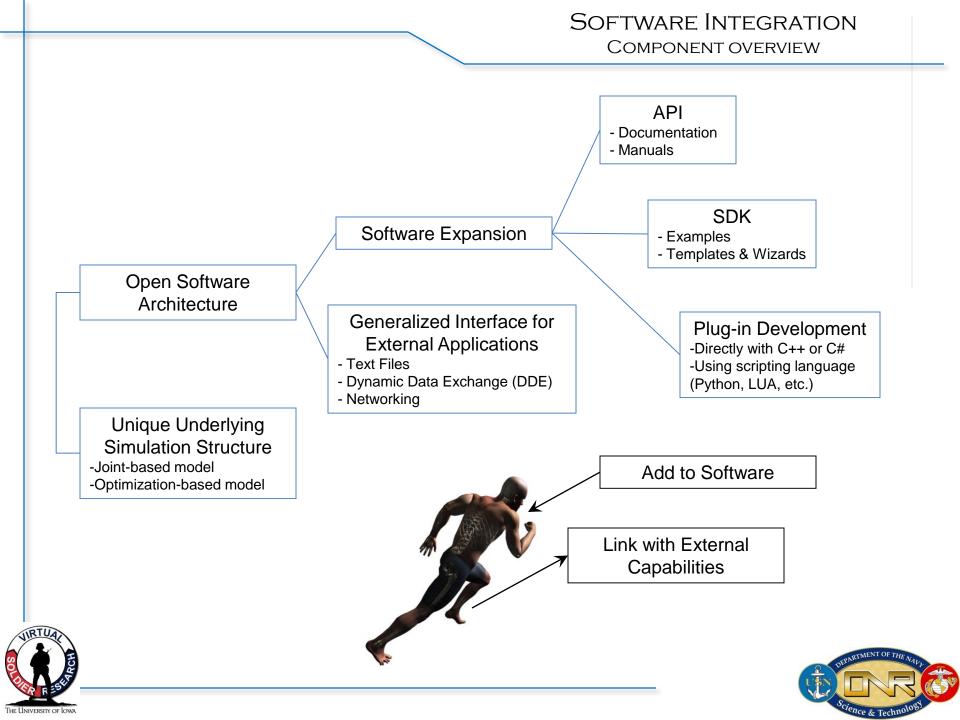
SANTOS

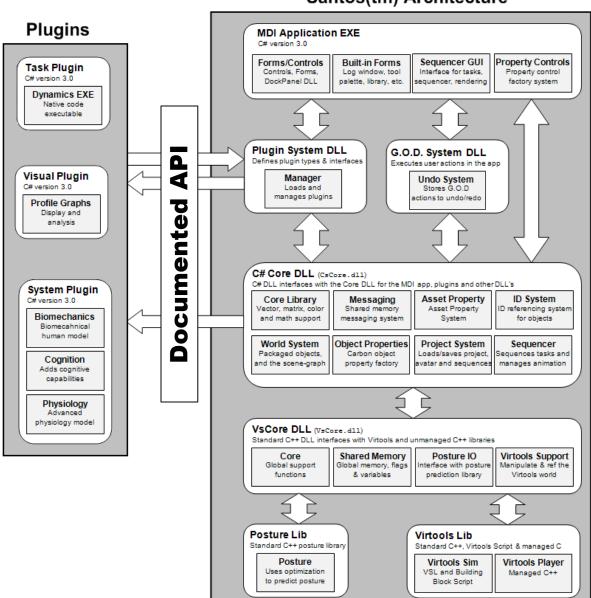
OPEN ARCHITECTURE API AND PLUG-INS











Santos(tm) Architecture





Plug-in Architecture

- •Offers robust & powerful API
- •C# DLLs using wizards and full SDK
- •Most challenging for developer to implement

External Applications

Use intermediate input/output format
Modules can be written in any language
More restrictive & less efficient

Scripting Language

- •Allows quick development in familiar language
- •Can be done directly from SANTOS[™] (no compiling)
- Limited API but customizable

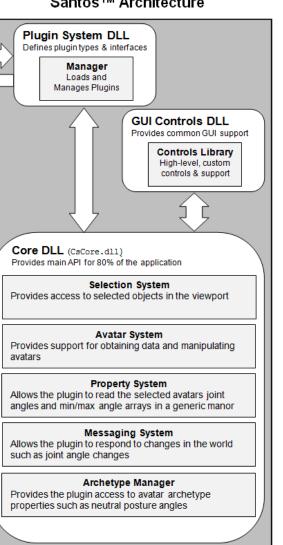




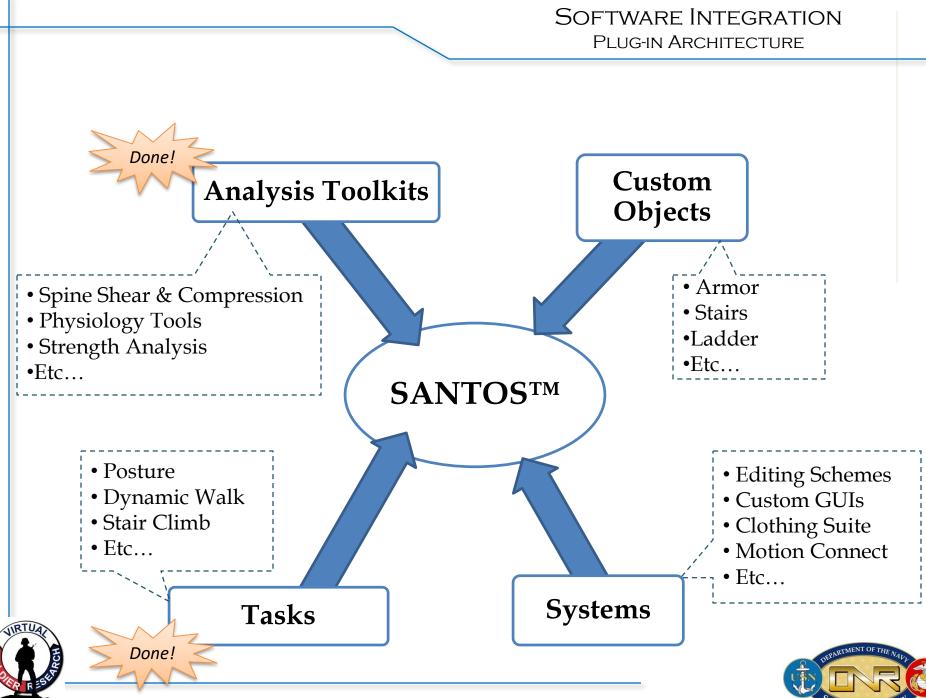
SOFTWARE INTEGRATION **EXAMPLE PLUG-IN ARCHITECTURE**

Static Joint ROM Plugin Plugins Santos[™] Architecture Plugin System DLL Plugin interfaces to Santos Joint ROM Plugin Static joint range-of-motions through our plugin system. Manager Visualizer Loads and Displays joint ROM Manages Plugins window & controls The plugin then uses our Core API to access 80% of all program functionality Joint ROM Viewer - C **X** • Santos Core DLL (CsCore.dll) Neck Neck_1 0 Neck_2 19 Neck_3 10 Head_1 10 Head_2 -35 Shoulder avatars -4.28 Clavicle_Right_1 Clavicle_Right_2 -13.98 Shoulder_Right_1 87.09 Shoulder_Right_2 39.68 Shoulder_Right_3 -136.03 Clavicle_Left_1 0 such as joint angle changes Clavicle_Left_2 -12.89 Shoulder_Left_1 80 Shoulder_Left_2 42.38 Shoulder_Left_3 -135 Arm Elbow_Right_1 -45.72 Wrist_Right_1 0 Meint Diabt 2

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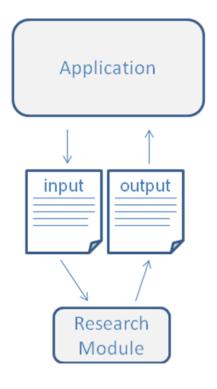






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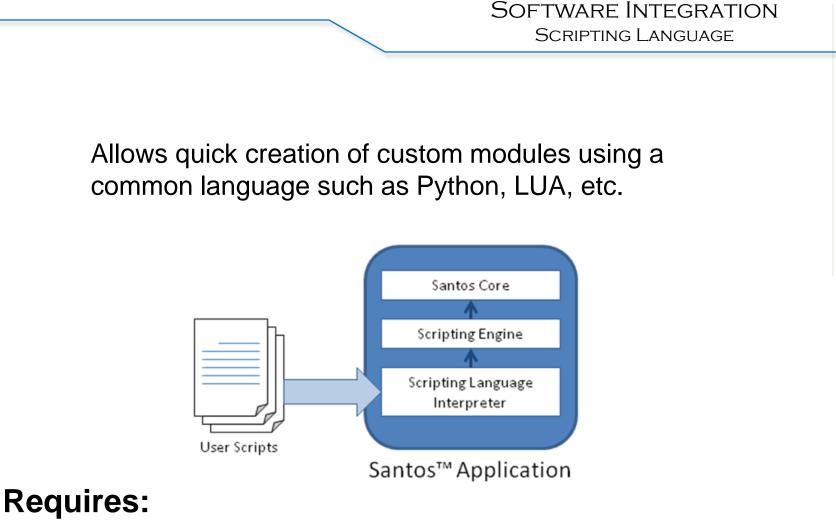
SOFTWARE INTEGRATION EXTERNAL APPLICATIONS



- Communicate through intermediate formats
 - -Text files
 - -Dynamic Data Exchange (DDE)
 - -Networking
- Can accommodate more rigid or legacy modules
- •Currently used for Predictive Dynamics, Zone-Diff, etc.







- Integration of a scripting language and interpreter
- Implementation of a robust API





