

TOD Analysis Instructions

SCATS Data Manager

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- MX Value Analysis
- Degree of Saturation Analysis
- Degree of Saturation over Phase Timing Analysis
- TOD Analysis
- Travel Time - Variation Routine Analysis
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TOD Analysis

The screenshot shows the 'TOD Analysis' form with four main sections highlighted by colored boxes and arrows:

- Analysis Period Type:** A dropdown menu with 'Midweek' selected. A red arrow points from this box to the text: 'Determine the analysis period of time that the average results needs to be calculated for. For example, Midweek stands for Tue-Wed-Thur'.
- Same Off-Peak Cycle Length:** A dropdown menu with 'Yes' selected. A green arrow points from this box to the text: 'Same off-peak cycle length is an option that allows us to choose whether the cycle length right after midnight can be the same as the cycle length right before midnight or not'.
- Average or Percentile:** A dropdown menu with 'Percentile' selected. A blue arrow points from this box to the text: 'Average means the proposed cycle length will stick to the average cycle length of the periods whereas the percentile option will allow the results to stick more toward the peaks'.
- Zone Number (0 if unknown) and Maximum number of periods:** Two input fields. The 'Zone Number' field contains '0' and the 'Maximum number of periods' field contains '7'. A purple arrow points from these fields to the text: 'We have encoded the zones we already know by numbers to incorporate the saved TOD cycle length in our results. However, if you don't want to display the existing TOD cycle length or you are not sure of the zone number, you can put the zone number as zero, which will not display the existing TOD cycle length'.

An orange arrow points from the 'Maximum number of periods' field to the text: 'That number will determine the maximum number of different cycle length within one day. The greater this number, the longer it takes to vizualize the results'.

Determine the analysis period of time that the average results needs to be calculated for. For example, Midweek stands for Tue-Wed-Thur

Same off-peak cycle length is an option that allows us to choose whether the cycle length right after midnight can be the same as the cycle length right before midnight or not
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We have encoded the zones we already know by numbers to incorporate the saved TOD cycle length in our results. However, if you don't want to display the existing TOD cycle length or you are not sure of the zone number, you can put the zone number as zero, which will not display the existing TOD cycle length

That number will determine the maximum number of different cycle length within one day. The greater this number, the longer it takes to vizualize the results

Minimum number of hours per period 2	Maximum number of hours per period 4
Preferred percentile 0.85	Rounded cycle length 10
Do we Smooth the Cycle Length? No	
Smoothing between consecutive cycle lengths 10	
Choose SCATS SM files BROWSE... No file selected	
<input type="button" value="PREVIEW"/> <input type="button" value="DOWNLOAD"/> <input type="button" value="ABSTRACT"/>	

The minimum and maximum number of hours per period is to speed up the process. The minimum value represent that minimum number of hours we are sticking to a proposed cycle length. If you have high number of periods, the maximum number of hours values can be small. Note: If there is a period that is greater than this number, it will link up automatically

The percentile when we use the percentile option. The higher the percentile number the closer the proposed cycle length is to the peaks. Note, if you use the average option, this value will not affect the results

The rounded cycle length indicates that we want the cycle length to the highest (10 sec, 5 sec, etc)

Smoothing means that when we have two consecutive cycle lengths that are close to each other by "some number" (i.e., in this example 10 sec), then the proposed cycle length will match the higher of these two periods

Select the strategic monitor file/files. Depending on the analysis period type, some of the files might be excluded accordingly

Preview: to preview the results in graph shown next to it

Download: To download the data in Excel format

Abstract: When we preview the results and we are satisfied with the proposed cycle length, the abstract file can be downloaded to be used in the next step of phase split determination

-----Phase Optimization using File Uploads-----	
Choose SCATS History Viewer files BROWSE... No file selected	
Upload Abstract Proposed Cycle from Last Step BROWSE... No file selected	
<input type="button" value="DOWNLOAD TOD PHASES"/>	

To Determine the Phase split percentage, we have two methods. This method here is by uploading the SCATS history viewer phase files

Upload the Abstract file we got from the previous step here

Download the results here

Phase Optimization using Historical Data

Enter the Site Number

10018

Select multiple dates for the Average:

You can pick selected dates

Upload Abstract Proposed Cycle from Last Step

BROWSE... No file selected

Do you need to consider minimum phasing time:

No

Min Phase B (sec)	Min Phase C (sec)
10	10
Min Phase D (sec)	Min Phase E (sec)
10	10
Min Phase F (sec)	Min Phase G (sec)
10	10
Min Phase H (sec)	Min Phase I (sec)
10	10

PREVIEW

DOWNLOAD TOD PHASES

The other option is using historical data that is updated on a monthly basis to the cloud. We don't need to upload any files here, but we need to specify the site number

Note, proposed cycle length is per zone while phase split percentage is per site

Select the dates you want to take the average of. These dates should correspond to the dates we choose in proposed cycle length

Upload the Abstract file we have from the previous step where we determined the proposed cycle length

If we want to set a minimum phase timing (i.e., Green Time + Yellow + All Red), we can do so here in the minimum phase timing for each phase.

Note, if we have two phases, we can modify the minimum for phase B and ignore the others and so on so forth

To preview the results

To Download the results in Excel format