



## **Update Guide Release 2019.2**

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# INTRODUCTION

This document serves as a guide for the new features and changes in TracePro 2019.2. TracePro 2019.2 has enhancements in the Texture Optimizer II, 3D Interactive Optimizer, Analysis Toolkit, and Lighting Toolkit. This release also fixes several problems reported by TracePro users. See the [TracePro Revision History](http://www.lambdare.com) at [www.lambdare.com](http://www.lambdare.com) for more details on problem resolutions.

## WHAT'S NEW IN TRACEPRO 2019.2?

Changes in TracePro 2019.2 compared to 2019.1 are summarized as follows:

- Texture Optimizer II: new optimizable dot pattern – grid with varied pitch.
- 3D Interactive Optimizer:
  - Press F5 in after-scheme editor to run the current code.
  - Press F10 in after-scheme editor to start the step execution mode, F11 to step forward.
- Analysis Toolkit: Add options of max/min/log for Luminance analysis.
- Lighting Toolkit
  - Add regulation SAE J914
  - Add capability of setting min value in Log scale
  - Contour modes can support log scale

## TEXTURE OPTIMIZER II

The Texture Optimizer II has a new optimizable dot pattern: grid with variable pitch. This new type of variation keeps the x or y pitch constant but can vary the pitch in the orthogonal direction while keeping the dot size constant. An example of a grid texture with variable pitch in one direction is shown in Figure 1.

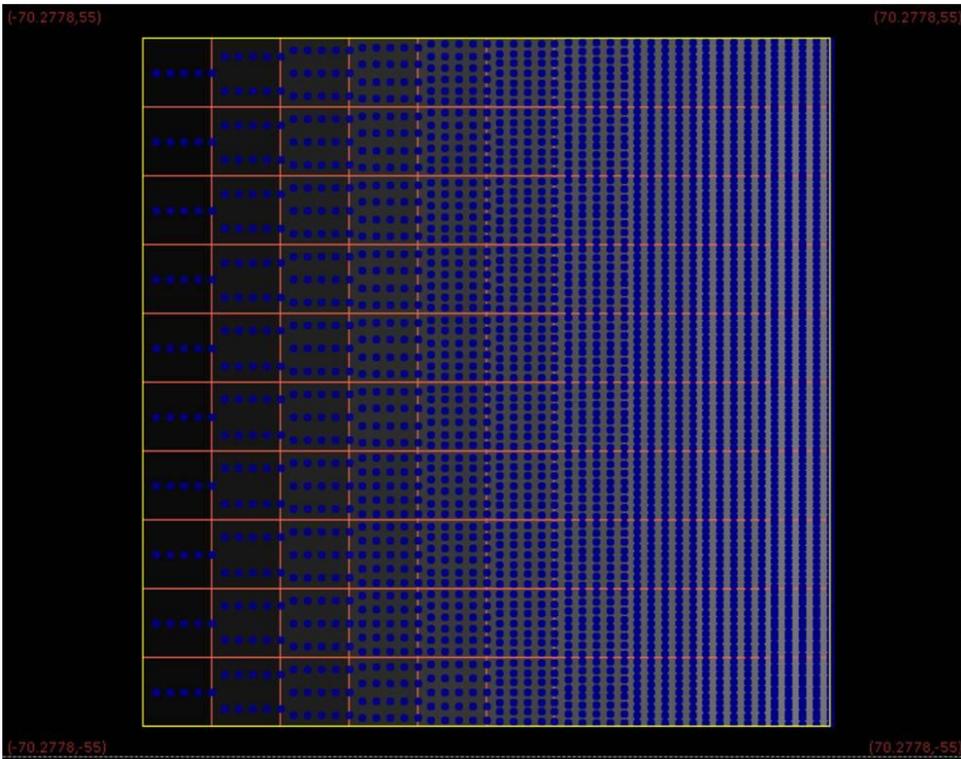
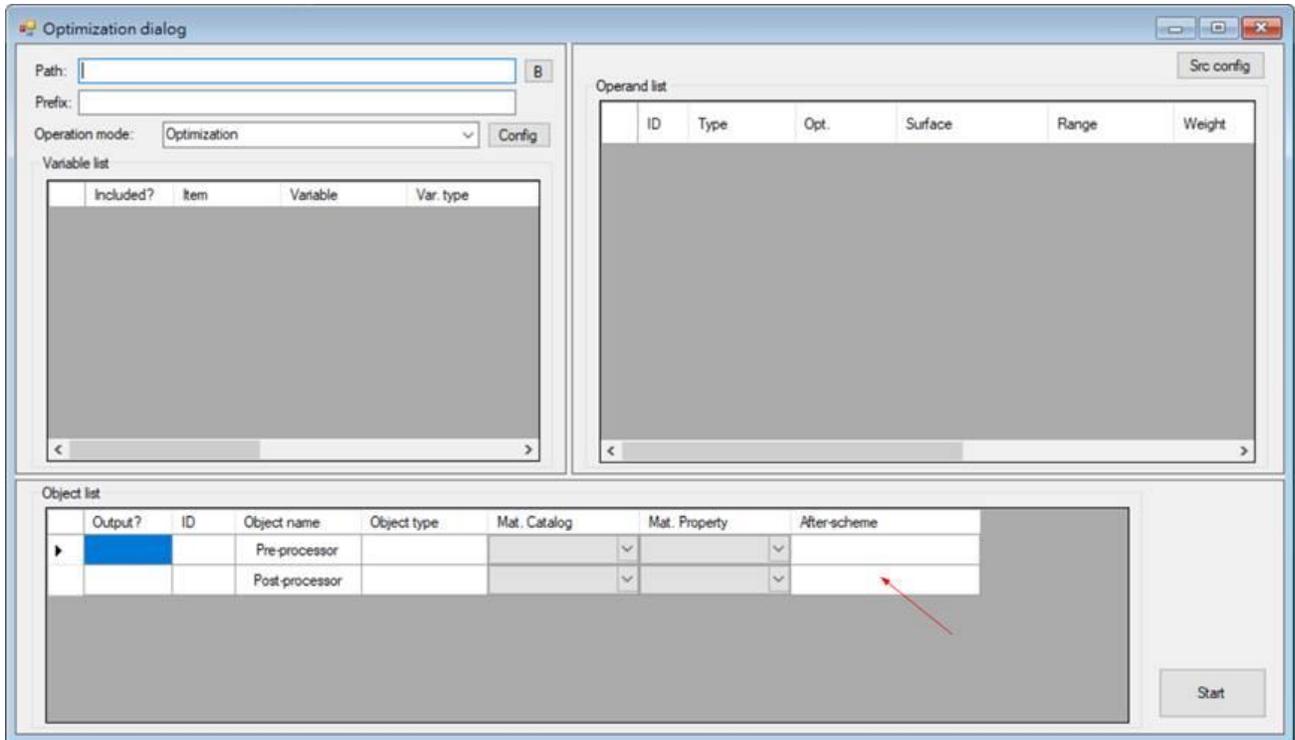


Figure 1. Example of grid texture with variable pitch. The pitch in one direction is constant, while varying in the orthogonal direction. The dot size is constant.

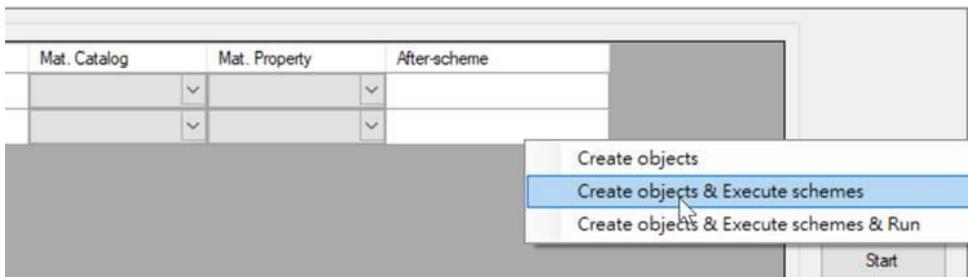
## 3D INTERACTIVE OPTIMIZER

The normal way to use after-scheme in the 3D Interactive Optimizer is to double-click on the cell in the Optimization dialog to open the editor as shown in Figure 2, then type in the after-scheme code.



**Figure 2. Double-clicking on the After-scheme cell opens the after-scheme editor (current behavior).**

When all the after-scheme code is completed, you could right-click on the same area to execute the codes immediately as in Figure 3. However, this method is inconvenient for code debugging, so new features are now available to make debugging easier.



**Figure 3. Right-clicking on the after-scheme cell to execute the code immediately, for debugging purposes (current behavior).**

The first new feature allows you to execute the after-scheme in the Editor by pressing F5 (see Figure 4 and Figure 5).

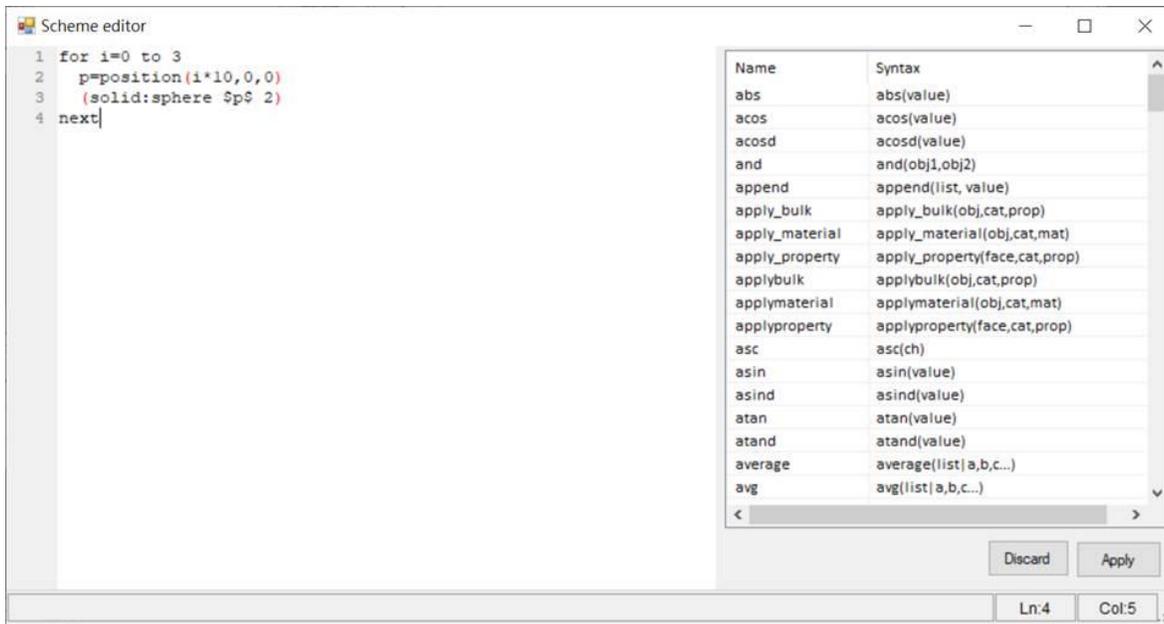


Figure 4. After-scheme editor ready for debugging.

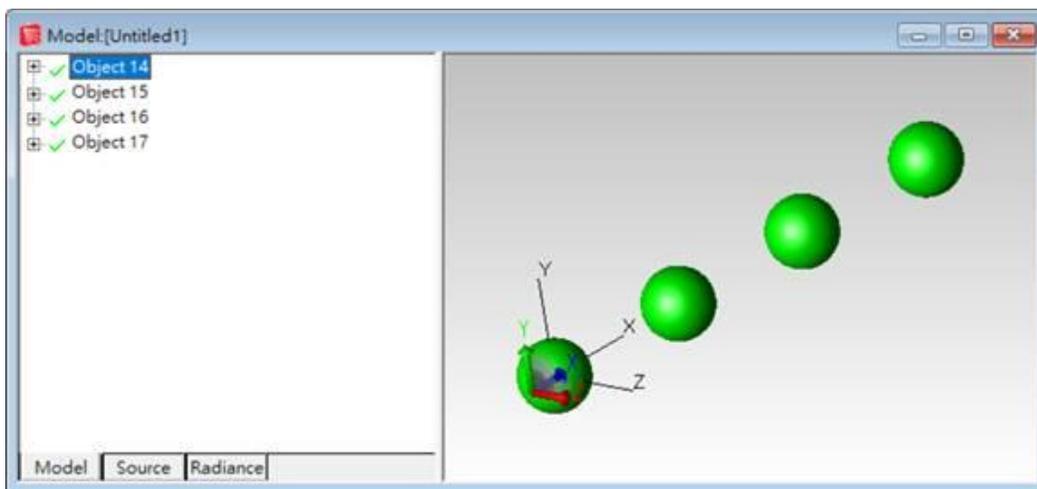
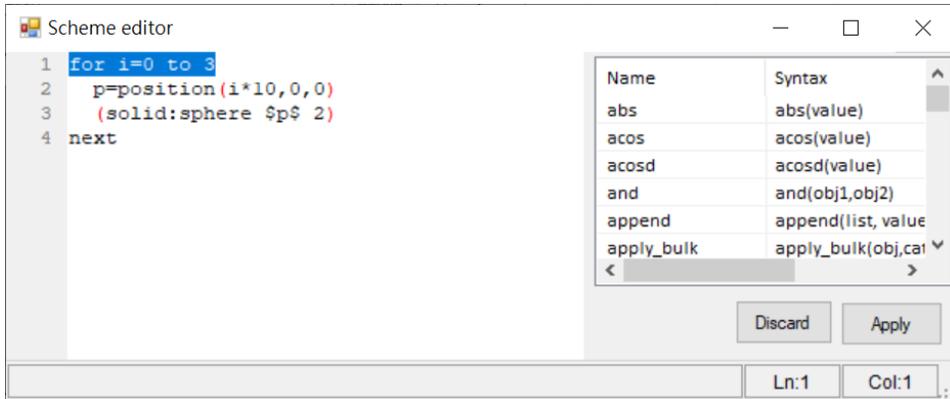


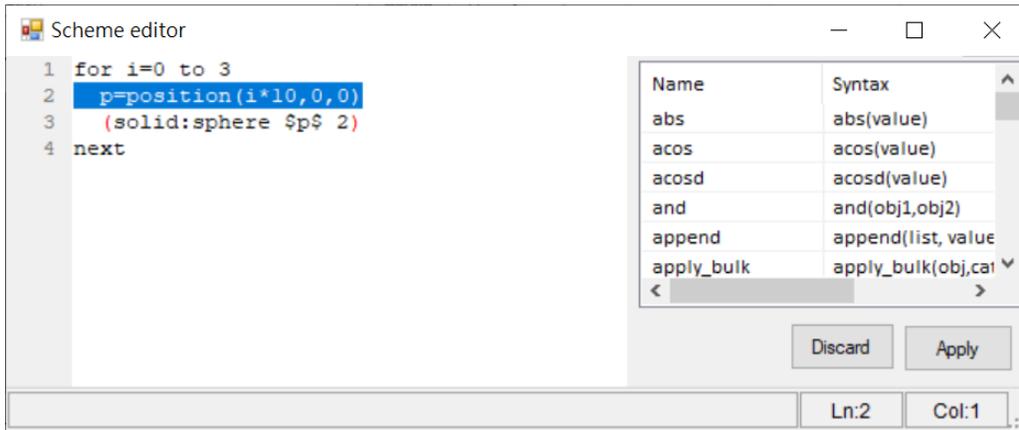
Figure 5. Result of after-scheme code execution using the F5 key.

You can also press F10 to enable step execution mode (Figure 6). The first line of code is highlighted in preparation for stepping.



**Figure 6.** Enter step execution mode by pressing the F10 key.

Once step execution mode is enabled, press F11 to step forward through the after-scheme program, executing it line by line. The line being executed is highlighted (Figure 7).



**Figure 7.** Once in step execution mode, use the F11 key to step through execution line by line.

## ANALYSIS TOOLKIT

The Analysis Toolkit has new features for display of Luminance Analysis. You can now set the minimum and maximum values for the legend, and optionally display the luminance in a log scale (Figure 8).

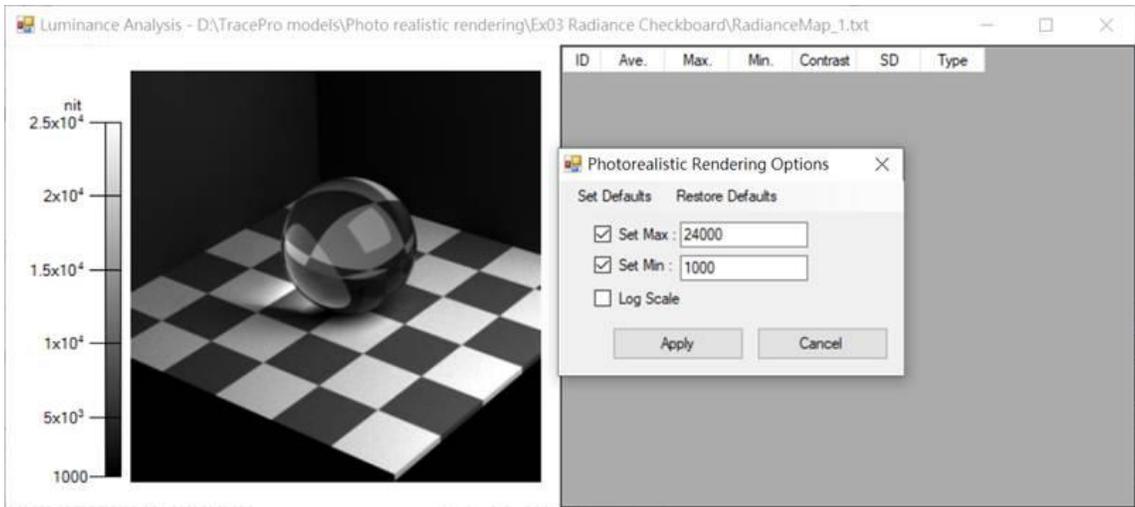


Figure 8. New options for displaying values in Luminance Analysis in the Analysis Toolkit.

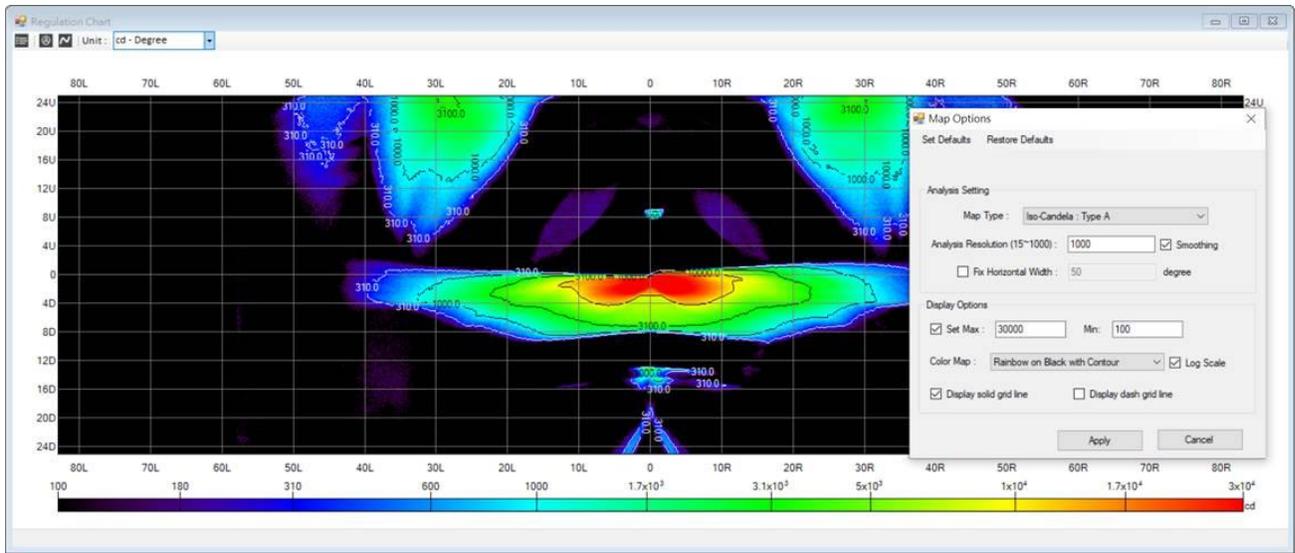
## LIGHTING TOOLKIT

A new regulation is available, SAE J914 for side turn signal lamps (Figure 9).

ID	Show?	Type	Points or segments	Designation	Max Value	Min Value	Horizontal	Vertical	Unit
0	<input checked="" type="checkbox"/>	Point	1	15U-30L	200	0.36	30 L	15 U	cd_HV
1	<input checked="" type="checkbox"/>	Point	2	5U-30L	200	0.36	30 L	5 U	cd_HV
2	<input checked="" type="checkbox"/>	Point	3	H-30L	200	0.36	30 L	0	cd_HV
3	<input checked="" type="checkbox"/>	Point	4	5D-30L	200	0.36	30 L	5 D	cd_HV
4	<input checked="" type="checkbox"/>	Point	5	15D-30L	200	0.36	30 L	15 D	cd_HV
5	<input checked="" type="checkbox"/>	Point	6	15U-70L	200	0.36	70 L	15 U	cd_HV
6	<input checked="" type="checkbox"/>	Point	7	5U-70L	200	0.36	70 L	5 U	cd_HV
7	<input checked="" type="checkbox"/>	Point	8	H-70L	200	0.36	70 L	0	cd_HV
8	<input checked="" type="checkbox"/>	Point	9	5D-70L	200	0.36	70 L	5 D	cd_HV
9	<input checked="" type="checkbox"/>	Point	10	15D-70L	200	0.36	70 L	15 D	cd_HV
10	<input checked="" type="checkbox"/>	Point Col.	Zone I	1+2+3+4+5	-	3	*	*	cd_HV
11	<input checked="" type="checkbox"/>	Point Col.	Zone II	6+7+8+9+10	-	3	*	*	cd_HV

Figure 9. SAE J914 regulation for side turn signal lamps.

The contour display option of the iso-candela plot has been enhanced so that you can set a minimum value when you select log scale. Color schemes are also available with log scale (Figure 10).



**Figure 10. Iso-candela plot now supports color with log scale and setting of minimum value with log scale.**