

7.2 CDMA overview

When simulating CDMA systems, SEAMCAT performs power controlling in a fully loaded system of all the MSs so that the impact from the neighbouring two tiers is included (inter-cell interference), for victim CDMA systems, and the system level-out the inter-cell and external interference impact. The balancing of the overall system is performed by the CDMA power control algorithm.

When the CDMA system is the interferer, the UEs are balanced only once, the transmit powers and positions of relevant transmitters (BS or MS, depending on scenario) are used as interfering link transmitters for calculating the iRSS. If the CDMA system is a victim, the power balancing is done first without any external interferer, where the number of connected CDMA UEs is estimated, and then the external interferer is introduced and the CDMA system is re-balanced again. Afterwards the number of served users, compared with that before the introduction of interference was introduced, allows estimating impact of interference in terms of excess outage brought to the system. The combination of the above is applied when both victim and interferer systems are CDMA.

The term "CDMA" is used in this manual and in SEAMCAT environment in general to refer to any radio technology that employs the Code Division Multiple Access modulation scheme. The specific CDMA standard (e.g. CDMA2000-1X, or W-CDMA/UMTS) can be selected by incorporating the appropriate link level curves into the simulation scenario. Furthermore, at present, only the interference impact of/on "voice" can be studied using SEAMCAT.

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