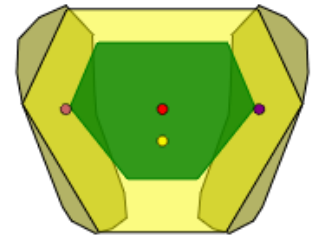


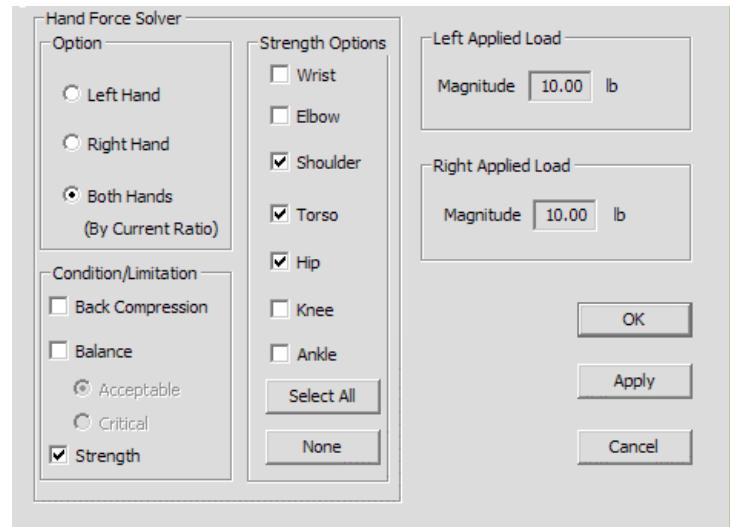
3DSSPP™ Version 7 – Summary of Select New Features

Animation – Frames can now have names, can have different Support Selections, movies can be exported from Stick-View windows, and data can be exported for a range of frames.

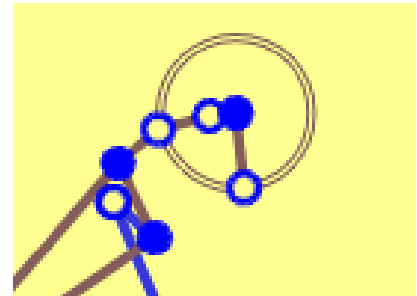
Balance – Includes a smaller area of Functional Stability Region based on more recent data. Foot force centers are also indicated. A new Center of Mass report lists the center of mass locations of all body segment along with the whole body.



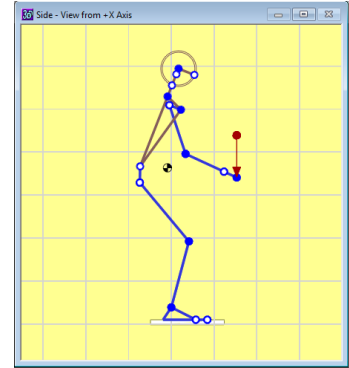
Hand Forces – A Hand Force Solver can be used to find the maximum hand force that satisfies various constraints like Back Compression, Balance, and Strength. This feature can be opened using a button found in the Hand Force Dialog.



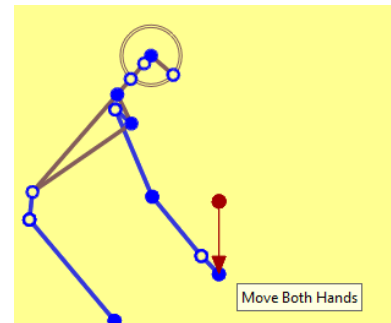
Head/Neck – The neck now has multiple segments and includes biomechanics with strength data.



Stick Views – Stick figures can now be moved, zoomed, grid lines can be added, and Center of Mass can be displayed.



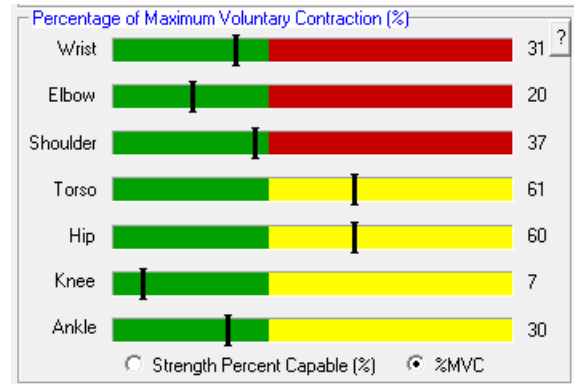
Posture Prediction – Control Key and Left Mouse Select can be used to move right and left joints together. Posture Prediction is also more accurate and attempts to place the Center of Pressure closer to the center of the Basis of Support.



Localized Fatigue – Limit values for the upper extremity are now included based upon Duty Cycle and displayed in the Status Window. The user must enter the Exertion Time Values and press Calculate. The calculated Duty Cycle is then compared with the recommended maximum values as calculated in the Localized Fatigue Report. For this example the calculated 20% duty cycle exceeds the 18 and 10% duty cycle limits for the wrist and the shoulder respectively, but the elbow is okay. The 4 seconds of exertion duration does not exceed the maximum static durations. The calculations can be based on an average, a somewhat weak, or a very weak population.

Localized Fatigue (25%tile Strength)	
Maximum Exertion Duty Cycle %	
Wrist	18
Elbow	30
Shoulder	10
Maximum Static Duration(s)	
Wrist	150
Elbow	387
Shoulder	54
Enter Exertion Times (s)	
Total Cycle Time	60
Exertions per Cycle	3
Exertion Duration	4
Exertion Duty Cycle %	
Exertion Duty Cycle	20.0
<input type="button" value="Calculate"/>	

Percentage of Maximum Voluntary Contraction – Limit values for the upper extremity are now included based upon Duty Cycle and displayed in the Status Window. The user must enter the Exertion Time Values and press Calculate.



Mouse Roller Button – The roller button can be used to increment and decrement selected dialog values including segment angles and hand force values. This works similar to the increment/decrement buttons in the dialogs.

