Appendix D
Catalog of Day 3 Handbook Web Resources

The following list catalogs the supplemental web resources mentioned in each chapter of this *Day 3 Seminar Handbook* (with corresponding handbook page references provided). ***[Tip: Save some typing and use the clickable links in the PDF copy of this Appendix (see "WebLinksD3.pdf" in Appendix C).]***

Note 1: Viewing many of the AGTEK resources linked below will require logging in with an AGTEK Support ID and Password (have them handy). Note 2: The AGTEK video links below were all working when this catalog was last revised (December 2023) but AGTEK occasionally changes/deletes links to older videos. If a video link returns a "404.0 – Not Found" error (or a non-responsive screen), AGTEK has likely renumbered, renamed or deleted the corresponding video (also see AGTEK's FAQ at https://bit.ly/3MlDQGn). Note 3: At some time after mid-2024, all resource links with a www.earthworksoftwareservices.com URL may require access via the web archive site at https://web.archive.org/web/https://www.earthworksoftwareservices.com/.

Notices

www.earthworksoftwareservices.com/hbk-replace-order.aspx
Web Page: Order form to replace lost/outdated seminar handbooks (pages 1, 167).

Program Overview

www.agtek.com/hardware.html
Web Page: Hardware guidelines for AGTEK software (pages 17).

www.agtek.com/video.html?id=330
AGTEK Video: Overview of differences between the Earthwork 3D and Earthwork 4D products (page 17).

www.agtek.com/video.html?id=255 [Gradework 4D]
AGTEK Video: Clearing Image Cache in Gradework 4D for higher-resolution drone background image update (page 19).

www.agtek.com/video.html?id=441
AGTEK Video: Earthwork 4D and Gradework 4D file compatibility (page 20).

Modeling Subsurface Strata

www.agtek.com/video.html?id=142
AGTEK Video: Older video on the basic steps of strata modeling (page 21).

www.agtek.com/video.html?id=405
AGTEK Video: Newer video on the basic steps of strata modeling (page 21).

www.earthworksoftwareservices.com/resourceed.htm#readinglist
Web Page: Resource links for understanding geotechnical reports (page 21).

www.earthworksoftwareservices.com/resourcefiles.htm
Web Page: Download seminar sample strata bore map/bore logs and data files (pages 22, 193).

www.agtek.com/video.html?id=432 [Gradework 4D]
AGTEK Video: (@ 2:00 min) Gradework 4D's Add Cut-Fill Image utility (page 46).

www.agtek.com/video.html?id=425
AGTEK Video: Quantifying variable-depth stripping (page 49).

Balancing Onsite Cut and Fill

www.agtek.com/video.html?id=428
AGTEK Video: (AGTEK 4D) Editing the Design Perimeter alignment (page 59).

www.agtek.com/video.html?id=367
AGTEK Video: (AGTEK 4D) Model pipe trenches from Subgrade using Pipe Lines layer and Apply Template utility, calculate trench excavation volume in Gradework 4D (page 61).

Appendix D
Catalog of Day 3 Handbook Web Resources (Cont.)

Balancing Onsite Cut and Fill (Cont.)

www.agtek.com/video.html?id=160
AGTEK Video: (AGTEK 4D) Model pipe trenches from Subgrade using Pipe Lines layer and Apply Template utility, calculate trench excavation volume in Earthwork 4D, quantify backfill volumes in Materials 4D (page 61).

www.agtek.com/video.html?id=342
AGTEK Video: (Gradework-Materials) Create lowest surface model as alternate pipe trench excavation reference, calculate all trench quantities in integrated Materials module, including trench excavation measured from Stripped, Subgrade and Lowest surfaces (pages 61, 130).

www.agtek.com/video.html?id=461
AGTEK Video: Short, simple demonstration of site balancing steps (page 66).

www.agtek.com/video.html?id=535
AGTEK Video: (@ ~17:29 min to ~37:00 min) Interesting site design and balancing manipulations (page 66).

Identifying Work Areas with Cut-Fill Lines

www.agtek.com/video.html?id=328
AGTEK Video: (@ 4:27 min) model subsidence at currently unworked site areas before importing drone progress topo (pages 69).

https://bit.ly/3DFOqU2
AGTEK Video: Insert and move points to correct overlapping Report Regions, Sectional Areas or Stripping Areas (page 76).

Modeling Vertically-Staged Earthwork

www.agtek.com/video.html?id=467
AGTEK Video: Basic overview of AGTEK's Transfer Design/Subgrade utility (page 86).

www.agtek.com/video.html?id=328
AGTEK Video: Use Transfer Subgrade to Design option in preparing a job file for drone progress topo manipulations (page 86).

www.agtek.com/video.html?id=123
AGTEK Video: (@ 3:30 min) Overview of AGTEK 4D's improved New Surface options (page 91).

www.agtek.com/video.html?id=464
AGTEK Video: Short demonstration of AGTEK 4D's Stage Into utility (page 94).

www.agtek.com/video.html?id=474
AGTEK Video: Phasing an earthwork file and staging one phase area into another (page 94).

www.agtek.com/video.html?id=343
AGTEK Video: Use Stage Subgrade Into utility to create pipe trench calculation surface beyond grading limits, includes trench volume calculations in new Gradework-Materials program module (page 94).

www.agtek.com/video.html?id=575 [Gradework 4D]
AGTEK Video: (@ 29:18 min) Advance to the min mark in this hour-long webinar video for a brief example using the paint/brush entry option with Balance Regions to get quick volume breakouts (page 97).

www.agtek.com/video.html?id=207
AGTEK Video: Demonstrates use of Apply Survey utility to process imported survey data (page 101).

www.agtek.com/video.html?id=473
AGTEK Video: Basic overview of Stage Over-Ex utility at building pad (pages 106, 149).

www.agtek.com/video.html?id=463
AGTEK Video: Short demonstration of Conform Selected utility's To Data Lines and To Current Surface options (page 120).

Appendix D
Catalog of Day 3 Handbook Web Resources (Cont.)

Modeling Vertically-Staged Earthwork (Cont.)

https://bit.ly/47bHbAA
AGTEK Video: AGTEK 4D's Cut/Paste function (page 120).

www.agtek.com/video.html?id=284
AGTEK Video: Two variations of building undercut with AGTEK 4D's Apply Template utility (page 125).

www.agtek.com/video.html?id=176
AGTEK Video: Structural over-ex at adjacent tanks with AGTEK 4D's Apply Template utility (page 125).

www.agtek.com/video.html?id=482
AGTEK Video: Use AGTEK 4D's Apply Template utility for building over-ex from Stripped surface (pages 125, 164).

www.agtek.com/video.html?id=506
AGTEK Video: (@ 18:50 min) Use AGTEK 4D's Apply Template utility for building over-ex from Subgrade surface (page 125).

www.agtek.com/video.html?id=228
AGTEK Video: Use AGTEK 4D's Apply Template utility for strata over-ex at building (pages 125, 164).

www.agtek.com/video.html?id=219
AGTEK Video: Overview of Lowest Surface utility (page 130).

www.agtek.com/video.html?id=342
AGTEK Video: (Gradework-Materials) Create lowest surface model as alternate pipe trench excavation reference, calculate all trench quantities in integrated Materials module, including trench excavation measured from Stripped, Subgrade and Lowest surfaces (pages 61, 130).

www.agtek.com/video.html?id=504
AGTEK Video: Some useful techniques for modeling retaining walls (page 130).

www.agtek.com/video.html?id=67
AGTEK Video: Model and quantify MSE wall excavation and backfill, including use of Offset Line utility to delineate strap lengths based on wall height (page 133).

www.agtek.com/video.html?id=369
AGTEK Video: (AGTEK 4D) Model and quantify MSE wall excavation and backfill, including use of Offset Line utility to delineate strap lengths based on wall height and Stage Into utility (page 133).

www.agtek.com/video.html?id=581
AGTEK Video: Retaining wall cut-back template model when a lowest surface is not needed (page 135).

https://bit.ly/3OvVB7o
AGTEK Video: Horizontal Slice calculation and reporting option with Balance Regions (page 139).

www.agtek.com/video.html?id=210
AGTEK Video: Creating a blast-rock removal model with steps that work in AGTEK 3D/4D (page 147).

www.agtek.com/video.html?id=473
AGTEK Video: Basic overview of Stage Over-Ex utility at building pad (pages 106, 149).

www.agtek.com/video.html?id=228
AGTEK Video: Strata over-ex at building area using AGTEK 4D's Apply Template utility (pages 125, 164).

www.agtek.com/video.html?id=482
AGTEK Video: Use AGTEK 4D's Apply Template utility for building over-ex from Stripped surface (pages 125, 164).

Appendix D
Catalog of Day 3 Handbook Web Resources (Cont.)

Appendix A – How to Get Help, Training, and Program Updates

www.agtek.com/help/sw/earthwork4dhelp.htm
Web Page: Earthwork 4D program help files (page 165).

www.linkedin.com/groups/2015287/
Web Page: LinkedIn AGTEK Users Group (page 165).

www.agtek.com/traininghome.html
Web Page: Main AGTEK 4D video library page (pages 165, 167).

www.agtek.com/howto.html
Web Page: AGTEK's resources page for training and support options (page 165).

www.agtek.com/video.html?id=566
AGTEK Video: Webinar video covering all support options, including those of the new AGTEK Community site (page 165).

www.agtek.com/support.html
Web Page: AGTEK customer support home page with links to all support resources (page 165).

www.agtek.com/contactsupport.html
Web Page: Direct link to AGTEK customer support contact submission form (page 165).

support@agtek.com
Web Page: AGTEK support email page (page 166).

https://bit.ly/3R8R0Iy
Web Page: *AGTEK 4D's* ESZ Save As function with multiple background image attachment option (page 166).

https://sendit.hexagon.com/filedrop/support@agtek.com
Web Page: AGTEK's Send IT app for transferring large files to AGTEK Support, AGTEK Support login required (page 166).

www.agtek.com/video.html?id=561
AGTEK Video: (@ 2:49 min) AGTEK Access' file-sharing utility (page 166).

www.earthworksoftwareservices.com/resourceed.htm#beginners
Web Page: Beginners' earthwork construction learning resource links (page 167).

www.earthworksoftwareservices.com/hbk-replace-order.aspx
Web Page: Order form to replace lost/outdated seminar handbooks (pages 1, 167).

www.earthworksoftwareservices.com/seminars.aspx
Web Page: Earthwork Software Services' seminar schedule page (page 167).

www.agtek.com/onlinetraining.html
Web Page: AGTEK web-based "hands-on" training info/signup page (page 167).

www.agtek.com/handsontraining.html
Web Page: AGTEK classroom "hands-on" training info/signup form (page 167).

www.agtek.com/seminartraining.html
Web Page: AGTEK classroom "hands-off" seminars info/signup form (page 167).

www.agtek.com/learning.html
Web Page: Links to a series of good video-augmented basic AGTEK 4D training exercises, including corresponding data files (page 167).

www.agtek.com/traininghome.html
Web Page: Main AGTEK 4D video library page (pages 165, 167).

Appendix D
Catalog of Day 3 Handbook Web Resources (Cont.)

Appendix A – How to Get Help, Training, and Program Updates (Cont.)

https://agtek.my.site.com/community/s/training-agtek-courses
Web Page: New AGTEK Community training courses page for Gradework 4D and newer products, AGTEK Support login required (page 167).

https://agtek.s3.amazonaws.com/Agtek/Bsxz8VFfoGuP
PDF: Comprehensive, well-organized AGTEK "Training Checklist" with clickable links to training resources (videos, slideshows, documents) for all current AGTEK desktop and mobile software applications (page 167).

www.youtube.com/c/AGTEKDirtSimpleSolutions/videos
Web Page: AGTEK's public YouTube video channel page (page 167).

www.agtek.com/video.html?id=559
AGTEK Video: Download and install AGTEK 4D program update (page 168).

www.agtek.com/software.html
Web Page: Download page for AGTEK software and PDF user manuals (page 168).

www.agtek.com/newslettersignup.html
Web Page: Signup form for AGTEK's periodic email newsletter (page 168).

www.earthworksoftwareservices.com/resourcesw.htm#gtco
Web Page: GTCO digitizer resource links (page 170).

Appendix B – Keyboard Shortcuts Reference

www.agtek.com/help/gw/keyboard_shortcuts.htm
Web Page: AGTEK 4D keyboard shortcut help pages (page 171).

Appendix C – Download and Use Day 3 Seminar Training Files

www.earthworksoftwareservices.com/resourcefiles.htm
Web Page: Download Day 3 seminar training files from main website (pages 22, 193).

https://web.archive.org/web/https://www.earthworksoftwareservices.com/resourcefiles.htm
Web Page: Download Day 3 seminar training files from alternate web archive site (pages 193, 197).

Appendix I – "Painting" Balance Regions for Haul Planning

www.agtek.com/video.html?id=580
AGTEK Video: Basic overview of Trackwork 4D's haul planning and analysis applications (pages 237, 258).

www.agtek.com/video.html?id=578
AGTEK Video: Detailed instructions for haul planning with Trackwork (page 237).

www.agtek.com/video.html?id=423 ***[Gradework 4D]***
AGTEK Video: Gradework 4D paint method for Balance Region haul planning (pages 237, 245).

Appendix J – Shrink/Swell Adjustments

https://bit.ly/3A4Mljr
PDF: Day 1 Seminar Handbook's "Shrink/Swell Adjustments" discussion (page 249). *[Note: This PDF link may expire sometime after mid-2024 but the corresponding shrink/swell topic can be found on pages 215-224 of the Day 1 Seminar Handbook.]*

https://bit.ly/47EqAp0
AGTEK Video: What causes, and how to remove, an "Unspecified" line item on the Volume Report (page 257).

Appendix D
Catalog of Day 3 Handbook Web Resources (Cont.)

Appendix J – Shrink/Swell Adjustments (Cont.)

www.agtek.com/video.html?id=580
AGTEK Video: Basic overview of Trackwork 4D's haul planning and analysis applications (pages 237, 258).

https://flh.fhwa.dot.gov/resources/design/pddm/Geotechnical_TGM.pdf#4.6.2
PDF: Chapter 6, Section 4.6.2 of the USDOT FHWA's "Federal Lands Highway Project Development and Design Manual", which includes Church's material shrink/swell tables (page 259).

https://etd.auburn.edu/xmlui/bitstream/handle/10415/3532/Crooks,%20Alexandria_MS%20Thesis_Spring%202013.pdf
PDF: "Application of Shrinkage and Swelling Factors on State Highway Construction" [Master's thesis, Auburn University] (page 260).

www.earthworksoftwareservices.com/downloads/Spahn.pdf
Web Page: "Veteran Lessons on Machine Control" article (page 260).

ftp://ftp.dot.state.oh.us/pub/Innovative Delivery/Portsmouth/Final_RFP/Current_All_Ref_Info/GE-Geotechnical/GE-65 Phase 1 and 3 - Technical Memo - Earthwork Factors.pdf
PDF: "Portsmouth Bypass Phase 1 Earthwork Factors" technical memo (page 260).

https://pdhonline.com/courses/g106/g106.htm#!
Web Page: "Understanding the Geotechnical Report as an Engineering and Construction Reference" (page 260).

www.scribd.com/document/352797986/White-Et-Al-2010-CAT-CFED-Phase-IV
PDF: "Earthwork Volumetric Calculations and Characterization of Additional CFED Soils - CFED Phase IV" (page 260).

About the Author and Seminar Instructor

www.earthworksoftwareservices.com/downloads/whitepaper.pdf
PDF: Handbook author's white paper, "Digital Surface Modeling and Volumetric Analysis Techniques Applied to the Measurement of Plan-View Earthwork Quantities" (page 261). *[Note: This PDF link may break sometime after mid-2024 but the document link is active on the web archive site referenced in Note 3 on page 197.]*