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Print pages 2-3 for data collector settings only.
Select the “Use Template.dxf”

Select the VDOT.dxf file under the data folder. Line work features will be colorized.
Files is located in Data folder of the installation.
Special Codes Settings - ALT + L – Special Codes – Settings

You will need to load the VDOT.fcl file after program installation. To load, press load then select the VDOT.fcl file.

Configure Settings – Equip - Config
Program Changes/Updates

-4.05
Complete Carlson Release Notes -
http://filesnj.carlsonsw.com/mirror/support/SurvCE/4.0/SurvCE%204.0%20Release%20Notes.pdf

-4.03

All Bluetooth Radios -- Interface to Bluetooth radios has been improved to allow more user interaction and cancel. User is now given an error when BT connection to radio fails.

In Log Raw, it is no longer possible to create a new site name that collides with the name of an existing site name. This prevents user from accidentally overwriting data.

Win 32 (Carlson SurvCE PC Demo/Carlson SurvPC) -- Edit Rw5 now correctly finds values using the radio buttons Up/Down.
Program Changes/Updates-4.02

Changes to Store Point
A no GIS button has been added to bypass prompted GIS attributes.

The following icons on Feature Codes indicate that a GIS attribute is available.

Virginia Specific Special Code List

PowerS (VA DOT) has been added to the Special Code Library. This will be used as the VDOT standard. Additional documentation will be provided at a later date on NTC, NTT, DS, DX, CC, and DZ. CD & CR can be used now.

Store Point Screen Icons
Special Codes
Store Point Screen Icons

<table>
<thead>
<tr>
<th>Code</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>Code Separator</td>
</tr>
<tr>
<td>ST</td>
<td>Begin Line</td>
</tr>
<tr>
<td>EL</td>
<td>End Line</td>
</tr>
<tr>
<td>PC</td>
<td>Arc PC</td>
</tr>
<tr>
<td>PT</td>
<td>Arc PT</td>
</tr>
<tr>
<td>CLO</td>
<td>Close Figure</td>
</tr>
<tr>
<td>RECT</td>
<td>Close Rectangular</td>
</tr>
<tr>
<td>JPT</td>
<td>Join Point</td>
</tr>
<tr>
<td>NE</td>
<td>No Elevation</td>
</tr>
<tr>
<td>JOG</td>
<td>Extend by Distance</td>
</tr>
<tr>
<td>CD</td>
<td>Circular By Diameter</td>
</tr>
<tr>
<td>CR</td>
<td>Circular By Radius</td>
</tr>
<tr>
<td>NTC</td>
<td>Arc PC/PT (Non-Tangent Arc)</td>
</tr>
<tr>
<td>CC</td>
<td>Arc to Arc</td>
</tr>
<tr>
<td>NTT</td>
<td>Non-Tangent PT</td>
</tr>
<tr>
<td>DS</td>
<td>Terrain Spot</td>
</tr>
<tr>
<td>DX</td>
<td>Terrain No Spot</td>
</tr>
<tr>
<td>DZ</td>
<td>Terrain Break</td>
</tr>
</tbody>
</table>

Special Codes examples:
CONC CD5 – Draws 5’ diameter circle
CONC CR10 – Draws 10’ radius circle
**Feature Code Additions or Changes**

**Code Additions**
June-2015 – Added per comments received from SUE and Survey – Miss Utility features will be placed on CD levels.

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>CP</td>
<td>Camera Pole</td>
<td>Point</td>
</tr>
<tr>
<td>CSK</td>
<td>Control Check</td>
<td>Point</td>
</tr>
<tr>
<td>CTVMP</td>
<td>CTV Marker Post</td>
<td>Point</td>
</tr>
<tr>
<td>CTVLTL</td>
<td>Cable TV Vault</td>
<td>Line</td>
</tr>
<tr>
<td>EGL</td>
<td>Electric Ground Light</td>
<td>Point</td>
</tr>
<tr>
<td>EICW</td>
<td>End of Information Chilled Water</td>
<td>Point</td>
</tr>
<tr>
<td>EIST</td>
<td>End of Information Steam</td>
<td>Point</td>
</tr>
<tr>
<td>EVLT</td>
<td>Electric Vault</td>
<td>Line</td>
</tr>
<tr>
<td>FOB</td>
<td>Fiber Optic Box</td>
<td>Line</td>
</tr>
<tr>
<td>FOVLT</td>
<td>Fiber Optic Vault</td>
<td>Line</td>
</tr>
<tr>
<td>GVLT</td>
<td>Gas Vault</td>
<td>Line</td>
</tr>
<tr>
<td>IRV</td>
<td>Irrigation Valve</td>
<td>Point</td>
</tr>
<tr>
<td>MB</td>
<td>Mailbox</td>
<td>Point</td>
</tr>
<tr>
<td>MBL</td>
<td>Mailbox Linework</td>
<td>Line</td>
</tr>
<tr>
<td>MCML</td>
<td>Miss Utility Chemical Line</td>
<td>Line</td>
</tr>
<tr>
<td>MCTV</td>
<td>Miss Utility CTV Line</td>
<td>Line</td>
</tr>
<tr>
<td>MCTVFO</td>
<td>Miss Utility CTV Fiber Optic</td>
<td>Line</td>
</tr>
<tr>
<td>MFM</td>
<td>Miss Utility Force Main</td>
<td>Line</td>
</tr>
<tr>
<td>MFODCT</td>
<td>Miss Utility Fiber Duct</td>
<td>Line</td>
</tr>
<tr>
<td>MFUL</td>
<td>Miss Utility Fuel</td>
<td>Line</td>
</tr>
<tr>
<td>MGL</td>
<td>Miss Utility Gas Line</td>
<td>Line</td>
</tr>
<tr>
<td>MGDL</td>
<td>Miss Utility Gas Duct</td>
<td>Line</td>
</tr>
<tr>
<td>MSL</td>
<td>Miss Utility Sewer Line</td>
<td>Line</td>
</tr>
<tr>
<td>MTCDCT</td>
<td>Miss Utility Traffic</td>
<td>Line</td>
</tr>
<tr>
<td>MTCFO</td>
<td>Miss Utility Traffic Control Fiber Optic</td>
<td>Line</td>
</tr>
<tr>
<td>MTCL</td>
<td>Miss Utility Traffic Control</td>
<td>Line</td>
</tr>
<tr>
<td>MTDCT</td>
<td>Miss Utility Telephone Duct</td>
<td>Line</td>
</tr>
<tr>
<td>MUEDUCT</td>
<td>Miss Utility Electric Duct</td>
<td>Line</td>
</tr>
<tr>
<td>MUEL</td>
<td>Miss Utility Electric</td>
<td>Line</td>
</tr>
<tr>
<td>MUFO</td>
<td>Miss Utility Fiber Optic</td>
<td>Line</td>
</tr>
<tr>
<td>MUKU</td>
<td>Miss Utility Unknown</td>
<td>Line</td>
</tr>
<tr>
<td>MUTL</td>
<td>Miss Utility U/G Telephone</td>
<td>Line</td>
</tr>
<tr>
<td>MWL</td>
<td>Miss Utility Water Line</td>
<td>Line</td>
</tr>
<tr>
<td>PIV</td>
<td>Post Inspection Valve</td>
<td>Point</td>
</tr>
<tr>
<td>SMP</td>
<td>Sanitary Marker Post</td>
<td>Point</td>
</tr>
<tr>
<td>STMH</td>
<td>Steam Manhole</td>
<td>Point</td>
</tr>
<tr>
<td>STVT</td>
<td>Steam Vent Pipe</td>
<td>Point</td>
</tr>
<tr>
<td>TEVLTL</td>
<td>Telephone Vault</td>
<td>Line</td>
</tr>
<tr>
<td>TRVLTL</td>
<td>Traffic Vault</td>
<td>Line</td>
</tr>
</tbody>
</table>
### January-2015

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Template:</th>
</tr>
</thead>
<tbody>
<tr>
<td>EIC</td>
<td>End of Information Communications</td>
<td></td>
</tr>
<tr>
<td>EIE</td>
<td>End of Information Electric</td>
<td></td>
</tr>
<tr>
<td>EIFU</td>
<td>End of Information Fuel</td>
<td></td>
</tr>
<tr>
<td>EIFO</td>
<td>End of Information Fiber Optic</td>
<td></td>
</tr>
<tr>
<td>EIG</td>
<td>End of Information Gas</td>
<td></td>
</tr>
<tr>
<td>EIS</td>
<td>End of Information Sanitary Sewer</td>
<td></td>
</tr>
<tr>
<td>EITR</td>
<td>End of Information Traffic</td>
<td></td>
</tr>
<tr>
<td>EICTV</td>
<td>End of Information Television</td>
<td></td>
</tr>
<tr>
<td>EIU</td>
<td>End of Information Unknown</td>
<td></td>
</tr>
<tr>
<td>EIW</td>
<td>End of Information Water</td>
<td></td>
</tr>
<tr>
<td>GTT</td>
<td>Gas Test Station</td>
<td></td>
</tr>
<tr>
<td>SVT</td>
<td>Sewer Vent</td>
<td></td>
</tr>
<tr>
<td>UCO</td>
<td>Unknown Clean Out</td>
<td></td>
</tr>
<tr>
<td>UHH</td>
<td>Unknown Hand Hole</td>
<td></td>
</tr>
<tr>
<td>GUT</td>
<td>Gutter Pan Non-standard</td>
<td></td>
</tr>
<tr>
<td>GUT12L</td>
<td>Gutter Pan 1’ Left</td>
<td>TMPLGUT12L</td>
</tr>
<tr>
<td>GUT12R</td>
<td>Gutter Pan 1’ Right</td>
<td>TMPLGUT12R</td>
</tr>
<tr>
<td>GUT18L</td>
<td>Gutter Pan 1.5’ Left</td>
<td>TMPLGUT18L</td>
</tr>
<tr>
<td>GUT18R</td>
<td>Gutter Pan 1.5’ Right</td>
<td>TMPLGUT18R</td>
</tr>
<tr>
<td>GUT24L</td>
<td>Gutter Pan 2’ Left</td>
<td>TMPLGUT24L</td>
</tr>
<tr>
<td>GUT24R</td>
<td>Gutter Pan 2’ Right</td>
<td>TMPLGUT24R</td>
</tr>
</tbody>
</table>

### November 1, 2014

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SE</td>
<td>Ground Spot Elevation-Plan only</td>
</tr>
</tbody>
</table>
Bentley will place an “X” on the location with elevation text next to it.

**Code Changes**

In SurvCE, the WTL code has been changed to a point feature. This will allow the user the option to annotate each flag number. If the user wants to connect the flags, the shot should be collected like a line feature (ST, EL, etc.):

Example

**Linear feature collection:**

<table>
<thead>
<tr>
<th>WTL ST</th>
<th>Will Prompt for Flag #</th>
</tr>
</thead>
<tbody>
<tr>
<td>WTL</td>
<td>Bentley will do linework and place annotation on each point.</td>
</tr>
<tr>
<td>WTL EL</td>
<td></td>
</tr>
</tbody>
</table>

**Point feature collection:**

| WTL | Will Prompt for the Flag # only. Other WTL line features must be closed. |
Frequently Asked Questions

How often do we need to update the data collector FCL?

The FCL load is updated on the server as additions or changes are requested. Internal users should check the following link at least on a monthly basis and note the date on the FCL file. \coapp52\survey\Carlson\Data-Collector-Installs\Data

External users should check the FTP site at least on a monthly basis and look at the date on the FCL file stored under the Data folder.

Will SurvCE program updates affect any existing jobs on the collector?

No, updating the SurvCE program will not affect any job files loaded on the collector. Users should update the collector once a job has been completed and it’s a good practice to download the all job files to a PC prior to installation. The most critical part of updating is reviewing and verifying that all settings outlined on pages 2-3 of this document are correct on the collector.

How do you do an Offset?

From the Store PTS screen

Select the O button,

The offset dialog shown below will be available.

Most Commonly used Distance/Angle or Point.
Store Points Menu - Questions

What is an easy way to duplicate a Point?
Repeat Store is used to duplicate shots. Select Repeat Store, once selected, the check box becomes a Save Disk. This can be used instead of double coding.

What does this button do on the Store Point screen?
This allows the user to see open/active linework. It should be used as a quick select list when running multiple line features.

Can the USER ENTERED category be prepopulated?
No, this populates on a per job basis as codes are used.
How do you update the FCL files on the data collector and on the PC?

Copy the DATA and SURVSTAR folders located on the internal server or the FTP site to the following folders:

Data collector: SYSTEMCF

PC: C:\Program Files (x86)\SurvCEDemo

How do you delete points in the RW5 file?

A. Go to the helmet in SurvCE. Select View Data

B. Select RAW Data in the View/Edit dialog box.

C. Select the shot to be deleted, then select Remove. Select Yes to delete the record.
D. The record is marked as removed in the file and looks like this.

![Image of the removed record]

E. Select the orange button then select Yes to save now.

![Image of the Edit Rawfile screen]

At the Raw Files screen, select the Green Check.

![Image of the RAW Files screen]

F. Go to the **Store Points** screen enter the deleted point number and reshoot.
How do you add or edit a Rod Height in the RW5 file?

A. Go to the Helmet in SurvCE. Select View Data

B. Select RAW Data in the View/Edit dialog box.

C. Example: The rod height should be 6.00 on 427 but was not changed. To add the rod change, select the shot prior 427 as shown below then Add.

D. Select Instrument/Rod Height.
E. Enter the correct rod height in the **Add Instr/Rod Height** dialog, then select the Green check.

![Add Instr/Rod Height](image)

F. The Edit Raw dialog should look like this: A LS record has been added with the new rod height. Note: This will change the rod height for all shots AFTER 426. This has NOT changed the coordinates or elevations in the CRD file yet. The job will need to be reprocessed to correct the CRD values.

![Edit Raw](image)

G. To edit an Instrument or Rod Height, select the LS record then **Edit**. This will bring the Edit Instr/Rod Height box up for editing purposes.

![Edit Instr/Rod Height](image)
All edits or deletions are noted in the file as shown below.

How do you update the CRD file after edits to the RW5?

1. From the Main menu, Select **Raw Data**

2. Select the rw5 file for the job then the Green Check box.
3. Select **Process No Adjust**

5. Select the Orange arrow at the Review File screen, then select the RED X.

6. When requested to Save Coordinate File changes, select YES.
Transfer Setup files to Data Collector

1. Create a folder on your desktop called: SURVPC
2. Copy the latest data collector setup folders located in the SurvPC directory from the server into the desktop SurvPC Folder: `\\coapp52\survey\Carlson\Data-Collector-Installs\SurvPC`
3. Connect the collector to the PC using the USB cord.
4. On the PC and the Collector, Start Easy Share using the shortcut created using windows explorer, navigate to the drive that says EasySuite, then double click on the Easy Suite.exe. Say yes at the next dialog box.
5. When Easy Share starts you should have two screens titled Remote and Local.
6. Local is the PC and Remote is the Collector. It’s easier to use your PC to transfer files.
7. Copy the two folders from the SurvPC folder on your desktop to the C drive in the remote window.
Transfer Data files from or to Data Collector to PC

1. Follow steps 3-6 from above.
2. Carlson project data files are stored under c:\Carlson Projects\Data on the data collector.
3. Select the data files you would like to copy from the data collector in the remote host window.
4. Right click on them in the then copy.
5. Paste the files to your hard drive (local host) then move them to the server for permanent storage.
6. When copying to the data collector, select files on your hard drive (local host) then past to the remote host c:\Carlson Projects\Data folder.

Settings

Use the same setting outlined on pages 2 & 3 for SurvCE except turn on Use Virtual Keyboard under configure.

Links

Internal Staff only:
Code Sheet – \coapp52\survey\Carlson\Field Code Cheat Sheets(Master).xlsx
Program Installs - \coapp52\survey\Carlson\Data-Collector-Installs\Data_Collector_Install_Programs

External Consultants:

Installs: http://www.carlsonsw.com/support/software-downloads/?product=SurvCE