Revised: 28-July-2020

CompRender vs. MapIt

Compare key features between CompRender 2020 (V01.29.01) and MapIt 2017

	CompRender	MapIt
Coding Standards		
• Fortran 95 or better	✓	Partial
• Implicit NONE	✓	✗
• Use of INTENT for all arguments	✓	✗
• Use of FOSSIL Version Control System	✓	✗
SHCP Model Size	----------	----------
• Unlimited # of hulls, appendages, stations, points/station	✓	✗
• Unlimited # of decks, compartments, damage groups	✓	✗
SHCP Model Verification	----------	----------
• On Input: Duplicate Hull ID check	✓	✓
• On Input: Unused ID check	✓	✗
• On Input: Compartment Deck & Offset ID check	✓	✓
• On Input: Inner/Outer Offsets actual bounding compartment check ★ NEW ★	✓	✗
• On Input: Compartment Duplicate Name & # check	✓	✗
• Optional: HULL Offset data summary & On/Off	✓	✓
• Optional: HULL Offset symmetry display modification & user definable offset color	✓	✗
• Optional: DECK data summary	✓	✓
• Optional: COMPartment #s summary	✓	✓
• Optional: COMPartment data summary	✓	✓
• Optional: SUBdivision data summary	✓	✓
• Optional: Current compt. group (DAMTS, DAMLS)	✓	✓
ASA Model	----------	----------
• Support for all basic artifacts (portals, holes, sources, sinks, transfers, equipment, deck edges, flooding sensors)	✓	✓
• Support for all extended artifacts (deck edges, flooding sensors)	✓	✗
• Unlimited # of artifacts	✓	✗
• Support for OPENSTATUS data	✓	✗
ASA Model Verification	----------	----------
• On Input: Valid IDs, data, and compartment names	✓	✓
• Optional: Identical “To” and “From” compartments	✓	✓
• Optional: Duplicate artifact IDs	✓	✓
• Optional: Artifact to compartment adjacency check	✓	✗

	CompRender	MapIt
• Optional: Check for “stranded” compartments	✓	✗
• Optional: List non-referenced compartments	✓	✓
• Optional: List DECKEDGE data; Save & restore in linear or vertical format	✓	✗
• Optional: List FLOODSENSOR data; Save & restore in linear or vertical format	✓	✗
2D Drawings	----------	----------
• SCRIPT File Builder for DECK/WLASA & BUTTOCK cuts. Create basic SHCP DECK file. ★ NEW ★	✓	✗
• Create DXF file directly (no conversion program used)	✓	✗
• Waterline DRAFT or DECK cut	✓	✓
• WaterlineASA DRAFT/DECK cut	✓	✓
• WaterlineASA DRAFT/DECK cut w/ UPPER / LOWER	✓	✗
• Section cut: Single and Multiple	✓	✓
• Buttock Cut	✓	✓
• Text String	✓	✓
• Run / edit SCRIPT files	✓	✓
• Drawing Parameters	✓	✓
• Frame and Distance combined longitudinal axes	✓	✗
• Define compartment colors (main, add, subtract)	✓	✗
2D On Screen	----------	----------
• Waterline DRAFT or DECK cut	✓	✓
• WLASA DRAFT/DECK cut	✓	✓
• WLASA DRAFT/DECK cut w/ UPPER / LOWER	✓	✗
• Display of ASA Holes, Portals and EQPT on WLASA DRAFT/DECK cut	✓	✗
• Section cut: Single and Multiple	✓ (Improved)	✓
• Buttock Cut	✓ (Improved)	✓
• Run / edit SCRIPT files	✓	✗
• Frame and Distance combined longitudinal axes	✓	✗
• Define compartment colors (main, add, subtract)	✓	✗
• Measure mode (X,Y start, stop, length, angle)	✓	✗
• Measure mode values sent to Clipboard	✓	✗
• Horizontal & vertical dimensioned axes displayed	✓	✗
• Upper- & lower-case text labels	✓	✗

	CompRender	MapIt
3D Views	----------	----------
• Coordinate system selectable: SHCP, FCCS & ASA, “Rotation system”	✓	✗
• **Level 2 Display**: Compartments display with ALL STATIONS and SHEER DECK inflection points including as interpreted intersections of Y planar values with Offsets.	✓	✗
• **Level 3 Display**: Shaded Surface compartment display built using Level 2 station based inner & outer surfaces. Complete spherical viewpoint control ★ NEW ★	✓	✗
• Visibility control of each compartment and all 6 sides of each compartment part ★ NEW ★	✓	✗
• **Level 3 Display**: Shaded Surface hull offsets display. Complete spherical viewpoint control ★ NEW ★	✓	✗
• Highlight Level 2 3D Objects in view from display list	✓	✗
• Objects viewable from any angle	✓	✓
• Flooding water levels in 2 compartments joined by ASA artifact (Z orthogonal views only)	✓	✗
• Objects viewable in relation to water surface	✓	✗
• View selected (main & sub or main only) compartments	✓	✓
• View compartments within bounding box	✓	✓
• View compartments within selected SUBdivision	✓	✓
• View current damage group compartments	✓	✓
• Gnomon Fit tool	✓	✗
• View basic ASA artifacts & Flooding Network	✓	✓
• View extended ASA artifacts (DeckEdge & FloodSensor)	✓	✗
• Sequential viewing of compartments & ASA artifacts	✓	✓
• Sequential viewing: Next | Back | Quit	✓	✗
• ASA Holes & Portals: Normal Fit to Surface	✓	✗
• Basic ASA artifacts: 3D Filter (additive) for artifact selection	✓	✗
• ASA Portals: Import ID List (text) of portals to view. (extract list from FLMASA startup check)	✓	✗
Create SHCP Parts	----------	----------
• Convert compartments to Picture primitives	✓	✓
• Convert ASA artifacts (Holes, Portals, etc.) to Picture primitives	✓	✗
• Define portal locations (“portal pick”)	✓	✓
• Automatically define adjacent SHCP compartments during portal pick process	✓	✗
• Graphically create (draw) SHCP compartments	✓	✗
• Display graphic interpretation of drawn compartment allowing for revision prior to commitment.	✓	✗

	CompRender	MapIt
• Create SHCP compartments from natural coordinate system definition free format file input	✓	✗
• Create USN compartment Damage Control locator IDs	✓	✗
• Generate Damage Groups (box type) original method	✓	✓
• Generate Damage Groups (box type) using Level 2/3 Geometry ★ NEW ★	✓	✗
• Generate Damage Groups (3D layer type)	✓	✓
• Modify damage groups 2D layout	✓	✓
• Review damage groups 2D layout	✓	✓
• Review damage groups 3D Level 2&3 presentation ★ NEW ★	✓	✗
• Substitute damage compartments with SUBdivision IDs	✓	✗
• Convert SHCP damage groups to FCCS style	✓ (Improved)	✓
Create FCCS Parts	----------	----------
• Create SPX files (Waterline/deck, section, buttock)	✓	✓
• Create FCCS “subdivision” table	✓	✓
‘Level 3’ 3D Model Export	----------	----------
• Winteracter .W3D format ★ NEW ★	✓	✗
• AutoCAD .DXF format ★ NEW ★	✓	✗
• STL(stereolithography) format: binary ASCII ★ NEW ★	✓	✗
• VRML model of hull & appendages	✓ (Improved)	✓