Course Description – 3D-Dig Dumping Course

In this course, you will learn the 3D-Dig dumping basics, how to use line and area dumps, make acquaintance with advanced dumping functionality, and will learn how to design color-code dumps with several methods.

Basics Module

This module introduces the 3D-Dig Dump Simulation method.

Multi-bench Dump

Using of the 3D-Dig dump surface function to create a bench landform encapsulating the entire ***Pit A***.
Explanation of the 3D-Dig dump surface function.
Explanations of the ***Multi-bench Dump Parameters*** dialog box functionality.

Design a Simulation

Doing the set-up for a dump simulation.
Creating a surface feature, representing the allowable toe of spoil for the box-cut spoil pile.
Setting up the excavation template, which will be used to progressively excavate and generate material, used for dump simulation.

Unique Method

Explanation of the basics of the dump simulation process in 3D-Dig (concepts and parameters).
Performing experimental dumping.
Detailed explanations of the ***Dump Settings*** dialog box functionality.
Examples for the ***Next Dump Point Choice*** function and the ***RESOLUTION*** parameter on the ***Dump Parameters*** page of the ***Dump Settings*** dialog box.

Line and Area Module

In this module you will learn how to dump material along a line or within an area.

Extent Limits

Setting up a line dump.
Explanation of the data in the ***Logged Material*** dialog box in relation to dumping.
Example of the impact that changing the ***RESOLUTION*** parameter from ***Very High*** to ***High*** has on the speed of dumping simulation.
Possible slight loss of image resolution in the appearance of the dump, caused by this change.
Creating of a dump limit polygon with step-by-step instructions.
How to set up dump limit polygons using the ***Dump to Polygons*** setting on the ***Constraints*** page in the ***Dump Settings*** dialog box.
Short remarks on using dump limits lines as well as the dump limit polygons (with pictorial example).

Height Limits

Step-by-step explanation and example of setting up an area dump.

Adding a height limit to the dump.
Explanation and example of the ***Use Advancing Dump*** option on the ***Dump Type*** page of the ***Dump Settings*** dialog box.
Editing or extending extension the dump area using the ***Add Point*** editing option.
Explanation of the data in the ***Logged Material*** dialog box in relation to area dumping.

Advanced Module

Dumping to a surface and dumping in passes are discussed in this module.

Surface Constraints

A detailed explanation of the dump-to-surface constraints, with example using the benched land form created previously.
Alternatively, build the dump in separate lifts as follow:
Modifying the dump and the dump's benches, using the right mouse click short-cut to open a popup menu.
Instead of going to the ***Constraints*** page of the ***Dump Settings*** dialog box, the short-cut selects the ***Change Dump Level*** option from the popup menu.
Creating the two-lifts dump.

Staged Dump

Explanation of the importance of building the dumps in lifts for such procedures as a ***Stage Plan***.
Explanation of how to automate the building of dumps in lifts by using a ***Staged Dump***.
Modifying of the box-cut dump to use a ***Staged Dump***.
Explanation of the different of use a Stage Dump for the Automated Modules in 3D-Dig and for the Free excavation and dumping mode.
Explanation of the ***Staging*** page parameters of the ***Dump Settings*** dialog box.
Explanation of the settings in the ***Dump Pass Parameters*** dialog box.
A short remark about the difference in the ***Minimum Lift Height*** parameter, depending on the 3D-Dig version used.

Color-Coded Module

Coloring material as it is dumped is the subject of this module.

Dump Layers

Explanation of the color-coded Dumps concept and the ***Layer Dump*** option.
The Learner/User is asked to set up a new ***Dump Template*** in accordance with the parameters given.
Parameters in the ***Dump Setting*** dialog box relevant to color-coded dumps are explained.

Combine Layers

The Learner/User is asked to set up the ***Dump Template*** in accordance with parameters given.
This second template creates a dump which encapsulates the first dump from the previous lesson, demonstrating the color-coding concept
The ***Edit Surface*** dialog box is explained with respect to the color-coded dumps concept.
The special aspects of using ***Restore Points***, while working with the color-coded Dumps, are explained.