

Release note for SEAMCAT version 5.4.2

Issue Type	Issue key	Summary	Component/s	Calc
Bug	SMG#31	Implementing protection distance when "use a polygon" option is activated	Scenario/Positioning	+
Bug	SMG#25	Grouped post processing vector results unit display	EPP/ Results panel	-
Enh	SMG#24	PMPs with limited distance ranges - consistency check enhancement (ITU-R P.1411-10, Winner II, ITU-R M.2135, and 3GPP TR 38.901)	Propagation Model Plugins	-
Enh	SMG#34	Superseded propagation models – consistency message for user to use newer implementations of the propagation models instead of the superseded ones (P.2001-2; P.1546-1, -4, -5; P.452-14; P.1411-9 and ITU-R P.1411-7 §4.3.)	Propagation Model Plugins	-
Enh	SMG#34.bis	Superseded propagation models – general solution for consistency message for (future) superseded propagation models	Propagation Model Plugins	-
Enh	SMG#33	Using Free space propagation model with in the indoor local environments - consistency check message informing user	Propagation Model Plugins	-
Enh	SMG#22	Antenna Gain Plots – enhancement - AP STG 66.1 (second input parameter for the slice angles - Azimuth and Elevation slice angle; rename the parameter names of the steering angles to Azimuth and Elevation steering angle; add on the Show Gain plot an information that the steering angles are in global coordinates)	Lib/AGP	-
Enh	SMG#36	Large simulations performance enhancements and resolving some calculation bottlenecks - execute simulation events is batched, better use of processors	Simulation control / Backend	+
Enh	SMG#37	Better handling of simulation results in CommandLine - when CL extracts workspace results it no longer need to load the full workspace, but only wanted vectors	Interfaces/CommandLine	+
Enh	SMG#29	Release Check and Unit test enhancements - better support for plugins, UI-most parts of generic system is moved to the testable part	Backend	-
New feature	SMG#13	External EPP on interference calculations for DTTB - ITU-R BT.2470	EPP	+
Enh	SMG#41	Sensitivity level settings for generic systems	Generic systems Plugin	+
Enh	SMG#40	GUI issues in 5.4.2 Alpha1		-
Enh	SMG#10	EPP5 - Power control reporting for interfering system	EPP/ Results panel	-
Bug	SMG#40	Local environment probability input in last row fix	Local Environment Plugin	-
Enh	SMG#26	Allow lists as plugin inputs	Backend	-
Enh	SMG#29	Release Check and Unit test enhancements	Backend	-
Enh	SMG#50	Export libraries enhancement from SEAMCAT (File / Export Library)	Libraries	-
Enh	SMG#49	SEAMCAT Results report enhancement (Results / Generate Report)	Report	-
Enh	SMG#48	Interference calculation window layout adjustment (in v5.4.2A2)	Interference Calculation	-

Enh	SMG#13	External EPP on interference calculations for DTTB - ITU-R BT.2470 interface improvements (saving and opening scenario with DTTB EPP, changing the velocity settings, check of unity sum of probabilities)	EPP	+
Enh	SMG#51	Open and load (older) workspaces with EPPs included	Backend	-
Enh	SMG#51	Load correct OFDMA-DL settings for system layout from (older) workspaces	Cellular Systems	+
New feature	SMG#13	EPP on interference calculations for DTTB - Report ITU-R BT.2470 and Recommendation ITU-R BT.2136	External EPP Released Jan 2021	+
New feature	SMG#56	PMP combining models of Recommendation ITU-R P.1411-10 with LoS/NLoS probabilities from Report ITU-R M.2135-1	External EPP Released Jan 2021	+
New feature	SMG#45	Receiver intermodulation interference (implementing algorithm approved by WGSE)	EPP	+
New feature	SMG#47	Tool implementing extracting digital terrain data profile (SRTM 1 Arc-Sec DEM) and calculation of propagation loss using Recommendation ITU-R P.452.16	Tools	+
Enh	SMG#59	SEAMCAT Results report enhancements and generate Report Saving issue	Report	-
New feature	SMG#57	Algorithm for interpolating antenna gain 3-D pattern from 2 orthogonal planes cuts (H and V diagrams)	AGP	+
Enh	SMG#58	3GPP TR 36.814 antenna plugin and beamforming element antenna enhancements	AGP	-
Enh	SMG#32	Coverage radius - noise limited enhancement (Jira)	Generic systems Plugin	-
Enh	SMG#39	Probability of interference display adjustments	Results	-
Enh	SMG#52	Code separation of Core and UI modules	Backend	-
New feature-cont	SMG#47	Terrain profile tool - extracting digital terrain data profile (SRTM 1 Arc-Sec DEM) and calculation of propagation loss using Recommendation ITU-R P.452.16 - changes agreed at STG#70.1	Tools	+
New feature - cont	SMG#45	Receiver intermodulation interference (implementing algorithm approved by WGSE) – changes agreed at STG#70.1; activity factor correction and whole Rx psd spectrum output	EPP	+
New feature - cont	SMG#57	Algorithm for interpolating antenna gain 3-D pattern from 2 orthogonal planes cuts (H and V diagrams) - changes agreed at STG#70.1 (correction of normalisation factor)	AGP	+
Enh	SMG#58	3GPP TR 36.814 antenna plugin and beamforming element antenna enhancements – adding warning message when using beamforming element antenna as main antenna	AGP	-
Bug	SMG#61	Considering terrain height above sea level at Tx / Rx in ITU-R P-1546-6 and ITU-R P-1546-5 when computing effective antenna heights	PMP	+
Enh	SMG#63	Propagation Model Test (ITU-R P.1411-10 Site-General Model) – consistency check correction	PMP	-
Enh	SMG#62	Overloading settings – function input and display	Generic systems Plugin/GUI	-
Enh	SMG#60	Editing and collecting input values from Test propagation models UI	Tools	-
Bug	SMG#54	CDMA DL Capacity loss – adding external interference in calculating achieved quality parameter of Eclor for CDMA user terminal	Cellular systems/CDMA	+

New feature-cont	SMG#47	Terrain profile tool - extracting digital terrain data profile (SRTM 1 Arc-Sec DEM) and calculation of propagation loss using Recommendation ITU-R P.452.16 - changes agreed at STG#71	Tools	-
Enh - cont	SMG#60	Propagation model Test – Editing and collecting input values from UI - changes agreed at STG#71	Tools	-
Enh	SMG#64	Simulation radius when enabling protection distance – check box	Simulation	-
Enh	SMG#65	Capping Basic Transmission Loss in ITU-R P.1411	PMP	+
Enh	SMG#66	Correction in Location Variability Formula in ITU-R P.1546-6 (Land)	PMP	+
Enh	SMG#67	Display of the default value of ITU-R Report M.2135	PMP	-
Enh	SMG#68	Line-of-Sight Probability in PMPs: M.2135, WINNER II, and 3GPP TR 38.901	PMP	+
New feature-cont	SMG#47	Terrain profile tool - extracting digital terrain data profile (SRTM 1 Arc-Sec DEM) and calculation of propagation loss using Recommendation ITU-R P.452.16 - clutter loss adjustment, exporting results correction	Tools	-
Enh	SMG#70	Cellular event results - antenna pattern display adjustment	UI event display	-
Enh	SMG#71	Propagation model Test tool - duplicate button for copying environment settings	Tools	-
Enh	SMG#72	Add note in About section	General	-
Bug	SMG#69	Victim Receiver blocking attenuation integration correction for very small Rx bandwidths and 99 kHz frequency difference; adjusting warning message	Generic systems Plugin	+