

2015 PLS-CADD Advanced Training and User Group

Report on Reports

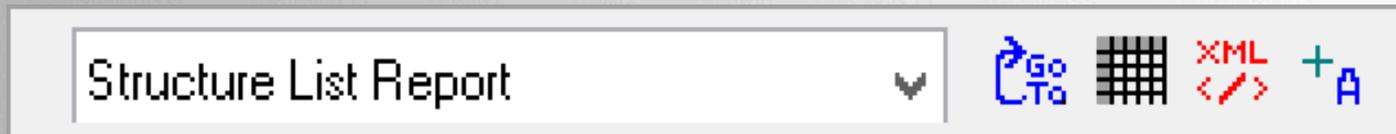
by

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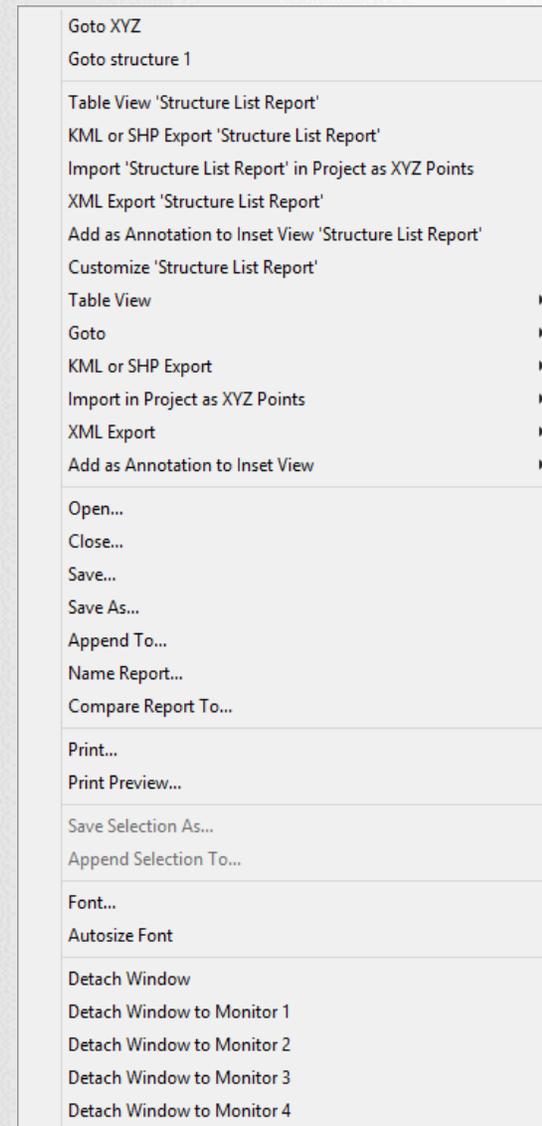
Report Navigator Toolbar

- GoTo Function
- Table View Sections
- XML Export Sections
- Report Annotation Creation



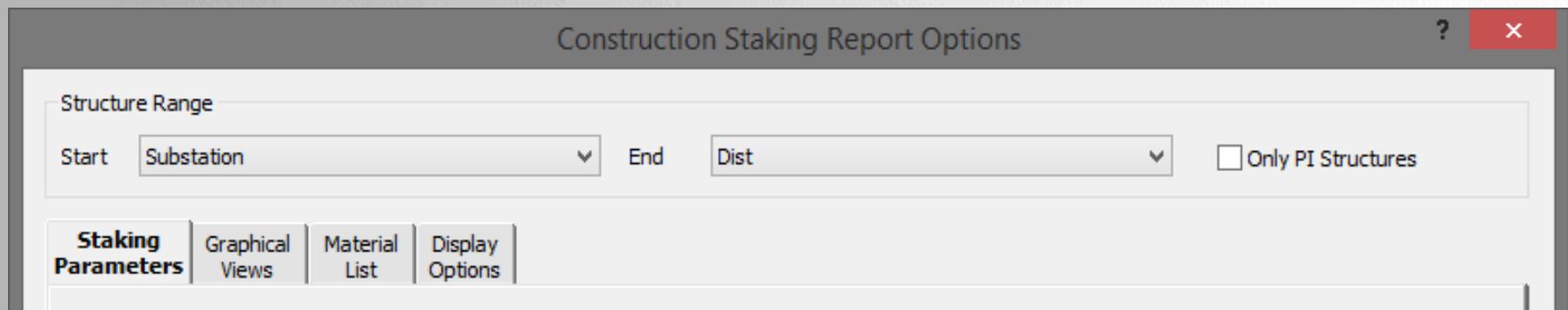
The Right Click Menu

- Go To Subsections
- Go To Structures or XYZ Points
- Table View Subsections
 - Sort, Filter, Copy/Paste
- KML and SHP Export
- Import XYZ Points Into Project
- XML Export
- Create Annotation Inset View
- Customize Subsections
- Save and Print
- Autosize Font
- Append Report
- Name Report
- Compare Report
- Detaching
- Edit Structure Elements
- Tooltip Labels When Header Offscreen



Construction Staking Report

- Tabbed Arrangement
- Structure Range
- Only Report for PI Structures



Construction Staking Report *Continued...*

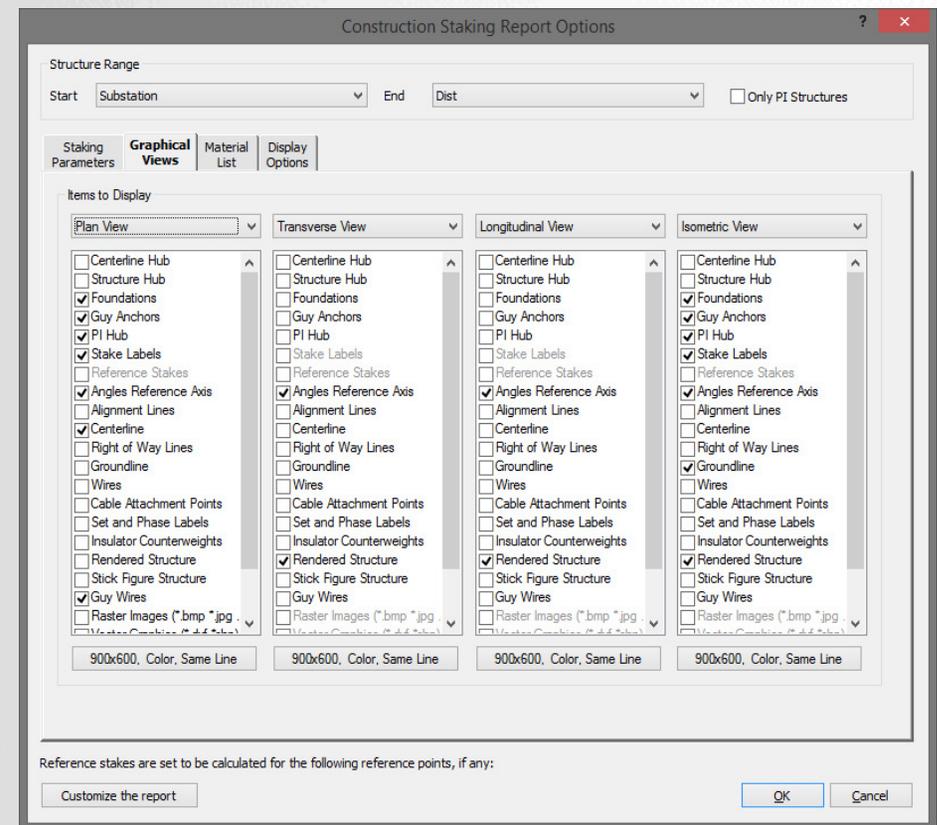
- Staking Parameters
 - Reference Stake Distances
 - Reference Points

The screenshot shows the 'Construction Staking Report Options' dialog box. At the top, there is a 'Structure Range' section with 'Start' set to 'Substation' and 'End' set to 'Dist'. A checkbox for 'Only P1 Structures' is present. Below this are four tabs: 'Staking Parameters', 'Graphical Views', 'Material List', and 'Display Options'. The 'Staking Parameters' tab is active. It contains two main sections: 'Reference Stakes Distances from Reference Points' and 'Reference Points'. The first section includes a diagram of a 'Reference Point' with 'Left Offset' (ft) and 'Right Offset' (ft) fields, and 'Back' and 'Ahead' distance fields. The second section is a list of reference points with checkboxes: Centerline Hub, Structure Hub, Foundations, Guy Anchors, and P.I. Hub. At the bottom, there is a summary line: 'Reference stakes are set to be calculated for the following reference points, if any:' followed by a 'Customize the report' button and 'OK' and 'Cancel' buttons.

Construction Staking Report *Continued...*

- **Graphical Views**

- Plan, Transverse, Longitudinal & Isometric
- Plethora of Options
- Order and Type Switchable
- Size, Color, and Line Options



Construction Staking Report *Continued...*

- **Material List**
 - Same Options as Bill of Material Report

The screenshot shows the 'Construction Staking Report Options' dialog box with the 'Material List' tab selected. The 'Structure Range' section has 'Start' set to 'Substation' and 'End' set to 'Dist', with an unchecked 'Only P1 Structures' checkbox. The 'Report items with status:' section has 'Retired' and 'Existing' unchecked, 'New' checked, and 'Transferred' unchecked. The 'New' Items to Report and Options section has 'Parts' and 'Assemblies' checked, while 'Decompose Assemblies', 'Cables in line that have stock numbers (from *.WIR files)', 'Include only insulator items that are attached to cables', and 'Concentrated Loads in line (marker balls, spacers, etc) that have stock numbers (from *.MAR files)' are unchecked. A 'Decompose by set and phase' checkbox is also present. To the right, the 'Sets for Insulators, Cables and Concentrated Loads' section has two lists: 'Sets' (Set 51 to Set 59) and 'Phases' (Phase 1, Phase 2, Phase 3). A note at the bottom states: 'NOTE: Line Specific Material List will not be included in this structure-specific report'. At the bottom of the dialog, there is a 'Reference stakes are set to be calculated for the following reference points, if any:' section with a 'Customize the report' button, and 'OK' and 'Cancel' buttons.

Construction Staking Report *Continued...*

- **Display Options**
 - Selection of Sub-Section Reports
 - Optional Data Rows
 - Foundation Joints
 - Guy Anchors
 - By Structure Sub-Section Options
 - Material List
 - Graphical View Types

The screenshot shows the 'Construction Staking Report Options' dialog box. It features a 'Structure Range' section with 'Start' set to 'Substation' and 'End' set to '10', and an unchecked 'Only PI Structures' checkbox. Below this are four tabs: 'Staking Parameters', 'Graphical Views', 'Material List', and 'Display Options', with 'Display Options' selected. The 'Display Options' tab contains three main sections: 'Tabular and Graphical Views to Display - in order top to bottom' with a list of four checked items (PI Staking Report, Staking Data, Staking Data by Structure, and Bill of Material) and 'Move Up'/'Move Down' buttons; 'Staking Data Optional Rows' with 'Foundation Joints' and 'Guy Anchors' checked and 'Move Up'/'Move Down' buttons; and 'Staking Data by Structure Options' with 'Material List by Structure', 'Plan View', 'Transverse View', 'Longitudinal View', and 'Isometric View' checked and 'Move Up'/'Move Down' buttons. At the bottom, the 'Other Items to Display' section has 'Criteria Notes' and 'Project Notes' unchecked, and 'Project Coordinate System' checked. A note at the bottom states 'Reference stakes are set to be calculated for the following reference points, if any: Centerline Hub'. The dialog includes 'Customize the report', 'OK', and 'Cancel' buttons.

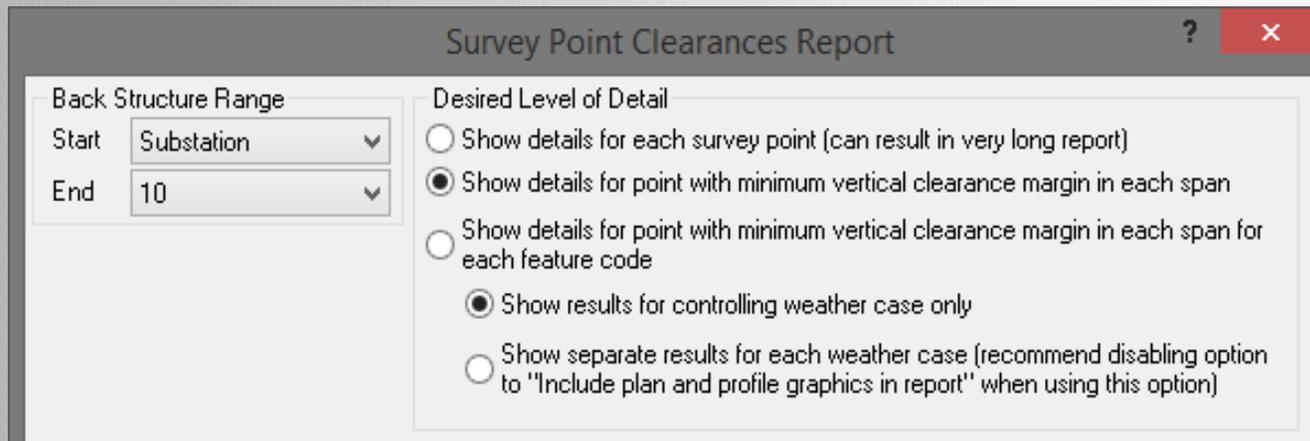
Construction Staking Report *Continued...*

• Output

- Structure number
- Structure name
- Ahead Span
- Line Angle
- Structure Orientation Angle
- Stake Description / Type
- **Station of Stake**
 - (special case for inside line angles)
- **BT or BI**
- XYZ and TIN Z
- Length to Structure Hub
- Length to Centerline Hub
- Reference Stake Offset
- **Average Slope at Guy Anchor**
- Structure Right Bisector Angle
- Centerline Right Bisector Angle
- Structure Right Transverse Angle
- **Pole Property Label**
- CAN Property Label
- Structure Height / Pole Length
- **Actual Embedment**
- **Modeled Embedment**
- Pole Base Diameter
- **Structure or Pole Weight**
- Structure Description
- Warnings
- † **Lat/Long Coordinates (Dec. & DMS)**
- † Project Title & Notes
- † Structure Comments
- † Structure Model Insertion Z
- † = *Hidden By Default*

Survey Point Clearances Report

- **Desired Level of Detail**
 - Show details for each point
 - Show details for point with minimum vertical clearance in each span
 - Show details for point with minimum vertical clearance in each span for each feature code
 - Show for controlling weather case only
 - Show separate results for each weather case



The screenshot shows a dialog box titled "Survey Point Clearances Report" with a question mark icon and a close button (X) in the top right corner. The dialog is divided into two main sections. The left section, titled "Back Structure Range", contains two dropdown menus: "Start" set to "Substation" and "End" set to "10". The right section, titled "Desired Level of Detail", contains five radio button options. The second option, "Show details for point with minimum vertical clearance margin in each span", is selected. The other options are "Show details for each survey point (can result in very long report)", "Show details for point with minimum vertical clearance margin in each span for each feature code", "Show results for controlling weather case only", and "Show separate results for each weather case (recommend disabling option to 'Include plan and profile graphics in report' when using this option)".

Survey Point Clearances Report *Continued...*

- **Points to be Considered**
 - Feature Codes
 - Horizontal Distance from wire to stop considering points
 - Ground Clearance Checks
 - Station Interval for clearance check to interpolated points on centerline
 - Rectangular
 - Station and offset (grid pattern) for TIN check
 - Maximum Offset from wire for checking to TIN
 - Radial
 - Check clearance to TIN surface

Rectangular

Points to be Considered

Feature codes to include: None selected..

Horizontal distance from wire beyond which survey points and centerline points should be ignored (ft) 90

Station interval for clearance check to interpolated points on centerline ground (0 to disable) (ft) 0

Station and offset interval at which to check clearance to TIN (0 to disable) (ft) 0

Maximum offset from wire for checking clearance to TIN (0 to limit check to directly below wire) (ft) 0

Warning: non zero values can greatly increase run time.

Radial

Points to be Considered

Feature codes to include: None selected..

Horizontal distance from wire beyond which survey points and centerline points should be ignored (ft) 90

Station interval for clearance check to interpolated points on centerline ground (0 to disable) (ft) 0

Check clearances to TIN surface

Survey Point Clearances Report *Continued...*

- **Wind, Ice & Req. Clearance Options**
 - Survey Point Clearance Criteria Edit
 - Continuous Wind Vs. Static Positions
 - Feature Code Table Edit for Changing/Checking Clearances
 - Feature Code for Ground/TIN Edit
 - Optional Concentrated Loads Addition

Wind, Ice and Required Clearance Options

Clearances checked for weather cases in Criteria/Survey Point

Add optional concentrated load or ice to the span under consideration

Required horizontal and vertical clearances are defined in the feature code

Edit Survey Point Clearance Criteria

Edit Feature Code Table

Edit Feature Code for Ground or TIN

Survey Point Clearances Report *Continued...*

- Report & Graphical Marker Options
 - Report on Violations Only
 - Include Plan and Profile Graphics
 - Marker Options for Violations
 - Clearance Box Markers
 - Sag Line Markers
 - Point on Wire Markers
 - Draw a Green Plus + on Survey Points That Were Checked
 - Draw Markers for wire positions

Report and Graphical Marker Options

Report on violations only (exclude points known not to be violations from report)

Include plan and profile graphics in report (increases run time and memory required)

Type of marker to draw at clearance violations: Circle at violation, hollow circle at offending wire

Clearance box markers (extremely memory intensive): None

Sag line markers (extremely memory intensive): None

Point on wire markers (memory intensive): None

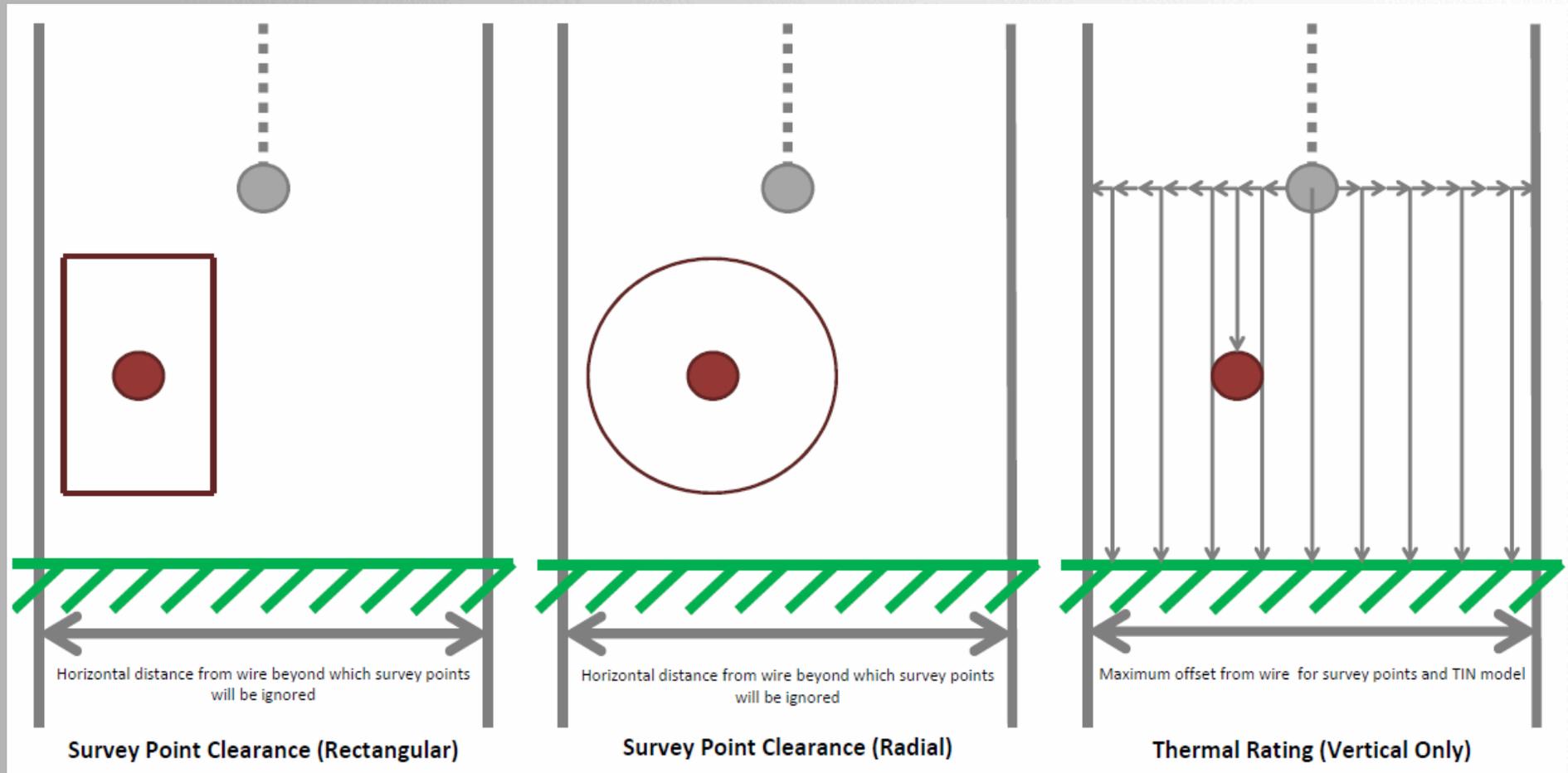
Draw green "+" marker on points where clearance checked (memory intensive and slow)

Draw markers indicating wire positions considered (memory intensive and slow)

Survey Point Clearances Report *Continued...*

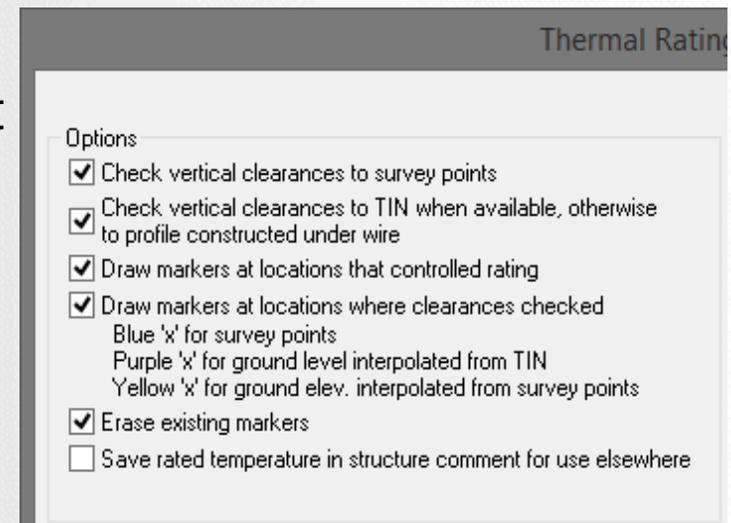
- Type of Clearance Requirement
 - Rectangular
 - Radial
 - Make wire surface TIN
 - Outline TIN triangles at violations

Difference Between SPC & Thermal Rating



Thermal Rating Report

- Options
 - Check vertical clearances to survey points
 - Check vertical clearances to TIN
 - Draw markers at locations of controlled rating
 - Draw markers at location where clearances checked
 - Blue 'x' for survey points
 - Purple 'x' for ground elevation interpolated from TIN
 - Yellow 'x' for ground elevation interpolated from survey points
 - Erase markers
 - Save rated temperature to structure comment



Thermal Rating Report *Continued...*

- Start and end structure
- Cable condition
- Set / phase restrictions
- Minimum and maximum temperature limits

The screenshot shows a software window titled "g Report" with a help icon and a close button. The window contains the following configuration options:

- Back Structure, Set and Temperature Range**
- Start:** Substation (dropdown)
- End:** 10 (dropdown)
- Condition:** Creep RS (dropdown)
- Select desired attachment sets and phases to the right.**
- Attachment sets:** Set 53, Set 54, Set 55, Set 56, Set 57, Set 58, Set 59, Set 60 (list with scroll bar)
- Attachment phases:** Phase 1, Phase 2, Phase 3 (list)
- Minimum wire temperature to consider (deg F):** 32.00 (text input)
- Maximum wire temperature to consider (deg F):** 500.00 (text input)

Thermal Rating Report *Continued...*

- Feature codes for survey point checks

Feature Codes for Survey Point Checks

List of feature codes to consider: All feature codes...

Thermal Rating Report *Continued...*

- Maximum offset from survey points and TIN model

Maximum Offset for Survey Points and TIN Model

Maximum offset from wire for survey points and TIN model. Entities outside this offset will be ignored.
Note: Normal centerline clearances may not be checked in this report.

(ft)

Thermal Rating Report *Continued...*

- Profile under wire **Only** used when can't get elevations under wire from TIN model
 - Maximum offset from wire for ground points to be included in profile below wire
 - Very similar to centerline tolerance in terrain widths
 - Maximum length of line segment for inclusion in profile below wire

Profile under wire- Only used when can't get elevations under wire from TIN model

If the program is unable to determine the ground elevation below a wire from the TIN model then it will try to construct a profile below the wire. This profile consists of line segments created by connecting survey points with known ground elevations within a specified offset of the wire in order of increasing station. A maximum segment length field is provided to prevent interpolation between points which are too far apart.

Maximum offset from wire for ground points to be included in profile below wire

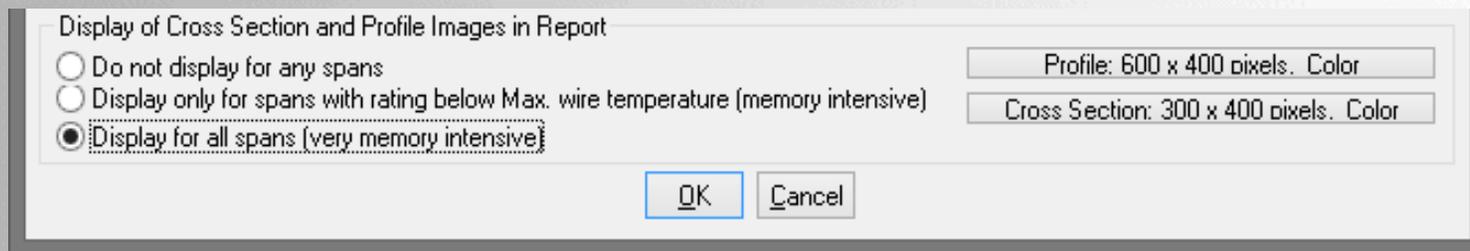
(ft)

Maximum length of line segment for inclusion in profile below wire

(ft)

Thermal Rating Report *Continued...*

- Display of cross section and profile images in report
 - Do not display
 - Display for spans with rating below max wire temp
 - Display for all spans



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Any Questions?

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