

Pre-release note for SEAMCAT version 5.3.0

SEAMCAT 5.3.0 Alpha 1 (released on 14 March 2018)

- **Tree-view of libraries**, allowing the user to recognize which items are pre-configured in an official release, and which items are user-defined / modified ([ST-368](#))
- Addition and correction of **keyboard shortcuts** for the most common SEAMCAT features ([ST-457](#))

SEAMCAT 5.3.0 Alpha 2 (released on 25 April 2018)

- Enhancements to the **previsualisation of the composite beam forming antennas**, including the possibility to display a normalised antenna pattern ([ST-461](#))
- Addition of the possibility to specify a **power distribution** for the base stations in the OFDMA Downlink module ([ST-452](#))
- Activation of the newly introduced **bounded Gaussian and Rayleigh distributions** in the positioning of the MS and BS in the 5G modules ([ST-466](#))
- Correction of a bug related to the modification of the **receiver blocking mask** in the Generic module ([ST-459](#))
- Correction of a bug when saving the newly introduced bounded **Gaussian and Rayleigh distributions** ([ST-460](#))
- Correction of a **compatibility** issue with **workspaces** created in previous SEAMCAT versions which contained plugins – A warning has been added ([ST-462](#))

SEAMCAT 5.3.0 Alpha 3 (released on 8 June 2018)

- Inclusion of a new version of a **plugin for the calculation of Intermodulation products** from cellular broadband systems ([ST-391](#)).
- Inclusion of a new **antenna gain plugin according to Recommendation ITU-R M.2057-1** ([ST-473](#))
- Addition of the possibility to select a **single sector** in the cellular modules (OFDMA, CDMA, IMT-2020) ([ST-469](#))
- Addition of flexibility to use **Recommendations ITU-R M.2108** (Prediction of Clutter Loss) and **ITU-R M.2109** (prediction of building entry loss), so that these propagation models can be used beyond the frequencies defined by these recommendations, as a response to a request from ECC PT1 ([ST-9](#), [ST-8](#))
- Enhancements to the consistency checks of the **Extended-Hata** propagation model ([ST-470](#))
- Corrections to the **batch functionality** to be able to import batches from previous SEAMCAT versions ([ST-468](#))
- Improvements to the **tree-view of library items** to maintain the tree structure when loading items from a workspace ([ST-368](#))
- Improvements to the functionality to **compare scatter diagrams** within the compare vectors tool ([ST-434](#))
- Improvements to the propagation model defined in **Recommendation ITU-R P.1411-9** to include radio buttons to the exclusive selection of paragraphs 4.1.1, 4.2.1 and 4.3.1 in the graphical user interface, and to add flexibility so that the propagation model can be used beyond the frequencies defined in the ITU-R Recommendation ([ST-432](#))

SEAMCAT 5.3.0 Beta 1 (released on 24 October 2018)

- Addition of the **Winner II propagation model** and the **IMT-Advanced path loss model** based on **Report ITU-R M.2135-1** (Issue [ST-475](#))
- Addition of **UMI Street canyon propagation model** based on 3GPP TR 38.901 (Issue [ST-480](#))
- Improvements to the propagation model based on **Rec. ITU-R P.452-16** to compute correct propagation losses in line-of-sight and free-space conditions when Tx-Rx distances are comparable to the Tx-Rx antenna height difference (Issue [ST-479](#))
- Improvements to the **test propagation models** tool (Issue [ST-478](#))
- Improvements to the **plot scatter diagram** tool (Issue [ST-434](#))
- Corrections to **antenna gain plugins** based on **3GPP TR 36.814** and **3GPP TR 37.840** (Issues [ST-494](#) and [ST-476](#))
- Corrections to the **beam forming antennas** implementation and the EPP Demo 11 (Report antenna gains) (Issue [ST-486](#))
- Improvements to the **antenna gain plugin for automotive radars** operating in the frequency band 76-81 GHz, based on **Rec. ITU-R M.2057-1** (Issue [ST-473](#))
- Addition of **consistency checks** when trying to use **beam forming antennas** in former cellular modules (Issue [ST-485](#))
- Adjustment of the **sampling of spectrum emission masks** to 1/100 of the receiver bandwidth (Issue [ST-474](#))
- Adjustment of the **bounds of the system coverage** of the generic module (Issue [ST-477](#))
- Addition of a **consistency check** to compare the values in the **spectrum emission mask against the power supplied** (Issue [ST-481](#))
- Enhancements to the **generate multiple interfering links** button (Issue [ST-410](#))
- Enhancements to the **library structure** (Issue [ST-491](#))
- Addition of the possibility to **select a single sector** in all cellular modules (Issue [ST-469](#))
- Corrections to the **batch feature** to allow saving workspaces with custom propagation model plugins (Issue [ST-490](#))
- Corrections to the **consistency warnings** in scenarios involving **default systems** (Issue [ST-487](#))
- Enhancements to the **graphical user interface** to allow **sliding windows** to facilitate the reading (Issue [ST-483](#))
- Enhancements to the **graphical user interface** to ease the reading of description text boxes by **increasing the contrast between background and text** (Issue [ST-492](#))
- Enhancements to the **help and bug report buttons**, linking directly to CONFLUENCE and JIRA, respectively (Issue [ST-493](#))
- Start of the **merging of the cellular structure and the event results windows**, to be continued (Issue [ST-484](#))

SEAMCAT 5.3.0 Beta 2 (released on 25 February 2019)

- Refurbishing of the **local environments pane**, with the addition of the possibility to simulate simultaneously indoor and outdoor transceivers with **different antenna heights** (Issue [ST-489](#))
- Addition of the possibility to **simulate frequency distributions** in cellular systems (Issue [ST-488](#))
- Addition of the possibility to **modify the simulation seed** before the simulation (Issue [ST-508](#))
- Improvements to the numbering of transceivers and parameter units in the **event results pane** (Issues [ST-497](#) and [ST-518](#))
- Enhancements to **user friendliness of the batch functionality**, allowing to rename workspaces and choose the destination folder when saving (Issue [ST-525](#))

- Correction of the **spectrum emission mask of wireless microphones** (Issue [ST-499](#))
- Update of the **spectrum emission mask of DVB-T** (Issue [ST-514](#))
- Improvements to the **antenna gain plugin** corresponding to **Recommendation ITU-R M.2057-1** for automotive radar systems (Issue [ST-503](#))
- Correction of the distance consistency check of the **propagation model based on 3GPP TR38.901** (Issue [ST-500](#))
- Corrections to the **Winner II and ITU-R M.2135-1 propagation models** (Issue [ST-504](#))
- Corrections to the **consistency check in the propagation model based on Rec. ITU-R P.452-16** (Issue [ST-515](#))
- Extension of **validity of the propagation model based on Rec. ITU-R P.1546** to allow simulations up to 6 GHz (note that a consistency check is still triggered when simulations are done above 3 GHz, pending a decision from ITU-R SG 3) (Issue [ST-519](#))
- Correction of a bug when **exporting library items** (Issue [ST-520](#))
- Update of **links to the SEAMCAT online handbook** (Issue [ST-517](#))
- Final improvements to the **vector scatter plot** (Issue [ST-513](#))
- Editorial corrections in the **user interface** (Issue [ST-521](#))
- Continuation of the **merging of the cellular structure and the event results windows**, to be continued (Issue [ST-484](#))
- Corrections to the summary of **input parameters in the results pane** (Issue [ST-524](#))
- Correction of a bug in the **consistency check of the coverage radius** (Issue [ST-526](#))
- Correction to the **display of inactive input fields** (Issue [ST-529](#))
- Correction to the **vector panel** when displaying P.D.F (Issue [ST-522](#))
- Enhancements to the **event processing plugin #4** to report the simulated interference criteria vectors (Issue [ST-527](#))
- Enhancements to the **event processing plugin #5** to report transmitted powers (Issue [ST-509](#))
- Enhancements to the **event processing plugin #9** to report intermodulation calculations (Issue [ST-528](#))
- Enhancements to the **event processing plugin #8** to report positions and distances between transceivers (Issue [ST-516](#))
- Enhancements to the **event processing plugin #11** to report antenna gains (Issue [ST-498](#))
- Enhancements to the **event processing plugin #12** to test antenna plugins based on ITU-R recommendations (Issue [ST-523](#))

SEAMCAT 5.3.0 Beta 3 (released on 15 March 2019)

- First version of the **Link Budget Calculator** (Issue [ST-507](#))
- Improvements to the **Graphical User Interface** to harmonise the distribution of windows and components of the Generic, CDMA, OFDMA and IMT-2020 modules (Issue [ST-4](#))
- First set of enhancements to the **Antenna Gain Plot** and **exporting of results** (Issue [ST-531](#))
- Enhancements to the **“Save as”** window (Issue [ST-538](#))
- Enhancements to the **consistency checks in plugins** (Issue [ST-530](#))
- Correction of a bug in the **“Close”** button of the ICE pane (Issue [ST-536](#))
- Correction of the consideration of frequency settings in the **blocking mask integral** (Issue [ST-537](#))
- Correction of a bug in the consistency check of **frequency settings** in the **CDMA** module (Issue [ST-534](#))
- Final improvements to the **antenna gain plugin** corresponding to **Rec. ITU-R M.2057-1** (Issue [ST-503](#))
- Enhancements to the **GUI** when displaying **multiple grouped vector collections** (Issue [ST-533](#))
- Correction of a bug when **saving vectors in XLS and XLSX formats** with simulations of more than 200.000 events (Issue [ST-539](#))