

February 14, 2021

### How to install the posted update?

Replace your earlier version of **MSEW+.exe** with the one included in this download. After downloading and unzipping the posted update, you can use **File Explorer** to copy and paste the executable file. The default directory of MSEW installation where MSEW+.exe is residing:

**C:\Programs File(x86)\ADAMA\MSEW+**

### List of Changes in each Update:

**Update 2021.12 (2021-02-14):** A calculator to assess the facing stiffness factor,  $\Phi_{fs}$ , factor has been added – see Stiffness Method, Internal Stability LR Factors.

**Update 2021.11 (2021-02-01):** When calculating the factored connection capacity for extensible reinforcement in Simplified AASHTO (2017-2020), MSEW+ used a reduction factor for durability,  $RF_d$ , which is likely higher than the specified value. Consequently, the computed long-term CDR for the connection was smaller than should be. The connection values were corrected in Analysis and Design Modes.

**Update 2021.10 (2021-01-24):** The Coherent Gravity Analysis (CGA) was modified to include two options. Option A is the same as currently implemented [i.e., vertical force component of resultant lateral earth pressure on the reinforced mass,  $F_T \sin(\delta)$ , is ignored in calculating  $R$  and, subsequently,  $\sigma_v$ , while it is considered in calculating eccentricity,  $e$ ]. Option B considers rigorously all force components. In addition,  $K_r(Z)$  distribution ( $K_o$  at  $Z=0$  varies linearly to  $K_a$  at  $Z=6$  m) in Option B starts at the soil surface whereas in Option A it starts at the elevation of the top of the wall. Therefore, for horizontal crest  $K_r$  distribution is the same. The updated program includes detailed explanation and tips.

**Update 2020.21 (2020-12-20):** In Strength results of the Coherent Gravity Method, a column was added to the displayed table showing the eccentricity associated with the calculations of  $T_{max}$  at each reinforcement level. This eccentricity considers the factored loads within the reinforced zone.

**Update 2020.2 (2020-11-25):** When surcharge load is specified, CDR in Strength (AASHTO 2017-2020 Simplified) was inaccurate; this bug has been fixed. A simple, uniform format of all tables was implemented. Printout of some data was corrected/modified.