
FK_WCA_ProjCleanStat_WCA_Project

Definition: **Child** **Parent**
PID WCA_Project.PID

Relationship type: Identifying
Cardinality: One -to- Exactly-1
Allow NULLs: Not allowed
Verb phrase: hasFK_WCA_ProjCleanStat_WCA_Project
Inverse phrase: is of
Ref. Integrity on update: No Action
Ref. Integrity on delete: No Action

WCA_ProjConTestRes

Owner: dbo
Target DB name: WCA310_D
Number of columns: 23
Number of indexes: 1
Number of foreign keys: 1

Extended attributes:
OnFileGroup PRIMARY
TextImageOnGroup PRIMARY
Clustered PK No

Columns	Data type	Allow NULLs	Value/Range
platId (I1)	decimal(18,0)	Not allowed	
PID (FK)	decimal(18,0)	Not allowed	
cat1	varchar(50)	Allowed	
cat2	varchar(50)	Allowed	
cat3	varchar(50)	Allowed	
aggregatedResult	varchar(50)	Allowed	
statementOfIssue	text	Allowed	
hwPlatform	varchar(50)	Allowed	
threat	varchar(50)	Allowed	
impactStatement	text	Allowed	
testTitle	varchar(100)	Allowed	
associatedRequirement	text	Allowed	
templateId	decimal(18,0)	Not allowed	
testType	varchar(50)	Allowed	
projOSType	varchar(50)	Allowed	
testCategoryId	decimal(18,0)	Not allowed	
certAnalysisLevel	decimal(18,0)	Allowed	
testRequirements	text	Allowed	
riskElemRef	decimal(18,0)	Allowed	
totalPopulation	decimal(18,0)	Allowed	
testPopulation	decimal(18,0)	Allowed	
totalFailed	decimal(18,0)	Allowed	

numAggregatedResult	float	Allowed

Indexes	Columns	Sort order
IX_WCA_ProjConTestRes (I1)	platId	Ascending

Foreign keys	Child	Parent
FK_WCA_ProjConTestRes_WCA_Project	PID	WCA_Project.PID

Column details

1. platId (I1)
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

2. PID (FK)
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

3. cat1
Physical data type: varchar(50)
Allow NULLs: Allowed

4. cat2
Physical data type: varchar(50)
Allow NULLs: Allowed

5. cat3
Physical data type: varchar(50)
Allow NULLs: Allowed

6. aggregatedResult
Physical data type: varchar(50)
Allow NULLs: Allowed

7. statementOfIssue
Physical data type: text
Allow NULLs: Allowed

8. hwPlatform
Physical data type: varchar(50)
Allow NULLs: Allowed

9. threat
Physical data type: varchar(50)
Allow NULLs: Allowed

10. impactStatement
Physical data type: text
Allow NULLs: Allowed

11. testTitle
Physical data type: varchar(100)
Allow NULLs: Allowed

12. associatedRequirement
Physical data type: text
Allow NULLs: Allowed

13. templateId
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

14. testType
Physical data type: varchar(50)
Allow NULLs: Allowed

15. projOSType
Physical data type: varchar(50)
Allow NULLs: Allowed

16. testCategoryId
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

17. certAnalysisLevel
Physical data type: decimal(18,0)
Allow NULLs: Allowed

18. testRequirements
Physical data type: text
Allow NULLs: Allowed

19. riskElemRef
Physical data type: decimal(18,0)
Allow NULLs: Allowed

20. totalPopulation
Physical data type: decimal(18,0)
Allow NULLs: Allowed

21. testPopulation
Physical data type: decimal(18,0)
Allow NULLs: Allowed

22. totalFailed
Physical data type: decimal(18,0)
Allow NULLs: Allowed

23. numAggregatedResult
Physical data type: float
Allow NULLs: Allowed

Index details
IX_WCA_ProjConTestRes
Column(s): platId (Asc)
Unique: No
Extended attributes:
OnFileGroup PRIMARY
CLUSTERED No
IGNORE_DUP_KEY No
FILLFACTOR 0
PAD_INDEX No

DROP_EXISTING No
STATISTICS_NORECOMPUTE No

Foreign key details (child)

FK_WCA_ProjConTestRes_WCA_Project

Definition: **Child** **Parent**
PID WCA_Project.PID

Relationship type: Non-Identifying
Cardinality: One -to- Zero-or-More
Allow NULLs: Not allowed
Verb phrase: hasFK_WCA_ProjConTestRes_WCA_Project
Inverse phrase: is of
Ref. Integrity on update: No Action
Ref. Integrity on delete: No Action

WCA_ProjDataFlow

Owner: dbo
Target DB name: WCA310_D
Number of columns: 4
Number of indexes: 0
Number of foreign keys: 1

Extended attributes:
OnFileGroup PRIMARY
TextImageOnGroup PRIMARY
Clustered PK No

Columns	Data type	Allow NULLs	Value/Range
dataFlowID	decimal(18,0)	Not allowed	
dataFlowDesc	text	Not allowed	
PID (FK)	decimal(18,0)	Not allowed	
shortName	varchar(50)	Not allowed	

Foreign keys	Child	Parent
FK_WCA_ProjSysDataFlow_WCA_Project	PID	WCA_Project.PID

Column details

1. dataFlowID
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

2. dataFlowDesc
Physical data type: text
Allow NULLs: Not allowed

3. PID (FK)
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

4. shortName

Physical data type: varchar(50)
Allow NULLs: Not allowed

Foreign key details (child)

FK_WCA_ProjSysDataFlow_WCA_Project

Definition: **Child** **Parent**
PID WCA_Project.PID

Relationship type: Non-Identifying
Cardinality: One -to- Zero-or-More
Allow NULLs: Not allowed
Verb phrase: hasFK_WCA_ProjSysDataFlow_WCA_Project
Inverse phrase: is of
Ref. Integrity on update: No Action
Ref. Integrity on delete: No Action

WCA_ProjDefAccess

Owner: dbo
Target DB name: WCA310_D
Number of columns: 3
Number of indexes: 0
Number of foreign keys: 2

Extended attributes:
OnFileGroup PRIMARY
Clustered PK No

Columns	Data type	Allow NULLs	Value/Range
PID (FK)	decimal(18,0)	Not allowed	
stgID (FK)	decimal(18,0)	Not allowed	
stageAccess	char(1)	Not allowed	

Foreign keys	Child	Parent
FK_WCA_ProjDefAccess_WCA_Project	PID	WCA_Project.PID
FK_WCA_ProjDefAccess_WCA_Stages	stgID	WCA_Stages.stgID
FK_WCA_ProjUserAccess_WCA_ProjDefAccess	WCA_ProjUserAccess .PID WCA_ProjUserAccess .stgID	PID stgID

Column details

1. PID (FK)
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

2. stgID (FK)
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

3. stageAccess
Physical data type: char(1)
Allow NULLs: Not allowed

Foreign key details (child)

FK_WCA_ProjDefAccess_WCA_Project

Definition: **Child** **Parent**
PID WCA_Project.PID

Relationship type: Identifying
Cardinality: One -to- Zero-or-More
Allow NULLs: Not allowed
Verb phrase: hasFK_WCA_ProjDefAccess_WCA_Project
Inverse phrase: is of
Ref. Integrity on update: No Action
Ref. Integrity on delete: No Action

FK_WCA_ProjDefAccess_WCA_Stages

Definition: **Child** **Parent**
stgID WCA_Stages.stgID

Relationship type: Identifying
Cardinality: One -to- Zero-or-More
Allow NULLs: Not allowed
Verb phrase: hasFK_WCA_ProjDefAccess_WCA_Stages
Inverse phrase: is of
Ref. Integrity on update: No Action
Ref. Integrity on delete: No Action

WCA_ProjDefinitions

Owner: dbo
Target DB name: WCA310_D
Number of columns: 4
Number of indexes: 0
Number of foreign keys: 1

Extended attributes:
OnFileGroup PRIMARY
TextImageOnGroup PRIMARY
Clustered PK No

Columns	Data type	Allow NULLs	Value/Range
ID	int	Not allowed	
PID (FK)	decimal(18,0)	Not allowed	
term	varchar(255)	Allowed	
definition	text	Allowed	

Foreign keys	Child	Parent
FK_WCA_ProjDefinitions_WCA_Project	PID	WCA_Project.PID

Column details

1. ID
Physical data type: int

Allow NULLs: Not allowed

2. PID (FK)
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

3. term
Physical data type: varchar(255)
Allow NULLs: Allowed

4. definition
Physical data type: text
Allow NULLs: Allowed

Foreign key details (child)
FK_WCA_ProjDefinitions_WCA_Project

Definition: **Child** **Parent**
PID WCA_Project.PID

Relationship type: Non-Identifying
Cardinality: One -to- Zero-or-More
Allow NULLs: Not allowed
Verb phrase: hasFK_WCA_ProjDefinitions_WCA_Project
Inverse phrase: is of
Ref. Integrity on update: No Action
Ref. Integrity on delete: No Action

WCA_ProjDocPara

Owner: dbo
Target DB name: WCA310_D
Number of columns: 7
Number of indexes: 0
Number of foreign keys: 1

Extended attributes:
OnFileGroup PRIMARY
TextImageOnGroup PRIMARY
Clustered PK No

Columns	Data type	Allow NULLs	Value/Range
PID (FK)	decimal(18,0)	Not allowed	
paragraph	varchar(255)	Not allowed	
dptext	text	Allowed	
document	varchar(50)	Not allowed	
title	varchar(255)	Allowed	
paragraphLevel	decimal(18,0)	Allowed	
paragraphType	varchar(50)	Allowed	

Foreign keys	Child	Parent
FK_WCA_ProjDocPara_WCA_Project	PID	WCA_Project.PID

Column details

1. PID (FK)
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

2. paragraph
Physical data type: varchar(255)
Allow NULLs: Not allowed

3. dptext
Physical data type: text
Allow NULLs: Allowed

4. document
Physical data type: varchar(50)
Allow NULLs: Not allowed

5. title
Physical data type: varchar(255)
Allow NULLs: Allowed

6. paragraphLevel
Physical data type: decimal(18,0)
Allow NULLs: Allowed

7. paragraphType
Physical data type: varchar(50)
Allow NULLs: Allowed

Foreign key details (child)

FK_WCA_ProjDocPara_WCA_Project

Definition: **Child** **Parent**
PID WCA_Project.PID

Relationship type: Non-Identifying
Cardinality: One -to- Zero-or-More
Allow NULLs: Not allowed
Verb phrase: hasFK_WCA_ProjDocPara_WCA_Project
Inverse phrase: is of
Ref. Integrity on update: No Action
Ref. Integrity on delete: No Action

WCA_ProjDocTTL

Owner: dbo
Target DB name: WCA310_D
Number of columns: 8
Number of indexes: 0
Number of foreign keys: 1

Extended attributes:
OnFileGroup PRIMARY
Clustered PK No

Columns	Data type	Allow NULLs	Value/Range
PID (FK)	decimal(18,0)	Not allowed	
letter	varchar(50)	Not allowed	
title	varchar(255)	Not allowed	
documentType	varchar(50)	Not allowed	
classLevel	varchar(50)	Not allowed	
document	varchar(50)	Not allowed	
ID	decimal(18,0)	Allowed	
pubDate	varchar(50)	Allowed	

Foreign keys	Child	Parent
FK_WCA_ProjDocTTL_WCA_Project	PID	WCA_Project.PID

Column details

1. PID (FK)
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

2. letter
Physical data type: varchar(50)
Allow NULLs: Not allowed

3. title
Physical data type: varchar(255)
Allow NULLs: Not allowed

4. documentType
Physical data type: varchar(50)
Allow NULLs: Not allowed

5. classLevel
Physical data type: varchar(50)
Allow NULLs: Not allowed

6. document
Physical data type: varchar(50)
Allow NULLs: Not allowed

7. ID
Physical data type: decimal(18,0)
Allow NULLs: Allowed

8. pubDate
Physical data type: varchar(50)
Allow NULLs: Allowed

Foreign key details (child)

FK_WCA_ProjDocTTL_WCA_Project

Definition: **Child** **Parent**
PID WCA_Project.PID

Relationship type: Non-Identifying
Cardinality: One -to- Zero-or-More

Allow NULLs: Not allowed
Verb phrase: hasFK_WCA_ProjDocTTL_WCA_Project
Inverse phrase: is of
Ref. Integrity on update: No Action
Ref. Integrity on delete: No Action

WCA_Project

Owner: dbo
Target DB name: WCA310_D
Number of columns: 21
Number of indexes: 1
Number of foreign keys: 1

Extended attributes:
OnFileGroup PRIMARY
TextImageOnGroup PRIMARY
Clustered PK No

Columns	Data type	Allow NULLs	Value/Range
PID	decimal(18,0)	Not allowed	
name	varchar(250)	Not allowed	
acronym	varchar(50)	Allowed	
projDescription	text	Not allowed	
version	varchar(50)	Allowed	
department	int	Not allowed	
service	int	Not allowed	
subscriptionKey	varchar(50)	Not allowed	
accreditationType	varchar(50)	Allowed	
certLevel	decimal(18,0)	Allowed	
orgID (FK,I1)	decimal(18,0)	Not allowed	
projStatus	varchar(10)	Not allowed	
publishingFormat	varchar(50)	Not allowed	
infoCatID	int	Allowed	
answers	varchar(7)	Allowed	
userDefinedCertLvl	int	Allowed	
expirationDate	datetime	Not allowed	
totalVal	int	Allowed	
WBSName	varchar(50)	Allowed	
WBSDesc	varchar(255)	Allowed	
webcaType	varchar(50)	Allowed	

Indexes	Columns	Sort order
IX_WCA_Project_orgID (I1)	orgID	Ascending

Foreign keys	Child	Parent
FK_WCA_Project_WCA_Organization	orgID	WCA_Organization.orgID
FK_RCT_WPActor_WCA_Project	RCT_ProjWPActor.PID	PID
FK_WCA_ProjAcBound	WCA_ProjAcBoundary.PID	PID
FK_WCA_ProjAcronym	WCA_ProjAcronym.PID	PID
FK_WCA_ProjAppdxFiile	WCA_ProjAppdxFile.PID	PID
FK_WCA_ProjCharDtl_WCA_Project	WCA_ProjCharDtl.PID	PID
FK_WCA_ProjCkListRes_WCA_Project	WCA_ProjCkListRes.PID	PID

FK_WCA_ProjCleanStat_WCA_Project	WCA_ProjCleanStat.PID	PID
FK_WCA_ProjConTestRes_WCA_Project	WCA_ProjConTestRes.PID	PID
FK_WCA_ProjSysDataFlow_WCA_Project	WCA_ProjDataFlow.PID	PID
FK_WCA_ProjDefAccess_WCA_Project	WCA_ProjDefAccess.PID	PID
FK_WCA_ProjDefinitions_WCA_Project	WCA_ProjDefinitions.PID	PID
FK_WCA_ProjDocPara_WCA_Project	WCA_ProjDocPara.PID	PID
FK_WCA_ProjDocTTL_WCA_Project	WCA_ProjDocTTL.PID	PID
FK_WCA_ProjEquipInven1	WCA_ProjEquipInven.PID	PID
FK_WCA_ProjEventStatus_WCA_Project	WCA_ProjEventStatus.PID	PID
FK_WCA_ProjFile_WCA_Project	WCA_ProjFile.PID	PID
FK_WCA_ProjFileData_WCA_Project	WCA_ProjFileData.PID	PID
FK_WCA_ProjMilestone_WCA_Project	WCA_ProjMilestone.PID	PID
FK_WCA_ProjParaFig	WCA_ProjParaFig.PID	PID
FK_WCA_ProjPers_WCA_Project	WCA_ProjPersonnel.PID	PID
FK_WCA_ProjPlatCat_WCA_Project	WCA_ProjPlatCat.PID	PID
FK_WCA_ProjReference_WCA_Project	WCA_ProjReference.PID	PID
FK_WCA_ProjRiskElem	WCA_ProjRiskElem.PID	PID
FK_WCA_ProjRqmt	WCA_ProjRqmt.PID	PID
FK_WCA_ProjSysInterface_WCA_Project	WCA_ProjSysInterf.PID	PID
FK_WCA_ProjSysLvlRisk_WCA_Project	WCA_ProjSysLvlRisk.PID	PID
FK_WCA_ProjSystemUser_WCA_Project	WCA_ProjSystemUser.PID	PID
FK_WCA_ProjSysThreat	WCA_ProjSysThreat.PID	PID
FK_WCA_ProjTestProc_WCA_Project	WCA_ProjTestProc.PID	PID
FK_WCA_ProjThreatEnv_WCA_Project	WCA_ProjThreatEnv.PID	PID
FK_WCA_ProjUser_WCA_Project	WCA_ProjUser.PID	PID
FK_WPM_ProjAnalystPerm_WCA_Project	WPM_ProjAnalystPerm.PID	PID
FK_WPM_ProjDefPerm_WCA_Project	WPM_ProjDefPerm.PID	PID
FK_WPM_ProjEventRules_WCA_Project	WPM_ProjEventRules.PID	PID
FK_WPM_ProjPrereq_WCA_Project	WPM_ProjPrereq.PID	PID
FK_WPM_ProjPS_WCA_Project	WPM_ProjPS.PID	PID
FK_WPM_ProjWP_WCA_Project	WPM_ProjWP.PID	PID
FK_WPM_ProjWPHistory_WCA_Project	WPM_ProjWPHistory.PID	PID
FK_WPM_ProjXEE_WCA_Project	WPM_ProjXEE.PID	PID

Column details

1. PID
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

2. name
Physical data type: varchar(250)
Allow NULLs: Not allowed

3. acronym
Physical data type: varchar(50)
Allow NULLs: Allowed

4. projDescription
Physical data type: text
Allow NULLs: Not allowed

5. version
Physical data type: varchar(50)
Allow NULLs: Allowed

6. department
Physical data type: int
Allow NULLs: Not allowed

7. service
Physical data type: int
Allow NULLs: Not allowed

8. subscriptionKey
Physical data type: varchar(50)
Allow NULLs: Not allowed

9. accreditationType
Physical data type: varchar(50)
Allow NULLs: Allowed

10. certLevel
Physical data type: decimal(18,0)
Allow NULLs: Allowed

11. orgID (FK,I1)
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

12. projStatus
Physical data type: varchar(10)
Allow NULLs: Not allowed

13. publishingFormat
Physical data type: varchar(50)
Allow NULLs: Not allowed

14. infoCatID
Physical data type: int
Allow NULLs: Allowed

15. answers
Physical data type: varchar(7)
Allow NULLs: Allowed

16. userDefinedCertLvl
Physical data type: int
Allow NULLs: Allowed

17. expirationDate
Physical data type: datetime
Allow NULLs: Not allowed

18. totalVal
Physical data type: int
Allow NULLs: Allowed

19. WBSName
Physical data type: varchar(50)
Allow NULLs: Allowed

20. WBSDesc
Physical data type: varchar(255)
Allow NULLs: Allowed

21. webcaType
Physical data type: varchar(50)
Allow NULLs: Allowed

Index details

IX_WCA_Project_orgID
Column(s): orgID (Asc)
Unique: No
Extended attributes:
OnFileGroup PRIMARY
CLUSTERED No
IGNORE_DUP_KEY No
FILLFACTOR 90
PAD_INDEX No
DROP_EXISTING No
STATISTICS_NORECOMPUTE No

Foreign key details (child)

FK_WCA_Project_WCA_Organization

Definition: **Child** **Parent**
orgID WCA_Organization.orgID

Relationship type: Non-Identifying
Cardinality: One -to- Zero-or-More
Allow NULLs: Not allowed
Verb phrase: hasFK_WCA_Project_WCA_Organization
Inverse phrase: is of
Ref. Integrity on update: No Action
Ref. Integrity on delete: No Action

WCA_ProjEquipInven

Owner: dbo
Target DB name: WCA310_D
Number of columns: 30

Number of indexes: 0
Number of foreign keys: 1

Extended attributes:
OnFileGroup PRIMARY
TextImageOnGroup PRIMARY
Clustered PK No

Columns	Data type	Allow NULLs	Value/Range
PID (FK)	decimal(18,0)	Not allowed	
equipID	decimal(18,0)	Not allowed	
platID	decimal(18,0)	Not allowed	
equipMfr	varchar(50)	Allowed	
equipModel	varchar(50)	Allowed	
equipSN	varchar(50)	Allowed	
equipDescription	text	Allowed	
equipHwFamily	varchar(20)	Allowed	
equipCPUType	varchar(50)	Allowed	
equipCPUQty	varchar(50)	Allowed	
equipCPUSpeed	varchar(50)	Allowed	
equipRAM	varchar(50)	Allowed	
equipDiskSize	varchar(50)	Allowed	
equipDiskDesc	text	Allowed	
equipOtherStorage	text	Allowed	
equipDisplay	varchar(50)	Allowed	
equipOtherHw	text	Allowed	
equipOsReference	varchar(50)	Allowed	
equipOsFamily	varchar(20)	Allowed	
equipOsMfr	varchar(50)	Allowed	
equipOSName	varchar(50)	Allowed	
equipOSVersion	varchar(50)	Allowed	
equipOSDescription	text	Allowed	
equipIPAddress	varchar(255)	Not allowed	
equipMAC	varchar(20)	Allowed	
equipHostName	varchar(50)	Allowed	
equipTestFlag	char(1)	Allowed	
equipLocation	varchar(50)	Allowed	
equipVisualId	varchar(50)	Allowed	
equipOsPatchLevel	varchar(50)	Allowed	

Foreign keys	Child	Parent
FK_WCA_ProjEquipInven1	PID	WCA_Project.PID

Column details

1. PID (FK)
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

2. equipID
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

3. platID
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

4. equipMfr

Physical data type: varchar(50)
Allow NULLs: Allowed

5. equipModel
Physical data type: varchar(50)
Allow NULLs: Allowed

6. equipSN
Physical data type: varchar(50)
Allow NULLs: Allowed

7. equipDescription
Physical data type: text
Allow NULLs: Allowed

8. equipHwFamily
Physical data type: varchar(20)
Allow NULLs: Allowed

9. equipCPUType
Physical data type: varchar(50)
Allow NULLs: Allowed

10. equipCPUQty
Physical data type: varchar(50)
Allow NULLs: Allowed

11. equipCPUSpeed
Physical data type: varchar(50)
Allow NULLs: Allowed

12. equipRAM
Physical data type: varchar(50)
Allow NULLs: Allowed

13. equipDiskSize
Physical data type: varchar(50)
Allow NULLs: Allowed

14. equipDiskDesc
Physical data type: text
Allow NULLs: Allowed

15. equipOtherStorage
Physical data type: text
Allow NULLs: Allowed

16. equipDisplay
Physical data type: varchar(50)
Allow NULLs: Allowed

17. equipOtherHw
Physical data type: text
Allow NULLs: Allowed

18. equipOsReference

Physical data type: varchar(50)
Allow NULLs: Allowed

19. equipOsFamily
Physical data type: varchar(20)
Allow NULLs: Allowed

20. equipOsMfr
Physical data type: varchar(50)
Allow NULLs: Allowed

21. equipOSName
Physical data type: varchar(50)
Allow NULLs: Allowed

22. equipOSVersion
Physical data type: varchar(50)
Allow NULLs: Allowed

23. equipOSDescription
Physical data type: text
Allow NULLs: Allowed

24. equipIPAddress
Physical data type: varchar(255)
Allow NULLs: Not allowed

25. equipMAC
Physical data type: varchar(20)
Allow NULLs: Allowed

26. equipHostName
Physical data type: varchar(50)
Allow NULLs: Allowed

27. equipTestFlag
Physical data type: char(1)
Allow NULLs: Allowed

28. equipLocation
Physical data type: varchar(50)
Allow NULLs: Allowed

29. equipVisualId
Physical data type: varchar(50)
Allow NULLs: Allowed

30. equipOsPatchLevel
Physical data type: varchar(50)
Allow NULLs: Allowed

Foreign key details (child)
FK_WCA_ProjEquipInven1

Definition: **Child** **Parent**
PID WCA_Project.PID

Relationship type: Identifying
Cardinality: One -to- Zero-or-More
Allow NULLs: Not allowed
Verb phrase: hasFK_WCA_ProjEquipInven1
Inverse phrase: is of
Ref. Integrity on update: No Action
Ref. Integrity on delete: No Action

WCA_ProjEquipSW

Owner: dbo
Target DB name: WCA310_D
Number of columns: 3
Number of indexes: 0
Number of foreign keys: 1

Extended attributes:
OnFileGroup PRIMARY
Clustered PK No

Columns	Data type	Allow NULLs	Value/Range
PID (FK)	decimal(18,0)	Not allowed	
equipID	decimal(18,0)	Not allowed	
softID (FK)	decimal(18,0)	Not allowed	

Foreign keys	Child	Parent
FK_WCA_ProjEquip1	PID	WCA_ProjSWInven.PID
	softID	WCA_ProjSWInven.softID

Column details

1. PID (FK)
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

2. equipID
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

3. softID (FK)
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

Foreign key details (child)

FK_WCA_ProjEquip1

Definition: **Child** **Parent**
PID WCA_ProjSWInven.PID
softID WCA_ProjSWInven.softID

Relationship type: Identifying

Cardinality: One -to- Zero-or-More
Allow NULLs: Not allowed
Verb phrase: hasFK_WCA_ProjEquip1
Inverse phrase: is of
Ref. Integrity on update: No Action
Ref. Integrity on delete: No Action

WCA_ProjEventStatus

Owner: dbo
Target DB name: WCA310_D
Number of columns: 7
Number of indexes: 0
Number of foreign keys: 1

Extended attributes:
OnFileGroup PRIMARY
Clustered PK No

Columns	Data type	Allow NULLs	Value/Range
PID (FK)	decimal(18,0)	Not allowed	
EventID	varchar(50)	Not allowed	
FirstOccurred	datetime	Not allowed	
LastModified	datetime	Allowed	
EventStatus	varchar(15)	Not allowed	
UserID	decimal(18,0)	Allowed	
PublishingTitle	varchar(255)	Allowed	

Foreign keys	Child	Parent
FK_WCA_ProjEventStatus_WCA_Project	PID	WCA_Project.PID

Column details

1. PID (FK)
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

2. EventID
Physical data type: varchar(50)
Allow NULLs: Not allowed

3. FirstOccurred
Physical data type: datetime
Allow NULLs: Not allowed

4. LastModified
Physical data type: datetime
Allow NULLs: Allowed

5. EventStatus
Physical data type: varchar(15)
Allow NULLs: Not allowed

6. UserID

Physical data type: decimal(18,0)
Allow NULLs: Allowed

7. PublishingTitle
Physical data type: varchar(255)
Allow NULLs: Allowed

Foreign key details (child)
FK_WCA_ProjEventStatus_WCA_Project

Definition: **Child** **Parent**
PID WCA_Project.PID

Relationship type: Non-Identifying
Cardinality: One -to- Zero-or-More
Allow NULLs: Not allowed
Verb phrase: hasFK_WCA_ProjEventStatus_WCA_Project
Inverse phrase: is of
Ref. Integrity on update: No Action
Ref. Integrity on delete: No Action

WCA_ProjFile

Owner: dbo
Target DB name: WCA310_D
Number of columns: 6
Number of indexes: 0
Number of foreign keys: 1

Extended attributes:
OnFileGroup PRIMARY
Clustered PK No

Columns	Data type	Allow NULLs	Value/Range
ID	int	Not allowed	
PID (FK)	decimal(18,0)	Not allowed	
fSize	int	Not allowed	
name	varchar(255)	Not allowed	
type	varchar(255)	Not allowed	
creationDate	decimal(18,0)	Not allowed	

Foreign keys	Child	Parent
FK_WCA_ProjFile_WCA_Project	PID	WCA_Project.PID

Column details

1. ID
Physical data type: int
Allow NULLs: Not allowed

2. PID (FK)
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

3. fSize

Physical data type: int
Allow NULLs: Not allowed

4. name
Physical data type: varchar(255)
Allow NULLs: Not allowed

5. type
Physical data type: varchar(255)
Allow NULLs: Not allowed

6. creationDate
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

Foreign key details (child)
FK_WCA_ProjFile_WCA_Project

Definition: **Child** **Parent**
PID WCA_Project.PID

Relationship type: Non-Identifying
Cardinality: One -to- Zero-or-More
Allow NULLs: Not allowed
Verb phrase: hasFK_WCA_ProjFile_WCA_Project
Inverse phrase: is of
Ref. Integrity on update: No Action
Ref. Integrity on delete: No Action

WCA_ProjFileData

Owner: dbo
Target DB name: WCA310_D
Number of columns: 4
Number of indexes: 0
Number of foreign keys: 1

Extended attributes:
OnFileGroup PRIMARY
Clustered PK No

Columns	Data type	Allow NULLs	Value/Range
ID	int	Not allowed	
PID (FK)	decimal(18,0)	Not allowed	
offset	int	Not allowed	
fdData	varchar(4000)	Allowed	

Foreign keys	Child	Parent
FK_WCA_ProjFileData_WCA_Project	PID	WCA_Project.PID

Column details

1. ID
Physical data type: int

Allow NULLs: Not allowed

2. PID (FK)
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

3. offset
Physical data type: int
Allow NULLs: Not allowed

4. fdData
Physical data type: varchar(4000)
Allow NULLs: Allowed

Foreign key details (child)
FK_WCA_ProjFileData_WCA_Project

Definition: **Child** **Parent**
PID WCA_Project.PID

Relationship type: Non-Identifying
Cardinality: One -to- Zero-or-More
Allow NULLs: Not allowed
Verb phrase: hasFK_WCA_ProjFileData_WCA_Project
Inverse phrase: is of
Ref. Integrity on update: No Action
Ref. Integrity on delete: No Action

WCA_ProjMilestone

Owner: dbo
Target DB name: WCA310_D
Number of columns: 6
Number of indexes: 0
Number of foreign keys: 1

Extended attributes:
OnFileGroup PRIMARY
TextImageOnGroup PRIMARY
Clustered PK No

Columns	Data type	Allow NULLs	Value/Range
PID (FK)	decimal(18,0)	Not allowed	
milestoneID	decimal(18,0)	Not allowed	
title	varchar(50)	Not allowed	
milestoneDate	varchar(50)	Allowed	
milestone	text	Allowed	
newDate	datetime	Allowed	

Foreign keys	Child	Parent
FK_WCA_ProjMilestone_WCA_Project	PID	WCA_Project.PID

Column details
1. PID (FK)

Physical data type: decimal(18,0)
Allow NULLs: Not allowed

2. milestoneID
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

3. title
Physical data type: varchar(50)
Allow NULLs: Not allowed

4. milestoneDate
Physical data type: varchar(50)
Allow NULLs: Allowed

5. milestone
Physical data type: text
Allow NULLs: Allowed

6. newDate
Physical data type: datetime
Allow NULLs: Allowed

Foreign key details (child)

FK_WCA_ProjMilestone_WCA_Project

Definition: **Child** **Parent**
PID WCA_Project.PID

Relationship type: Identifying
Cardinality: One -to- Zero-or-More
Allow NULLs: Not allowed
Verb phrase: hasFK_WCA_ProjMilestone_WCA_Project
Inverse phrase: is of
Ref. Integrity on update: No Action
Ref. Integrity on delete: No Action

WCA_ProjParaFig

Owner: dbo
Target DB name: WCA310_D
Number of columns: 9
Number of indexes: 0
Number of foreign keys: 1

Extended attributes:
OnFileGroup PRIMARY
Clustered PK No

Columns	Data type	Allow NULLs	Value/Range
ID	int	Not allowed	
PID (FK)	decimal(18,0)	Not allowed	
fileID	decimal(18,0)	Not allowed	

figureName	varchar(255)	Not allowed
figureNumber	int	Allowed
figureType	varchar(50)	Allowed
document	varchar(50)	Allowed
figureTitle	varchar(255)	Allowed
paragraph	varchar(50)	Allowed

Foreign keys	Child	Parent
FK_WCA_ProjParaFig	PID	WCA_Project.PID

Column details

1. ID
Physical data type: int
Allow NULLs: Not allowed

2. PID (FK)
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

3. fileID
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

4. figureName
Physical data type: varchar(255)
Allow NULLs: Not allowed

5. figureNumber
Physical data type: int
Allow NULLs: Allowed

6. figureType
Physical data type: varchar(50)
Allow NULLs: Allowed

7. document
Physical data type: varchar(50)
Allow NULLs: Allowed

8. figureTitle
Physical data type: varchar(255)
Allow NULLs: Allowed

9. paragraph
Physical data type: varchar(50)
Allow NULLs: Allowed

Foreign key details (child)

FK_WCA_ProjParaFig

Definition: **Child** **Parent**
PID WCA_Project.PID

Relationship type: Non-Identifying
Cardinality: One -to- Zero-or-More

Allow NULLs: Not allowed
Verb phrase: hasFK_WCA_ProjParaFig
Inverse phrase: is of
Ref. Integrity on update: No Action
Ref. Integrity on delete: No Action

WCA_ProjPersonnel

Owner: dbo
Target DB name: WCA310_D
Number of columns: 19
Number of indexes: 0
Number of foreign keys: 1

Extended attributes:
OnFileGroup PRIMARY
Clustered PK No

Columns	Data type	Allow NULLs	Value/Range
projPersID	decimal(18,0)	Not allowed	
roleGroup	varchar(50)	Not allowed	
roleName	varchar(50)	Not allowed	
title	varchar(50)	Allowed	
fname	varchar(50)	Not allowed	
mi	varchar(50)	Allowed	
lname	varchar(50)	Not allowed	
office	varchar(50)	Allowed	
ppOrganization	varchar(50)	Allowed	
address1	varchar(50)	Allowed	
address2	varchar(50)	Allowed	
city	varchar(50)	Allowed	
state	varchar(50)	Allowed	
zip	varchar(50)	Allowed	
phone	varchar(50)	Allowed	
officeDesignation	varchar(50)	Allowed	
PID (FK)	decimal(18,0)	Not allowed	
fax	varchar(50)	Allowed	
email	varchar(50)	Allowed	

Foreign keys	Child	Parent
FK_WCA_ProjPers_WCA_Project	PID	WCA_Project.PID

Column details

1. projPersID
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

2. roleGroup
Physical data type: varchar(50)
Allow NULLs: Not allowed

3. roleName
Physical data type: varchar(50)
Allow NULLs: Not allowed

4. title
Physical data type: varchar(50)
Allow NULLs: Allowed

5. fname
Physical data type: varchar(50)
Allow NULLs: Not allowed

6. mi
Physical data type: varchar(50)
Allow NULLs: Allowed

7. lname
Physical data type: varchar(50)
Allow NULLs: Not allowed

8. office
Physical data type: varchar(50)
Allow NULLs: Allowed

9. ppOrganization
Physical data type: varchar(50)
Allow NULLs: Allowed

10. address1
Physical data type: varchar(50)
Allow NULLs: Allowed

11. address2
Physical data type: varchar(50)
Allow NULLs: Allowed

12. city
Physical data type: varchar(50)
Allow NULLs: Allowed

13. state
Physical data type: varchar(50)
Allow NULLs: Allowed

14. zip
Physical data type: varchar(50)
Allow NULLs: Allowed

15. phone
Physical data type: varchar(50)
Allow NULLs: Allowed

16. officeDesignation
Physical data type: varchar(50)
Allow NULLs: Allowed

17. PID (FK)
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

18. fax
Physical data type: varchar(50)
Allow NULLs: Allowed

19. email
Physical data type: varchar(50)
Allow NULLs: Allowed

Foreign key details (child)

FK_WCA_ProjPers_WCA_Project

Definition: **Child** **Parent**
PID WCA_Project.PID

Relationship type: Non-Identifying
Cardinality: One -to- Zero-or-More
Allow NULLs: Not allowed
Verb phrase: hasFK_WCA_ProjPers_WCA_Project
Inverse phrase: is of
Ref. Integrity on update: No Action
Ref. Integrity on delete: No Action

WCA_ProjPlatCat

Owner: dbo
Target DB name: WCA310_D
Number of columns: 30
Number of indexes: 0
Number of foreign keys: 1

Extended attributes:
OnFileGroup PRIMARY
TextImageOnGroup PRIMARY
Clustered PK No

Columns	Data type	Allow NULLs	Value/Range
PID (FK)	decimal(18,0)	Not allowed	
platID	decimal(18,0)	Not allowed	
platCategory	varchar(50)	Not allowed	
platDescription	text	Allowed	
platQtyEstimated	decimal(18,0)	Allowed	
platQtyActual	decimal(18,0)	Allowed	
platTestStrategy	char(5)	Not allowed	
platHwFamily	varchar(20)	Not allowed	
platMfr	varchar(50)	Allowed	
platModel	varchar(50)	Allowed	
platCpuType	varchar(50)	Allowed	
platCpuQty	varchar(50)	Allowed	
platCpuSpeeed	varchar(50)	Allowed	
platRam	varchar(50)	Allowed	
platDiskSize	varchar(50)	Allowed	
platDiskDesc	text	Allowed	
platOtherStorage	text	Allowed	
platDisplay	varchar(50)	Allowed	
platOtherHw	text	Allowed	

platOsReference	varchar(50)	Allowed
platOsFamily	varchar(20)	Allowed
platOsMfr	varchar(50)	Allowed
platOsName	varchar(50)	Allowed
platOsVersion	varchar(50)	Allowed
platOsPatchLevel	varchar(50)	Allowed
platOsDescription	text	Allowed
platIpAddress	varchar(255)	Allowed
platSn	varchar(50)	Allowed
platLocation	varchar(50)	Allowed
platVisualId	varchar(50)	Allowed

Foreign keys	Child	Parent
FK_WCA_ProjPlatCat_WCA_Project	PID	WCA_Project.PID

Column details

1. PID (FK)
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

2. platID
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

3. platCategory
Physical data type: varchar(50)
Allow NULLs: Not allowed

4. platDescription
Physical data type: text
Allow NULLs: Allowed

5. platQtyEstimated
Physical data type: decimal(18,0)
Allow NULLs: Allowed

6. platQtyActual
Physical data type: decimal(18,0)
Allow NULLs: Allowed

7. platTestStrategy
Physical data type: char(5)
Allow NULLs: Not allowed

8. platHwFamily
Physical data type: varchar(20)
Allow NULLs: Not allowed

9. platMfr
Physical data type: varchar(50)
Allow NULLs: Allowed

10. platModel
Physical data type: varchar(50)
Allow NULLs: Allowed

11. platCpuType

Physical data type: varchar(50)
Allow NULLs: Allowed

12. platCpuQty
Physical data type: varchar(50)
Allow NULLs: Allowed

13. platCpuSpeeed
Physical data type: varchar(50)
Allow NULLs: Allowed

14. platRam
Physical data type: varchar(50)
Allow NULLs: Allowed

15. platDiskSize
Physical data type: varchar(50)
Allow NULLs: Allowed

16. platDiskDesc
Physical data type: text
Allow NULLs: Allowed

17. platOtherStorage
Physical data type: text
Allow NULLs: Allowed

18. platDisplay
Physical data type: varchar(50)
Allow NULLs: Allowed

19. platOtherHw
Physical data type: text
Allow NULLs: Allowed

20. platOsReference
Physical data type: varchar(50)
Allow NULLs: Allowed

21. platOsFamily
Physical data type: varchar(20)
Allow NULLs: Allowed

22. platOsMfr
Physical data type: varchar(50)
Allow NULLs: Allowed

23. platOsName
Physical data type: varchar(50)
Allow NULLs: Allowed

24. platOsVersion
Physical data type: varchar(50)
Allow NULLs: Allowed

25. platOsPatchLevel

Physical data type: varchar(50)
Allow NULLs: Allowed

26. platOsDescription
Physical data type: text
Allow NULLs: Allowed

27. platIpAddress
Physical data type: varchar(255)
Allow NULLs: Allowed

28. platSn
Physical data type: varchar(50)
Allow NULLs: Allowed

29. platLocation
Physical data type: varchar(50)
Allow NULLs: Allowed

30. platVisualId
Physical data type: varchar(50)
Allow NULLs: Allowed

Foreign key details (child)

FK_WCA_ProjPlatCat_WCA_Project

Definition: **Child** **Parent**
PID WCA_Project.PID

Relationship type: Identifying
Cardinality: One -to- Zero-or-More
Allow NULLs: Not allowed
Verb phrase: hasFK_WCA_ProjPlatCat_WCA_Project
Inverse phrase: is of
Ref. Integrity on update: No Action
Ref. Integrity on delete: No Action

WCA_ProjPlatSW

Owner: dbo
Target DB name: WCA310_D
Number of columns: 3
Number of indexes: 0
Number of foreign keys: 1

Extended attributes:
OnFileGroup PRIMARY
Clustered PK No

Columns	Data type	Allow NULLs	Value/Range
PID (FK)	decimal(18,0)	Not allowed	
platID	decimal(18,0)	Not allowed	
softID (FK)	decimal(18,0)	Not allowed	

Foreign keys	Child	Parent
FK_WCA_ProjPlatSW1	PID	WCA_ProjSWInven.PID
	softID	WCA_ProjSWInven.softID

Column details

1. PID (FK)
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

2. platID
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

3. softID (FK)
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

Foreign key details (child)

FK_WCA_ProjPlatSW1

Definition: **Child** **Parent**
PID WCA_ProjSWInven.PID
softID WCA_ProjSWInven.softID

Relationship type: Identifying
Cardinality: One -to- Zero-or-More
Allow NULLs: Not allowed
Verb phrase: hasFK_WCA_ProjPlatSW1
Inverse phrase: is of
Ref. Integrity on update: No Action
Ref. Integrity on delete: No Action

WCA_ProjReference

Owner: dbo
Target DB name: WCA310_D
Number of columns: 12
Number of indexes: 0
Number of foreign keys: 1

Extended attributes:
OnFileGroup PRIMARY
Clustered PK No

Columns	Data type	Allow NULLs	Value/Range
projRefID	decimal(18,0)	Not allowed	
PID (FK)	decimal(18,0)	Not allowed	
title	varchar(255)	Not allowed	
shortTitle	varchar(255)	Allowed	
author	varchar(50)	Allowed	
refDate	varchar(50)	Allowed	
version	varchar(50)	Allowed	
url	varchar(255)	Allowed	

refType	char(1)	Allowed
regID	decimal(18,0)	Not allowed
appendix	varchar(50)	Allowed
refInstance	decimal(18,0)	Allowed

Foreign keys	Child	Parent
FK_WCA_ProjReference_WCA_Project	PID	WCA_Project.PID

Column details

1. projRefID
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

2. PID (FK)
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

3. title
Physical data type: varchar(255)
Allow NULLs: Not allowed

4. shortTitle
Physical data type: varchar(255)
Allow NULLs: Allowed

5. author
Physical data type: varchar(50)
Allow NULLs: Allowed

6. refDate
Physical data type: varchar(50)
Allow NULLs: Allowed

7. version
Physical data type: varchar(50)
Allow NULLs: Allowed

8. url
Physical data type: varchar(255)
Allow NULLs: Allowed

9. refType
Physical data type: char(1)
Allow NULLs: Allowed

10. regID
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

11. appendix
Physical data type: varchar(50)
Allow NULLs: Allowed

12. refInstance
Physical data type: decimal(18,0)
Allow NULLs: Allowed

Foreign key details (child)

FK_WCA_ProjReference_WCA_Project

Definition: **Child** **Parent**
PID WCA_Project.PID

Relationship type: Non-Identifying
Cardinality: One -to- Zero-or-More
Allow NULLs: Not allowed
Verb phrase: hasFK_WCA_ProjReference_WCA_Project
Inverse phrase: is of
Ref. Integrity on update: No Action
Ref. Integrity on delete: No Action

WCA_ProjRiskElem

Owner: dbo
Target DB name: WCA310_D
Number of columns: 18
Number of indexes: 0
Number of foreign keys: 1

Extended attributes:
OnFileGroup PRIMARY
TextImageOnGroup PRIMARY
Clustered PK Yes

Columns	Data type	Allow NULLs	Value/Range
PID (FK)	decimal(18,0)	Not allowed	
testFailure	varchar(100)	Not allowed	
associatedRqmt	text	Allowed	
statementOfIssue	text	Allowed	
impactStatement	text	Allowed	
safeGuard	text	Allowed	
riskAssessment	text	Allowed	
calcRiskLevel	varchar(50)	Allowed	
userRiskLevel	varchar(50)	Allowed	
threatCorrelation	varchar(50)	Allowed	
hwPlatform	varchar(50)	Allowed	
riskElemRef	decimal(18,0)	Allowed	
totalPopulation	decimal(18,0)	Allowed	
testPopulation	decimal(18,0)	Allowed	
totalFailed	decimal(18,0)	Allowed	
platID	decimal(18,0)	Not allowed	
testCategoryID	decimal(18,0)	Not allowed	
analysisComp	char(3)	Allowed	

Foreign keys	Child	Parent
FK_WCA_ProjRiskElem	PID	WCA_Project.PID

Column details

1. PID (FK)
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

2. testFailure
Physical data type: varchar(100)
Allow NULLs: Not allowed

3. associatedRqmt
Physical data type: text
Allow NULLs: Allowed

4. statementOfIssue
Physical data type: text
Allow NULLs: Allowed

5. impactStatement
Physical data type: text
Allow NULLs: Allowed

6. safeGuard
Physical data type: text
Allow NULLs: Allowed

7. riskAssessment
Physical data type: text
Allow NULLs: Allowed

8. calcRiskLevel
Physical data type: varchar(50)
Allow NULLs: Allowed

9. userRiskLevel
Physical data type: varchar(50)
Allow NULLs: Allowed

10. threatCorrelation
Physical data type: varchar(50)
Allow NULLs: Allowed

11. hwPlatform
Physical data type: varchar(50)
Allow NULLs: Allowed

12. riskElemRef
Physical data type: decimal(18,0)
Allow NULLs: Allowed

13. totalPopulation
Physical data type: decimal(18,0)
Allow NULLs: Allowed

14. testPopulation
Physical data type: decimal(18,0)
Allow NULLs: Allowed

15. totalFailed
Physical data type: decimal(18,0)
Allow NULLs: Allowed

16. platID
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

17. testCategoryID
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

18. analysisComp
Physical data type: char(3)
Allow NULLs: Allowed

Foreign key details (child)

FK_WCA_ProjRiskElem

Definition: **Child** **Parent**
PID WCA_Project.PID

Relationship type: Identifying
Cardinality: One -to- Zero-or-More
Allow NULLs: Not allowed
Verb phrase: hasFK_WCA_ProjRiskElem
Inverse phrase: is of
Ref. Integrity on update: No Action
Ref. Integrity on delete: No Action

WCA_ProjRqmt

Owner: dbo
Target DB name: WCA310_D
Number of columns: 23
Number of indexes: 1
Number of foreign keys: 1

Extended attributes:
OnFileGroup PRIMARY
Clustered PK No

Columns	Data type	Allow NULLs	Value/Range
projRqmtID	decimal(18,0)	Not allowed	
PID (FK,I1)	decimal(18,0)	Not allowed	
regID (I1)	decimal(18,0)	Allowed	
sourceDoc	varchar(50)	Not allowed	
paragraph	varchar(255)	Not allowed	
title	varchar(255)	Not allowed	
statedRequirement	varchar(4000)	Not allowed	
result	varchar(50)	Allowed	
certReportRef	varchar(255)	Allowed	
cat1	varchar(50)	Allowed	
cat2	varchar(50)	Allowed	
cat3	varchar(50)	Allowed	
alreadyPulled	char(1)	Allowed	
templateID	decimal(18,0)	Allowed	

regType	char(1)	Allowed
allowEdit	decimal(18,0)	Not allowed
testCategoryId	decimal(18,0)	Allowed
interviewFlag	char(1)	Allowed
observationFlag	char(1)	Allowed
documentFlag	char(1)	Allowed
testFlag	char(1)	Allowed
srtmResult	varchar(50)	Allowed
rqmtOrder	varchar(255)	Allowed

Indexes	Columns	Sort order
IX_WCA_ProjRqmt (I1)	PID	Ascending
	regID	Ascending

Foreign keys	Child	Parent
FK_WCA_ProjRqmt	PID	WCA_Project.PID

Column details

1. projRqmtID
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

2. PID (FK,I1)
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

3. regID (I1)
Physical data type: decimal(18,0)
Allow NULLs: Allowed

4. sourceDoc
Physical data type: varchar(50)
Allow NULLs: Not allowed

5. paragraph
Physical data type: varchar(255)
Allow NULLs: Not allowed

6. title
Physical data type: varchar(255)
Allow NULLs: Not allowed

7. statedRequirement
Physical data type: varchar(4000)
Allow NULLs: Not allowed

8. result
Physical data type: varchar(50)
Allow NULLs: Allowed

9. certReportRef
Physical data type: varchar(255)
Allow NULLs: Allowed

10. cat1
Physical data type: varchar(50)
Allow NULLs: Allowed

11. cat2
Physical data type: varchar(50)
Allow NULLs: Allowed

12. cat3
Physical data type: varchar(50)
Allow NULLs: Allowed

13. alreadyPulled
Physical data type: char(1)
Allow NULLs: Allowed

14. templateID
Physical data type: decimal(18,0)
Allow NULLs: Allowed

15. regType
Physical data type: char(1)
Allow NULLs: Allowed

16. allowEdit
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

17. testCategoryId
Physical data type: decimal(18,0)
Allow NULLs: Allowed

18. interviewFlag
Physical data type: char(1)
Allow NULLs: Allowed

19. observationFlag
Physical data type: char(1)
Allow NULLs: Allowed

20. documentFlag
Physical data type: char(1)
Allow NULLs: Allowed

21. testFlag
Physical data type: char(1)
Allow NULLs: Allowed

22. srtmResult
Physical data type: varchar(50)
Allow NULLs: Allowed

23. rqmtOrder
Physical data type: varchar(255)
Allow NULLs: Allowed

Index details

IX_WCA_ProjRqmt

Column(s): PID (Asc)
regID (Asc)
Unique: No
Extended attributes:
OnFileGroup PRIMARY
CLUSTERED No
IGNORE_DUP_KEY No
FILLFACTOR 90
PAD_INDEX No
DROP_EXISTING No
STATISTICS_NORECOMPUTE No

Foreign key details (child)

FK_WCA_ProjRqmt

Definition: **Child** **Parent**
PID WCA_Project.PID

Relationship type: Non-Identifying
Cardinality: One -to- Zero-or-More
Allow NULLs: Not allowed
Verb phrase: hasFK_WCA_ProjRqmt
Inverse phrase: is of
Ref. Integrity on update: No Action
Ref. Integrity on delete: No Action

WCA_ProjSWInven

Owner: dbo
Target DB name: WCA310_D
Number of columns: 9
Number of indexes: 0
Number of foreign keys: 0

Extended attributes:
OnFileGroup PRIMARY
TextImageOnGroup PRIMARY
Clustered PK No

Columns	Data type	Allow NULLs	Value/Range
PID	decimal(18,0)	Not allowed	
softID	decimal(18,0)	Not allowed	
softName	varchar(50)	Not allowed	
softMfr	varchar(50)	Not allowed	
softVersion	varchar(50)	Not allowed	
softPatchLevel	varchar(255)	Allowed	
softDescription	text	Allowed	
SWReference	varchar(50)	Allowed	
SWFamily	varchar(20)	Allowed	

Foreign keys	Child	Parent
FK_WCA_ProjEquip1	WCA_ProjEquipSW.PID	PID
	WCA_ProjEquipSW.softID	softID
FK_WCA_ProjPlatSW1	WCA_ProjPlatSW.PID	PID

Column details

1. PID
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

2. softID
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

3. softName
Physical data type: varchar(50)
Allow NULLs: Not allowed

4. softMfr
Physical data type: varchar(50)
Allow NULLs: Not allowed

5. softVersion
Physical data type: varchar(50)
Allow NULLs: Not allowed

6. softPatchLevel
Physical data type: varchar(255)
Allow NULLs: Allowed

7. softDescription
Physical data type: text
Allow NULLs: Allowed

8. SWReference
Physical data type: varchar(50)
Allow NULLs: Allowed

9. SWFamily
Physical data type: varchar(20)
Allow NULLs: Allowed

WCA_ProjSysInterf

Owner: dbo
Target DB name: WCA310_D
Number of columns: 4
Number of indexes: 0
Number of foreign keys: 1

Extended attributes:
OnFileGroup PRIMARY
TextImageOnGroup PRIMARY
Clustered PK No

Columns	Data type	Allow NULLs	Value/Range
interfaceID	decimal(18,0)	Not allowed	

interfaceName	varchar(50)	Allowed
interfaceDesc	text	Allowed
PID (FK)	decimal(18,0)	Not allowed

Foreign keys	Child	Parent
FK_WCA_ProjSysInterface_WCA_Project	PID	WCA_Project.PID

Column details

1. interfaceID
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

2. interfaceName
Physical data type: varchar(50)
Allow NULLs: Allowed

3. interfaceDesc
Physical data type: text
Allow NULLs: Allowed

4. PID (FK)
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

Foreign key details (child)

FK_WCA_ProjSysInterface_WCA_Project

Definition: **Child** **Parent**
PID WCA_Project.PID

Relationship type: Non-Identifying
Cardinality: One -to- Zero-or-More
Allow NULLs: Not allowed
Verb phrase: hasFK_WCA_ProjSysInterface_WCA_Project
Inverse phrase: is of
Ref. Integrity on update: No Action
Ref. Integrity on delete: No Action

WCA_ProjSysLvlRisk

Owner: dbo
Target DB name: WCA310_D
Number of columns: 4
Number of indexes: 0
Number of foreign keys: 1

Extended attributes:
OnFileGroup PRIMARY
TextImageOnGroup PRIMARY
Clustered PK No

Columns	Data type	Allow NULLs	Value/Range
PID (FK)	decimal(18,0)	Not allowed	

riskDescription	text	Allowed
calcRiskLevel	varchar(50)	Allowed
userDefRiskLevel	varchar(50)	Allowed

Foreign keys	Child	Parent
FK_WCA_ProjSysLvlRisk_WCA_Project	PID	WCA_Project.PID

Column details

1. PID (FK)
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

2. riskDescription
Physical data type: text
Allow NULLs: Allowed

3. calcRiskLevel
Physical data type: varchar(50)
Allow NULLs: Allowed

4. userDefRiskLevel
Physical data type: varchar(50)
Allow NULLs: Allowed

Foreign key details (child)

FK_WCA_ProjSysLvlRisk_WCA_Project

Definition: **Child** **Parent**
PID WCA_Project.PID

Relationship type: Non-Identifying
Cardinality: One -to- Zero-or-More
Allow NULLs: Not allowed
Verb phrase: hasFK_WCA_ProjSysLvlRisk_WCA_Project
Inverse phrase: is of
Ref. Integrity on update: No Action
Ref. Integrity on delete: No Action

WCA_ProjSystemUser

Owner: dbo
Target DB name: WCA310_D
Number of columns: 8
Number of indexes: 0
Number of foreign keys: 1

Extended attributes:
OnFileGroup PRIMARY
TextImageOnGroup PRIMARY
Clustered PK No

Columns	Data type	Allow NULLs	Value/Range
sysUserID	decimal(18,0)	Not allowed	

PID (FK)	decimal(18,0)	Not allowed
category	varchar(50)	Not allowed
minClearance	varchar(50)	Not allowed
aisCertLevel	varchar(50)	Not allowed
foreignNational	varchar(50)	Not allowed
psuDescription	text	Allowed
rank	int	Not allowed

Foreign keys	Child	Parent
FK_WCA_ProjSystemUser_WCA_Project	PID	WCA_Project.PID

Column details

1. sysUserID
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

2. PID (FK)
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

3. category
Physical data type: varchar(50)
Allow NULLs: Not allowed

4. minClearance
Physical data type: varchar(50)
Allow NULLs: Not allowed

5. aisCertLevel
Physical data type: varchar(50)
Allow NULLs: Not allowed

6. foreignNational
Physical data type: varchar(50)
Allow NULLs: Not allowed

7. psuDescription
Physical data type: text
Allow NULLs: Allowed

8. rank
Physical data type: int
Allow NULLs: Not allowed

Foreign key details (child)

FK_WCA_ProjSystemUser_WCA_Project

Definition: **Child** **Parent**
PID WCA_Project.PID

Relationship type: Non-Identifying
Cardinality: One -to- Zero-or-More
Allow NULLs: Not allowed
Verb phrase: hasFK_WCA_ProjSystemUser_WCA_Project
Inverse phrase: is of

Ref. Integrity on update: No Action
Ref. Integrity on delete: No Action

WCA_ProjSysThreat

Owner: dbo
Target DB name: WCA310_D
Number of columns: 5
Number of indexes: 0
Number of foreign keys: 1

Extended attributes:
OnFileGroup PRIMARY
Clustered PK No

Columns	Data type	Allow NULLs	Value/Range
PID (FK)	decimal(18,0)	Not allowed	
threatElement	varchar(50)	Not allowed	
calcValue	varchar(50)	Allowed	
userDefinedValue	varchar(50)	Allowed	
threatCategory	varchar(50)	Allowed	

Foreign keys	Child	Parent
FK_WCA_ProjSysThreat	PID	WCA_Project.PID

Column details

1. PID (FK)
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

2. threatElement
Physical data type: varchar(50)
Allow NULLs: Not allowed

3. calcValue
Physical data type: varchar(50)
Allow NULLs: Allowed

4. userDefinedValue
Physical data type: varchar(50)
Allow NULLs: Allowed

5. threatCategory
Physical data type: varchar(50)
Allow NULLs: Allowed

Foreign key details (child)

FK_WCA_ProjSysThreat

Definition: **Child** **Parent**
PID WCA_Project.PID

Relationship type: Identifying

Cardinality: One -to- Zero-or-More
Allow NULLs: Not allowed
Verb phrase: hasFK_WCA_ProjSysThreat
Inverse phrase: is of
Ref. Integrity on update: No Action
Ref. Integrity on delete: No Action

WCA_ProjTestProc

Owner: dbo
Target DB name: WCA310_D
Number of columns: 34
Number of indexes: 0
Number of foreign keys: 1

Extended attributes:
OnFileGroup PRIMARY
TextImageOnGroup PRIMARY
Clustered PK No

Columns	Data type	Allow NULLs	Value/Range
PID (FK)	decimal(18,0)	Not allowed	
cat1	varchar(50)	Allowed	
cat2	varchar(50)	Allowed	
cat3	varchar(50)	Allowed	
testText	text	Allowed	
expectedResult	text	Allowed	
result	varchar(50)	Allowed	
notes	text	Allowed	
tester	varchar(50)	Allowed	
datePerformed	datetime	Allowed	
hwPlatform	varchar(50)	Allowed	
testNumberType	varchar(50)	Allowed	
threat	varchar(50)	Allowed	
impactStatement	text	Allowed	
testTitle	varchar(100)	Allowed	
interviewFlag	char(1)	Allowed	
observationFlag	char(1)	Allowed	
testFlag	char(1)	Allowed	
documentFlag	char(1)	Allowed	
platID	decimal(18,0)	Not allowed	
associatedRqmt	text	Allowed	
templateID	decimal(18,0)	Not allowed	
testType	char(1)	Not allowed	
projOsType	varchar(50)	Allowed	
testCategoryID	decimal(18,0)	Not allowed	
certAnalysisLevel	decimal(18,0)	Allowed	
testRequirements	text	Allowed	
testObjective	varchar(1000)	Allowed	
testMfr	varchar(50)	Allowed	
testModel	varchar(50)	Allowed	
testSN	varchar(50)	Allowed	
testLocation	varchar(50)	Allowed	
testVisualID	varchar(50)	Allowed	
equipID	decimal(18,0)	Not allowed	

Foreign keys	Child	Parent

FK_WCA_ProjTestProc_WCA_Project	PID	WCA_Project.PID

Column details

1. PID (FK)
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

2. cat1
Physical data type: varchar(50)
Allow NULLs: Allowed

3. cat2
Physical data type: varchar(50)
Allow NULLs: Allowed

4. cat3
Physical data type: varchar(50)
Allow NULLs: Allowed

5. testText
Physical data type: text
Allow NULLs: Allowed

6. expectedResult
Physical data type: text
Allow NULLs: Allowed

7. result
Physical data type: varchar(50)
Allow NULLs: Allowed

8. notes
Physical data type: text
Allow NULLs: Allowed

9. tester
Physical data type: varchar(50)
Allow NULLs: Allowed

10. datePerformed
Physical data type: datetime
Allow NULLs: Allowed

11. hwPlatform
Physical data type: varchar(50)
Allow NULLs: Allowed

12. testNumberType
Physical data type: varchar(50)
Allow NULLs: Allowed

13. threat
Physical data type: varchar(50)
Allow NULLs: Allowed

14. impactStatement

Physical data type: text
Allow NULLs: Allowed

15. testTitle
Physical data type: varchar(100)
Allow NULLs: Allowed

16. interviewFlag
Physical data type: char(1)
Allow NULLs: Allowed

17. observationFlag
Physical data type: char(1)
Allow NULLs: Allowed

18. testFlag
Physical data type: char(1)
Allow NULLs: Allowed

19. documentFlag
Physical data type: char(1)
Allow NULLs: Allowed

20. platID
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

21. associatedRqmt
Physical data type: text
Allow NULLs: Allowed

22. templateID
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

23. testType
Physical data type: char(1)
Allow NULLs: Not allowed

24. projOsType
Physical data type: varchar(50)
Allow NULLs: Allowed

25. testCategoryID
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

26. certAnalysisLevel
Physical data type: decimal(18,0)
Allow NULLs: Allowed

27. testRequirements
Physical data type: text
Allow NULLs: Allowed

28. testObjective

Physical data type: varchar(1000)
Allow NULLs: Allowed

29. testMfr
Physical data type: varchar(50)
Allow NULLs: Allowed

30. testModel
Physical data type: varchar(50)
Allow NULLs: Allowed

31. testSN
Physical data type: varchar(50)
Allow NULLs: Allowed

32. testLocation
Physical data type: varchar(50)
Allow NULLs: Allowed

33. testVisualID
Physical data type: varchar(50)
Allow NULLs: Allowed

34. equipID
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

Foreign key details (child)

FK_WCA_ProjTestProc_WCA_Project

Definition: **Child** **Parent**
PID WCA_Project.PID

Relationship type: Identifying
Cardinality: One -to- Zero-or-More
Allow NULLs: Not allowed
Verb phrase: hasFK_WCA_ProjTestProc_WCA_Project
Inverse phrase: is of
Ref. Integrity on update: No Action
Ref. Integrity on delete: No Action

WCA_ProjThreatEnv

Owner: dbo
Target DB name: WCA310_D
Number of columns: 21
Number of indexes: 0
Number of foreign keys: 1

Extended attributes:
OnFileGroup PRIMARY
Clustered PK No

Columns	Data type	Allow	Value/Range

		NULLs
PID (FK)	decimal(18,0)	Not allowed
location	varchar(50)	Allowed
pteNetwork	varchar(50)	Allowed
wireless	char(1)	Allowed
dialup	char(1)	Allowed
pds	char(1)	Allowed
adminTraining	varchar(50)	Allowed
maintTraining	varchar(50)	Allowed
userTraining	varchar(50)	Allowed
installationFac	varchar(50)	Allowed
flood	char(1)	Allowed
fire	char(1)	Allowed
lightning	char(1)	Allowed
tornado	char(1)	Allowed
volcano	char(1)	Allowed
earthquake	char(1)	Allowed
hurricane	char(1)	Allowed
customHardware	char(1)	Allowed
customSoftware	char(1)	Allowed
projThreatEnvCalc	varchar(50)	Allowed
projThreatEnvUser	varchar(50)	Allowed

Foreign keys	Child	Parent
FK_WCA_ProjThreatEnv_WCA_Project	PID	WCA_Project.PID

Column details

1. PID (FK)
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

2. location
Physical data type: varchar(50)
Allow NULLs: Allowed

3. pteNetwork
Physical data type: varchar(50)
Allow NULLs: Allowed

4. wireless
Physical data type: char(1)
Allow NULLs: Allowed

5. dialup
Physical data type: char(1)
Allow NULLs: Allowed

6. pds
Physical data type: char(1)
Allow NULLs: Allowed

7. adminTraining
Physical data type: varchar(50)
Allow NULLs: Allowed

8. maintTraining
Physical data type: varchar(50)
Allow NULLs: Allowed

9. userTraining
Physical data type: varchar(50)
Allow NULLs: Allowed

10. installationFac
Physical data type: varchar(50)
Allow NULLs: Allowed

11. flood
Physical data type: char(1)
Allow NULLs: Allowed

12. fire
Physical data type: char(1)
Allow NULLs: Allowed

13. lightning
Physical data type: char(1)
Allow NULLs: Allowed

14. tornado
Physical data type: char(1)
Allow NULLs: Allowed

15. volcano
Physical data type: char(1)
Allow NULLs: Allowed

16. earthquake
Physical data type: char(1)
Allow NULLs: Allowed

17. hurricane
Physical data type: char(1)
Allow NULLs: Allowed

18. customHardware
Physical data type: char(1)
Allow NULLs: Allowed

19. customSoftware
Physical data type: char(1)
Allow NULLs: Allowed

20. projThreatEnvCalc
Physical data type: varchar(50)
Allow NULLs: Allowed

21. projThreatEnvUser
Physical data type: varchar(50)
Allow NULLs: Allowed

Foreign key details (child)
FK_WCA_ProjThreatEnv_WCA_Project

Definition: **Child** **Parent**
PID WCA_Project.PID

Relationship type: Identifying
Cardinality: One -to- Exactly-1
Allow NULLs: Not allowed
Verb phrase: hasFK_WCA_ProjThreatEnv_WCA_Project
Inverse phrase: is of
Ref. Integrity on update: No Action
Ref. Integrity on delete: No Action

WCA_ProjUser

Owner: dbo
Target DB name: WCA310_D
Number of columns: 2
Number of indexes: 0
Number of foreign keys: 1

Extended attributes:
OnFileGroup PRIMARY
Clustered PK No

Columns	Data type	Allow NULLs	Value/Range
userID	decimal(18,0)	Not allowed	
PID (FK)	decimal(18,0)	Not allowed	

Foreign keys	Child	Parent
FK_WCA_ProjUser_WCA_Project	PID	WCA_Project.PID
FK_WCA_ProjUserAccess_WCA_ProjUser	WCA_ProjUserAccess.userID WCA_ProjUserAccess.PID	userID PID

Column details

1. userID
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

2. PID (FK)
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

Foreign key details (child)

FK_WCA_ProjUser_WCA_Project

Definition: **Child** **Parent**
PID WCA_Project.PID

Relationship type: Identifying
Cardinality: One -to- Zero-or-More
Allow NULLs: Not allowed

Verb phrase: hasFK_WCA_ProjUser_WCA_Project
Inverse phrase: is of
Ref. Integrity on update: No Action
Ref. Integrity on delete: No Action

WCA_ProjUserAccess

Owner: dbo
Target DB name: WCA310_D
Number of columns: 4
Number of indexes: 0
Number of foreign keys: 2

Extended attributes:
OnFileGroup PRIMARY
Clustered PK No

Columns	Data type	Allow NULLs	Value/Range
PID (FK)	decimal(18,0)	Not allowed	
userID (FK)	decimal(18,0)	Not allowed	
stgID (FK)	decimal(18,0)	Not allowed	
stageAccess	char(1)	Not allowed	

Foreign keys	Child	Parent
FK_WCA_ProjUserAccess_WCA_ProjDefAccess	PID stgID	WCA_ProjDefAccess. PID WCA_ProjDefAccess. stgID
FK_WCA_ProjUserAccess_WCA_ProjUser	userID PID	WCA_ProjUser.userID WCA_ProjUser.PID

Column details

1. PID (FK)
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

2. userID (FK)
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

3. stgID (FK)
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

4. stageAccess
Physical data type: char(1)
Allow NULLs: Not allowed

Foreign key details (child)

FK_WCA_ProjUserAccess_WCA_ProjDefAccess

Definition: **Child** **Parent**
PID WCA_ProjDefAccess.PID
stgID WCA_ProjDefAccess.stgID

Relationship type: Identifying
Cardinality: One -to- Zero-or-More
Allow NULLs: Not allowed
Verb phrase: hasFK_WCA_ProjUserAccess_WCA_ProjDefAccess
Inverse phrase: is of
Ref. Integrity on update: No Action
Ref. Integrity on delete: No Action

FK_WCA_ProjUserAccess_WCA_ProjUser

Definition: **Child** **Parent**
userID WCA_ProjUser.userID
PID WCA_ProjUser.PID

Relationship type: Identifying
Cardinality: One -to- Zero-or-More
Allow NULLs: Not allowed
Verb phrase: hasFK_WCA_ProjUserAccess_WCA_ProjUser
Inverse phrase: is of
Ref. Integrity on update: No Action
Ref. Integrity on delete: No Action

WCA_PublishFmt

Owner: dbo
Target DB name: WCA310_D
Number of columns: 2
Number of indexes: 0
Number of foreign keys: 0

Extended attributes:
OnFileGroup PRIMARY
Clustered PK No

Columns	Data type	Allow NULLs	Value/Range
publishingCode	char(2)	Not allowed	
pfDescription	varchar(50)	Not allowed	

Column details

1. publishingCode
Physical data type: char(2)
Allow NULLs: Not allowed

2. pfDescription
Physical data type: varchar(50)
Allow NULLs: Not allowed

WCA_RiskDetermin

Owner: dbo
Target DB name: WCA310_D
Number of columns: 3

Number of indexes: 1
Number of foreign keys: 1

Extended attributes:
OnFileGroup PRIMARY
Clustered PK No

Columns	Data type	Allow NULLs	Value/Range
projThreatElement	char(1)	Not allowed	
testThreatElement	char(1)	Not allowed	
elementRiskLevel (FK,I1)	char(2)	Not allowed	

Indexes	Columns	Sort order
IX_WCA_RiskDetermin (I1)	elementRiskLevel	Ascending

Foreign keys	Child	Parent
FK_WCA_RiskDetermin_WCA_RiskLvlCode	elementRiskLevel	WCA_RiskLvlCode.elementRiskLevel

Column details

1. projThreatElement
Physical data type: char(1)
Allow NULLs: Not allowed

2. testThreatElement
Physical data type: char(1)
Allow NULLs: Not allowed

3. elementRiskLevel (FK,I1)
Physical data type: char(2)
Allow NULLs: Not allowed

Index details

IX_WCA_RiskDetermin
Column(s): elementRiskLevel (Asc)
Unique: No
Extended attributes:
OnFileGroup PRIMARY
CLUSTERED No
IGNORE_DUP_KEY No
FILLFACTOR 90
PAD_INDEX No
DROP_EXISTING No
STATISTICS_NORECOMPUTE No

Foreign key details (child)

FK_WCA_RiskDetermin_WCA_RiskLvlCode

Definition: **Child** **Parent**
elementRiskLevel WCA_RiskLvlCode.elementRiskLevel

Relationship type: Non-Identifying
Cardinality: One -to- Zero-or-More

Allow NULLs: Not allowed
Verb phrase: hasFK_WCA_RiskDetermin_WCA_RiskLvlCode
Inverse phrase: is of
Ref. Integrity on update: No Action
Ref. Integrity on delete: No Action

WCA_RiskLvlCode

Owner: dbo
Target DB name: WCA310_D
Number of columns: 2
Number of indexes: 0
Number of foreign keys: 0

Extended attributes:
OnFileGroup PRIMARY
Clustered PK No

Columns	Data type	Allow NULLs	Value/Range
elementRiskLevel	char(2)	Not allowed	
riskLevelDesc	varchar(50)	Not allowed	

Foreign keys	Child	Parent
FK_WCA_RiskDetermin_WCA_RiskLvlCode	WCA_RiskDetermin.elementRiskLevel	elementRiskLevel

Column details

1. elementRiskLevel
Physical data type: char(2)
Allow NULLs: Not allowed

2. riskLevelDesc
Physical data type: varchar(50)
Allow NULLs: Not allowed

WCA_SecRegSrc

Owner: dbo
Target DB name: WCA310_D
Number of columns: 13
Number of indexes: 0
Number of foreign keys: 1

Extended attributes:
OnFileGroup PRIMARY
Clustered PK No

Columns	Data type	Allow NULLs	Value/Range
regID	int	Not allowed	
shortTitle	varchar(255)	Allowed	
title	varchar(255)	Not allowed	
sourceDoc	varchar(50)	Allowed	
service (FK)	int	Allowed	

qualifier	varchar(50)	Allowed
author	varchar(50)	Allowed
regDate	varchar(50)	Allowed
version	varchar(50)	Allowed
url	varchar(255)	Allowed
regType	char(1)	Allowed
department (FK)	int	Not allowed
applPubFormat	varchar(50)	Not allowed

Foreign keys	Child	Parent
FK_WCA_SecRegSrc_WCA_DeptServCode	department service	WCA_DeptServCode.department WCA_DeptServCode.service
FK_WCA_DefSecReg_Src_WCA_SecReg_Src	WCA_DefSecRegSrc.regID	regID
FK_WCA_SecRqmt_Src_WCA_SecReg_Src	WCA_SecRqmtSrc.regID	regID

Column details

1. regID
Physical data type: int
Allow NULLs: Not allowed

2. shortTitle
Physical data type: varchar(255)
Allow NULLs: Allowed

3. title
Physical data type: varchar(255)
Allow NULLs: Not allowed

4. sourceDoc
Physical data type: varchar(50)
Allow NULLs: Allowed

5. service (FK)
Physical data type: int
Allow NULLs: Allowed

6. qualifier
Physical data type: varchar(50)
Allow NULLs: Allowed

7. author
Physical data type: varchar(50)
Allow NULLs: Allowed

8. regDate
Physical data type: varchar(50)
Allow NULLs: Allowed

9. version
Physical data type: varchar(50)
Allow NULLs: Allowed

10. url

Physical data type: varchar(255)
Allow NULLs: Allowed

11. regType
Physical data type: char(1)
Allow NULLs: Allowed

12. department (FK)
Physical data type: int
Allow NULLs: Not allowed

13. applPubFormat
Physical data type: varchar(50)
Allow NULLs: Not allowed

Foreign key details (child)

FK_WCA_SecRegSrc_WCA_DeptServCode

Definition:	**Child**	**Parent**
department	WCA_DeptServCode.department	
service	WCA_DeptServCode.service	

Relationship type: Non-Identifying
Cardinality: One -to- Zero-or-More
Allow NULLs: Not allowed
Verb phrase: hasFK_WCA_SecRegSrc_WCA_DeptServCode
Inverse phrase: is of
Ref. Integrity on update: No Action
Ref. Integrity on delete: No Action

WCA_SecReqCritQ

Owner: dbo
Target DB name: WCA310_D
Number of columns: 3
Number of indexes: 0
Number of foreign keys: 0

Extended attributes:
OnFileGroup PRIMARY
Clustered PK No

Columns	Data type	Allow NULLs	Value/Range
secRegCritQID	int	Not allowed	
code	varchar(255)	Not allowed	
message	varchar(255)	Not allowed	

Column details

1. secRegCritQID
Physical data type: int
Allow NULLs: Not allowed

2. code

Physical data type: varchar(255)
Allow NULLs: Not allowed

3. message
Physical data type: varchar(255)
Allow NULLs: Not allowed

WCA_SecRqmtSrc

Owner: dbo
Target DB name: WCA310_D
Number of columns: 13
Number of indexes: 0
Number of foreign keys: 1

Extended attributes:
OnFileGroup PRIMARY
Clustered PK No

Columns	Data type	Allow NULLs	Value/Range
regID (FK)	int	Not allowed	
sourceDoc	varchar(50)	Not allowed	
paragraph	varchar(255)	Not allowed	
title	varchar(255)	Not allowed	
statedRequirement	varchar(4000)	Not allowed	
secClass	varchar(255)	Allowed	
criteria	varchar(50)	Allowed	
cat1	varchar(50)	Allowed	
cat2	varchar(50)	Allowed	
cat3	varchar(50)	Allowed	
allowEdit	decimal(18,0)	Not allowed	
testCategoryID	decimal(18,0)	Allowed	
rqmtID	int	Allowed	

Foreign keys	Child	Parent
FK_WCA_SecRqmt_Src_WCA_SecReg_Src	regID	WCA_SecRegSrc.regID

Column details

1. regID (FK)
Physical data type: int
Allow NULLs: Not allowed

2. sourceDoc
Physical data type: varchar(50)
Allow NULLs: Not allowed

3. paragraph
Physical data type: varchar(255)
Allow NULLs: Not allowed

4. title
Physical data type: varchar(255)
Allow NULLs: Not allowed

5. statedRequirement
Physical data type: varchar(4000)
Allow NULLs: Not allowed

6. secClass
Physical data type: varchar(255)
Allow NULLs: Allowed

7. criteria
Physical data type: varchar(50)
Allow NULLs: Allowed

8. cat1
Physical data type: varchar(50)
Allow NULLs: Allowed

9. cat2
Physical data type: varchar(50)
Allow NULLs: Allowed

10. cat3
Physical data type: varchar(50)
Allow NULLs: Allowed

11. allowEdit
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

12. testCategoryID
Physical data type: decimal(18,0)
Allow NULLs: Allowed

13. rqmtID
Physical data type: int
Allow NULLs: Allowed

Foreign key details (child)
FK_WCA_SecRqmt_Src_WCA_SecReg_Src

Definition: **Child** **Parent**
regID WCA_SecRegSrc.regID

Relationship type: Non-Identifying
Cardinality: One -to- Zero-or-More
Allow NULLs: Not allowed
Verb phrase: hasFK_WCA_SecRqmt_Src_WCA_SecReg_Src
Inverse phrase: is of
Ref. Integrity on update: No Action
Ref. Integrity on delete: No Action

WCA_Stages

Owner: dbo
Target DB name: WCA310_D

Number of columns: 2
Number of indexes: 0
Number of foreign keys: 0

Extended attributes:
OnFileGroup PRIMARY
Clustered PK No

Columns	Data type	Allow NULLs	Value/Range
stgID	decimal(18,0)	Not allowed	
stageName	varchar(50)	Not allowed	

Foreign keys	Child	Parent
FK_WCA_ProjDefAccess_WCA_Stages	WCA_ProjDefAccess.stgID	stgID

Column details

1. stgID
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

2. stageName
Physical data type: varchar(50)
Allow NULLs: Not allowed

WCA_StaticLkpDtl

Owner: dbo
Target DB name: WCA310_D
Number of columns: 3
Number of indexes: 0
Number of foreign keys: 1

Extended attributes:
OnFileGroup PRIMARY
Clustered PK No

Columns	Data type	Allow NULLs	Value/Range
lookupName (FK)	varchar(50)	Not allowed	
attributeName	varchar(50)	Not allowed	
rank	int	Allowed	

Foreign keys	Child	Parent
FK_WCA_StaticLkpDtl_WCA_StaticLookup	lookupName	WCA_StaticLookup.lookupName

Column details

1. lookupName (FK)
Physical data type: varchar(50)
Allow NULLs: Not allowed

2. attributeName
Physical data type: varchar(50)
Allow NULLs: Not allowed

3. rank
Physical data type: int
Allow NULLs: Allowed

Foreign key details (child)
FK_WCA_StaticLkpDtl_WCA_StaticLookup

Definition:	Child	Parent
	lookupName	WCA_StaticLookup.lookupName

Relationship type: Identifying
Cardinality: One -to- Zero-or-More
Allow NULLs: Not allowed
Verb phrase: hasFK_WCA_StaticLkpDtl_WCA_StaticLookup
Inverse phrase: is of
Ref. Integrity on update: No Action
Ref. Integrity on delete: No Action

WCA_StaticLookup

Owner: dbo
Target DB name: WCA310_D
Number of columns: 1
Number of indexes: 0
Number of foreign keys: 0

Extended attributes:
OnFileGroup PRIMARY
Clustered PK No

Columns	Data type	Allow NULLs	Value/Range
lookupName	varchar(50)	Not allowed	

Foreign keys	Child	Parent
FK_WCA_StaticLkpDtl_WCA_StaticLookup	WCA_StaticLkpDtl.lookupName	lookupName

Column details
1. lookupName
Physical data type: varchar(50)
Allow NULLs: Not allowed

WCA_SwFamilyLookup

Owner: dbo
Target DB name: WCA310_D
Number of columns: 4
Number of indexes: 0
Number of foreign keys: 0

Extended attributes:

OnFileGroup PRIMARY
Clustered PK No

Columns	Data type	Allow NULLs	Value/Range
swFamily	varchar(50)	Not allowed	
rank	int	Not allowed	
type	char(10)	Not allowed	
swID	decimal(18,0)	Not allowed	

Column details

1. swFamily
Physical data type: varchar(50)
Allow NULLs: Not allowed

2. rank
Physical data type: int
Allow NULLs: Not allowed

3. type
Physical data type: char(10)
Allow NULLs: Not allowed

4. swID
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

WCA_SWSource

Owner: dbo
Target DB name: WCA310_D
Number of columns: 7
Number of indexes: 0
Number of foreign keys: 0

Extended attributes:
OnFileGroup PRIMARY
Clustered PK No

Columns	Data type	Allow NULLs	Value/Range
swReference	varchar(50)	Not allowed	
swFamily	varchar(20)	Allowed	
swMfr	varchar(50)	Allowed	
swName	varchar(50)	Allowed	
swVersion	varchar(50)	Allowed	
swPatchLevel	varchar(50)	Allowed	
Type	char(1)	Allowed	

Column details

1. swReference
Physical data type: varchar(50)
Allow NULLs: Not allowed

2. swFamily
Physical data type: varchar(20)

Allow NULLs: Allowed

3. swMfr
Physical data type: varchar(50)
Allow NULLs: Allowed

4. swName
Physical data type: varchar(50)
Allow NULLs: Allowed

5. swVersion
Physical data type: varchar(50)
Allow NULLs: Allowed

6. swPatchLevel
Physical data type: varchar(50)
Allow NULLs: Allowed

7. Type
Physical data type: char(1)
Allow NULLs: Allowed

WCA_SysUserCategory

Owner: dbo
Target DB name: WCA310_D
Number of columns: 3
Number of indexes: 0
Number of foreign keys: 0

Extended attributes:
OnFileGroup PRIMARY
Clustered PK No

Columns	Data type	Allow NULLs	Value/Range
sysUserCategoryID	int	Not allowed	
category	varchar(50)	Not allowed	
categoryType	char(1)	Allowed	

Column details

1. sysUserCategoryID
Physical data type: int
Allow NULLs: Not allowed

2. category
Physical data type: varchar(50)
Allow NULLs: Not allowed

3. categoryType
Physical data type: char(1)
Allow NULLs: Allowed

WCA_TestProcSrc

Owner: dbo
Target DB name: WCA310_D
Number of columns: 17
Number of indexes: 0
Number of foreign keys: 0

Extended attributes:
OnFileGroup PRIMARY
TextImageOnGroup PRIMARY
Clustered PK No

Columns	Data type	Allow NULLs	Value/Range
templateID	decimal(18,0)	Not allowed	
cat1	varchar(50)	Allowed	
cat2	varchar(50)	Allowed	
cat3	varchar(50)	Allowed	
osType	varchar(50)	Allowed	
testText	text	Allowed	
expectedResult	text	Allowed	
testInstance	varchar(50)	Allowed	
testTitle	varchar(100)	Allowed	
certAnalysisLevel	decimal(10,0)	Allowed	
threat	varchar(50)	Allowed	
impactStatement	text	Allowed	
interviewFlag	char(1)	Allowed	
observationFlag	char(1)	Allowed	
testFlag	char(1)	Allowed	
documentFlag	char(1)	Allowed	
testCategoryID	decimal(18,0)	Not allowed	

Column details

1. templateID
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

2. cat1
Physical data type: varchar(50)
Allow NULLs: Allowed

3. cat2
Physical data type: varchar(50)
Allow NULLs: Allowed

4. cat3
Physical data type: varchar(50)
Allow NULLs: Allowed

5. osType
Physical data type: varchar(50)
Allow NULLs: Allowed

6. testText
Physical data type: text
Allow NULLs: Allowed

7. expectedResult
Physical data type: text
Allow NULLs: Allowed

8. testInstance
Physical data type: varchar(50)
Allow NULLs: Allowed

9. testTitle
Physical data type: varchar(100)
Allow NULLs: Allowed

10. certAnalysisLevel
Physical data type: decimal(10,0)
Allow NULLs: Allowed

11. threat
Physical data type: varchar(50)
Allow NULLs: Allowed

12. impactStatement
Physical data type: text
Allow NULLs: Allowed

13. interviewFlag
Physical data type: char(1)
Allow NULLs: Allowed

14. observationFlag
Physical data type: char(1)
Allow NULLs: Allowed

15. testFlag
Physical data type: char(1)
Allow NULLs: Allowed

16. documentFlag
Physical data type: char(1)
Allow NULLs: Allowed

17. testCategoryID
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

WPM_EventRulesSrc

Owner: dbo
Target DB name: WCA310_D
Number of columns: 4
Number of indexes: 0
Number of foreign keys: 0

Extended attributes:
OnFileGroup PRIMARY
Clustered PK Yes

Columns	Data type	Allow NULLs	Value/Range
WBSID	decimal(18,0)	Not allowed	
WPID	decimal(18,0)	Not allowed	
eventID	varchar(15)	Not allowed	
eventParam	varchar(1000)	Allowed	

Column details

1. WBSID
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

2. WPID
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

3. eventID
Physical data type: varchar(15)
Allow NULLs: Not allowed

4. eventParam
Physical data type: varchar(1000)
Allow NULLs: Allowed

WPM_OrgEventRules

Owner: dbo
Target DB name: WCA310_D
Number of columns: 5
Number of indexes: 0
Number of foreign keys: 1

Extended attributes:
OnFileGroup PRIMARY
Clustered PK Yes

Columns	Data type	Allow NULLs	Value/Range
orgID (FK)	decimal(18,0)	Not allowed	
WBSID	decimal(18,0)	Not allowed	
WPID	decimal(18,0)	Not allowed	
eventID	varchar(15)	Not allowed	
eventParam	varchar(1000)	Allowed	

Foreign keys	Child	Parent
FK_WPM_OrgEventRules_WCA_Organization	orgID	WCA_Organization.orgID

Column details

1. orgID (FK)
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

2. WBSID
Physical data type: decimal(18,0)

Allow NULLs: Not allowed

3. WPID
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

4. eventID
Physical data type: varchar(15)
Allow NULLs: Not allowed

5. eventParam
Physical data type: varchar(1000)
Allow NULLs: Allowed

Foreign key details (child)
FK_WPM_OrgEventRules_WCA_Organization

Definition: **Child** **Parent**
orgID WCA_Organization.orgID

Relationship type: Identifying
Cardinality: One -to- Zero-or-More
Allow NULLs: Not allowed
Verb phrase: hasFK_WPM_OrgEventRules_WCA_Organization
Inverse phrase: is of
Ref. Integrity on update: No Action
Ref. Integrity on delete: No Action

WPM_OrgPrereq

Owner: dbo
Target DB name: WCA310_D
Number of columns: 4
Number of indexes: 0
Number of foreign keys: 1

Extended attributes:
OnFileGroup PRIMARY
Clustered PK Yes

Columns	Data type	Allow NULLs	Value/Range
orgID (FK)	decimal(18,0)	Not allowed	
WBSID	decimal(18,0)	Not allowed	
WPID	decimal(18,0)	Not allowed	
prereqWPID	decimal(18,0)	Not allowed	

Foreign keys	Child	Parent
FK_WPM_OrgPrereq_WCA_Organization	orgID	WCA_Organization.orgID

Column details
1. orgID (FK)
Physical data type: decimal(18,0)

Allow NULLs: Not allowed

2. WBSID
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

3. WPID
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

4. prereqWPID
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

Foreign key details (child)
FK_WPM_OrgPrereq_WCA_Organization

Definition: **Child** **Parent**
orgID WCA_Organization.orgID

Relationship type: Identifying
Cardinality: One -to- Zero-or-More
Allow NULLs: Not allowed
Verb phrase: hasFK_WPM_OrgPrereq_WCA_Organization
Inverse phrase: is of
Ref. Integrity on update: No Action
Ref. Integrity on delete: No Action

WPM_OrgPS

Owner: dbo
Target DB name: WCA310_D
Number of columns: 8
Number of indexes: 0
Number of foreign keys: 1

Extended attributes:
OnFileGroup PRIMARY
Clustered PK Yes

Columns	Data type	Allow NULLs	Value/Range
orgID (FK)	decimal(18,0)	Not allowed	
WBSID	decimal(18,0)	Not allowed	
WPID	decimal(18,0)	Not allowed	
PSRank	decimal(18,0)	Not allowed	
PSName	varchar(50)	Allowed	
PSDesc	varchar(255)	Allowed	
processStep	varchar(50)	Not allowed	
pageID	varchar(50)	Allowed	

Foreign keys	Child	Parent
FK_WPM_OrgPS_WCA_Organization	orgID	WCA_Organization.orgID

Column details

1. orgID (FK)
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

2. WBSID
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

3. WPID
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

4. PSRank
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

5. PSName
Physical data type: varchar(50)
Allow NULLs: Allowed

6. PSDesc
Physical data type: varchar(255)
Allow NULLs: Allowed

7. processStep
Physical data type: varchar(50)
Allow NULLs: Not allowed

8. pageID
Physical data type: varchar(50)
Allow NULLs: Allowed

Foreign key details (child)

FK_WPM_OrgPS_WCA_Organization

Definition: **Child** **Parent**
orgID WCA_Organization.orgID

Relationship type: Identifying
Cardinality: One -to- Zero-or-More
Allow NULLs: Not allowed
Verb phrase: hasFK_WPM_OrgPS_WCA_Organization
Inverse phrase: is of
Ref. Integrity on update: No Action
Ref. Integrity on delete: No Action

WPM_OrgWBS

Owner: dbo
Target DB name: WCA310_D
Number of columns: 5
Number of indexes: 0
Number of foreign keys: 1

Extended attributes:
OnFileGroup PRIMARY
Clustered PK Yes

Columns	Data type	Allow NULLs	Value/Range
orgID (FK)	decimal(18,0)	Not allowed	
WBSID	decimal(18,0)	Not allowed	
WBSName	varchar(50)	Allowed	
WBSDesc	varchar(255)	Allowed	
applPubFormat	varchar(50)	Not allowed	

Foreign keys	Child	Parent
FK_WPM_OrgWBS_WCA_Organization	orgID	WCA_Organization.orgID

Column details

1. orgID (FK)
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

2. WBSID
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

3. WBSName
Physical data type: varchar(50)
Allow NULLs: Allowed

4. WBSDesc
Physical data type: varchar(255)
Allow NULLs: Allowed

5. applPubFormat
Physical data type: varchar(50)
Allow NULLs: Not allowed

Foreign key details (child)

FK_WPM_OrgWBS_WCA_Organization

Definition: **Child** **Parent**
orgID WCA_Organization.orgID

Relationship type: Identifying
Cardinality: One -to- Zero-or-More
Allow NULLs: Not allowed
Verb phrase: hasFK_WPM_OrgWBS_WCA_Organization
Inverse phrase: is of
Ref. Integrity on update: No Action
Ref. Integrity on delete: No Action

WPM_OrgWP

Owner: dbo
Target DB name: WCA310_D

Number of columns: 6
Number of indexes: 0
Number of foreign keys: 1

Extended attributes:
OnFileGroup PRIMARY
Clustered PK Yes

Columns	Data type	Allow NULLs	Value/Range
orgID (FK)	decimal(18,0)	Not allowed	
WBSID	decimal(18,0)	Not allowed	
WPID	decimal(18,0)	Not allowed	
WPName	varchar(50)	Allowed	
WPDesc	varchar(255)	Allowed	
WPRank	decimal(18,0)	Not allowed	

Foreign keys	Child	Parent
FK_WPM_OrgWP_WCA_Organization	orgID	WCA_Organization.orgID

Column details

1. orgID (FK)
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

2. WBSID
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

3. WPID
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

4. WPName
Physical data type: varchar(50)
Allow NULLs: Allowed

5. WPDesc
Physical data type: varchar(255)
Allow NULLs: Allowed

6. WPRank
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

Foreign key details (child)

FK_WPM_OrgWP_WCA_Organization

Definition: **Child** **Parent**
orgID WCA_Organization.orgID

Relationship type: Identifying
Cardinality: One -to- Zero-or-More
Allow NULLs: Not allowed
Verb phrase: hasFK_WPM_OrgWP_WCA_Organization

Inverse phrase: is of
Ref. Integrity on update: No Action
Ref. Integrity on delete: No Action

WPM_ProjAnalystPerm

Owner: dbo
Target DB name: WCA310_D
Number of columns: 4
Number of indexes: 0
Number of foreign keys: 2

Extended attributes:
OnFileGroup PRIMARY
Clustered PK Yes

Columns	Data type	Allow NULLs	Value/Range
PID (FK)	decimal(18,0)	Not allowed	
WPID	decimal(18,0)	Not allowed	
userID (FK)	decimal(18,0)	Not allowed	
userPerm	char(4)	Allowed	

Foreign keys	Child	Parent
FK_WPM_ProjAnalystPerm_AppUser	userID	AppUser.userID
FK_WPM_ProjAnalystPerm_WCA_Project	PID	WCA_Project.PID

Column details

1. PID (FK)
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

2. WPID
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

3. userID (FK)
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

4. userPerm
Physical data type: char(4)
Allow NULLs: Allowed

Foreign key details (child)

FK_WPM_ProjAnalystPerm_AppUser

Definition: **Child** **Parent**
userID AppUser.userID

Relationship type: Identifying
Cardinality: One -to- Zero-or-More
Allow NULLs: Not allowed
Verb phrase: hasFK_WPM_ProjAnalystPerm_AppUser

Inverse phrase: is of
Ref. Integrity on update: No Action
Ref. Integrity on delete: No Action

FK_WPM_ProjAnalystPerm_WCA_Project

Definition: **Child** **Parent**
PID WCA_Project.PID

Relationship type: Identifying
Cardinality: One -to- Zero-or-More
Allow NULLs: Not allowed
Verb phrase: hasFK_WPM_ProjAnalystPerm_WCA_Project
Inverse phrase: is of
Ref. Integrity on update: No Action
Ref. Integrity on delete: No Action

WPM_ProjDefPerm

Owner: dbo
Target DB name: WCA310_D
Number of columns: 3
Number of indexes: 0
Number of foreign keys: 1

Extended attributes:
OnFileGroup PRIMARY
Clustered PK Yes

Columns	Data type	Allow NULLs	Value/Range
PID (FK)	decimal(18,0)	Not allowed	
WPID	decimal(18,0)	Not allowed	
userPerm	char(4)	Not allowed	

Foreign keys	Child	Parent
FK_WPM_ProjDefPerm_WCA_Project	PID	WCA_Project.PID

Column details

1. PID (FK)
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

2. WPID
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

3. userPerm
Physical data type: char(4)
Allow NULLs: Not allowed

Foreign key details (child)

FK_WPM_ProjDefPerm_WCA_Project

Definition: **Child** **Parent**
PID WCA_Project.PID

Relationship type: Identifying
Cardinality: One -to- Zero-or-More
Allow NULLs: Not allowed
Verb phrase: hasFK_WPM_ProjDefPerm_WCA_Project
Inverse phrase: is of
Ref. Integrity on update: No Action
Ref. Integrity on delete: No Action

WPM_ProjEventRules

Owner: dbo
Target DB name: WCA310_D
Number of columns: 4
Number of indexes: 0
Number of foreign keys: 1

Extended attributes:
OnFileGroup PRIMARY
Clustered PK Yes

Columns	Data type	Allow NULLs	Value/Range
PID (FK)	decimal(18,0)	Not allowed	
WPID	decimal(18,0)	Not allowed	
eventID	varchar(15)	Not allowed	
eventParam	varchar(1000)	Allowed	

Foreign keys	Child	Parent
FK_WPM_ProjEventRules_WCA_Project	PID	WCA_Project.PID

Column details

1. PID (FK)
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

2. WPID
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

3. eventID
Physical data type: varchar(15)
Allow NULLs: Not allowed

4. eventParam
Physical data type: varchar(1000)
Allow NULLs: Allowed

Foreign key details (child)
FK_WPM_ProjEventRules_WCA_Project

Definition: **Child** **Parent**
PID WCA_Project.PID

Relationship type: Identifying
Cardinality: One -to- Zero-or-More
Allow NULLs: Not allowed
Verb phrase: hasFK_WPM_ProjEventRules_WCA_Project
Inverse phrase: is of
Ref. Integrity on update: No Action
Ref. Integrity on delete: No Action

WPM_ProjPrereq

Owner: dbo
Target DB name: WCA310_D
Number of columns: 3
Number of indexes: 0
Number of foreign keys: 1

Extended attributes:
OnFileGroup PRIMARY
Clustered PK Yes

Columns	Data type	Allow NULLs	Value/Range
PID (FK)	decimal(18,0)	Not allowed	
WPID	decimal(18,0)	Not allowed	
prereqWPID	decimal(18,0)	Not allowed	

Foreign keys	Child	Parent
FK_WPM_ProjPrereq_WCA_Project	PID	WCA_Project.PID

Column details

1. PID (FK)
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

2. WPID
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

3. prereqWPID
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

Foreign key details (child)

FK_WPM_ProjPrereq_WCA_Project

Definition: **Child** **Parent**
PID WCA_Project.PID

Relationship type: Identifying
Cardinality: One -to- Zero-or-More
Allow NULLs: Not allowed

Verb phrase: hasFK_WPM_ProjPrereq_WCA_Project
Inverse phrase: is of
Ref. Integrity on update: No Action
Ref. Integrity on delete: No Action

WPM_ProjPS

Owner: dbo
Target DB name: WCA310_D
Number of columns: 7
Number of indexes: 0
Number of foreign keys: 2

Extended attributes:
OnFileGroup PRIMARY
Clustered PK Yes

Columns	Data type	Allow NULLs	Value/Range
PID (FK)	decimal(18,0)	Not allowed	
WPID	decimal(18,0)	Not allowed	
PSRank	decimal(18,0)	Not allowed	
PSName	varchar(50)	Allowed	
PSDesc	varchar(255)	Allowed	
processStep	varchar(50)	Not allowed	
pageID (FK)	varchar(50)	Allowed	

Foreign keys	Child	Parent
FK_WPM_ProjPS_WCA_PageAttrs	pageID	WCA_PageAttrs.pageID
FK_WPM_ProjPS_WCA_Project	PID	WCA_Project.PID

Column details

1. PID (FK)
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

2. WPID
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

3. PSRank
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

4. PSName
Physical data type: varchar(50)
Allow NULLs: Allowed

5. PSDesc
Physical data type: varchar(255)
Allow NULLs: Allowed

6. processStep
Physical data type: varchar(50)
Allow NULLs: Not allowed

7. pageID (FK)
Physical data type: varchar(50)
Allow NULLs: Allowed

Foreign key details (child)

FK_WPM_ProjPS_WCA_PageAttrs

Definition: **Child** **Parent**
pageID WCA_PageAttrs.pageID

Relationship type: Non-Identifying
Cardinality: One -to- Zero-or-More
Allow NULLs: Not allowed
Verb phrase: hasFK_WPM_ProjPS_WCA_PageAttrs
Inverse phrase: is of
Ref. Integrity on update: No Action
Ref. Integrity on delete: No Action

FK_WPM_ProjPS_WCA_Project

Definition: **Child** **Parent**
PID WCA_Project.PID

Relationship type: Identifying
Cardinality: One -to- Zero-or-More
Allow NULLs: Not allowed
Verb phrase: hasFK_WPM_ProjPS_WCA_Project
Inverse phrase: is of
Ref. Integrity on update: No Action
Ref. Integrity on delete: No Action

WPM_ProjWP

Owner: dbo
Target DB name: WCA310_D
Number of columns: 6
Number of indexes: 0
Number of foreign keys: 1

Extended attributes:
OnFileGroup PRIMARY
Clustered PK Yes

Columns	Data type	Allow NULLs	Value/Range
PID (FK)	decimal(18,0)	Not allowed	
WPID	decimal(18,0)	Not allowed	
WPName	varchar(50)	Allowed	
WPDesc	varchar(255)	Allowed	
WPRank	decimal(18,0)	Not allowed	
status	int	Allowed	

Foreign keys	Child	Parent
FK_WPM_ProjWP_WCA_Project	PID	WCA_Project.PID

Column details

1. PID (FK)
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

2. WPID
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

3. WPName
Physical data type: varchar(50)
Allow NULLs: Allowed

4. WPDesc
Physical data type: varchar(255)
Allow NULLs: Allowed

5. WPRank
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

6. status
Physical data type: int
Allow NULLs: Allowed

Foreign key details (child)

FK_WPM_ProjWP_WCA_Project

Definition: **Child** **Parent**
PID WCA_Project.PID

Relationship type: Identifying
Cardinality: One -to- Zero-or-More
Allow NULLs: Not allowed
Verb phrase: hasFK_WPM_ProjWP_WCA_Project
Inverse phrase: is of
Ref. Integrity on update: No Action
Ref. Integrity on delete: No Action

WPM_ProjWPHistory

Owner: dbo
Target DB name: WCA310_D
Number of columns: 7
Number of indexes: 0
Number of foreign keys: 1

Extended attributes:
OnFileGroup PRIMARY
TextImageOnGroup PRIMARY
Clustered PK No

Columns	Data type	Allow NULLs	Value/Range

PID (FK)	decimal(18,0)	Not allowed
WPID	decimal(18,0)	Not allowed
UserID	decimal(18,0)	Not allowed
UserName	varchar(50)	Allowed
eventID	varchar(15)	Not allowed
actionTime	datetime	Not allowed
actionComment	text	Allowed

Foreign keys	Child	Parent
FK_WPM_ProjWPHistory_WCA_Project	PID	WCA_Project.PID

Column details

1. PID (FK)
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

2. WPID
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

3. UserID
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

4. UserName
Physical data type: varchar(50)
Allow NULLs: Allowed

5. eventID
Physical data type: varchar(15)
Allow NULLs: Not allowed

6. actionTime
Physical data type: datetime
Allow NULLs: Not allowed

7. actionComment
Physical data type: text
Allow NULLs: Allowed

Foreign key details (child)

FK_WPM_ProjWPHistory_WCA_Project

Definition: **Child** **Parent**
PID WCA_Project.PID

Relationship type: Non-Identifying
Cardinality: One -to- Zero-or-More
Allow NULLs: Not allowed
Verb phrase: hasFK_WPM_ProjWPHistory_WCA_Project
Inverse phrase: is of
Ref. Integrity on update: No Action
Ref. Integrity on delete: No Action

WPM_ProjXEE

Owner: dbo
Target DB name: WCA310_D
Number of columns: 6
Number of indexes: 0
Number of foreign keys: 1

Extended attributes:
OnFileGroup PRIMARY
Clustered PK No

Columns	Data type	Allow NULLs	Value/Range
PID (FK)	decimal(18,0)	Not allowed	
WPID	decimal(18,0)	Not allowed	
eventID	varchar(15)	Not allowed	
eventtime	datetime	Allowed	
userID	decimal(18,0)	Allowed	
eventParam	varchar(1000)	Allowed	

Foreign keys	Child	Parent
FK_WPM_ProjXEE_WCA_Project	PID	WCA_Project.PID

Column details

1. PID (FK)
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

2. WPID
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

3. eventID
Physical data type: varchar(15)
Allow NULLs: Not allowed

4. eventtime
Physical data type: datetime
Allow NULLs: Allowed

5. userID
Physical data type: decimal(18,0)
Allow NULLs: Allowed

6. eventParam
Physical data type: varchar(1000)
Allow NULLs: Allowed

Foreign key details (child)

FK_WPM_ProjXEE_WCA_Project

Definition: **Child** **Parent**
PID WCA_Project.PID

Relationship type: Non-Identifying

Cardinality: One -to- Zero-or-More
Allow NULLs: Not allowed
Verb phrase: hasFK_WPM_ProjXEE_WCA_Project
Inverse phrase: is of
Ref. Integrity on update: No Action
Ref. Integrity on delete: No Action

WPM_PSSrc

Owner: dbo
Target DB name: WCA310_D
Number of columns: 7
Number of indexes: 0
Number of foreign keys: 1

Extended attributes:
OnFileGroup PRIMARY
Clustered PK Yes

Columns	Data type	Allow NULLs	Value/Range
WBSID	decimal(18,0)	Not allowed	
WPID	decimal(18,0)	Not allowed	
PSRank	decimal(18,0)	Not allowed	
PSName	varchar(50)	Allowed	
PSDesc	varchar(255)	Allowed	
processStep	varchar(50)	Not allowed	
pageID (FK)	varchar(50)	Allowed	

Foreign keys	Child	Parent
FK_WPM_PSSrc_WCA_PageAttrs	pageID	WCA_PageAttrs.pageID

Column details

1. WBSID
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

2. WPID
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

3. PSRank
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

4. PSName
Physical data type: varchar(50)
Allow NULLs: Allowed

5. PSDesc
Physical data type: varchar(255)
Allow NULLs: Allowed

6. processStep
Physical data type: varchar(50)
Allow NULLs: Not allowed

7. pageID (FK)
Physical data type: varchar(50)
Allow NULLs: Allowed

Foreign key details (child)
FK_WPM_PSSrc_WCA_PageAttrs

Definition: **Child** **Parent**
pageID WCA_PageAttrs.pageID

Relationship type: Non-Identifying
Cardinality: One -to- Zero-or-More
Allow NULLs: Not allowed
Verb phrase: hasFK_WPM_PSSrc_WCA_PageAttrs
Inverse phrase: is of
Ref. Integrity on update: No Action
Ref. Integrity on delete: No Action

WPM_State

Owner: dbo
Target DB name: WCA310_D
Number of columns: 2
Number of indexes: 0
Number of foreign keys: 0

Extended attributes:
OnFileGroup PRIMARY
Clustered PK Yes

Columns	Data type	Allow NULLs	Value/Range
state	varchar(15)	Not allowed	
status	int	Not allowed	

Column details
1. state
Physical data type: varchar(15)
Allow NULLs: Not allowed

2. status
Physical data type: int
Allow NULLs: Not allowed

WPM_StateTranLkp

Owner: dbo
Target DB name: WCA310_D
Number of columns: 3
Number of indexes: 0
Number of foreign keys: 0

Extended attributes:
OnFileGroup PRIMARY
Clustered PK No

Columns	Data type	Allow NULLs	Value/Range
eventID	varchar(15)	Not allowed	
InitialStatus	int	Not allowed	
FinalStatus	int	Not allowed	

Column details

1. eventID
Physical data type: varchar(15)
Allow NULLs: Not allowed

2. InitialStatus
Physical data type: int
Allow NULLs: Not allowed

3. FinalStatus
Physical data type: int
Allow NULLs: Not allowed

WPM_WBSSrc

Owner: dbo
Target DB name: WCA310_D
Number of columns: 5
Number of indexes: 0
Number of foreign keys: 0

Extended attributes:
OnFileGroup PRIMARY
Clustered PK Yes

Columns	Data type	Allow NULLs	Value/Range
WBSID	decimal(18,0)	Not allowed	
WBSName	varchar(50)	Allowed	
WBSDesc	varchar(255)	Allowed	
applPubFormat	varchar(50)	Not allowed	
webcaType	varchar(50)	Allowed	

Column details

1. WBSID
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

2. WBSName
Physical data type: varchar(50)
Allow NULLs: Allowed

3. WBSDesc
Physical data type: varchar(255)
Allow NULLs: Allowed

4. applPubFormat
Physical data type: varchar(50)
Allow NULLs: Not allowed

5. webcaType
Physical data type: varchar(50)
Allow NULLs: Allowed

WPM_WPPrereqSrc

Owner: dbo
Target DB name: WCA310_D
Number of columns: 3
Number of indexes: 0
Number of foreign keys: 0

Extended attributes:
OnFileGroup PRIMARY
Clustered PK Yes

Columns	Data type	Allow NULLs	Value/Range
WBSID	decimal(18,0)	Not allowed	
WPID	decimal(18,0)	Not allowed	
prereqWPID	decimal(18,0)	Not allowed	

Column details

1. WBSID
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

2. WPID
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

3. prereqWPID
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

WPM_WPSrc

Owner: dbo
Target DB name: WCA310_D
Number of columns: 5
Number of indexes: 0
Number of foreign keys: 0

Extended attributes:
OnFileGroup PRIMARY
Clustered PK Yes

Columns	Data type	Allow NULLs	Value/Range
WBSID	decimal(18,0)	Not allowed	

WPID	decimal(18,0)	Not allowed
WPName	varchar(50)	Allowed
WPDesc	varchar(255)	Allowed
WPRank	decimal(18,0)	Not allowed

Column details

1. WBSID
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

2. WPID
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

3. WPName
Physical data type: varchar(50)
Allow NULLs: Allowed

4. WPDesc
Physical data type: varchar(255)
Allow NULLs: Allowed

5. WPRank
Physical data type: decimal(18,0)
Allow NULLs: Not allowed

The many features and advantages of the invention are apparent from the detailed specification, and thus, it is intended by the appended claims to cover all such features and advantages of the invention which fall within the true spirit and scope of the invention. Further, since numerous modifications and variations will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation illustrated and described, and accordingly, all suitable modifications and equivalents may be resorted to, falling within the scope of the invention. While the foregoing invention has been described in detail by way of illustration and example of preferred embodiments, numerous modifications, substitutions, and alterations are possible without departing from the scope of the invention defined in the following claims.

CLAIMS

Having thus described our invention, what we claim as new and desire to secure by Letters Patent is as follows:

1. A computer-assisted method of enabling a user to select at least one of a plurality of predefined process steps to create a tailored sequence of process steps that can be used to assess the risk of and/or determine the suitability of a target system to comply with at least one predefined standard, regulation and/or requirement, the target system including hardware and/or software, the method comprising the steps of:

a) enabling the user to choose one or more of the plurality of predefined process steps pertaining to collecting information descriptive of at least one aspect of the target system hardware and/or software, and/or a physical environment in which the target system operates;

b) selecting at least one test procedure against which the target system is tested to satisfy at least one predefined standard, regulation and/or requirement with which the target system is to comply;

c) generating a score for each of a plurality of threat elements, each score indicating a likelihood of that threat element affecting and/or impacting the target system;

d) receiving as input at least a portion of the result of tests performed for the at least one test procedure in said step b); and

e) (1) obtaining a threat correlation indication associated with said at least one test procedure, wherein said threat correlation indication indicates a relative potential of one or more given threats to exploit a vulnerability caused by a failure of said at least one test procedure, and

(2) determining a risk assessment by comparing each score generated in said step c) with a corresponding threat correlation indication of said step e) (1).

2. The method according to claim 1, further comprising the step of enabling the user to choose one or more predefined process steps pertaining to selecting at least one predefined standard, regulation and/or requirement.

3. The method according to claim 2, further comprising the step of enabling a user to edit at least one standard, regulation and/or requirement.

4. The method according to claim 1, further comprising the step of enabling a user to define one or more prerequisite ones of the plurality of process steps that must be completed before beginning work on one or more additional ones of the plurality of process steps.

5. The method according to claim 1, further comprising the step of enabling a user to define one or more roles for one or more users performing at least a portion of a process step.

6. The method according to claim 5, wherein the roles comprise at least one of certification and accreditation analyst, computer security incident response capabilities representative, privacy advocates office representative, disclosure office representative, vulnerabilities office representative, technical

contingency planning document representative, request for information system originator, owner of business system, certification and accreditation request for information system coordinator, critical infrastructure protection representative, system point of contact, principal accrediting authority, certification and accreditation administrator, and certification and accreditation chief.

7. The method according to claim 5, further comprising the step of sending an electronic notification to one or more users performing at least a portion of a specified process step upon the occurrence of a predefined event.

8. The method according to claim 7, wherein the predefined events comprise at least one of opening a process step, submitting a process step for approval, re-opening a process step, and approving a process step.

9. The method according to claim 1, wherein the information collected in said step a) comprises at least one of central processing unit (CPU) manufacturer, CPU clock speed, operating system (OS) manufacturer, OS version, and OS patches.

10. The method according to claim 1, wherein said scores for said step c) comprise at least one of:

a) negligible, wherein negligible indicates that the threat element is not applicable or has negligible likelihood of occurrence;

b) low, wherein low indicates that the threat element has a relatively low likelihood of occurrence;

c) medium, wherein medium indicates that the threat element has a medium likelihood of occurrence; and

d) high, wherein high indicates that the threat element has a relatively high likelihood of occurrence.

11. The method according to claim 1, wherein said scores of said step c) are generated in response to one or more user provided inputs.

12. The method according to claim 11, wherein the user can modify and/or edit said scores.

13. The method according to claim 1, wherein said step c) threat elements comprise at least one of natural disaster elements, system failure elements, environmental failure elements, unintentional human elements, and intentional human elements.

14. The method according to claim 13, wherein the natural disaster threat elements comprise at least one of fire, flood, earthquake, volcano, tornado and lighting elements.

15. The method according to claim 13, wherein the system failure threat elements comprise at least one of a hardware failure, a power failure, and a communication link failure.

16. The method according to claim 13, wherein the environmental failure threat elements comprise at least one of temperature, power, humidity, sand, dust, shock, and vibration.

17. The method according to claim 13, wherein the human unintentional threat element comprises at least one of a software design error, a system design error, and an operator error.

18. The method according to claim 13, wherein the human intentional threat elements comprise at least one of an authorized system administrator, an authorized maintenance personnel, an authorized user, a terrorist, a hacker, a saboteur, a thief, and a vandal.

19. The method according to claim 1 wherein said step e) threat correlation indication comprises at least one of the following scores:

a) negligible, wherein negligible indicates that the threat is not applicable to the vulnerability;

b) low, wherein low indicates that the threat has a low potential to exploit the vulnerability;

c) medium, wherein medium indicates that the threat has a potential to exploit the vulnerability; and

d) high, wherein high indicates that the threat has a relatively high potential to exploit the vulnerability.

20. The method according to claim 19, wherein the risk assessment in said step e) is determined in accordance with the following steps:

a) for each element in the project threat profile and corresponding element in the threat correlation pattern, determining an overall risk of an element in a threat correlation indication in accordance with at least one of the following:

1) if a threat element score as determined in said step c) is negligible and a corresponding element in the threat correlation indication as determined in said step e) is anything, then the overall risk of the element is negligible;

2) if a threat element score as determined in said step c) is low and the corresponding element in the threat correlation indication as determined in said step e) is negligible, then the overall risk of the element is low;

3) if a threat element score as determined in said step c) is low and the corresponding element in the threat correlation indication as determined in said step e) is low, then the overall risk of the element is low;

4) if a threat element score as determined in said step c) is low and the corresponding element in the threat correlation indication as determined in said step e) is medium, then the overall risk of the element is low;

5) if a threat element score as determined in said step c) is low and the corresponding element in the threat correlation indication as determined in said step e) is high, then the overall risk of the element is medium;

6) if a threat element score as determined in said step c) is medium and the corresponding element in the threat correlation indication as determined in said step e) is negligible, then the overall risk of the element is negligible;

7) if a threat element score as determined in said step c) is medium and the corresponding element in the threat correlation indication as determined in said step e) is low, then the overall risk of the element is low;

8) if a threat element score as determined in said step c) is medium and the corresponding element in the threat correlation indication as determined in said step e) is medium, then the overall risk of the element is medium;

9) if a threat element score as determined in said step c) is medium and the corresponding element in the threat correlation indication as determined in said step e) is high, then the overall risk of the element is medium;

10) if a threat element score as determined in said step c) is high and the corresponding element in the threat correlation indication as determined in said step e) is negligible, then the overall risk of the element is negligible;

11) if a threat element score as determined in said step c) is high and the corresponding element in the threat correlation indication as determined in said step e) is low, then the overall risk of the element is medium;

12) if a threat element score as determined in said step c) is high and the corresponding element in the threat correlation indication as determined in said step e) is medium, then the overall risk of the element is high; and

13) if a threat element score as determined in said step c) is high and the corresponding element in the threat correlation indication as determined in said step e) is high, then the overall risk of the element is high; and

b) selecting the risk profile for the failed test procedure as being the highest overall risk as determined in at least one of steps a)1) – a)13).

21. The method according to claim 20, further comprising the step of determining an overall system risk.

22. The method according to claim 21, wherein the overall system risk is the highest overall risk element of each of one or more failed test procedures.

23. The method according to claim 21, further comprising the step of printing a documentation package that will enable a determination to be made whether the target system complies with the at least one predefined standard, regulation and/or requirement of said step b).

24. The method according to claim 23, wherein the documentation package includes a risk assessment for at least one failed test procedure.

25. The method according to claim 23, wherein the documentation package includes an overall system risk.

26. In a general purpose computing system, a computer-assisted and user assisted method for enabling a user to select at least one of a plurality of predefined process steps to create a tailored sequence or process steps that can be use to assess the risk of and/or determine the suitability of a target system to comply with at least one predefined standard, regulation and/or requirement, the target system including hardware and/or software, the computing system interacting with a user and at least one of the computing system and comprising:

a) a process step module for enabling the user to choose one or more predefined process steps pertaining to collecting information descriptive of at least one aspect of the target system hardware and/or software, and/or a physical environment in which the target system operates;

b) a test procedure module for selecting at least one test procedure against which the target system is tested to satisfy the at least one predefined standard, regulation and/or requirement which the target system is to comply, and enabling the user to enter test data;

c) a threat element score generation module for generating a score for each of a plurality of threat elements, each score indicating a likelihood of that threat element affecting and/or impacting the target system;

d) (1) obtaining a threat correlation indication associated with said at least one test procedure, wherein said threat correlation indication indicates a relative potential of one or more given threats to exploit a vulnerability caused by a failure of said at least one test procedure, and

(2) determining a risk assessment by comparing each score generated in said step c) with a corresponding threat correlation indication of said step d) (1).

27. The system according to claim 26, wherein the process step module further enables the user to define one or more ones of the plurality of prerequisite process steps that must be completed before beginning work on one or more additional ones of the plurality of process steps.

28. The system according to claim 26, wherein the process step module further enables the user to define one or more roles for one or more users performing at least a portion of a process step.

29. The system according to claim 28, wherein the roles comprise at least one of certification and accreditation analyst, computer security incident response capabilities representative, privacy advocates office representative, disclosure office representative, vulnerabilities office representative, technical contingency planning document representative, request for information system originator, owner of business system, certification and accreditation request for information system coordinator, critical infrastructure protection representative, system point of contact, principal accrediting authority, certification and accreditation administrator, and certification and accreditation chief.

30. The system according to claim 28, wherein the process step module further enables a user to send an electronic notification to one or more users performing at least a portion of a specified process step upon the occurrence of a predefined event.

31. The system according to claim 29, wherein the predefined events comprise at least one of opening a process step, submitting a process step for approval, re-opening a process step, and approving a process step.

32. The system according to claim 26, wherein the information collected by said process step module comprises at least one of central processing unit (CPU) manufacturer, CPU clock speed, operating system (OS) manufacturer, OS version, and OS patches.

33. The system according to claim 26, wherein said test procedure module further enables the user to edit at least one standard, regulation and/or requirement.

34. The system according to claim 26, wherein said threat element score generation module generates scores comprising at least one of:

a) negligible, wherein negligible indicates that the threat element is not applicable or has negligible likelihood of occurrence;

b) low, wherein low indicates that the threat element has a relatively low likelihood of occurrence;

c) medium, wherein medium indicates that the threat element has a medium likelihood of occurrence; and

d) high, wherein high indicates that the threat element has a relatively high likelihood of occurrence.

35. The system according to claim 26, wherein said scores generated by said threat element score generation module are generated in response to one or more user provided inputs.

36. The system according to claim 35, wherein the user can modify and/or edit any of said scores.

37. The system according to claim 26, wherein said threat element score generation module threat elements comprise at least one of natural disaster elements, system failure elements, environmental failure elements, unintentional human elements, and intentional human elements.

38. The system according to claim 37, wherein the natural disaster threat elements comprise at least one of fire, flood, earthquake, volcano, tornado and lighting elements.

39. The system according to claim 37, wherein the system failure threat elements comprise at least one of a hardware failure, a power failure, and a communication link failure.

40. The system according to claim 37, wherein the environmental failure threat elements comprise at least one of temperature, power, humidity, sand, dust, shock, and vibration.

41. The system according to claim 37, wherein the human unintentional threat element comprises at least one of a software design error, a system design error, and an operator error.

42. The system according to claim 37, wherein the human intentional threat elements comprise at least one of an authorized system administrator, an authorized maintenance personnel, an authorized user, a terrorist, a hacker, a saboteur, a thief, and a vandal.

43. The system according to claim 26, wherein the threat correlation indication comprises at least one of the following scores:

a) negligible, wherein negligible indicates that the threat is not applicable to the vulnerability;

b) low, wherein low indicates that the threat has a low potential to exploit the vulnerability;

c) medium, wherein medium indicates that the threat has a potential to exploit the vulnerability; and

d) high, wherein high indicates that the threat has a relatively high potential to exploit the vulnerability.

44. The system according to claim 43, wherein the risk assessment module assesses risk in accordance with the following steps:

a) for each element in the project threat profile and corresponding element in the threat correlation pattern, determining an overall risk of an element in a threat correlation indication in accordance with at least one of the following:

1) if a threat element score as determined in said threat element score generation module is negligible and a corresponding element in the threat correlation indication is anything, then the overall risk of the element is negligible;

2) if a threat element score as determined in said threat element score generation module is low and the corresponding element in the threat correlation indication is negligible, then the overall risk of the element is low;

3) if a threat element score as determined in said threat element score generation module is low and the corresponding element in the threat correlation indication is low, then the overall risk of the element is low;

4) if a threat element score as determined in said threat element score generation module is low and the corresponding element in the threat correlation indication is medium, then the overall risk of the element is low;

5) if a threat element score as determined in said threat element score generation module is low and the corresponding element in the threat correlation indication is high, then the overall risk of the element is medium;

6) if a threat element score as determined in said threat element score generation module is medium and the corresponding element in the threat correlation indication is negligible, then the overall risk of the element is negligible;

7) if a threat element score as determined in said threat element score generation module is medium and the corresponding element in the threat correlation indication is low, then the overall risk of the element is low;

8) if a threat element score as determined in said threat element score generation module is medium and the corresponding element in the threat correlation indication is medium, then the overall risk of the element is medium;

9) if a threat element score as determined in said threat element score generation module is medium and the corresponding element in the threat correlation indication is high, then the overall risk of the element is medium;

10) if a threat element score as determined in said threat element score generation module is high and the corresponding element in the threat correlation indication is negligible, then the overall risk of the element is negligible;

11) if a threat element score as determined in said threat element score generation module is high and the corresponding element in the threat correlation indication is low, then the overall risk of the element is medium;

12) if a threat element score as determined in said threat element score generation module is high and the corresponding element in the threat correlation indication is medium, then the overall risk of the element is high; and

13) if a threat element score as determined in said threat element score generation module is high and the corresponding element in the threat correlation indication is high, then the overall risk of the element is high; and

b) selecting the risk profile for the failed test procedure as being the highest overall risk element as determined by at least one of steps a)1) – a)13).

45. The system according to claim 44, wherein said risk assessment module further determines an overall system risk.

46. The system according to claim 45, wherein the overall system risk is the highest overall risk element of each of one or more failed test procedures.

47. The system according to claim 45, further comprising a printing module for printing a documentation package that will enable a determination to be made whether the target system complies with the at least one predefined standard, regulation and/or requirement.

48. The system according to claim 47, wherein the documentation package includes a risk assessment for at least one failed test procedure.

49. The system according to claim 47, wherein the documentation package includes an overall system risk.

50. A computer-readable medium for storing computer instructions therein for enabling a user to select at least one of a plurality of predefined process steps to create a tailored sequence of process steps that can be used to perform a computer-implemented and user assisted process for assessing the risk of and/or determining the suitability of a target system to comply with at least one predefined standard, regulation and/or requirement, the target system including hardware and/or software, the computer-readable medium comprising instructions for performing and/or assisting a user to perform the steps of:

a) enabling the user to choose one or more predefined process steps pertaining to collecting information descriptive of at least one aspect of the target system hardware and/or software, and/or a physical environment in which the target system operates;

b) selecting at least one test procedure against which the target system is tested to satisfy at least one predefined standard, regulation and/or requirement with which the target system is to comply;

c) generating a score for each of a plurality of threat elements, each score indicating a likelihood of that threat element affecting and/or impacting the target system;

d) receiving as input at least a portion of the result of tests performed for the at least one test procedure in said step b); and

e) (1) obtaining a threat correlation indication associated with said at least one test procedure, wherein said threat correlation indication indicates a relative potential of one or more given threats to exploit a vulnerability caused by a failure of said at least one test procedure, and

(2) determining a risk assessment by comparing each score generated in said step c) with a corresponding threat correlation indication of said element e) (1) instructions.

51. The medium according to claim 50, further comprising instructions that enable a user to enter at least a subscription key to gain access to the process steps.

52. The medium according to claim 50, further comprising instructions that enable a user to define one or more ones of the plurality of prerequisite process steps that must be completed before beginning work on one or more additional ones of the plurality of process steps.

53. The medium according to claim 50, further comprising instructions that enable a user to define one or more roles for one or more users performing at least a portion of a process step.

54. The medium according to claim 53 wherein the roles comprise at least one of certification and accreditation analyst, computer security incident response capabilities representative, privacy advocates office representative, disclosure office representative, vulnerabilities office representative, technical contingency planning document representative, request for information system originator, owner of business system, certification and accreditation request for information system coordinator, critical infrastructure protection representative, system point of contact, principal accrediting authority, certification and accreditation administrator, and certification and accreditation chief.

55. The medium according to claim 53, further comprising instructions that enable an electronic notification to be sent to one or more users performing at least a portion of a specified process step upon the occurrence of a predefined event.

56. The medium according to claim 55 wherein the predefined events comprise at least one of opening a process step, submitting a process step for approval, re-opening a process step, and approving a process step.

57. The medium according to claim 50 wherein the information collected in said element a) instructions comprises at least one of central processing unit (CPU) manufacturer, CPU clock speed, operating system (OS) manufacturer, OS version, and OS patches.

58. The medium according to claim 50, further comprising instructions that enable a user to optionally edit at least one standard, regulation and/or requirement.

59. The medium according to claim 50 wherein said scores for said element c) instructions comprise at least one of:

a) negligible, wherein negligible indicates that the threat element is not applicable or has negligible likelihood of occurrence;

b) low, wherein low indicates that the threat element has a relatively low likelihood of occurrence;

c) medium, wherein medium indicates that the threat element has a medium likelihood of occurrence; and

d) high, wherein high indicates that the threat element has a relatively high likelihood of occurrence.

60. The medium according to claim 50 wherein said scores of said element c) instructions are generated in response to one or more user provided inputs.

61. The medium according to claim 60 further comprising instructions that enable a user to modify and/or edit said scores.

62. The medium according to claim 50, wherein said element c) threat element instructions comprise at least one of natural disaster elements, system failure elements, environmental failure elements, unintentional human elements, and intentional human elements.

63. The medium according to claim 62, wherein the natural disaster threat elements comprise at least one of fire, flood, earthquake, volcano, tornado and lighting elements.

64. The medium according to claim 62, wherein the system failure threat elements comprise at least one of a hardware failure, a power failure, and a communication link failure.

65. The medium according to claim 62, wherein the environmental failure threat elements comprise at least one of temperature, power, humidity, sand, dust, shock, and vibration.

66. The medium according to claim 62, wherein the human unintentional threat element comprises at least one of a software design error, a system design error, and an operator error.

67. The medium according to claim 62, wherein the human intentional threat elements comprise at least one of an authorized system administrator, an authorized maintenance personnel, an authorized user, a terrorist, a hacker, a saboteur, a thief, and a vandal.

68. The medium according to claim 50, wherein said element e) threat correlation indication instructions comprise at least one of the following scores:

a) negligible, wherein negligible indicates that the threat is not applicable to the vulnerability;

b) low, wherein low indicates that the threat has a low potential to exploit the vulnerability;

c) medium, wherein medium indicates that the threat has a potential to exploit the vulnerability; and

d) high, wherein high indicates that the threat has a relatively high potential to exploit the vulnerability.

69. The medium according to claim 68 wherein the risk assessment in said element e) instructions is determined in accordance with the following steps:

a) for each element in the project threat profile and corresponding element in the threat correlation pattern, determining an overall risk of an element in a threat correlation indication in accordance with at least one of the following:

1) if a threat element score as determined in said element e) instructions is negligible and a corresponding element in the threat correlation indication as determined in said element e) instructions is anything, then the overall risk of the element is negligible;

2) if a threat element score as determined in said element c) instructions is low and the corresponding element in the threat correlation indication as determined in said element e) instructions is negligible, then the overall risk of the element is low;

3) if a threat element score as determined in said element c) instructions is low and the corresponding element in the threat correlation indication as determined in said element e) instructions is low, then the overall risk of the element is low;

4) if a threat element score as determined in said element c) instructions is low and the corresponding element in the threat correlation indication as determined in said element e) instructions is medium, then the overall risk of the element is low;

5) if a threat element score as determined in said element c) instructions is low and the corresponding element in the threat correlation indication as determined in said element e) instructions is high, then the overall risk of the element is medium;

6) if a threat element score as determined in said element c) instructions is medium and the corresponding element in the threat correlation indication as determined in said element e) instructions is negligible, then the overall risk of the element is negligible;

7) if a threat element score as determined in said element c) instructions is medium and the corresponding element in the threat correlation indication as determined in said element e) instructions is low, then the overall risk of the element is low;

8) if a threat element score as determined in said element c) instructions is medium and the corresponding element in the threat correlation indication as determined in said element e) instructions is medium, then the overall risk of the element is medium;

9) if a threat element score as determined in said element c) instructions is medium and the corresponding element in the threat correlation indication as determined in said element e) instructions is high, then the overall risk of the element is medium;

10) if a threat element score as determined in said element c) instructions is high and the corresponding element in the threat correlation indication as determined in said element e) instructions is negligible, then the overall risk of the element is negligible;

11) if a threat element score as determined in said element c) instructions is high and the corresponding element in the threat correlation indication as determined in said element e) instructions is low, then the overall risk of the element is medium;

12) if a threat element score as determined in said element c) instructions is high and the corresponding element in the threat correlation indication as determined in said element e) instructions is medium, then the overall risk of the element is high; and

13) if a threat element score as determined in said element c) instructions is high and the corresponding element in the threat correlation indication as determined in said element e) instructions is high, then the overall risk of the element is high; and

b) selecting the risk profile for the failed test procedure as being the highest overall risk element of at least one of instructions a)1) – a)13).

70. The medium according to claim 69, further comprising instructions that determine an overall system risk.

71. The medium according to claim 70, wherein the overall system risk is the highest overall risk element of each of one or more failed test procedures.

72. The medium according to claim 70, further comprising instructions that enable a user to print a documentation package that will enable a determination to be made whether the target system complies with the at least one predefined standard, regulation and/or requirement.

73. The medium according to claim 72, wherein the documentation package includes a risk assessment for at least one failed test procedure.

74. The medium according to claim 72 wherein the documentation package includes an overall system risk.

75. A computer-readable medium for storing computer instructions therein for enabling a user to select at least one of a plurality of predefined process steps to create a tailored sequence of process steps that can be used to perform a computer-implemented and user assisted process for assessing the risk of and/or determining the suitability of a target system to comply with at least one predefined standard, regulation and/or requirement, the target system including hardware and/or software, the computer-readable medium comprising instructions for:

a) enabling the user to choose one or more predefined process steps pertaining to collecting information descriptive of at least one aspect of the target system hardware and/or software, and/or a physical environment in which the target system operates;

b) selecting at least one test procedure against which the target system is tested to satisfy at least one predefined standard, regulation and/or requirement with which the target system is to comply;

c) generating a score for each of a plurality of threat elements, each score indicating a likelihood of that threat element affecting and/or impacting the target system; and

d) (1) obtaining a threat correlation indication associated with said at least one test procedure, wherein said threat correlation indication indicates a relative potential of one or more given threats to exploit a vulnerability caused by test data indicating a failure of said at least one test procedure, and

(2) determining a risk assessment by comparing each score generated in said step c) with a corresponding threat correlation indication of said element d) (1) instructions.

76. The medium according to claim 75, further comprising instructions that enable a user to enter at least a subscription key to gain access to the process steps.

77. The medium according to claim 75, further comprising instructions that enable a user to define one or more ones of the plurality of prerequisite process steps that must be completed before beginning work on one or more additional ones of the plurality of process steps.

78. The medium according to claim 75, further comprising instructions that enable a user to define one or more roles for one or more users performing at least a portion of a process step.

79. The medium according to claim 78 wherein the roles comprise at least one of certification and accreditation analyst, computer security incident response capabilities representative, privacy advocates office representative, disclosure office representative, vulnerabilities office representative, technical contingency planning document representative, request for information system originator, owner of business system, certification and accreditation request for information system coordinator, critical infrastructure protection representative, system point of contact, principal accrediting authority, certification and accreditation administrator, and certification and accreditation chief.

80. The medium according to claim 78, further comprising instructions that enable an electronic notification to be sent to one or more users performing at least a portion of a specified process step upon the occurrence of a predefined event.

81. The medium according to claim 80 wherein the predefined events comprise at least one of opening a process step, submitting a process step for approval, re-opening a process step, and approving a process step.

82. A computer-assisted method of enabling a user to select at least one of a plurality of predefined process steps to create a tailored sequence of process steps that can be used to assess the risk of and/or determine the suitability of a target system to comply with at least one predefined standard, regulation and/or requirement, the target system including hardware and/or software, the method comprising the steps of:

a) enabling the user to choose one or more predefined process steps pertaining to collecting information descriptive of at least one aspect of the target system hardware and/or software, and/or a physical environment in which the target system operates;

b) enabling the user to select at least one test procedure against which the target system is tested to satisfy the at least one predefined standard, regulation and/or requirement with which the target system is to comply;

c) generating a score for each of a plurality of threat elements, each score indicating a likelihood of that threat element affecting and/or impacting the target system;

d) receiving as input at least a portion of the result of tests performed for the at least one test procedure in said step b); and

e) (1) obtaining a threat correlation indication associated with said at least one test procedure, wherein said threat correlation indication indicates a relative potential of one or more given threats to exploit a vulnerability caused by a failure of said at least one test procedure, and

(2) determining a risk assessment by comparing each score generated in said step c) with a corresponding threat correlation indication of said step e) (1).

83. The method according to claim 82, further comprising the step of enabling the user to define one or more prerequisite process steps that must be completed before beginning work on one or more additional process steps.

84. The method according to claim 82, further comprising the step of enabling the user to define one or more roles for one or more users performing at least a portion of a process step.

85. The method according to claim 84, wherein the roles comprise at least one of certification and accreditation analyst, computer security incident response capabilities representative, privacy advocates office representative, disclosure office representative, vulnerabilities office representative, technical contingency planning document representative, request for information system originator, owner of business system, certification and accreditation request for information system coordinator, critical infrastructure protection representative, system point of contact, principal accrediting authority, certification and accreditation administrator, and certification and accreditation chief.

86. The method according to claim 84, further comprising the step of sending an electronic notification to one or more users performing at least a portion of a specified process step upon the occurrence of a predefined event.

87. The method according to claim 86, wherein the predefined events comprise at least one of opening a process step, submitting a process step for approval, re-opening a process step, and approving a process step.

88. A computer-assisted method of enabling a user to select at least one of a plurality of predefined process steps to create a tailored sequence of process steps that can be used to assess the risk of and/or determine the suitability of a target system to comply with at least one predefined standard, regulation and/or requirement, the target system including hardware and/or software, the method comprising the steps of:

a) enabling the user to choose one or more predefined process steps pertaining to collecting information descriptive of at least one aspect of the target system hardware and/or software, and/or a physical environment in which the target system operates;

b) enabling at least one of a system administrator and the user to define one or more roles for each user performing at least a portion of a process step;

c) enabling the user to select at least one test procedure against which the target system is tested to satisfy the at least one predefined standard, regulation and/or requirement with which the target system is to comply;

d) generating a score for each of a plurality of threat elements, each score indicating a likelihood of that threat element affecting and/or impacting the target system;

e) performing the steps associated with said at least one test procedure in said step c) to determine whether the target system passes or fails said at least one test procedure; and

f) (1) obtaining a threat correlation indication associated with said at least one test procedure, wherein said threat correlation indication indicates a relative potential of one or more given threats to exploit a vulnerability caused by a failure of said at least one test procedure, and

(2) determining a risk assessment by comparing each score generated in said step e) with a corresponding threat correlation indication of said step f) (1).

89. The method according to claim 88, further comprising the step of enabling the user to define one or more prerequisite process steps that must be completed before beginning work on one or more additional process steps.

90. The method according to claim 88, further comprising the step of sending an electronic notification to each user performing at least a portion of a specified process step upon the occurrence of a predefined event.

91. The method according to claim 90, wherein the predefined events comprise at least one of opening a process step, submitting a process step for approval, re-opening a process step, and approving a process step.

92. A computer-assisted method of enabling a user to select at least one of a plurality of predefined process steps to create a tailored sequence of process steps that can be used to assess the risk of and/or determine the suitability of a target system to comply with at least one predefined standard, regulation and/or requirement, the target system including hardware and/or software, the method comprising the steps of:

a) enabling the user to choose one or more predefined process steps pertaining to collecting information descriptive of at least one aspect of the target system hardware and/or software, and/or a physical environment in which the target system operates;

b) enabling at least one of a system administrator and the user to define one or more roles for each user performing at least a portion of a process step with which the target system is to comply;

c) enabling at least one of a system administrator and the user to define one or more prerequisite process steps that must be completed before beginning work on one or more additional process steps;

d) enabling the user to select at least one test procedure against which the target system is tested to satisfy the at least one predefined standard, regulation and/or requirement;

e) generating a score for each of a plurality of threat elements, each score indicating a likelihood of that threat element affecting and/or impacting the target system;

f) receiving as input at least a portion of the result of tests performed for the at least one test procedure in said step d); and

g) (1) obtaining a threat correlation indication associated with said at least one test procedure, wherein said threat correlation indication indicates a relative potential of one or more given threats to exploit a vulnerability caused by a failure of said at least one test procedure, and

(2) determining a risk assessment by comparing each score generated in said step d) with a corresponding threat correlation indication of said step e) (1).

93. The method according to claim 82, further comprising the step of sending an electronic notification to one or more users performing at least a portion of a specified process step upon the occurrence of a predefined event.

94. The method according to claim 93, wherein the predefined events comprise at least one of opening a process step, submitting a process step for approval, re-opening a process step, and approving a process step.

95. In a general purpose computing system, a computer-assisted and user assisted method for assessing the risk of and/or determining the suitability of a target system to comply with at least one predefined standard, regulation and/or requirement, the computing system optionally enabling a user to

select at least one of a plurality of predefined process steps to create a tailored sequence of process steps that can be used to assess the risk of and/or determine the suitability of the target system to comply with at least one predefined standard, regulation and/or requirement, the target system including hardware and/or software, the system comprising:

a first module for:

a) enabling a user to utilize a predefined sequence of process steps to collect and/or receive information descriptive of at least one aspect of the target system hardware and/or software, and/or a physical environment in which the system operates;

b) enabling the user to utilize a predefined sequence of process steps for selecting at least one predefined standard, regulation and/or requirement with which the target system is to comply;

c) generating a score for each of a plurality of threat elements, each score indicating a likelihood of that threat element affecting and/or impacting the target system;

d) enabling at least one of the user and the system to select at least one test procedure against which the target system is tested to satisfy the at least one predefined standard, regulation and/or requirement;

e) enabling a user to enter results associated with said at least one test procedure selected in said element d) to determine whether the target system passes or fails said at least one test procedure; and

f) (1) obtaining a threat correlation indication associated with said at least one test procedure, wherein said threat correlation indication indicates a relative potential of one or more given threats to exploit a vulnerability caused by a failure of said at least one test procedure, and

(2) determining a risk assessment by comparing each score generated in said element c) with a corresponding threat correlation indication of said element f) (1); and

a second module for:

f) enabling the user to choose one or more predefined process steps associated with said element a) information and/or said element b) process steps.

96. The system according to claim 95, wherein the second module further enables the user to define one or more prerequisite process steps that must be completed before beginning work on one or more additional process steps.

97. The system according to claim 95, wherein the second module further enables the user to define one or more roles for one or more users performing at least a portion of a process step.

98. The system according to claim 97, wherein the roles comprise at least one of certification and accreditation analyst, computer security incident response capabilities representative, privacy advocates office representative, disclosure office representative, vulnerabilities office representative,

technical contingency planning document representative, request for information system originator, owner of business system, certification and accreditation request for information system coordinator, critical infrastructure protection representative, system point of contact, principal accrediting authority, certification and accreditation administrator, and certification and accreditation chief.

99. The system according to claim 95, wherein the second module further enables the user to direct the system to send an electronic notification to one or more users performing at least a portion of a specified process step upon the occurrence of a predefined event.

100. The system according to claim 99, wherein the predefined events comprise at least one of opening a process step, submitting a process step for approval, re-opening a process step, and approving a process step.

101. The system according to claim 95, wherein a predefined mapping between said element a) information and/or said element b) process steps and the said element d) test procedures enables the system to select at least one said element d) test procedure.

102. In a general purpose computing system, a computer-assisted and user assisted method for assessing the risk of and/or determining the suitability of a target system to comply with at least one predefined standard, regulation and/or requirement, the computing system optionally enabling a user to select at least one of a plurality of predefined process steps to create a tailored sequence of process steps that can be used to assess the risk of and/or determine the suitability of the target system to comply with at least one predefined standard, regulation and/or requirement, the target system including hardware and/or software, the system comprising:

first means for:

a) enabling the user to utilize a predefined sequence of process steps to collect and/or receive information descriptive of at least one aspect of the target system hardware and/or software, and/or a physical environment in which the system operates;

b) generating a score for each of a plurality of threat elements, each score indicating a likelihood of that threat element affecting and/or impacting the target system with which the target system is to comply;

c) enabling at least one of the user and the system to select at least one test procedure against which the target system is tested to satisfy the at least one predefined standard, regulation and/or requirement;

d) enabling the user to enter results associated with said at least one test procedure selected in function d) to determine whether the target system passes or fails said at least one test procedure; and

e) (1) obtaining a threat correlation indication associated with said at least one test procedure, wherein said threat correlation indication indicates a relative potential of one or more given threats to exploit a vulnerability caused by a failure of said at least

one test procedure, and

(2) determining a risk assessment by comparing each score generated in function b) with a corresponding threat correlation indication of function e) (1); and

second means for:

f) enabling the user to choose one or more predefined process steps associated with function a) information.

103. The system according to claim 102, wherein said second means further enables the user to define one or more prerequisite process steps that must be completed before beginning work on one or more additional process steps.

104. The system according to claim 102, wherein said second means further enables the user to define one or more roles for one or more users performing at least a portion of a process step.

105. The system according to claim 104, wherein the roles comprise at least one of certification and accreditation analyst, computer security incident response capabilities representative, privacy advocates office representative, disclosure office representative, vulnerabilities office representative, technical contingency planning document representative, request for information system originator, owner of business system, certification and accreditation request for information system coordinator, critical infrastructure protection representative, system point of contact, principal accrediting authority, certification and accreditation administrator, and certification and accreditation chief.

106. The system according to claim 103, wherein said second means further enables the user to direct the system to send an electronic notification to one or more users performing at least a portion of a specified process step upon the occurrence of a predefined event.

107. The system according to claim 106, wherein the predefined events comprise at least one of opening a process step, submitting a process step for approval, re-opening a process step, and approving a process step.

108. The system according to claim 102, wherein a predefined mapping between said means element a) information and said means element c) test procedures enables the system to select at least one said means element c) test procedure.

109. A computer program medium storing computer instructions therein for instructing a computer to perform a computer-implemented and user assisted process for assessing the risk of and/or determining the suitability of a target system to comply with at least one predefined standard, regulation and/or requirement, the instructions optionally enabling a user to select at least one of a plurality of predefined process steps to create a tailored sequence of process steps that can be used to assess the risk of and/or determine the suitability of the target system to comply with at least one predefined standard, regulation and/or requirement, the target system including hardware and/or software, the medium comprising:

first instructions for:

a) enabling the user to utilize a predefined sequence of process steps to collect and/or receive information descriptive of at least one aspect of the target system hardware and/or software, and/or a physical environment in which the system operates;

b) generating a score for each of a plurality of threat elements, each score indicating a likelihood of that threat element affecting and/or impacting the target system with which the target system is to comply;

c) enabling at least one of the user and the system to select at least one test procedure against which the target system is tested to satisfy the at least one predefined standard, regulation and/or requirement;

d) enabling a user to enter results associated with said at least one test procedure selected in said instruction element d) to determine whether the target system passes or fails said at least one test procedure; and

e) (1) obtaining a threat correlation indication associated with said at least one test procedure, wherein said threat correlation indication indicates a relative potential of one or more given threats to exploit a vulnerability caused by a failure of said at least one test procedure, and

(2) determining a risk assessment by comparing each score generated in said instruction element b) with a corresponding threat correlation indication of said instruction element e) (1); and

second instructions for:

f) enabling the user to choose one or more predefined process steps associated with said instructions element a) information.

110. The medium according to claim 109, wherein said second instructions further comprise instructions that enable the user to define one or more prerequisite process steps that must be completed before beginning work on one or more additional process steps.

111. The medium according to claim 109, wherein said second instructions further comprise instructions that enable the user to define one or more roles for one or more users performing at least a portion of a process step.

112. The medium according to claim 111, wherein the roles comprise at least one of certification and accreditation analyst, computer security incident response capabilities representative, privacy advocates office representative, disclosure office representative, vulnerabilities office representative, technical contingency planning document representative, request for information system originator, owner of business system, certification and accreditation request for information system coordinator, critical infrastructure protection representative, system point of contact, principal

accrediting authority, certification and accreditation administrator, and certification and accreditation chief.

113. The medium according to claim 109, wherein said second instructions further comprise instructions that enable the user to direct the system to send an electronic notification one or more users performing at least a portion of a specified process step upon the occurrence of a predefined event.

114. The medium according to claim 113, wherein the predefined events comprise at least one of opening a process step, submitting a process step for approval, re-opening a process step, and approving a process step.

115. The medium according to claim 109, wherein a predefined mapping between first instruction element a) information and the first instruction element c) test procedures enables the system to select at least one first instruction element c) test procedure.

116. In a general purpose computing system, a computer-assisted and user assisted method that enables two or more users to collaboratively assess via a network the risk of and/or determine the suitability of a target system to comply with at least one predefined standard, regulation and/or requirement, the system optionally enabling at least one of the users to select at least one of a plurality of predefined process steps to create a tailored sequence of process steps that can be used to assess the risk of and/or determine the suitability of the target system to comply with at least one predefined standard, regulation and/or requirement, the target system including hardware and/or software, the system comprising:

a host computer having a first module for:

a) enabling at least one user via a local or remote terminal to utilize a predefined sequence of process steps to collect and/or automatically receive information descriptive of at least one aspect of the target system hardware and/or software, and/or a physical environment in which the system operates;

b) enabling at least one user via a local or remote terminal to utilize a predefined sequence of process steps for selecting at least one predefined standard, regulation and/or requirement with which the target system is to comply;

c) generating a score for each of a plurality of threat elements, each score indicating a likelihood of that threat element affecting and/or impacting the target system;

d) enabling at least one of the two or more users via a local or remote terminal and the system to select at least one test procedure against which the target system is tested to satisfy the at least one predefined standard, regulation and/or requirement;

e) enabling at least one user via a local or remote terminal to enter results associated with said at least one test procedure selected in said module element d) to determine whether the target system passes or fails said at least one test procedure; and

f) (1) obtaining a threat correlation indication associated with said at least one test

procedure, wherein said threat correlation indication indicates a relative potential of one or more given threats to exploit a vulnerability caused by a failure of said at least one test procedure, and

(2) determining a risk assessment by comparing each score generated in said module element c) with a corresponding threat correlation indication of said module element f) (1); and

said host computer having a second module for:

f) enabling at least one of the users to choose one or more predefined process steps associated with module element a) and/or module element b) process steps.

117. The system according to claim 116, wherein said second module further enables at least one of the users to define one or more prerequisite process steps that must be completed before beginning work on one or more additional process steps.

118. The system according to claim 116, wherein said second module further enables at least one of the users to define one or more roles for one or more users performing at least a portion of a process step.

119. The system according to claim 118, wherein the roles comprise at least one of certification and accreditation analyst, computer security incident response capabilities representative, privacy advocates office representative, disclosure office representative, vulnerabilities office representative, technical contingency planning document representative, request for information system originator, owner of business system, certification and accreditation request for information system coordinator, critical infrastructure protection representative, system point of contact, principal accrediting authority, certification and accreditation administrator, and certification and accreditation chief.

120. The system according to claim 116, wherein said second module further enables at least one of the users to direct the system to send an electronic notification via the network to one or more users performing at least a portion of a specified process step upon the occurrence of a predefined event.

121. The system according to claim 120, wherein the predefined events comprise at least one of opening a process step, submitting a process step for approval, re-opening a process step, and approving a process step.

122. The system according to claim 118, wherein a predefined mapping between said module element a) information and/or said module element b) process steps and said module element d) test procedures enables the system to select at least one said module element d) test procedure.

123. In a general purpose computing system, a computer-assisted and user assisted method that enables two or more users to collaboratively assess via a network the risk of and/or determine the suitability of a target system to comply with at least one predefined standard, regulation and/or

requirement, the system optionally enabling at least one of the users to select at least one of a plurality of predefined process steps to create a tailored sequence of process steps that can be used to assess the risk of and/or determine the suitability of the target system to comply with at least one predefined standard, regulation and/or requirement, the target system including hardware and/or software, the system comprising:

a host computer having first means for:

a) enabling at least one user via a local or remote terminal to utilize a predefined sequence of process steps to collect and/or receive information descriptive of at least one aspect of the target system hardware and/or software, and/or a physical environment in which the system operates;

b) enabling at least one user via a local or remote terminal to utilize a predefined sequence of process steps for selecting at least one predefined standard, regulation and/or requirement with which the target system is to comply;

c) generating a score for each of a plurality of threat elements, each score indicating a likelihood of that threat element affecting and/or impacting the target system;

d) enabling at least one of the at least one users via a local or remote terminal and the system to select at least one test procedure against which the target system is tested to satisfy the at least one predefined standard, regulation and/or requirement;

e) enabling at least one user via a local or remote terminal to enter results associated with said at least one test procedure selected in function d) to determine whether the target system passes or fails said at least one test procedure; and

f) (1) obtaining a threat correlation indication associated with said at least one test procedure, wherein said threat correlation indication indicates a relative potential of one or more given threats to exploit a vulnerability caused by a failure of said at least one test procedure, and

(2) determining a risk assessment by comparing each score generated in function c) with a corresponding threat correlation indication of function f) (1); and

said host computer having second means for:

f) enabling at least one of the users to choose one or more predefined process steps associated with said element a) information and/or element b) process steps.

124. The system according to claim 123, wherein said second means further enables at least one of the users to define one or more prerequisite process steps that must be completed before beginning work on one or more additional process steps.

125. The system according to claim 123, wherein said second means further enables at least one of the users to define one or more roles for one or more users performing at least a portion of a process step.

126. The system according to claim 125, wherein the roles comprise at least one of certification and accreditation analyst, computer security incident response capabilities representative, privacy advocates office representative, disclosure office representative, vulnerabilities office representative, technical contingency planning document representative, request for information system originator, owner of business system, certification and accreditation request for information system coordinator, critical infrastructure protection representative, system point of contact, principal accrediting authority, certification and accreditation administrator, and certification and accreditation chief.

127. The system according to claim 123, wherein said second means further enables at least one of the users to direct the system to send an electronic notification to one or more users performing at least a portion of a specified process step upon the occurrence of a predefined event.

128. The system according to claim 127, wherein the predefined events comprise at least one of opening a process step, submitting a process step for approval, re-opening a process step, and approving a process step.

129. The system according to claim 123, wherein a predefined mapping between function a) information and/or function b) process steps and function d) test procedures enables the system to select at least one function d) test procedure.

130. A computer program medium storing computer instructions therein for instructing a computer to perform a computer-implemented and user assisted process for that enables two or more users to collaboratively assess via a network the risk of and/or determine the suitability of a target system to comply with at least one predefined standard, regulation and/or requirement, the system optionally enabling at least one of the users to select at least one of a plurality of predefined process steps to create a tailored sequence of process steps that can be used to assess the risk of and/or determine the suitability of the target system to comply with at least one predefined standard, regulation and/or requirement, the target system including hardware and/or software, the medium comprising:

first instructions for:

a) enabling at least one user via a local or remote terminal to utilize a predefined sequence of process steps to collect and/or receive information descriptive of at least one aspect of the target system hardware and/or software, and/or a physical environment in which the system operates;

b) enabling at least one user via a local or remote terminal to utilize a predefined sequence of process steps for selecting at least one predefined standard, regulation and/or requirement with which the target system is to comply;

c) generating a score for each of a plurality of threat elements, each score indicating a likelihood of that threat element affecting and/or impacting the target system;

d) enabling at least one of the at least one users via a local or remote terminal and the system to select at least one test procedure against which the target system is tested to

satisfy the at least one predefined standard, regulation and/or requirement;

e) enabling at least one user via a local or remote terminal to enter results associated with said at least one test procedure selected in instruction element d) instructions to determine whether the target system passes or fails said at least one test procedure; and

f) (1) obtaining a threat correlation indication associated with said at least one test procedure, wherein said threat correlation indication indicates a relative potential of one or more given threats to exploit a vulnerability caused by a failure of said at least one test procedure, and

(2) determining a risk assessment by comparing each score generated in instruction element c) instructions with a corresponding threat correlation indication of instruction element f) (1) instructions; and

second instructions for:

f) enabling at least one of the users via a local or remote terminal to choose one or more predefined process steps associated with element a) instructions and/or element b) process step instructions.

131. The medium according to claim 130, wherein said second instructions further enables at least one of the users to define one or more prerequisite process steps that must be completed before beginning work on one or more additional process steps.

132. The medium according to claim 130, wherein said second instructions further enable at least one of the users to define one or more roles for one or more users performing at least a portion of a process step.

133. The medium according to claim 130, wherein said second instructions further enable at least one of the users to direct the system to send an electronic notification to one or more users performing at least a portion of a specified process step upon the occurrence of a predefined event.

134. The medium according to claim 133, wherein the predefined events comprise at least one of opening a process step, submitting a process step for approval, re-opening a process step, and approving a process step.

135. The medium according to claim 130, wherein a predefined mapping between instruction element a) information and/or instruction element b) process steps and instruction element d) test procedures enables the system to select at least one instruction element d) test procedure.

136. A system for generating at least one test procedure for a target system comprising at least one device, each of the at least one device comprising a combination of hardware and software, said system comprising:

means for enabling at least one user via a local or remote terminal to utilize a predefined sequence of process steps to collect and/or receive information descriptive of at least one

aspect of the target system hardware and/or software, and/or a physical environment in which the system operates;

means for enabling at least one user via a local or remote terminal to utilize a predefined sequence of process steps for selecting at least one predefined standard, regulation and/or requirement with which the target system is to comply;

at least one storage medium for storing thereon at least:

(i) at least one predefined standard, regulation and/or requirement with which the segment is to comply; and

(ii) data pertaining to at least one platform category, each platform category having associated therewith one or more devices having at least a hardware specification and an operating system; and

decision logic for determining which test procedures will be used to test each of the at least one platform category based on a mapping between the test procedures and the at least one predefined standard, regulation and/or requirement.

137. The system according to claim 136, further comprising a printer for printing the one or more test procedures.

138. The system according to claim 136, wherein the target system information comprises at least one of an IP address, a hostname, a media access control address, operating system name, operating system version.

139. The system according to claim 138, wherein the information further comprises at least one of application software, hard disk drive capacity, device manufacturer, and device model.

140. A system for generating at least one test procedure for a target system comprising at least one device, each of the at least one device comprising a combination of hardware and software, said system comprising:

means for enabling at least one user via a local or remote terminal to utilize a predefined sequence of process steps to collect and/or receive information descriptive of at least one aspect of the target system hardware and/or software, and/or a physical environment in which the system operates;

means for enabling at least one user via a local or remote terminal to utilize a predefined sequence of process steps for selecting at least one predefined standard, regulation and/or requirement with which the target system is to comply;

a storage medium for storing the at least one predefined standard, regulation and/or requirement with which the target system is to comply;

a plurality of information entities, each of said plurality of information entities storing data pertaining to at least one platform category, each platform category defining one or more devices having at least a hardware specification and an operating system; and

decision logic for determining which of one or more test procedures will be used to test each platform category based on a mapping between the test procedures and the at least one predefined standard, regulation and/or requirement.

141. The system according to claim 140, wherein said plurality of information entities comprise relational database tables.

142. The system according to claim 141, wherein said relational database tables comprise tables for defining:

a) each of the at least one platform category;

b) each of the at least one device;

c) each application program;

d) each defined association between an application program and a platform category, wherein each such association indicates that the application program is typically installed on devices belonging to the platform category; and

e) each defined association between an application program and a device, wherein each such association indicates that the application program is actually installed on the device; and

f) each standard operating system.

143. A computer-assisted method of enabling a user to assess the risk of and/or determine the suitability of a target system to comply with at least one predefined standard, regulation and/or requirement, the target system including hardware and/or software, the method comprising the steps of:

a) collecting information descriptive of at least one aspect of the target system hardware and/or software, and/or a physical environment in which the target system operates;

b) selecting at least one test procedure against which the target system is tested to satisfy at least one predefined standard, regulation and/or requirement with which the target system is to comply;

c) generating a score for each of a plurality of threat elements, each score indicating a likelihood of that threat element affecting and/or impacting the target system;

d) performing the steps associated with said at least one test procedure in said step b) to determine whether the target system passes or fails said at least one test procedure;

e) (1) obtaining a threat correlation indication associated with said at least one test procedure, wherein said threat correlation indication indicates a relative potential of one or more given threats to exploit a vulnerability caused by a failure of said at least one test procedure, and

(2) determining a risk assessment by comparing each score generated in said step c) with a corresponding threat correlation indication of said step e) (1); and

f) sending an electronic notification to one or more users upon the occurrence of a predefined event.

144. The method according to claim 143, wherein the predefined events comprise at least one of opening a process step, submitting a process step for approval, re-opening a process step, and approving a process step.

145. The method according to claim 143, further comprising the step of enabling the user to choose one or more process steps pertaining to said step a) and/or said step b).

146. The method according to claim 145, further comprising the step of enabling a user to define one or more prerequisite ones of the plurality of process steps that must be completed before beginning work on one or more additional ones of the plurality of process steps.

147. The method according to claim 1, further comprising the step of enabling a user to define one or more roles for one or more users performing at least a portion of a process step.

148. A computer-assisted method of generating at least one test procedure for a target system comprising at least one device, each of the at least one device comprising a combination of hardware and software, said method comprising the steps of:

a) enabling at least one user via a local or remote terminal to utilize a predefined sequence of process steps to collect and/or receive information descriptive of at least one aspect of the target system hardware and/or software, and/or a physical environment in which the system operates;

b) enabling at least one user via a local or remote terminal to utilize a predefined sequence of process steps for selecting at least one predefined standard, regulation and/or requirement with which the target system is to comply;

c) associating hardware and/or software information pertaining to the at least one device, collected in said step a), with at least one pre-defined platform category;

d) for each of said at least one platform category, determining which of one or more test procedures will be used to test hardware and/or software associated with said at least one platform category based on a mapping between the test procedures and the at least one predefined standard, regulation and/or requirement; and

e) generating at least one test procedure as determined in said step d) for each platform category.

149. A system for generating at least one test procedure for a target system having at least one device capable of being identified, each of the at least one device having hardware and/or software, said system comprising:

a) a discovery engine that scans the target system for the hardware configuration, operating system and/or application programs of each of the at least one device;

b) at least one storage medium for storing thereon at least:

(i) enabling at least one user via a local or remote terminal to utilize a predefined sequence of process steps for selecting at least one predefined standard, regulation and/or

requirement with which the target system is to comply, and

(ii) data pertaining to at least one platform category, each platform category having associated therewith one or more devices having at least a hardware specification and an operating system; and

c) decision logic for determining which of zero or more test procedures will be used to test each of the at least one platform category based on a mapping between the test procedures and the at least one predefined standard, regulation and/or requirement.

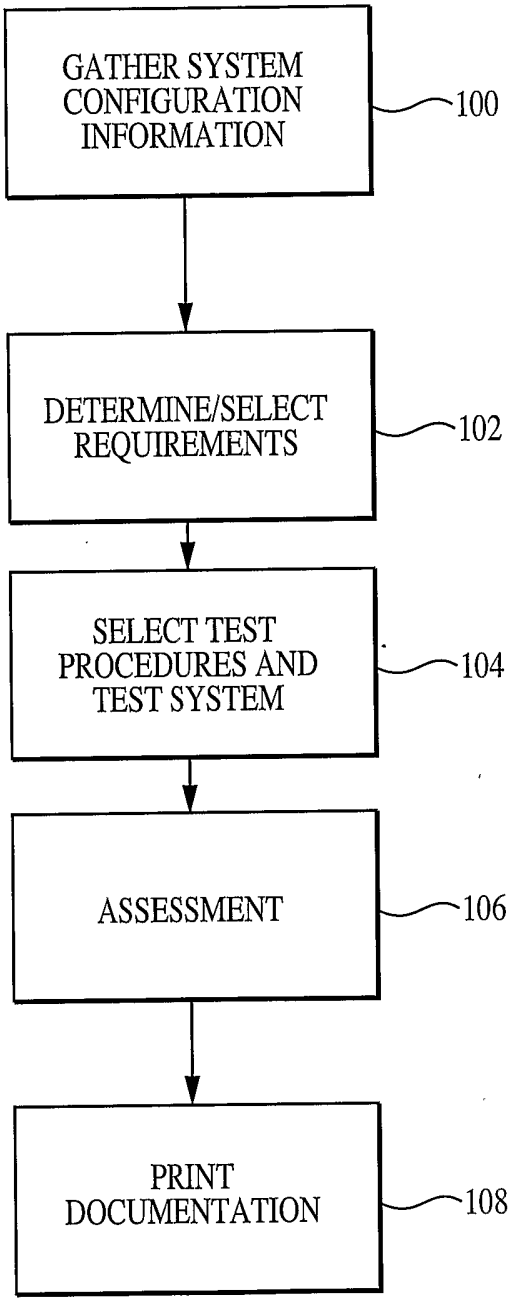
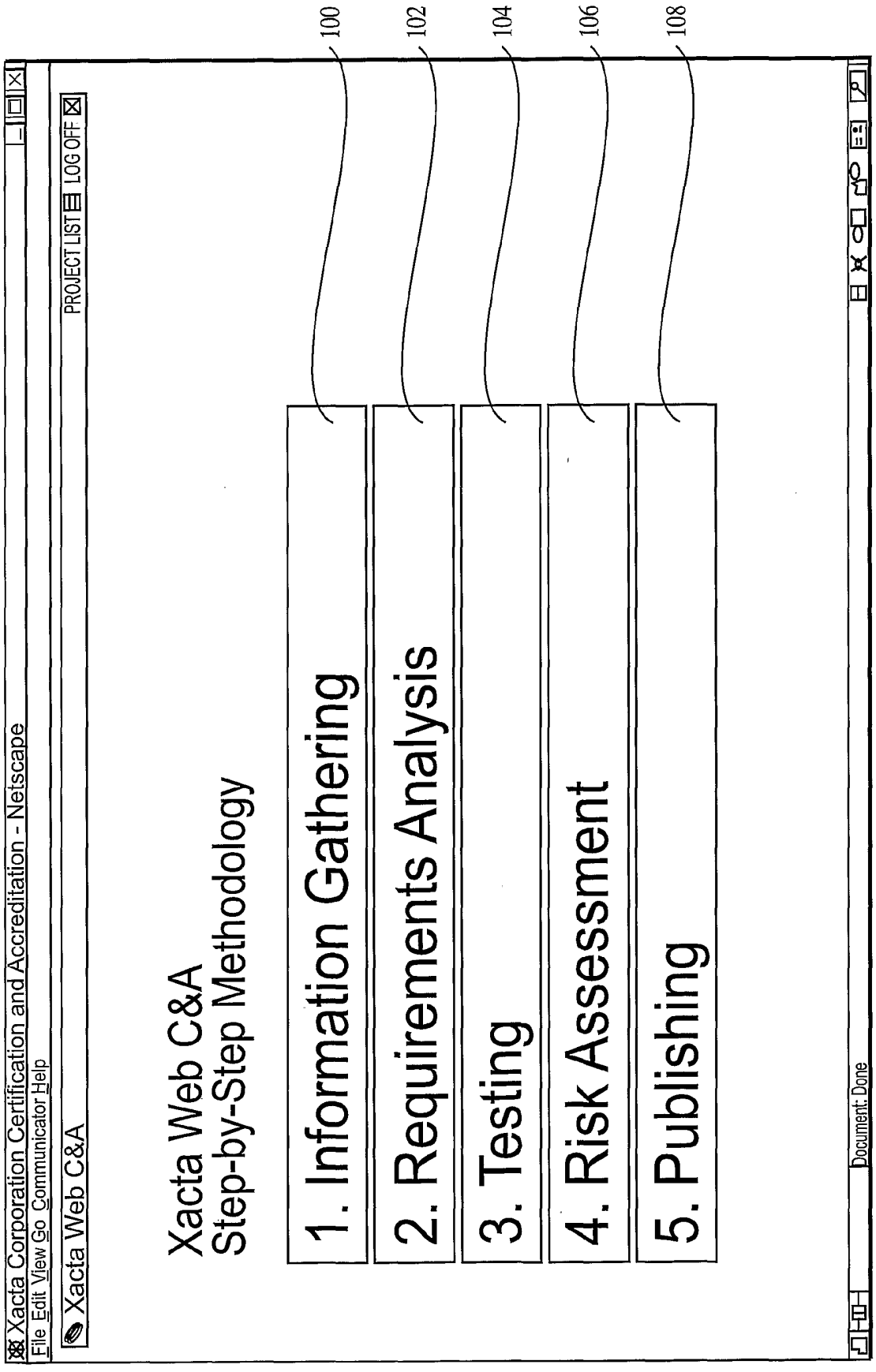

GATHER SYSTEM CONFIGURATION INFORMATION
100
DETERMINE/SELECT REQUIREMENTS
102
SELECT TEST PROCEDURES AND TEST SYSTEM
104
ASSESSMENT
106
PRINT DOCUMENTATION
108

FIG. 1


Xacta Corporation Certification and Accreditation - Netscape
File Edit View Go Communicator Help
Xacta Web C&A
PROJECT LIST
LOG OFF
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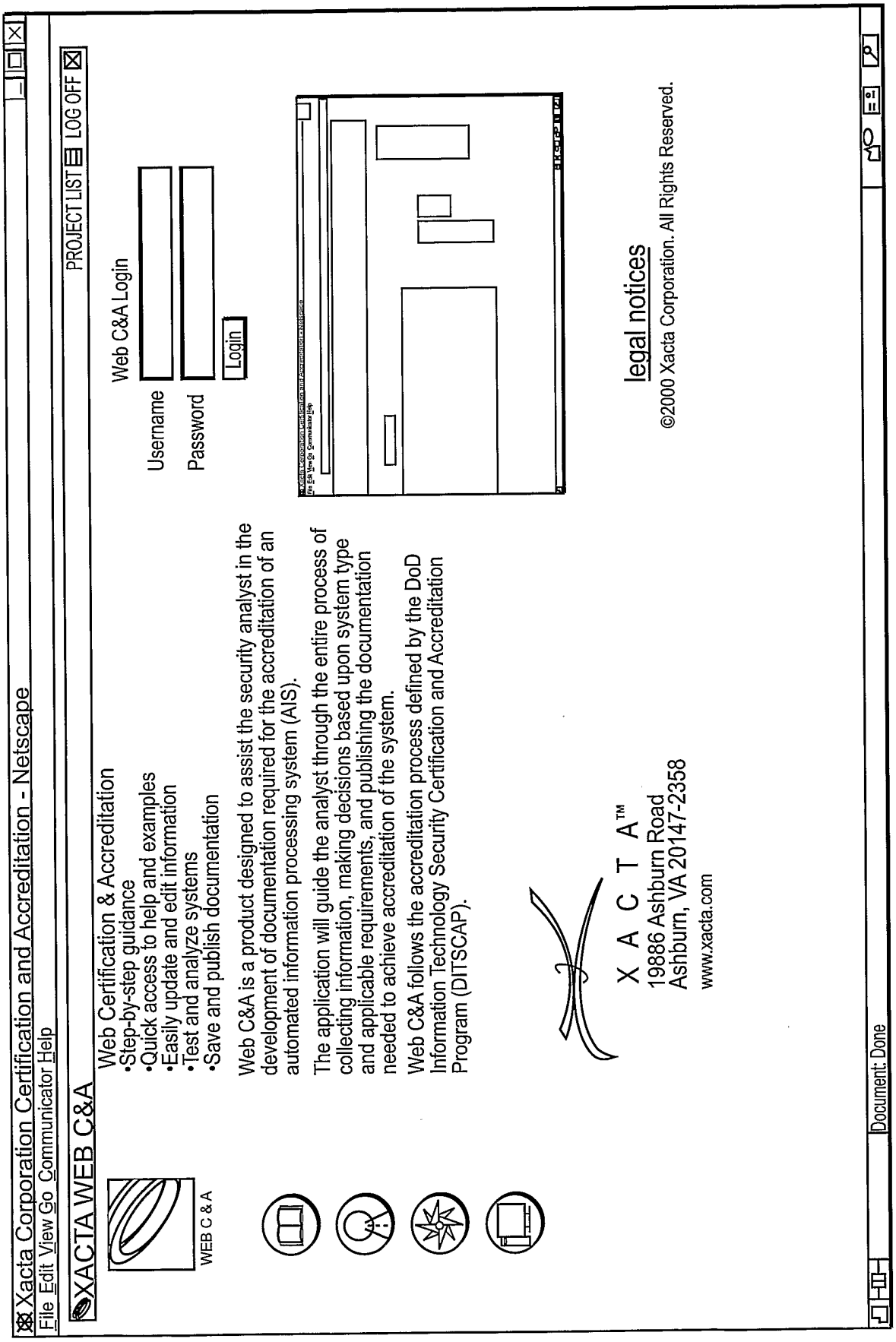
Step-by-Step Methodology
1. Information Gathering
2. Requirements Analysis
3. Testing
4. Risk Assessment
5. Publishing
Document: Done
100
102
104
106
108

FIG. 2


Xacta Corporation Certification and Accreditation - Netscape
File Edit View Go Communicator Help
XACTA WEB C&A
PROJECT LIST
LOG OFF
WEB C & A
Web Certification & Accreditation
•Step-by-step guidance
•Quick access to help and examples
•Easily update and edit information
•Test and analyze systems
•Save and publish documentation
Web C&A is a product designed to assist the security analyst in the development of documentation required for the accreditation of an automated information processing system (AIS).
The application will guide the analyst through the entire process of collecting information, making decisions based upon system type and applicable requirements, and publishing the documentation needed to achieve accreditation of the system.
Web C&A follows the accreditation process defined by the DoD Information Technology Security Certification and Accreditation Program (DITSCAP).
Web C&A Login
Username
Password
Login
legal notices
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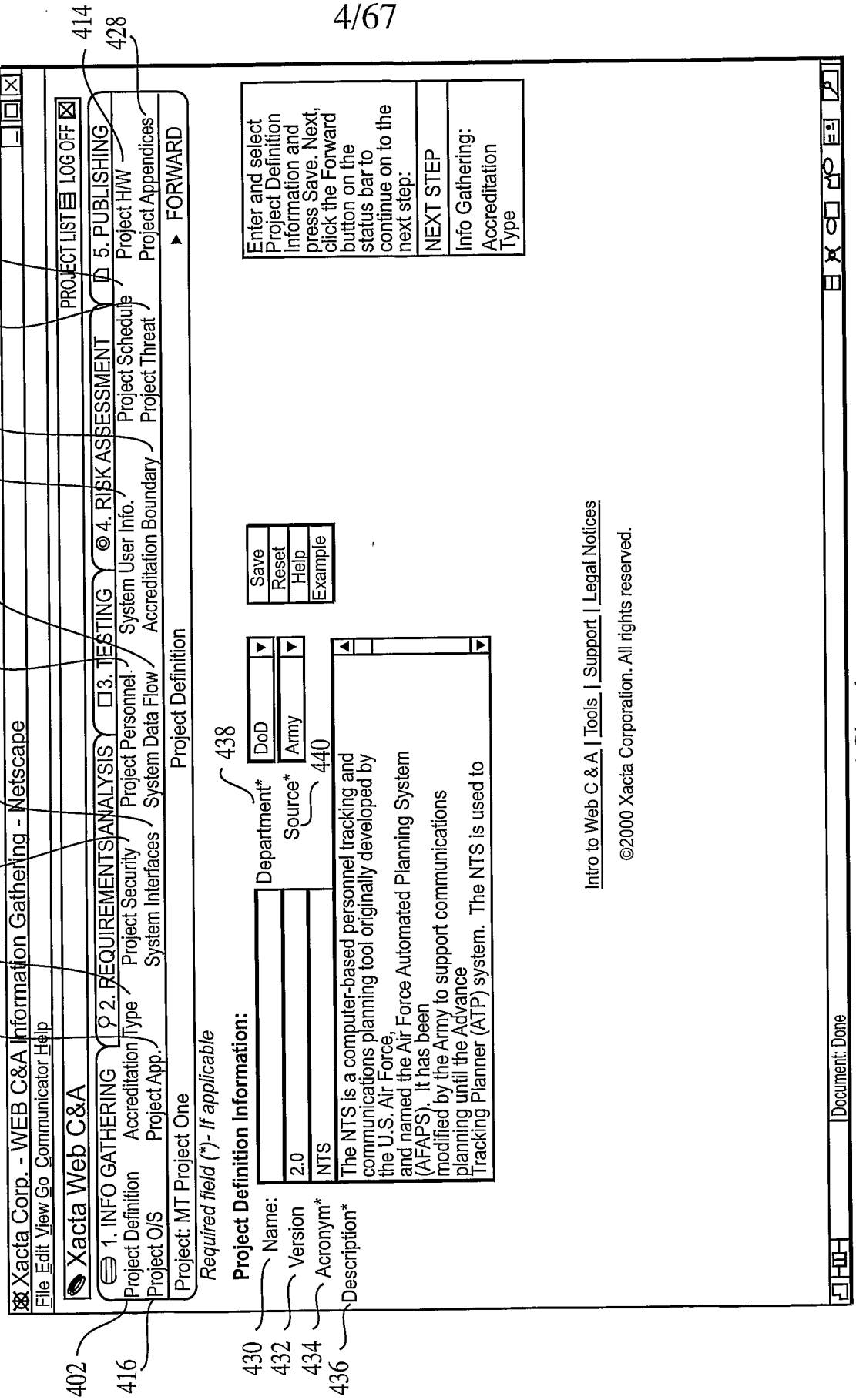
Ashburn, VA 20147-2358
www.xacta.com
Document: Done

FIG. 3


Xacta Corp. - WEB C&A Information Gathering - Netscape
File Edit View Go Communicator Help
Xacta Web C&A
PROJECT LIST
LOG OFF
1. INFO GATHERING
2. REQUIREMENTS ANALYSIS
3. TESTING
4. RISK ASSESSMENT
5. PUBLISHING
Project Definition
Accreditation Type
Project Security
Project Personnel
System User Info.
Project Schedule
Project H/W
Project O/S
Project App.
System Interfaces
System Data Flow
Accreditation Boundary
Project Threat
Project Appendices
Project: MT Project One
Project Definition
FORWARD
Required field (*)- If applicable
Project Definition Information:
Name:
Version
Acronym*
Description*
2.0
NTS
The NTS is a computer-based personnel tracking and communications planning tool originally developed by the U.S. Air Force, and named the Air Force Automated Planning System (AFAPS). It has been modified by the Army to support communications planning until the Advance Tracking Planner (ATP) system. The NTS is used to
Department*
DoD
Source*
Army
Save
Reset
Help
Example
Enter and select Project Definition Information and press Save. Next, click the Forward button on the status bar to continue on to the next step:
NEXT STEP
Info Gathering: Accreditation Type
Intro to Web C & A | Tools | Support | Legal Notices
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Document: Done
402
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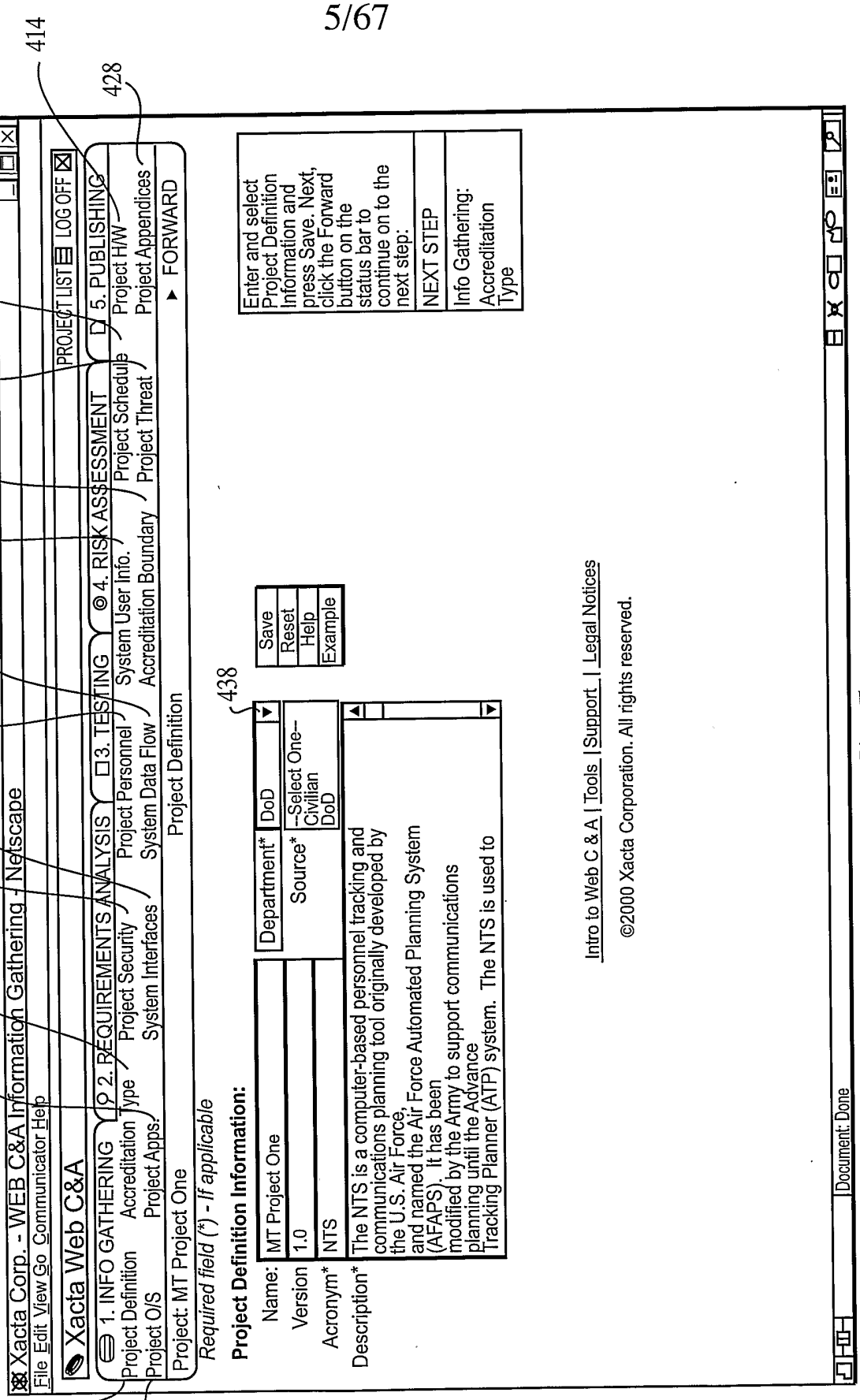
FIG. 4


Xacta Corp. - WEB C&A Information Gathering - Netscape
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Xacta Web C&A
PROJECT LIST
LOG OFF
1. INFO GATHERING
2. REQUIREMENTS ANALYSIS
3. TESTING
4. RISK ASSESSMENT
5. PUBLISHING
Project Definition
Accreditation Type
Project Apps.
Project Security
System Interfaces
Project Personnel
System Data Flow
System User Info.
Accreditation Boundary
Project Schedule
Project Threat
Project H/W
Project Appendices
Project: MT Project One
Project Definition
FORWARD
Required field (*) - If applicable
Project Definition Information:
Name:
Version
Acronym*
Description*
MT Project One
1.0
NTS
The NTS is a computer-based personnel tracking and communications planning tool originally developed by the U.S. Air Force, and named the Air Force Automated Planning System (AFAPS). It has been modified by the Army to support communications planning until the Advance Tracking Planner (ATP) system. The NTS is used to
Department*
DoD
Source*
--Select One--
Civilian
DoD
Save
Reset
Help
Example
Enter and select Project Definition Information and press Save. Next, click the Forward button on the status bar to continue on to the next step:
NEXT STEP
Info Gathering: Accreditation Type
Intro to Web C & A | Tools | Support | Legal Notices
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Document: Done
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FIG. 5

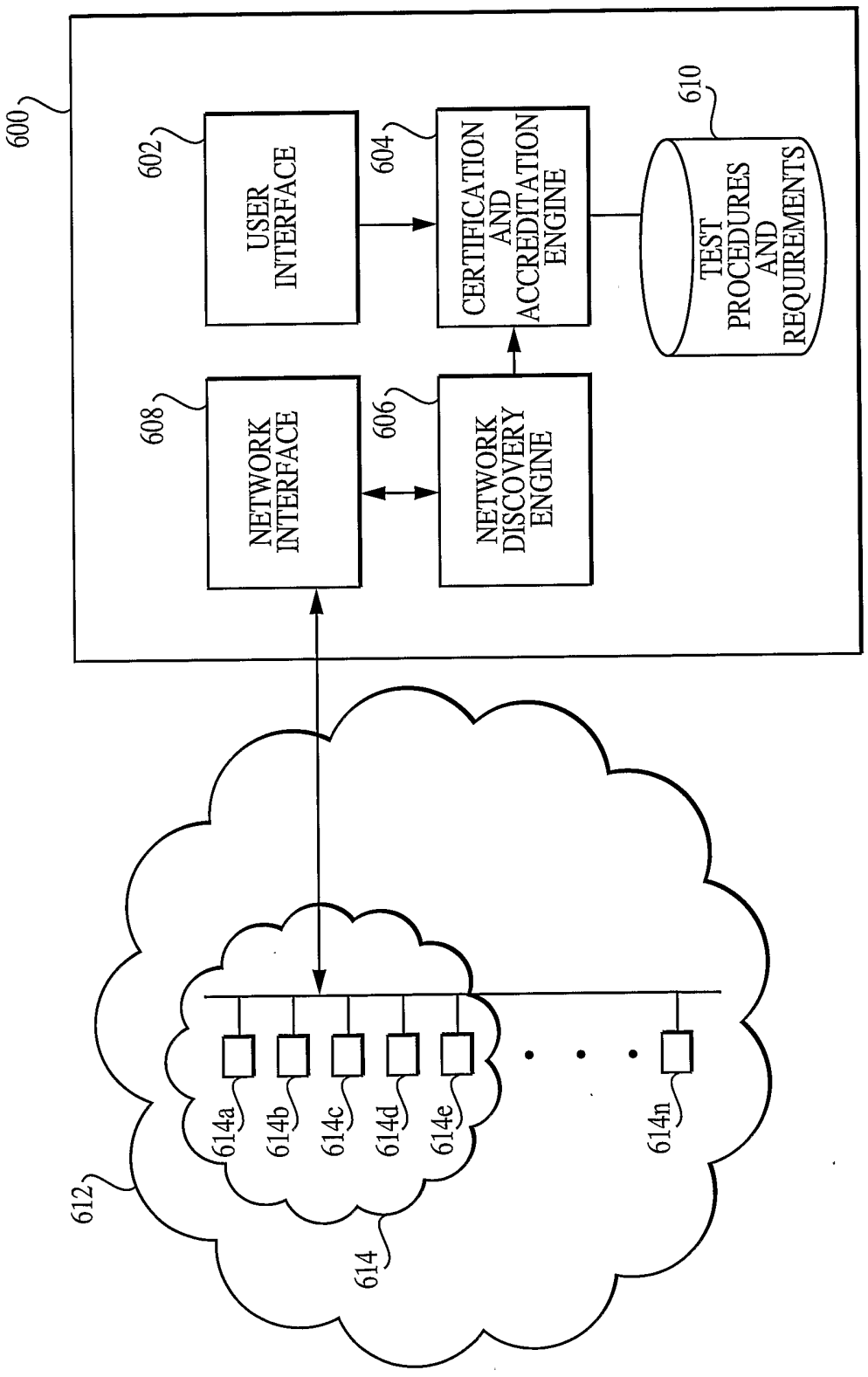

600
602
USER INTERFACE
604
CERTIFICATION AND ACCREDITATION ENGINE
610
TEST PROCEDURES AND REQUIREMENTS
608
NETWORK INTERFACE
606
NETWORK DISCOVERY ENGINE
612
614
614a
614b
614c
614d
614e
614n

FIG. 6

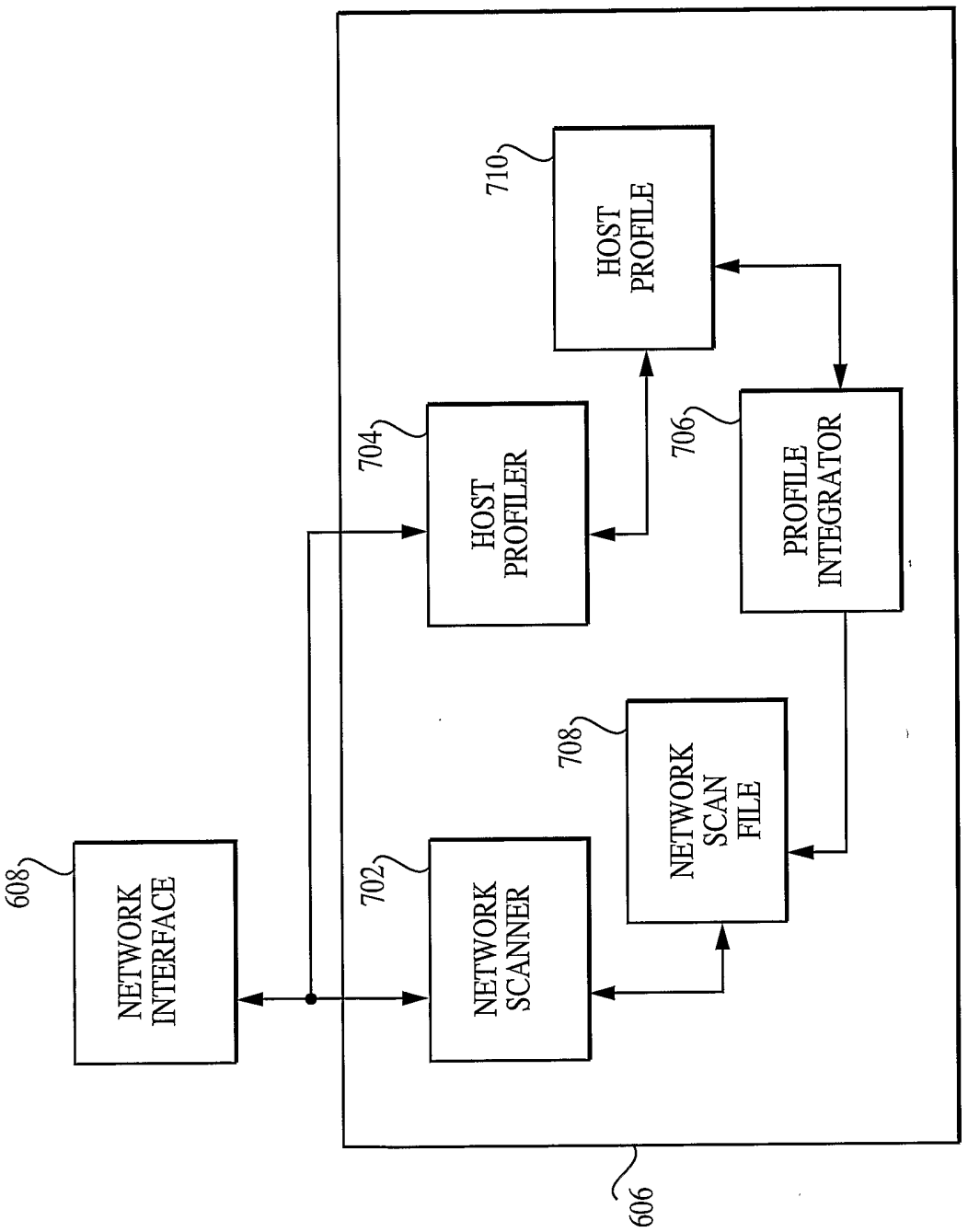

606
608
NETWORK INTERFACE
702
NETWORK SCANNER
704
HOST PROFILER
706
PROFILE INTEGRATOR
708
NETWORK SCAN FILE
710
HOST PROFILE

FIG. 7

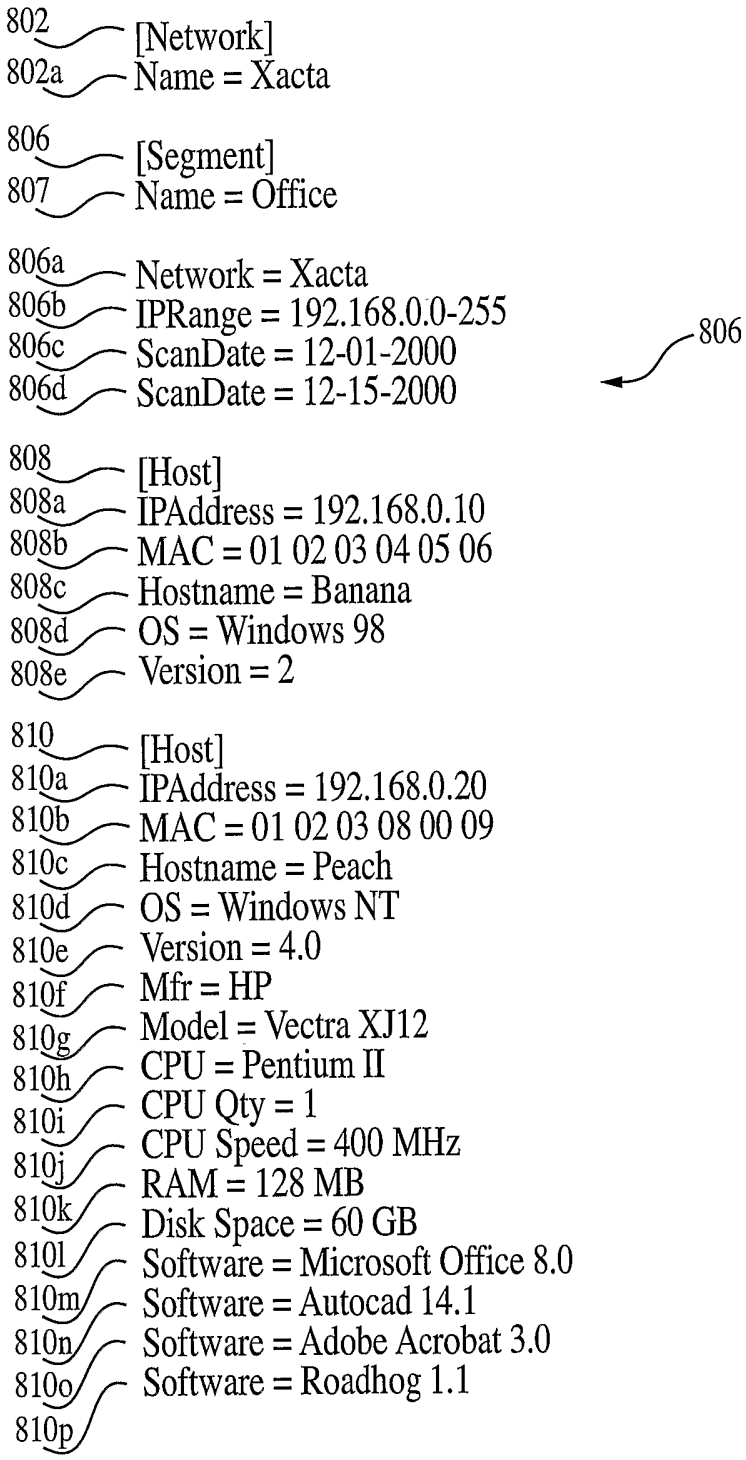

802
[Network]
802a
Name = Xacta
806
[Segment]
807
Name = Office
806a
Network = Xacta
806b
IPRange = 192.168.0.0-255
806c
ScanDate = 12-01-2000
806d
ScanDate = 12-15-2000
806
808
[Host]
808a
IPAddress = 192.168.0.10
808b
MAC = 01 02 03 04 05 06
808c
Hostname = Banana
808d
OS = Windows 98
808e
Version = 2
810
[Host]
810a
IPAddress = 192.168.0.20
810b
MAC = 01 02 03 08 00 09
810c
Hostname = Peach
810d
OS = Windows NT
810e
Version = 4.0
810f
Mfr = HP
810g
Model = Vectra XJ12
810h
CPU = Pentium II
810i
CPU Qty = 1
810j
CPU Speed = 400 MHz
810k
RAM = 128 MB
810l
Disk Space = 60 GB
810m
Software = Microsoft Office 8.0
810n
Software = Autocad 14.1
810o
Software = Adobe Acrobat 3.0
810p
Software = Roadhog 1.1

FIG. 8

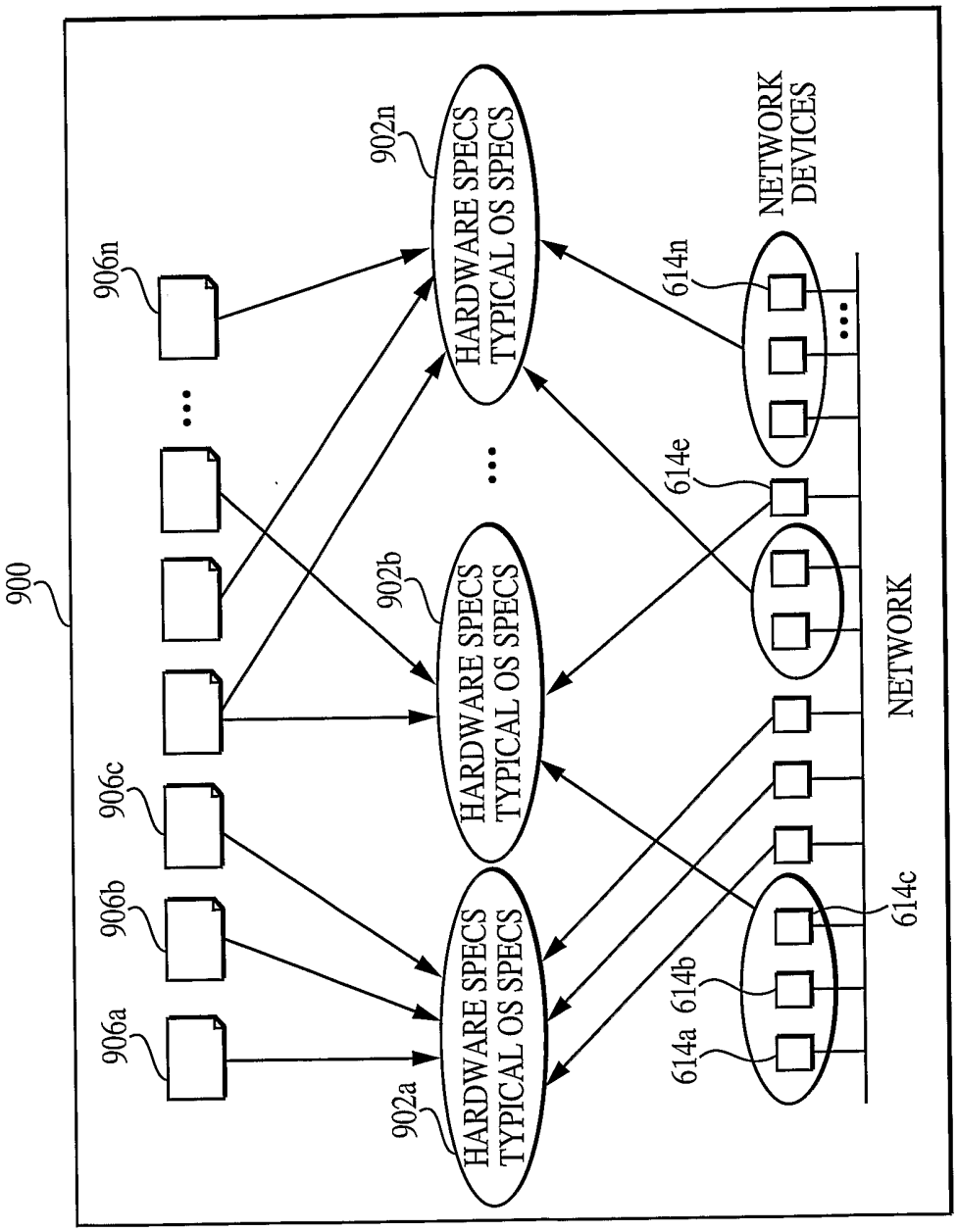

900
906a
906b
906c
906n
902a
HARDWARE SPECS
TYPICAL OS SPECS
902b
HARDWARE SPECS
TYPICAL OS SPECS
902n
HARDWARE SPECS
TYPICAL OS SPECS
NETWORK
DEVICES
614a
614b
614c
614e
614n
NETWORK

FIG. 9

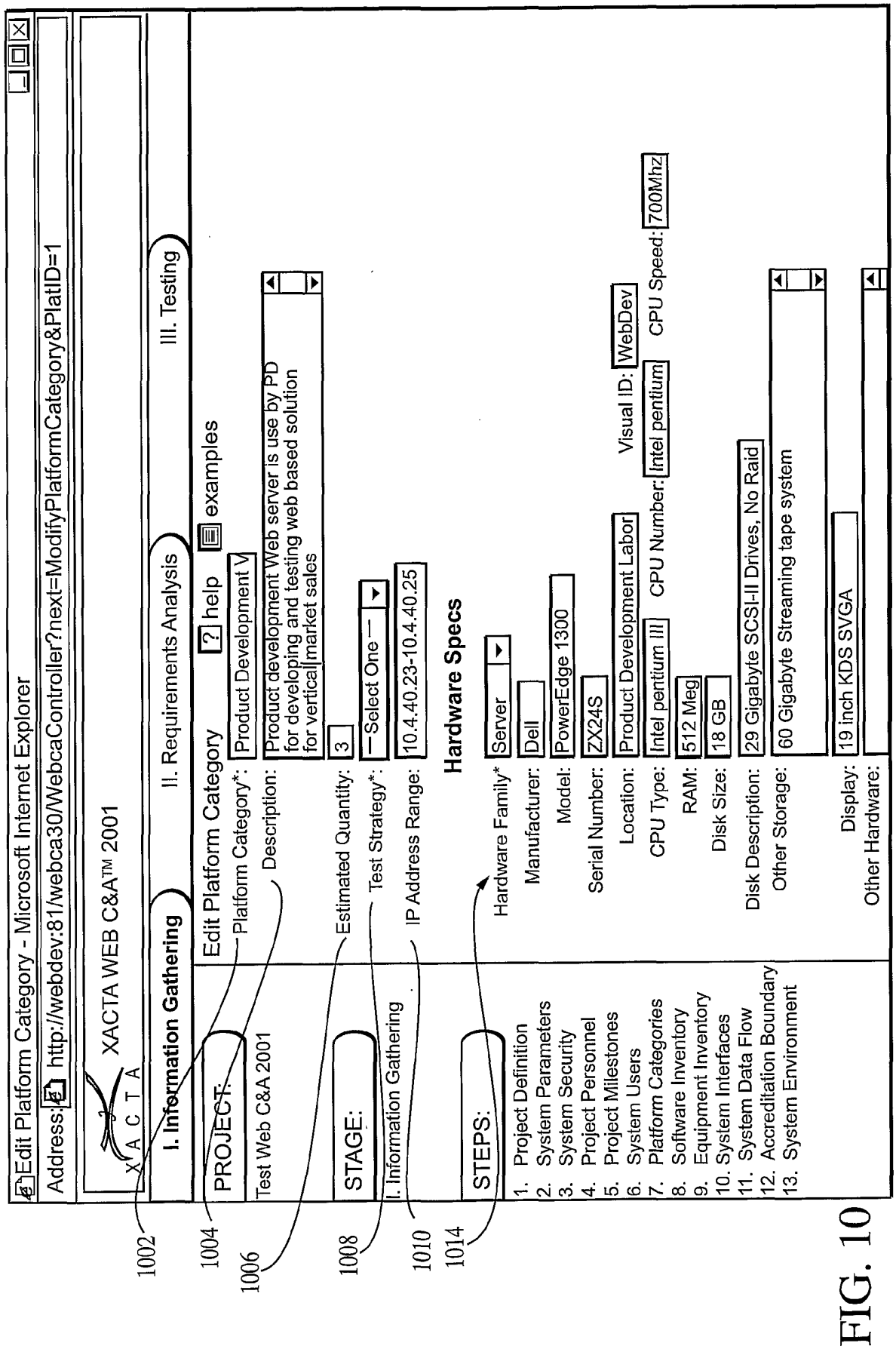

Edit Platform Category - Microsoft Internet Explorer
Address: http://webdev:81/webca30/WebcaController?next=ModifyPlatformCategory&PlatID=1
XACTA WEB C&A™ 2001
I. Information Gathering
II. Requirements Analysis
III. Testing
Edit Platform Category
help
examples
PROJECT:
Test Web C&A 2001
STAGE:
I. Information Gathering
STEPS:
1. Project Definition
2. System Parameters
3. System Security
4. Project Personnel
5. Project Milestones
6. System Users
7. Platform Categories
8. Software Inventory
9. Equipment Inventory
10. System Interfaces
11. System Data Flow
12. Accreditation Boundary
13. System Environment
Platform Category*:
Product Development V
Description:
Product development Web server is use by PD for developing and testing web based solution for vertical market sales
Estimated Quantity:
3
Test Strategy*:
— Select One —
IP Address Range:
10.4.40.23-10.4.40.25
Hardware Specs
Hardware Family*
Server
Manufacturer:
Dell
Model:
PowerEdge 1300
Serial Number:
ZX24S
Location:
Product Development Labor
Visual ID:
WebDev
CPU Type:
Intel pentium III
CPU Number:
Intel pentium
CPU Speed:
700Mhz
RAM:
512 Meg
Disk Size:
18 GB
Disk Description:
29 Gigabyte SCSI-II Drives, No Raid
Other Storage:
60 Gigabyte Streaming tape system
Display:
19 inch KDS SVGA
Other Hardware:
1002
1004
1006
1008
1010
1014

FIG. 10

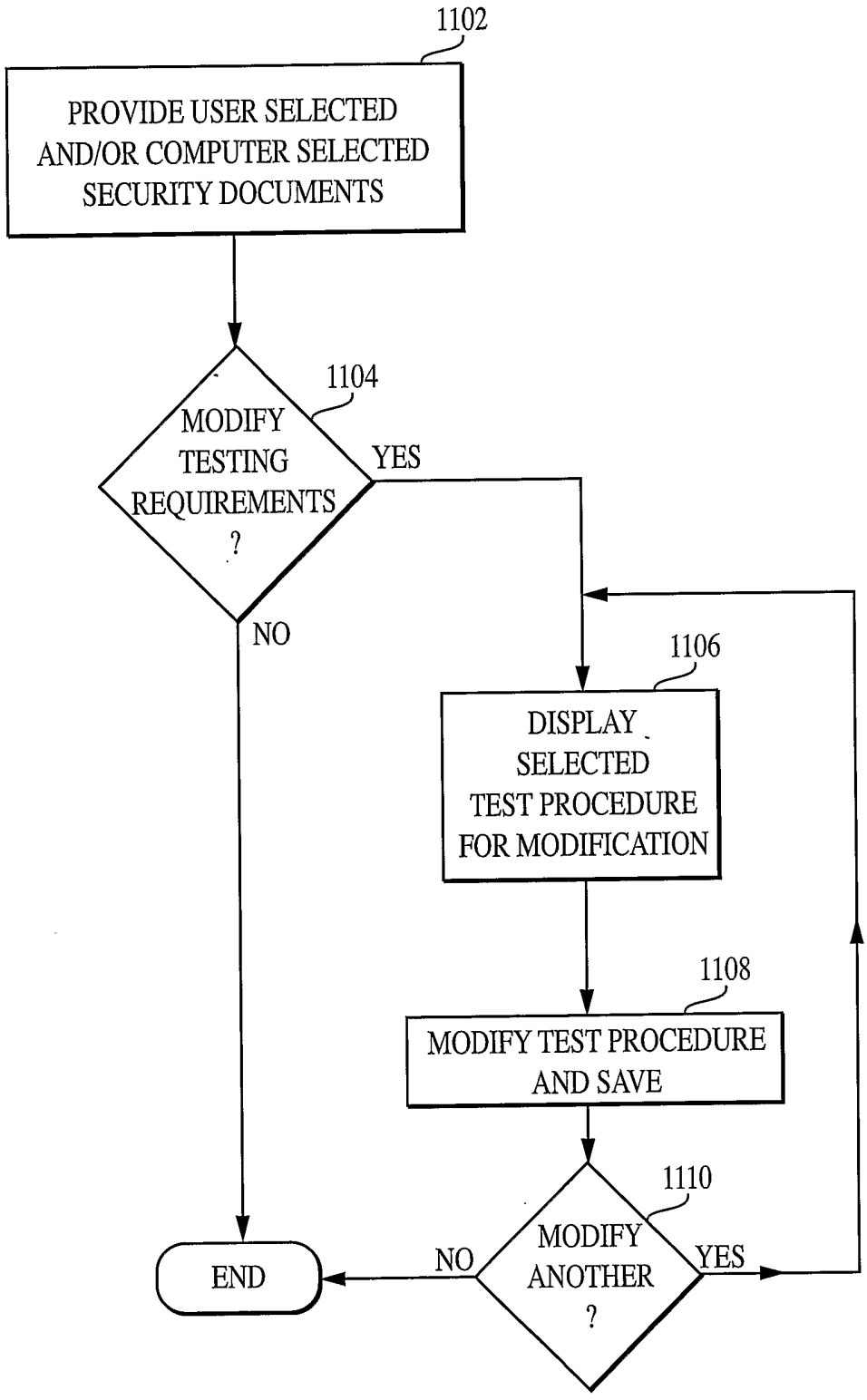
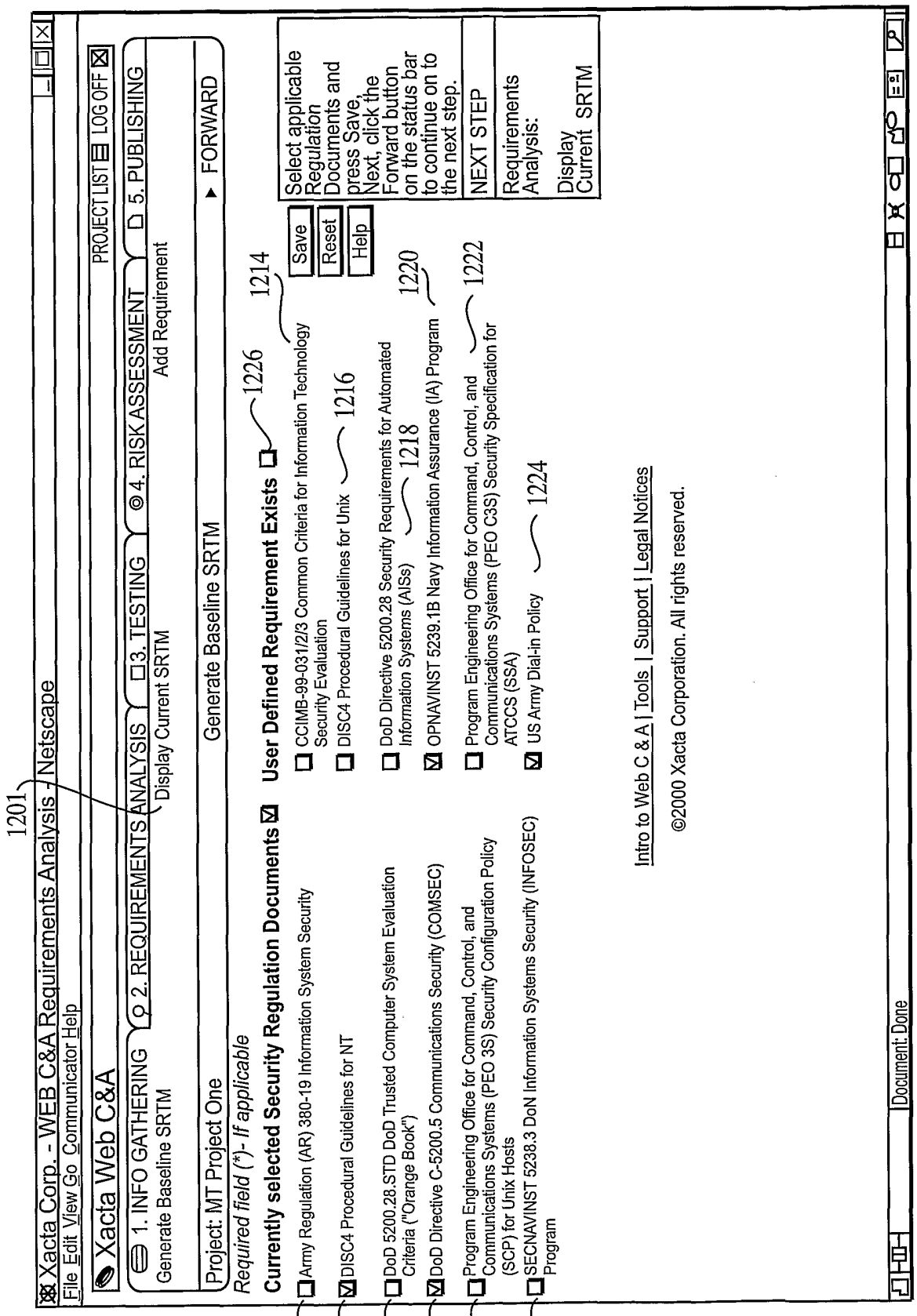

1102
PROVIDE USER SELECTED AND/OR COMPUTER SELECTED SECURITY DOCUMENTS
1104
MODIFY TESTING REQUIREMENTS ?
YES
NO
1106
DISPLAY SELECTED TEST PROCEDURE FOR MODIFICATION
1108
MODIFY TEST PROCEDURE AND SAVE
1110
MODIFY ANOTHER ?
NO
YES
END

FIG. 11


1201
Xacta Corp. - WEB C&A Requirements Analysis - Netscape
File Edit View Go Communicator Help
Xacta Web C&A
PROJECT LIST
LOG OFF
1. INFO GATHERING
2. REQUIREMENTS ANALYSIS
3. TESTING
4. RISK ASSESSMENT
5. PUBLISHING
Generate Baseline SRTM
Display Current SRTM
Add Requirement
Project: MT Project One
Generate Baseline SRTM
FORWARD
Required field (*)- If applicable
Currently selected Security Regulation Documents
User Defined Requirement Exists
1226
1214
Save
Reset
Help
Select applicable Regulation Documents and press Save, Next, click the Forward button on the status bar to continue on to the next step.
NEXT STEP
Requirements Analysis:
Display Current SRTM
1202 Army Regulation (AR) 380-19 Information System Security
1204 DISC4 Procedural Guidelines for NT
1206 DoD 5200.28.STD DoD Trusted Computer System Evaluation Criteria ("Orange Book")
1208 DoD Directive C-5200.5 Communications Security (COMSEC)
1210 Program Engineering Office for Command, Control, and Communications Systems (PEO 3S) Security Configuration Policy (SCP) for Unix Hosts
1212 SECNAVINST 5238.3 DoN Information Systems Security (INFOSEC) Program
CCIMB-99-031/2/3 Common Criteria for Information Technology Security Evaluation
DISC4 Procedural Guidelines for Unix
1216
DoD Directive 5200.28 Security Requirements for Automated Information Systems (AISs)
1218
OPNAVINST 5239.1B Navy Information Assurance (IA) Program
1220
Program Engineering Office for Command, Control, and Communications Systems (PEO C3S) Security Specification for ATCCS (SSA)
1222
US Army Dial-in Policy
1224
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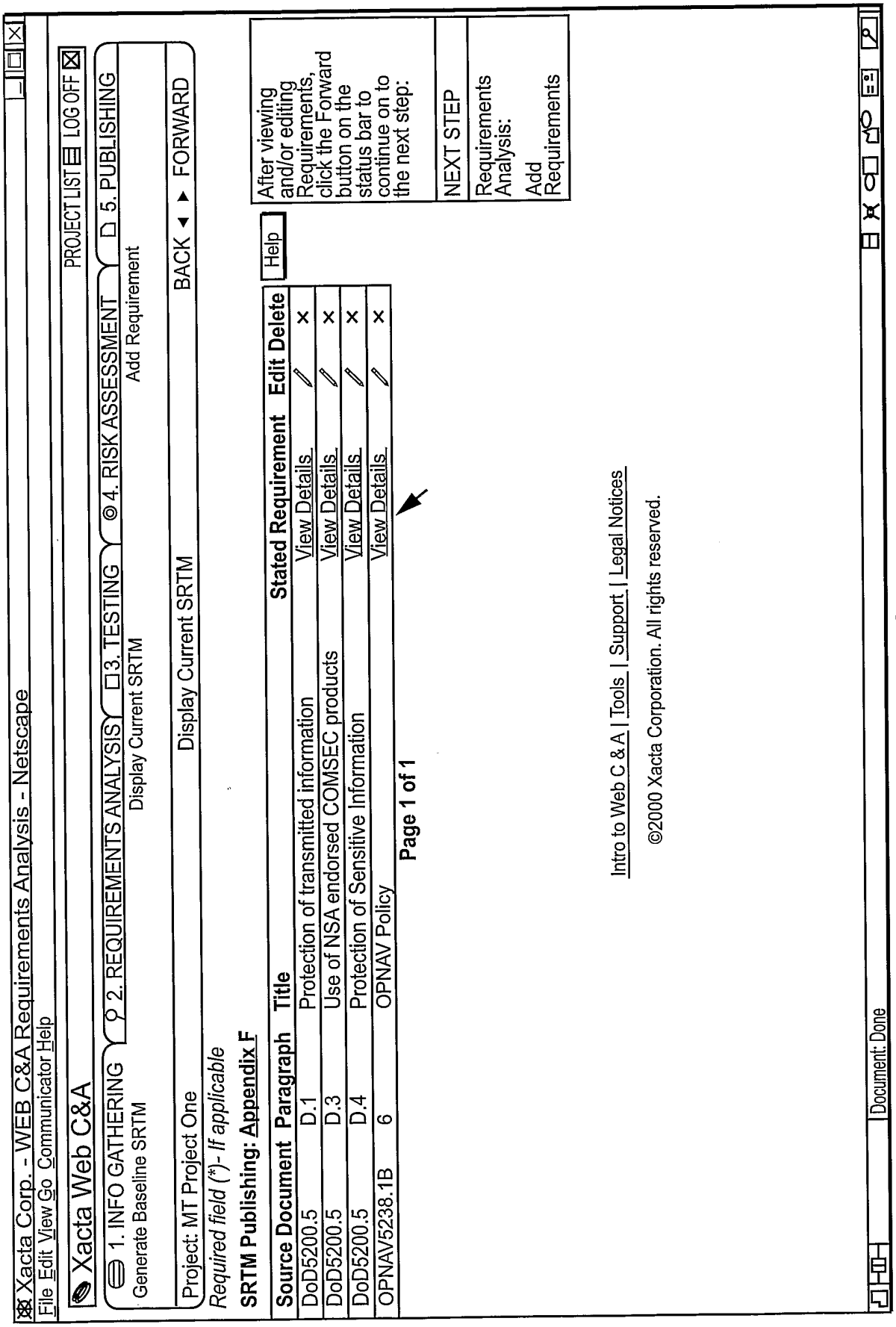
Document: Done

FIG. 12


Xacta Corp. - WEB C&A Requirements Analysis - Netscape
File Edit View Go Communicator Help
Xacta Web C&A
PROJECT LIST
LOG OFF
1. INFO GATHERING
2. REQUIREMENTS ANALYSIS
3. TESTING
4. RISK ASSESSMENT
5. PUBLISHING
Generate Baseline SRTM
Display Current SRTM
Add Requirement
Project: MT Project One
Display Current SRTM
BACK
FORWARD
Required field (*)- If applicable
SRTM Publishing: Appendix F
Help
Source Document
Paragraph
Title
Stated Requirement
Edit
Delete
DoD5200.5 D.1 Protection of transmitted information View Details
DoD5200.5 D.3 Use of NSA endorsed COMSEC products View Details
DoD5200.5 D.4 Protection of Sensitive Information View Details
OPNAV5238.1B 6 OPNAV Policy View Details
Page 1 of 1
After viewing and/or editing Requirements, click the Forward button on the status bar to continue on to the next step:
NEXT STEP
Requirements Analysis:
Add Requirements
Intro to Web C & A | Tools | Support | Legal Notices
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Document: Done

FIG. 13

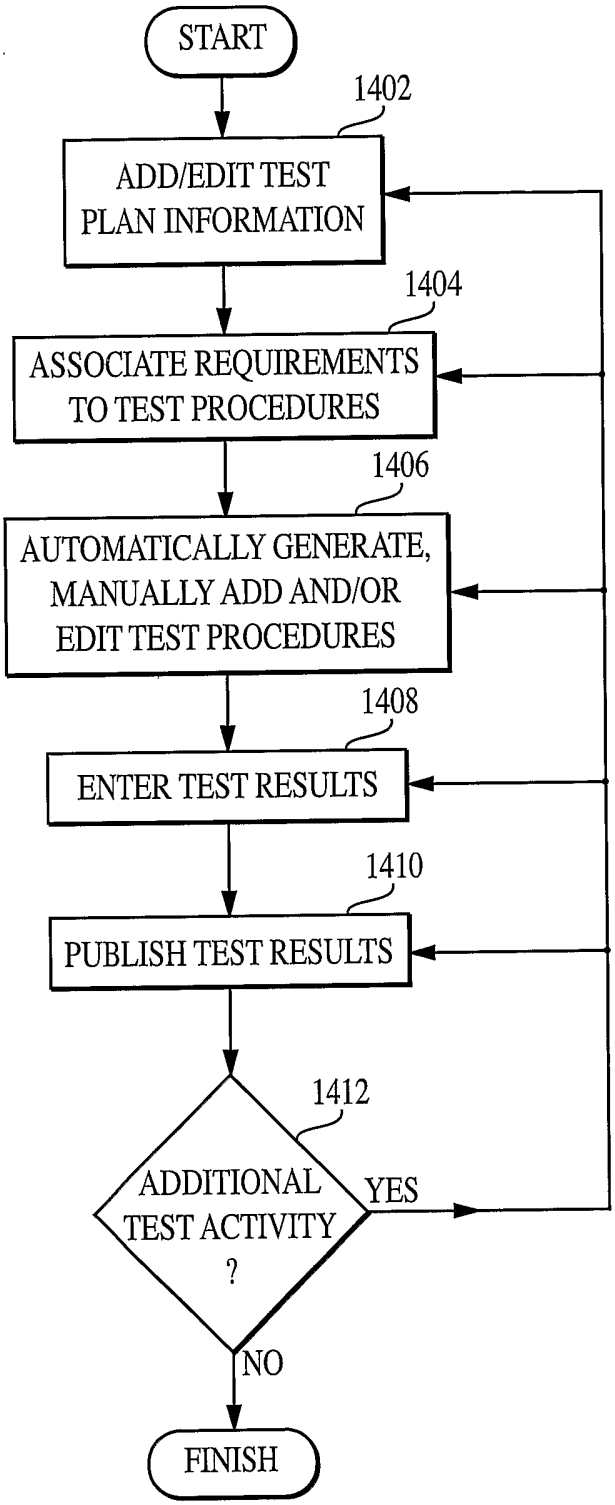

START
1402
ADD/EDIT TEST PLAN INFORMATION
1404
ASSOCIATE REQUIREMENTS TO TEST PROCEDURES
1406
AUTOMATICALLY GENERATE, MANUALLY ADD AND/OR EDIT TEST PROCEDURES
1408
ENTER TEST RESULTS
1410
PUBLISH TEST RESULTS
1412
ADDITIONAL TEST ACTIVITY ?
YES
NO
FINISH

FIG. 14

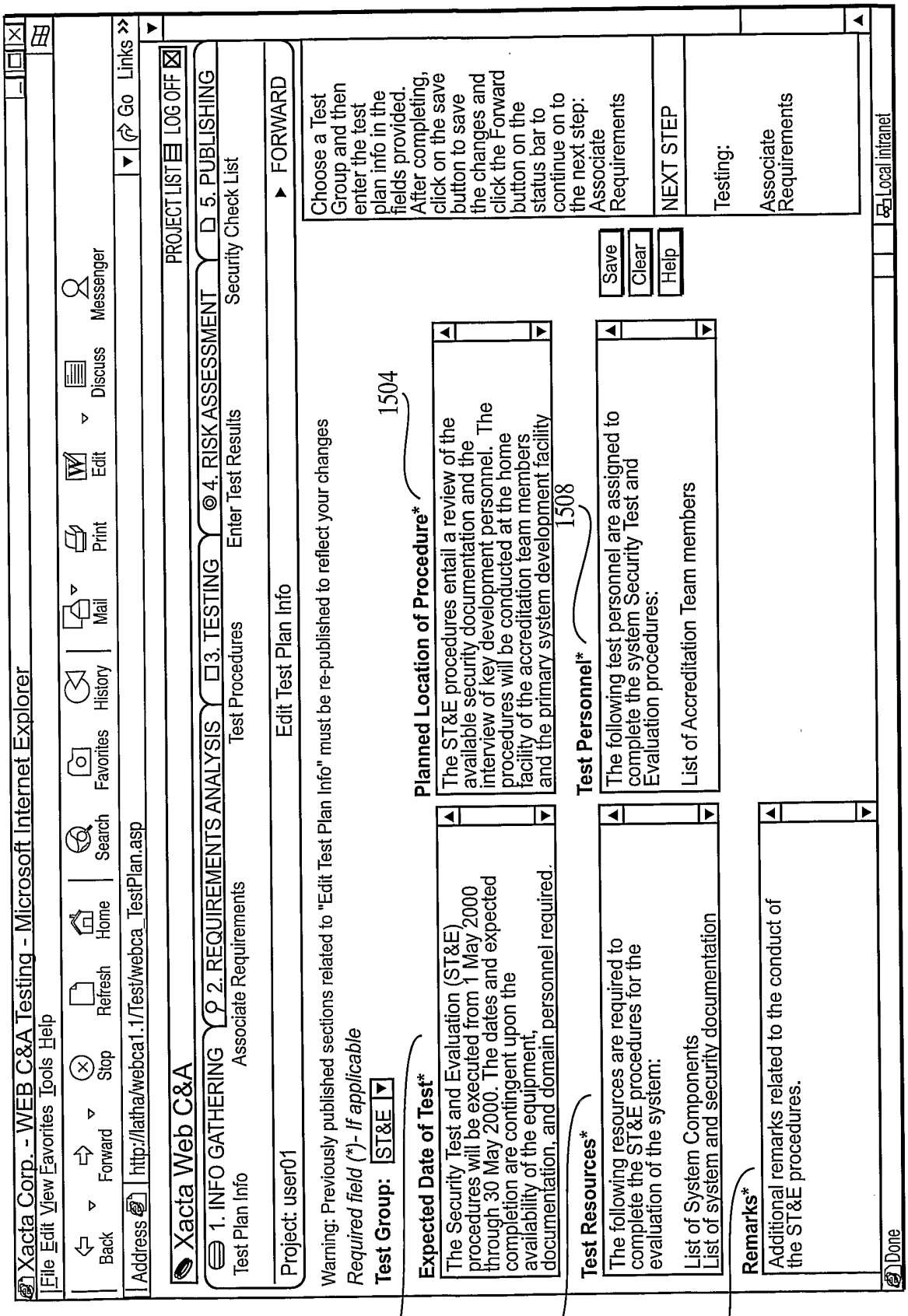

Xacta Corp. - WEB C&A Testing - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Forward Stop Refresh Home Search Favorites History Mail Print Edit Discuss Messenger
Address http://latha/webca1.1/Test/webca_TestPlan.asp
Go Links
Xacta Web C&A
PROJECT LIST LOG OFF
1. INFO GATHERING
2. REQUIREMENTS ANALYSIS
3. TESTING
4. RISK ASSESSMENT
5. PUBLISHING
Test Plan Info
Associate Requirements
Test Procedures
Enter Test Results
Security Check List
Project: user01
Edit Test Plan Info
FORWARD
Warning: Previously published sections related to "Edit Test Plan Info" must be re-published to reflect your changes
Required field (*)- If applicable
Test Group: ST&E
Choose a Test Group and then enter the test plan info in the fields provided. After completing, click on the save button to save the changes and click the Forward button on the status bar to continue on to the next step: Associate Requirements
NEXT STEP
Testing:
Associate Requirements
Expected Date of Test*
The Security Test and Evaluation (ST&E) procedures will be executed from 1 May 2000 through 30 May 2000. The dates and expected completion are contingent upon the availability of the equipment, documentation, and domain personnel required.
Planned Location of Procedure*
The ST&E procedures entail a review of the available security documentation and the interview of key development personnel. The procedures will be conducted at the home facility of the accreditation team members and the primary system development facility
Test Resources*
The following resources are required to complete the ST&E procedures for the evaluation of the system:
List of System Components
List of system and security documentation
Test Personnel*
The following test personnel are assigned to complete the system Security Test and Evaluation procedures:
List of Accreditation Team members
Remarks*
Additional remarks related to the conduct of the ST&E procedures.
Save
Clear
Help
Done
Local intranet
1502
1504
1506
1508
1510

FIG. 15

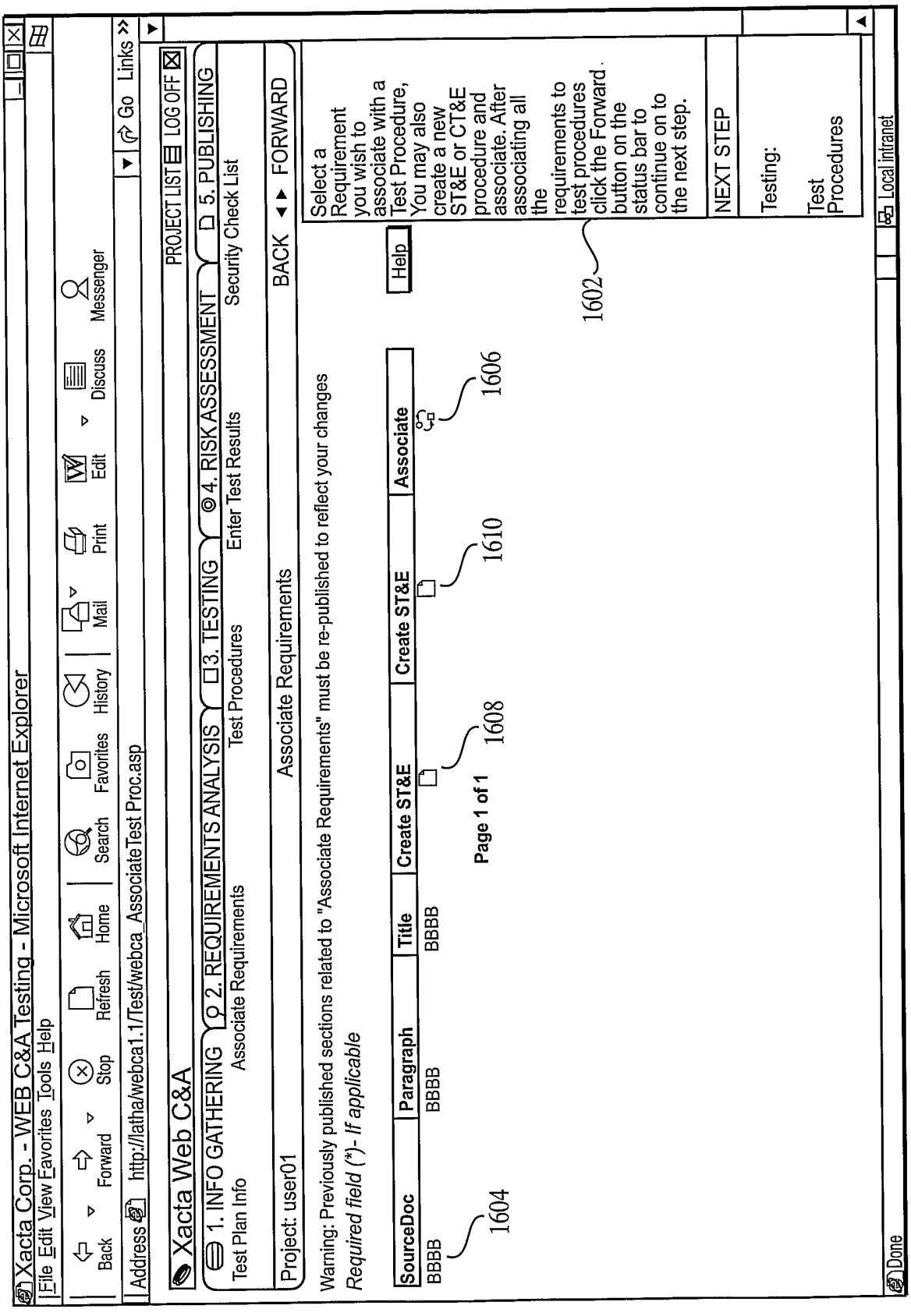

Xacta Corp. - WEB C&A Testing - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Forward Stop Refresh Home Search Favorites History Mail Print Edit Discuss Messenger
Address http://latha/webca1.1/Test/webca_AssociateTest Proc.asp
Go Links
Xacta Web C&A
PROJECT LIST LOG OFF
1. INFO GATHERING
2. REQUIREMENTS ANALYSIS
3. TESTING
4. RISK ASSESSMENT
5. PUBLISHING
Test Plan Info
Associate Requirements
Test Procedures
Enter Test Results
Security Check List
Project: user01
Associate Requirements
BACK FORWARD
Warning: Previously published sections related to "Associate Requirements" must be re-published to reflect your changes
Required field (*)- If applicable
SourceDoc
Paragraph
Title
Create ST&E
Create ST&E
Associate
BBBB
BBBB
BBBB
Page 1 of 1
Help
Select a Requirement you wish to associate with a Test Procedure, You may also create a new ST&E or CT&E procedure and associate. After associating all the requirements to test procedures click the Forward button on the status bar to continue on to the next step.
NEXT STEP
Testing:
Test Procedures
1602
1604
1606
1608
1610
Done
Local intranet

FIG. 16

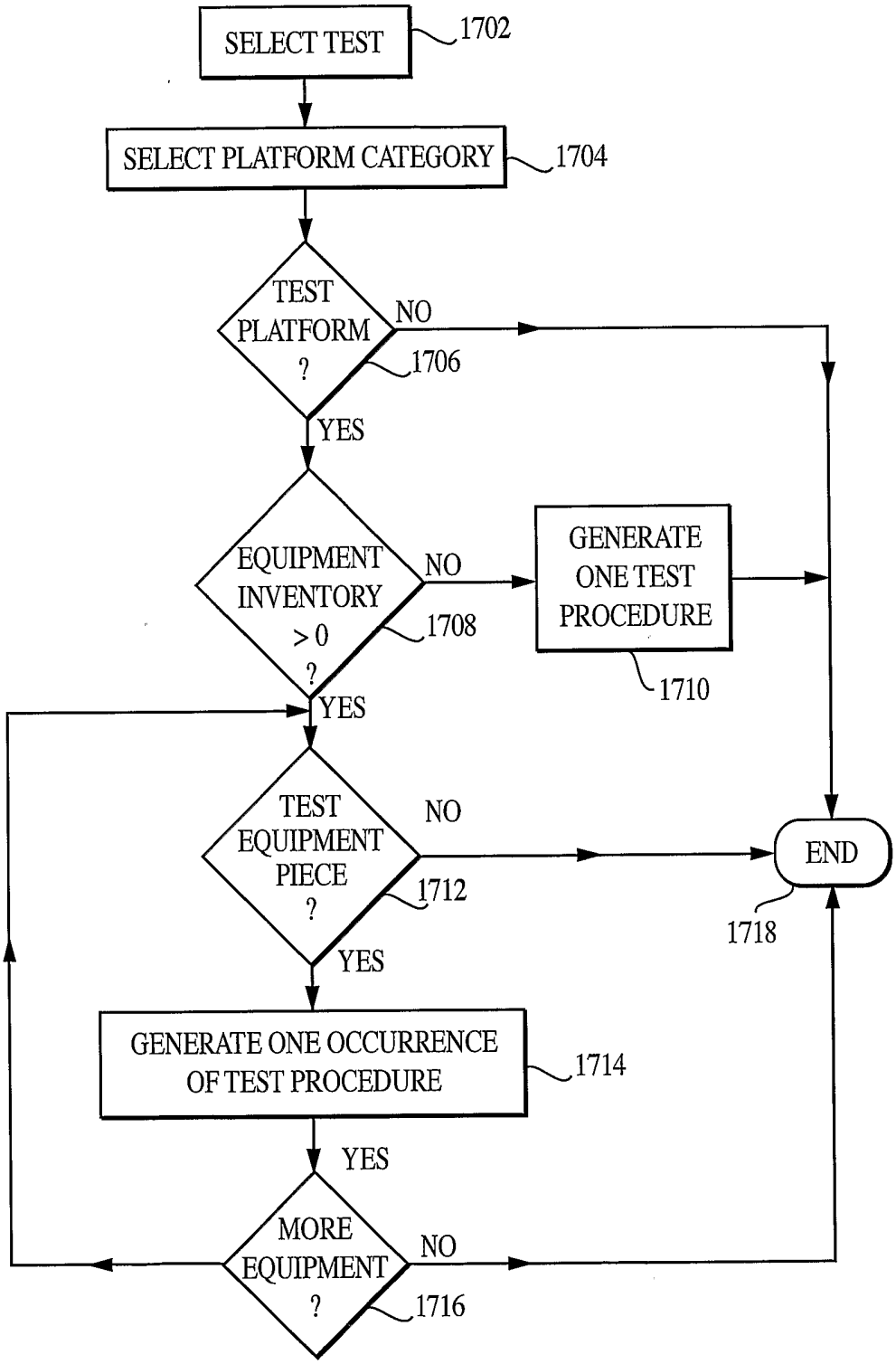

SELECT TEST
1702
SELECT PLATFORM CATEGORY
1704
TEST PLATFORM ?
NO
1706
YES
EQUIPMENT INVENTORY > 0 ?
NO
1708
GENERATE ONE TEST PROCEDURE
1710
YES
TEST EQUIPMENT PIECE ?
NO
1712
YES
END
1718
GENERATE ONE OCCURRENCE OF TEST PROCEDURE
1714
YES
MORE EQUIPMENT ?
NO
1716

FIG. 17

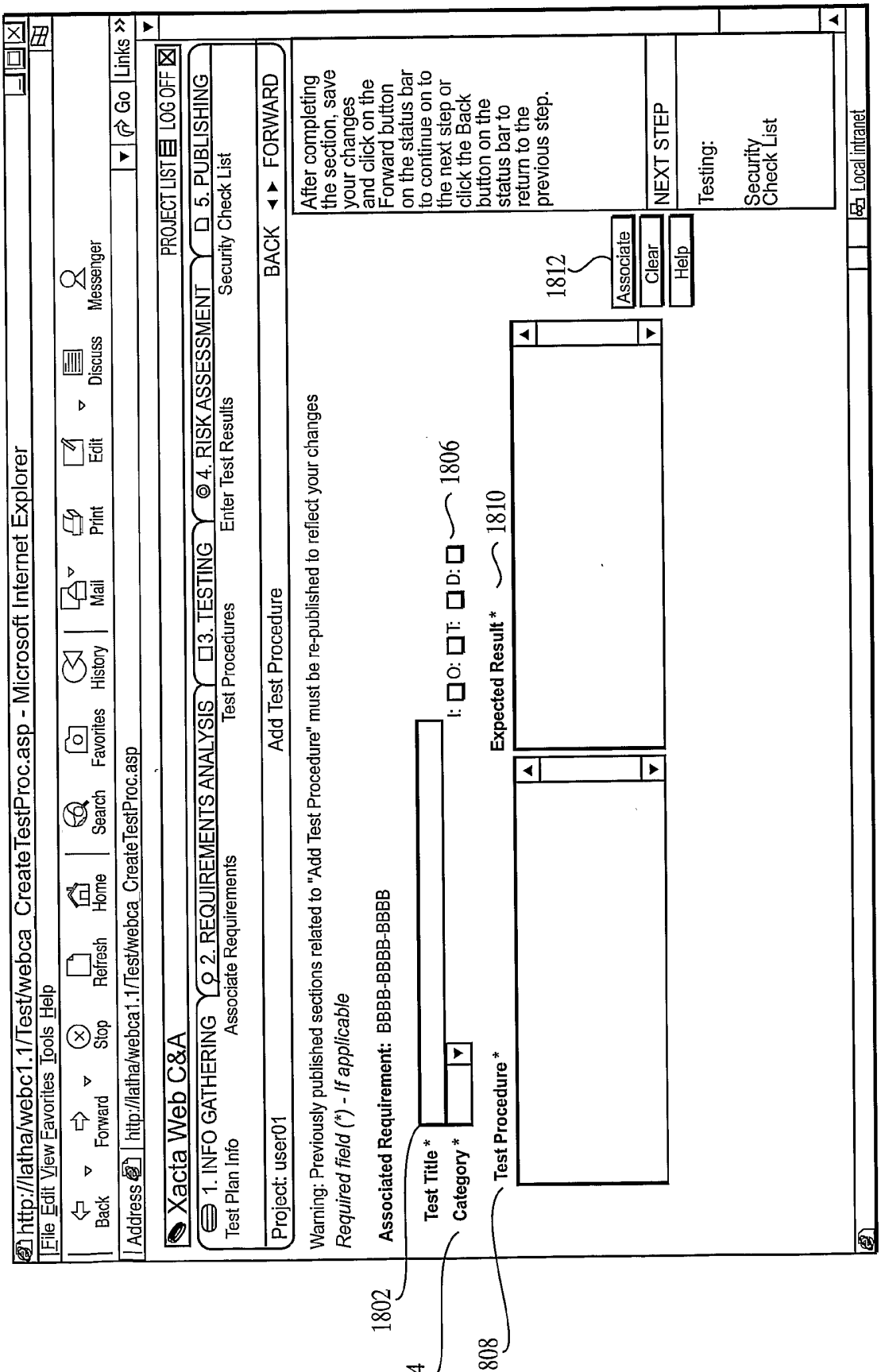

http://latha/webc1.1/Test/webca_CreateTestProc.asp - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Forward Stop Refresh Home Search Favorites History Mail Print Edit Discuss Messenger
Address http://latha/webca1.1/Test/webca_CreateTestProc.asp
Go Links
Xacta Web C&A
PROJECT LIST LOG OFF
1. INFO GATHERING
Test Plan Info
2. REQUIREMENTS ANALYSIS
Associate Requirements
Test Procedures
3. TESTING
Enter Test Results
4. RISK ASSESSMENT
Security Check List
5. PUBLISHING
Project: user01
Add Test Procedure
BACK
FORWARD
Warning: Previously published sections related to "Add Test Procedure" must be re-published to reflect your changes
Required field (*) - If applicable
Associated Requirement: BBBB-BBBB-BBBB
Test Title *
Category *
I: O: T: D:
Test Procedure *
Expected Result *
Associate
Clear
Help
After completing the section, save your changes and click on the Forward button on the status bar to continue on to the next step or click the Back button on the status bar to return to the previous step.
NEXT STEP
Testing:
Security Check List
Local intranet
1802
1804
1806
1808
1810
1812

FIG. 18

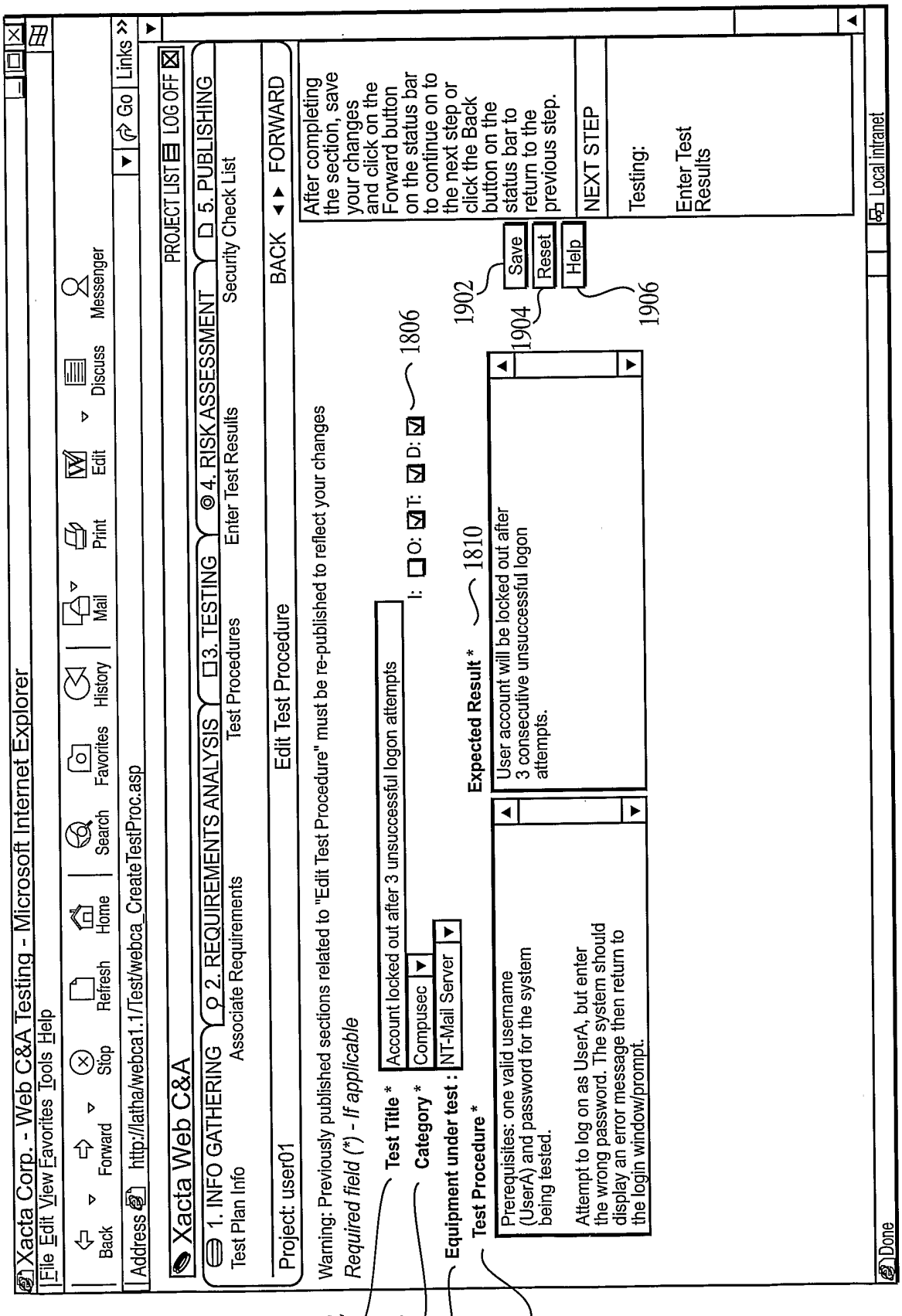

Xacta Corp. - Web C&A Testing - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Forward Stop Refresh Home Search Favorites History Mail Print Edit Discuss Messenger
Address http://latha/webca1.1/Test/webca_CreateTestProc.asp
Go Links
Xacta Web C&A
PROJECT LIST LOG OFF
1. INFO GATHERING
2. REQUIREMENTS ANALYSIS
3. TESTING
4. RISK ASSESSMENT
5. PUBLISHING
Test Plan Info
Associate Requirements
Test Procedures
Enter Test Results
Security Check List
Project: user01
Edit Test Procedure
BACK
FORWARD
Warning: Previously published sections related to "Edit Test Procedure" must be re-published to reflect your changes
Required field (*) - If applicable
Test Title *
Account locked out after 3 unsuccessful logon attempts
Category *
Compusec
I: O: T: D:
Equipment under test :
NT-Mail Server
Test Procedure *
Expected Result *
Prerequisites: one valid username (UserA) and password for the system being tested.
Attempt to log on as UserA, but enter the wrong password. The system should display an error message then return to the login window/prompt.
User account will be locked out after 3 consecutive unsuccessful logon attempts.
Save
Reset
Help
After completing the section, save your changes and click on the Forward button on the status bar to continue on to the next step or click the Back button on the status bar to return to the previous step.
NEXT STEP
Testing:
Enter Test Results
Done
Local intranet
1802
1804
1901
1808
1810
1806
1902
1904
1906

FIG. 19

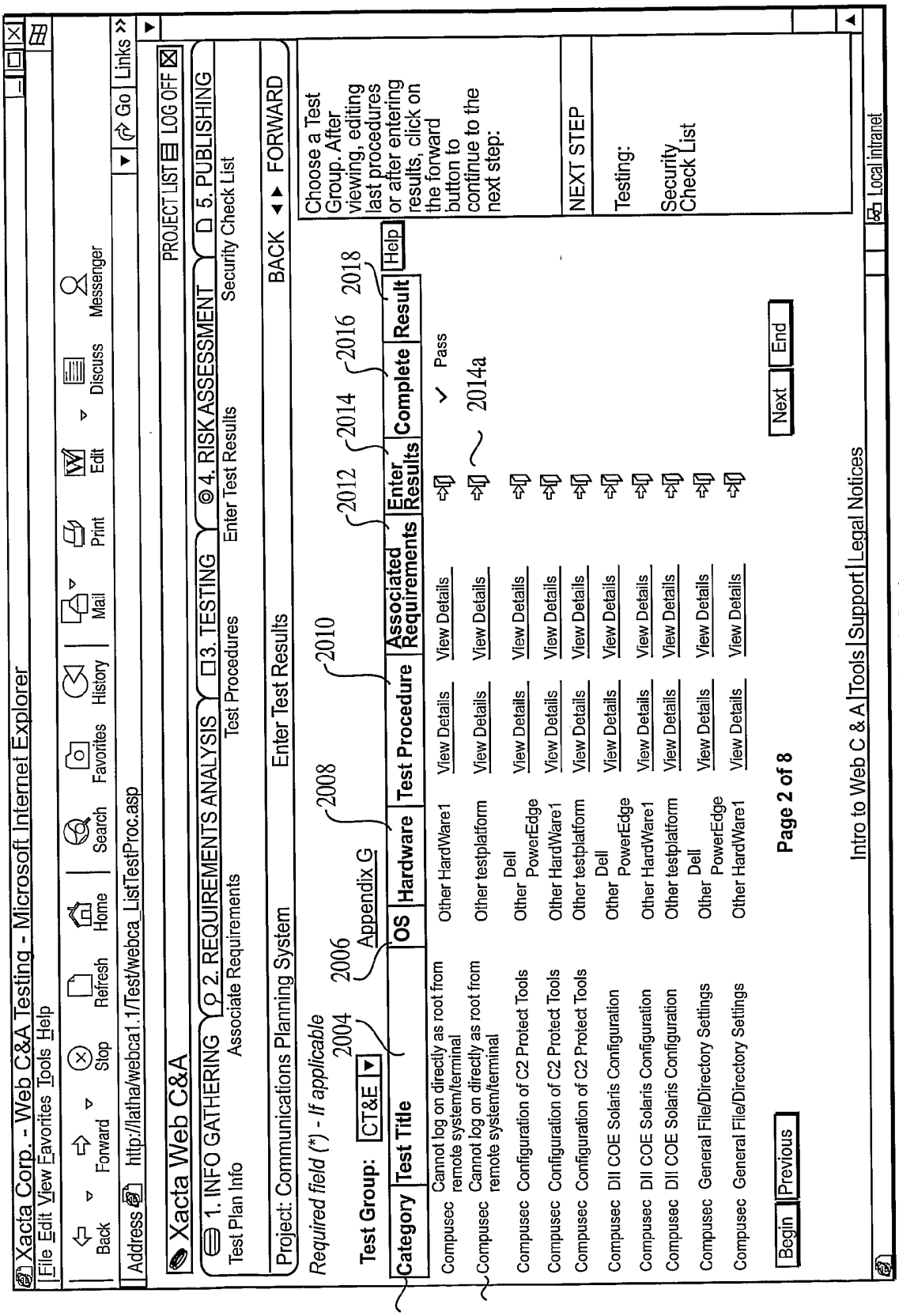

Xacta Corp. - Web C&A Testing - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Forward Stop Refresh Home Search Favorites History Mail Print Edit Discuss Messenger
Address http://latha/webca1.1/Test/webca_ListTestProc.asp
Go Links
Xacta Web C&A
PROJECT LIST LOG OFF
1. INFO GATHERING
Test Plan Info
2. REQUIREMENTS ANALYSIS
Associate Requirements
3. TESTING
Test Procedures
Enter Test Results
4. RISK ASSESSMENT
Enter Test Results
5. PUBLISHING
Security Check List
Project: Communications Planning System
Enter Test Results
BACK FORWARD
Required field (*) - If applicable
Test Group: CT&E
Appendix G
Category
Test Title
OS
Hardware
Test Procedure
Associated Requirements
Enter Results
Complete
Result
Help
Compusec Cannot log on directly as root from remote system/terminal
Compusec Configuration of C2 Protect Tools
Compusec DII COE Solaris Configuration
Compusec General File/Directory Settings
Other HardWare1
Other testplatform
Other Dell PowerEdge
View Details
Pass
Choose a Test Group. After viewing, editing last procedures or after entering results, click on the forward button to continue to the next step:
NEXT STEP
Testing:
Security Check List
Begin
Previous
Next
End
Page 2 of 8
Intro to Web C & A | Tools | Support | Legal Notices
Local intranet
2002
2002a
2004
2006
2008
2010
2012
2014
2014a
2016
2018

FIG. 20A

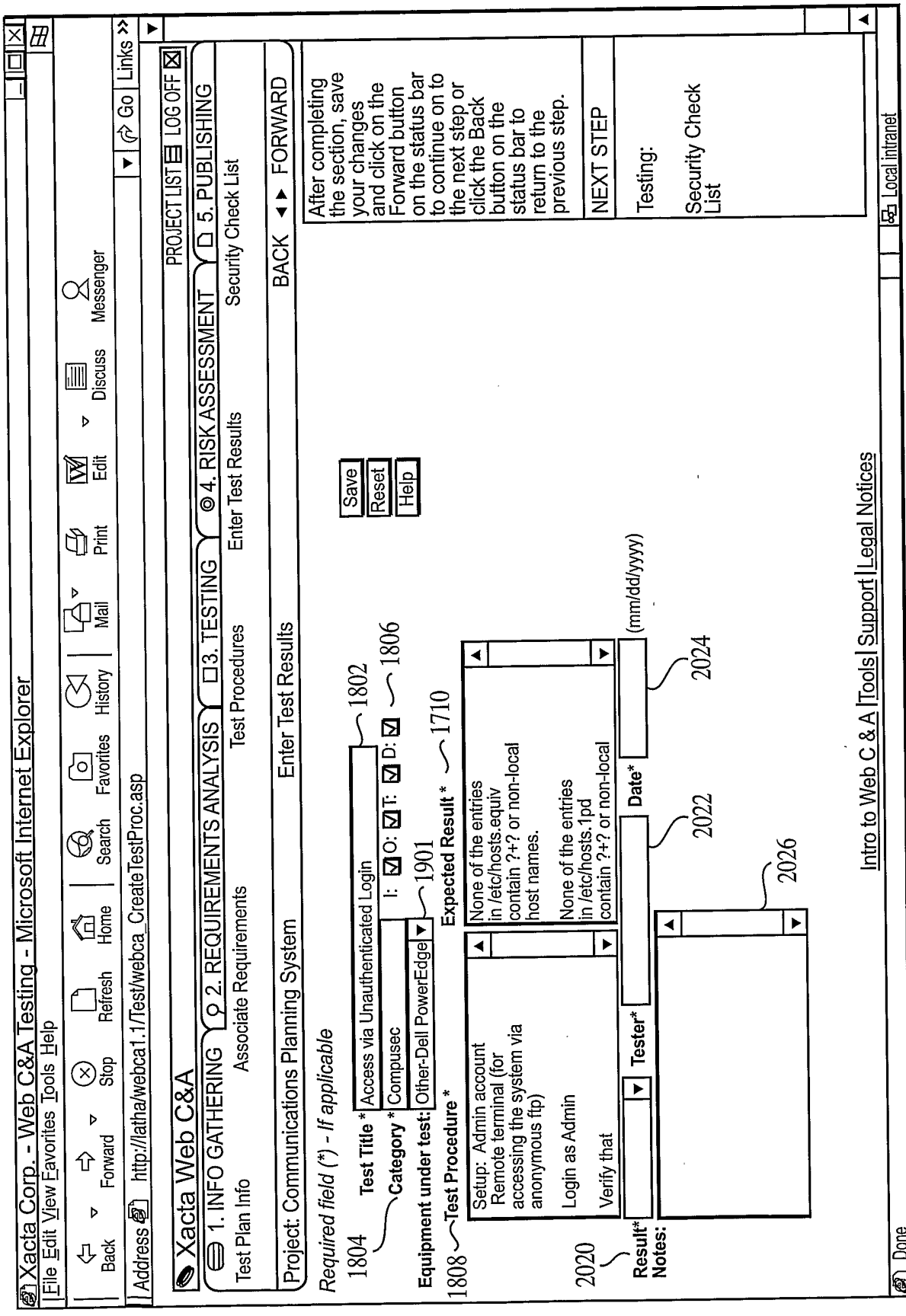

Xacta Corp. - Web C&A Testing - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Forward Stop Refresh Home Search Favorites History Mail Print Edit Discuss Messenger
Address http://latha/webca1.1/Test/webca_CreateTestProc.asp
Go Links
Xacta Web C&A
PROJECT LIST LOG OFF
1. INFO GATHERING
2. REQUIREMENTS ANALYSIS
3. TESTING
4. RISK ASSESSMENT
5. PUBLISHING
Test Plan Info
Associate Requirements
Test Procedures
Enter Test Results
Security Check List
Project: Communications Planning System
Enter Test Results
BACK
FORWARD
Required field (*) - If applicable
1804
Test Title *
Access via Unauthenticated Login
1802
Category *
Compusec
I: O: T: D:
1806
Equipment under test:
Other-Dell PowerEdge
1901
1808
Test Procedure *
Expected Result *
1710
Setup: Admin account Remote terminal (for accessing the system via anonymous ftp)
None of the entries in /etc/hosts.equiv contain ?+? or non-local host names.
Login as Admin
None of the entries in /etc/hosts.1pd contain ?+? or non-local
2020
Verify that
Result*
Tester*
Date*
(mm/dd/yyyy)
2022
2024
Notes:
2026
Save
Reset
Help
After completing the section, save your changes and click on the Forward button on the status bar to continue on to the next step or click the Back button on the status bar to return to the previous step.
NEXT STEP
Testing:
Security Check List
Intro to Web C & A | Tools | Support | Legal Notices
Done
Local intranet

FIG. 20B

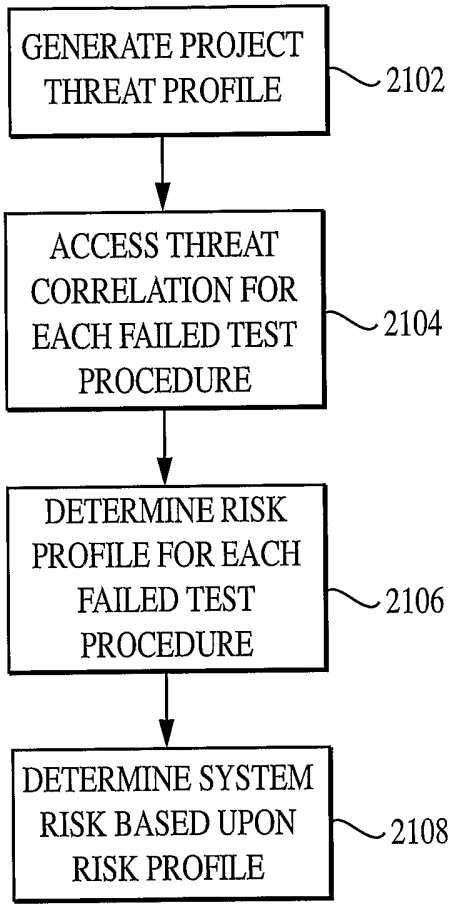

GENERATE PROJECT THREAT PROFILE
2102
ACCESS THREAT CORRELATION FOR EACH FAILED TEST PROCEDURE
2104
DETERMINE RISK PROFILE FOR EACH FAILED TEST PROCEDURE
2106
DETERMINE SYSTEM RISK BASED UPON RISK PROFILE
2108

FIG. 21

	THREAT CATEGORY	SUB-CATEGORY	SUB-SUB-CATEGORY
1	NATURAL DISASTER	FIRE	
2		FLOOD	
3		EARTHQUAKE	
4		VOLCANO	
5		TORNADO	
6		LIGHTNING	
7	SYSTEM FAILURE	HARDWARE	
8		POWER	
9		COMMUNICATION LINK	
10	ENVIRONMENTAL FAILURE	TEMPERATURE	
11		POWER	
12		HUMIDITY	
13		SAND/DUST	
14		SHOCK/VIBRATION	
15	HUMAN UNINTENTIONAL	SOFTWARE DESIGN ERROR	
16		SYSTEM DESIGN ERROR	
17		OPERATOR ERROR	SYSTEM ADMINISTRATOR
18			REGULAR USER
19			MAINTENANCE PERSONNEL
20	HUMAN INTENTIONAL	AUTHORIZED PERSONNEL	SYSTEM ADMINISTRATORS
21			MAINTENANCE PERSONNEL
22			REGULAR USERS
23		UNAUTHORIZED USERS	TERRORISTS
24			HACKERS
25			SABOTEURS
26			THIEVES
27			VANDALS
28		PHYSICAL COMBAT	
29		ELECTRONIC WARFARE	

FIG. 22

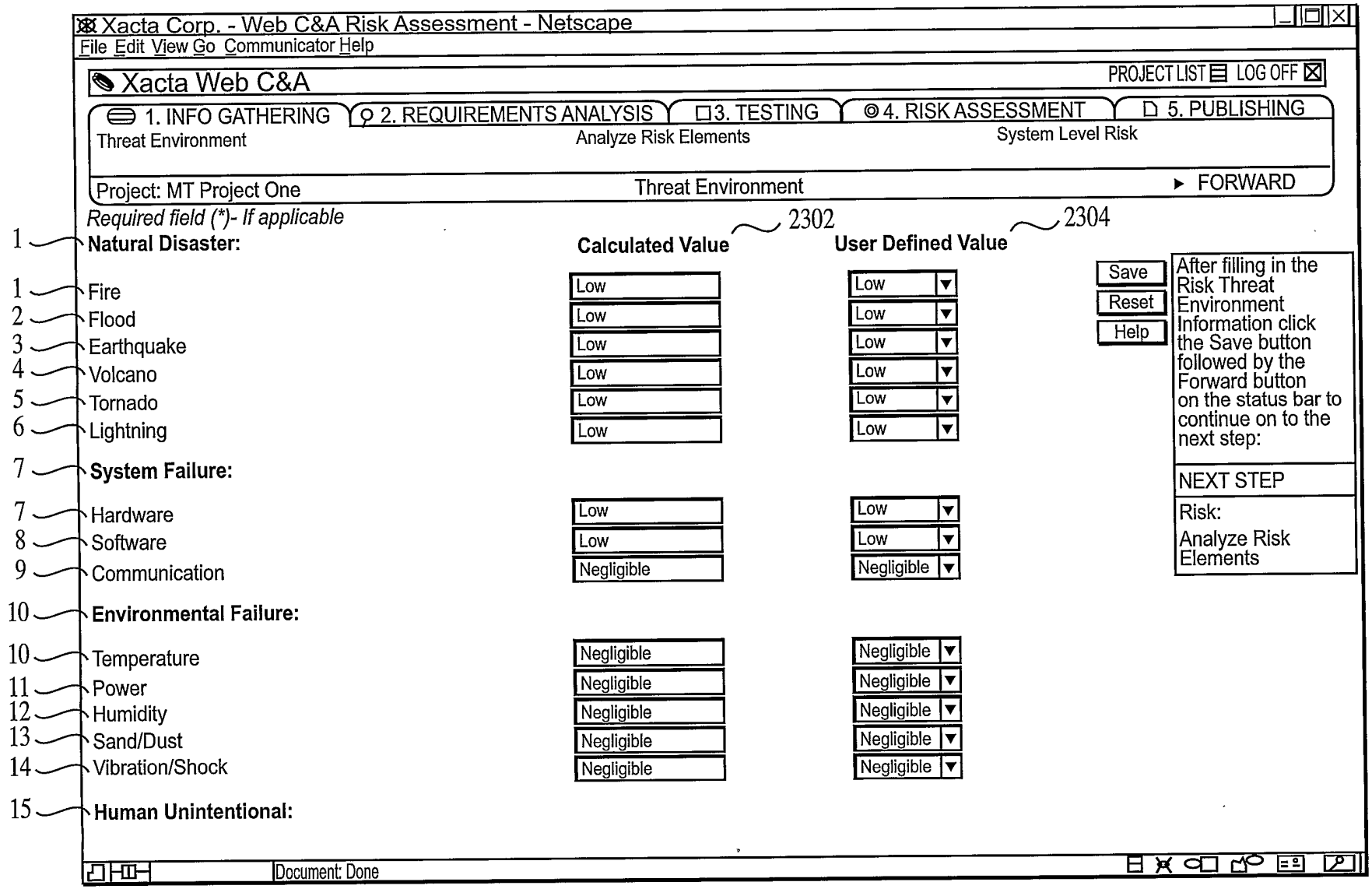

Xacta Corp. - Web C&A Risk Assessment - Netscape
File Edit View Go Communicator Help
Xacta Web C&A
PROJECT LIST LOG OFF
1. INFO GATHERING
2. REQUIREMENTS ANALYSIS
3. TESTING
4. RISK ASSESSMENT
5. PUBLISHING
Threat Environment
Analyze Risk Elements
System Level Risk
Project: MT Project One
Threat Environment
FORWARD
Required field (*)- If applicable
2302
2304
Natural Disaster:
Calculated Value
User Defined Value
Fire
Flood
Earthquake
Volcano
Tornado
Lightning
System Failure:
Hardware
Software
Communication
Environmental Failure:
Temperature
Power
Humidity
Sand/Dust
Vibration/Shock
Human Unintentional:
Low
Negligible
Save
Reset
Help
After filling in the Risk Threat Environment Information click the Save button followed by the Forward button on the status bar to continue on to the next step:
NEXT STEP
Risk:
Analyze Risk Elements
Document: Done

FIG. 23

IF A CHARACTER POSITION IN THE PROJECT THREAT PROFILE STRING IS:	AND THE CORRESPONDING CHARACTER POSITION IN THE THREAT CORRELATION STRING IS:	THEN THE CORRESPONDING CHARACTER POSITION IN THE RISK PROFILE STRING IS:
N	ANYTHING	N
L	N	L
L	L	L
L	M	L
L	H	M
M	N	N
M	L	L
M	M	M
M	H	M
H	N	N
H	L	M
H	M	H
H	H	H

FIG. 24

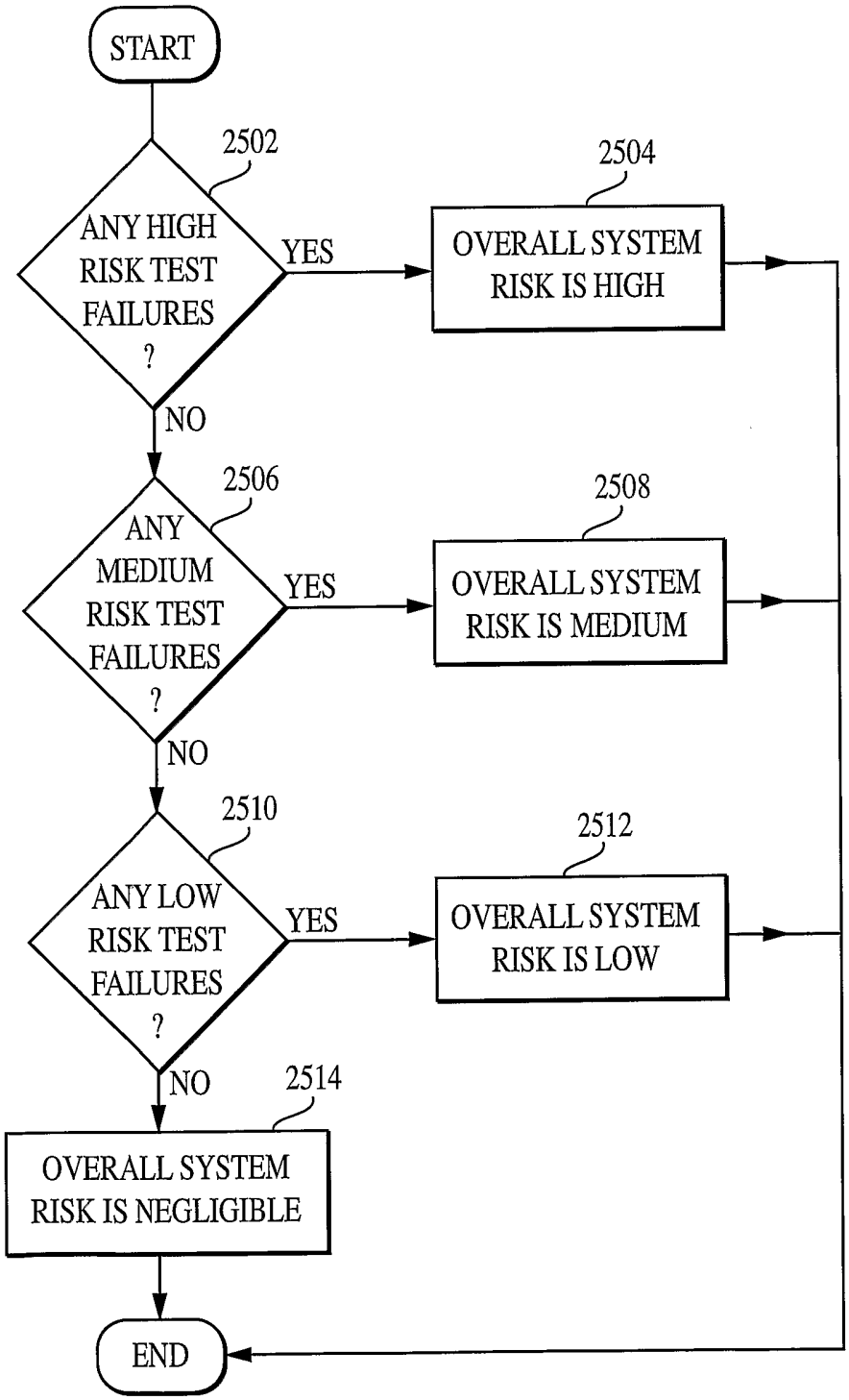

START
2502
ANY HIGH RISK TEST FAILURES ?
YES
2504
OVERALL SYSTEM RISK IS HIGH
NO
2506
ANY MEDIUM RISK TEST FAILURES ?
YES
2508
OVERALL SYSTEM RISK IS MEDIUM
NO
2510
ANY LOW RISK TEST FAILURES ?
YES
2512
OVERALL SYSTEM RISK IS LOW
NO
2514
OVERALL SYSTEM RISK IS NEGLIGIBLE
END

FIG. 25

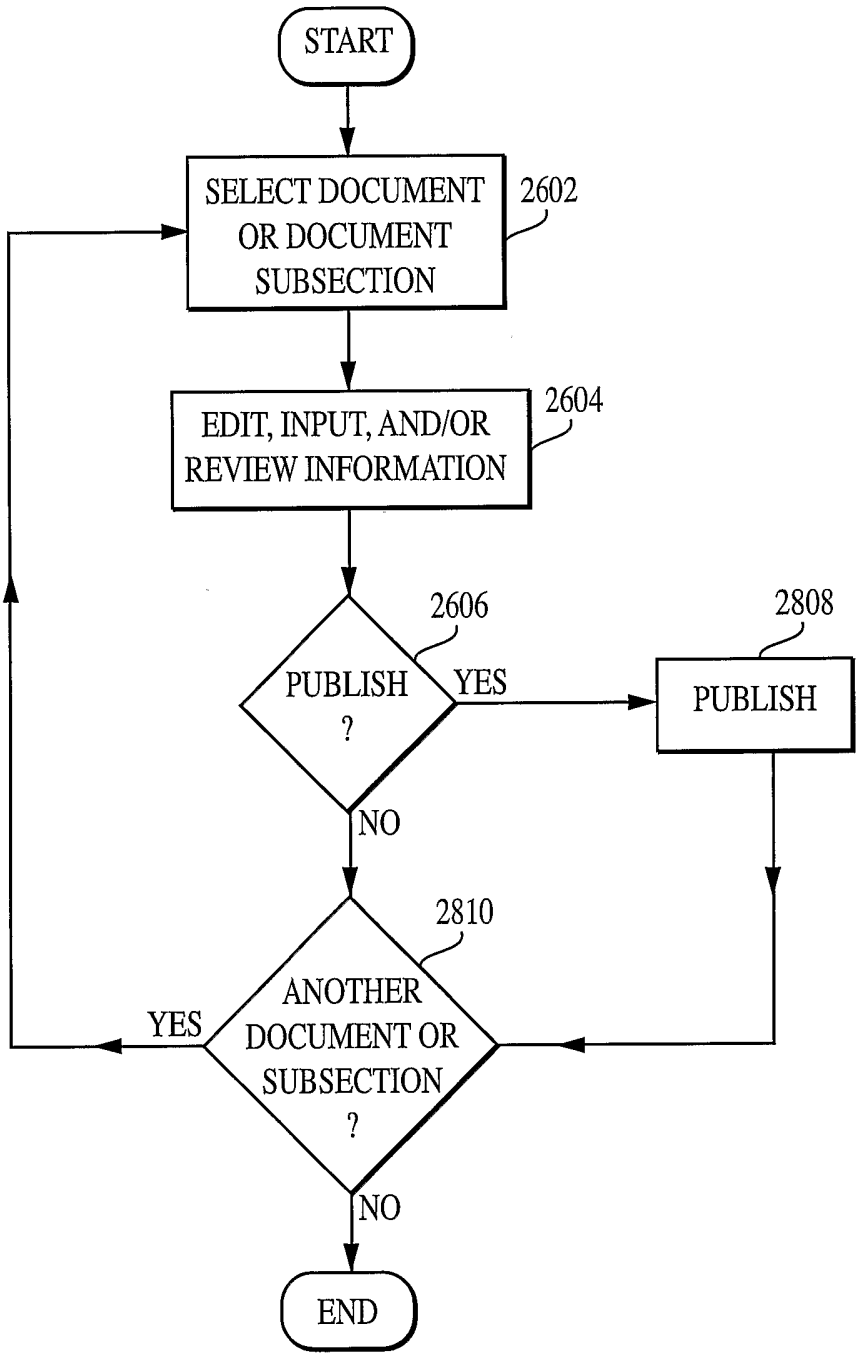

START
SELECT DOCUMENT OR DOCUMENT SUBSECTION
2602
EDIT, INPUT, AND/OR REVIEW INFORMATION
2604
PUBLISH ?
2606
YES
PUBLISH
2808
NO
ANOTHER DOCUMENT OR SUBSECTION ?
2810
YES
NO
END

FIG. 26

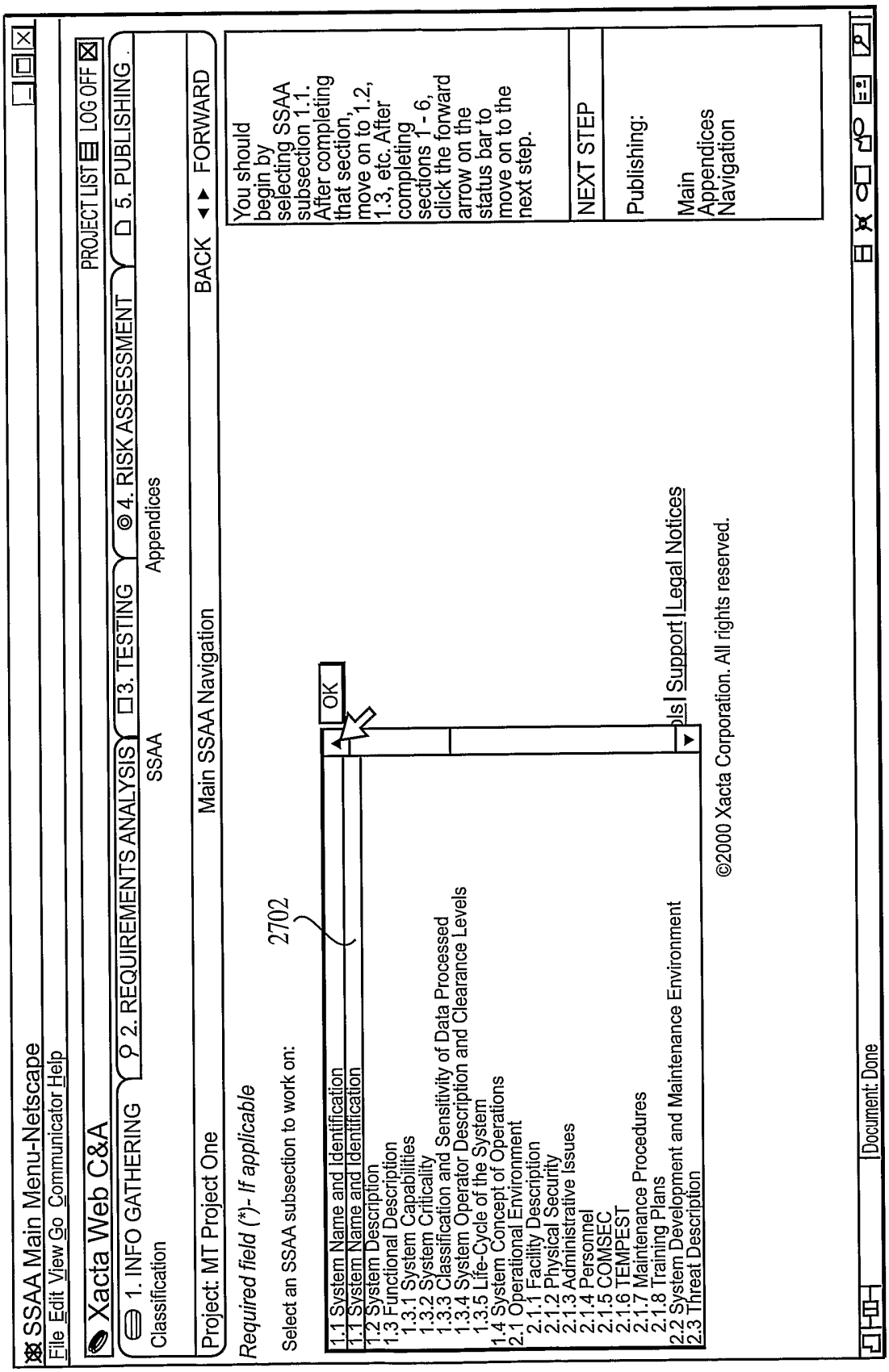

SSAA Main Menu-Netscape
File Edit View Go Communicator Help
Xacta Web C&A
PROJECT LIST
LOG OFF
1. INFO GATHERING
2. REQUIREMENTS ANALYSIS
3. TESTING
4. RISK ASSESSMENT
5. PUBLISHING
Classification
SSAA
Appendices
Project: MT Project One
Main SSAA Navigation
BACK
FORWARD
Required field (*)- If applicable
Select an SSAA subsection to work on:
2702
1.1 System Name and Identification
1.1 System Name and Identification
1.2 System Description
1.3 Functional Description
1.3.1 System Capabilities
1.3.2 System Criticality
1.3.3 Classification and Sensitivity of Data Processed
1.3.4 System Operator Description and Clearance Levels
1.3.5 Life-Cycle of the System
1.4 System Concept of Operations
2.1 Operational Environment
2.1.1 Facility Description
2.1.2 Physical Security
2.1.3 Administrative Issues
2.1.4 Personnel
2.1.5 COMSEC
2.1.6 TEMPEST
2.1.7 Maintenance Procedures
2.1.8 Training Plans
2.2 System Development and Maintenance Environment
2.3 Threat Description
OK
Support
Legal Notices
©2000 Xacta Corporation. All rights reserved.
You should begin by selecting SSAA subsection 1.1. After completing that section, move on to 1.2, 1.3, etc. After completing sections 1 - 6, click the forward arrow on the status bar to move on to the next step.
NEXT STEP
Publishing:
Main
Appendices
Navigation
Document: Done

FIG. 27

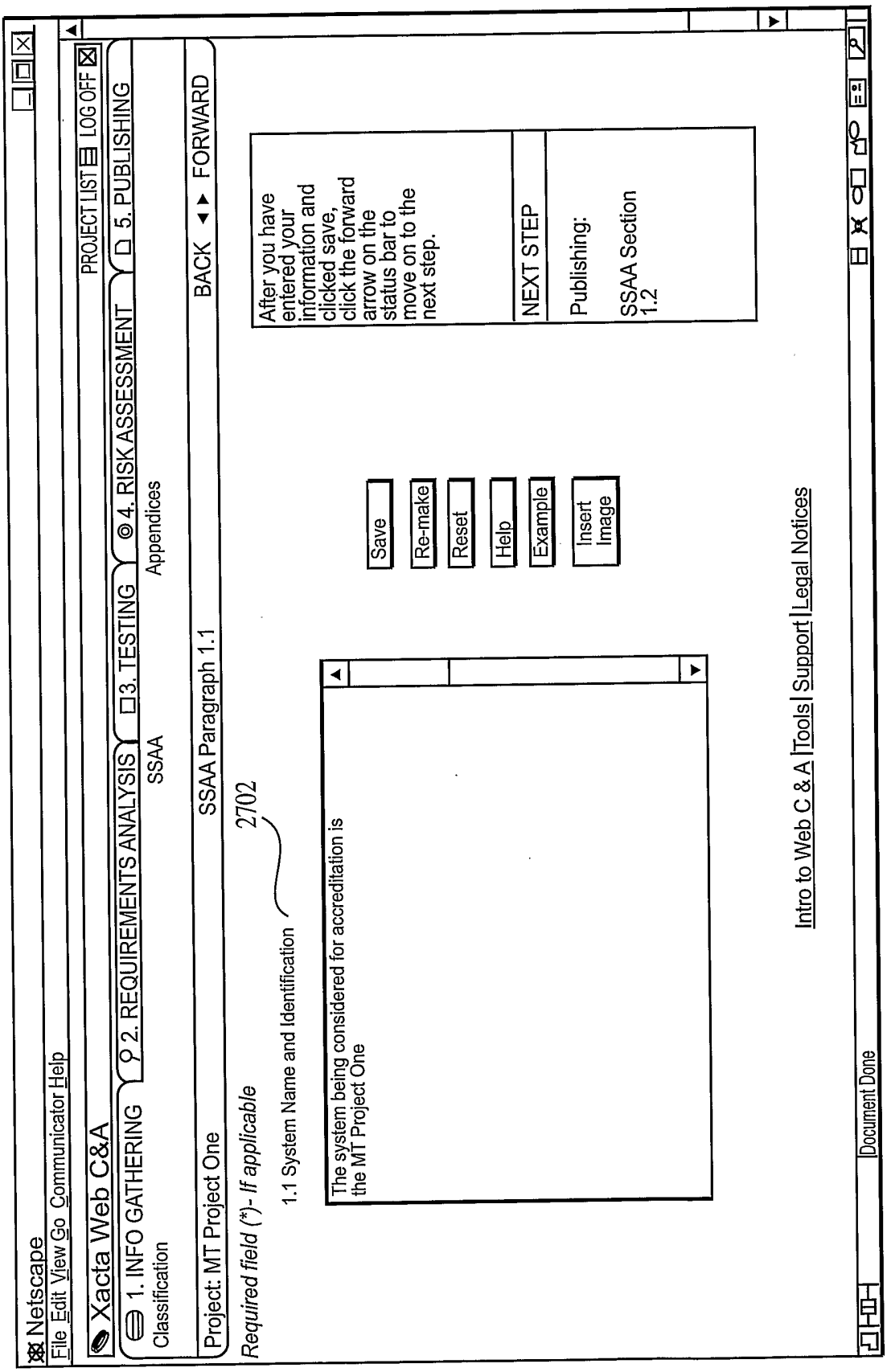

Netscape
File Edit View Go Communicator Help
Xacta Web C&A
PROJECT LIST
LOG OFF
1. INFO GATHERING
2. REQUIREMENTS ANALYSIS
3. TESTING
4. RISK ASSESSMENT
5. PUBLISHING
Classification
SSAA
Appendices
Project: MT Project One
SSAA Paragraph 1.1
BACK
FORWARD
Required field (*)- If applicable
2702
1.1 System Name and Identification
The system being considered for accreditation is the MT Project One
Save
Re-make
Reset
Help
Example
Insert Image
After you have entered your information and clicked save, click the forward arrow on the status bar to move on to the next step.
NEXT STEP
Publishing:
SSAA Section 1.2
Intro to Web C & A | Tools | Support | Legal Notices
Document Done

FIG. 28

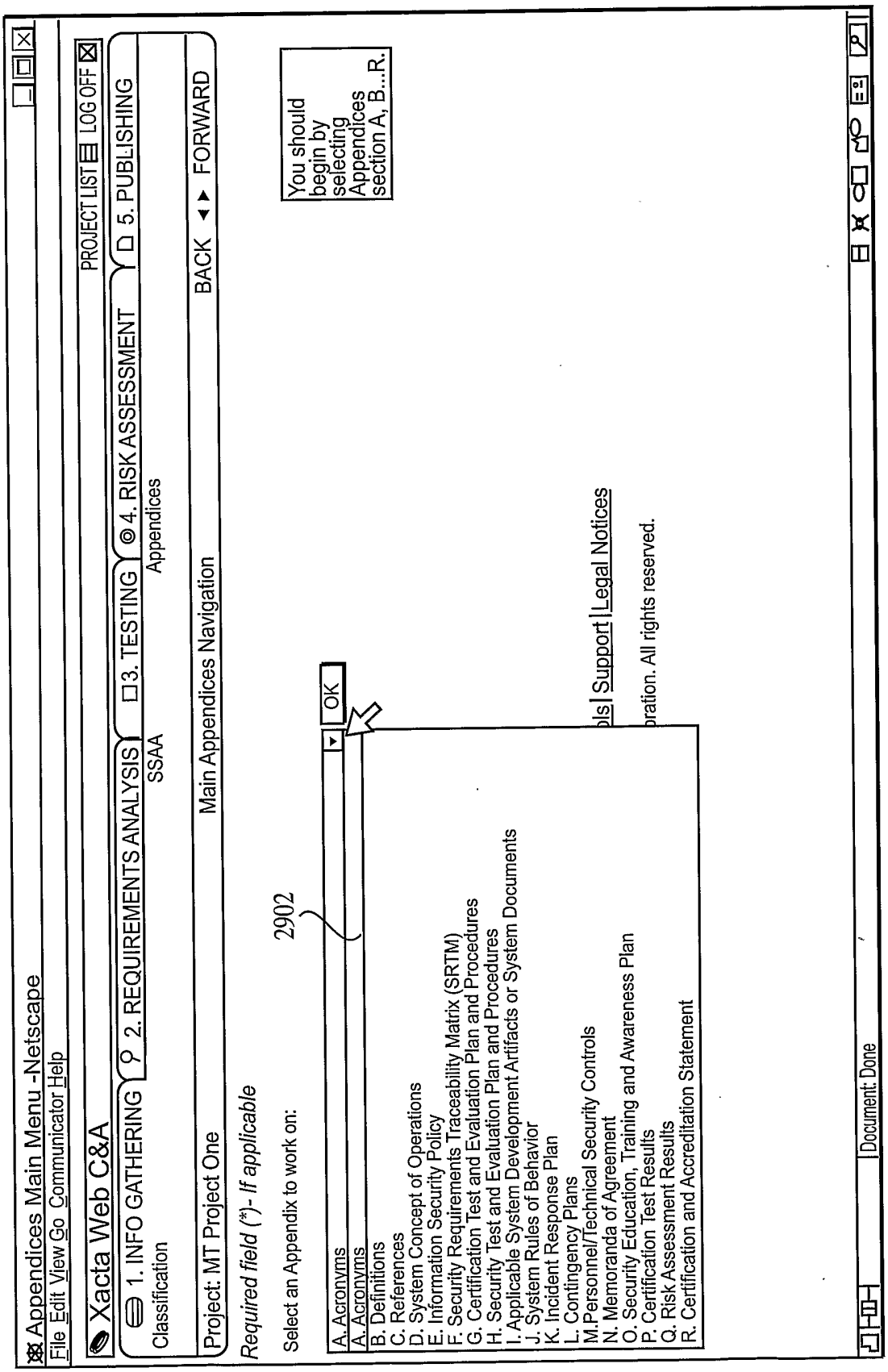

Appendices Main Menu -Netscape
File Edit View Go Communicator Help
Xacta Web C&A
PROJECT LIST
LOG OFF
1. INFO GATHERING
2. REQUIREMENTS ANALYSIS
3. TESTING
4. RISK ASSESSMENT
5. PUBLISHING
Classification
SSAA
Appendices
Project: MT Project One
Main Appendices Navigation
BACK
FORWARD
Required field (*)- If applicable
Select an Appendix to work on:
2902
OK
You should begin by selecting Appendices section A, B...R.
A. Acronyms
A. Acronyms
B. Definitions
C. References
D. System Concept of Operations
E. Information Security Policy
F. Security Requirements Traceability Matrix (SRTM)
G. Certification Test and Evaluation Plan and Procedures
H. Security Test and Evaluation Plan and Procedures
I. Applicable System Development Artifacts or System Documents
J. System Rules of Behavior
K. Incident Response Plan
L. Contingency Plans
M. Personnel/Technical Security Controls
N. Memoranda of Agreement
O. Security Education, Training and Awareness Plan
P. Certification Test Results
Q. Risk Assessment Results
R. Certification and Accreditation Statement
pls | Support | Legal Notices
pration. All rights reserved.
Document: Done

FIG. 29

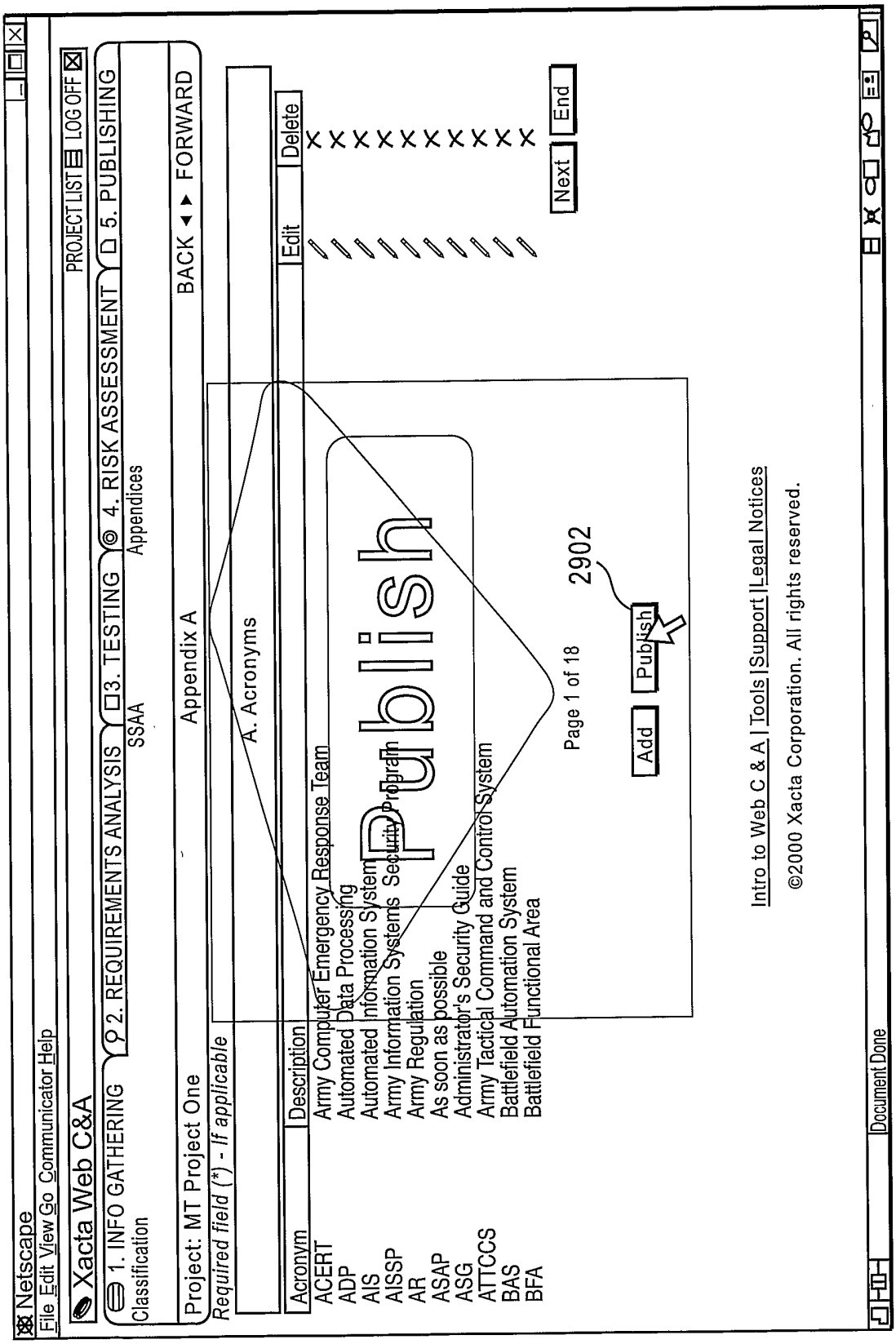

Netscape
File Edit View Go Communicator Help
Xacta Web C&A
PROJECT LIST LOG OFF
1. INFO GATHERING
2. REQUIREMENTS ANALYSIS
3. TESTING
4. RISK ASSESSMENT
5. PUBLISHING
Classification
SSAA
Appendices
Project: MT Project One
Appendix A
BACK FORWARD
Required field (*) - If applicable
A. Acronyms
Acronym
Description
Edit
Delete
ACERT
Army Computer Emergency Response Team
ADP
Automated Data Processing
AIS
Automated Information System
AISSP
Army Information Systems Security Program
AR
Army Regulation
ASAP
As soon as possible
ASG
Administrator's Security Guide
ATTCCS
Army Tactical Command and Control System
BAS
Battlefield Automation System
BFA
Battlefield Functional Area
Next
End
Publish
Page 1 of 18
2902
Add
Publish
Intro to Web C & A | Tools | Support | Legal Notices
©2000 Xacta Corporation. All rights reserved.
Document Done

FIG. 30

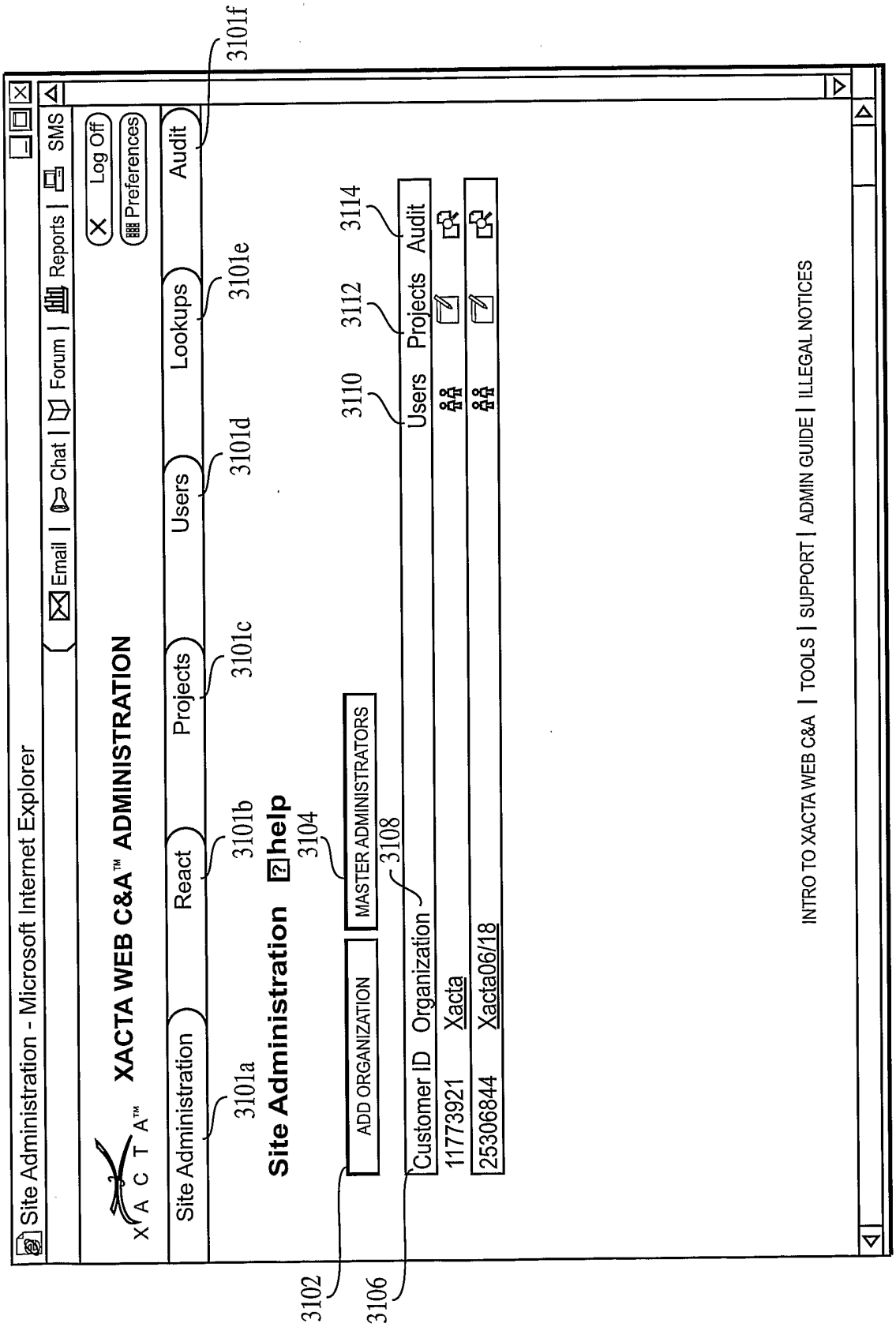

Site Administration - Microsoft Internet Explorer
Email | Chat | Forum | Reports | SMS
Log Off
Preferences
XACTA WEB C&A™ ADMINISTRATION
Site Administration
React
Projects
Users
Lookups
Audit
3101a
3101b
3101c
3101d
3101e
3101f
Site Administration help
3104
ADD ORGANIZATION
MASTER ADMINISTRATORS
3108
3110
3112
3114
Customer ID Organization
Users Projects Audit
11773921 Xacta
25306844 Xacta06/18
3102
3106
INTRO TO XACTA WEB C&A | TOOLS | SUPPORT | ADMIN GUIDE | ILLEGAL NOTICES

FIG. 31

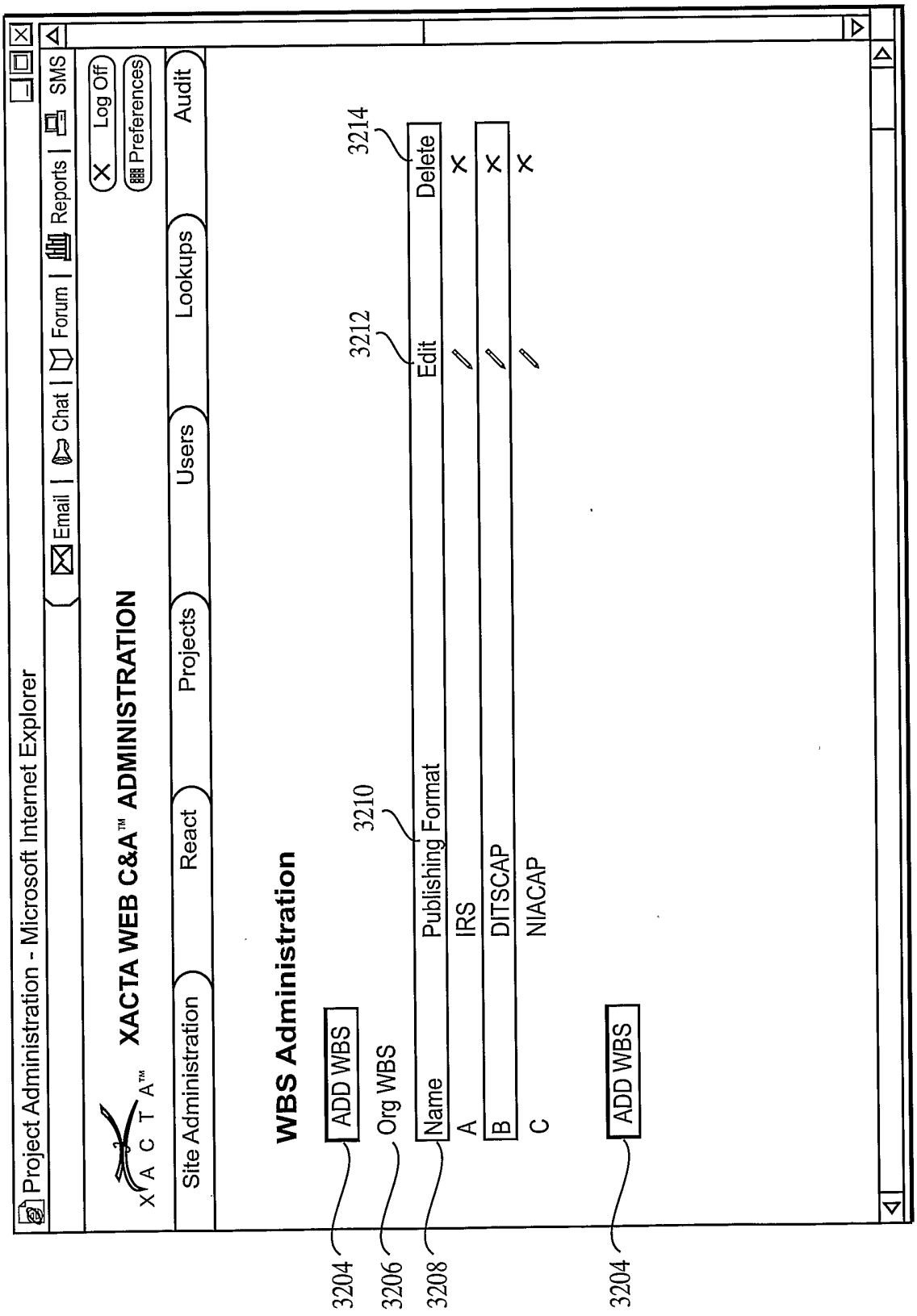

Project Administration - Microsoft Internet Explorer
Email | Chat | Forum | Reports | SMS
Log Off
Preferences
XACTA WEB C&A™ ADMINISTRATION
XACTA™
Site Administration
React
Projects
Users
Lookups
Audit
WBS Administration
ADD WBS
Org WBS
Name
Publishing Format
Edit
Delete
A
IRS
B
DITSCAP
C
NIACAP
ADD WBS
3204
3206
3208
3210
3212
3214
3204

FIG. 32

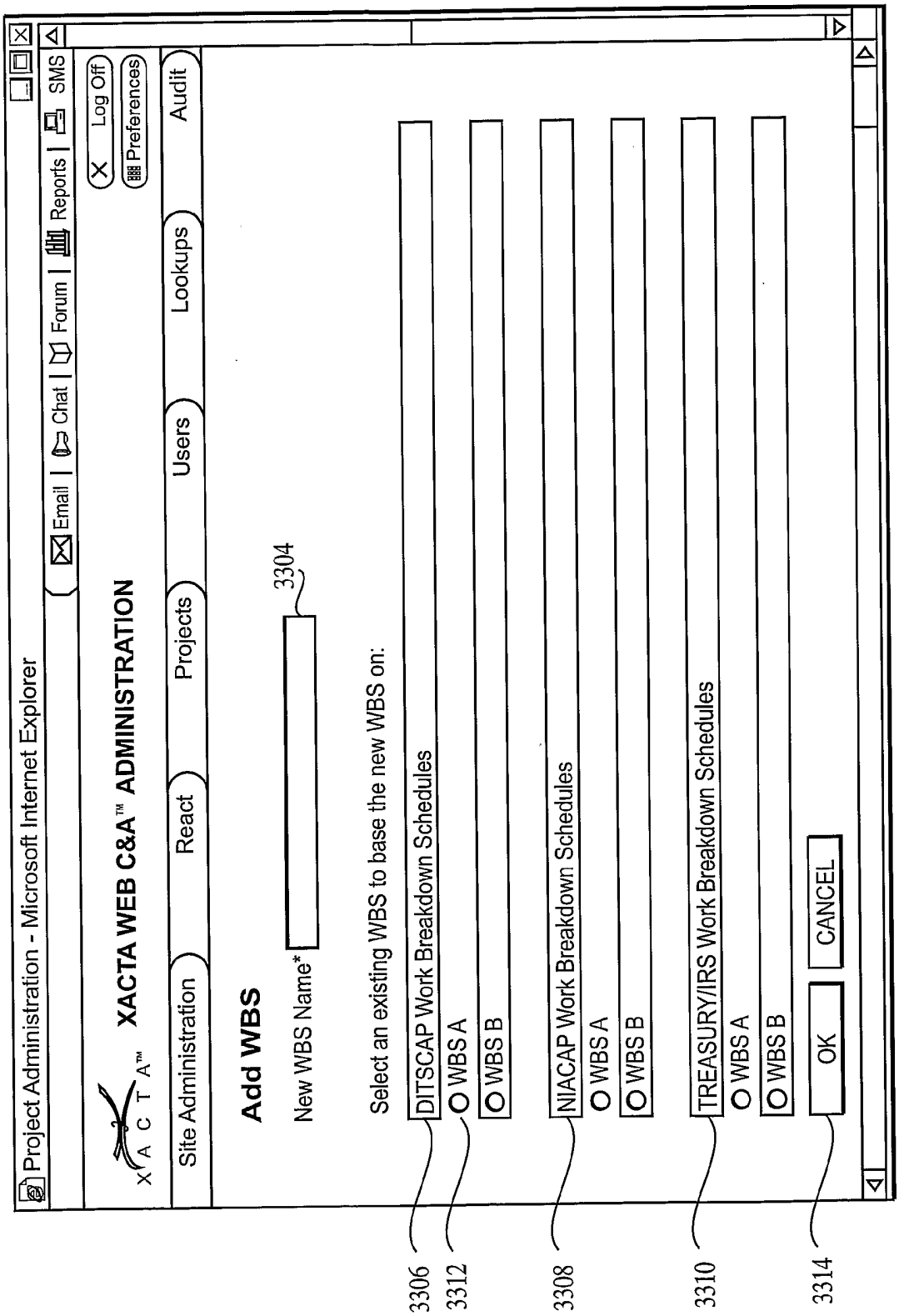

Project Administration - Microsoft Internet Explorer
Email | Chat | Forum | Reports | SMS
Log Off
Preferences
XACTA WEB C&A™ ADMINISTRATION
Site Administration
React
Projects
Users
Lookups
Audit
Add WBS
New WBS Name*
3304
Select an existing WBS to base the new WBS on:
DITSCAP Work Breakdown Schedules
WBS A
WBS B
NIACAP Work Breakdown Schedules
WBS A
WBS B
TREASURY/IRS Work Breakdown Schedules
WBS A
WBS B
OK
CANCEL
3306
3312
3308
3310
3314

FIG. 33

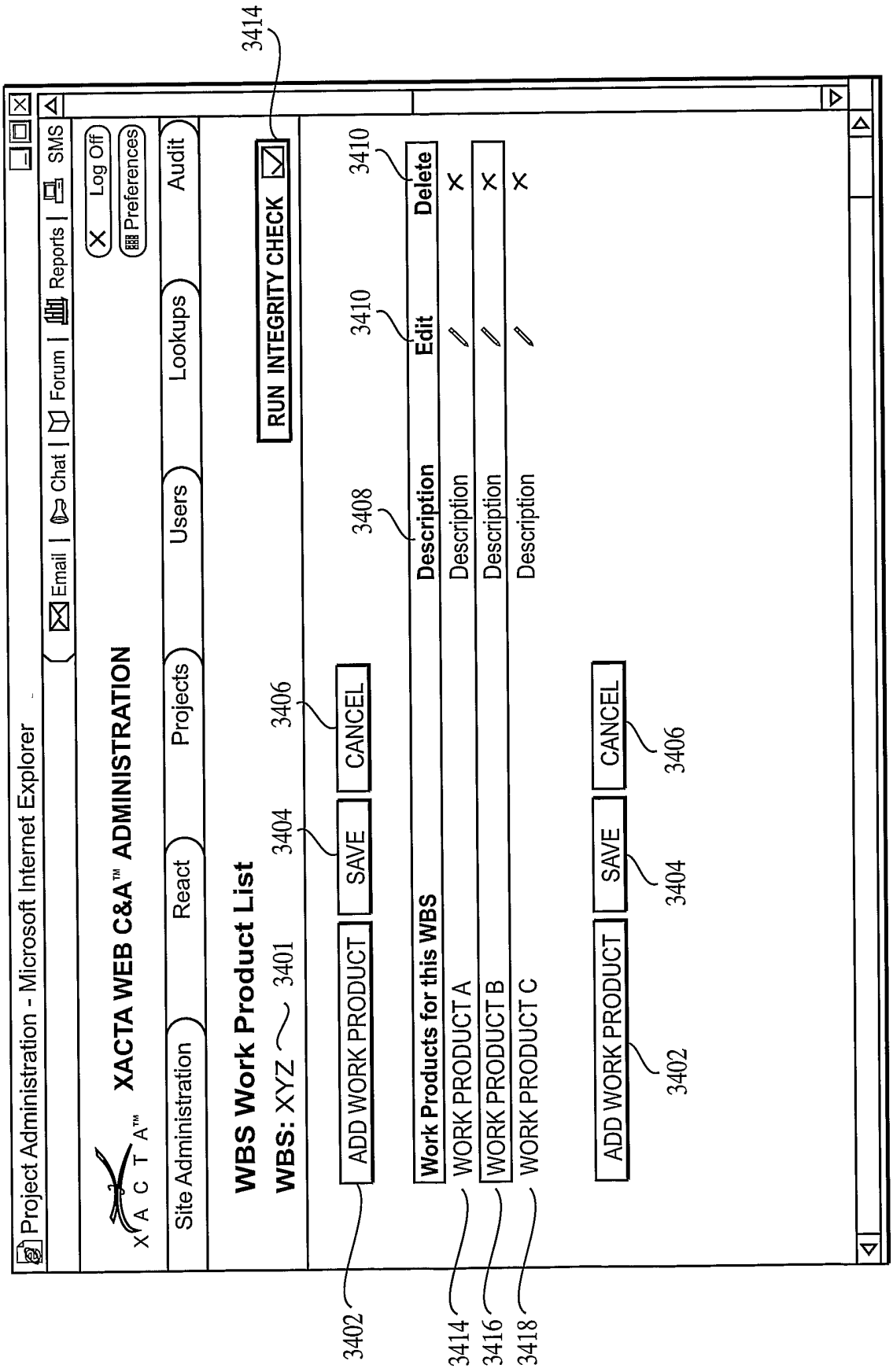

Project Administration - Microsoft Internet Explorer
Email | Chat | Forum | Reports | SMS
Log Off
Preferences
XACTA™
XACTA WEB C&A™ ADMINISTRATION
Site Administration
React
Projects
Users
Lookups
Audit
WBS Work Product List
WBS: XYZ
3401
3404
3406
3414
RUN INTEGRITY CHECK
ADD WORK PRODUCT
SAVE
CANCEL
3408
3410
Work Products for this WBS
Description
Edit
Delete
WORK PRODUCT A
Description
WORK PRODUCT B
Description
WORK PRODUCT C
Description
3402
3414
3416
3418

FIG. 34

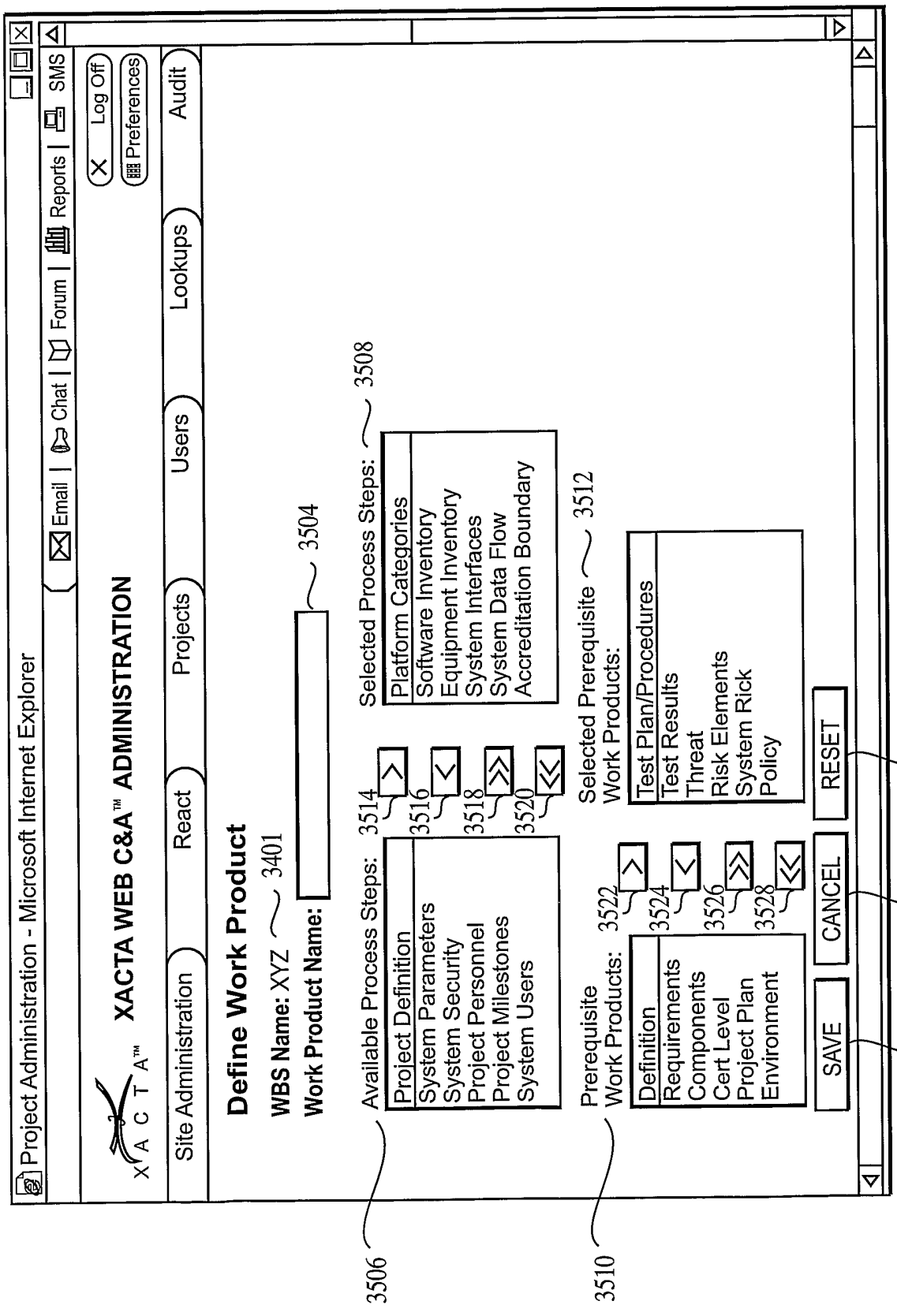

Project Administration - Microsoft Internet Explorer
Email | Chat | Forum | Reports | SMS
Log Off
Preferences
XACTA WEB C&A™ ADMINISTRATION
Site Administration
React
Projects
Users
Lookups
Audit
Define Work Product
WBS Name: XYZ
Work Product Name:
3401
3504
Available Process Steps:
Project Definition
System Parameters
System Security
Project Personnel
Project Milestones
System Users
3514
3516
3518
3520
Selected Process Steps:
3508
Platform Categories
Software Inventory
Equipment Inventory
System Interfaces
System Data Flow
Accreditation Boundary
3506
Prerequisite Work Products:
Definition
Requirements
Components
Cert Level
Project Plan
Environment
3522
3524
3526
3528
Selected Prerequisite Work Products:
3512
Test Plan/Procedures
Test Results
Threat
Risk Elements
System Rick
Policy
3510
SAVE
CANCEL
RESET
3530
3532
3534

FIG. 35

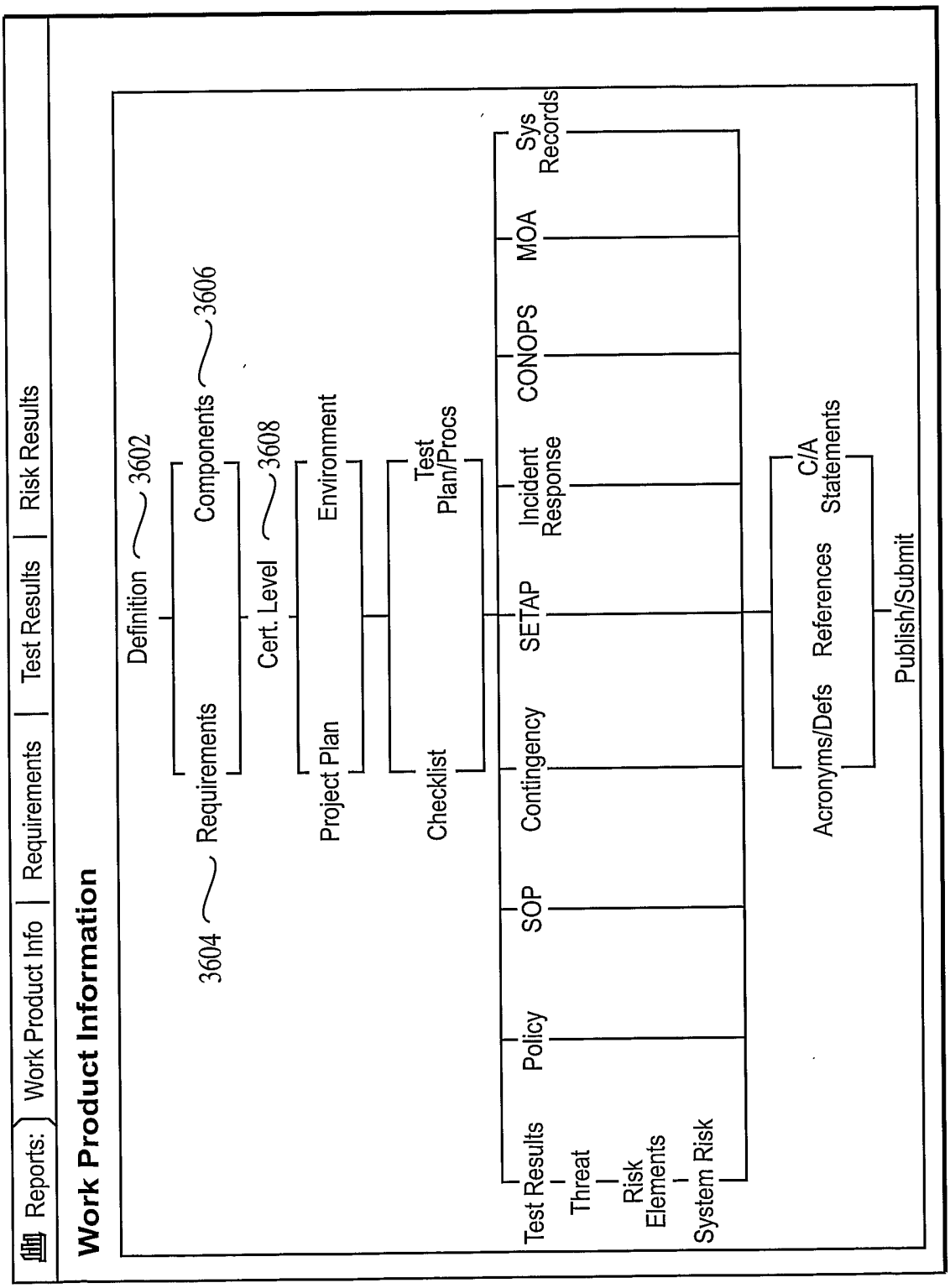

Reports:
Work Product Info
Requirements
Test Results
Risk Results
Work Product Information
Definition
3602
Components
3606
3604
Requirements
Cert. Level
3608
Project Plan
Environment
Checklist
Test Plan/Procs
Test Results
Threat
Risk Elements
System Risk
Policy
SOP
Contingency
SETAP
Incident Response
CONOPS
MOA
Sys Records
Acronyms/Defs
References
C/A Statements
Publish/Submit

FIG. 36

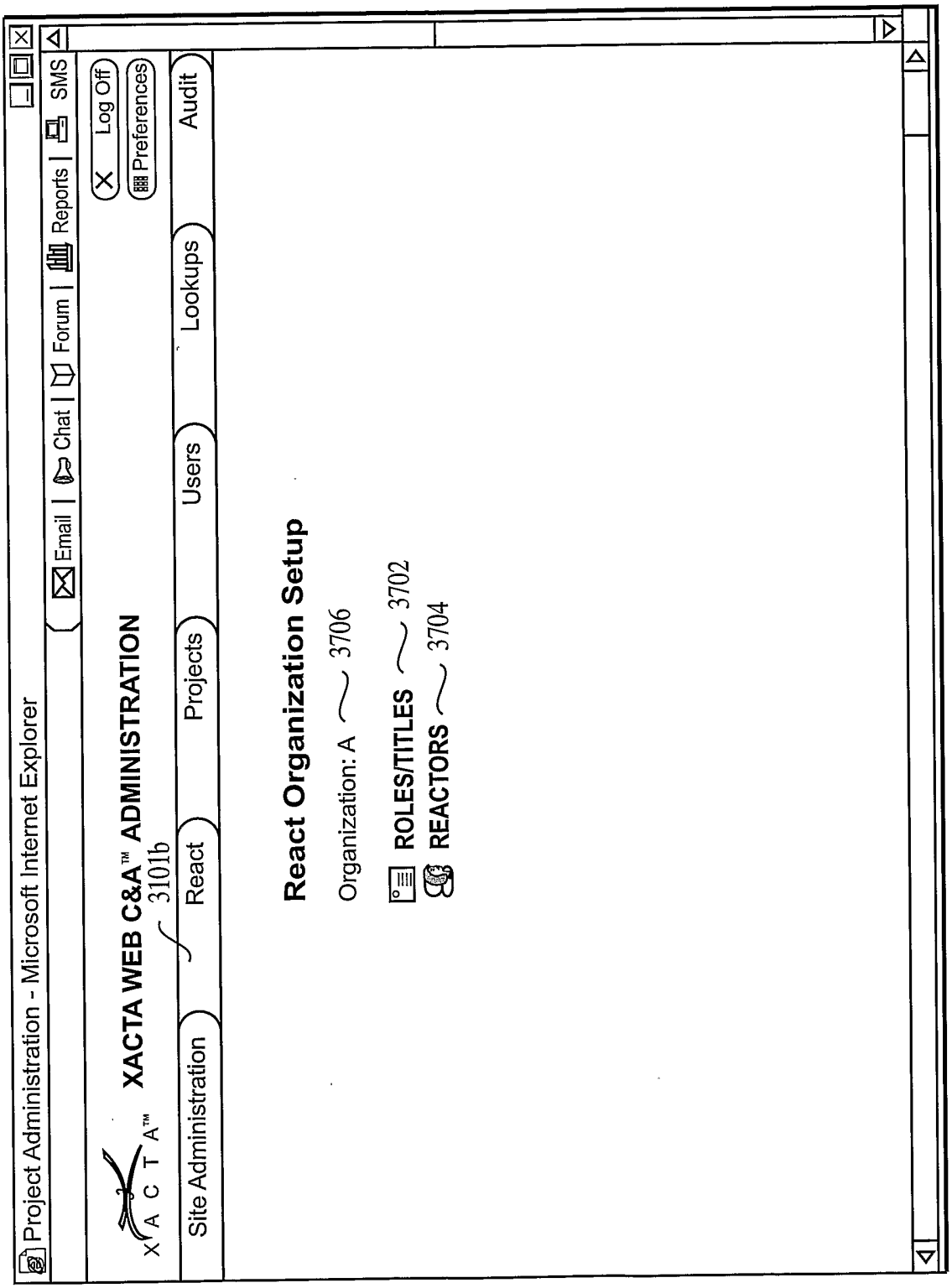

Project Administration - Microsoft Internet Explorer
Email | Chat | Forum | Reports | SMS
XACTA
XACTA WEB C&A™ ADMINISTRATION
3101b
Log Off
Preferences
Site Administration
React
Projects
Users
Lookups
Audit
React Organization Setup
Organization: A
3706
ROLES/TITLES
3702
REACTORS
3704

FIG. 37

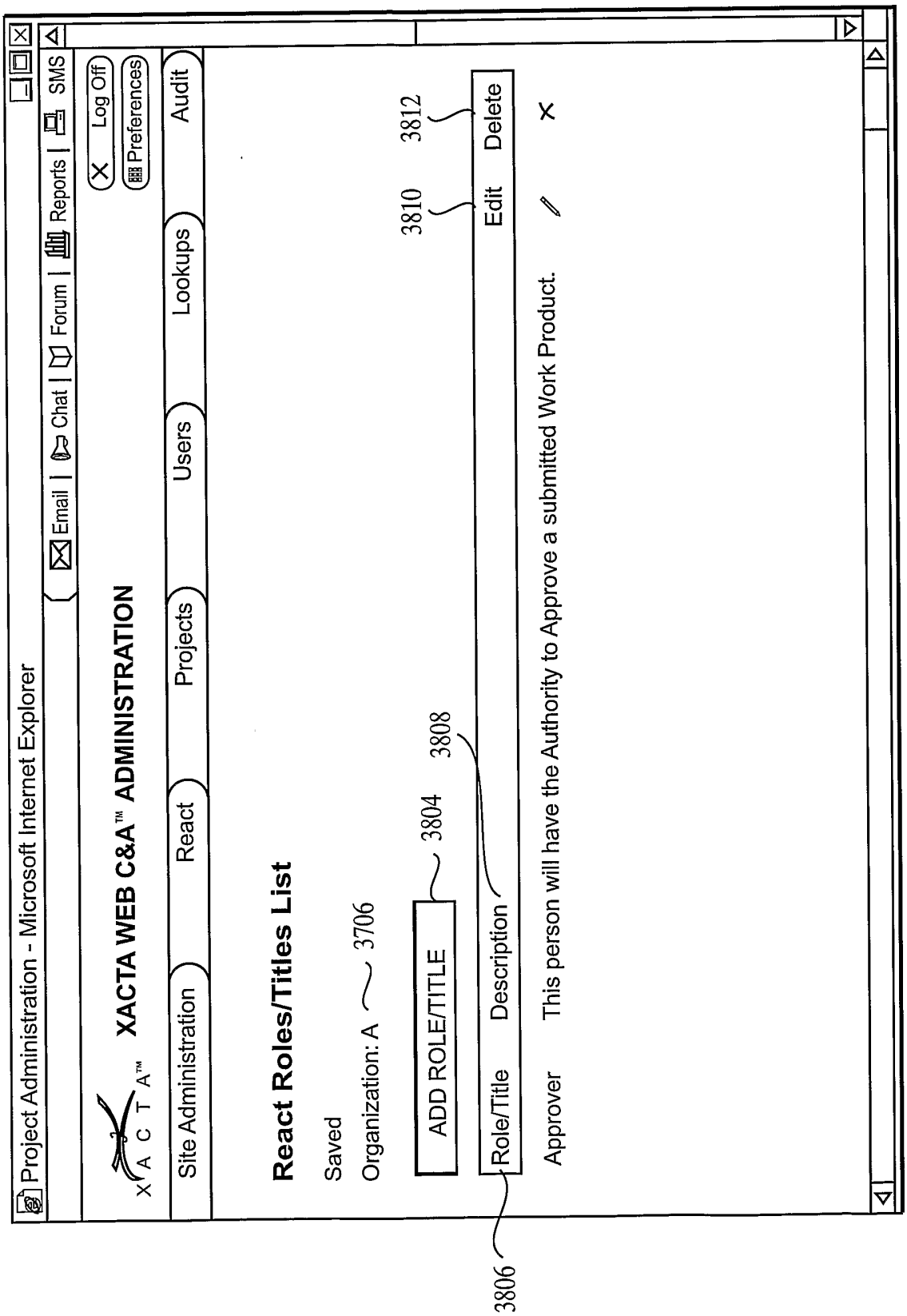

Project Administration - Microsoft Internet Explorer
XACTA WEB C&A™ ADMINISTRATION
Email | Chat | Forum | Reports | SMS
Log Off
Preferences
Site Administration
React
Projects
Users
Lookups
Audit
React Roles/Titles List
Saved
Organization: A
3706
ADD ROLE/TITLE
3804
3808
3810
3812
Role/Title
Description
Edit
Delete
Approver
This person will have the Authority to Approve a submitted Work Product.
3806

FIG. 38

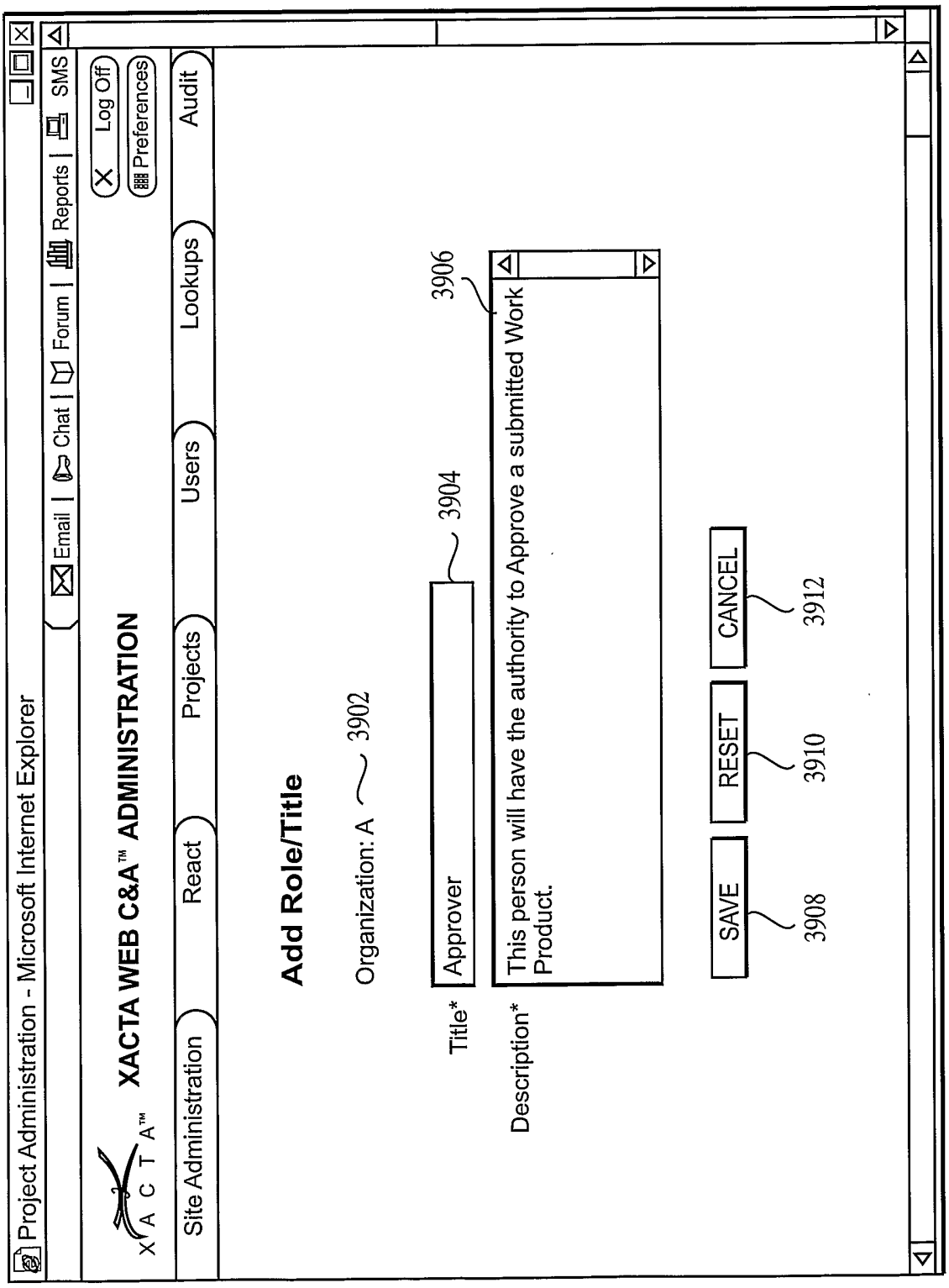

Project Administration - Microsoft Internet Explorer
Email | Chat | Forum | Reports | SMS
XACTA WEB C&A™ ADMINISTRATION
Log Off
Preferences
Site Administration
React
Projects
Users
Lookups
Audit
Add Role/Title
Organization: A
3902
3904
3906
Title*
Approver
Description*
This person will have the authority to Approve a submitted Work Product.
SAVE
RESET
CANCEL
3908
3910
3912

FIG. 39

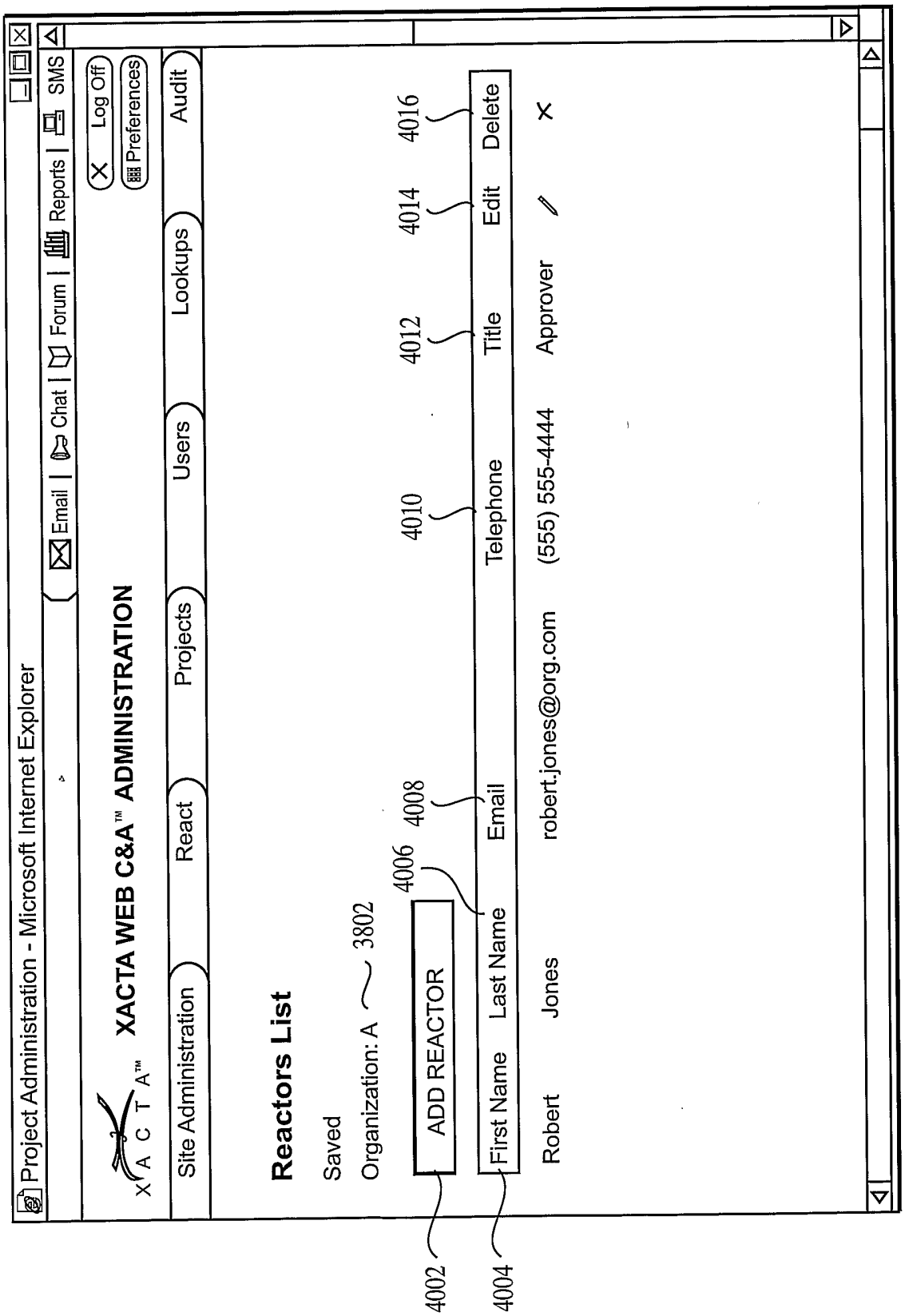

Project Administration - Microsoft Internet Explorer
Email | Chat | Forum | Reports | SMS
XACTA WEB C&A™ ADMINISTRATION
Log Off
Preferences
Site Administration
React
Projects
Users
Lookups
Audit
Reactors List
Saved
Organization: A
3802
ADD REACTOR
First Name
Last Name
Email
Telephone
Title
Edit
Delete
Robert
Jones
robert.jones@org.com
(555) 555-4444
Approver
4002
4004
4006
4008
4010
4012
4014
4016

FIG. 40

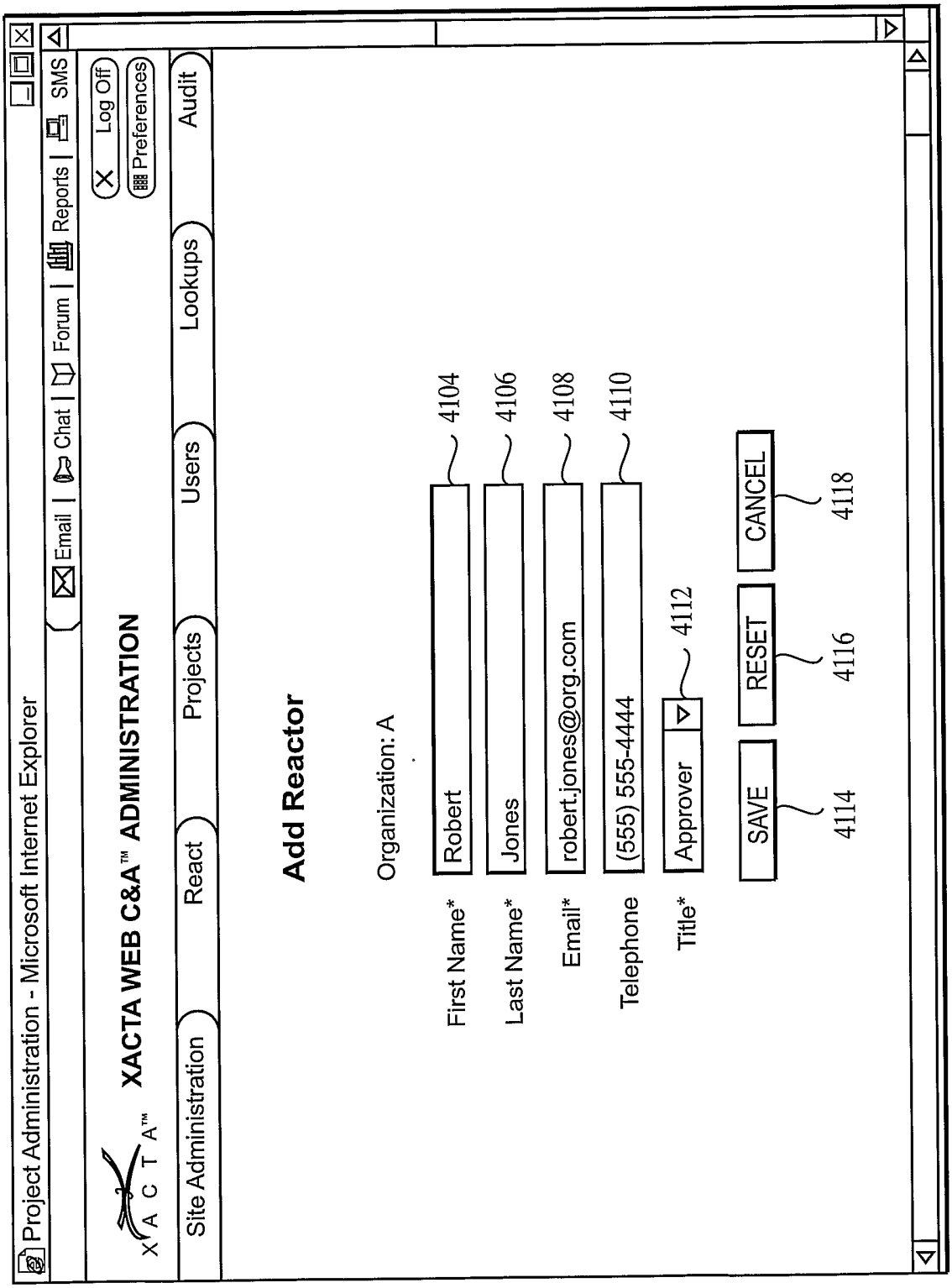

Project Administration - Microsoft Internet Explorer
Email | Chat | Forum | Reports | SMS
Log Off
Preferences
XACTA WEB C&A™ ADMINISTRATION
Site Administration
React
Projects
Users
Lookups
Audit
Add Reactor
Organization: A
First Name*
Robert
4104
Last Name*
Jones
4106
Email*
robert.jones@org.com
4108
Telephone
(555) 555-4444
4110
Title*
Approver
4112
SAVE
RESET
CANCEL
4114
4116
4118

FIG. 41

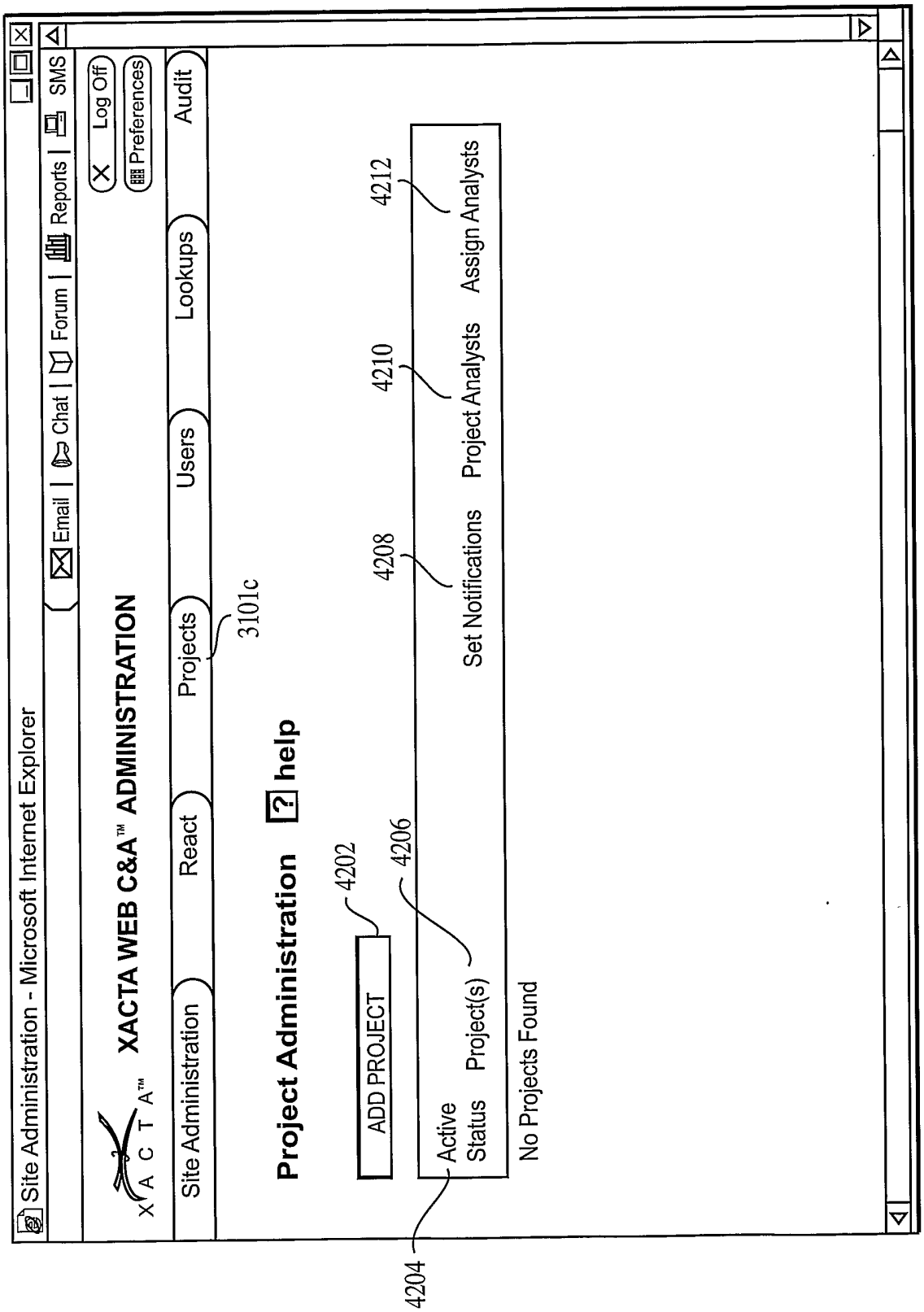

Site Administration - Microsoft Internet Explorer
Email | Chat | Forum | Reports | SMS
XACTA WEB C&A™ ADMINISTRATION
Log Off
Preferences
Site Administration
React
Projects
Users
Lookups
Audit
3101c
Project Administration
help
4202
ADD PROJECT
4206
4208
4210
4212
Active
Status
Project(s)
Set Notifications
Project Analysts
Assign Analysts
No Projects Found
4204

FIG. 42

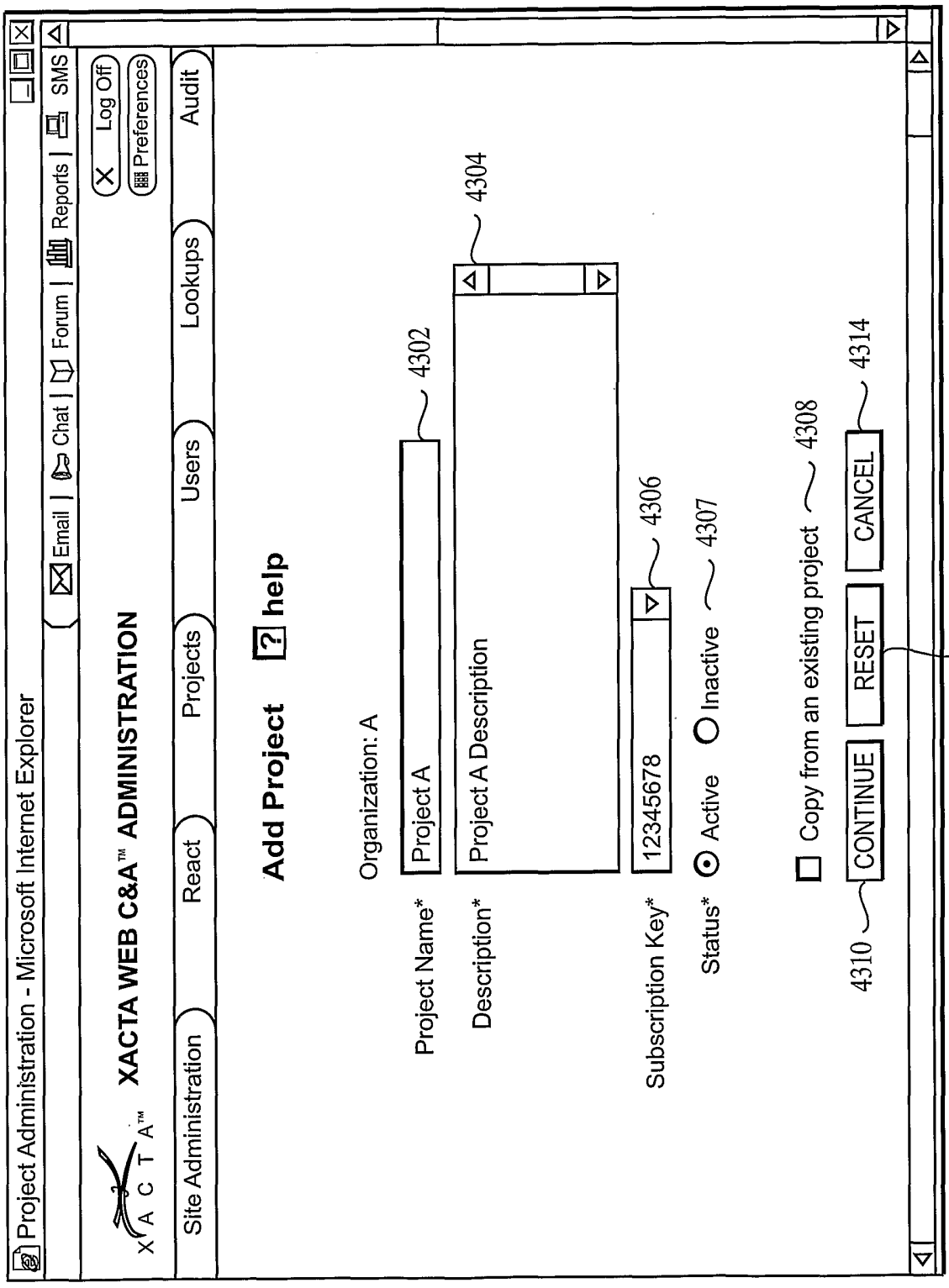

Project Administration - Microsoft Internet Explorer
Email | Chat | Forum | Reports | SMS
Log Off
Preferences
XACTA WEB C&A™ ADMINISTRATION
Site Administration
React
Projects
Users
Lookups
Audit
Add Project
help
Organization: A
Project Name*
Project A
4302
Description*
Project A Description
4304
Subscription Key*
12345678
4306
Status*
Active
Inactive
4307
Copy from an existing project
4308
4310
CONTINUE
RESET
CANCEL
4314
4312

FIG. 43

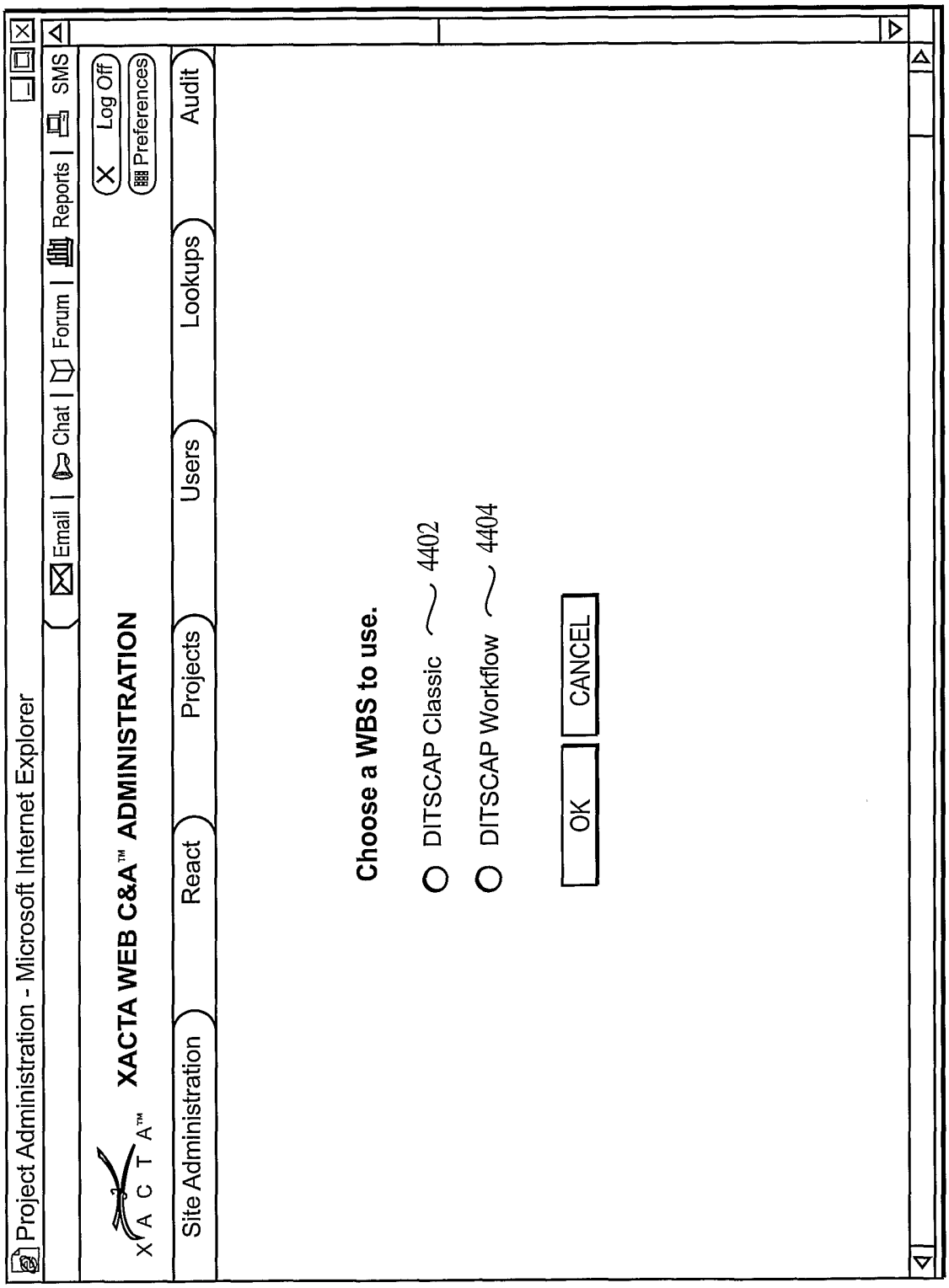

Project Administration - Microsoft Internet Explorer
Email | Chat | Forum | Reports | SMS
XACTA WEB C&A™ ADMINISTRATION
Log Off
Preferences
Site Administration
React
Projects
Users
Lookups
Audit
Choose a WBS to use.
DITSCAP Classic
4402
DITSCAP Workflow
4404
OK
CANCEL

FIG. 44

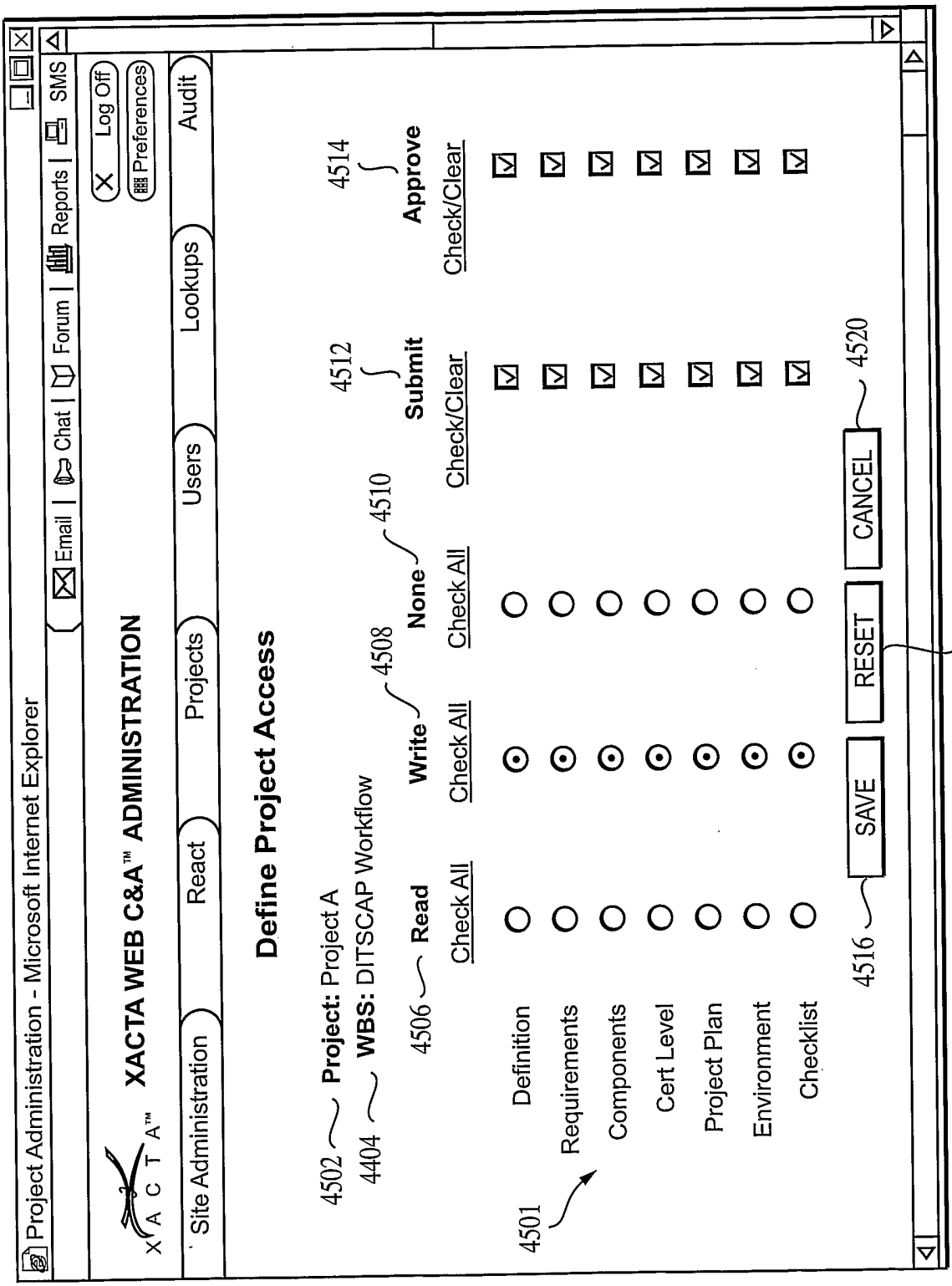

Project Administration - Microsoft Internet Explorer
Email | Chat | Forum | Reports | SMS
XACTA WEB C&A™ ADMINISTRATION
Log Off
Preferences
Site Administration
React
Projects
Users
Lookups
Audit
Define Project Access
4502 Project: Project A
4404 WBS: DITSCAP Workflow
4506 Read
Write
None
4508
4510
4512
Submit
4514
Approve
Check All
Check All
Check All
Check/Clear
Check/Clear
4501
Definition
Requirements
Components
Cert Level
Project Plan
Environment
Checklist
4516
SAVE
RESET
CANCEL
4520
4518

FIG. 45

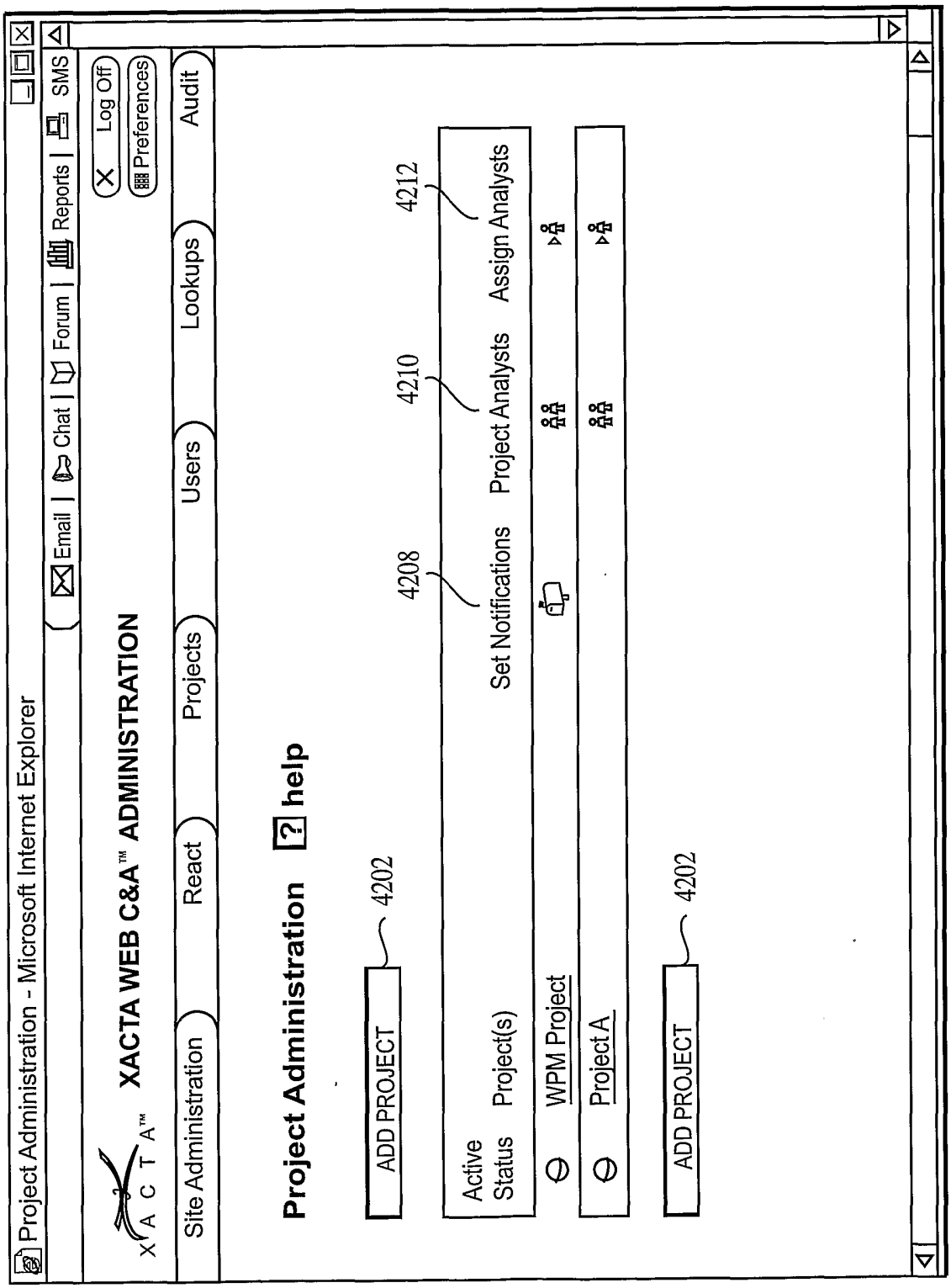

Project Administration - Microsoft Internet Explorer
Email | Chat | Forum | Reports | SMS
XACTA WEB C&A™ ADMINISTRATION
Log Off
Preferences
Site Administration
React
Projects
Users
Lookups
Audit
Project Administration
help
ADD PROJECT
4202
4208
4210
4212
Active
Status
Project(s)
Set Notifications
Project Analysts
Assign Analysts
WPM Project
Project A
ADD PROJECT
4202

FIG. 46

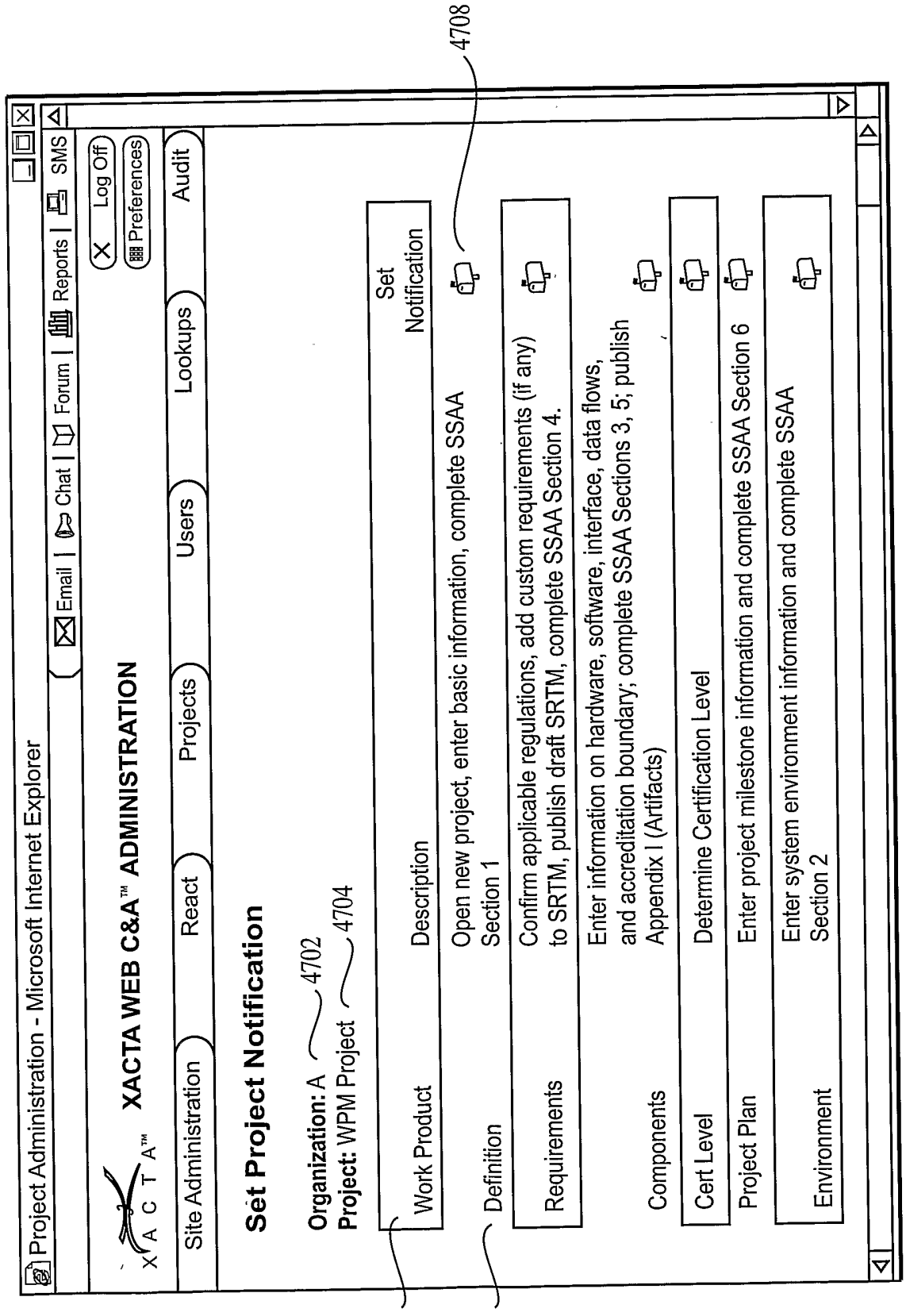

Project Administration - Microsoft Internet Explorer
XACTA WEB C&A™ ADMINISTRATION
Email | Chat | Forum | Reports | SMS
Log Off
Preferences
Site Administration
React
Projects
Users
Lookups
Audit
Set Project Notification
Organization: A
Project: WPM Project
4702
4704
Work Product
Description
Set Notification
4708
4706
Definition
Requirements
Components
Cert Level
Project Plan
Environment
Open new project, enter basic information, complete SSAA Section 1
Confirm applicable regulations, add custom requirements (if any) to SRTM, publish draft SRTM, complete SSAA Section 4.
Enter information on hardware, software, interface, data flows, and accreditation boundary; complete SSAA Sections 3, 5; publish Appendix I (Artifacts)
Determine Certification Level
Enter project milestone information and complete SSAA Section 6
Enter system environment information and complete SSAA Section 2
4710

FIG. 47

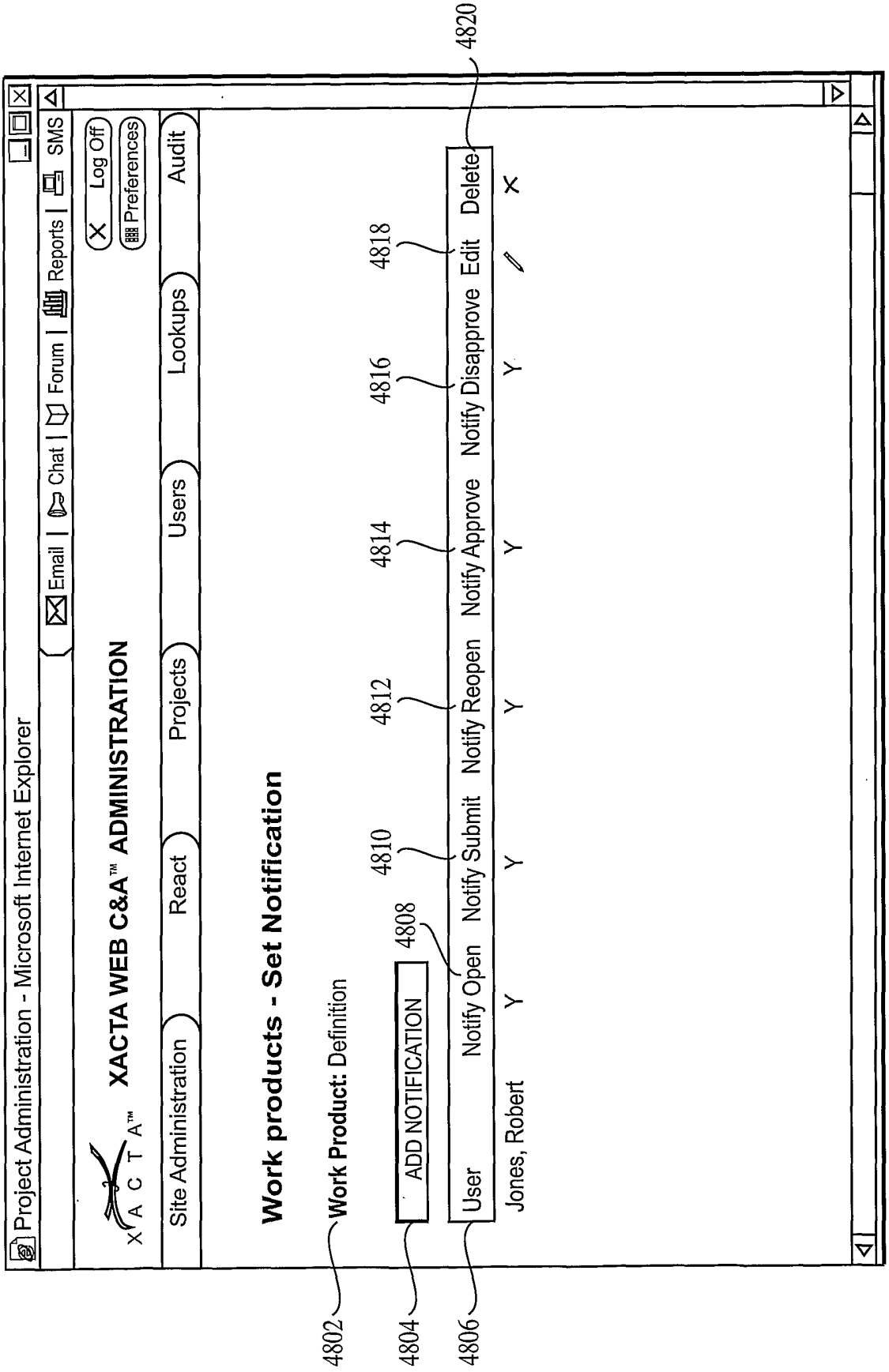

Project Administration - Microsoft Internet Explorer
Email | Chat | Forum | Reports | SMS
XACTA WEB C&A™ ADMINISTRATION
Log Off
Preferences
Site Administration
React
Projects
Users
Lookups
Audit
Work products - Set Notification
Work Product: Definition
ADD NOTIFICATION
User
Notify Open
Notify Submit
Notify Reopen
Notify Approve
Notify Disapprove
Edit
Delete
Jones, Robert
Y
Y
Y
Y
Y
4802
4804
4806
4808
4810
4812
4814
4816
4818
4820

FIG. 48

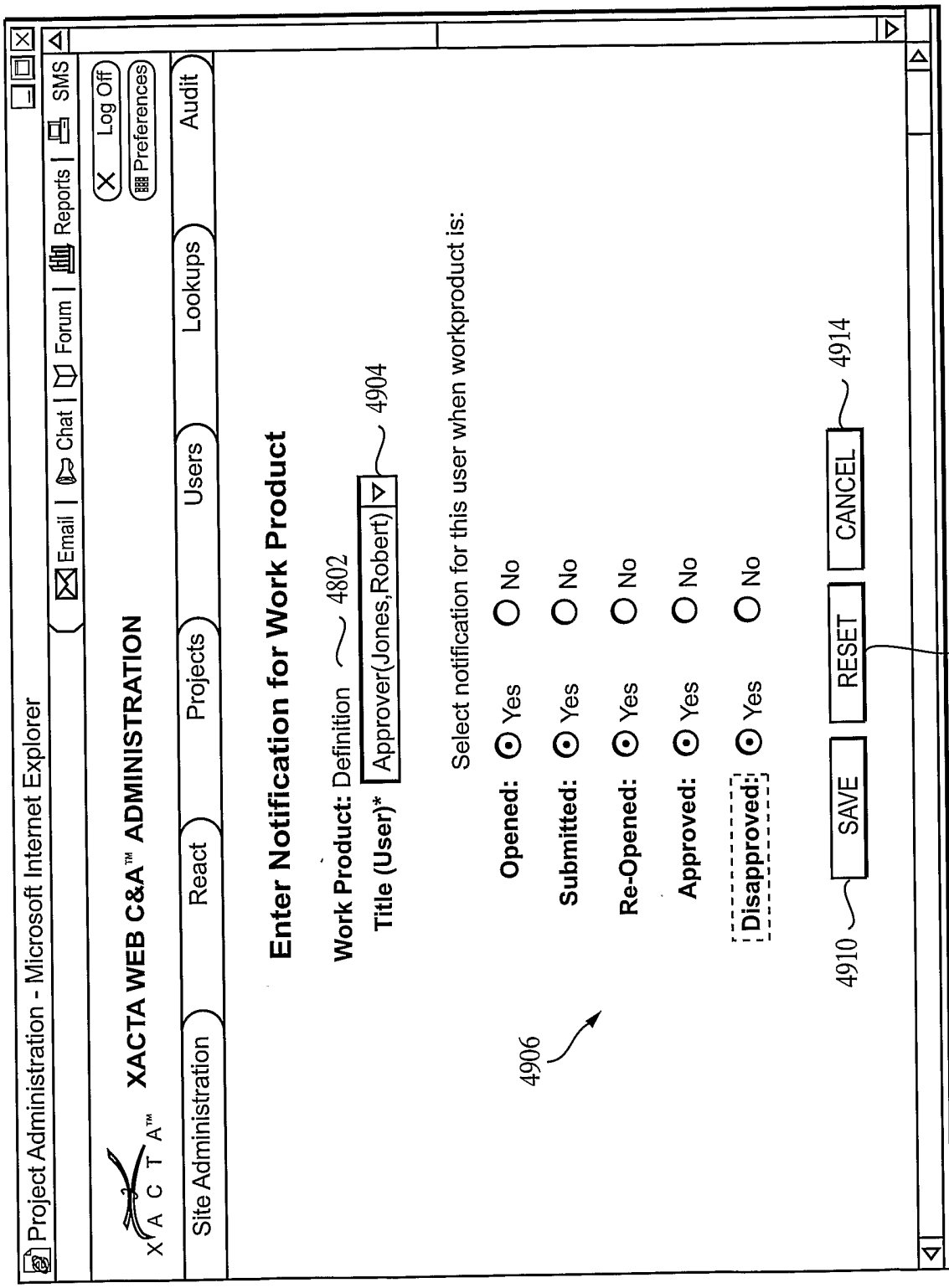

Project Administration - Microsoft Internet Explorer
Email | Chat | Forum | Reports | SMS
Log Off
Preferences
XACTA WEB C&A™ ADMINISTRATION
Site Administration
React
Projects
Users
Lookups
Audit
Enter Notification for Work Product
Work Product: Definition
4802
Title (User)* Approver(Jones,Robert)
4904
Select notification for this user when workproduct is:
4906
Opened: Yes No
Submitted: Yes No
Re-Opened: Yes No
Approved: Yes No
Disapproved: Yes No
4910
SAVE
RESET
CANCEL
4914
4912

FIG. 49

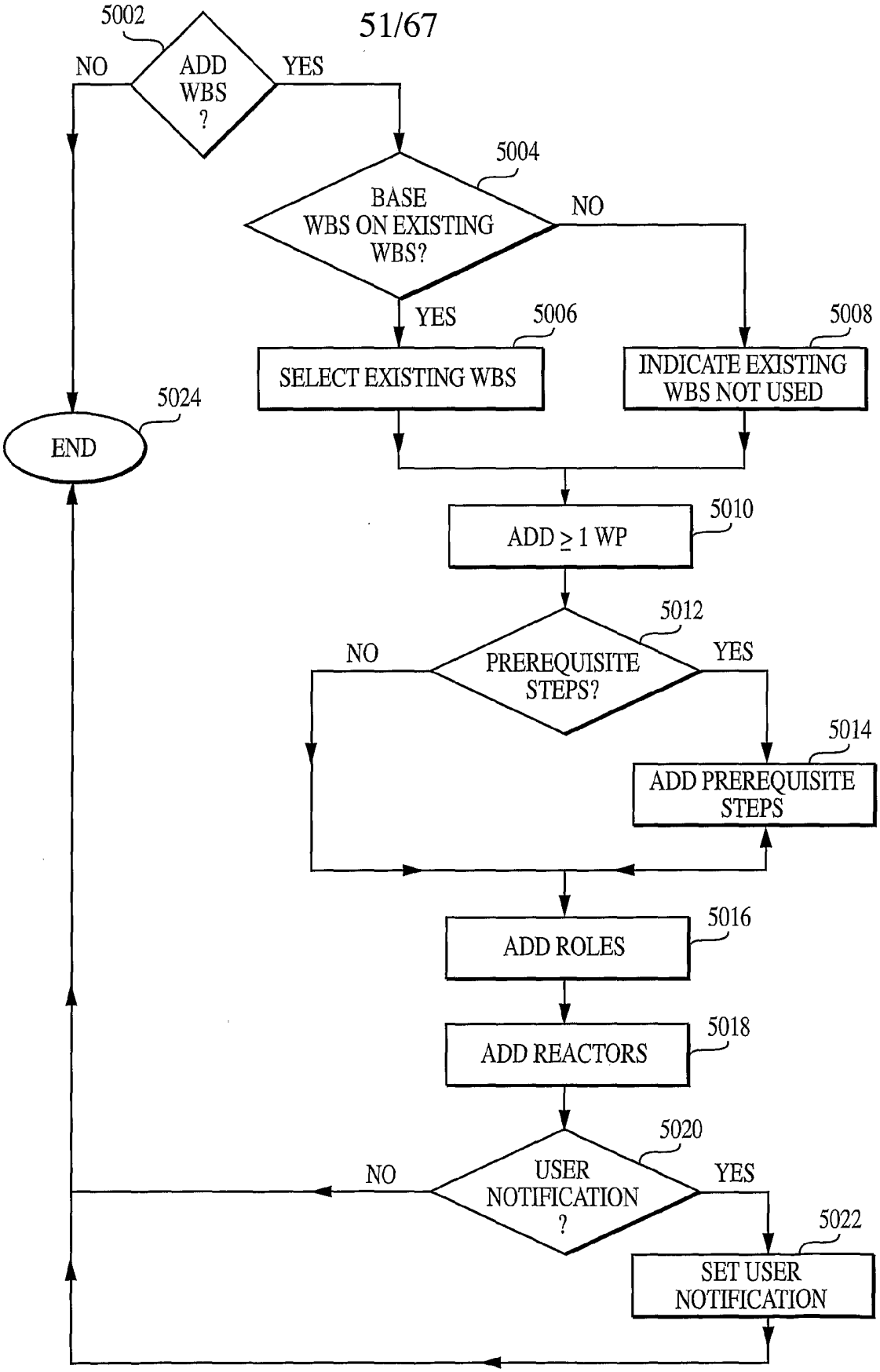

5002
ADD WBS ?
NO
YES
5004
BASE WBS ON EXISTING WBS?
NO
YES
5006
SELECT EXISTING WBS
5008
INDICATE EXISTING WBS NOT USED
5024
END
5010
ADD ≥ 1 WP
5012
PREREQUISITE STEPS?
NO
YES
5014
ADD PREREQUISITE STEPS
5016
ADD ROLES
5018
ADD REACTORS
5020
USER NOTIFICATION ?
NO
YES
5022
SET USER NOTIFICATION

FIG. 50

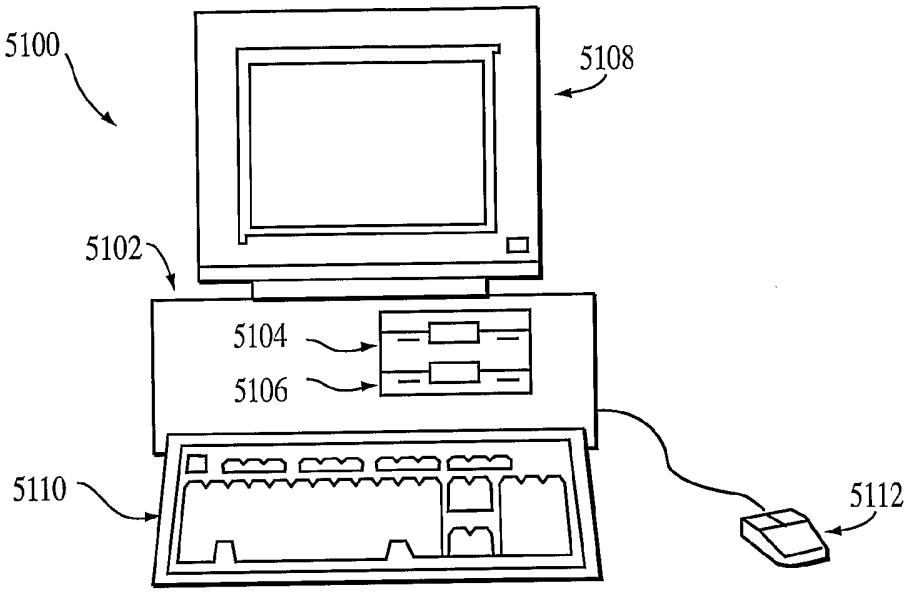

5100
5108
5102
5104
5106
5110
5112

Fig. 51

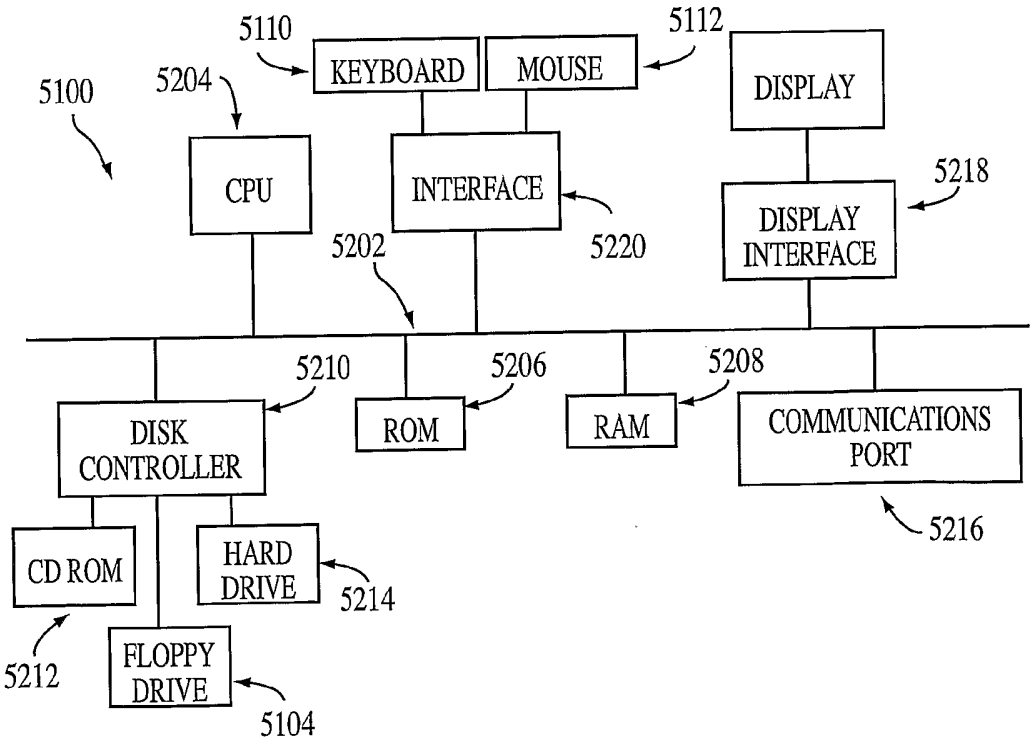

5110
5112
5100
5204
KEYBOARD
MOUSE
DISPLAY
CPU
INTERFACE
5220
5218
DISPLAY INTERFACE
5202
5210
5206
5208
DISK CONTROLLER
ROM
RAM
COMMUNICATIONS PORT
5216
CD ROM
HARD DRIVE
5214
5212
FLOPPY DRIVE
5104

Fig. 52

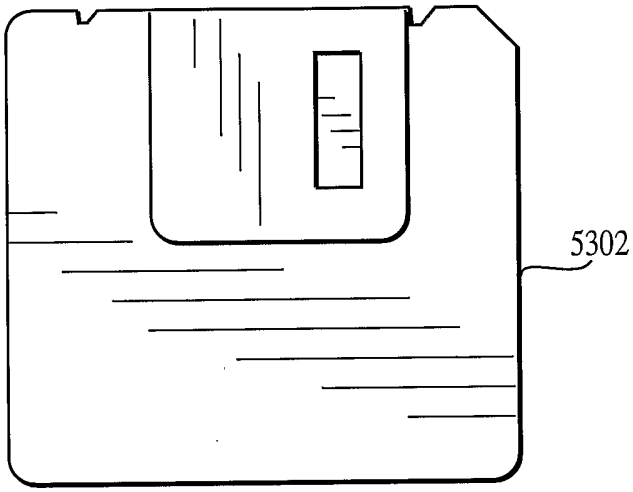


FIG. 53

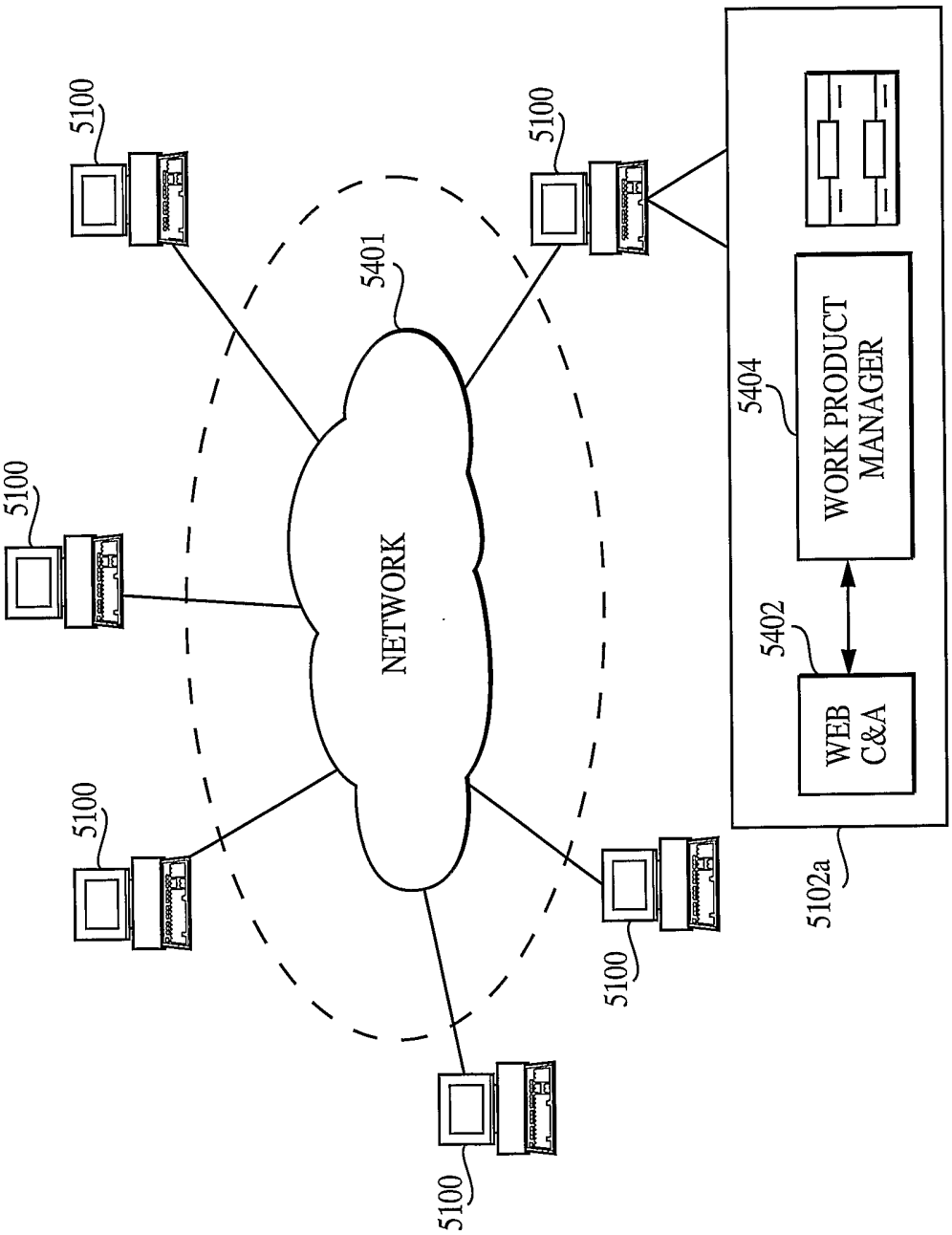

5100
5100
5100
5100
5100
5100
5401
NETWORK
5404
WORK PRODUCT MANAGER
5402
WEB C&A
5102a

FIG. 54

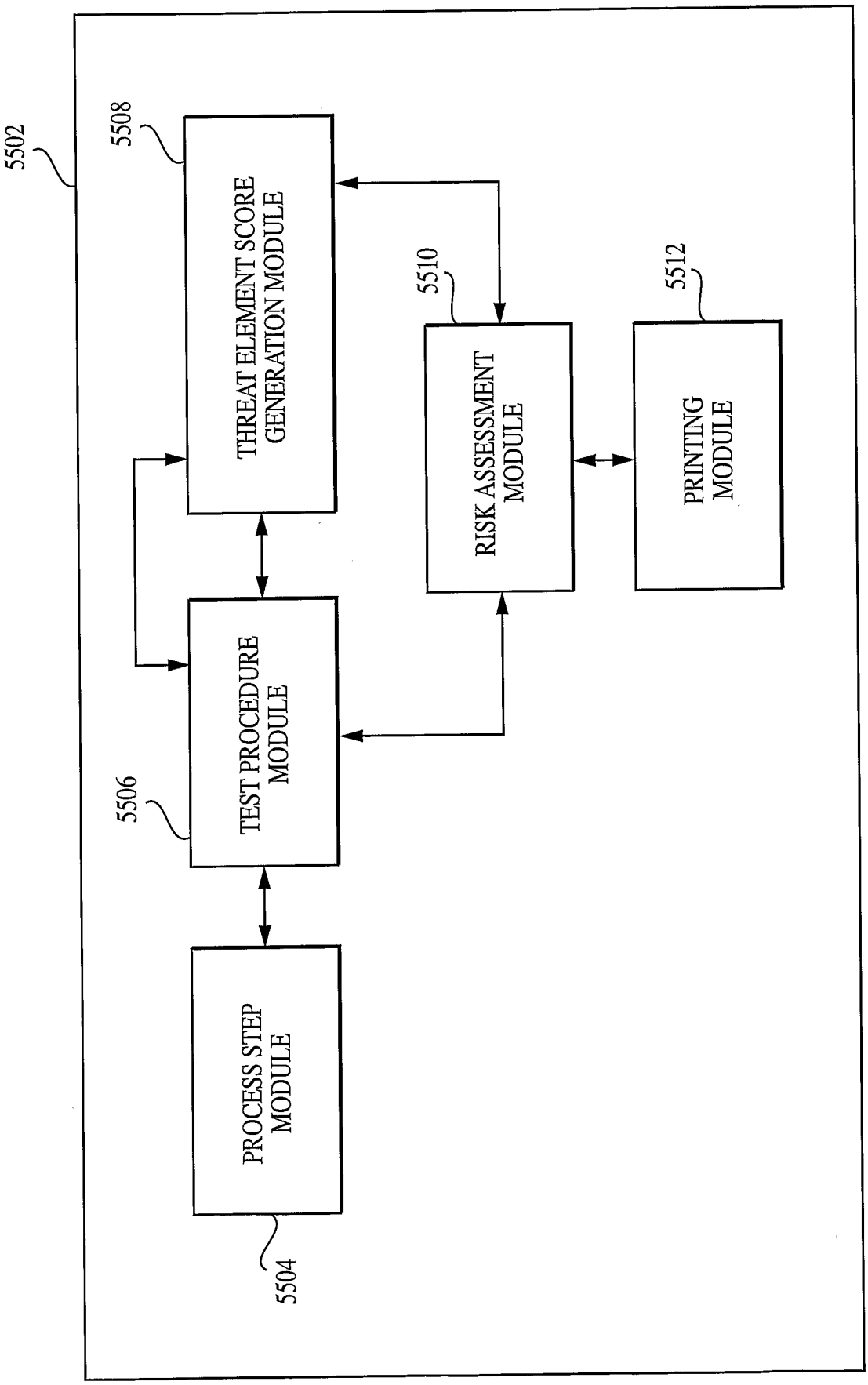
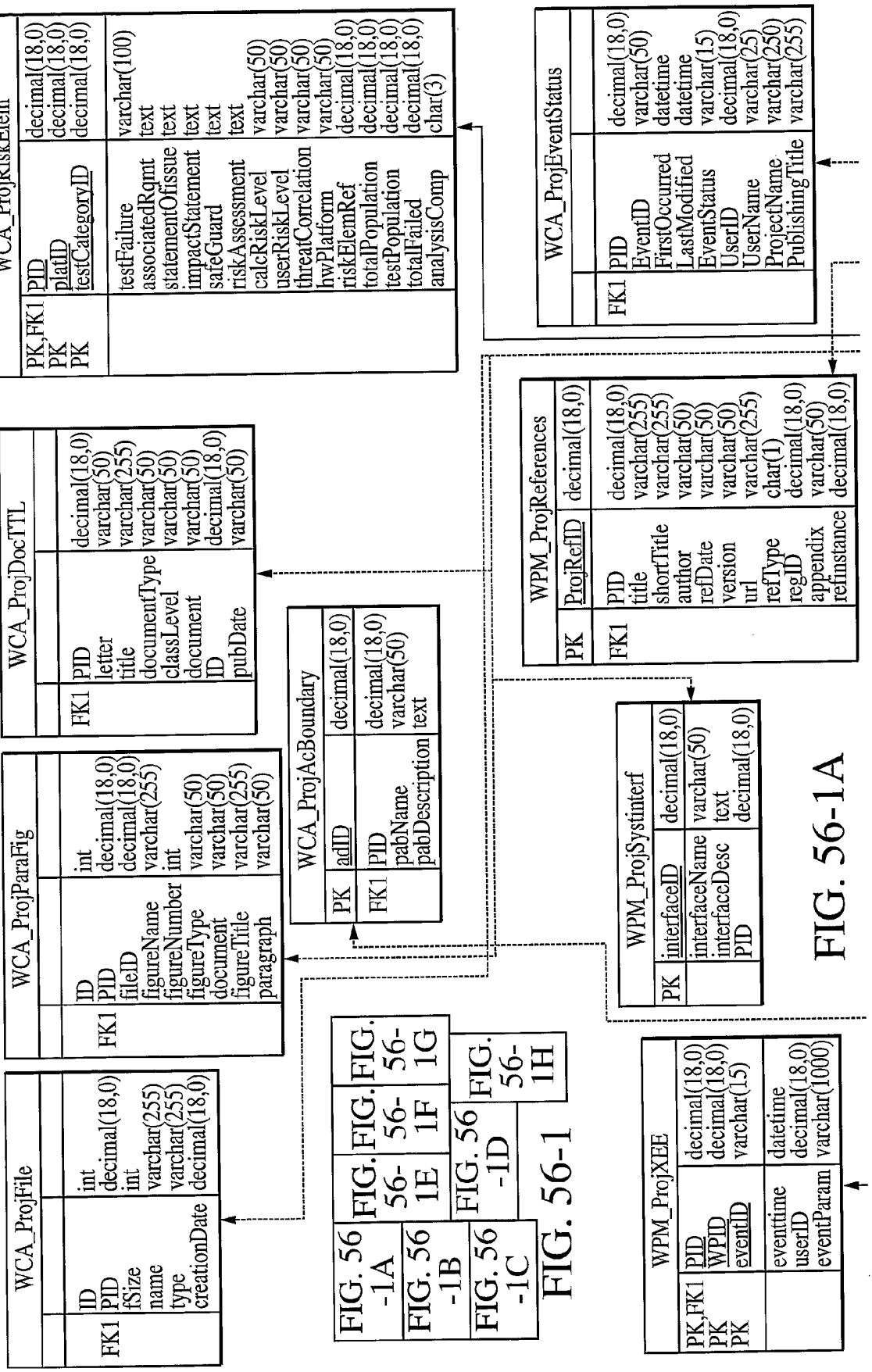

5502
5508
THREAT ELEMENT SCORE GENERATION MODULE
5510
RISK ASSESSMENT MODULE
5512
PRINTING MODULE
5506
TEST PROCEDURE MODULE
PROCESS STEP MODULE
5504

FIG. 55


WCA_ProjRiskElem
PK,FK1 PID decimal(18,0)
PK platID decimal(18,0)
PK testCategoryID decimal(18,0)
testFailure varchar(100)
associatedRqmt text
statementOfIssue text
impactStatement text
safeGuard text
riskAssessment text
calcRiskLevel varchar(50)
userRiskLevel varchar(50)
threatCorrelation varchar(50)
hwPlatform varchar(50)
riskElemRef decimal(18,0)
totalPopulation decimal(18,0)
testPopulation decimal(18,0)
totalFailed decimal(18,0)
analysisComp char(3)
WCA_ProjEventStatus
FK1 PID decimal(18,0)
EventID varchar(50)
FirstOccurred datetime
LastModified datetime
EventStatus varchar(15)
UserID decimal(18,0)
UserName varchar(25)
ProjectName varchar(250)
PublishingTitle varchar(255)
WCA_ProjDocTTL
FK1 PID decimal(18,0)
letter varchar(50)
title varchar(255)
documentType varchar(50)
classLevel varchar(50)
document varchar(50)
ID decimal(18,0)
pubDate varchar(50)
WPM_ProjReferences
PK ProjRefID decimal(18,0)
FK1 PID decimal(18,0)
title varchar(255)
shortTitle varchar(255)
author varchar(50)
refDate varchar(50)
version varchar(50)
url varchar(255)
refType char(1)
regID decimal(18,0)
appendix varchar(50)
refInstance decimal(18,0)
WCA_ProjParaFig
FK1 ID int
PID decimal(18,0)
fileID decimal(18,0)
figureName varchar(255)
figureNumber int
figureType varchar(50)
document varchar(50)
figureTitle varchar(255)
paragraph varchar(50)
WCA_ProjAcBoundary
PK adID decimal(18,0)
FK1 PID decimal(18,0)
pabName varchar(50)
pabDescription text
WPM_ProjSystinterf
PK interfaceID decimal(18,0)
interfaceName varchar(50)
interfaceDesc text
PID decimal(18,0)
WCA_ProjFile
FK1 ID int
PID decimal(18,0)
fSize int
name varchar(255)
type varchar(255)
creationDate decimal(18,0)
WPM_ProjXEE
PK,FK1 PID decimal(18,0)
PK WPID decimal(18,0)
PK eventID varchar(15)
eventtime datetime
userID decimal(18,0)
eventParam varchar(1000)
FIG. 56-1A
FIG. 56-1B
FIG. 56-1C
FIG. 56-1D
FIG. 56-1E
FIG. 56-1F
FIG. 56-1G
FIG. 56-1H
FIG. 56-1

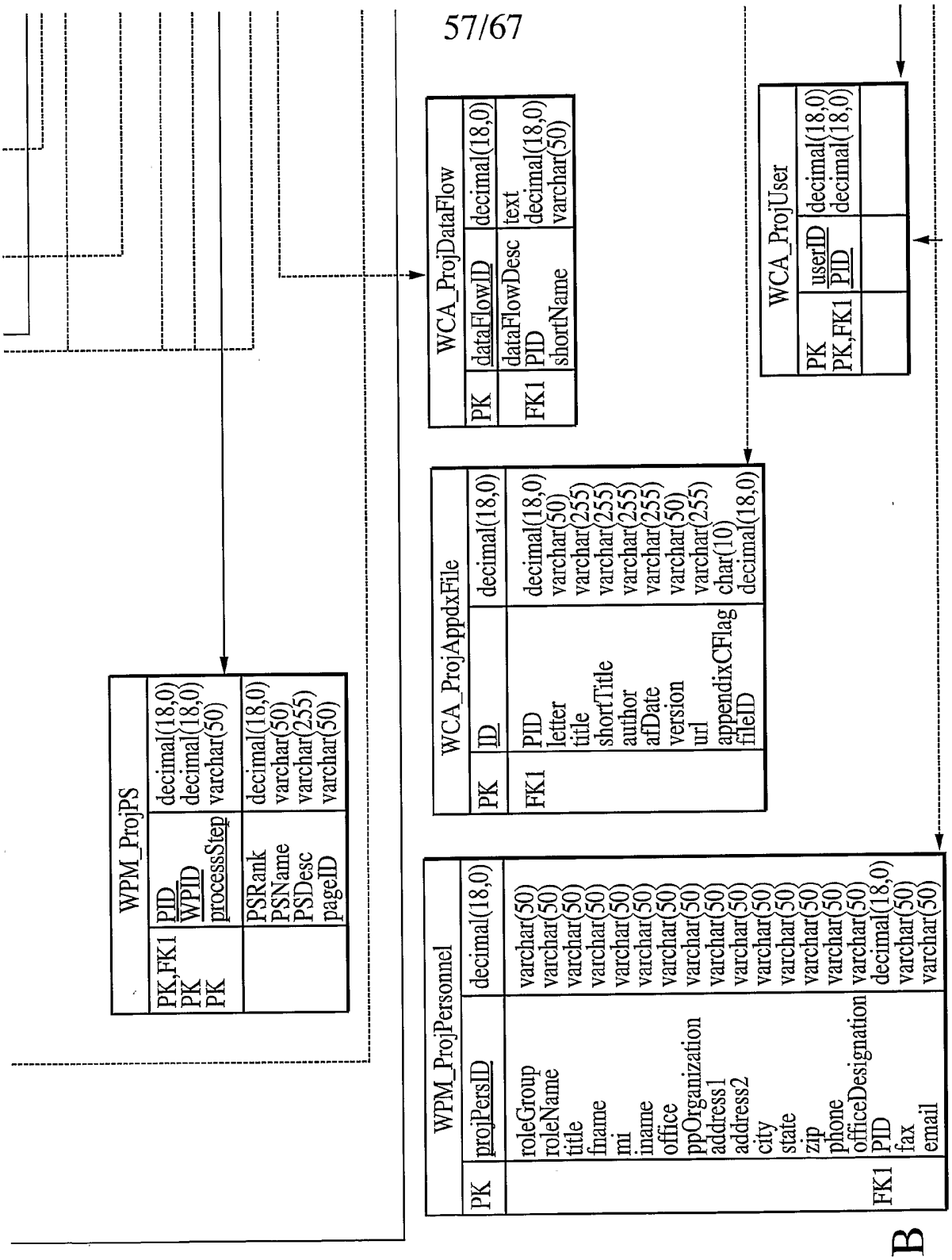

WPM_ProjPS
PK,FK1 PID decimal(18,0)
PK WPID decimal(18,0)
PK processStep varchar(50)
PSRank decimal(18,0)
PSName varchar(50)
PSDesc varchar(255)
pageID varchar(50)
WCA_ProjDataFlow
PK dataFlowID decimal(18,0)
FK1 dataFlowDesc text
PID decimal(18,0)
shortName varchar(50)
WCA_ProjAppdxFile
PK ID decimal(18,0)
FK1 PID decimal(18,0)
letter varchar(50)
title varchar(255)
shortTitle varchar(255)
author varchar(255)
afDate varchar(255)
version varchar(50)
url varchar(255)
appendixCFlag char(10)
fileID decimal(18,0)
WCA_ProjUser
PK,FK1 userID decimal(18,0)
PID decimal(18,0)
WPM_ProjPersonnel
PK projPersID decimal(18,0)
roleGroup varchar(50)
roleName varchar(50)
title varchar(50)
fname varchar(50)
mi varchar(50)
iname varchar(50)
office varchar(50)
ppOrganization varchar(50)
address1 varchar(50)
address2 varchar(50)
city varchar(50)
state varchar(50)
zip varchar(50)
phone varchar(50)
officeDesignation varchar(50)
FK1 PID decimal(18,0)
fax varchar(50)
email varchar(50)

FIG. 56-1B

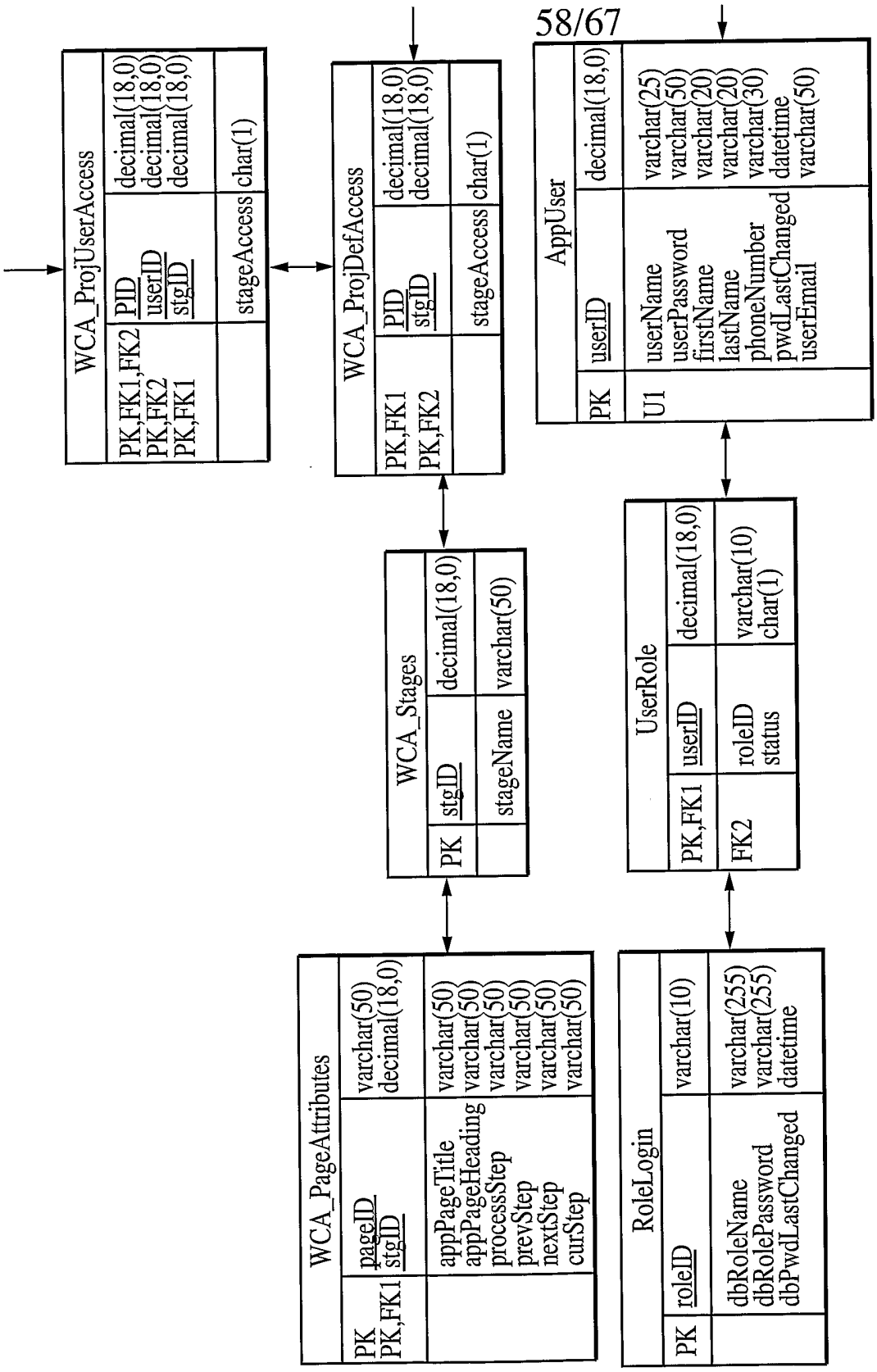

WCA_ProjUserAccess
PK,FK1,FK2 PID decimal(18,0)
PK,FK2 userID decimal(18,0)
PK,FK1 stgID decimal(18,0)
stageAccess char(1)
WCA_ProjDefAccess
PK,FK1 PID decimal(18,0)
PK,FK2 stgID decimal(18,0)
stageAccess char(1)
AppUser
PK userID decimal(18,0)
U1 userName varchar(25)
userPassword varchar(50)
firstName varchar(20)
lastName varchar(20)
phoneNumber varchar(30)
pwdLastChanged datetime
userEmail varchar(50)
WCA_Stages
PK stgID decimal(18,0)
stageName varchar(50)
UserRole
PK,FK1 userID decimal(18,0)
FK2 roleID varchar(10)
status char(1)
WCA_PageAttributes
PK,FK1 pageID varchar(50)
stgID decimal(18,0)
appPageTitle varchar(50)
appPageHeading varchar(50)
processStep varchar(50)
prevStep varchar(50)
nextStep varchar(50)
curStep varchar(50)
RoleLogin
PK roleID varchar(10)
dbRoleName varchar(255)
dbRolePassword varchar(255)
dbPwdLastChanged datetime

FIG. 56-1C

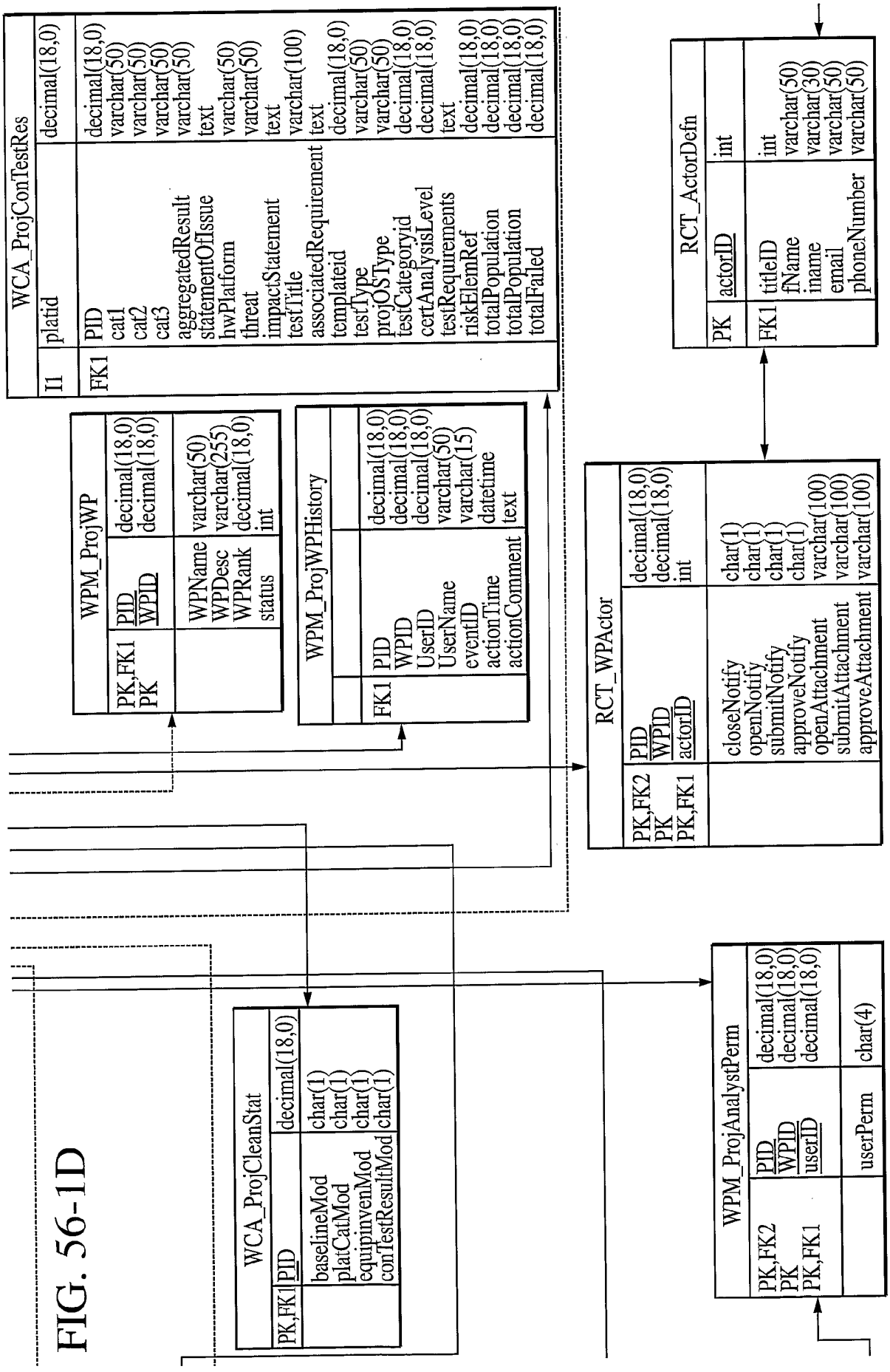

WCA_ProjConTestRes
I1 platid decimal(18,0)
FK1 PID decimal(18,0)
cat1 varchar(50)
cat2 varchar(50)
cat3 varchar(50)
aggregatedResult varchar(50)
statementOfIssue text
hwPlatform varchar(50)
threat varchar(50)
impactStatement text
testTitle varchar(100)
associatedRequirement text
templateid decimal(18,0)
testType varchar(50)
projOSType varchar(50)
testCategoryid decimal(18,0)
certAnalysisLevel decimal(18,0)
testRequirements text
riskElemRef decimal(18,0)
totalPopulation decimal(18,0)
totalPopulation decimal(18,0)
totalFailed decimal(18,0)
WPM_ProjWP
PK,FK1 PID decimal(18,0)
PK WPID decimal(18,0)
WPName varchar(50)
WPDesc varchar(255)
WPRank decimal(18,0)
status int
WPM_ProjWPHistory
FK1 PID decimal(18,0)
WPID decimal(18,0)
UserID decimal(18,0)
UserName varchar(50)
eventID varchar(15)
actionTime datetime
actionComment text
RCT_WPActor
PK,FK2 PID decimal(18,0)
PK WPID decimal(18,0)
PK,FK1 actorID int
closeNotify char(1)
openNotify char(1)
submitNotify char(1)
approveNotify char(1)
openAttachment varchar(100)
submitAttachment varchar(100)
approveAttachment varchar(100)
RCT_ActorDefn
PK actorID int
FK1 titleID int
fName varchar(50)
iname varchar(30)
email varchar(50)
phoneNumber varchar(50)
WCA_ProjCleanStat
PK,FK1 PID decimal(18,0)
baselineMod char(1)
platCatMod char(1)
equipinvenMod char(1)
conTestResultMod char(1)
WPM_ProjAnalystPerm
PK,FK2 PID decimal(18,0)
PK WPID decimal(18,0)
PK,FK1 userID decimal(18,0)
userPerm char(4)

FIG. 56-1D

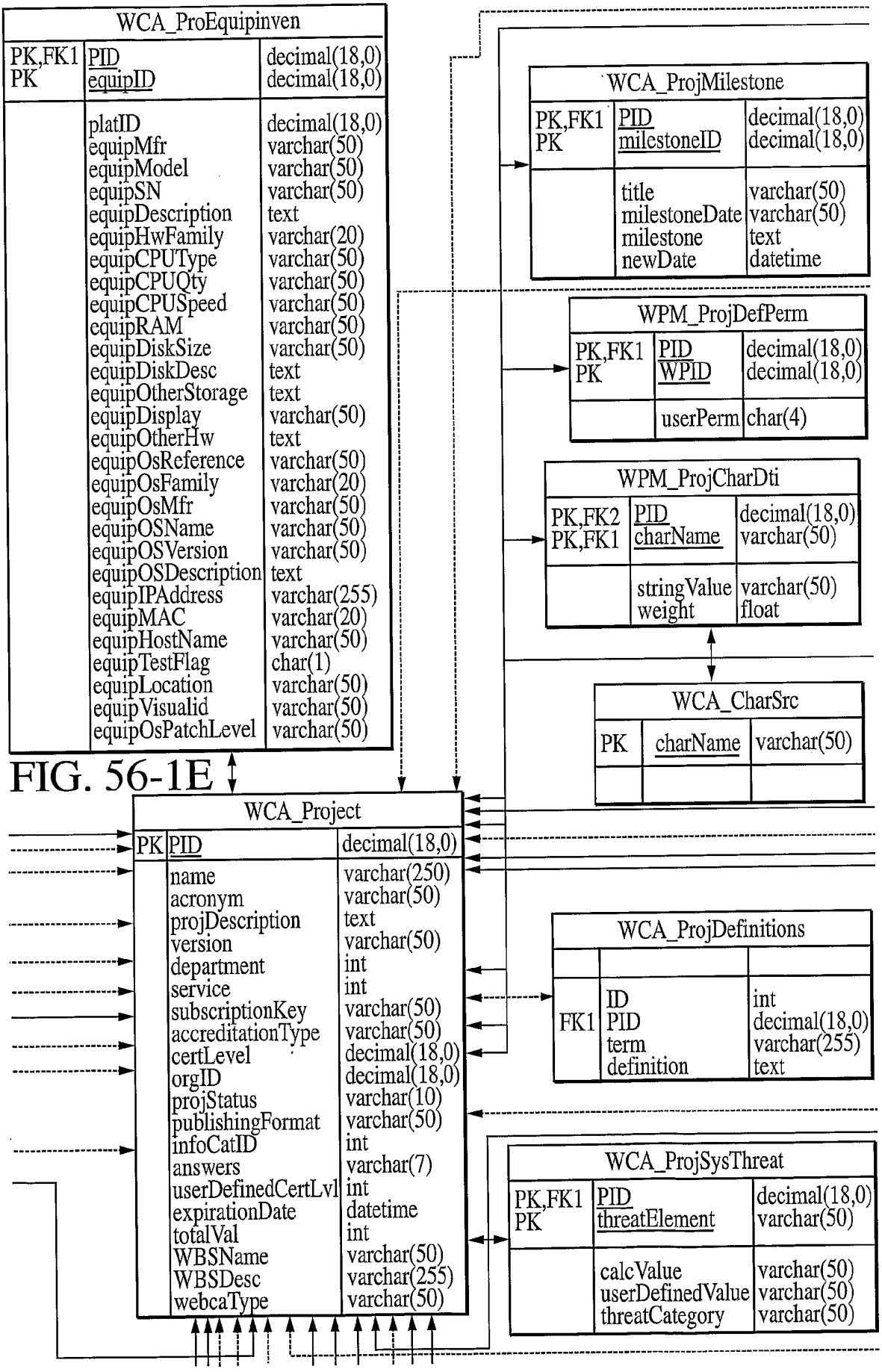

WCA_ProEquipinven
PK,FK1 PID decimal(18,0)
PK equipID decimal(18,0)
platID decimal(18,0)
equipMfr varchar(50)
equipModel varchar(50)
equipSN varchar(50)
equipDescription text
equipHwFamily varchar(20)
equipCPUType varchar(50)
equipCPUQty varchar(50)
equipCPUSpeed varchar(50)
equipRAM varchar(50)
equipDiskSize varchar(50)
equipDiskDesc text
equipOtherStorage text
equipDisplay varchar(50)
equipOtherHw text
equipOsReference varchar(50)
equipOsFamily varchar(20)
equipOsMfr varchar(50)
equipOSName varchar(50)
equipOSVersion varchar(50)
equipOSDescription text
equipIPAddress varchar(255)
equipMAC varchar(20)
equipHostName varchar(50)
equipTestFlag char(1)
equipLocation varchar(50)
equipVisualid varchar(50)
equipOsPatchLevel varchar(50)
WCA_ProjMilestone
PK,FK1 PID decimal(18,0)
PK milestoneID decimal(18,0)
title varchar(50)
milestoneDate varchar(50)
milestone text
newDate datetime
WPM_ProjDefPerm
PK,FK1 PID decimal(18,0)
PK WPID decimal(18,0)
userPerm char(4)
WPM_ProjCharDti
PK,FK2 PID decimal(18,0)
PK,FK1 charName varchar(50)
stringValue varchar(50)
weight float
WCA_CharSrc
PK charName varchar(50)
WCA_Project
PK PID decimal(18,0)
name varchar(250)
acronym varchar(50)
projDescription text
version varchar(50)
department int
service int
subscriptionKey varchar(50)
accreditationType varchar(50)
certLevel decimal(18,0)
orgID decimal(18,0)
projStatus varchar(10)
publishingFormat varchar(50)
infoCatID int
answers varchar(7)
userDefinedCertLvl int
expirationDate datetime
totalVal int
WBSName varchar(50)
WBSDesc varchar(255)
webcaType varchar(50)
WCA_ProjDefinitions
FK1 ID int
PID decimal(18,0)
term varchar(255)
definition text
WCA_ProjSysThreat
PK,FK1 PID decimal(18,0)
PK threatElement varchar(50)
calcValue varchar(50)
userDefinedValue varchar(50)
threatCategory varchar(50)

FIG. 56-1E

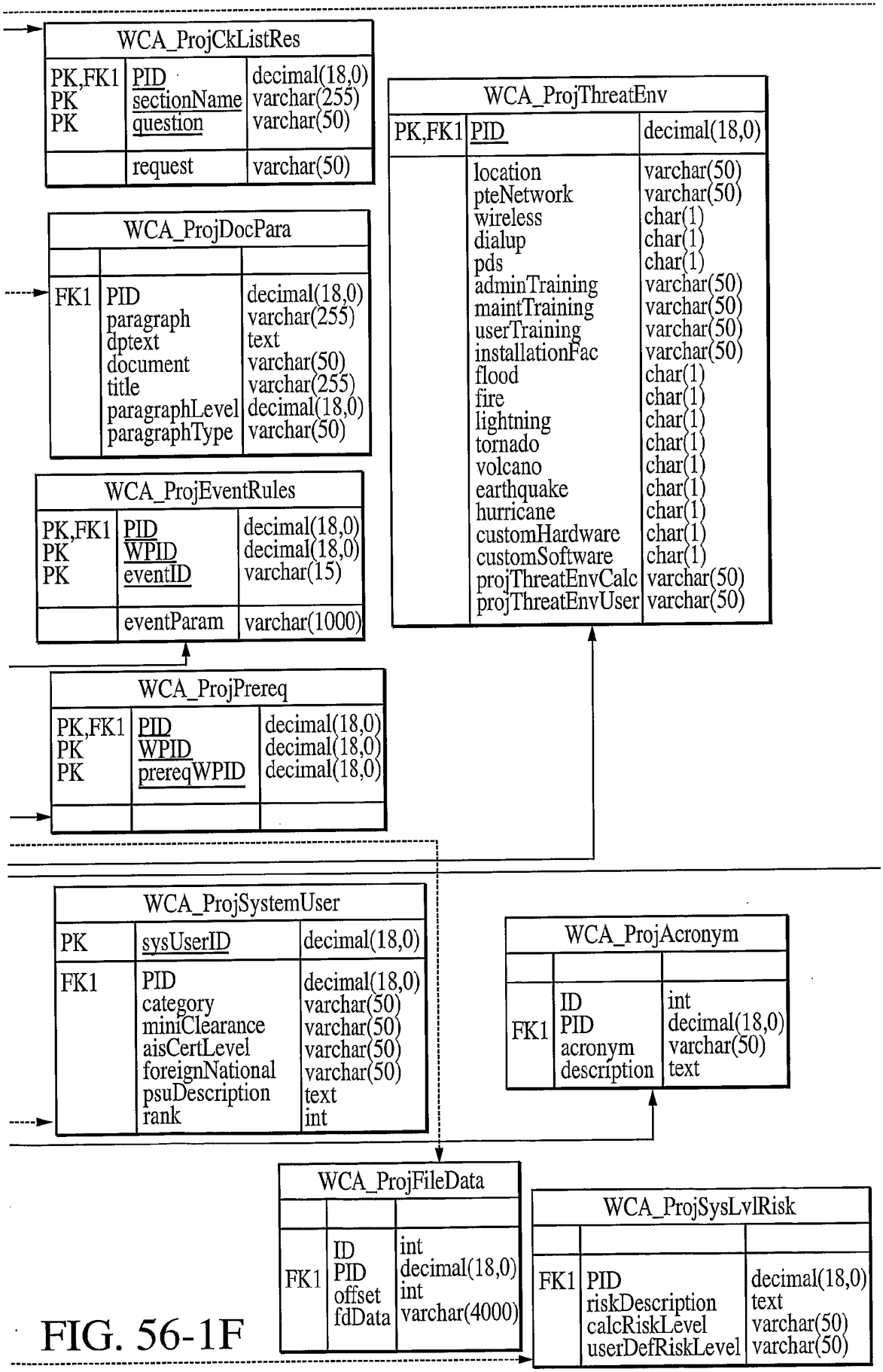

WCA_ProjCkListRes
PK,FK1 PID decimal(18,0)
PK sectionName varchar(255)
PK question varchar(50)
request varchar(50)
WCA_ProjDocPara
FK1 PID decimal(18,0)
paragraph varchar(255)
dptext text
document varchar(50)
title varchar(255)
paragraphLevel decimal(18,0)
paragraphType varchar(50)
WCA_ProjEventRules
PK,FK1 PID decimal(18,0)
PK WPID decimal(18,0)
PK eventID varchar(15)
eventParam varchar(1000)
WCA_ProjPrereq
PK,FK1 PID decimal(18,0)
PK WPID decimal(18,0)
PK prereqWPID decimal(18,0)
WCA_ProjThreatEnv
PK,FK1 PID decimal(18,0)
location varchar(50)
pteNetwork varchar(50)
wireless char(1)
dialup char(1)
pds char(1)
adminTraining varchar(50)
maintTraining varchar(50)
userTraining varchar(50)
installationFac varchar(50)
flood char(1)
fire char(1)
lightning char(1)
tornado char(1)
volcano char(1)
earthquake char(1)
hurricane char(1)
customHardware char(1)
customSoftware char(1)
projThreatEnvCalc varchar(50)
projThreatEnvUser varchar(50)
WCA_ProjSystemUser
PK sysUserID decimal(18,0)
FK1 PID decimal(18,0)
category varchar(50)
miniClearance varchar(50)
aisCertLevel varchar(50)
foreignNational varchar(50)
psuDescription text
rank int
WCA_ProjAcronym
FK1 ID int
PID decimal(18,0)
acronym varchar(50)
description text
WCA_ProjFileData
FK1 ID int
PID decimal(18,0)
offset int
fdData varchar(4000)
WCA_ProjSysLvlRisk
FK1 PID decimal(18,0)
riskDescription text
calcRiskLevel varchar(50)
userDefRiskLevel varchar(50)

FIG. 56-1F

WCA_ProjRqmt		
PK	projRqmtID	decimal(18,0)
FK1,I1	PID	decimal(18,0)
I1	regID	decimal(18,0)
	sourceDoc	varchar(50)
	paragraph	varchar(255)
	title	varchar(255)
	statedRequirement	varchar(4000)
	result	varchar(50)
	certReportRef	varchar(255)
	cat1	varchar(50)
	cat2	varchar(50)
	cat3	varchar(50)
	alreadyPulled	char(1)
	templateID	decimal(18,0)
	regType	char(1)
	allowEdit	decimal(18,0)
	testCategoryid	decimal(18,0)
	interviewFlag	char(1)
	observationFlag	char(1)
	documentFlag	char(1)
	testFlag	char(1)
	srtmResult	varchar(50)
	rqmtOrder	varchar(255)

WCA_ProjPlatCat		
PK,FK1	PID	decimal(18,0)
PK	platID	decimal(18,0)
	platCategory	varchar(50)
	platDescription	text
	platQtyEstimated	decimal(18,0)
	platQtyActual	decimal(18,0)
	platTestStrategy	char(5)
	platHwFamily	varchar(20)
	platMfr	varchar(50)
	platModel	varchar(50)
	platCpuType	varchar(50)
	platCpuQty	varchar(50)
	platCpuSpeed	varchar(50)
	platRam	varchar(50)
	platDiskSize	varchar(50)
	platDiskDesc	text
	platOtherStorage	text
	platDisplay	varchar(50)
	platOtherHw	text
	platOsReference	varchar(50)
	platOsFamily	varchar(20)
	platOsMfr	varchar(50)
	platOsName	varchar(50)
	platOsVersion	varchar(50)
	platOsPatchLevel	varchar(50)
	platOsDescription	text
	platipAddress	varchar(255)
	platSn	varchar(50)
	platLocation	varchar(50)
	platVisualid	varchar(50)

FIG. 56-1G

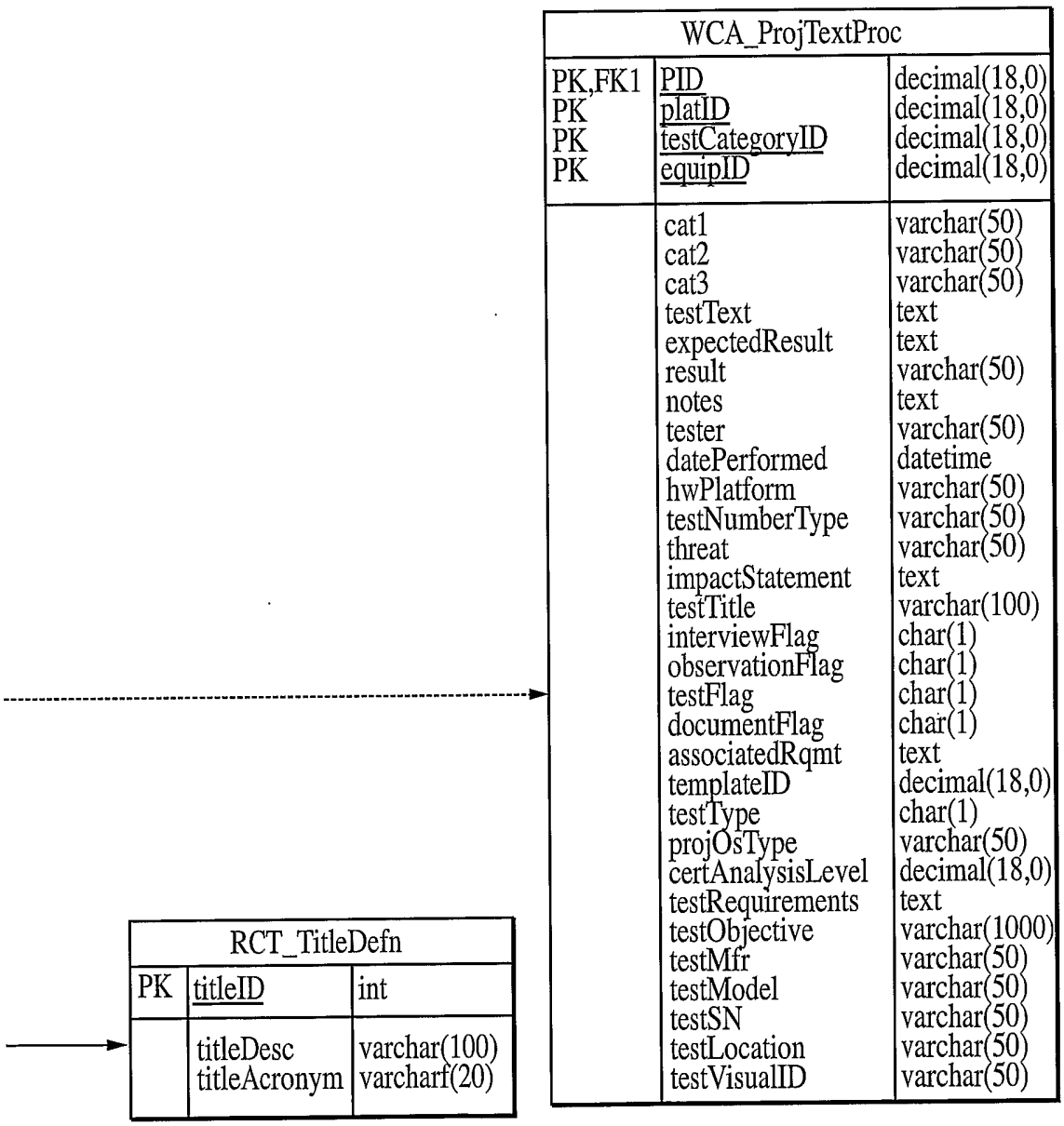

WCA_ProjTextProc
PK,FK1 PID decimal(18,0)
PK platID decimal(18,0)
PK testCategoryID decimal(18,0)
PK equipID decimal(18,0)
cat1 varchar(50)
cat2 varchar(50)
cat3 varchar(50)
testText text
expectedResult text
result varchar(50)
notes text
tester varchar(50)
datePerformed datetime
hwPlatform varchar(50)
testNumberType varchar(50)
threat varchar(50)
impactStatement text
testTitle varchar(100)
interviewFlag char(1)
observationFlag char(1)
testFlag char(1)
documentFlag char(1)
associatedRqmt text
templateID decimal(18,0)
testType char(1)
projOsType varchar(50)
certAnalysisLevel decimal(18,0)
testRequirements text
testObjective varchar(1000)
testMfr varchar(50)
testModel varchar(50)
testSN varchar(50)
testLocation varchar(50)
testVisualID varchar(50)
RCT_TitleDefn
PK titleID int
titleDesc varchar(100)
titleAcronym varcharf(20)

FIG. 56-1H

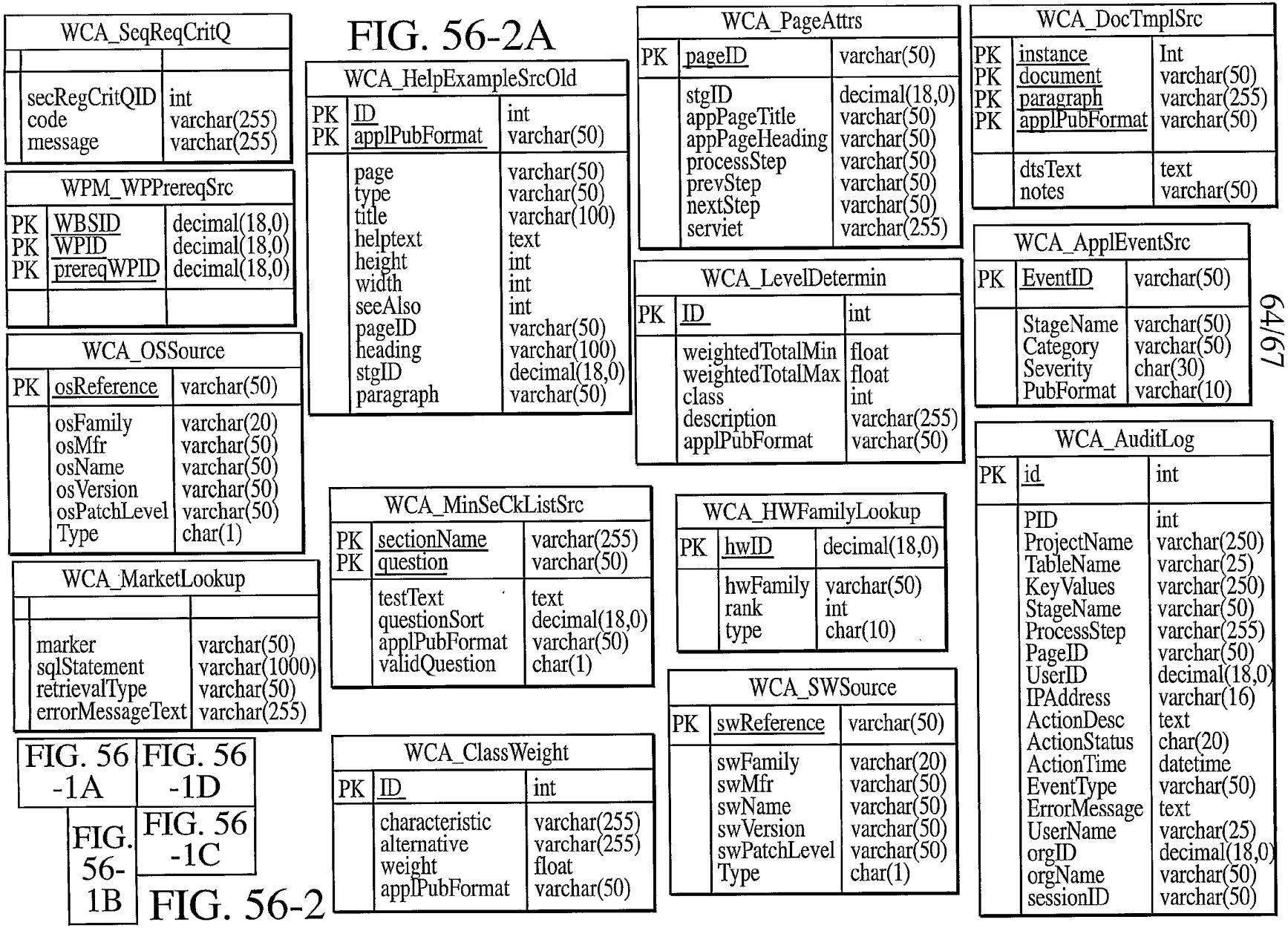


FIG. 56-1A	FIG. 56-1D
FIG. 56-1B	FIG. 56-1C

FIG. 56-2

WCA_LookupMgr		
PK	tableName	varchar(50)
PK	columnName	varchar(50)
	webCaLookupsID	decimal(18,0)
	lkupDescription	varchar(50)
	w/Size	decimal(18,0)
	displayable	char(1)
	required	char(1)
	valuesLkTableName	varchar(30)

WPM_State		
PK	state	varchar(15)
	status	int

WPM_StateTranLkp		
PK	eventID	varchar(15)
PK	InitialStatus	int
PK	FinalStatus	int

WCA_TestProcSrc		
PK	templateID	decimal(18,0)
	cat1	varchar(50)
	cat2	varchar(50)
	cat3	varchar(50)
	osType	varchar(50)
	testText	text
	expectedResult	text
	testinstance	varchar(50)
	testTitle	varchar(100)
	certAnalysisLevel	decimal(10,0)
	threat	varchar(50)
	impactStatement	text
	interviewFlag	char(1)
	observationFlag	char(1)
	testFlag	char(1)
	documentFlag	char(1)
	testCategoryID	decimal(18,0)

WCA_OsFamilyLookup		
PK	osID	decimal(18,0)
	osFamily	varchar(50)
	rank	int
	type	char(10)

WCA_InfoCategory		
PK	InfoCatID	int
	InfoCatName	varchar(60)
	InfoCatValue	varchar(5)
	rank	int
	weight	float

WPM_WPSrc		
PK	WBSID	decimal(18,0)
PK	WPID	decimal(18,0)
	WPName	varchar(50)
	WPDesc	varchar(255)
	WPRank	decimal(18,0)

WPM_EventRulesSrc		
PK	WBSID	decimal(18,0)
PK	WPID	decimal(18,0)
PK	eventID	varchar(15)
	eventParam	varchar(1000)

TableKeys		
PK	TableName	varchar(30)
PK	ColumnName	varchar(30)
	KeyValue	decimal(18,0)

WCA_SwFamilyLookup		
PK	swID	decimal(18,0)
	swFamily	varchar(50)
	rank	int
	type	char(10)

WCA_SysUserCategory		
PK	sysUserCategory	int
	category	
	categoryType	

WCA_DocParaTTLSrc	
title	varchar(60)
paragraph	varchar(50)
document	varchar(50)
applPubFormat	varchar(50)
paragraphLevel	int
paragraphType	varchar(50)

AppProps		
PK	propName	varchar(255)
PK	AppName	varchar(20)
	PropVal	varchar(255)

WPM_PSSrc		
PK	WBSID	decimal(18,0)
PK	WPID	decimal(18,0)
PK	processStep	varchar(60)
	PSRank	decimal(18,0)
	PSName	varchar(50)
	PSDesc	varchar(255)
	pageID	varchar(50)

UserPwdHistory		
PK	userID	decimal(18,0)
PK	userPassword	varchar(50)
	lastModified	datetime

WCA_MLSecClass	
ID	int
maxDateClass	varchar(255)
minUserClear	varchar(255)
case1	varchar(255)
case2	varchar(255)
case3	varchar(255)

AuditObjects	
id	int
tableName	varchar(25)
tableKeys	varchar(4000)
tableAction	varchar(25)

WCA_PublishFmt	
publishingCode	char(2)
pfDescription	varchar(60)

FIG. 56-2B

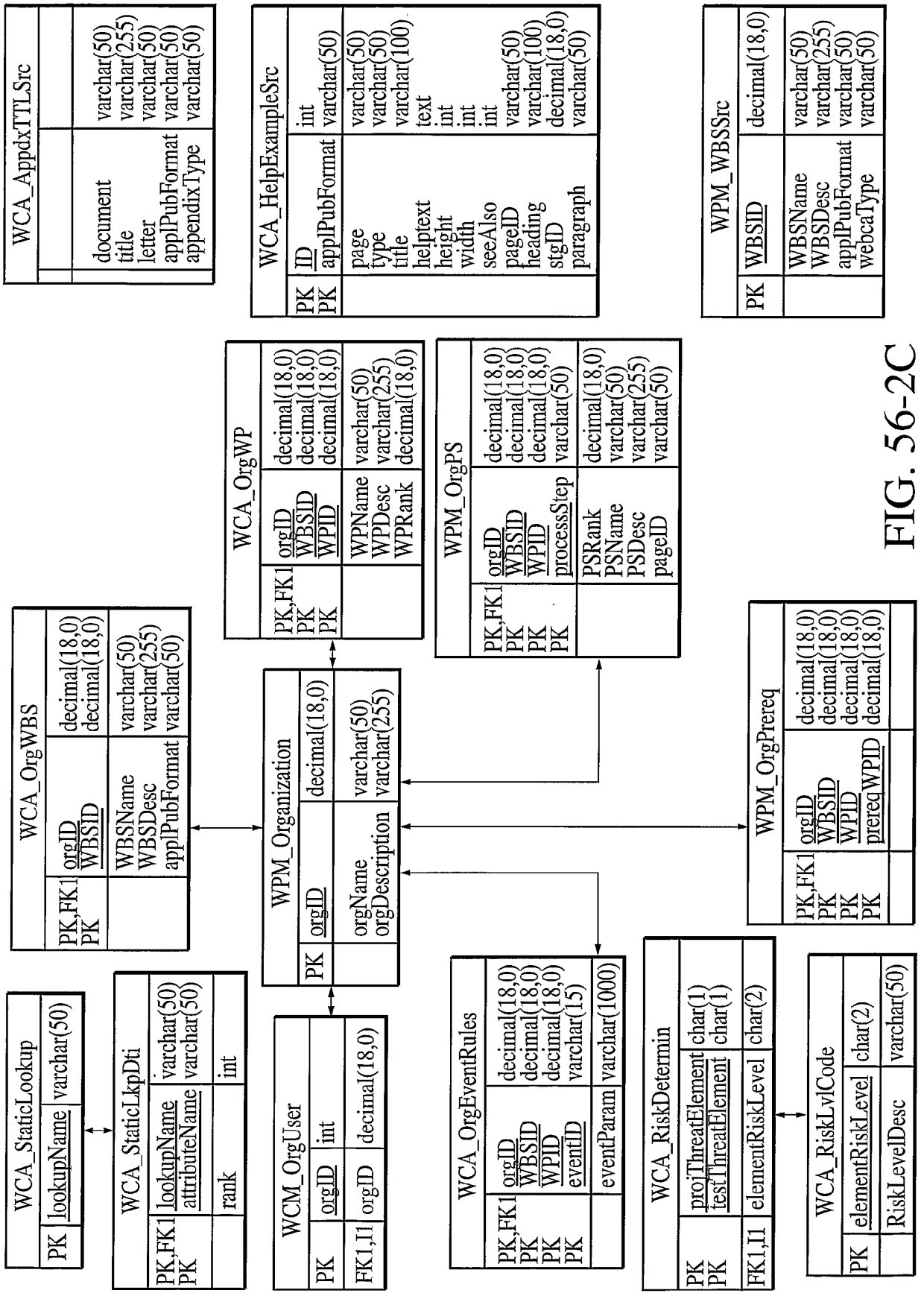

WCA_AppdxTTLSrc
document varchar(50)
title varchar(255)
letter varchar(50)
applPubFormat varchar(50)
appendixType varchar(50)
WCA_HelpExampleSrc
PK ID int
PK applPubFormat varchar(50)
page varchar(50)
type varchar(50)
title varchar(100)
helptext text
height int
width int
seeAlso int
pageID varchar(50)
heading varchar(100)
stgID decimal(18,0)
paragraph varchar(50)
WPM_WBSSrc
PK WBSID decimal(18,0)
WBSName varchar(50)
WBSDesc varchar(255)
applPubFormat varchar(50)
webcaType varchar(50)
WCA_OrgWBS
PK,FK1 orgID decimal(18,0)
PK WBSID decimal(18,0)
WBSName varchar(50)
WBSDesc varchar(255)
applPubFormat varchar(50)
WCA_OrgWP
PK,FK1 orgID decimal(18,0)
PK WBSID decimal(18,0)
PK WPID decimal(18,0)
WPName varchar(50)
WPDesc varchar(255)
WPRank decimal(18,0)
WPM_OrgPS
PK,FK1 orgID decimal(18,0)
PK WBSID decimal(18,0)
PK WPID decimal(18,0)
PK processStep varchar(50)
PSRank decimal(18,0)
PSName varchar(50)
PSDesc varchar(255)
pageID varchar(50)
WPM_Organization
PK orgID decimal(18,0)
orgName varchar(50)
orgDescription varchar(255)
WCA_StaticLookup
PK lookupName varchar(50)
WCA_StaticLkpDti
PK,FK1 lookupName varchar(50)
PK attributeName varchar(50)
rank int
WCM_OrgUser
PK orgID int
FK1,I1 orgID decimal(18,0)
WPM_OrgPrereq
PK,FK1 orgID decimal(18,0)
PK WBSID decimal(18,0)
PK WPID decimal(18,0)
PK prereqWPID decimal(18,0)
WCA_OrgEventRules
PK,FK1 orgID decimal(18,0)
PK WBSID decimal(18,0)
PK WPID decimal(18,0)
PK eventID varchar(15)
eventParam varchar(1000)
WCA_RiskDetermin
PK projThreatElement char(1)
PK testThreatElement char(1)
FK1,I1 elementRiskLevel char(2)
WCA_RiskLvlCode
PK elementRiskLevel char(2)
RiskLevelDesc varchar(50)

FIG. 56-2C

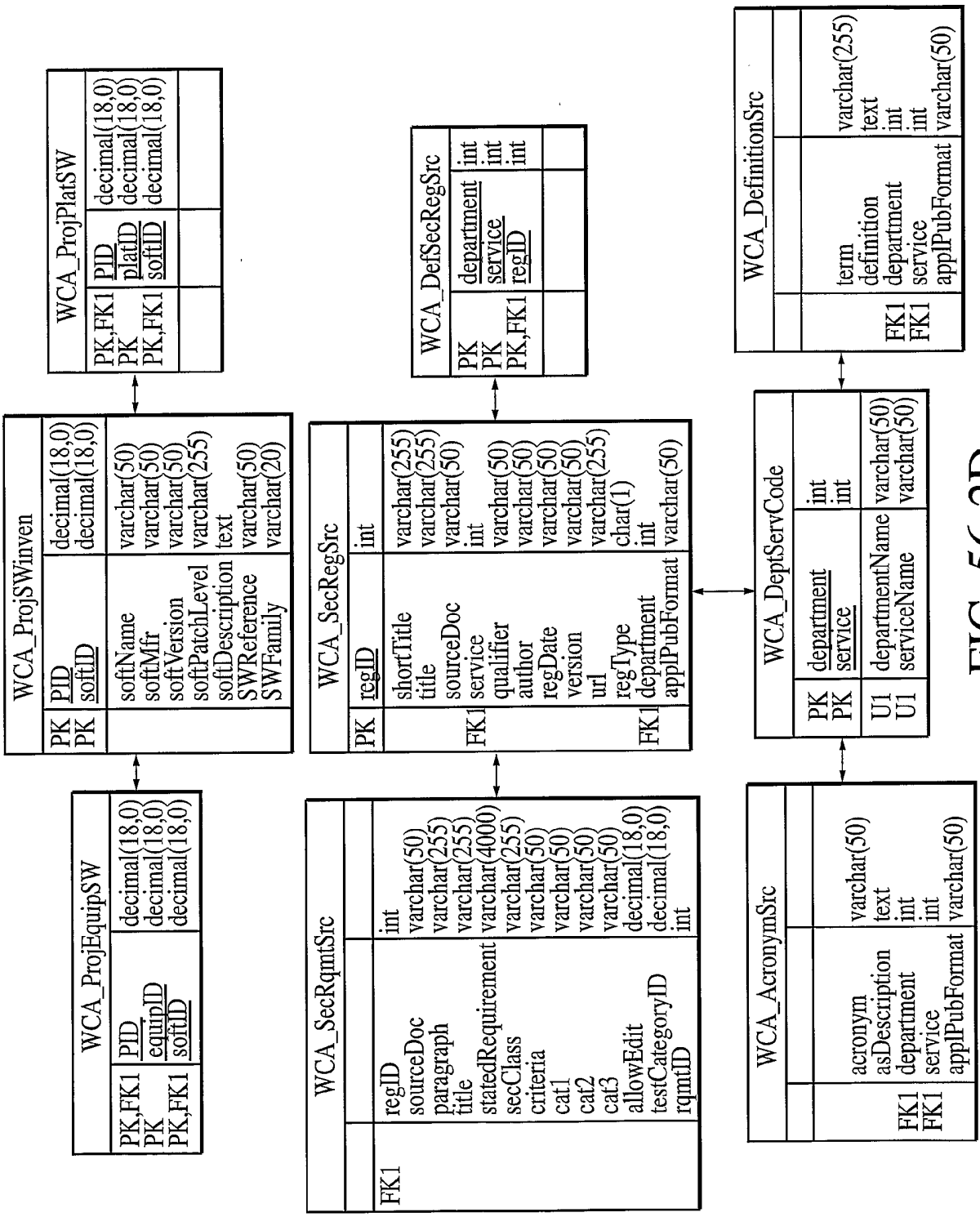

WCA_ProjPlatSW
PK,FK1 PID decimal(18,0)
PK platID decimal(18,0)
PK,FK1 softID decimal(18,0)
WCA_ProjSWinven
PK PID decimal(18,0)
PK softID decimal(18,0)
softName varchar(50)
softMfr varchar(50)
softVersion varchar(50)
softPatchLevel varchar(255)
softDescription text
SWReference varchar(50)
SWFamily varchar(20)
WCA_DefSecRegSrc
PK department int
PK service int
PK,FK1 regID int
WCA_DefinitionSrc
term varchar(255)
definition text
FK1 department int
FK1 service int
applPubFormat varchar(50)
WCA_ProjEquipSW
PK,FK1 PID decimal(18,0)
PK equipID decimal(18,0)
PK,FK1 softID decimal(18,0)
WCA_SecRegSrc
PK regID int
shortTitle varchar(255)
title varchar(255)
sourceDoc varchar(50)
FK1 service int
qualifier varchar(50)
author varchar(50)
regDate varchar(50)
version varchar(50)
url varchar(255)
regType char(1)
FK1 department int
applPubFormat varchar(50)
WCA_DeptServCode
PK department int
PK service int
U1 departmentName varchar(50)
U1 serviceName varchar(50)
WCA_SecRqmtSrc
FK1 regID int
sourceDoc varchar(50)
paragraph varchar(255)
title varchar(255)
statedRequirement varchar(4000)
secClass varchar(255)
criteria varchar(50)
cat1 varchar(50)
cat2 varchar(50)
cat3 varchar(50)
allowEdit decimal(18,0)
testCategoryID decimal(18,0)
rqmtID int
WCA_AcronymSrc
acronym varchar(50)
asDescription text
FK1 department int
FK1 service int
applPubFormat varchar(50)

FIG. 56-2D