CLAIMS:

What is claimed is:

1. A method executed by at least one processor for navigating a path of hierarchical menu levels adapted for output to a user interface (UI), the method comprising:

providing, by at least one processor, a first command for a first menu of one or more user-selectable menu items to be displayed on a first portion of a user interface (UI) display; and

providing, by the at least one processor, a second command for a second menu of one or more user-selectable menu items to be displayed on the first portion of the UI display in response to a user's selection of a user-selectable menu item from the first menu, the second menu being a submenu of the first menu in a hierarchical menu structure,

providing, by the at least one processor, a relocation command for the one or more user-selectable menu items of the first menu to be relocated to a second portion of the UI display and removed from the first portion in response to the user's selection,

wherein, in response to the user's selection, the first menu is adapted to be displayed on the second portion of the UI display and comprises one or more of a past-selected menu item and a past-unselected menu item of the first menu and is adapted to be concurrently viewed in the second portion with the second menu in the first portion.

2. The method of claim 1, wherein the one or more user-selectable menu items of the second menu are at more than one hierarchical menu level lower than the first menu in the hierarchical menu structure.

3. The method of claim 1, wherein the past-unselected menu item includes a menu item from a previously navigated hierarchical menu level.

4. The method of claim 1, wherein the first portion comprises an active portion, which includes one or more current user-selectable menu items, and the second portion comprises a historical portion, which includes one or more historical user-selectable menu items previously made available to a user.

5. The method of claim 1, wherein the first portion and the second portion are adapted to be displayed in a first visual orientation and a second visual orientation, respectively.

6. The method of claim 5, wherein the second visual orientation is substantially orthogonal to the first visual orientation.

7. The method of claim 5, wherein the first visual orientation is a vertical orientation and the second visual orientation is a horizontal orientation.

8. The method of claim 5, wherein the first visual orientation is configured to provide the one or more user-selectable menu items of the first menu or the second menu in one or more of a vertical, horizontal, or concentric orientation.

9. The method of claim 5, wherein the second visual orientation is configured to provide the one or more user-selectable menu items of the first menu in one or more of a vertical, horizontal, or concentric orientation.

10. The method of claim 5, wherein the first visual orientation is one or more of parallel, orthogonal, vertical, horizontal, and concentric to the second visual orientation.

11. The method of claim 1, wherein a manner in which the one or more user-selectable menu items of the first menu or of the second menu are adapted to be displayed is based on an attribute selected from one or more of:

(a) being a selected menu item;

(b) having a position in a list more central relative to other user-selectable menu items in the list;

(c) being available or unavailable to a user;

(d) containing one or more characters typed by a user; and

(e) being part of an advanced context menu.

12. The method of claim 11, wherein the one or more user-selectable menu items of the first menu is a first set of menu items, and wherein the one or more user-selectable menu items of the second menu is a second set of menu items, wherein the manner in which the first set or second set of user-selectable menu items are adapted to be displayed includes one or both of:

(a) emphasizing user-selectable menu items of the first set or the second set that are one or more of: the selected menu item, positioned in a decision-making zone of the first portion, or available to the user; and

(b) deemphasizing user-selectable menu items of the first set or the second set that are one or more of: not the selected menu item, positioned away from the decision-making zone, or unavailable to the user.

13. The method of claim 12, wherein the user-selectable menu items of the first set or the second set are adapted to be emphasized by one or more of highlighting, bolding, making larger, underlining, or positioning on the UI display relative to other user-selectable menu items of the first set or the second set.

14. The method of claim 12, wherein the user-selectable menu items of the first set or the second set are adapted to be deemphasized by one or more of fading, making smaller, or positioning on the UI display relative to other user-selectable menu items.

15. The method of claim 12, wherein the decision-making zone is adapted to be displayed in a centrally located area of the first portion.

16. The method of claim 1, further comprising

providing, by the at least one processor, a background command to cause the display of a background adapted to contrast with the first menu and the second menu, wherein the first menu and the second menu are adapted to be displayed on the background.

17. The method of claim 16, wherein the background comprises pixels, wherein at least 75% of the pixels are monochromatic.

18. The method of claim 16, wherein the background comprises pixels, wherein at least 75% of the pixels are black.

19. The method of claim 1, wherein the second portion is adapted to be displayed across a smaller area than the first portion.

20. The method of claim 1, wherein the each step of providing is performed by the at least one processor by executing a computer application stored on a machine.

21. The method of claim 20, wherein the computer application comprises an application for manipulating, designing, performing, reviewing, measuring, or analyzing an experiment.

22. The method of claim 21, wherein the experiment comprises one or more assays.

23. The method of claim 21, wherein the experiment 40 comprises one or more electrochemiluminescence assays.

24. The method of claim 20 further comprising providing an exclusion command to exclude menu items from being displayed based on at least one of:

(a) menu items designated as unavailable in a present module;

(b) menu items designated as unavailable to a user;

(c) menu items designated as unavailable to an aggregation of users;

(d) menu items designated as unavailable to a particular machine storing the one or more copies of the computer application; and

(e) menu items designated as unavailable to an aggregation of machines, each storing one or more copies of the computer application.

25. The method of claim 1 further comprising providing a limiting command to limit a total number of displayed user-selectable menu items to be displayed based on at least one of:

(a) frequency with which a user has previously selected the displayed user-selectable menu items while logged into his/her account;

(b) frequency with which at least two users have previously selected the displayed user-selectable menu items while logged into an account;

(c) frequency with which a user has previously selected the displayed user-selectable menu items while logged into an account associated with multiple accounts;

(d) frequency with which at least two users have previously selected the displayed user-selectable menu items while logged into one or more accounts associated with multiple accounts;

(e) frequency with which any users have previously selected the displayed user-selectable menu items while logged into any account; and

(f) frequency with which any users have previously selected the displayed user-selectable menu items while logged into any account associated with multiple accounts.

26. The method of claim 25, wherein the multiple accounts of elements (c), (d), and (f) are accounts associated with a team and the users are team members of the team associated with the multiple accounts.

27. The method of claim 25, wherein the frequency is determined over a defined time period.

28. The method of claim 25, wherein the frequency is 50% or more of previous user login sessions during which the user has previously selected the displayed user-selectable menu items.

29. The method of claim 25, wherein the frequency is 80% or more of previous user login sessions during which the user has previously selected the displayed user-selectable menu items.

30. The method of claim 1, wherein the first menu and the second menu are adapted to collectively display fewer than seven user-selectable menu items at any given point in time.

31. The method of claim 1 further comprising providing a third command for a third menu of one or more user-selectable menu items to be displayed on a third portion of the UI display, wherein the third menu is adapted to be concurrently viewed with the first portion and the second portion of the UI display.

32. The method of claim 1 further comprising:

providing a third command for a third menu of user-selectable menu items to be displayed on the first portion of the UI display in response to a user's selection from the second menu, and

providing a second relocation command to relocate the second menu to the second portion in response to the user's selection from the second menu.

33. The method of claim 32, wherein the second portion further comprises a submenu, wherein the submenu comprises one or more of a past-selected sub-menu item and a past-unselected submenu item selected among at least one lower hierarchical menu level of one or more of the first, second, and third menus.

34. The method of claim 1, wherein the one or more user-selectable menu items selected for display as the second menu are selected according to the user's selection of the user-selectable menu item from the first menu.

35. The method of claim 1, wherein the one or more user-selectable menu items of the first menu are non-overlapping with the one or more user-selectable menu items of the second menu.

36. The method of claim 1, wherein the first menu displayed on the second portion of the UI display includes the past-selected menu item and a plurality of past-unselected menu items, the user's selection was of the past-selected menu item, and the past-unselected menu items were previously displayed in the first portion prior to the user's selection.

37. A system for navigating a path of hierarchical menu levels adapted for output to a user interface (UI), the system comprising:

at least one processor;

a user input device; and

a computer readable storage medium configured to store a computer application, wherein the at least one processor is configured to execute instructions of the computer application for

providing a first command for a first menu of one or more user-selectable menu items to be displayed on a first portion of a user interface (UI) display, and

providing a second command for a second menu of one or more user-selectable menu items to be displayed on the first portion of the UI display in response to a user's selection of a user-selectable menu item from the first menu, the second menu being a submenu of the first menu in a hierarchical menu structure,

providing a relocation command for the one or more user-selectable menu items of the first menu to be relocated to a second portion of the UI display and removed from the first portion in response to the user's selection,

wherein the first menu is adapted to be displayed on the second portion of the UI display in response to the user's selection and comprises one or more of a past-selected menu item and a past-unselected menu item of the first menu and is adapted to be concurrently viewed in the second portion with the second menu in the first portion.

38. A non-transitory computer readable medium having computer instructions stored thereon that, when executed by a processor, cause the processor to carry out a method for navigating a path of hierarchical menu levels adapted for output to a user interface (UI) (GUI), the method comprising:

providing a first command for a first menu of one or more user-selectable menu items to be displayed on a first portion of a user interface (UI) display;

providing a second command for a second menu of one or more user-selectable menu items to be displayed on the first portion of the UI display in response to a user's selection of a user-selectable menu item from the first menu, the second menu being a submenu of the first menu in a hierarchical menu structure,

providing a relocation command for the one or more user-selectable menu items of the first menu to be relocated to a second portion of the UI display and removed from the first portion in response to the user's selection,

wherein the first menu is adapted to be displayed on the second portion of the UI display in response to the user's selection and comprises one or more of a past-selected menu item and a past-unselected menu item of the first menu and is adapted to be concurrently viewed in the second portion with the second menu in the first portion.

39. A method executed by at least one processor for navigating a path of hierarchical menu levels adapted for output to a user interface (UI), the method comprising:

providing, by at least one processor, a first command for a first menu of one or more user-selectable menu items to be displayed on a first portion of a user interface (UI) display;

providing, by the at least one processor, a second command for a second menu of one or more user-selectable menu items to be displayed on the first portion of the UI display in response to a user's selection of a user-selectable menu item from the first menu, the second menu being a submenu of the first menu in a hierarchical menu structure; and

providing, by the at least one processor, an advanced context menu adapted to be displayed in response to a selection of an advanced selector, wherein the first portion is adapted to display more than 50% of available menu items from a current menu currently displayed in the first portion based on one or more of: (1) available menu items selected most frequently by all users; (2) available menu items selected most frequently by a current user; or (3) standard protocol options, further wherein the advanced context menu is adapted to display remaining available items from the current menu;

wherein the one or more user-selectable menu items of the first menu are adapted to be relocated to a second portion of the UI display in response to the user's selection and comprises one or more of a past-selected menu item and a past-unselected menu item of the first menu and is adapted to be concurrently viewed in the second portion with the second menu in the first portion,

further wherein the second portion is adapted to display at least one menu item from among one or more previously navigated menu levels and subsequent menu levels to provide a visual representation of (1) a user's previous traversal of a menu hierarchy, and (2) future menu items that can be subsequently selected, and

further wherein the first portion is an active portion of the UI display that is adapted to be consistently displayed within a same area of the UI display to optimize a user's focus while interacting with the UI display.

40. The method of claim 39, wherein at least one menu item from a hierarchical menu level of the current menu currently displayed in the first portion is not displayed in the first portion.

41. The method of claim 40, wherein the advanced context menu displays the at least one menu item not displayed in the first portion.

42. A method executed by at least one processor for navigating a path of hierarchical menu levels adapted for output to a user interface (UI), the method comprising:

providing, by at least one processor, a first command for a first menu of one or more user-selectable menu items to be displayed on a first portion of a user interface (UI) display;

providing, by the at least one processor, a second command for a second menu of one or more user-selectable menu items to be displayed on the first portion of the UI display in response to a user's selection of a user-selectable menu item from the first menu, the second menu being a submenu of the first menu in a hierarchical menu structure;

providing, by the at least one processor, a permissions command, wherein the permissions command is adapted to manage one or more of a user's and team's levels of access, security, or control, wherein the levels of access are adapted to be assigned based on one or more of a role, user, team, account, instrument, equipment, or device; and

wherein the one or more user-selectable menu items of the first menu are adapted to be relocated to a second portion of the UI display in response to the user's selection and comprises one or more of a past-selected menu item and a past-unselected menu item of the first menu and is adapted to be concurrently viewed in the second portion with the second menu in the first portion,

further wherein the second portion is adapted to display at least one menu item from among one or more previously navigated menu levels and subsequent menu levels to provide a visual representation of (1) a user's previous traversal of a menu hierarchy, and (2) future menu items that can be subsequently selected, and

further wherein the first portion includes between two to five sub-sections displaying one or more user-selectable menu items, wherein the one or more user-selectable menu items of the two to five sub-sections are divided among the sub-sections, and the sub-sections are adapted to be displayed to show an association among the one or more user-selectable menu items from each of the respective two to five sub-sections.

43. The method of claim 42, wherein the second portion is adapted to display the user's previous traversal of a menu hierarchy representing selections made in the menu hierarchy to arrive at the second menu.

44. A method executed by at least one processor for navigating a path of hierarchical menu levels adapted for output to a user interface (UI), the method comprising:

providing, by at least one processor, a first command for a first menu of one or more user-selectable menu items to be displayed on a first portion of a user interface (UI) display;

providing, by the at least one processor, a second command for a second menu of one or more user-selectable menu items to be displayed on the first portion of the UI display in response to a user's selection of a user-selectable menu item from the first menu, the second menu being a submenu of the first menu in a hierarchical menu structure; and

providing, by the at least one processor, an output in response to a received response, wherein the output is adapted to be transmitted to a device communicatively connected to the at least one processor directing the device to perform a physical movement or undergo a physical transformation,

wherein the one or more user-selectable menu items of the first menu are adapted to be relocated to a second portion of the UI display after the user's selection and comprises one or more of a past-selected menu item and a past-unselected menu item of the first menu and is adapted to be concurrently viewed in the second portion with the second menu in the first portion,

further wherein the at least one processor is adapted to receive inputs from one or more users, accounts, or teams, wherein an aggregation of the inputs are adapted to collaboratively solve one or more problems, either sequentially or in parallel, further wherein each of the inputs is based on one or more of: (a) a module; (b) a problem or sub-problem to be solved; (c) a device; (d) a physical location; (e) a tool; (f) an instrument; or (g) equipment, and

further wherein the at least one processor is adapted to notify the one or more users, accounts, or teams, of the results derived from one or more of the inputs.

45. A method executed by at least one processor for navigating a path of hierarchical menu levels adapted for output to a user interface (UI), the method comprising:

providing, by at least one processor, a first command for a first menu of one or more user-

selectable menu items to be displayed on a first portion of a UI display; and

providing, by the at least one processor, a second command for a second menu of one or more user-selectable menu items to be displayed on the first portion of the UI display in response to a user's selection of a user-selectable menu item from the first menu, the second menu being a submenu of the first menu in a hierarchical menu structure,

wherein the one or more user-selectable menu items of the first menu are adapted to be relocated to a second portion of the UI display after the user's selection and comprises one or more of a past-selected menu item and a past-unselected menu item of the first menu and is adapted to be concurrently viewed in the second portion with the second menu in first portion,

further wherein the second portion is adapted to display at least one menu item from one or more of previously navigated menu levels and subsequent menu levels, wherein the menu items among a single menu level are adapted to be displayed in a linear fashion and the one or more previously navigated menu levels and subsequent menu levels are adapted to be displayed in a nested fashion,

further wherein the first portion comprises user-selectable menu items from no more than a single menu of items from a single hierarchical menu level at a any given point in time, and

further wherein the first portion includes between two to five sub-sections displaying one or more user-selectable menu items, wherein the one or more user-selectable menu items are divided among the sub-sections, and the sub-sections are adapted to be displayed to show an association among the one or more user-selectable menu items from each of the respective two to five sub-sections.

46. The method of claim 45, wherein the first menu is further adapted to be displayed in the second portion as a first previously navigated menu level.