There are three sections to this introduction:

1. Navigating our Tower Software Interface;
2. Navigating the User Tower Project Data Base; and
3. Navigating INSPECTOWER 3.

1. Navigating our Tower Software Interface

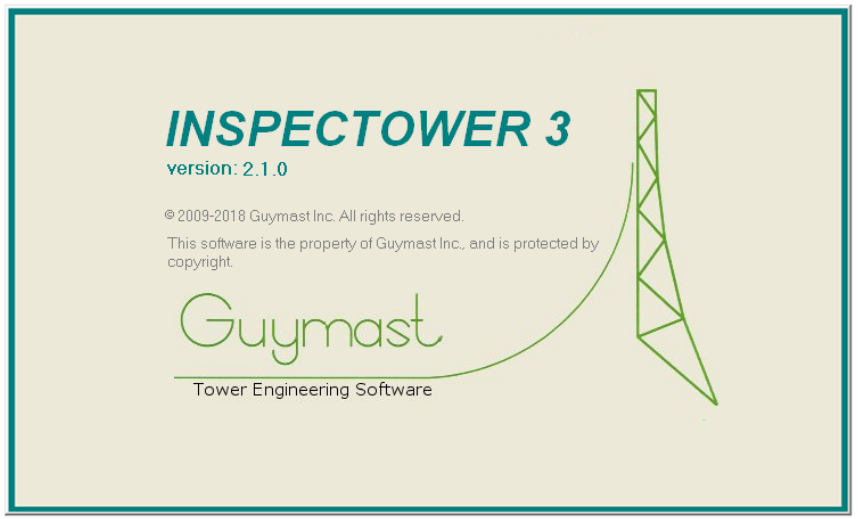
Guymast Inc.

Introduction to INSPECTOWER 3

Introductory Image on Activation of INSPECTOWER 3:

Program

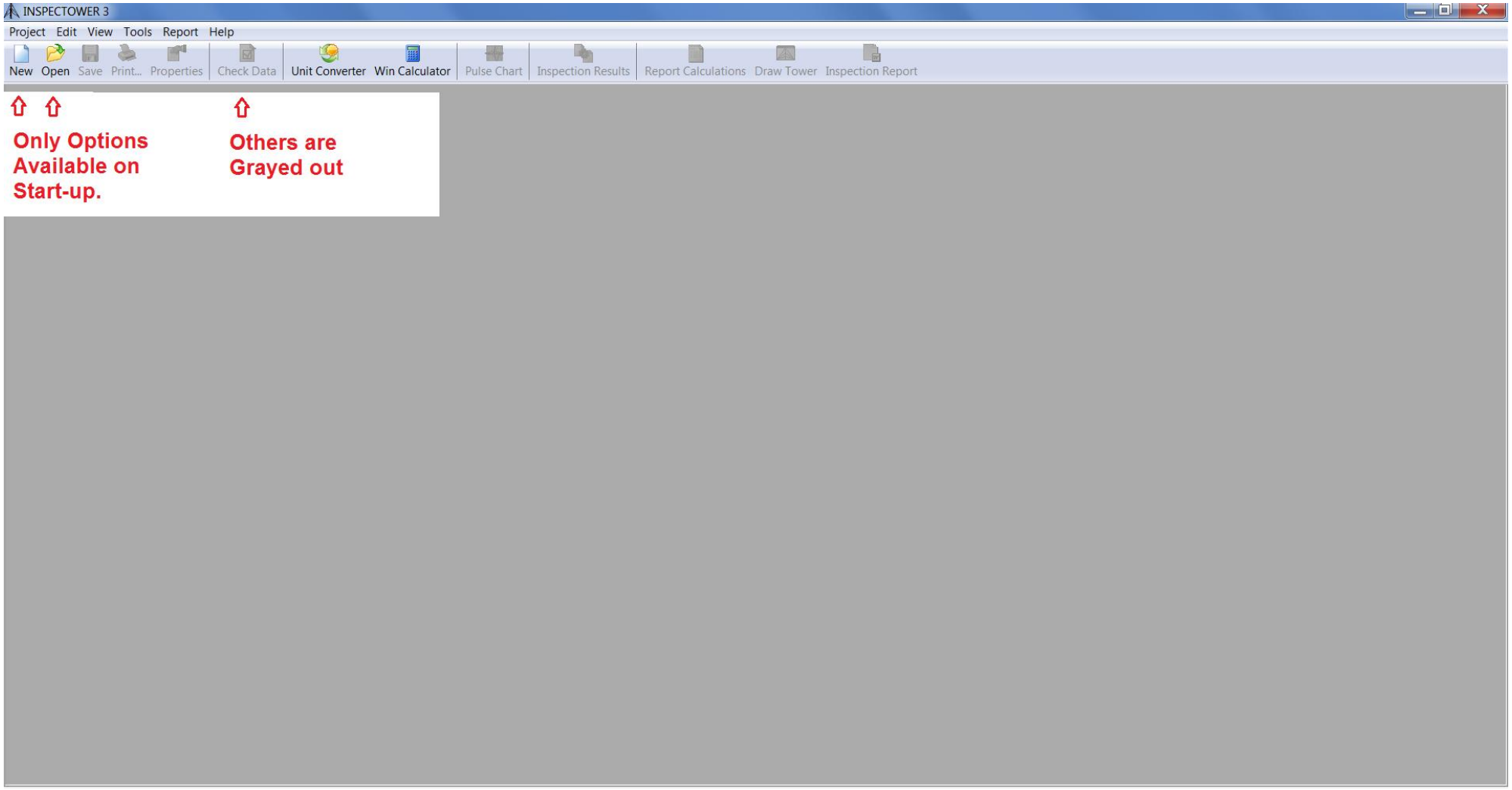
Version



Guymast Inc.

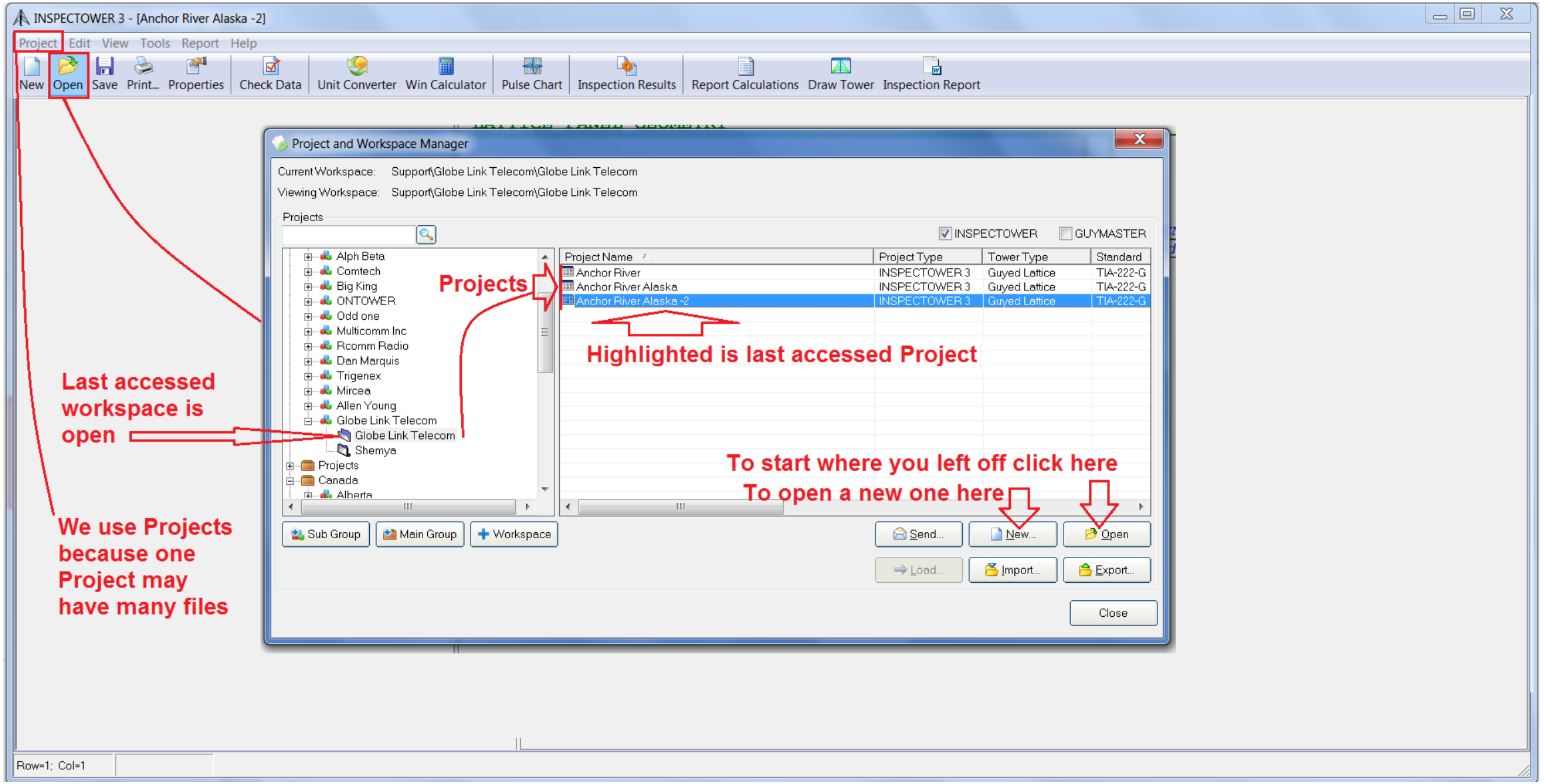
Introduction to INSPECTOWER 3

The first time running INSPECTOWER 3 this screen will appear:

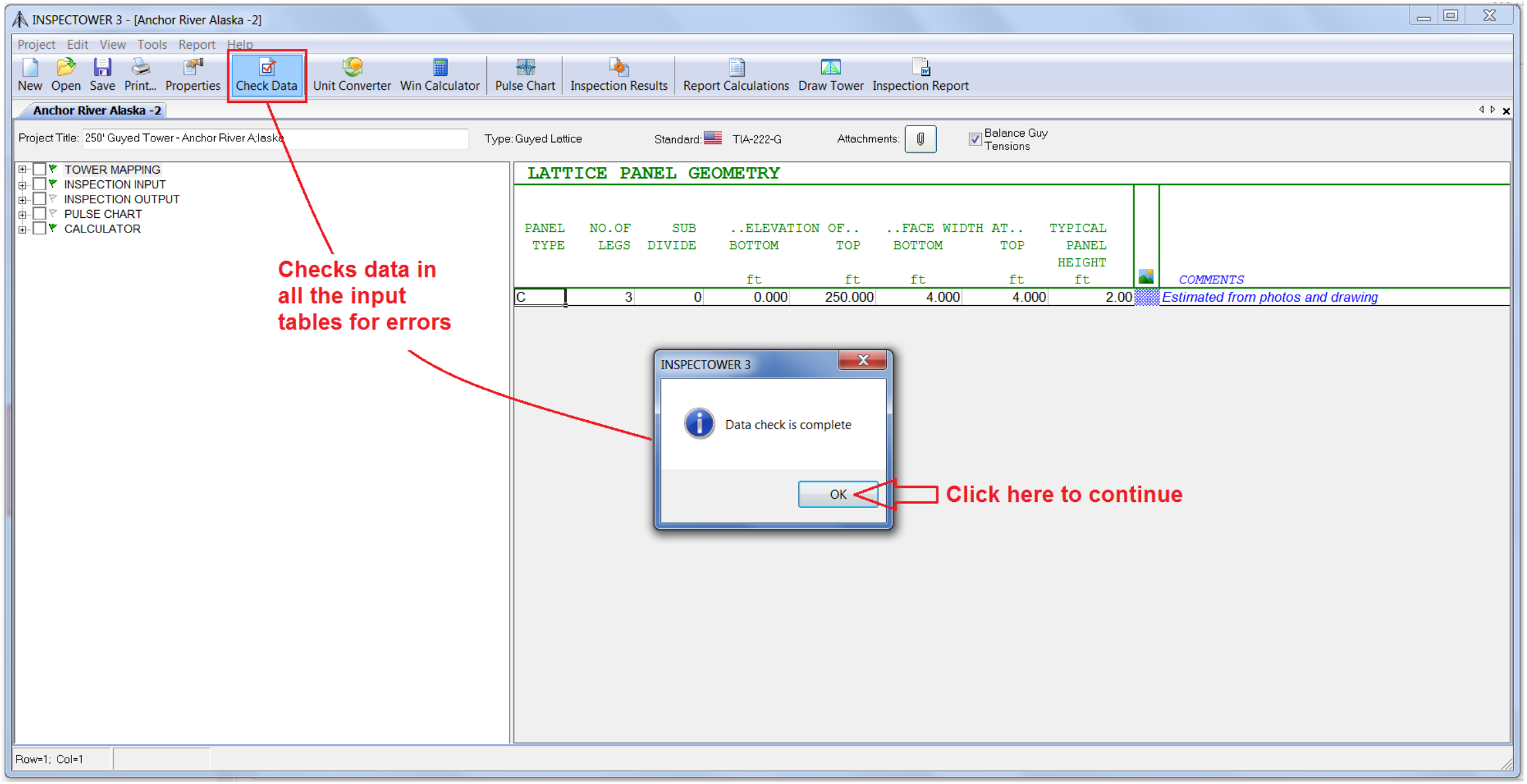


Guymast Inc.

Subsequent times running INSPECTOWER 3 this screen will appear:

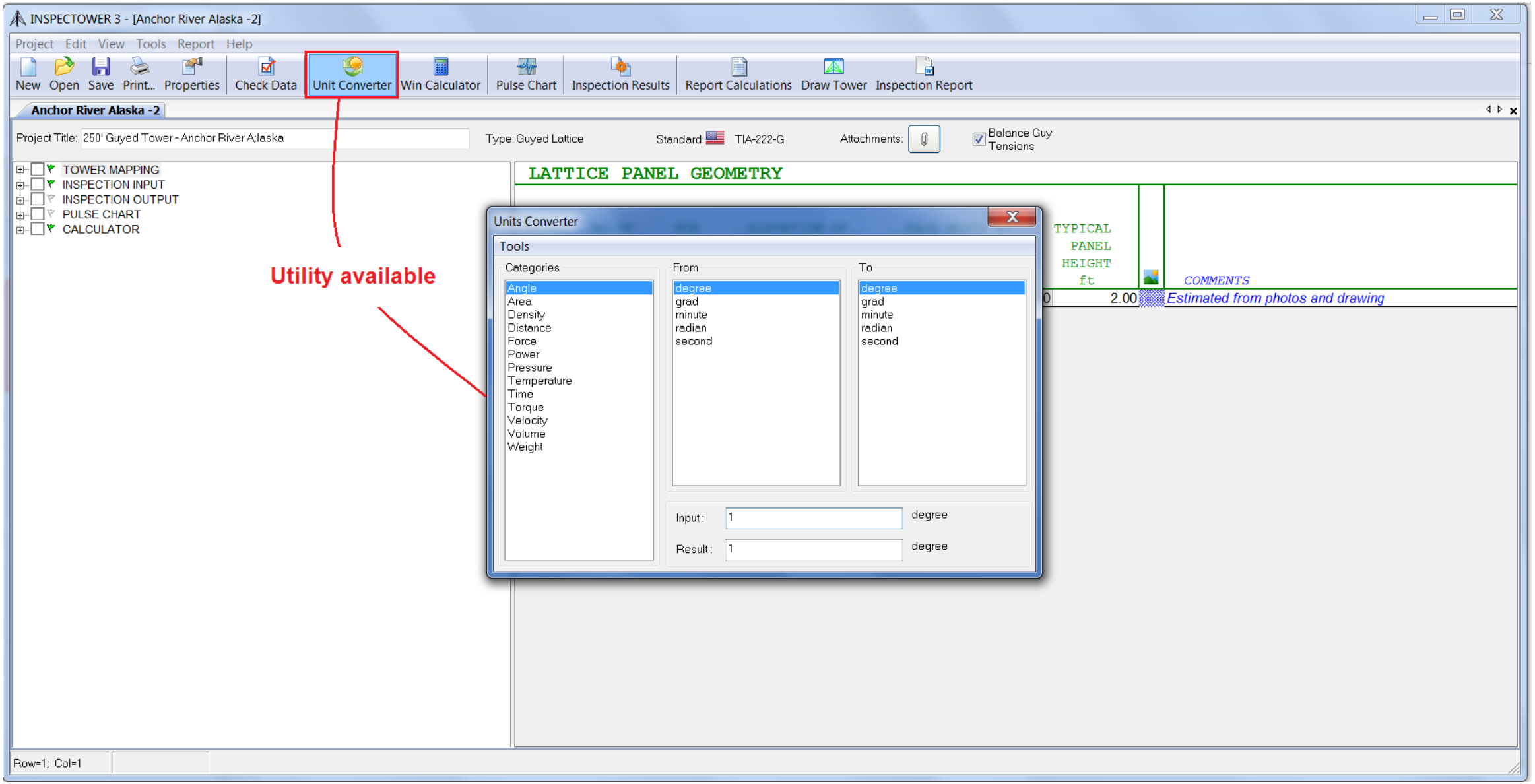


Guymast Inc.


INSPECTOWER 3 - [Anchor River Alaska -2]
Project Edit View Tools Report Help
New Open Save Print... Properties Check Data Unit Converter Win Calculator Pulse Chart Inspection Results Report Calculations Draw Tower Inspection Report
Anchor River Alaska -2
Project Title: 250' Guyed Tower - Anchor River Alaska
Type: Guyed Lattice
Standard: TIA-222-G
Attachments:
Balance Guy Tensions
TOWER MAPPING
INSPECTION INPUT
INSPECTION OUTPUT
PULSE CHART
CALCULATOR
LATTICE PANEL GEOMETRY
PANEL TYPE
NO.OF LEGS
SUB DIVIDE
..ELEVATION OF..
BOTTOM ft
TOP ft
..FACE WIDTH AT..
BOTTOM ft
TOP ft
TYPICAL PANEL HEIGHT ft
COMMENTS
C 3 0 0.000 250.000 4.000 4.000 2.00 Estimated from photos and drawing
Checks data in all the input tables for errors
INSPECTOWER 3
Data check is complete
OK
Click here to continue
Row=1; Col=1

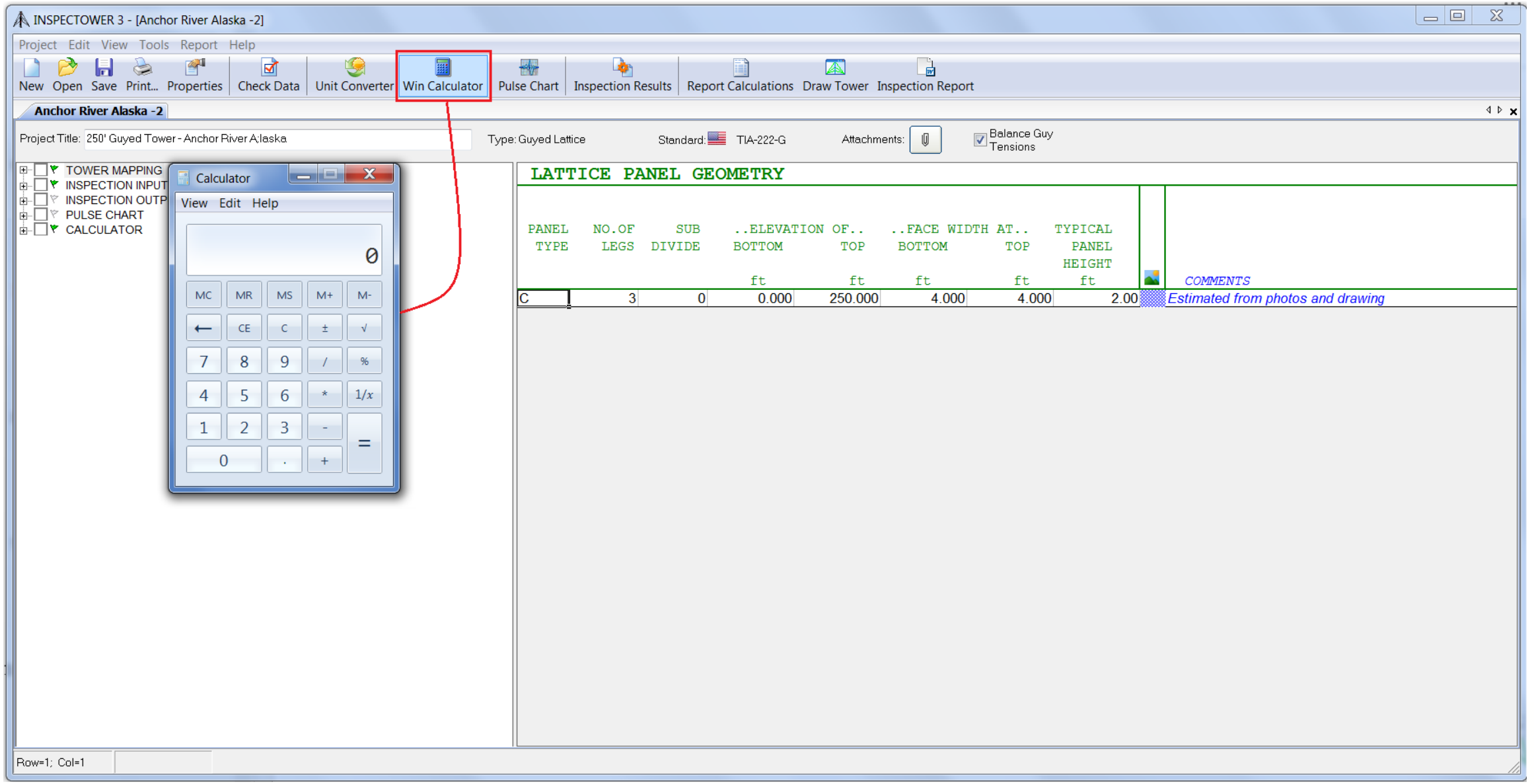
Guymast Inc.

Introduction to INSPECTOWER 3



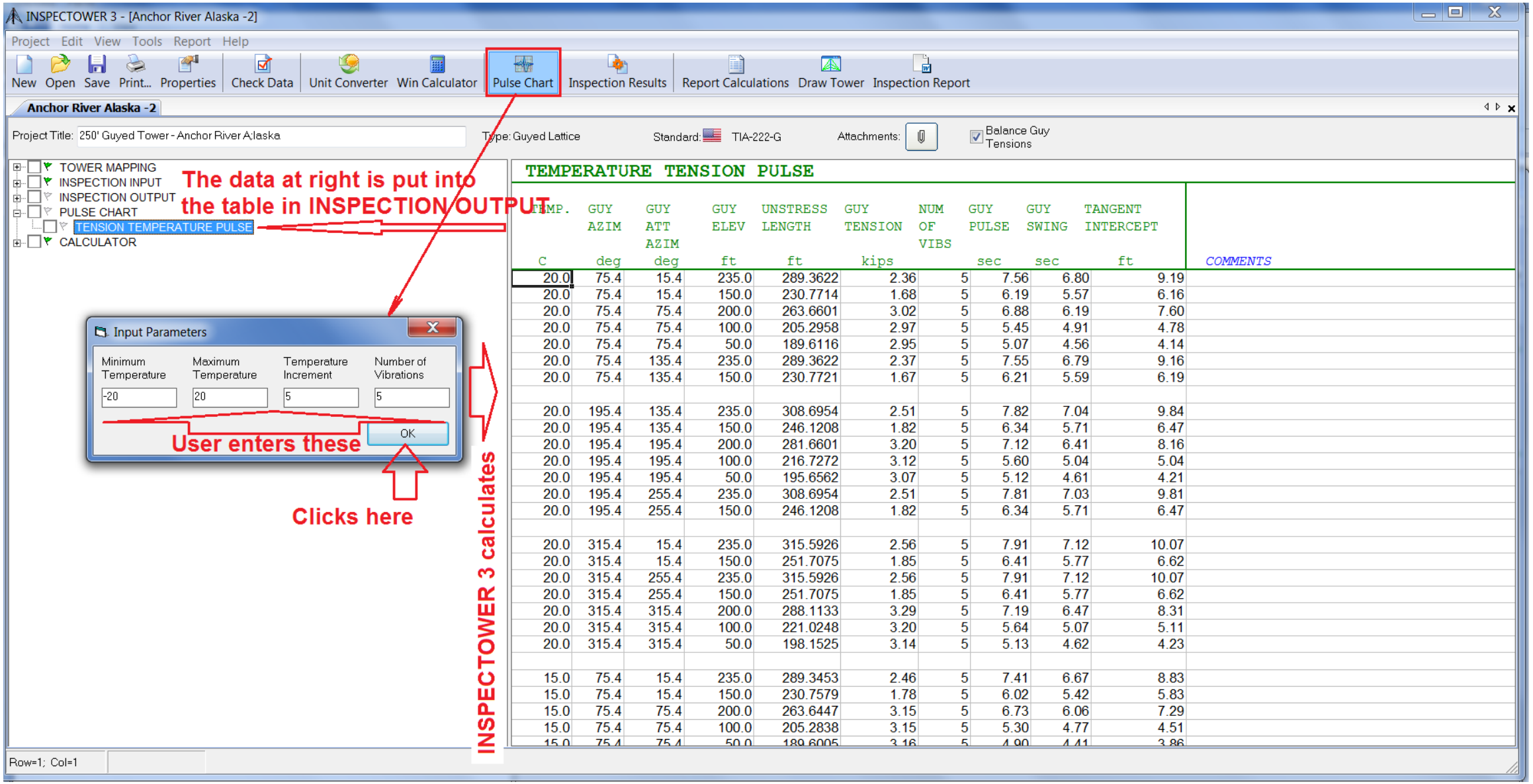
Guymast Inc.

Introduction to INSPECTOWER 3



Guymast Inc.

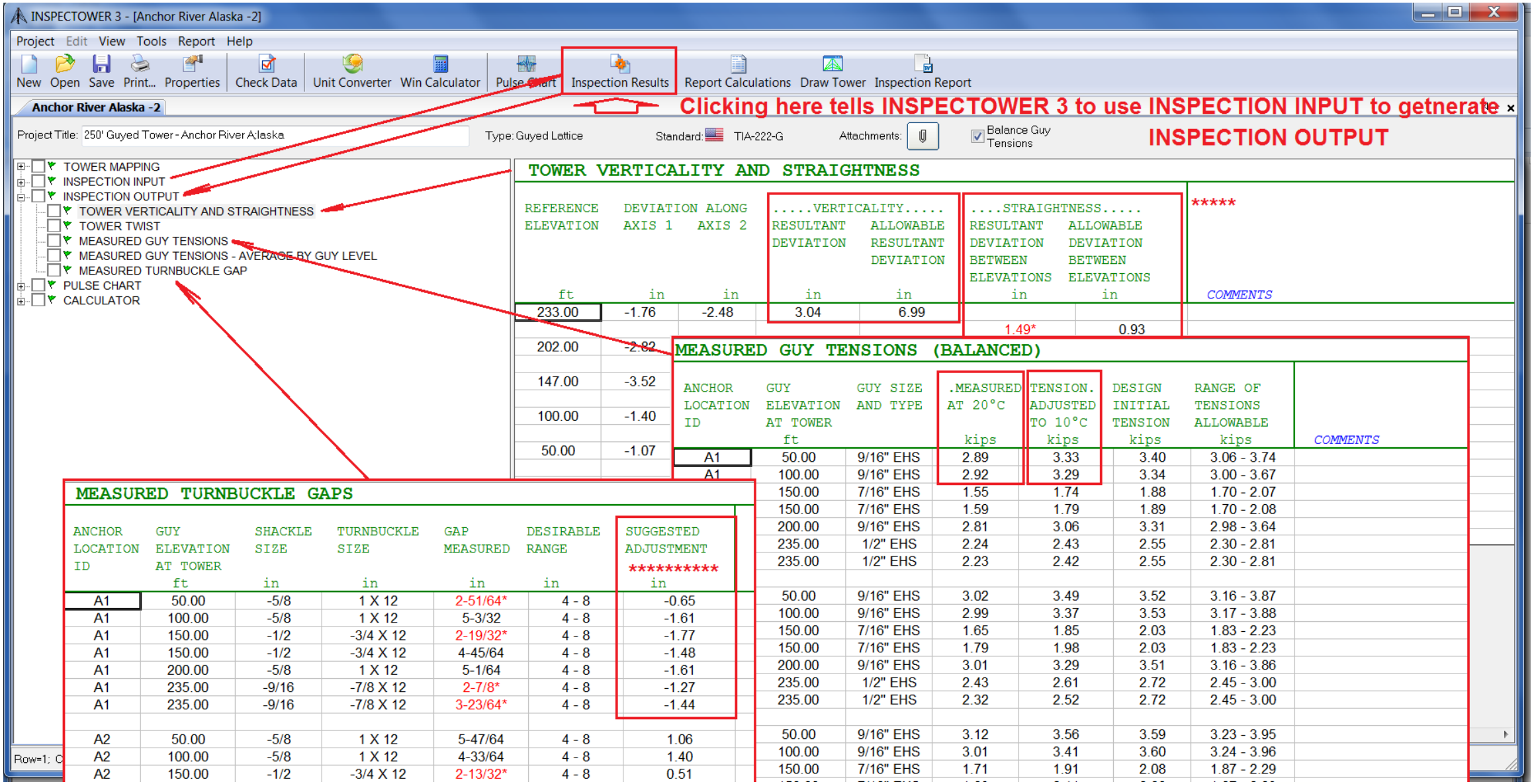
Introduction to INSPECTOWER 3



TEMP.	GUY AZIM	GUY ATT AZIM	GUY ELEV	UNSTRESS LENGTH	GUY TENSION	NUM OF VIBS	GUY PULSE	GUY SWING	TANGENT INTERCEPT	COMMENTS
C	deg	deg	ft	ft	kips		sec	sec	ft	
20.0	75.4	15.4	235.0	289.3622	2.36	5	7.56	6.80	9.19	
20.0	75.4	15.4	150.0	230.7714	1.68	5	6.19	5.57	6.16	
20.0	75.4	75.4	200.0	263.6601	3.02	5	6.88	6.19	7.60	
20.0	75.4	75.4	100.0	205.2958	2.97	5	5.45	4.91	4.78	
20.0	75.4	75.4	50.0	189.6116	2.95	5	5.07	4.56	4.14	
20.0	75.4	135.4	235.0	289.3622	2.37	5	7.55	6.79	9.16	
20.0	75.4	135.4	150.0	230.7721	1.67	5	6.21	5.59	6.19	
20.0	195.4	135.4	235.0	308.6954	2.51	5	7.82	7.04	9.84	
20.0	195.4	135.4	150.0	246.1208	1.82	5	6.34	5.71	6.47	
20.0	195.4	195.4	200.0	281.6601	3.20	5	7.12	6.41	8.16	
20.0	195.4	195.4	100.0	216.7272	3.12	5	5.60	5.04	5.04	
20.0	195.4	195.4	50.0	195.6562	3.07	5	5.12	4.61	4.21	
20.0	195.4	255.4	235.0	308.6954	2.51	5	7.81	7.03	9.81	
20.0	195.4	255.4	150.0	246.1208	1.82	5	6.34	5.71	6.47	
20.0	315.4	15.4	235.0	315.5926	2.56	5	7.91	7.12	10.07	
20.0	315.4	15.4	150.0	251.7075	1.85	5	6.41	5.77	6.62	
20.0	315.4	255.4	235.0	315.5926	2.56	5	7.91	7.12	10.07	
20.0	315.4	255.4	150.0	251.7075	1.85	5	6.41	5.77	6.62	
20.0	315.4	315.4	200.0	288.1133	3.29	5	7.19	6.47	8.31	
20.0	315.4	315.4	100.0	221.0248	3.20	5	5.64	5.07	5.11	
20.0	315.4	315.4	50.0	198.1525	3.14	5	5.13	4.62	4.23	
15.0	75.4	15.4	235.0	289.3453	2.46	5	7.41	6.67	8.83	
15.0	75.4	15.4	150.0	230.7579	1.78	5	6.02	5.42	5.83	
15.0	75.4	75.4	200.0	263.6447	3.15	5	6.73	6.06	7.29	
15.0	75.4	75.4	100.0	205.2838	3.15	5	5.30	4.77	4.51	
15.0	75.4	75.4	50.0	189.6005	3.16	5	4.90	4.41	3.86	

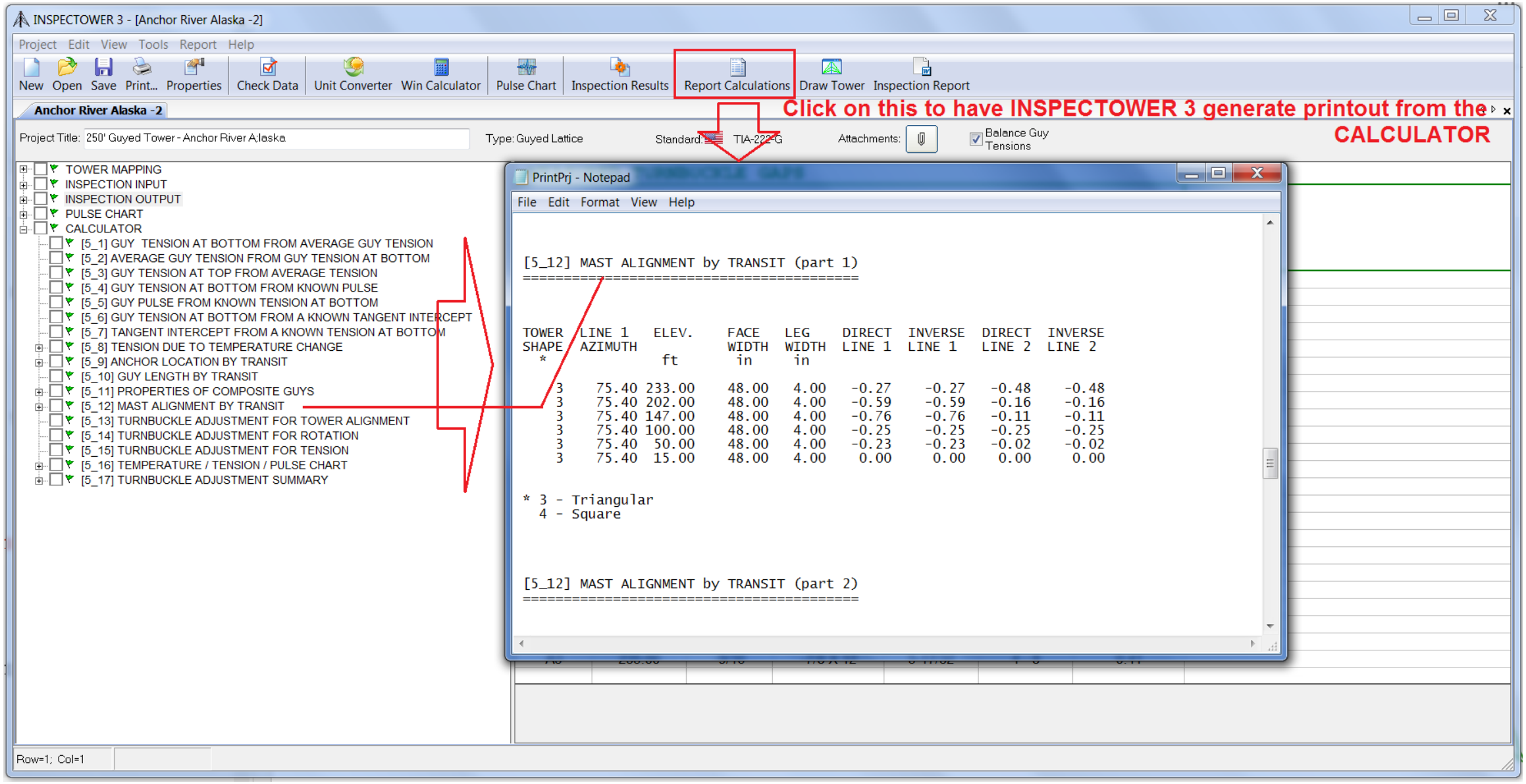
Guymast Inc.

Introduction to INSPECTOWER 3



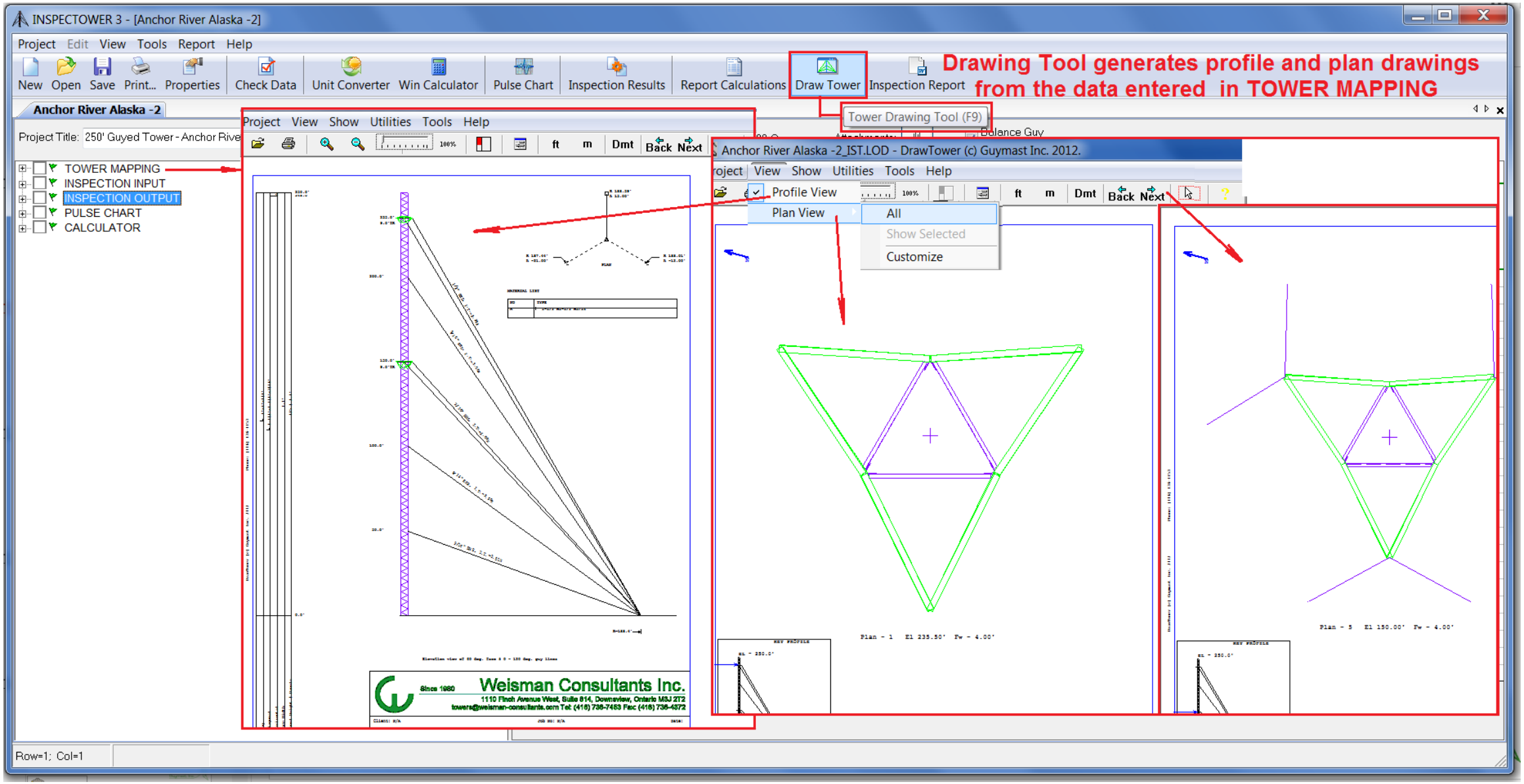
Guymast Inc.

Introduction to INSPECTOWER 3



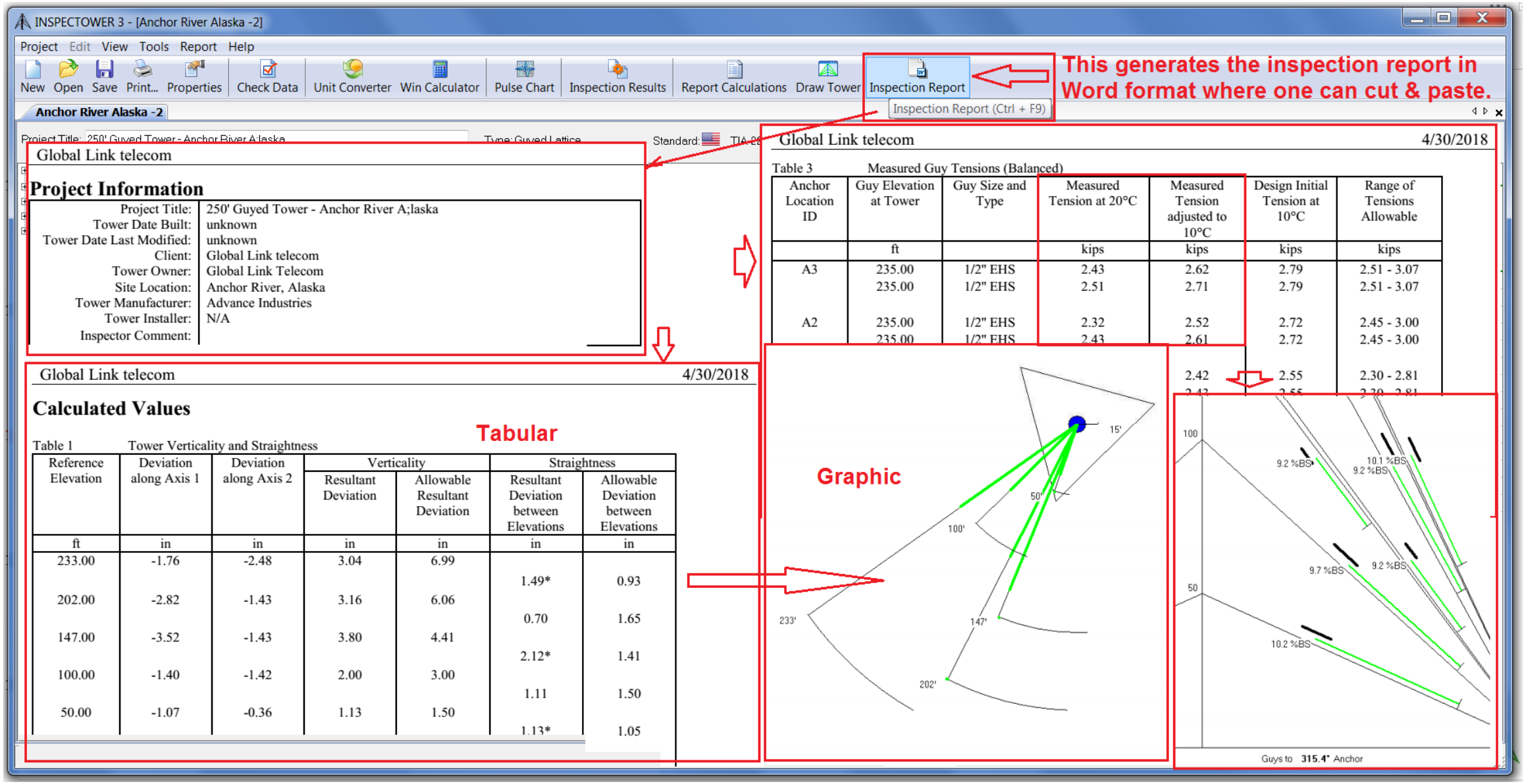
Guymast Inc.

Introduction to INSPECTOWER 3



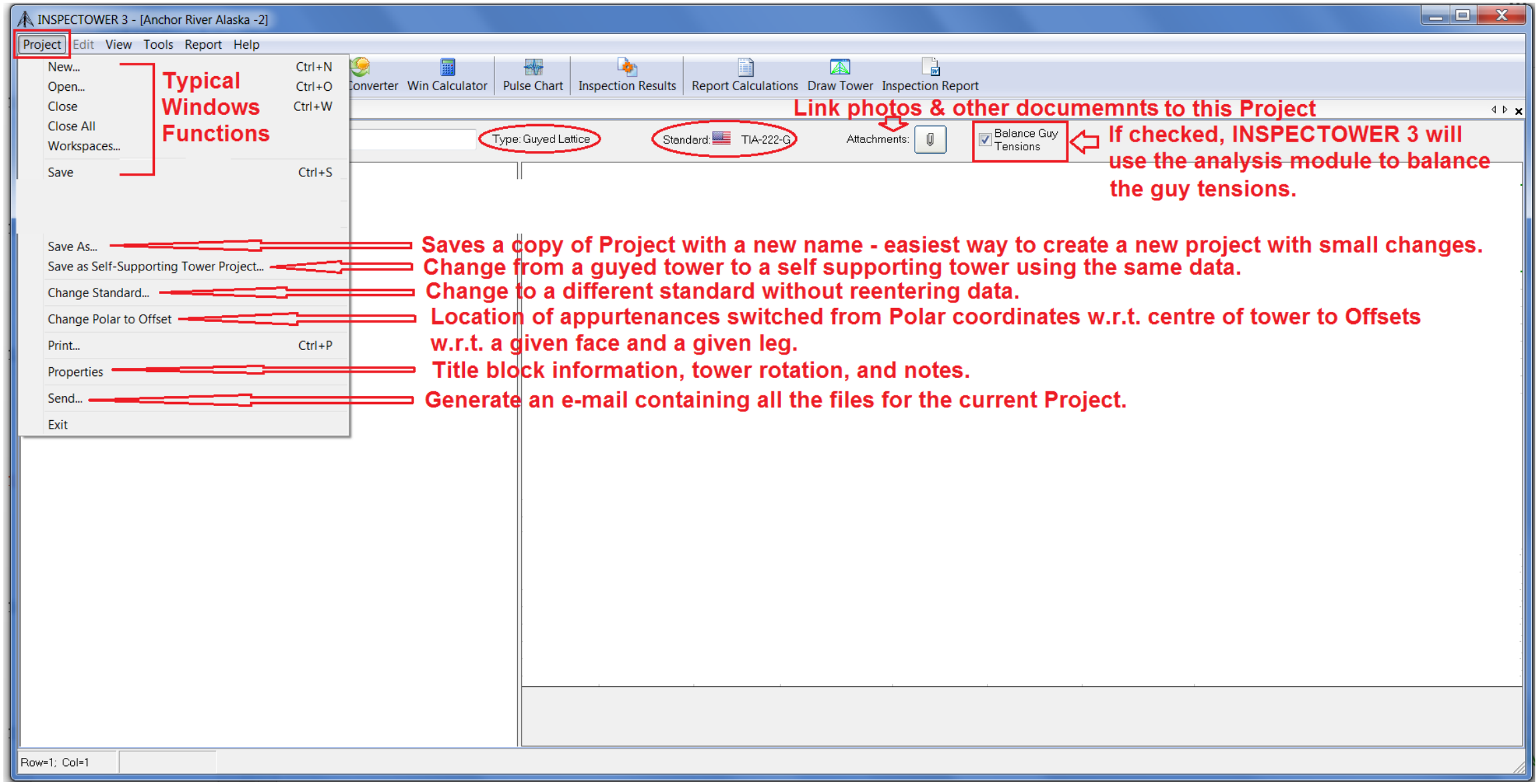
Guymast Inc.

Introduction to INSPECTOWER 3



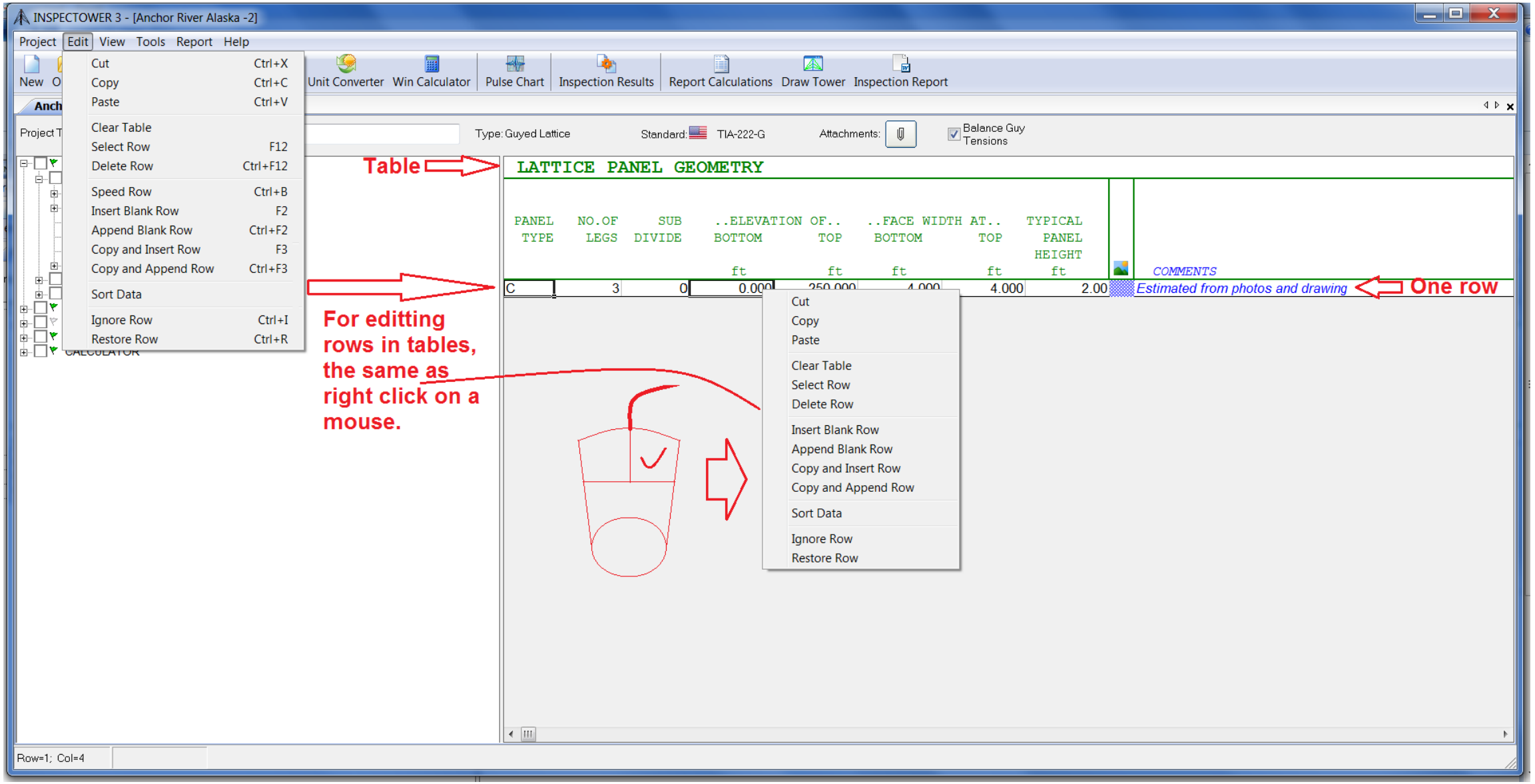
Guymast Inc.

Introduction to INSPECTOWER 3



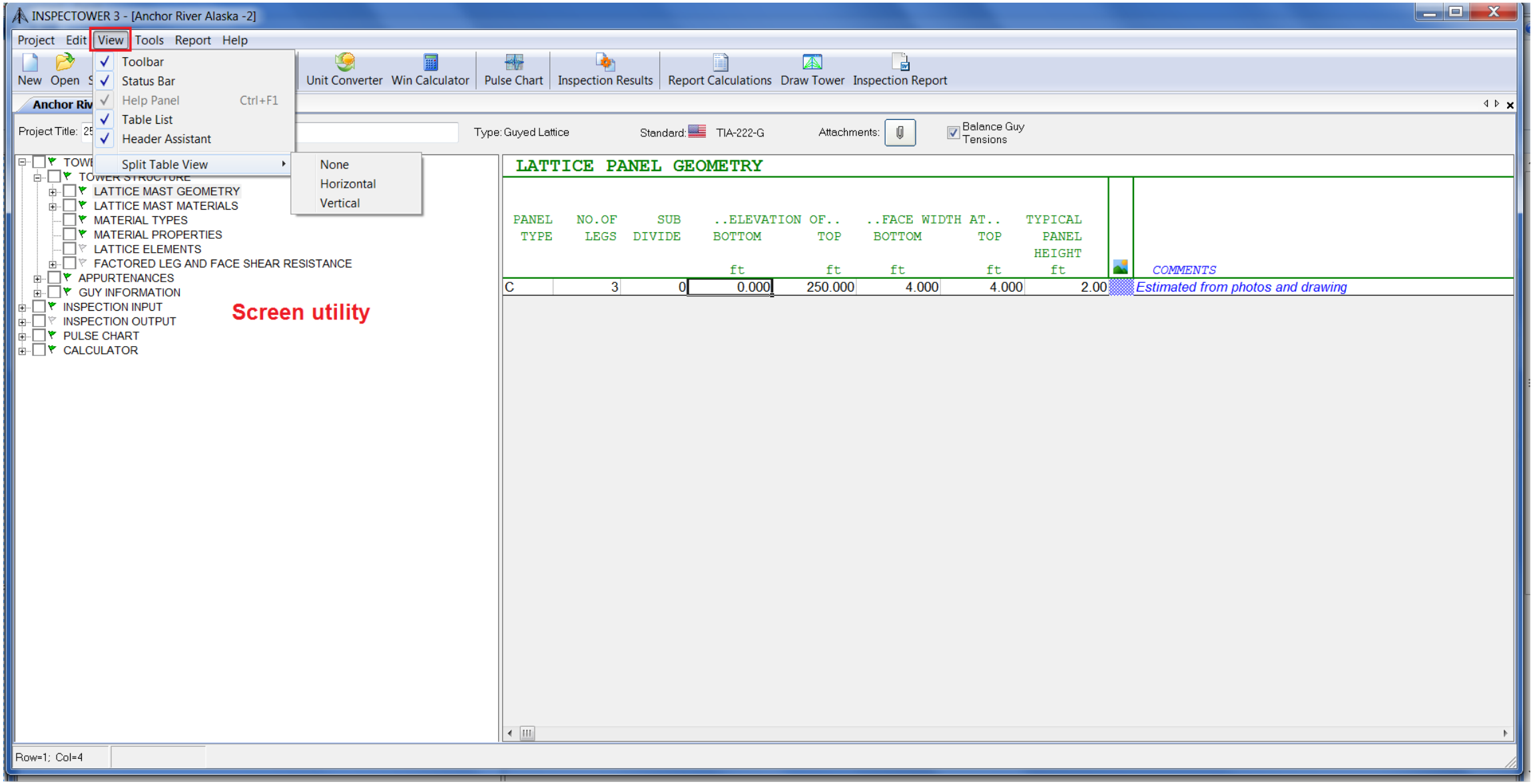
Guymast Inc.

Introduction to INSPECTOWER 3



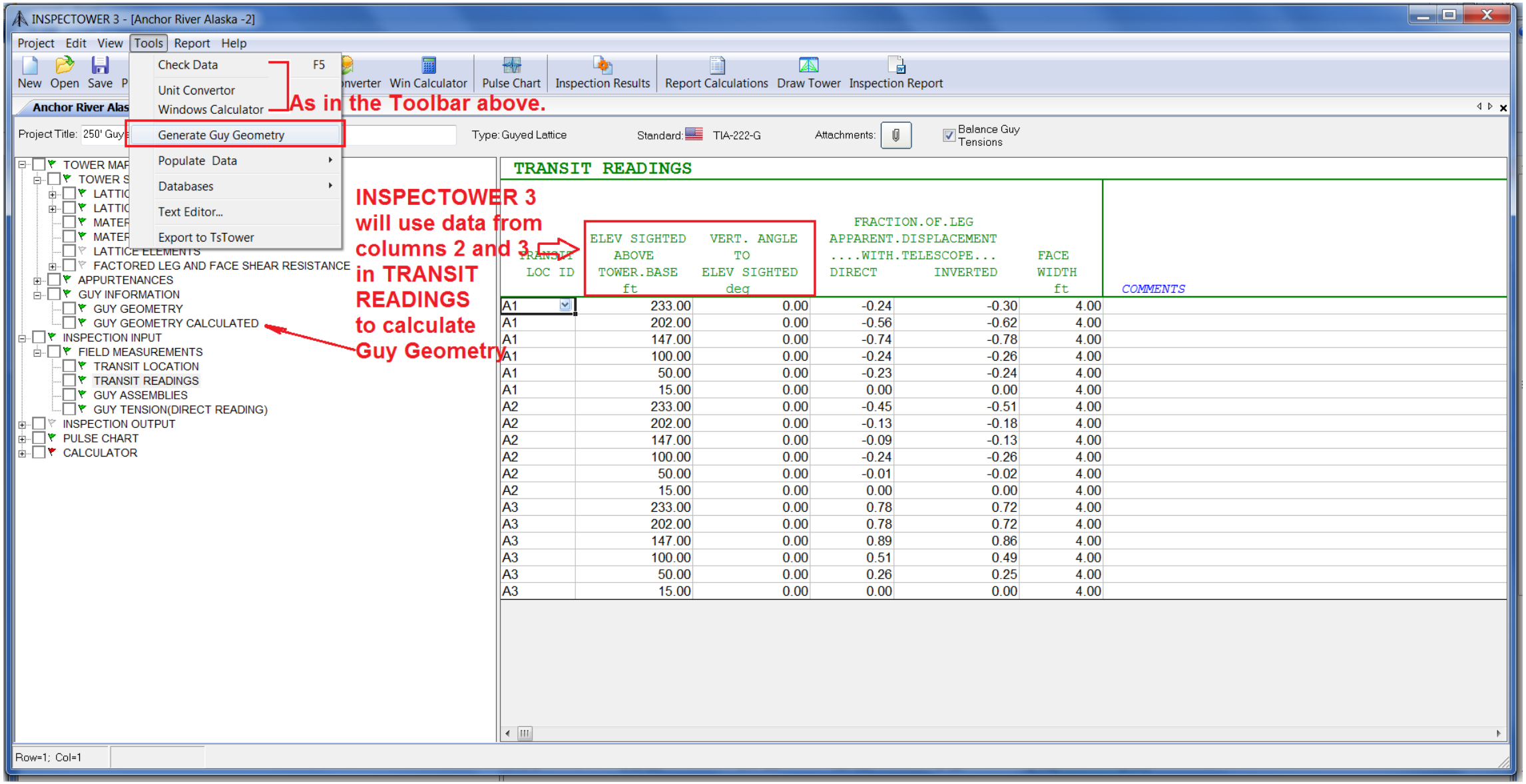
Guymast Inc.

Introduction to INSPECTOWER 3



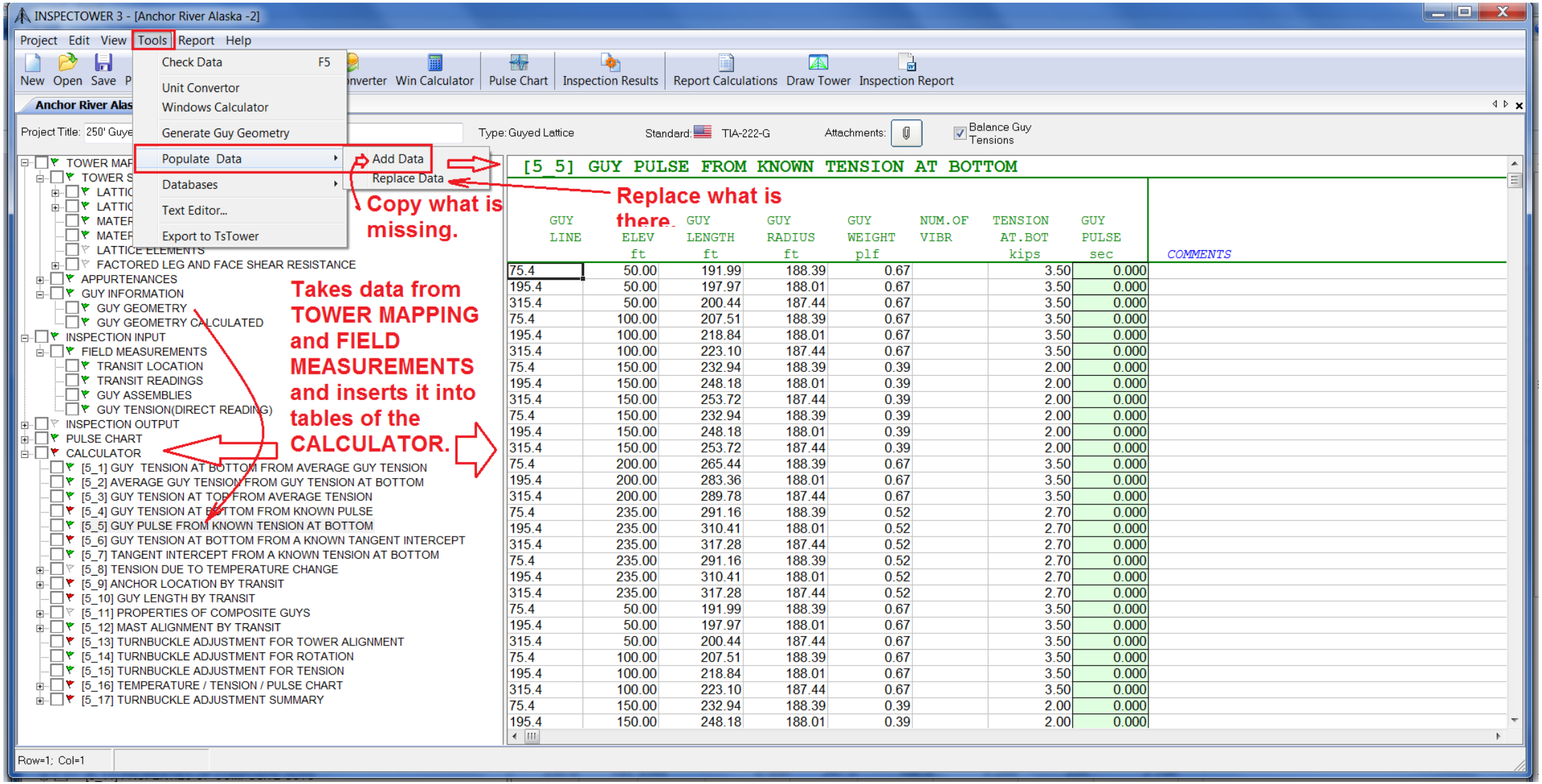
Guymast Inc.

Introduction to INSPECTOWER 3



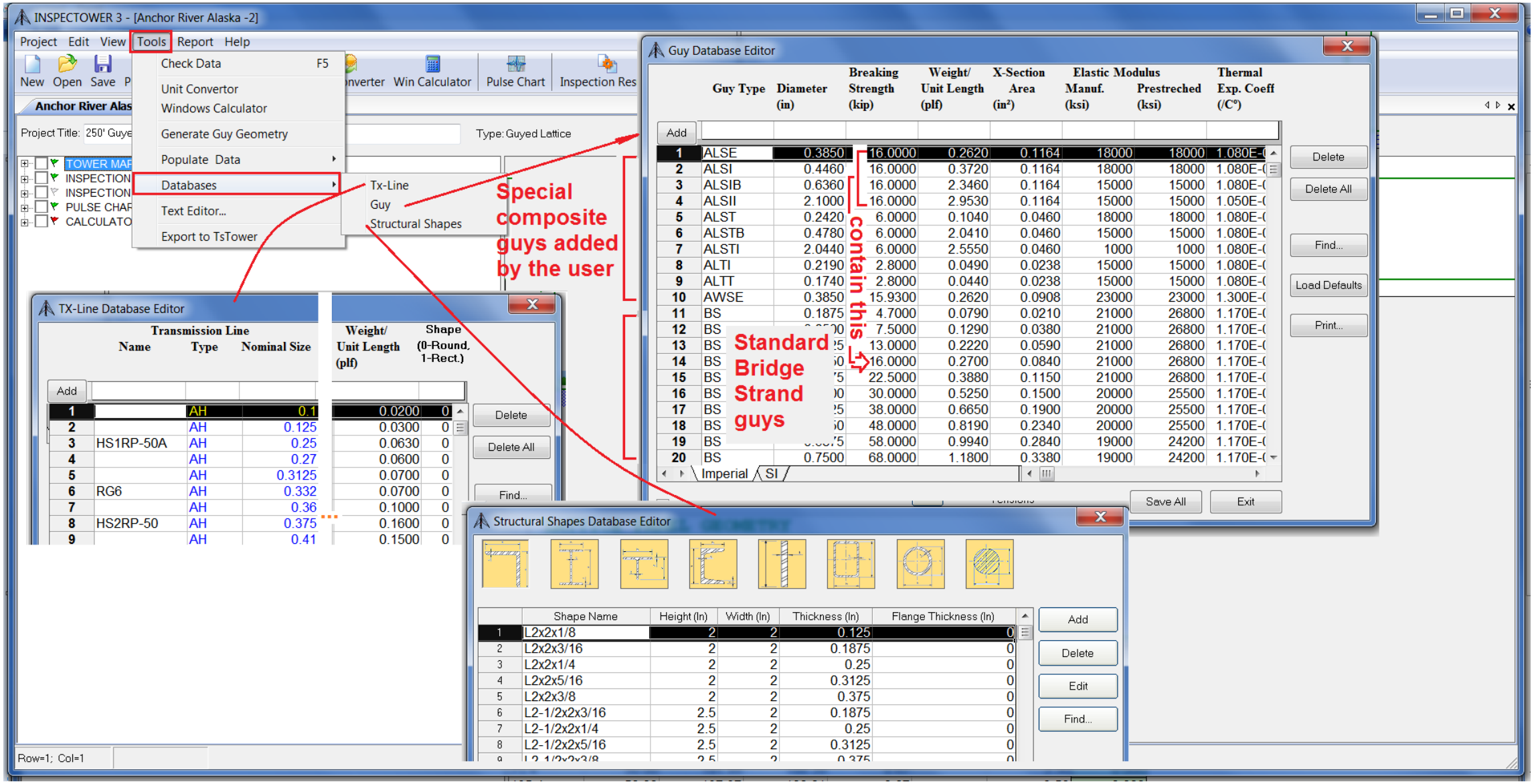
Guymast Inc.

Introduction to INSPECTOWER 3



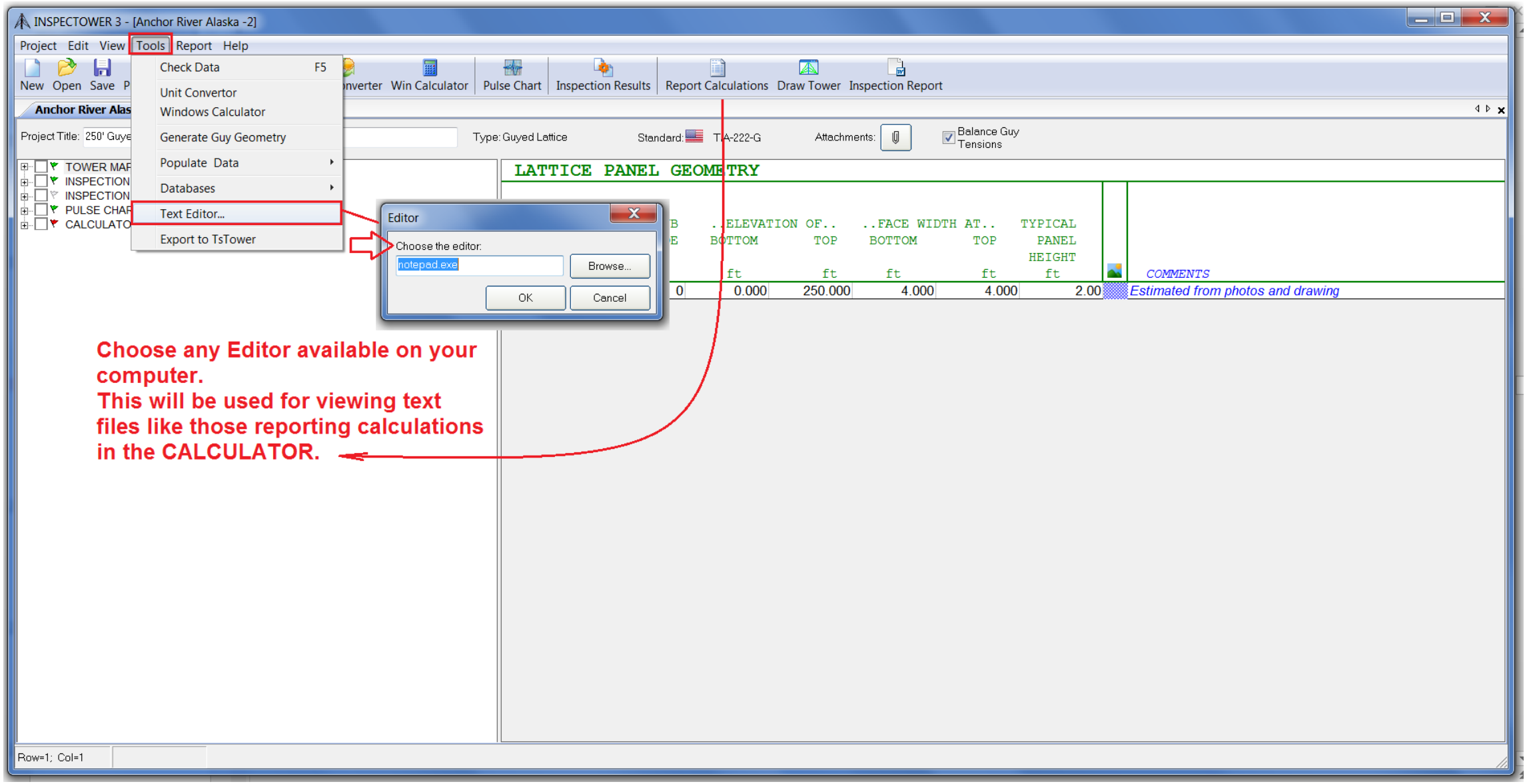
Guymast Inc.

Introduction to INSPECTOWER 3



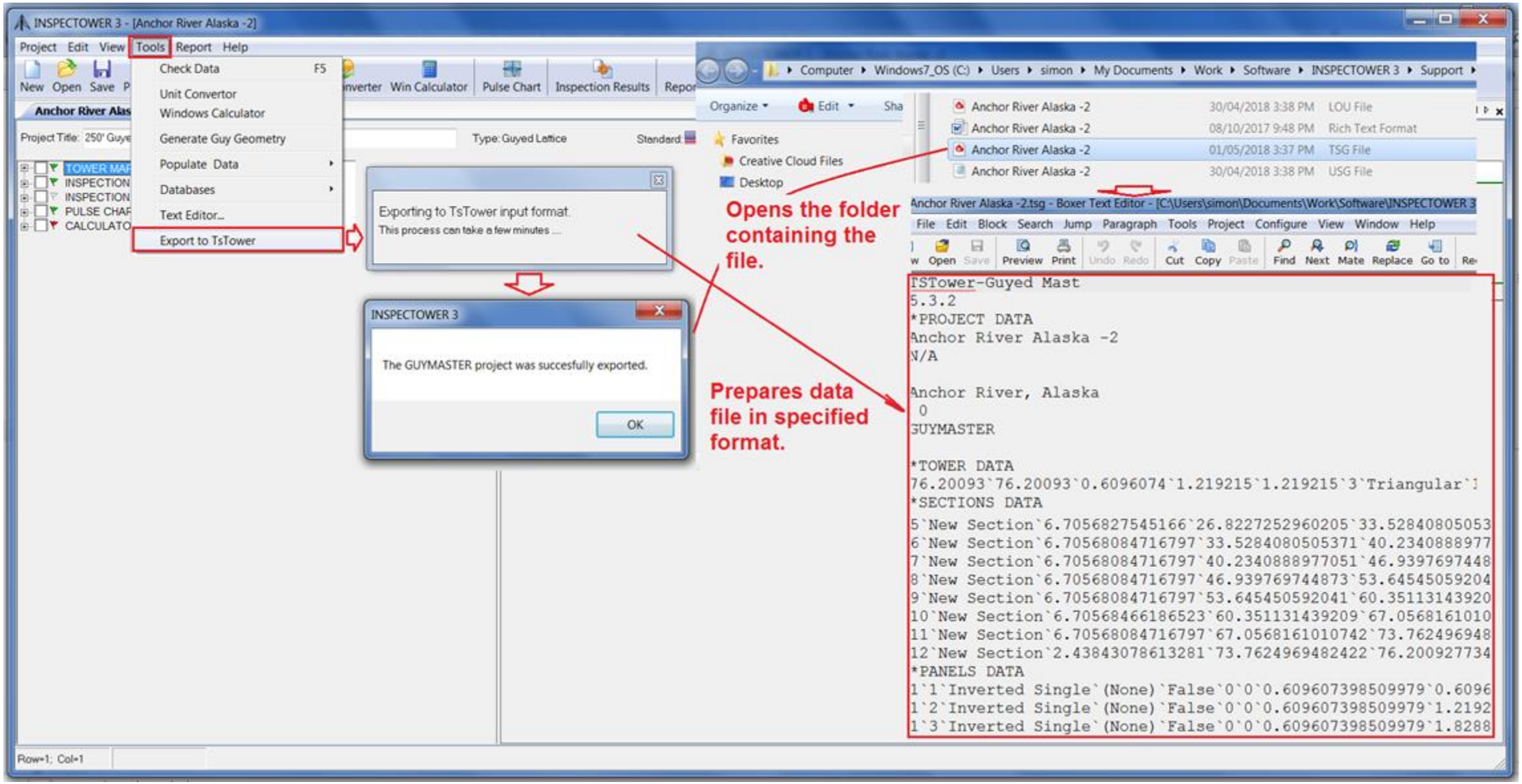
Guymast Inc.

Introduction to INSPECTOWER 3



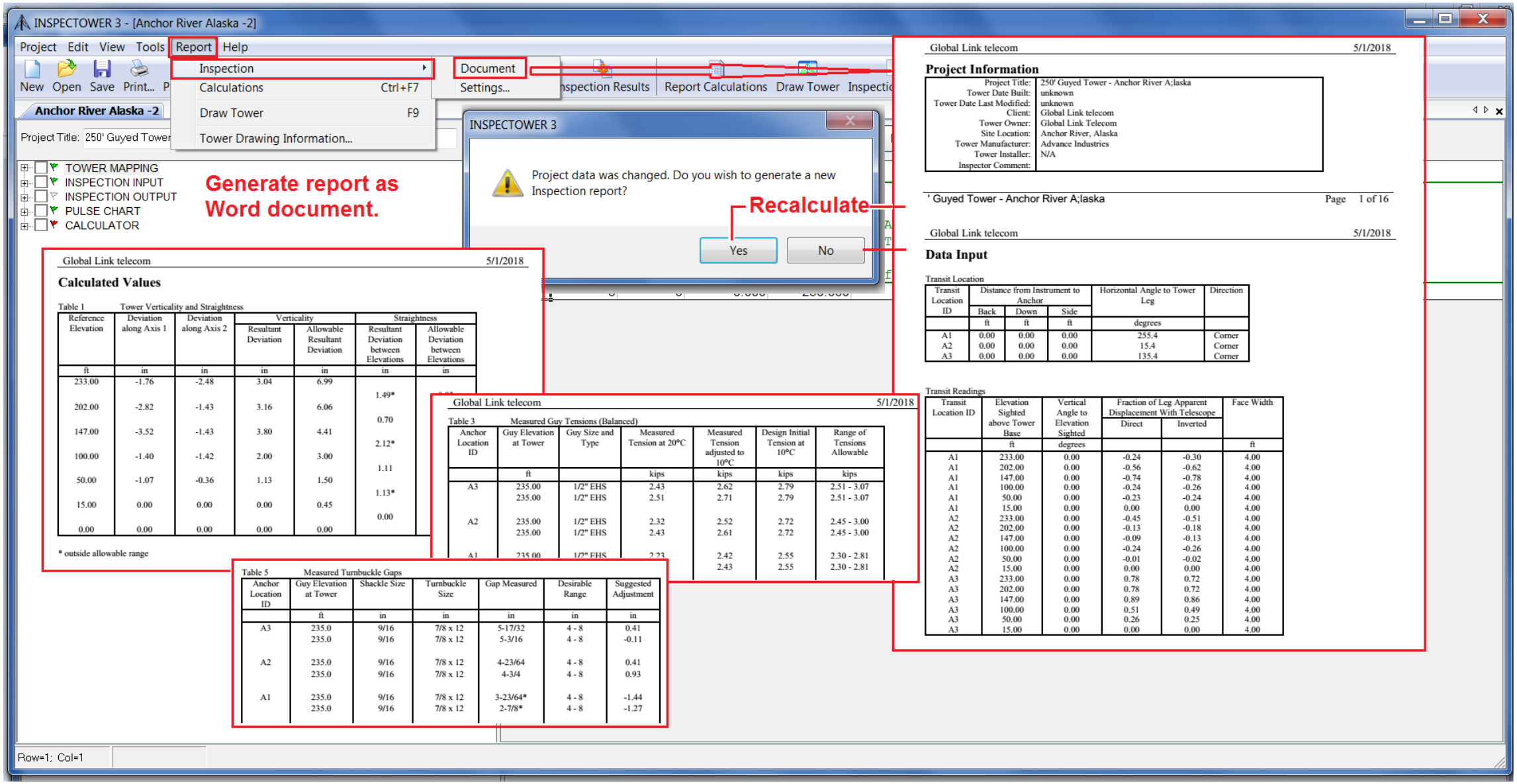
Guymast Inc.

Introduction to INSPECTOWER 3



Guymast Inc.

Introduction to INSPECTOWER 3



Global Link telecom 5/1/2018

Calculated Values

Table 1 Tower Verticality and Straightness

Reference Elevation	Deviation along Axis 1	Deviation along Axis 2	Verticality		Straightness	
			Resultant Deviation	Allowable Resultant Deviation	Resultant Deviation between Elevations	Allowable Deviation between Elevations
ft	in	in	in	in	in	in
233.00	-1.76	-2.48	3.04	6.99	1.49*	
202.00	-2.82	-1.43	3.16	6.06	0.70	
147.00	-3.52	-1.43	3.80	4.41	2.12*	
100.00	-1.40	-1.42	2.00	3.00	1.11	
50.00	-1.07	-0.36	1.13	1.50	1.13*	
15.00	0.00	0.00	0.00	0.45	0.00	
0.00	0.00	0.00	0.00	0.00		

* outside allowable range

Global Link telecom 5/1/2018

Table 3 Measured Guy Tensions (Balanced)

Anchor Location ID	Guy Elevation at Tower	Guy Size and Type	Measured Tension at 20°C	Measured Tension adjusted to 10°C	Design Initial Tension at 10°C	Range of Tensions Allowable
	ft		kips	kips	kips	kips
A3	235.00	1/2" EHS	2.43	2.62	2.79	2.51 - 3.07
	235.00	1/2" EHS	2.51	2.71	2.79	2.51 - 3.07
A2	235.00	1/2" EHS	2.32	2.52	2.72	2.45 - 3.00
	235.00	1/2" EHS	2.43	2.61	2.72	2.45 - 3.00
A1	235.00	1/2" EHS	2.23	2.42	2.55	2.30 - 2.81
				2.43	2.55	2.30 - 2.81

Table 5 Measured Turnbuckle Gaps

Anchor Location ID	Guy Elevation at Tower	Shackle Size	Turnbuckle Size	Gap Measured	Desirable Range	Suggested Adjustment
	ft	in	in	in	in	in
A3	235.0	9/16	7/8 x 12	5-17/32	4 - 8	0.41
	235.0	9/16	7/8 x 12	5-3/16	4 - 8	-0.11
A2	235.0	9/16	7/8 x 12	4-23/64	4 - 8	0.41
	235.0	9/16	7/8 x 12	4-3/4	4 - 8	0.93
A1	235.0	9/16	7/8 x 12	3-23/64*	4 - 8	-1.44
	235.0	9/16	7/8 x 12	2-7/8*	4 - 8	-1.27

Global Link telecom 5/1/2018

Project Information

Project Title:	250' Guyed Tower - Anchor River A;laska
Tower Date Built:	unknown
Tower Date Last Modified:	unknown
Client:	Global Link telecom
Tower Owner:	Global Link Telecom
Site Location:	Anchor River, Alaska
Tower Manufacturer:	Advance Industries
Tower Installer:	N/A
Inspector Comment:	

' Guyed Tower - Anchor River A;laska Page 1 of 16

Global Link telecom 5/1/2018

Data Input

Transit Location

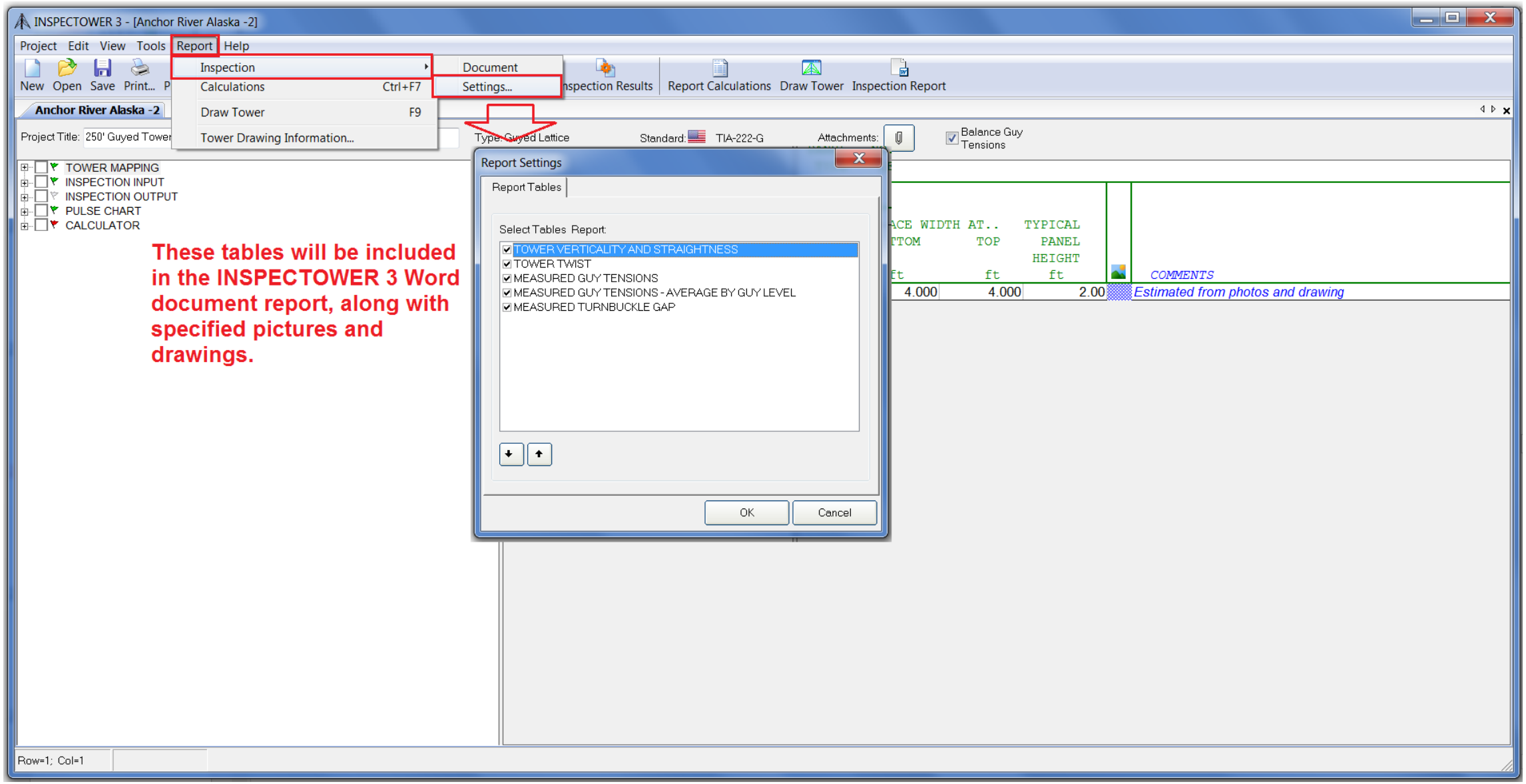
Transit Location ID	Distance from Instrument to Anchor			Horizontal Angle to Tower Leg	Direction
	Back	Down	Side		
	ft	ft	ft	degrees	
A1	0.00	0.00	0.00	255.4	Corner
A2	0.00	0.00	0.00	15.4	Corner
A3	0.00	0.00	0.00	135.4	Corner

Transit Readings

Transit Location ID	Elevation Sighted above Tower Base	Vertical Angle to Elevation Sighted	Fraction of Leg Apparent Displacement With Telescope		Face Width
			Direct	Inverted	
	ft	degrees			ft
A1	233.00	0.00	-0.24	-0.30	4.00
A1	202.00	0.00	-0.56	-0.62	4.00
A1	147.00	0.00	-0.74	-0.78	4.00
A1	100.00	0.00	-0.24	-0.26	4.00
A1	50.00	0.00	-0.23	-0.24	4.00
A1	15.00	0.00	0.00	0.00	4.00
A2	233.00	0.00	-0.45	-0.51	4.00
A2	202.00	0.00	-0.13	-0.18	4.00
A2	147.00	0.00	-0.09	-0.13	4.00
A2	100.00	0.00	-0.24	-0.26	4.00
A2	50.00	0.00	-0.01	-0.02	4.00
A2	15.00	0.00	0.00	0.00	4.00
A3	233.00	0.00	0.78	0.72	4.00
A3	202.00	0.00	0.78	0.72	4.00
A3	147.00	0.00	0.89	0.86	4.00
A3	100.00	0.00	0.51	0.49	4.00
A3	50.00	0.00	0.26	0.25	4.00
A3	15.00	0.00	0.00	0.00	4.00

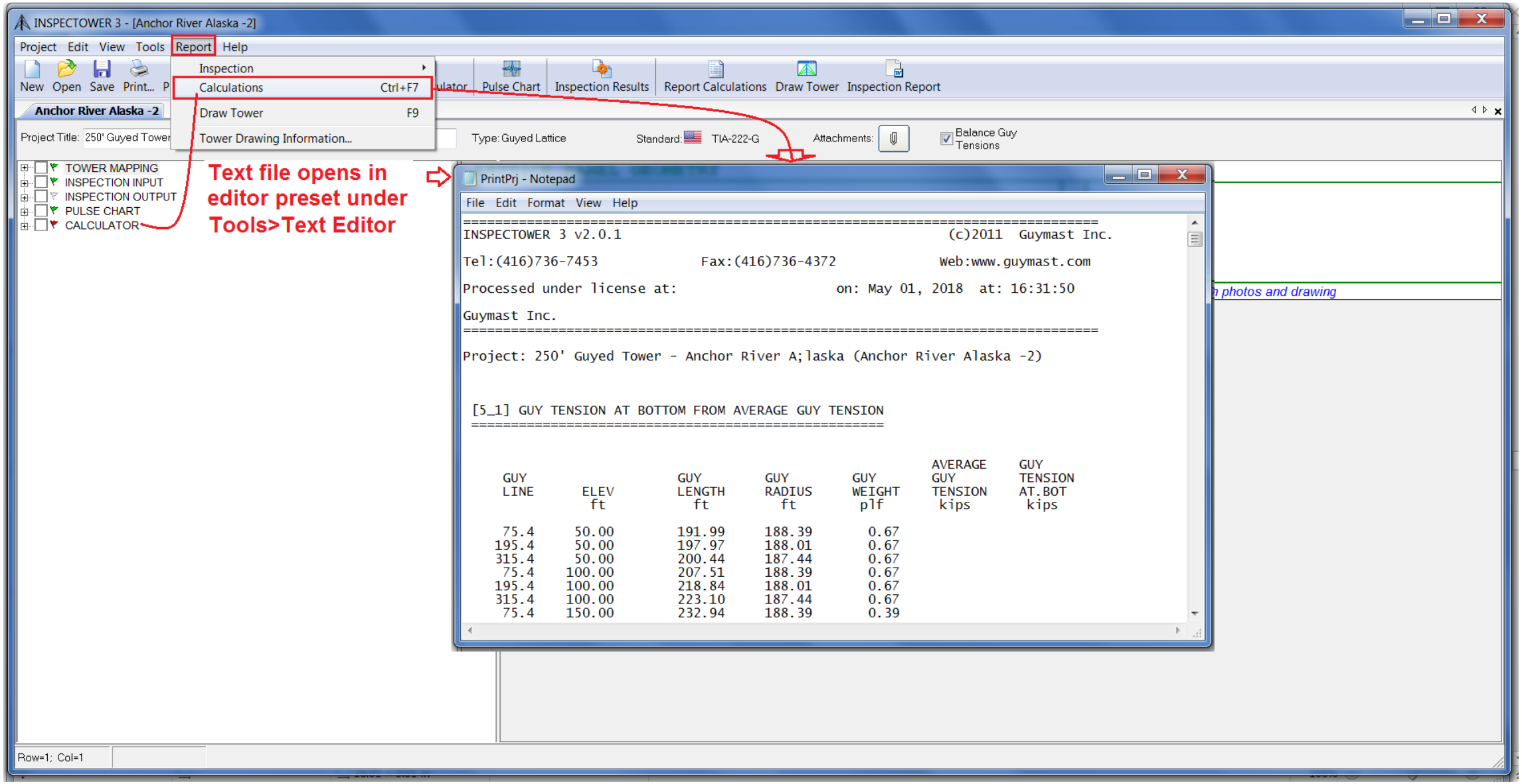
Guymast Inc.

Introduction to INSPECTOWER 3



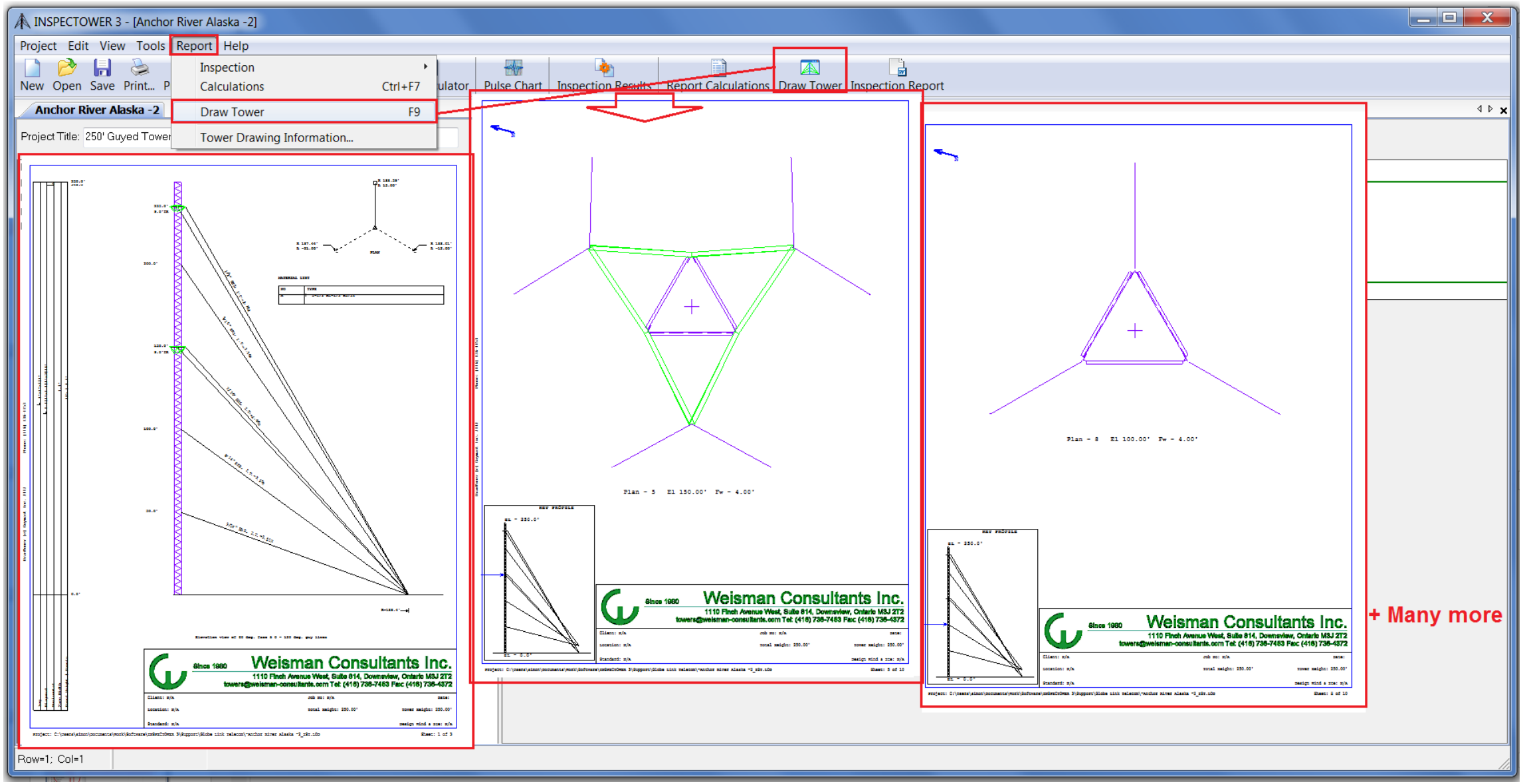
Guymast Inc.

Introduction to INSPECTOWER 3



Guymast Inc.

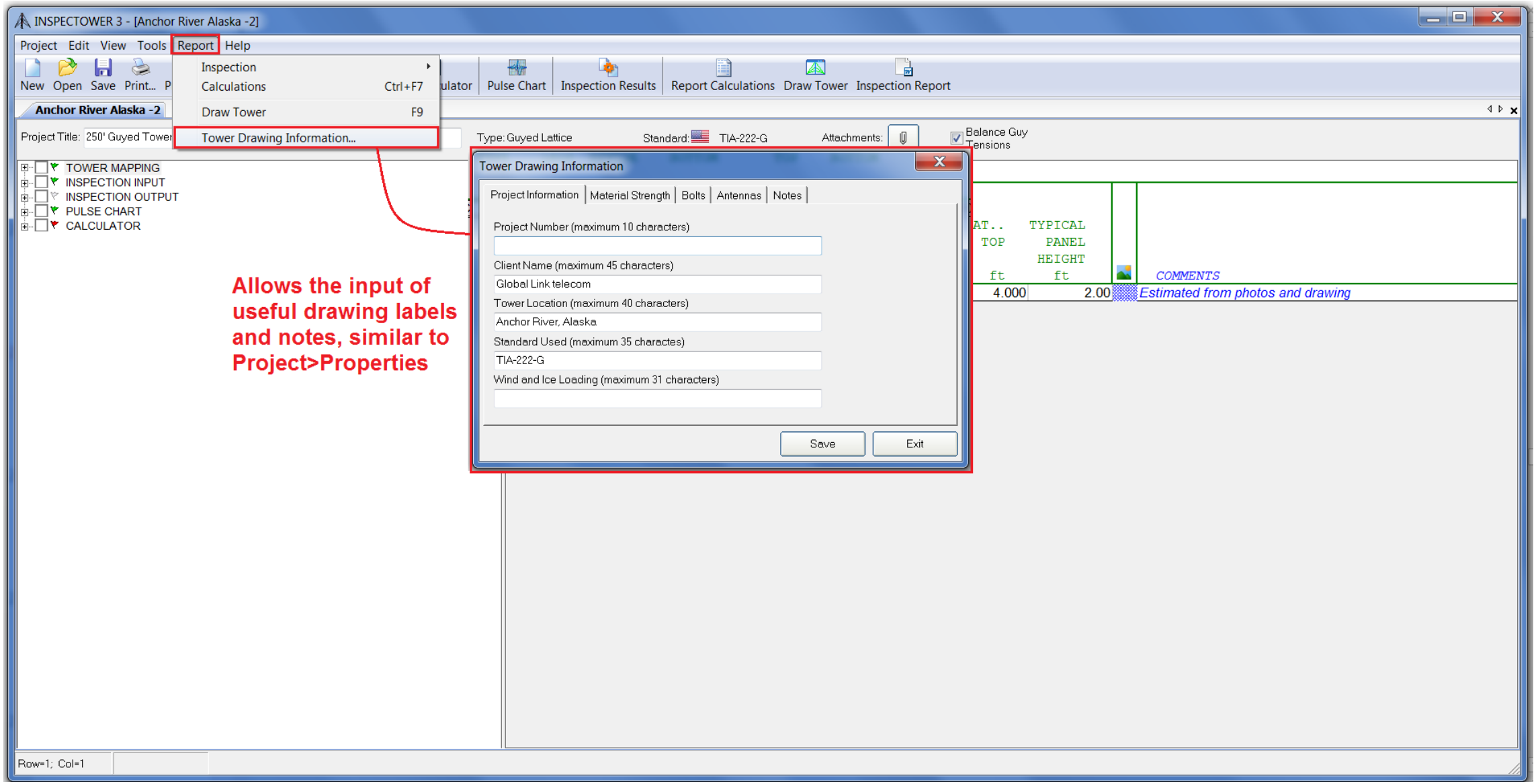
Introduction to INSPECTOWER 3



+ Many more

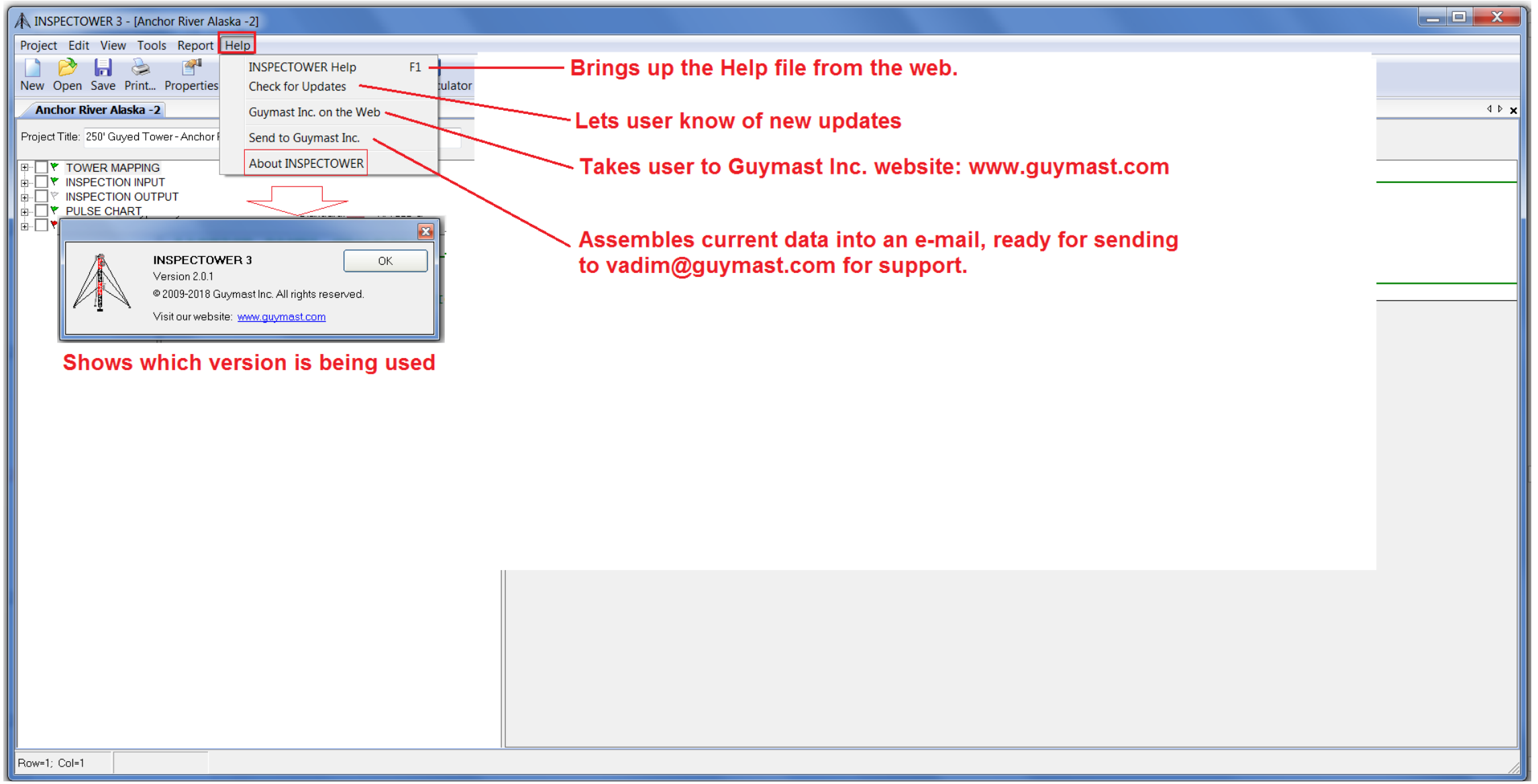
Guymast Inc.

Introduction to INSPECTOWER 3



Guymast Inc.

Introduction to INSPECTOWER 3



Guymast Inc.

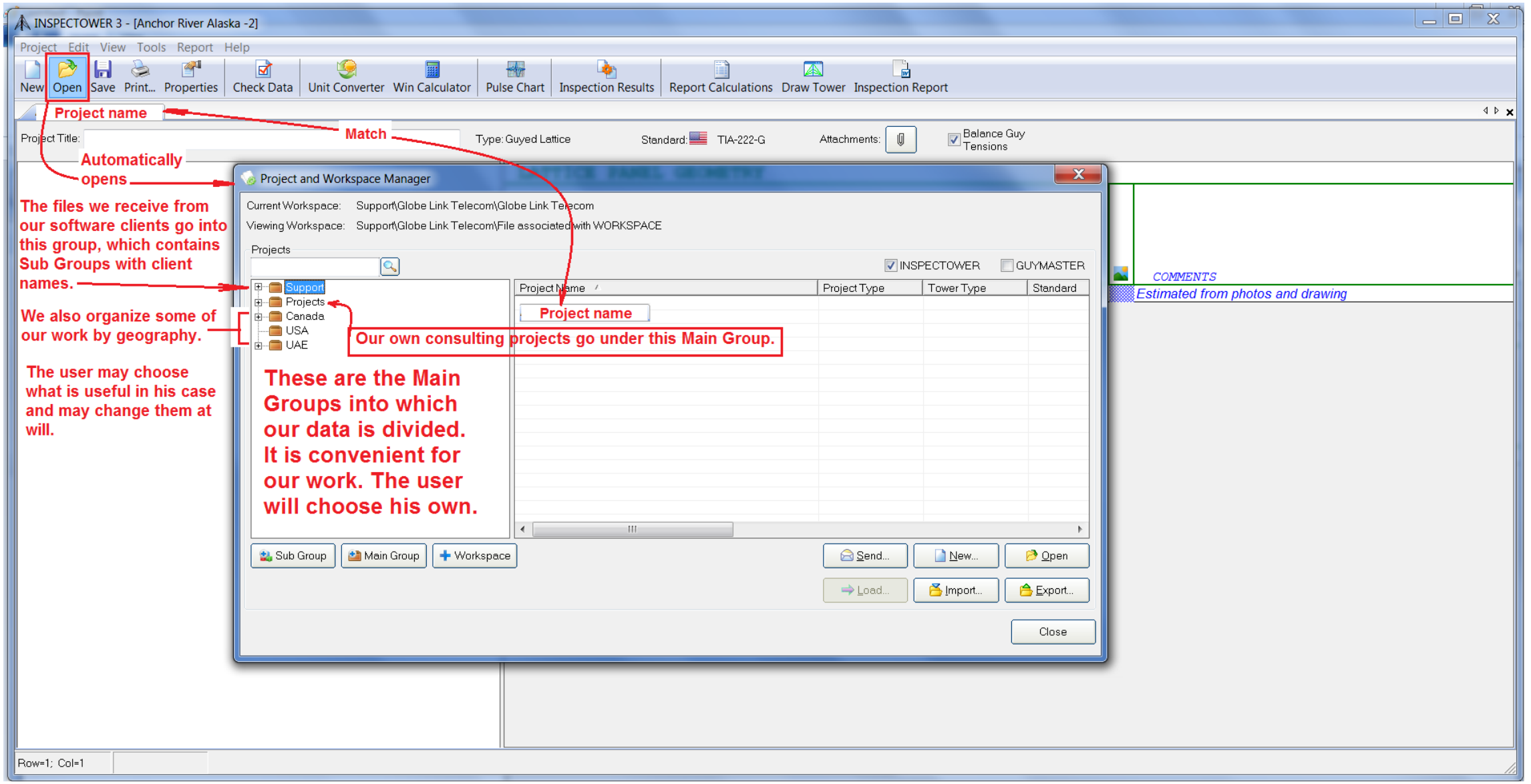
2. Navigating the User Tower Project Data Base

Guymast Inc.

We developed a project data base to save us time and trouble in handling our own projects.

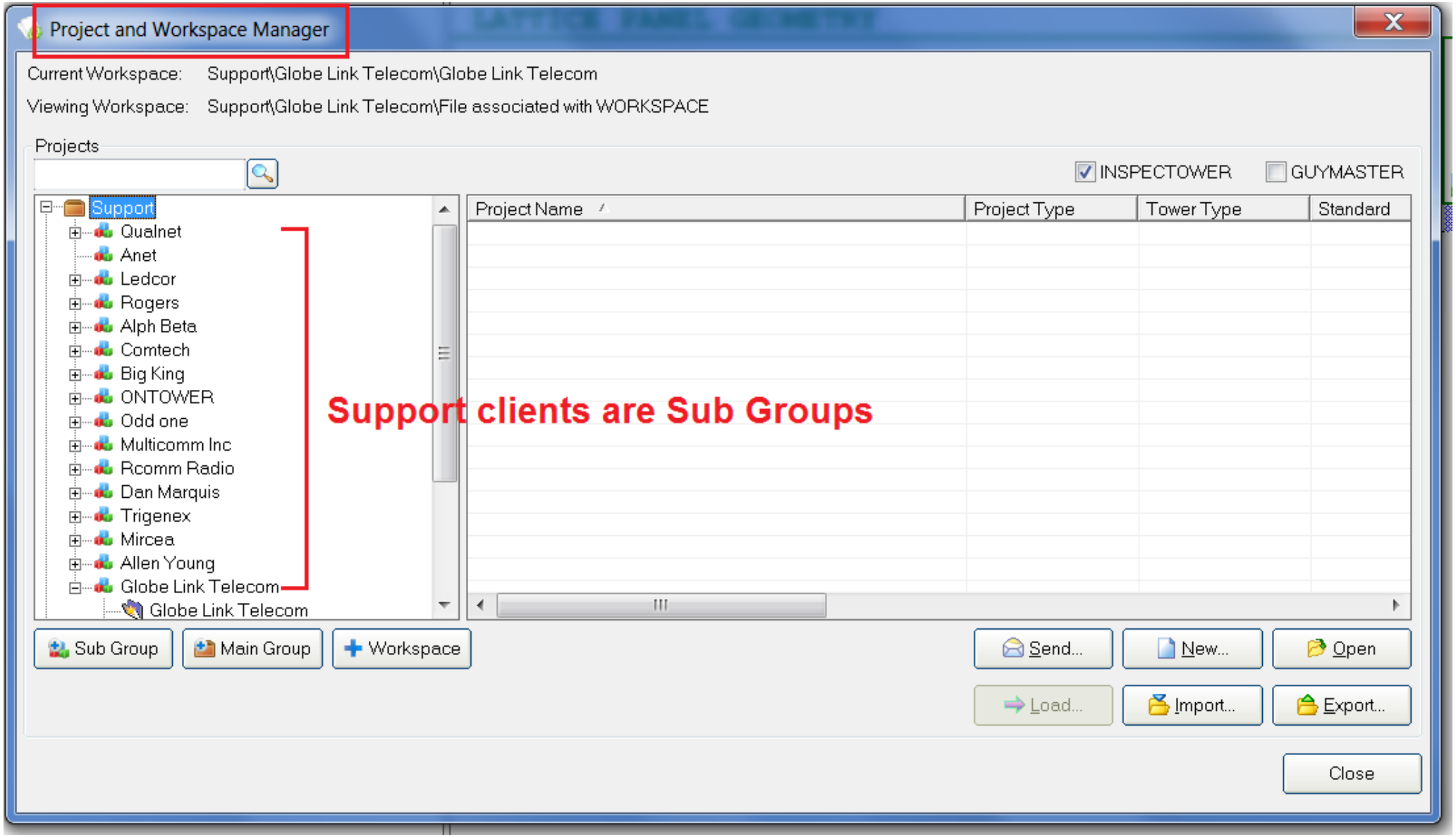
It turned out to be so useful and convenient that we decided to make it part of the interface we offer our users.

Introduction to INSPECTOWER 3



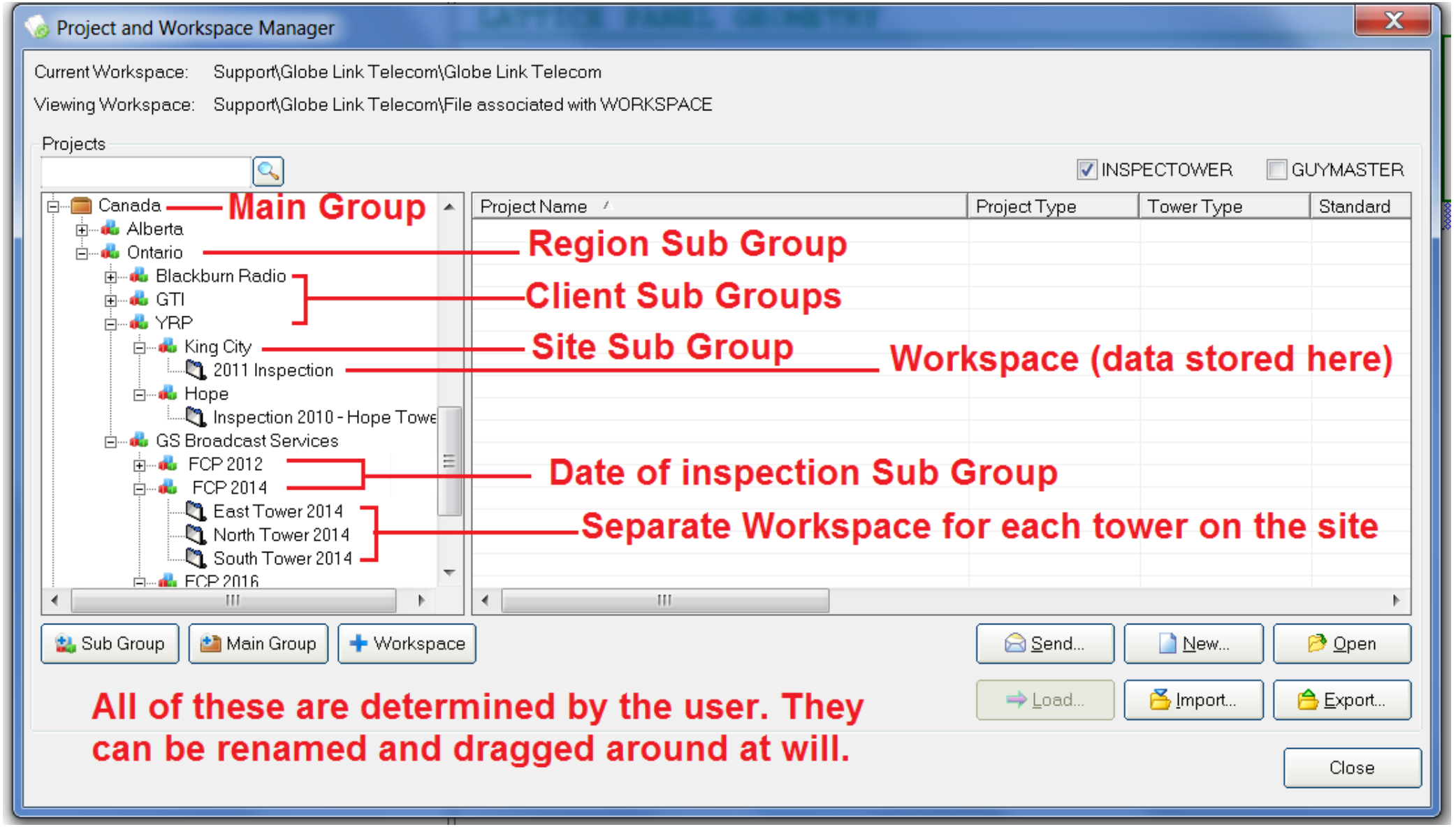
Guymast Inc.

Introduction to INSPECTOWER 3



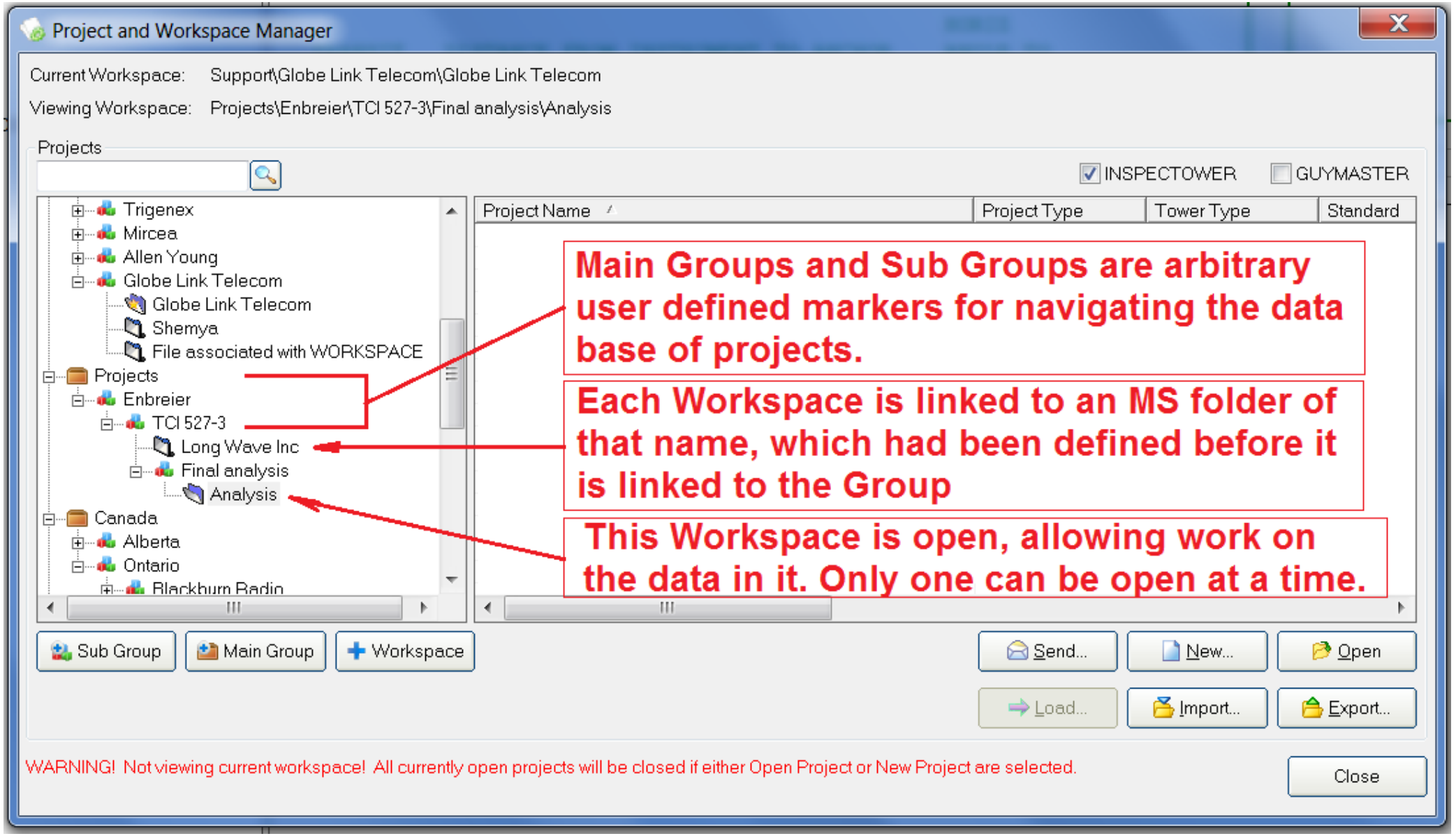
Guymast Inc.

Introduction to INSPECTOWER 3



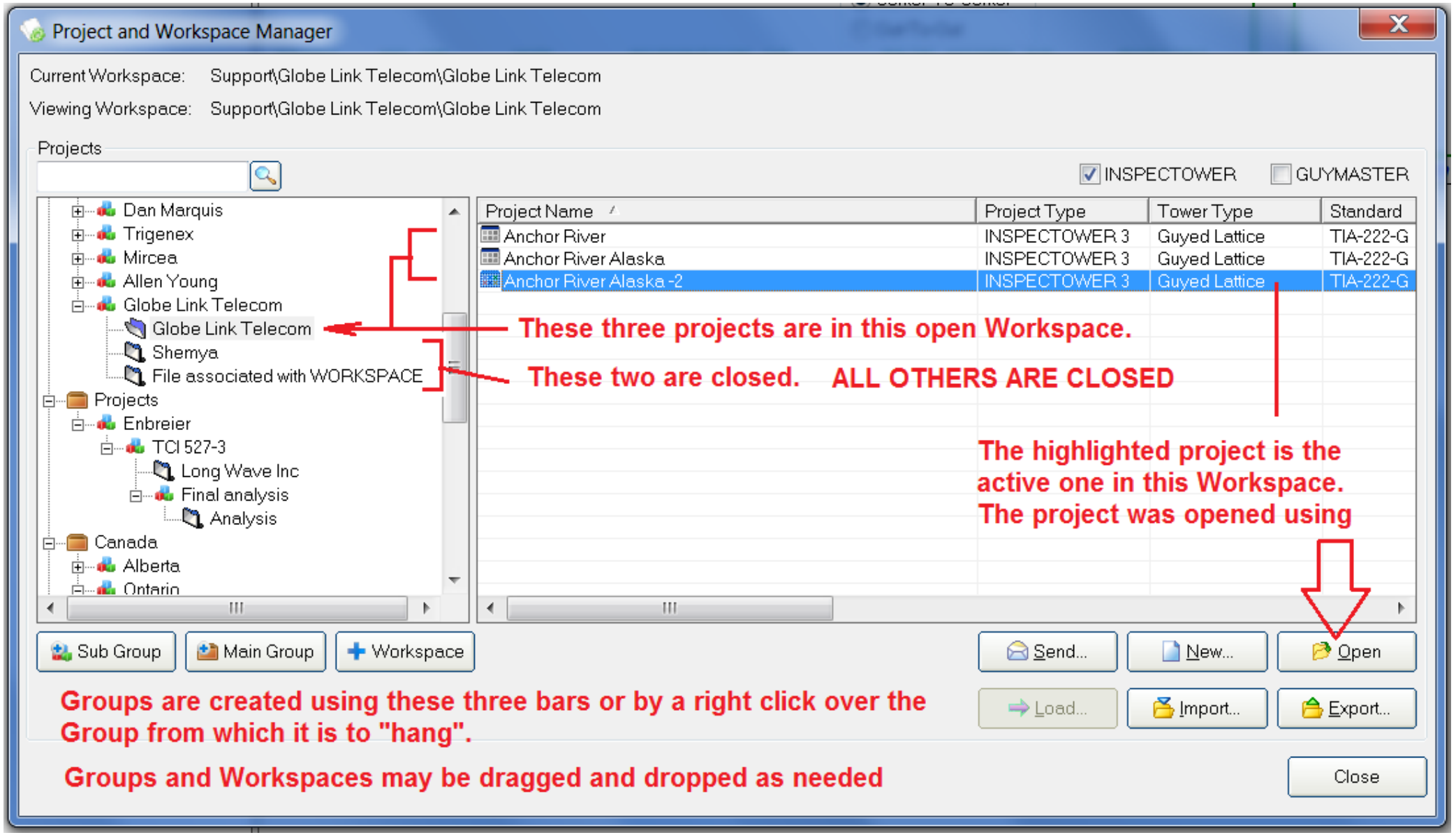
Guymast Inc.

Introduction to INSPECTOWER 3



Guymast Inc.

Introduction to INSPECTOWER 3

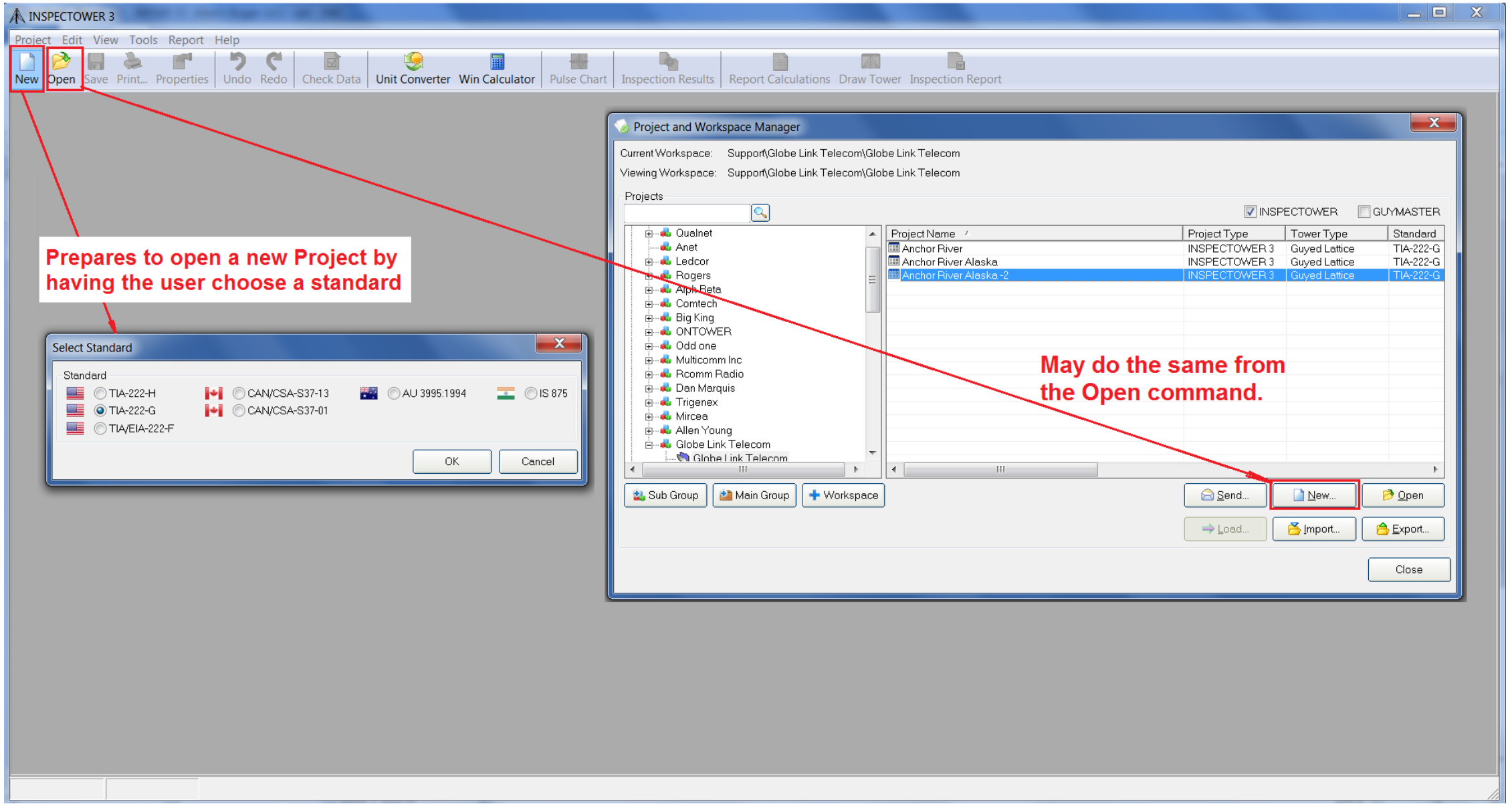


Guymast Inc.

3. Navigating INSPECTOWER 3.

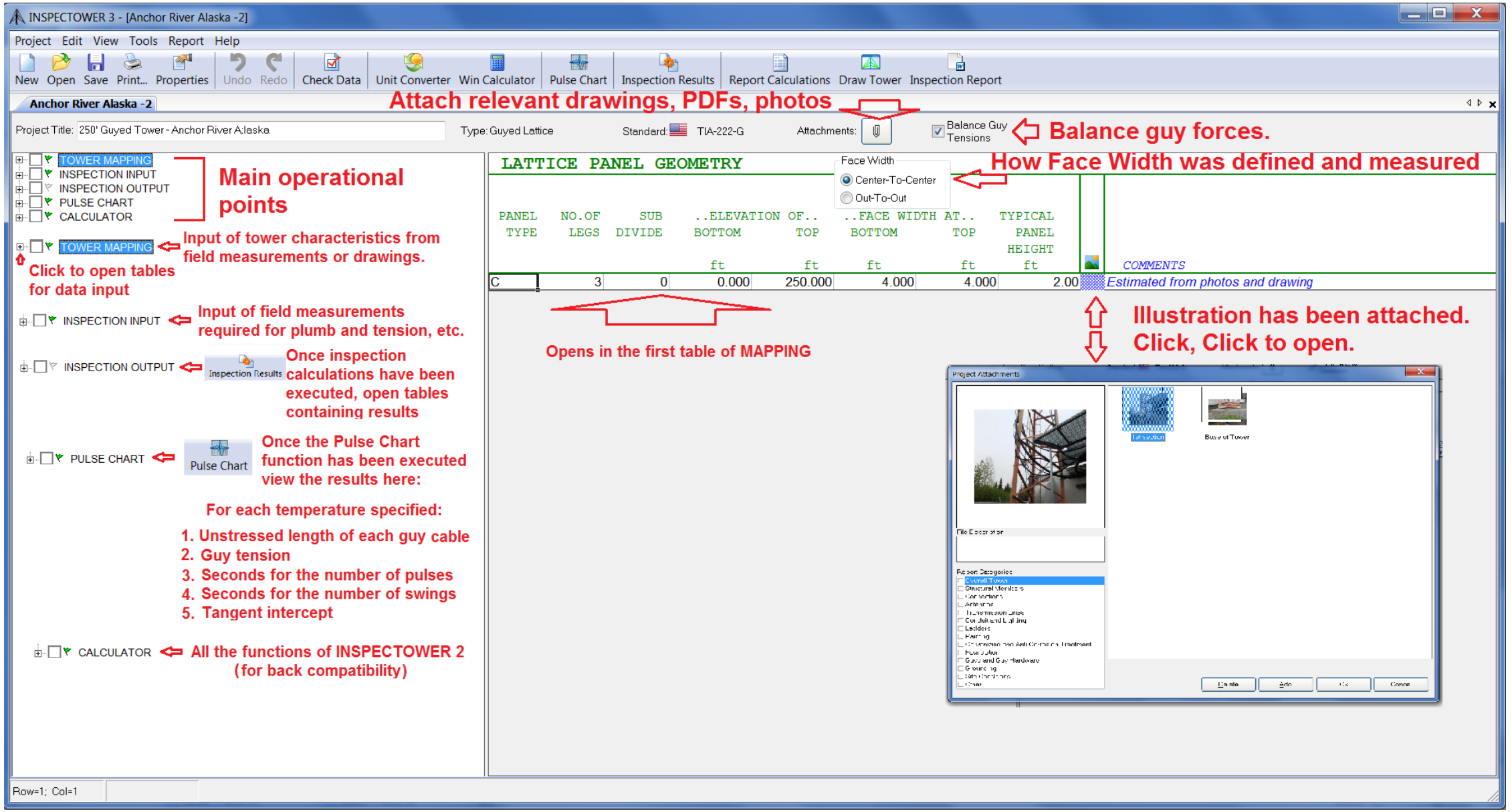
Guymast Inc.

Introduction to INSPECTOWER 3



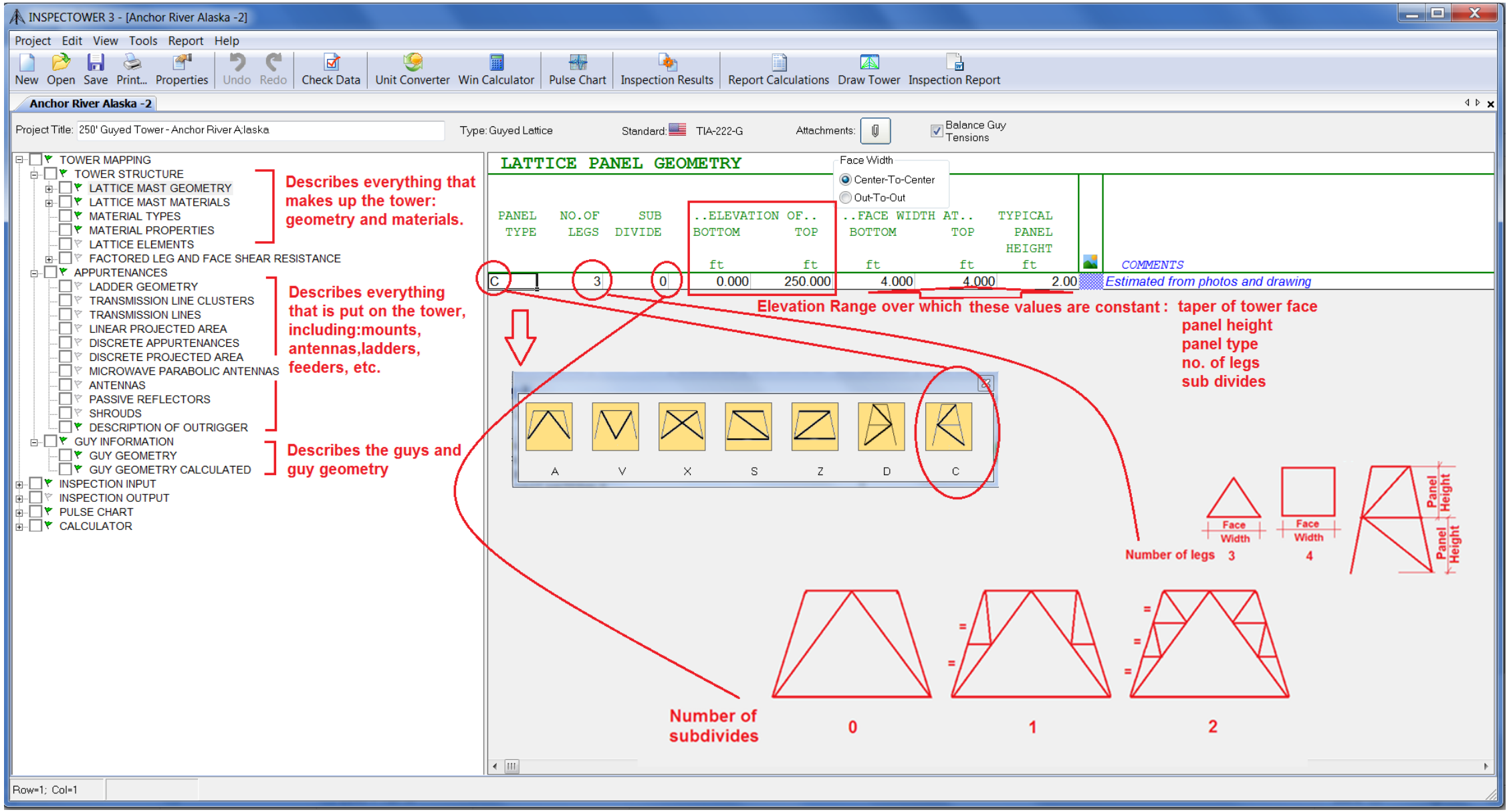
Guymast Inc.

Introduction to INSPECTOWER 3



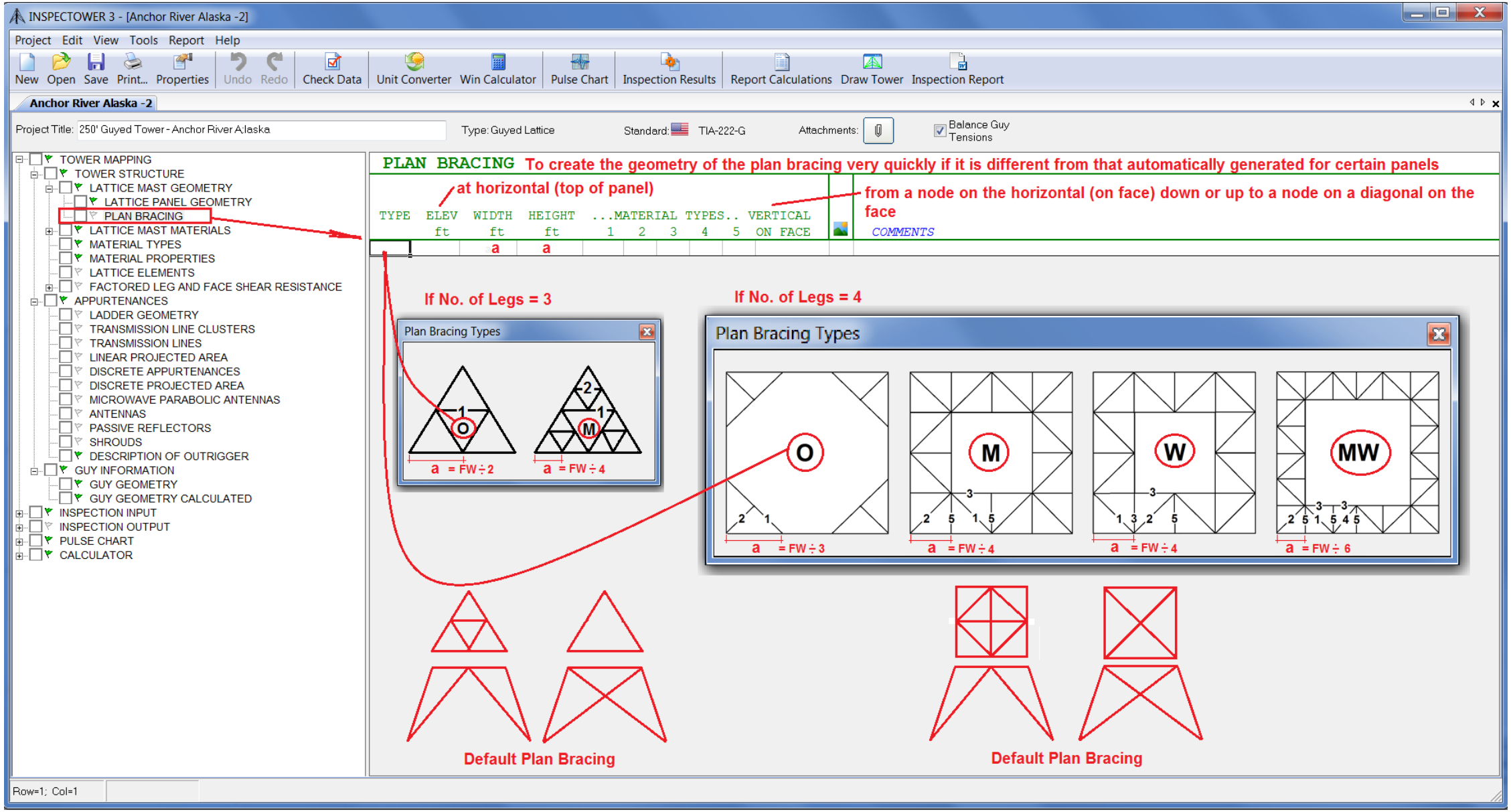
Guymast Inc.

Introduction to INSPECTOWER 3



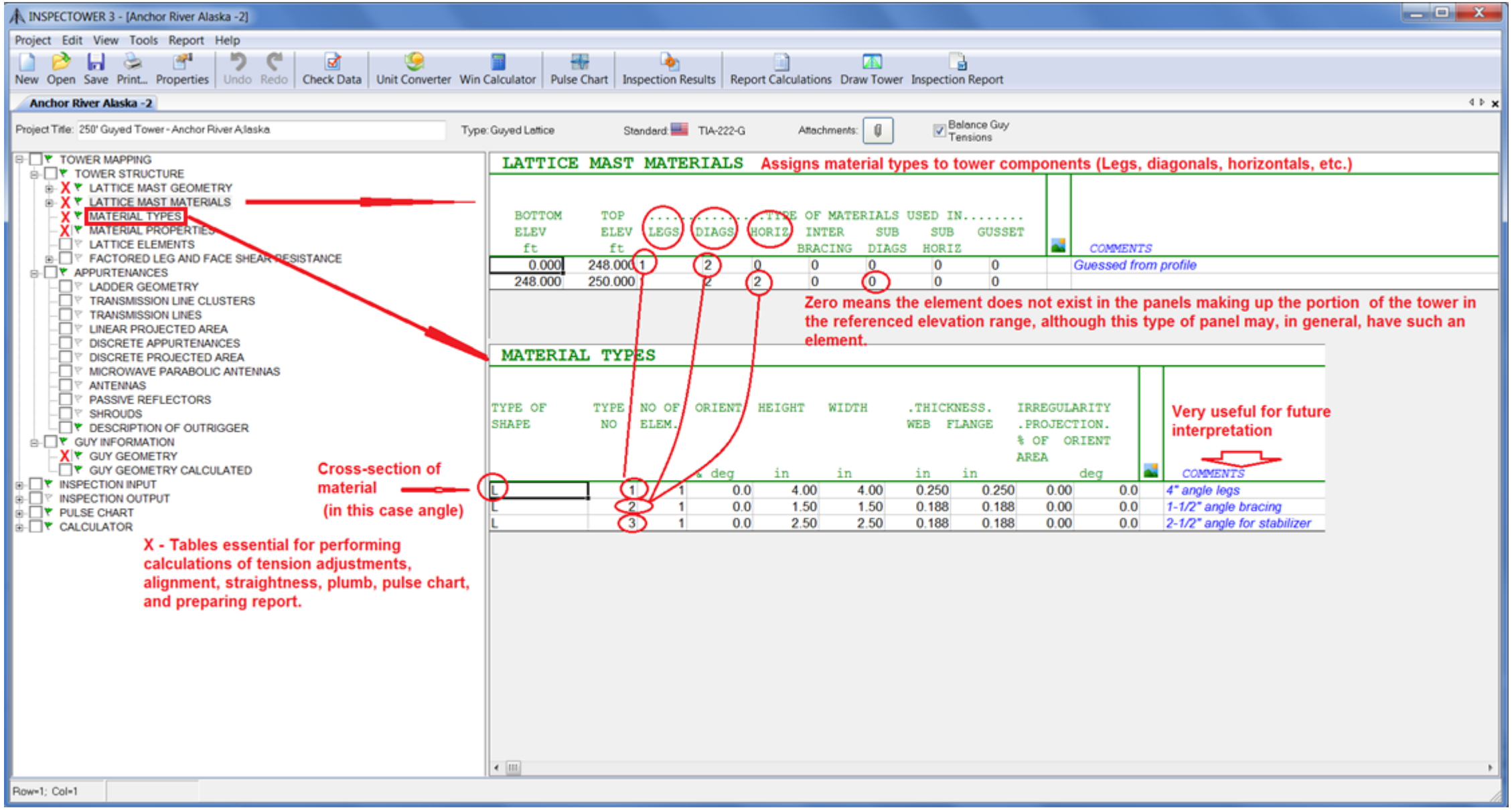
Guymast Inc.

Introduction to INSPECTOWER 3



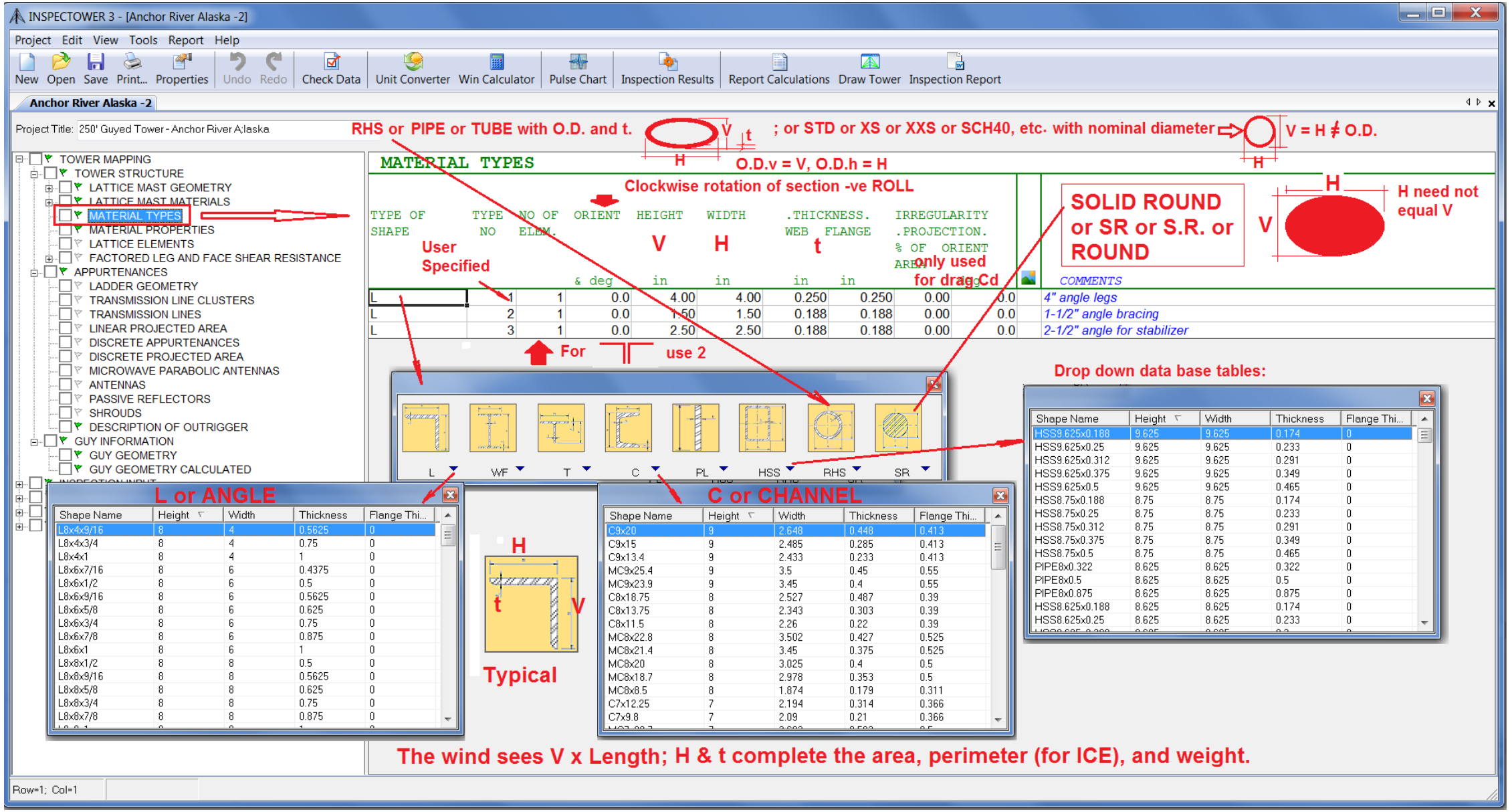
Guymast Inc.

Introduction to INSPECTOWER 3



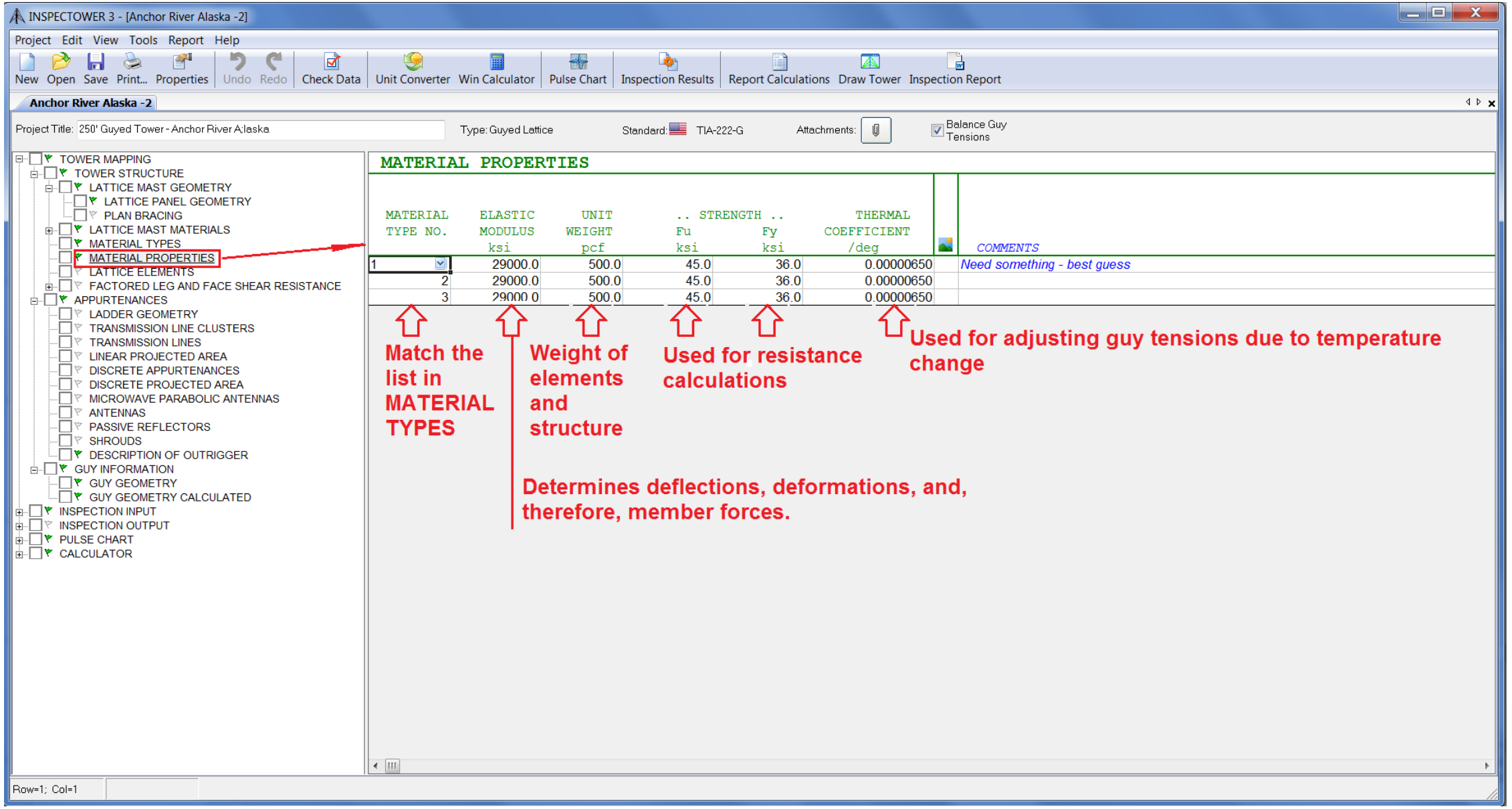
Guymast Inc.

Introduction to INSPECTOWER 3



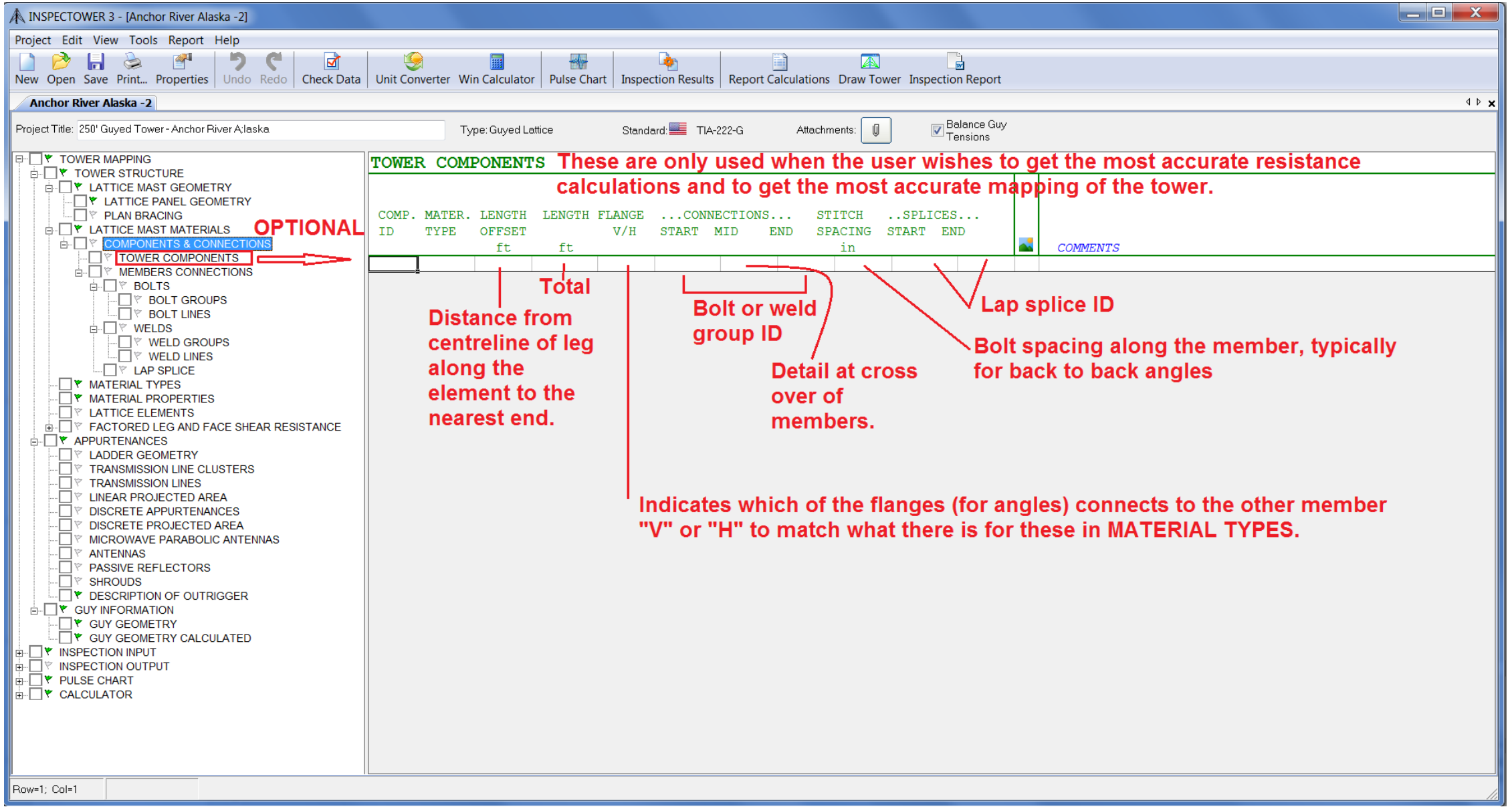
Guymast Inc.

Introduction to INSPECTOWER 3



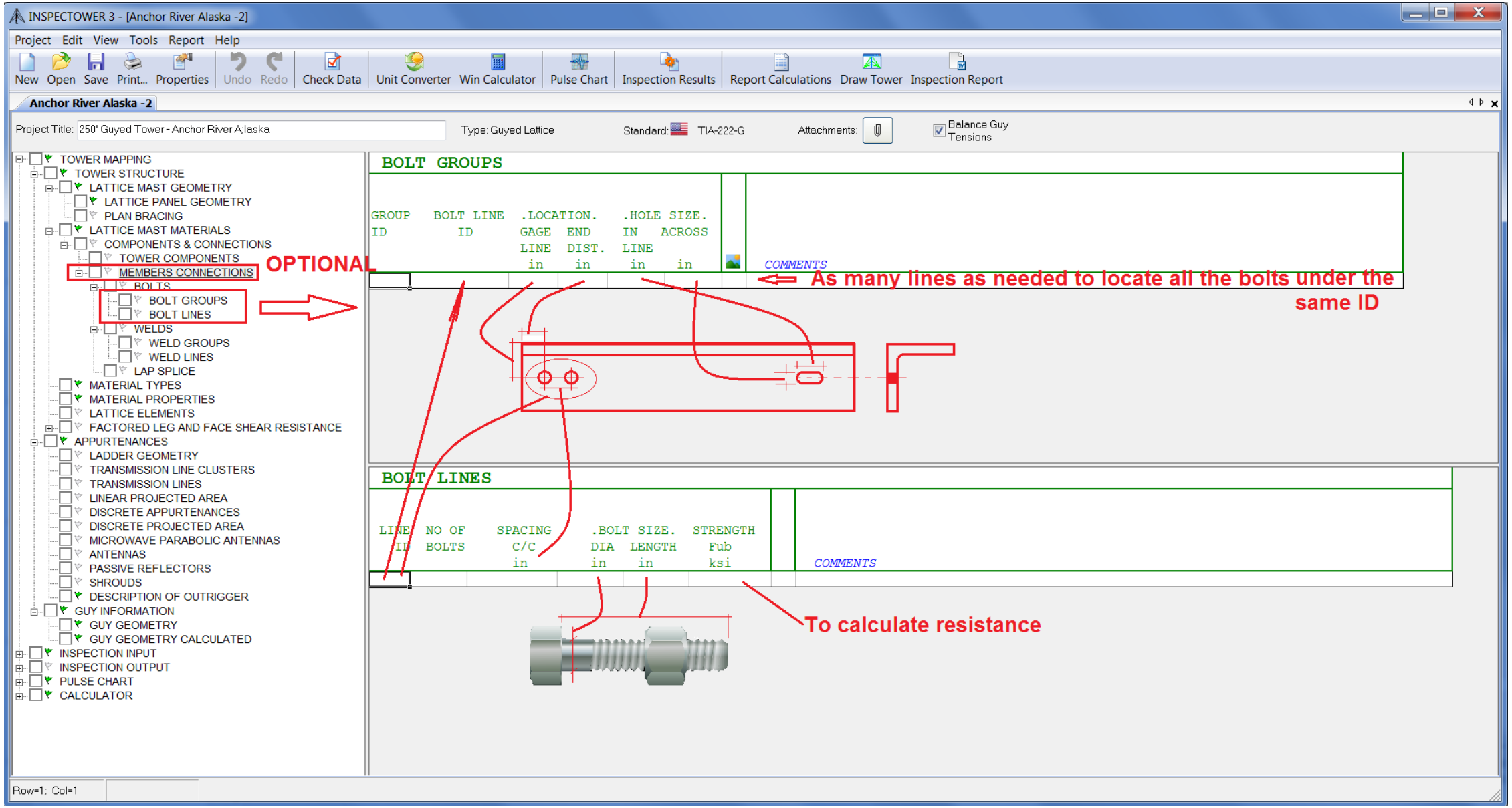
Guymast Inc.

Introduction to INSPECTOWER 3



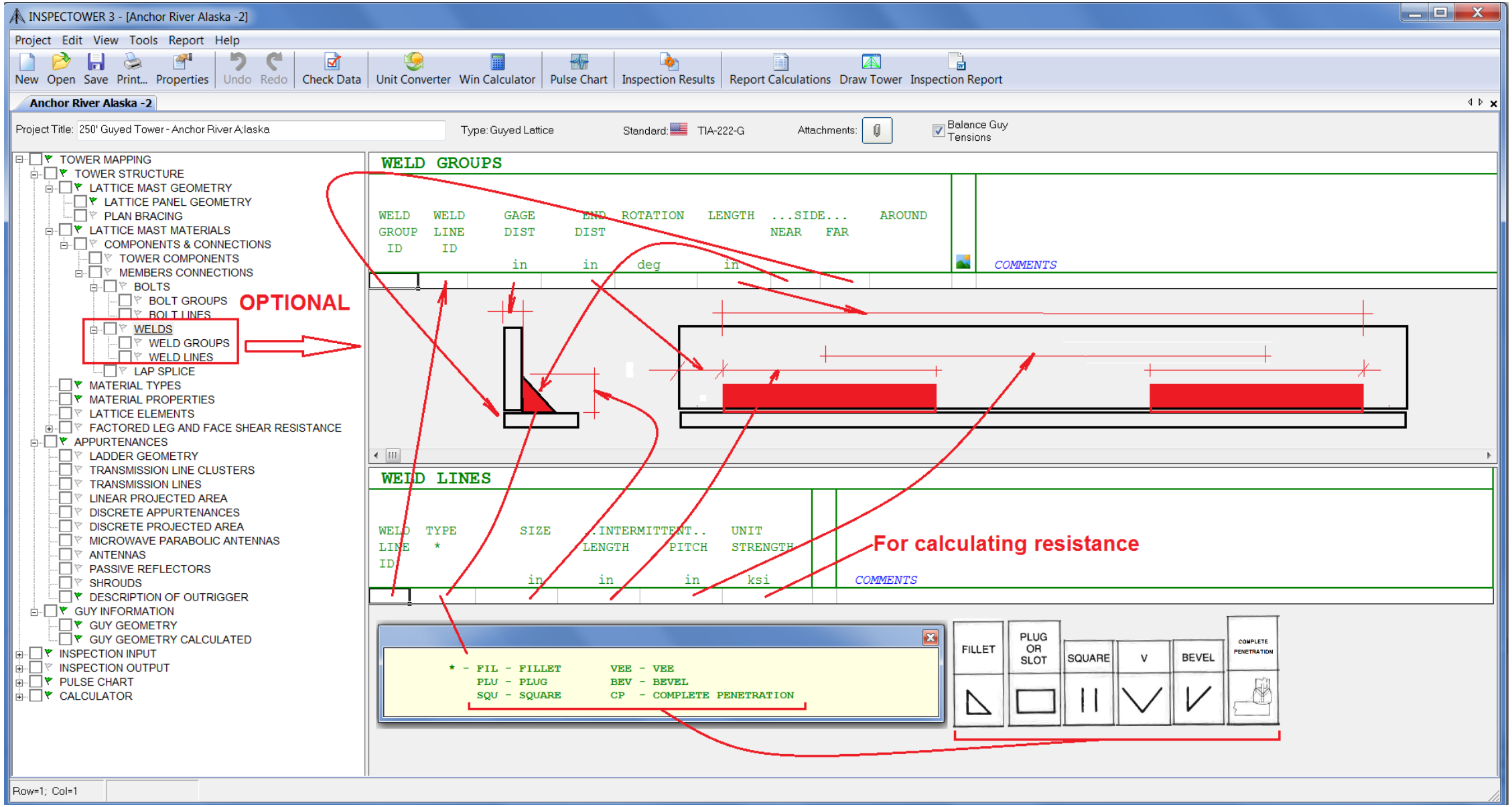
Guymast Inc.

Introduction to INSPECTOWER 3



Guymast Inc.

Introduction to INSPECTOWER 3



Guymast Inc.

Introduction to INSPECTOWER 3

INSPECTOWER 3 - [Anchor River Alaska -2]

Project Edit View Tools Report Help

New Open Save Print... Properties | Undo Redo | Check Data | Unit Converter | Win Calculator | Pulse Chart | Inspection Results | Report Calculations | Draw Tower | Inspection Report

Anchor River Alaska -2

Project Title: 250' Guyed Tower - Anchor River Alaska | Type: Guyed Lattice | Standard: TIA-222-G | Attachments: | Balance Guy Tensions

- TOWER MAPPING
  - TOWER STRUCTURE
    - LATTICE MAST GEOMETRY
    - LATTICE MAST MATERIALS
    - MATERIAL TYPES
    - MATERIAL PROPERTIES
    - LATTICE ELEMENTS
    - FACTORED LEG AND FACE SHEAR RESISTANCE
  - APPURTENANCES
    - LADDER GEOMETRY
    - TRANSMISSION LINE CLUSTERS
    - TRANSMISSION LINES
    - LINEAR PROJECTED AREA
    - DISCRETE APPURTENANCES
    - DISCRETE PROJECTED AREA
    - MICROWAVE PARABOLIC ANTENNAS
    - ANTENNAS
    - PASSIVE REFLECTORS
    - SHROUDS
    - DESCRIPTION OF OUTRIGGER
  - GUY INFORMATION
    - GUY GEOMETRY
    - GUY GEOMETRY CALCULATED
- INSPECTION INPUT
- INSPECTION OUTPUT
- PULSE CHART
- CALCULATOR

LATTICE ELEMENTS

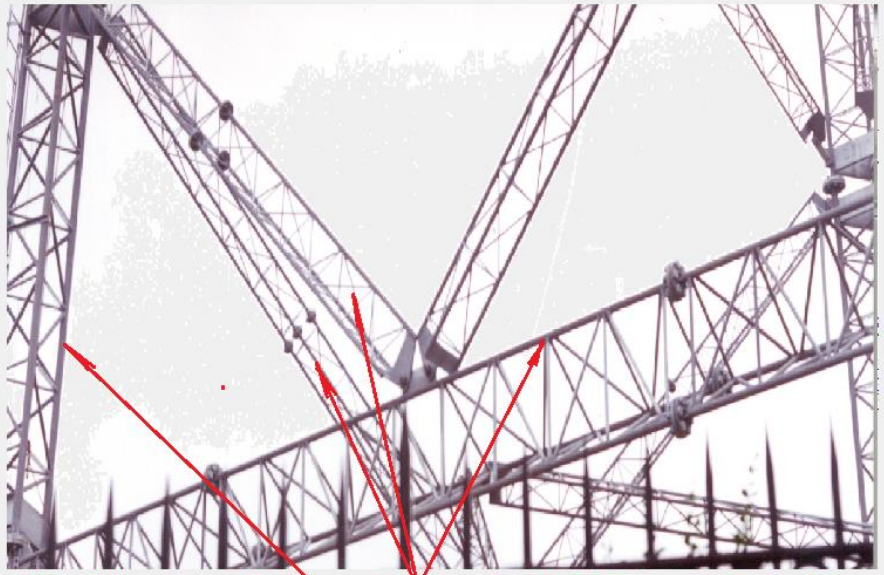
As in LATTICE MAST GEOMETRY

As in LATTICE MAST MATERIALS

TYPE NO	PANEL TYPE	NO.OF LEGS	ORIENTATION deg	PANEL HEIGHT ft	FACE WIDTH ft	....MATERIALS.... LEG	DIAG.	HORIZ.	COMMENTS

User defined for reference in LATTICE MAST MATERIALS for defenition of the overal tower.

Lattice Element used for legs of Pi-Rod SS Towers.

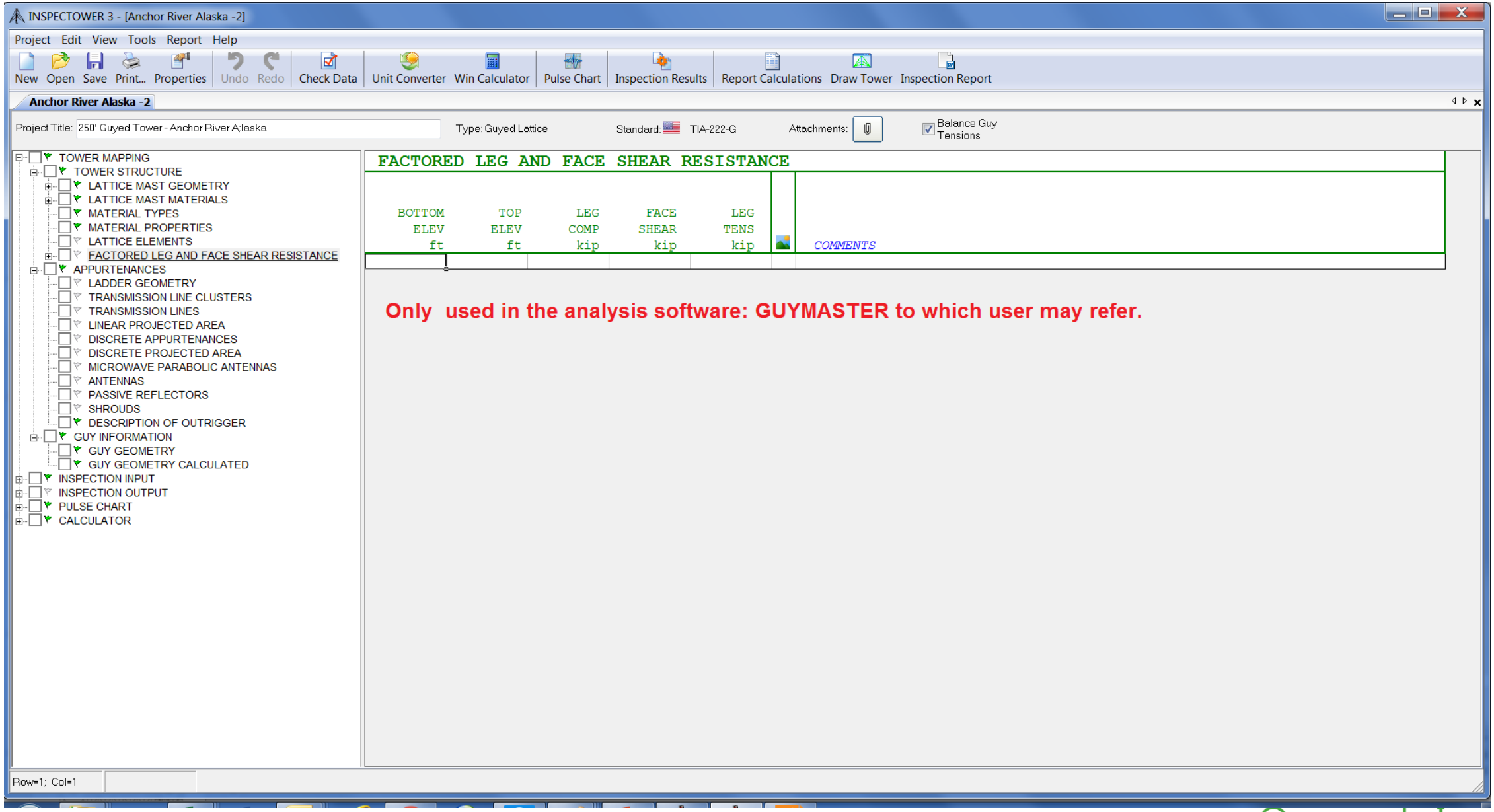


Lattice Elements used in legs and bracing of a 500' SS Tower by Central Tower.

Row=1; Col=1

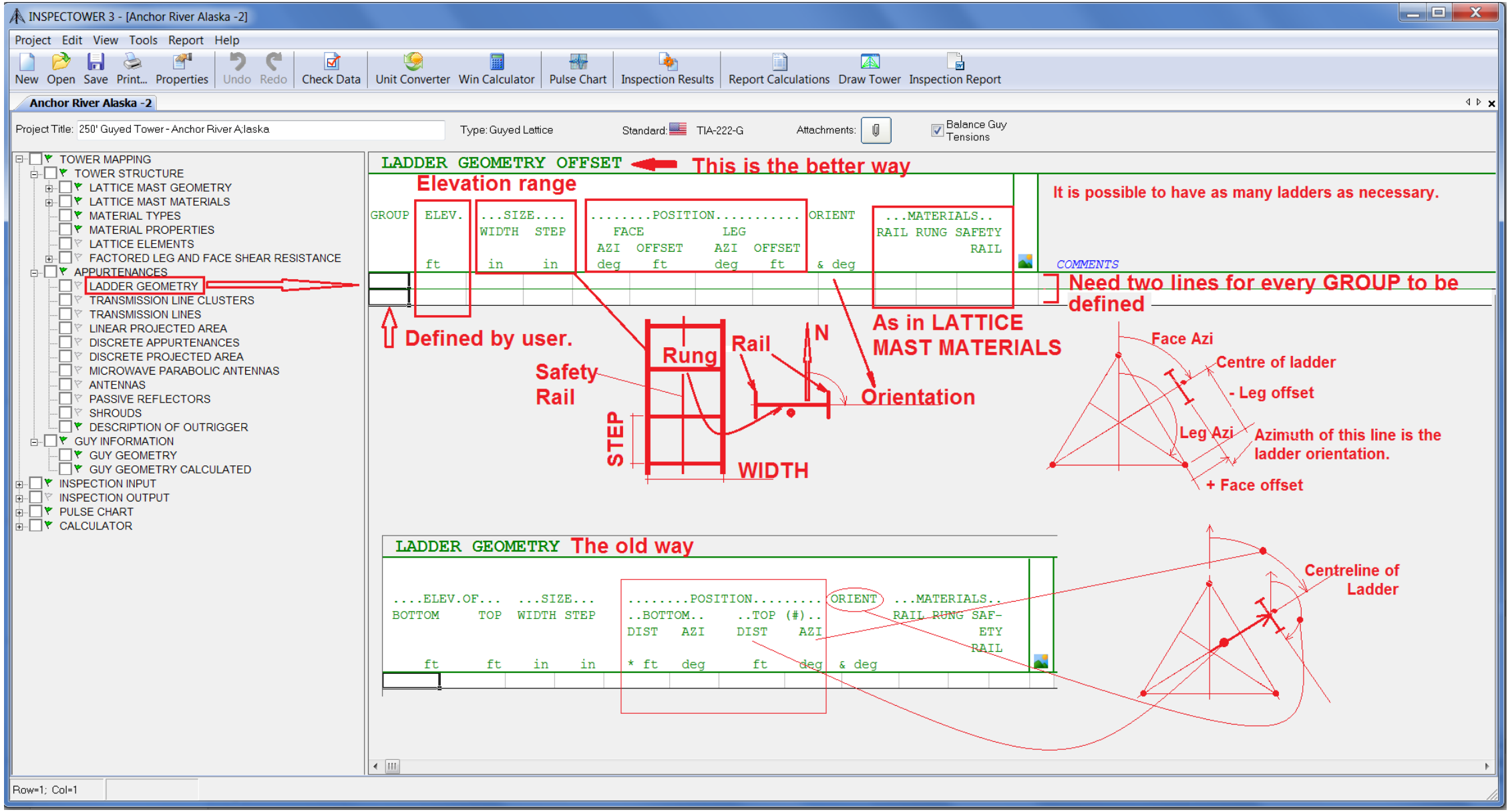
Guymast Inc.

Introduction to INSPECTOWER 3



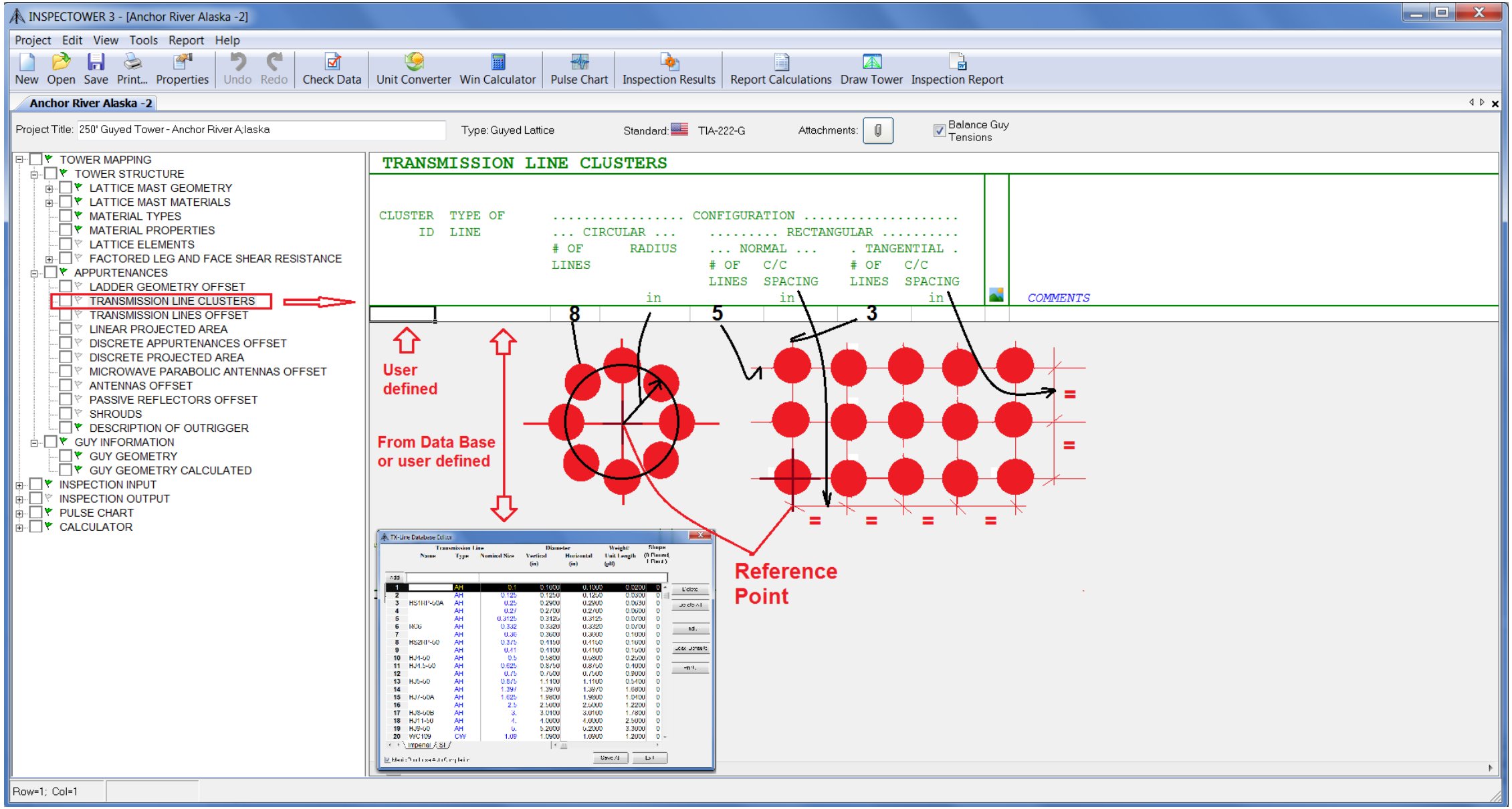
Guymast Inc.

Introduction to INSPECTOWER 3



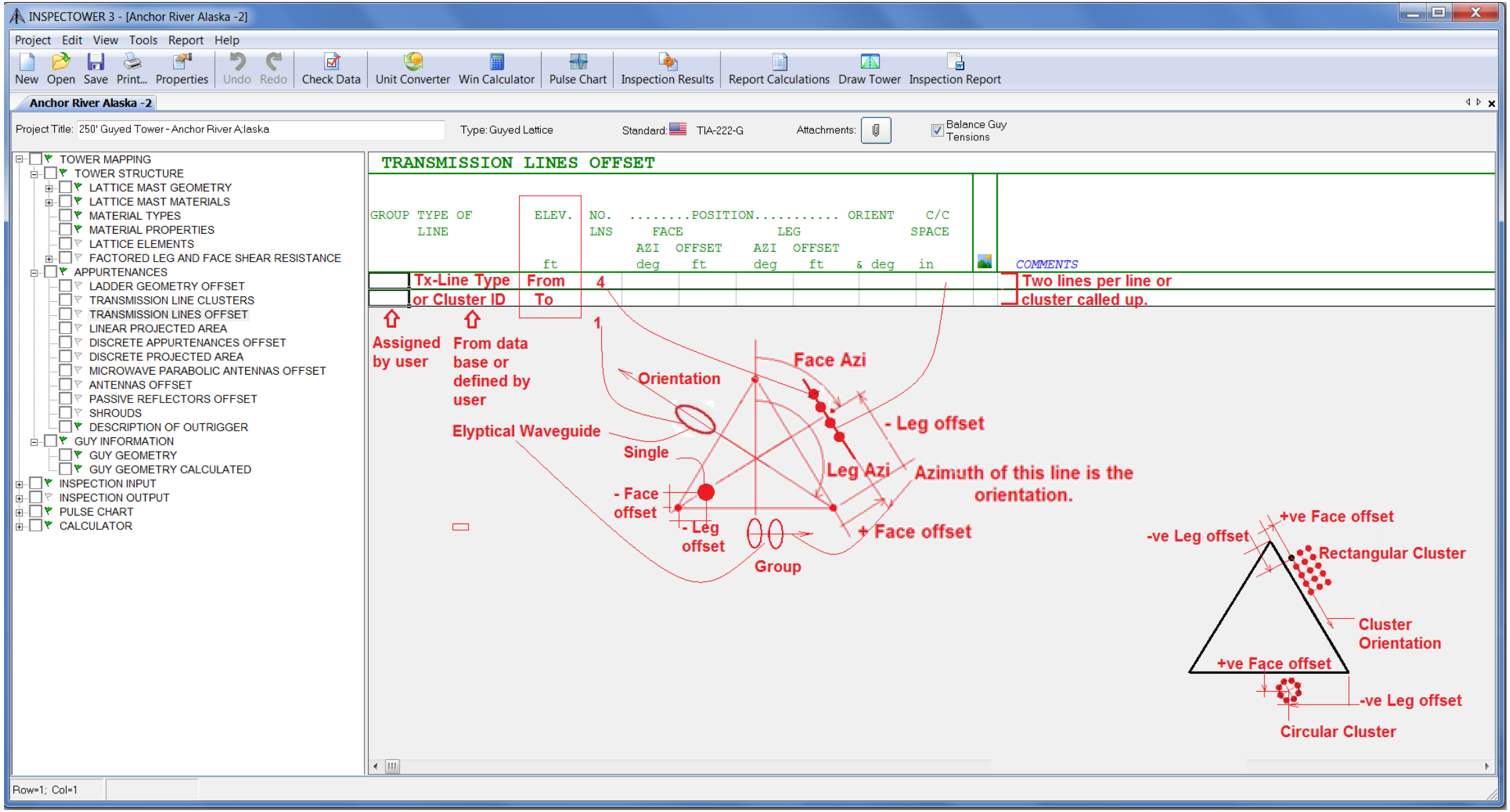
Guymast Inc.

Introduction to INSPECTOWER 3



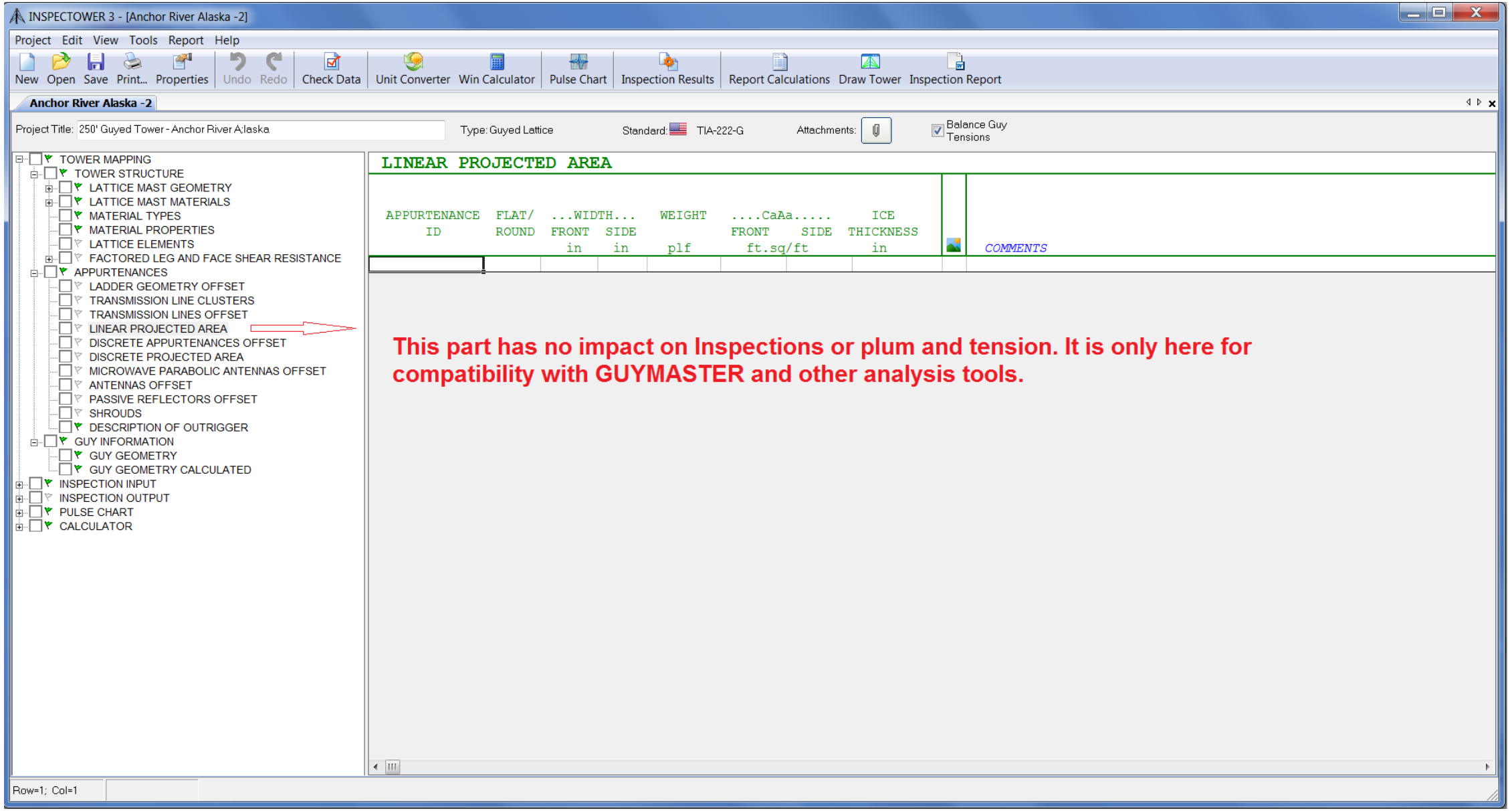
Guymast Inc.

Introduction to INSPECTOWER 3



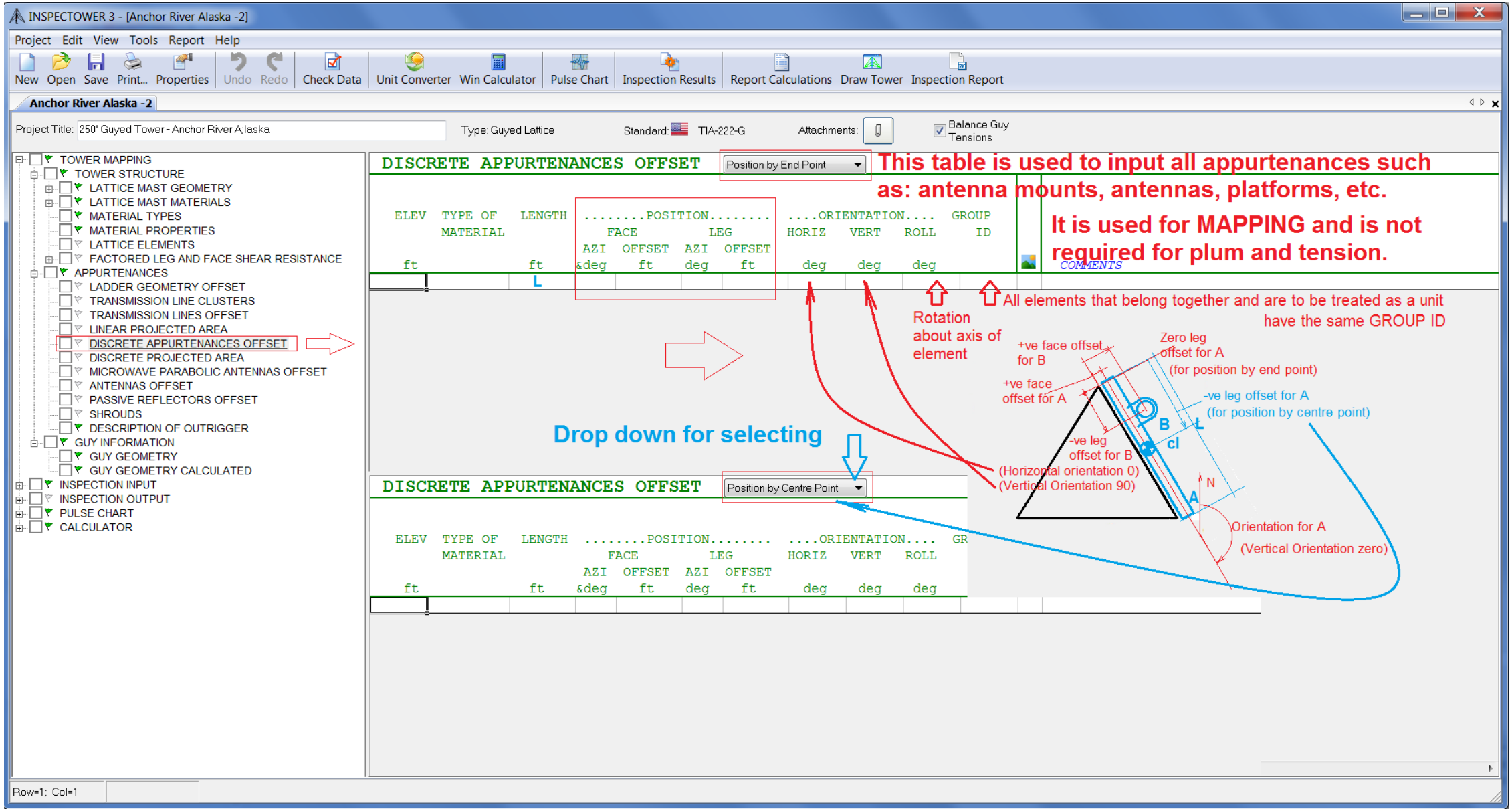
Guymast Inc.

Introduction to INSPECTOWER 3



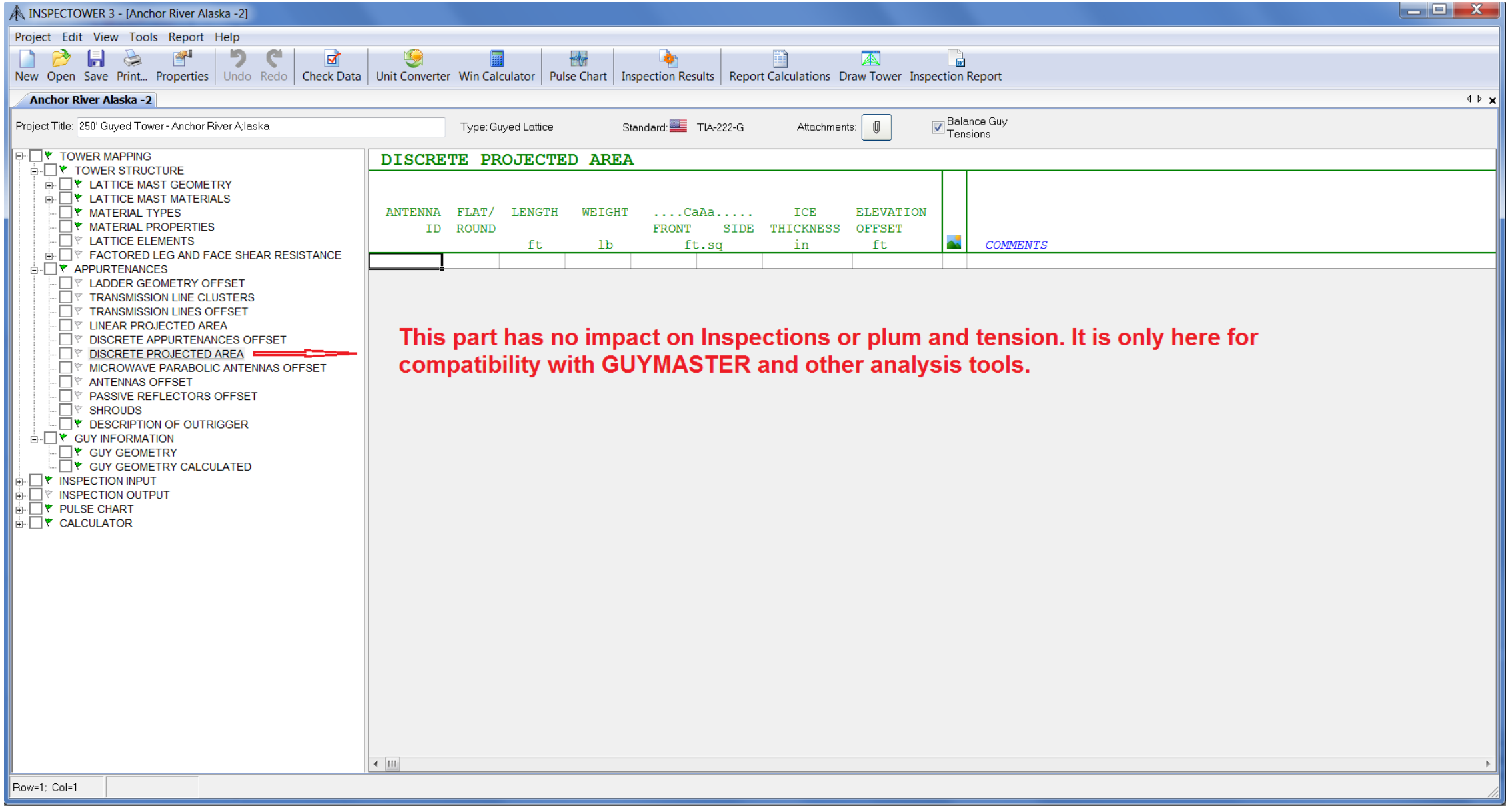
Guymast Inc.

Introduction to INSPECTOWER 3



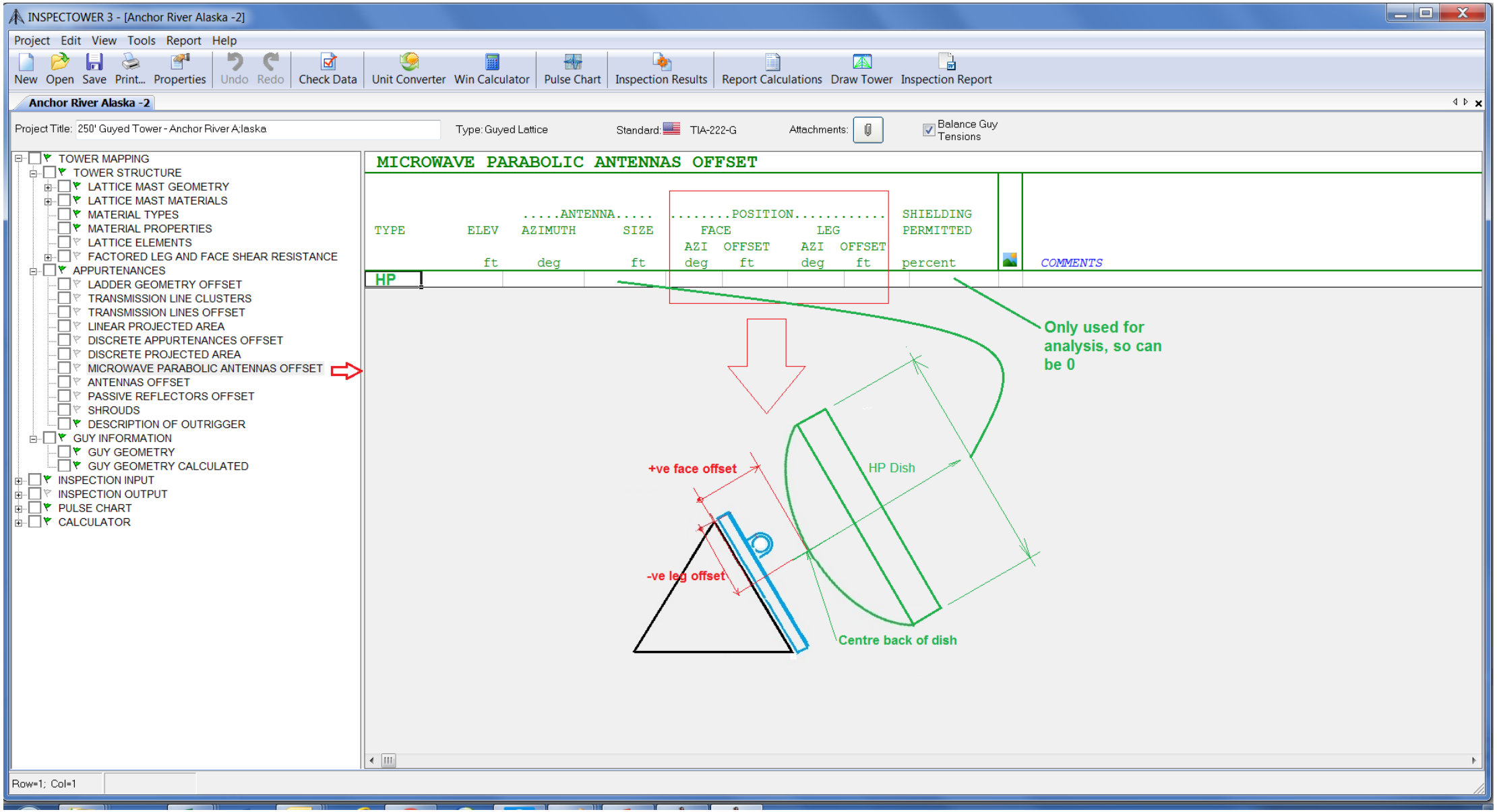
Guymast Inc.

Introduction to INSPECTOWER 3



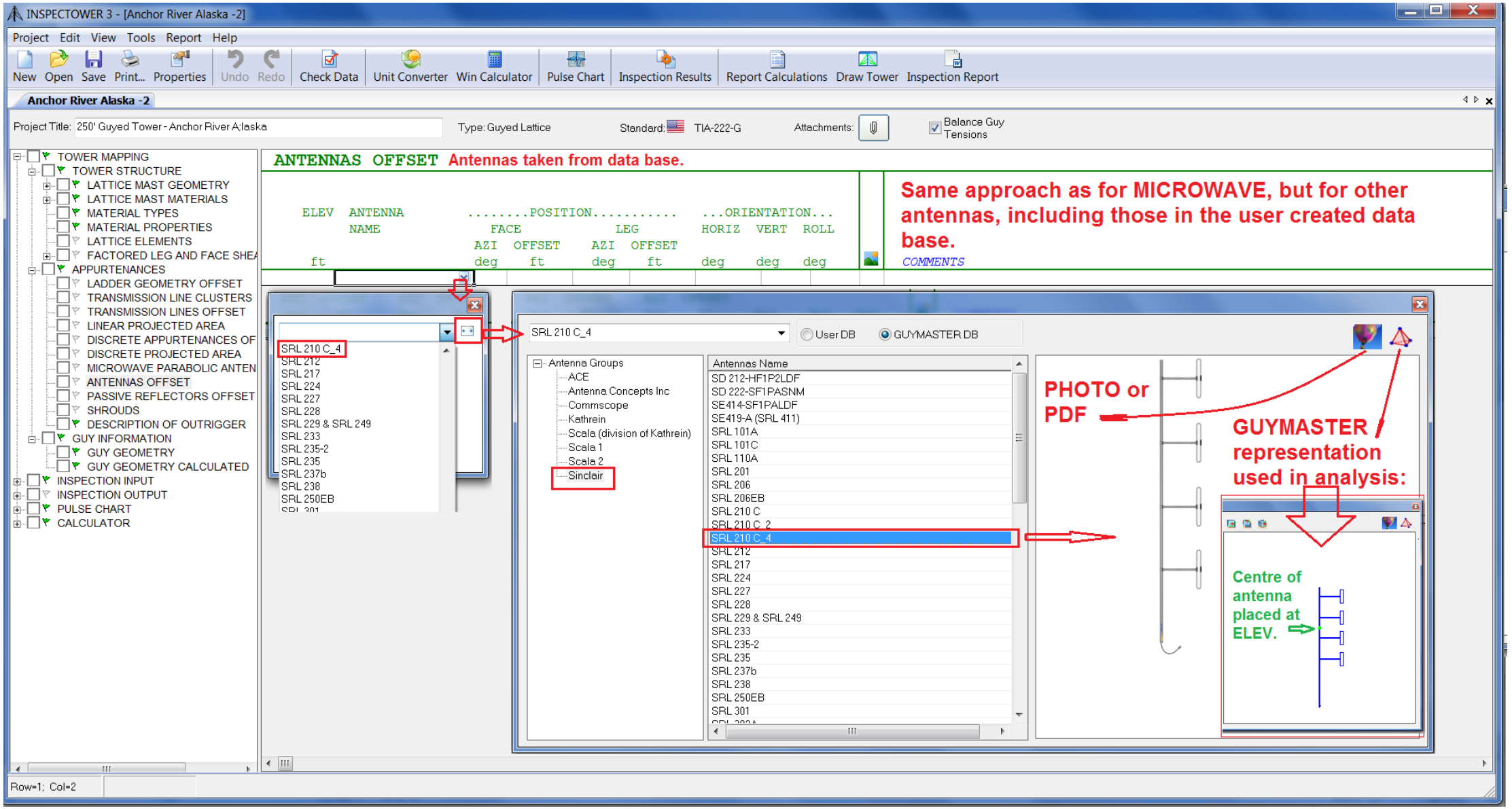
Guymast Inc.

Introduction to INSPECTOWER 3



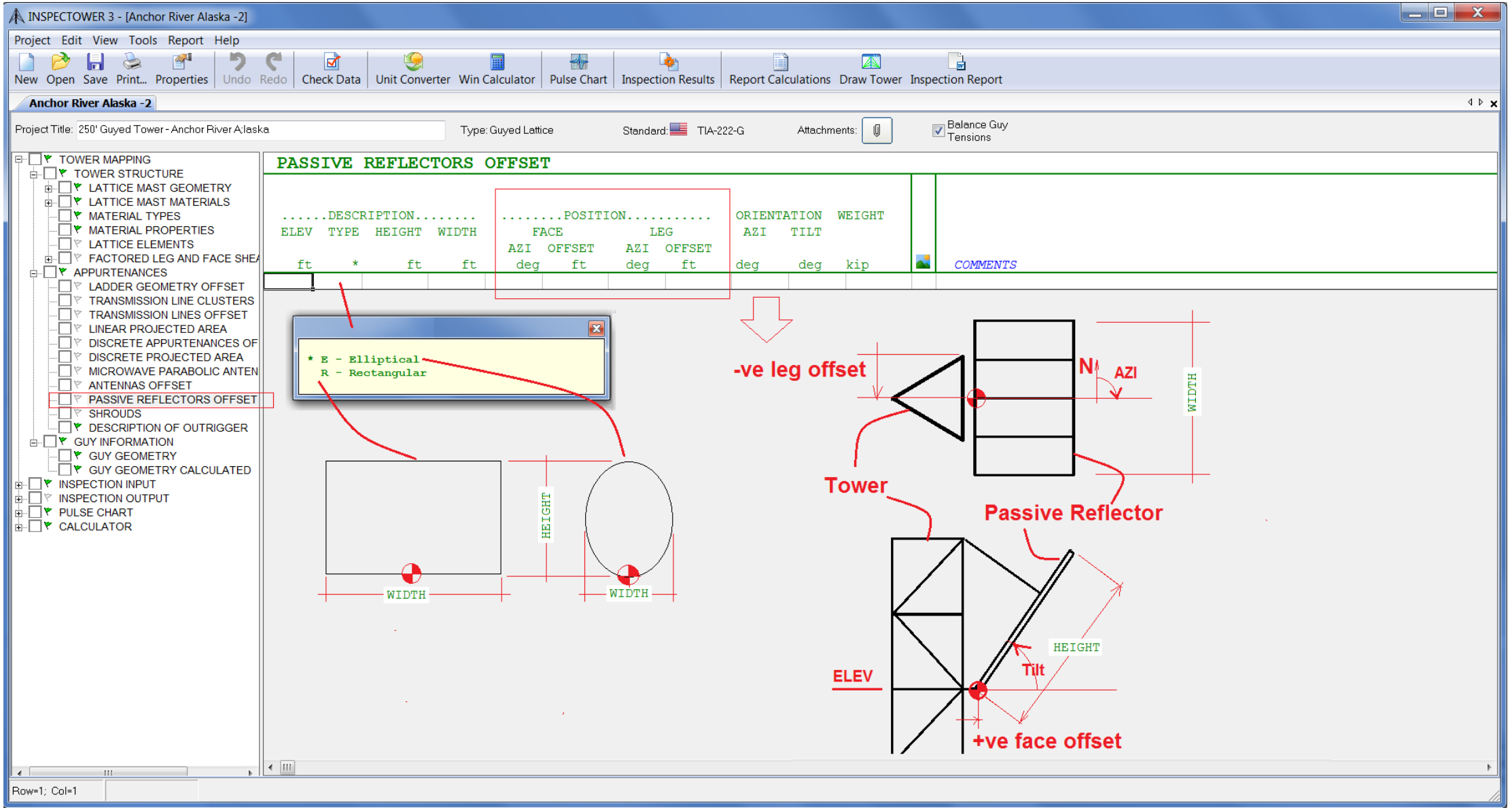
Guymast Inc.

Introduction to INSPECTOWER 3



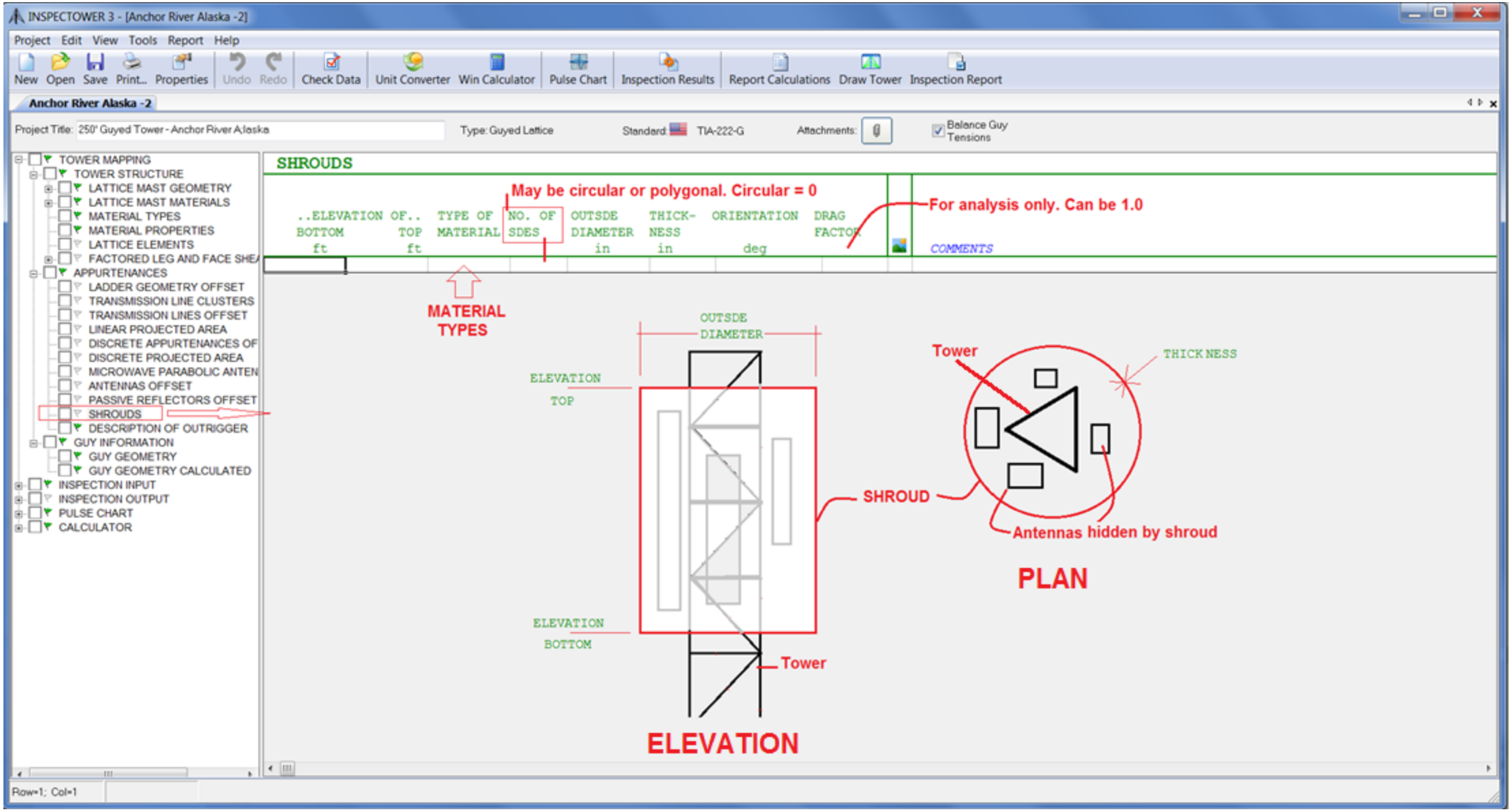
Guymast Inc.

Introduction to INSPECTOWER 3



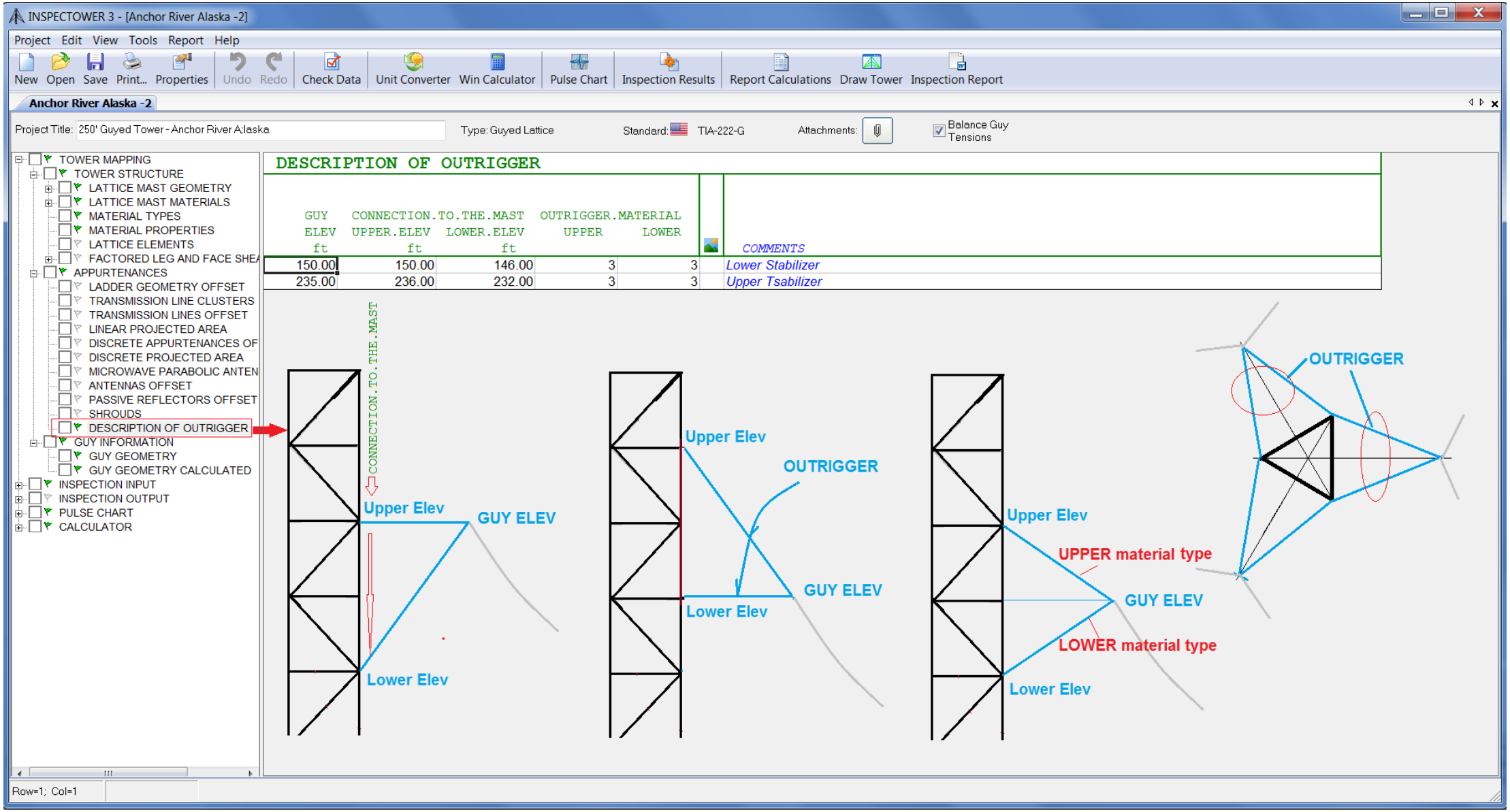
Guymast Inc.

Introduction to INSPECTOWER 3



Guymast Inc.

Introduction to INSPECTOWER 3



Guymast Inc.

Introduction to INSPECTOWER 3

INSPECTOWER 3 - [Anchor River Alaska -2]

Project Edit View Tools Report Help

New Open Save Print... Properties Undo Redo Check Data Unit Converter Win Calculator Pulse Chart Inspection Results Report Calculations Draw Tower Inspection Report

Anchor River Alaska -2

Project Title: 250' Guyed Tower - Anchor River A;laska Type: Guyed Lattice Standard: TIA-222-G Attachments: Balance Guy Tensions

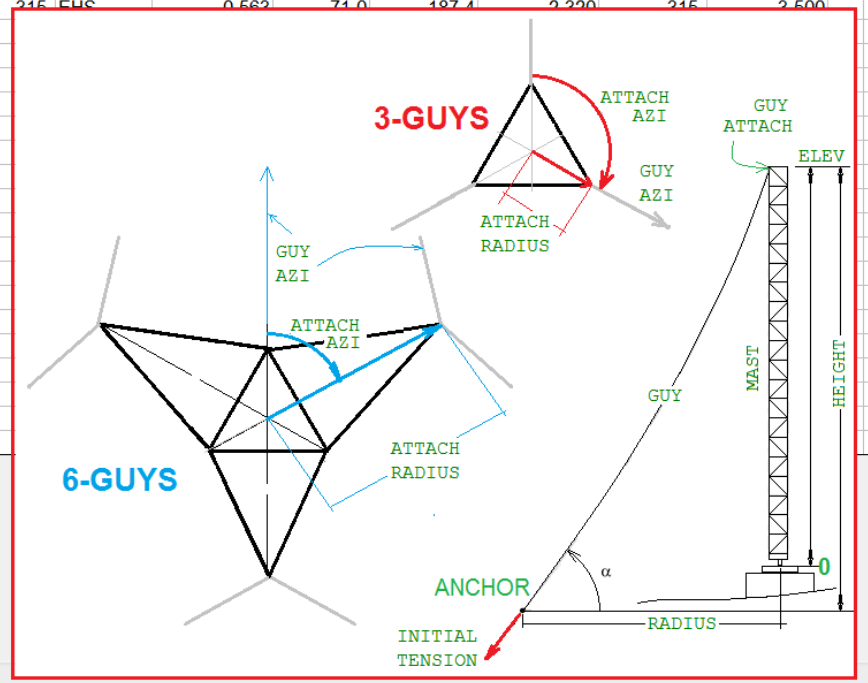
- TOWER MAPPING
  - TOWER STRUCTURE
    - LATTICE MAST GEOMETRY
    - LATTICE MAST MATERIALS
    - MATERIAL TYPES
    - MATERIAL PROPERTIES
    - LATTICE ELEMENTS
    - FACTORED LEG AND FACE SHEA
  - APPURTENANCES
    - LADDER GEOMETRY OFFSET
    - TRANSMISSION LINE CLUSTERS
    - TRANSMISSION LINES OFFSET
    - LINEAR PROJECTED AREA
    - DISCRETE APPURTENANCES OF
    - DISCRETE PROJECTED AREA
    - MICROWAVE PARABOLIC ANTEN
    - ANTENNAS OFFSET
    - PASSIVE REFLECTORS OFFSET
    - SHROUDS
    - DESCRIPTION OF OUTRIGGER
  - GUY INFORMATION
    - GUY GEOMETRY
    - GUY GEOMETRY CALCULATED
- INSPECTION INPUT
- INSPECTION OUTPUT
- PULSE CHART
- CALCULATOR

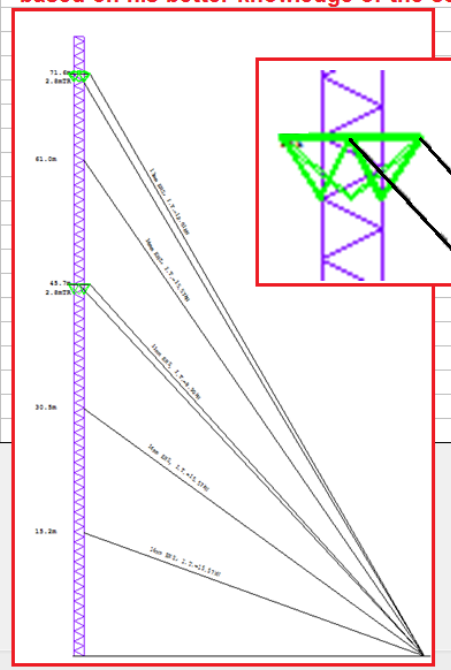
GUY GEOMETRY This table is prepared by the user. It is also possible to have INSPECTOWER 3 calculate guy height and radius based on vertical angle measurements in the TRANSIT READINGS table. That has to be done through the Tools drop down menu under "Generate Guy Geometry" option and "Apply"-ed to transfer values into the GUY GEOMETRY table, which is then used for calculations.

COMMENTS

This approach allows the user to override the calculated values based on his better knowledge of the correct values.

ELEV ft	GUY AZI deg	GUY TYPE *	DIAMETER in	HEIGHT ft	RADIUS ft	MAST ATTACH RADIUS ft	ATTACH AZI deg	INITIAL TENSION kip
50.0	75.	EHS	0.563	37.0	188.4	2.320	75.	3.500
50.0	195.	EHS	0.563	62.0	188.0	2.320	195.	3.500
50.0	315.	EHS	0.563	71.0	187.4	2.320	315.	3.500
100.0								
100.0								
100.0								
150.0								
150.0								
150.0								
150.0								
150.0								
150.0								
150.0								
200.0								
200.0								
200.0								
235.0								
235.0								
235.0								
235.0								
235.0								
235.0								

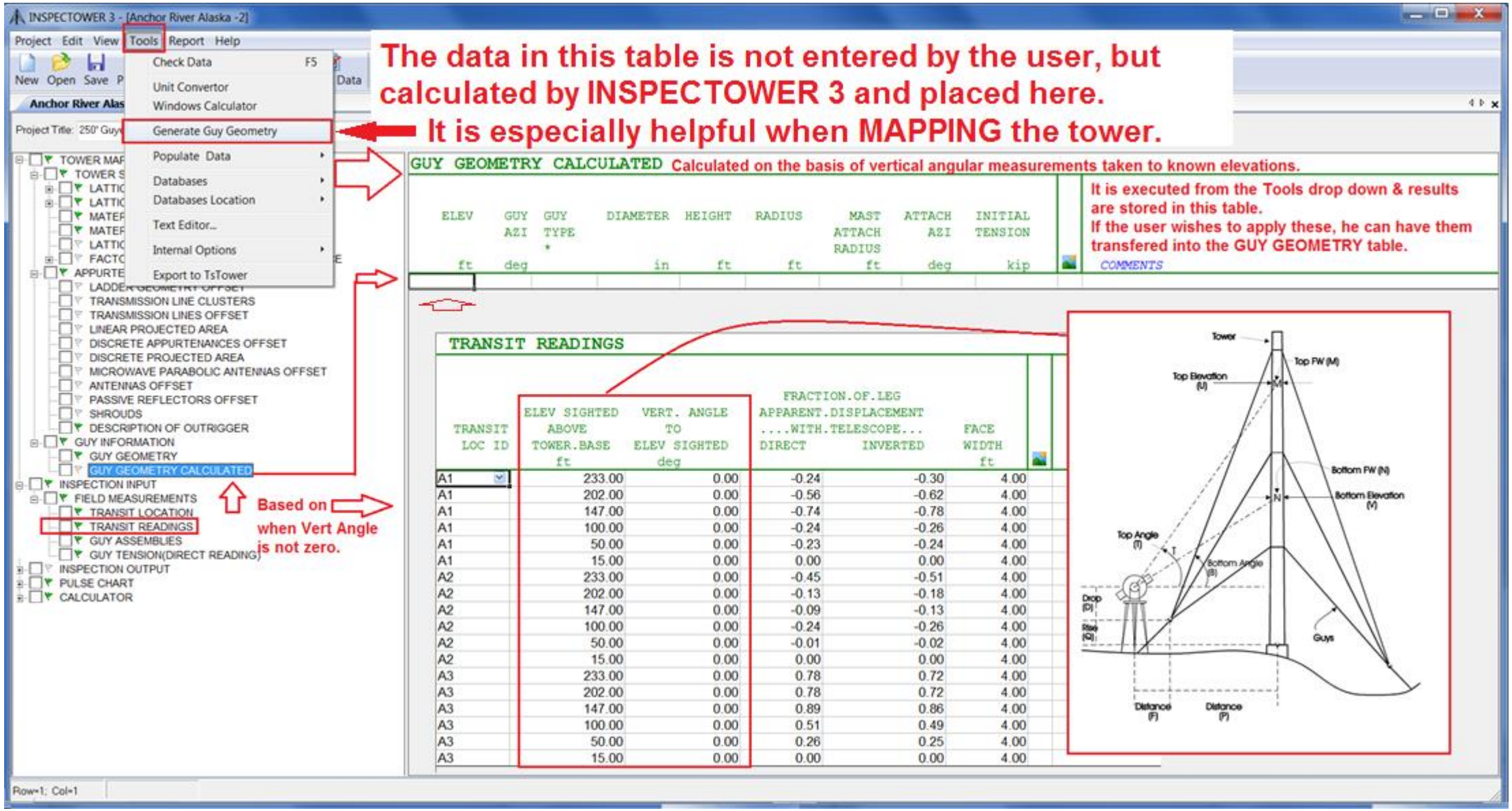




Row=1; Col=1

Guymast Inc.

Introduction to INSPECTOWER 3



Guymast Inc.

Introduction to INSPECTOWER 3

INSPECTOWER 3 - [Anchor River Alaska -2]

Project Edit View Tools Report Help

New Open Save Print... Properties Undo Redo Check Data Unit Converter Win Calculator Pulse Chart Inspection Results Report Calculations Draw Tower Inspection Report

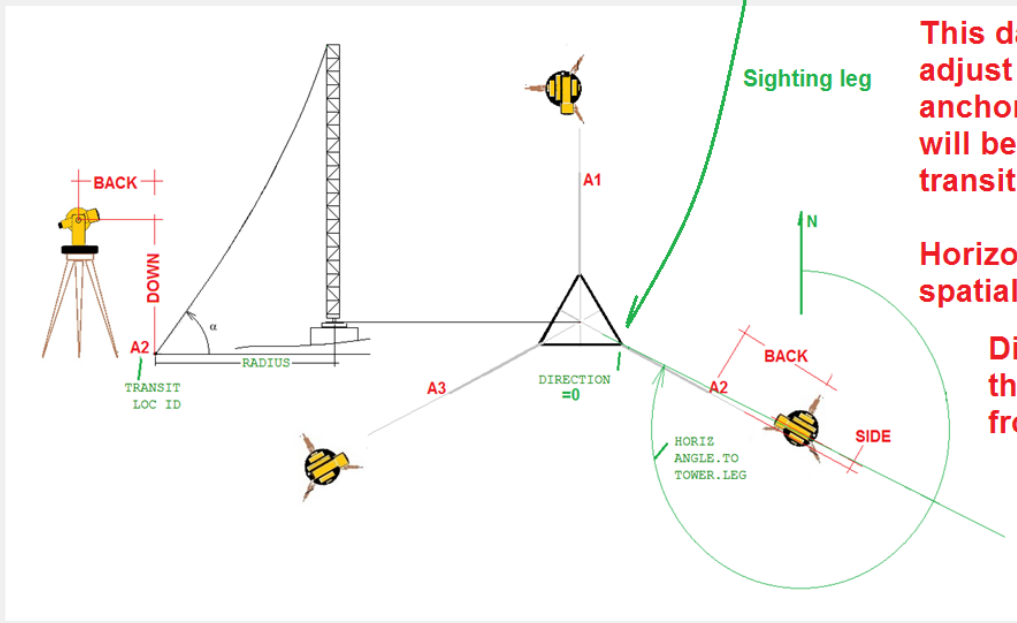
Anchor River Alaska -2

Project Title: 250' Guyed Tower - Anchor River A;laska Type: Guyed Lattice Standard: TIA-222-G Attachments: Balance Guy Tensions

- TOWER MAPPING
- INSPECTION INPUT
  - FIELD MEASUREMENTS
    - TRANSIT LOCATION
    - TRANSIT READINGS
    - GUY ASSEMBLIES
    - GUY TENSION(DIRECT READING)
- INSPECTION OUTPUT
- PULSE CHART
- CALCULATOR

TRANSIT LOCATION

TRANSIT LOC ID	DISTANCE.FROM.INSTRUMENT.TO.ANCHOR BACK ft	DOWN ft	SIDE in	HORIZ ANGLE.TO TOWER.LEG deg	DIRECTION &	COMMENTS
A1	0.00	0.00	0.00	255.40	0	
A2	0.00	0.00	0.00	15.40	0	
A3	0.00	0.00	0.00	135.40	0	



This data will allow INSPECTOWER 3 to adjust the guy radius and height of anchor from the instrument height that will be calculated using some of the transit readings.

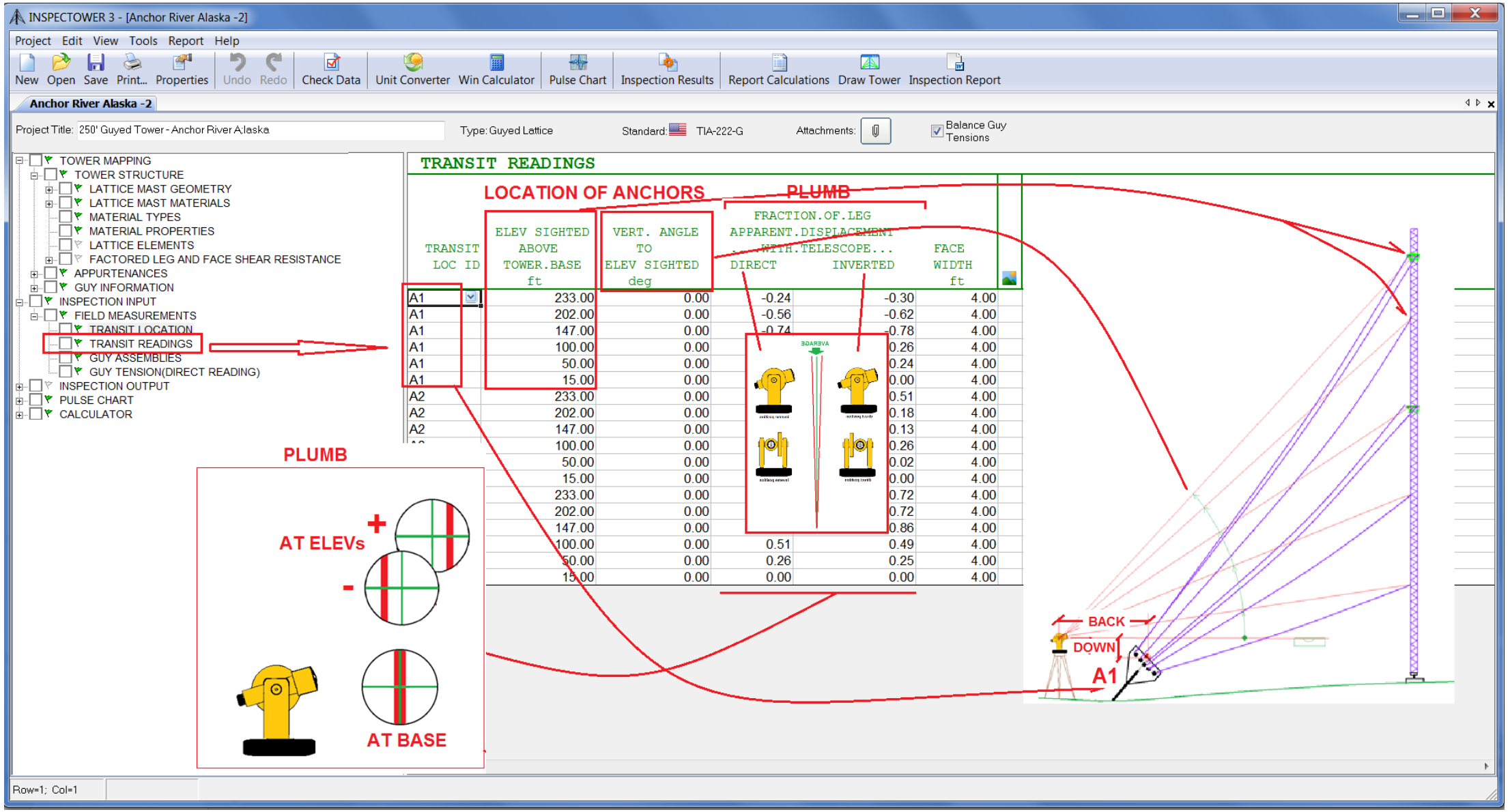
Horizontal anglefor the leg will allow the spatial location of A2 and guy azimuth.

Direction gives INSPECTOWER 3 the correction for anchor radius from leg or face to tower centre.

Row=1; Col=1

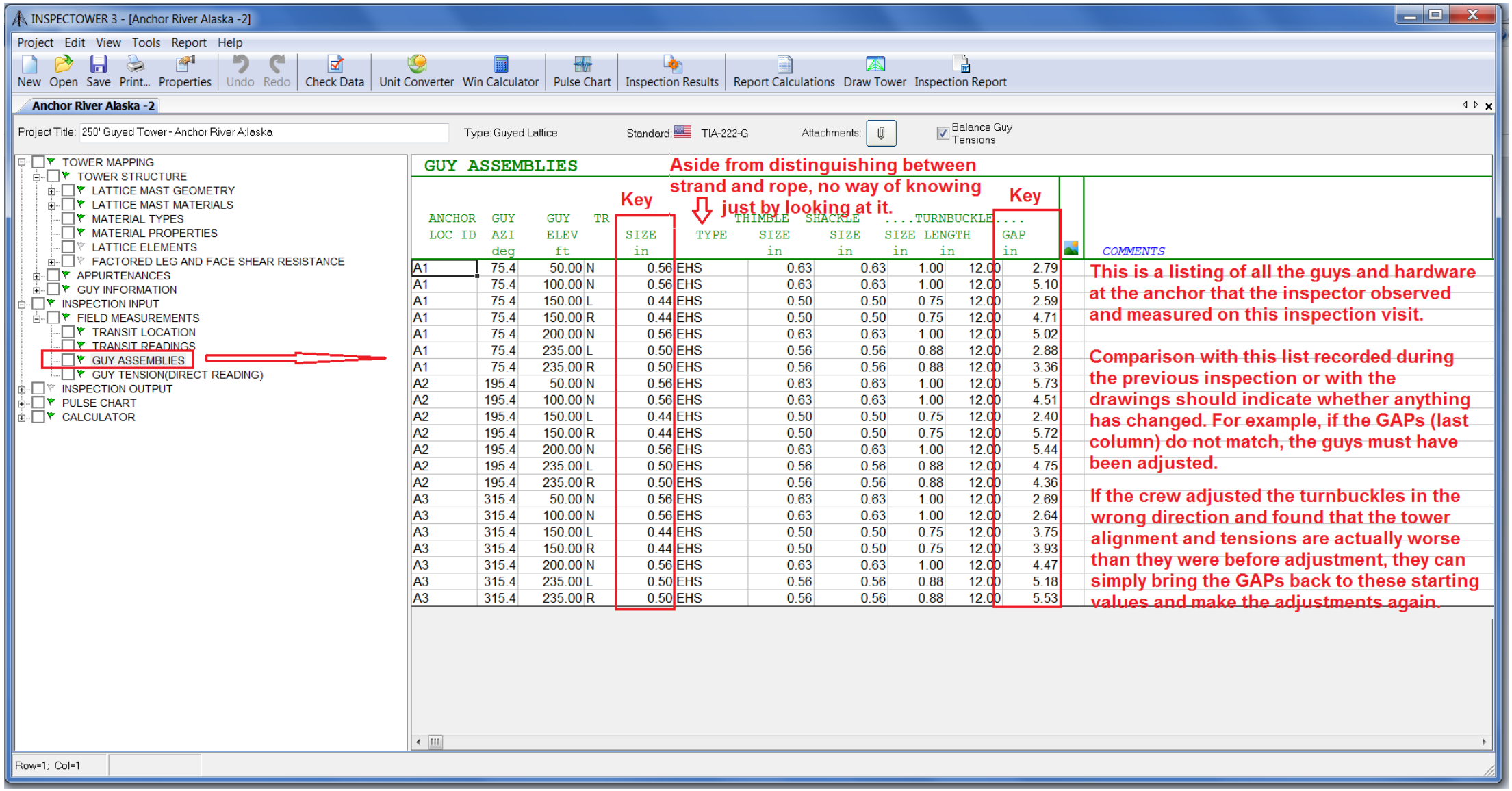
Guymast Inc.

Introduction to INSPECTOWER 3



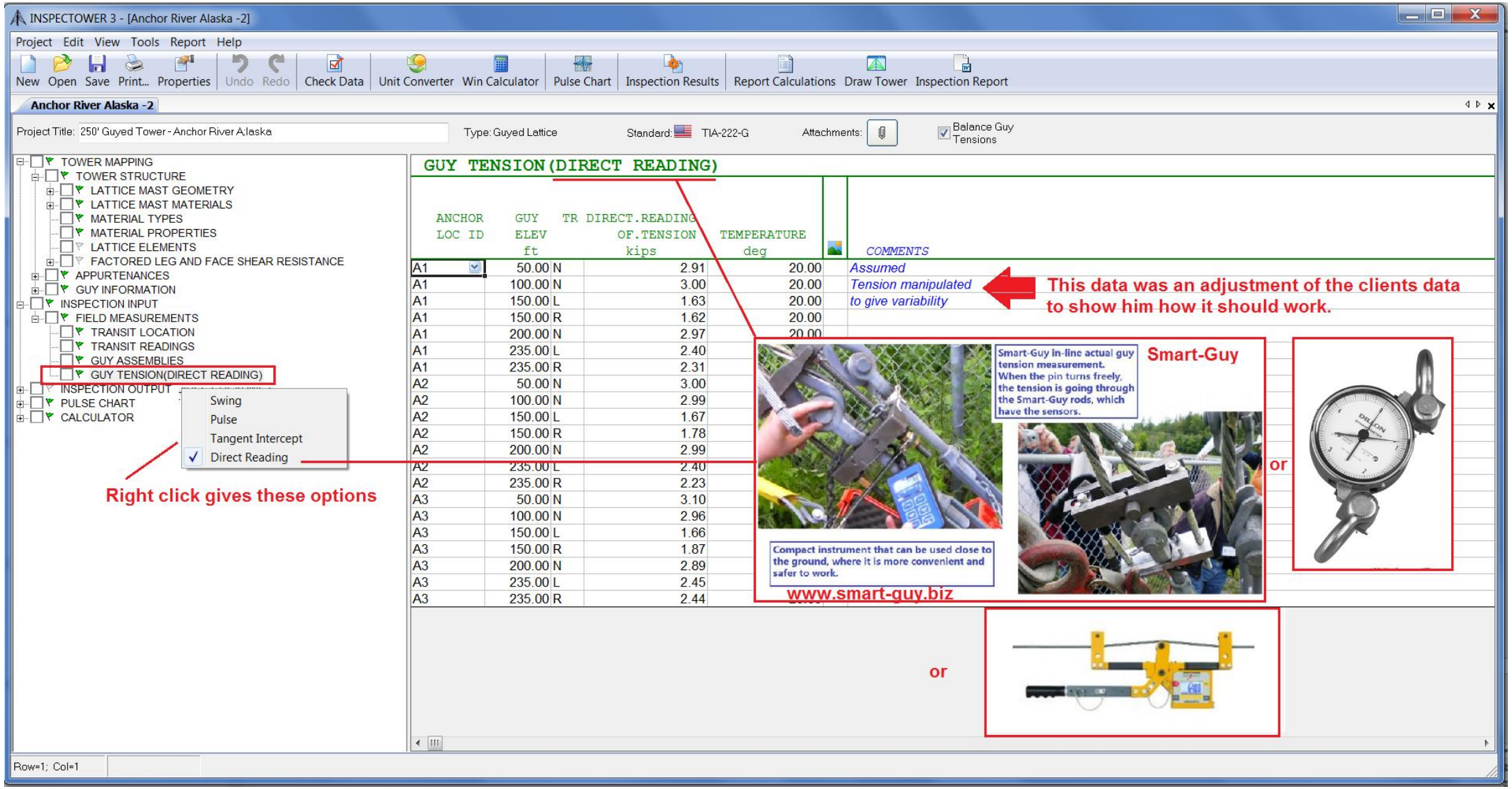
Guymast Inc.

Introduction to INSPECTOWER 3



Guymast Inc.

Introduction to INSPECTOWER 3



Guymast Inc.