1. **AutoCAD import** - has been greatly improved! You will experience fewer hiccups when importing a dwg file. You can now turn on/off layers and even change the primary color of a layer in your drawing. The algorithm for centering the layout after you’ve scaled the drawing has been improved, so you won’t have to go looking for the layout within the infinite 3D view window!
2. **Dockable windows** – our all new window docking system makes it easier to manage the many tools and windows available in FlexSim HC. You can even customize your workspace to fit your individual style/needs!
3. **Toolbox** - simplifies modeling tools by putting them all in one place where they’re easy to access. At a glance you’ll know what tools are currently used in your model. Pay attention to the right-click menu options for tools and their folders to see how you can easily add or duplicate tools, reorganize tools into subfolders and rename a tool.
4. **Quick Properties** - is a context sensitive tool window for editing whatever object, activity, view etc. that happens to be selected in the active document window. You can now change or view the properties of objects in your model with a single click. The Quick Properties tool is shown in the right pane by default. It can be resized and either moved to one of the other panes or undocked as desired. The Quick Properties, like other tool windows, is divided into several panels each of which can be collapsed or expanded as needed. This is helpful for organizing and displaying a large number of parameters.
5. **Library** - it’s context-sensitive to display a different set of options based on the window that is currently active. The large user-friendly icons are organized into collapsible panels to better fit smaller displays. When the 3D model view is active, you can left-click on one of the modeling objects in the library and see an icon grid of 3D shapes that you can choose from to be assigned as the default shape for that library object. You can also right-click a library object and see a list of all objects in the model of that type. Clicking one of the objects listed will highlight the object in the model and center it in the view.
6. **Track Manager** - the interface has been overhauled making it faster and more intuitive. All the parameter fields for activities (not just a select few) now contain a list of easy edit options to choose from which can be customized as needed. In addition, all the edit fields for any activity are now found in one convenient place, the Quick Properties window. No longer is a separate “Advanced Function” window required to edit certain parameters. The parameters are organized into collapsible panels according to function to help in finding the parameter you want. The panels that contain required parameters for the selected activity are initially expanded. Panels containing non-essential parameters will be collapsed unless entries have been made for any of their parameters in which case they will be expanded automatically.
7. **Sampler buttons** - rather than selecting from long lists you can sample objects in the model using an eyedropper - a huge speed and ease of use improvement!
8. **Patient Visuals**- you can now define a library of visual profiles (i.e. combination of a body type, head type, clothing color/texture and any accessories) that can be applied to patients at any point throughout the model run, allowing you to easily change patient appearance dynamically without any limitations.
9. **Patient Classification Index (PCI)** - the table interface has been improved and is accessible from both the toolbar and wherever PCI values are requested. The new PCI table now lets you specify a default visual profile and speed value in addition to the track designation, patient acuity and user-defined labels you’ve always been able to define for each PCI.
10. **3D Model View** - you can now have more than one 3D view window opened for your model.  Each view window can have its own settings and because you can dock the windows in any pattern you want, you’ll be able to mimic arrangements common in popular 3D editing programs that simultaneously show a top, side, front and perspective view of an object. You can also choose to view your model in full screen! You’ll find it easier to save and navigate between user-defined views of your model using the Quick Properties tool.
11. **Dashboards** - graphs, charts, digital displays, etc. are added to your dashboards by choosing widgets from a user-friendly library of icons that are conveniently organized into panels according to type. Dashboards are saved with your model automatically whether they are currently opened or closed, so no longer will you lose your dashboards just because you close the dashboard window!
12. **Sample Sets** - when choosing sample sets for a dashboard widget you can select the sample sets from a table rather than choosing them one by one from a list.
13. **Excel Import/Export** - it’s now easier than ever to import and export data between your model and an Excel workbook! The difficulties in working with data/time data has been eliminated with automatic data distinction. We’ve now standardized the format required for all standard table types (i.e. Global Table,  Shift Schedule, Hourly Arrivals, Appointments, Custom Arrivals, Item Schedule, Item Sequence, and PCI), so when using the new importer, it’s advised you first export a sample of the table you wish to import in order to learn the proper format.
14. **Shift Schedules** - we now have a much friendlier and intuitive interface for defining work schedules for staff as well as other types of objects in your model.  Within a single schedule you will be able to graphically mark the time periods when its members will be either available, off schedule, at lunch or on break. For each type of scheduled break, you are able to specify unique behavior such as whether or not the staff assigned to the schedule will get to take their full break if their break was delayed and what priority the break should have relative to other tasks the staff need to do.
15. **Props** - A new Prop library object can be assigned any one of the 3D shapes that are installed with the software or that you can find on the internet, and should be the object of choice for decorating your model. By checking the appropriate box in the prop’s Quick Properties, it can also be used as a staff destination.
16. **Graphical improvements** - shadows and shaders have been implemented in order to give a more realistic touch to your models. We’ve improved 3d rendering and added shadow rendering, specular highlights on 3ds objects, bump maps, parallax maps, stereoscopic 3D support, etc. So long as you have a machine and graphics card that can handle it, you’re in for a real treat! If not, go to main menu File > Global Preferences > Graphics and uncheck “Use Shaders.” In all cases, whether you just have Intel HD graphics or a full fledged NVIDIA GeForce GTX graphics card, you should update your graphics driver before giving up on the nicer graphics - it makes a difference!
17. **Resource offsets** - you can now define the default offsets (home base positions) by simply moving/rotating the individual staff/equipment/transports in the 3D view using your mouse, so long as the model has first been reset.
18. **Staff Requirements** - now work just like any other field letting you use pick list options or write code to get the behavior you want. It’s now an easy matter to assign staff based on the requesting patient’s location, destination, label or reservation! Assignments can also be made based on things like a percent probability, a tabular reference, or the time of day.
19. **People animations** - for staff and patients have been improved. Walking motions are smoother and more natural. Staff now position themselves relative to their destination better when escorting, transporting and processing patients. Eventually we plan on giving you even more control over the position and posture (i.e. sitting, standing, laying down, bending over, etc.) of patients and staff, but in the mean time the default positions and postures are much better than before.
20. **New modeling functionality:**
    * **Treating patients on gurneys/wheelchairs** - we’ve made some modifications so that modeling patients who stay with their transport (i.e. gurney, wheelchair) throughout multiple processing and transfer steps is much easier to do.
    * **Intermediate stops** - It’s a lot easier to model patients who need to make an intermediate stop on the way to their final destination. Having a patient stop at a scale to be weighed by the MA on the way to an available room can now be handled with a single escort activity and no other triggers or activities are required!
    * **Staff and Location lists** - new edit windows make it easier to define a list of objects for the many popular pick list options that require lists. And now you can even define your lists globally and reference them in more than one place in your model.
    * **Based on simulation time** - You’ll love the new way you can base decisions (e.g. Patient Destination, Processing Time, Next Activity, etc.) on what time it is in the simulation. It’s all done in a flexible table that can be configured in several different ways based on your model.
    * **Returning Equip/Trans** - you now have three options for defining how the equipment or transports used in an activity are returned to their primary group location: No Return, Low Priority Return or a High Priority Return.
21. **Patient status** - we’ve added more ways to dynamically monitor the progress of patients through your models so that you can more quickly validate and debug your model. Simply click on any patient in the model during run time and take advantage of what you’ll find  in the Statistics panel of Quick Properties. You’ll find the “Activity Table” to be very useful in figuring out what a patient has and is doing (or not doing) and why. Take note of the little edit icon in the top right of the table for specifying which columns you want displayed in the table. You can leave the table window open while running the model, and it will track the patient up unit it leaves the model.
22. **User Manual** - the manual has been totally rewritten by a professional technical writer and includes many more examples and tutorials. Although the manual continues to be context sensitive, it’s a document that if read from cover to cover will flow nicely and teach the fundamentals of building models in FlexSim HC. We plan to continually improve the manual by adding additional explanation and examples. For this reason, we’ve implemented an automated process of updating the manual within the software using remote pushes.
23. **Command Helper** - a simple tool making it easier than ever to search and learn about commands you may come across in the software.
24. **Autosave** - there’s a new feature to automatically save your model every so many minutes as defined in your Global Preferences. The version of your model that gets automatically saved will be named filename\_autosave.fsm. We’ve also added shortcuts for saving your model. Ctrl+S will save your model using the model’s current file name, and Ctrl+Shift+S will save your model in a new file with “\_#” appended onto the original file name where # is a counting number beginning with 1 and incremented with each save.
25. **Larger models** - now that the software is available as a 64-bit application or a 32-bit application, you are able to build much larger models than ever before so long as you have a 64-bit operating system and install the 64-bit version of the software!
26. **Advanced users** - we’ve added several new features for advanced users who would like to “look under the hood.” and possibly even customize the software with some of their own development!
    * The GUI Builder tool helps you create custom interface windows for editing or running models in unique ways.
    * User Libraries allow you to create, save and reuse objects/functionality from one model to the next.
    * Improved breakpoint debugging tool now works with patient activities and includes a separate window for displaying local variables, any user-defined watch variables and the call stack.
    * FlexScript Code Profiler for analyzing what time is spent where in running your model to help you optimize run speed.
    * Coding can be done within the software or through Visual Studios using either FlexScript or C++.
    * Animation Editor accessible through the Advanced Visuals panel of Quick Properties can be used to create custom keyframe animations for staff, equipment, transports, patients, items, and really any objects.