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Developing Detector Volume Reports from the MarcNX Traffic Management System

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Introduction/Background

To store, process, and analyze volume data from Eagle EPAC 300 traffic controllers, users must set up parameters to generate a Detector Volume Report within MarcNX (Siemens ITS). Prior to generating this report, the user must have identified the detectors to be counted (preferably for each travel lane). The following information can be used to set up and the controllers to collect and store volume data, as well as generate Detector Volume Reports that can be processed for operational and planning studies.

24-hour Turning Movement Counts

The procedures outlined for obtaining volume data were based on MarcNX Version 3.3.4 (Version 3.2.0 was also tested). The following steps provide information to collect and store continuous volume information.

Step 1. From the Day Schedules screen, open EVERYDAY.								
📓 MARC NX - [admin]								
File View Operations System Optic	ons Help							
▶ 💡 📤 📲 Up Help Upload Compa	re Download	Display Display	Copy	Paste	int	+ Ad	- 🔛 d Set-Time	🚫 Hangup
Marc NX Port Servers Intersections Time of Day Day Schedules Masters Solo Groups Traffic Analysis Agencies Pagee Lists	Schedule HOLIDAY EVERYDAY SUNDAY MONDAY TUESDAY WEDNESDAY HURSDAY FRIDAY SATURDAY TODAY							

Step 1. From the Day Schedules screen, open EVERYDAY.

Step 2. From the Time of Day Schedule window, insert New Command. -Select Type of Command: Intersections

-Using the CTRL key select the desired intersections to gather data from -Select Command: Highlight Reports and select Add.

🎽 Time of Day Schedule - EVERYDAY 📃 🗖 🔀
<u>F</u> ile <u>E</u> dit <u>V</u> iew <u>H</u> elp
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Time Command
Inserc
<
Insert new command

Step 3. From the Report window, enter the following information and select OK.

Reports for	
Select Reports	T: 0
Local Alarm Report Measures of Effectiveness Report (not supported by EPIC Controllers) Communication Faults Report System Detector Report System Detector Graphic Speed Data Report TS1 EDI Monitor Faults Report (not supported by EPIC or NTCIP Controllers) TS2 MMU Monitor Faults Report (not supported on EPIC Controllers) Opticom Log Report (Diticom must be connected to port2 of the controller. Not supported I Detector Volume Report (not supported by EPIC Controllers) Cycle Measures of Effectiveness Report (not supported by EPIC Controllers) OccPercent Chart per Intersection DecRaw Chart per Intersection Raw Occ Chart per Intersection VO Chart per Intersection	Imme Span Imme Span Imme Span Imme Span Imme Span Last Week Last Week Month-to-Date Last Year Year-to-Date Previous number of days: days Time Span: Start: 5:21:56 PM → 9/19/2007 Stop: 5:21:56 PM → 9/19/2007
Run Type: Destinations Database Only Display Run and Clear Printer Clear Collect Only Manage Reports Formatting Manage Reports Crystal Report Excel Text	Rich Text OK Text Cancel

Note: you can also select Collect Only for the destination to eliminate the creation of this file.

Step 4. Verify the commands and select Next.

Command Selection		×
Command Selection Select Type of Command: Intersections(s): Select Intersection(s): Select Intersection(s): Select Intersection(s): Select Intersection(s): Select Interse	Select Command: Upload Download Compare Set Time Reports Log CRC Changes Special Functions Commands Commands Detector Volume Report Report(s) for 1st Exist Preer Detector Volume Report Report(s) for 45th St. & 13th Detector Volume Report Report(s) for CID TEST Sett	
Slave 3 TESTbox Vissim UGM 4 phase Vissim UGM 6phase	Edit Options Delete Delete All	
	Back Next> Cancel Help	

Step 5.	For the Command type,	select check Every d	ay and select Next.
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Command Type		
- Selected Command		
Command Type		
C Specific Days		
🗖 Monday	🔲 Friday	Weekdays
🗖 Tuesday	🔲 Saturday	🗖 Weekend
🗖 Wednesday	🔲 Sunday	🗖 Holidays
🗖 Thursday		
These types of command assigned to the day. © Specific Schedule These types of command is executed.	s will be executed every day	e the schedule
_	< <u>B</u> ack <u>N</u> ext >	Cancel Help

Step 6. Enter an Execution Time of 1200 (48 intervals) to 2200 (72 intervals – maximum value) – use 1205 and select Finish. This will gather data for at least half of the day.

Command Time	3
Selected Command	
Command Type Everyday	
Execution Time 12 💽 💼	
< <u>B</u> ack Finish Cancel Help	

Step 7. Save the command information.

省 Time of	f Day Schedule - EVERYDAY
<u>File E</u> dit y	<u>V</u> iew <u>H</u> elp
	1 🕸 🗴 🖿 🖪 🕂 🖪 🕈 🕅 🕄 🗐
Time	Command
12:05 [[[Detector Volume Report Report(s) for 1st Exist Preempt Detector Volume Report Report(s) for Center Exist Preempt Detector Volume Report Report(s) for CID TEST Setup Detector Volume Report Report(s) for 45th St. & 13th Ave. S (vol)

To gather data for the remaining part of the day, repeat Steps 1-6, with the following changes.

- 1. Use a Time Span of Yesterday, as discussed in discussed in Step 3.
- 2. Enter an Execution Time of 0005 (captures the last 72 intervals from previous day), as discussed in Step 6.

	Step 8.	Save the active schedule.	The Everyda	y window should	l appear as	shown below:
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Generate .CSV Formatted Detector Volume Reports

Step 1: Under Intersections, highlight (left click) the desired intersection

Step 2: Right click on the same intersection and select (left click) Reports

Step 3: Select Detector Volume Reports, with the following Run Type, Destination, and Formatting:

Reports for	
Select Reports	T: 0
Local Alarm Report Measures of Effectiveness Report (not supported by EPIC Controllers) Communication Faults Report Detector Faults Report System Detector Report System Detector Graphic Speed Data Report TS1 EDI Monitor Faults Report (not supported by EPIC or NTCIP Controllers) TS2 MMU Monitor Faults Report (not supported on EPIC Controllers) Opticom Log Report (Opticom must be connected to port2 of the controller. Not supported I Detector Volume Report (not supported by EPIC Controllers) Cycle Measures of Effectiveness Report (not supported by EPIC Controllers) DecPercent Chart per Intersection DoccRaw Chart per Intersection Raw Occ Chart per Intersection VO Chart per Intersection	Time Span Today Yesterday Last Week Week-to-Date Last Month Month-to-Date Last Year Year-to-Date Previous number of days: 30 days Time Span: Start: 5:30:34 PM 9/19/2007 Stop: 5:30:34 PM 9/19/2007
Run Type: Destinations © Database Only Display © Run Reports Printer © Clear Collect Only Manage Reports Frile Manage Reports Crystal Report Rich Text Comma-Separated Word Excel	Text Cancel

Step 4: Enter the desired Time Span information Step 5: Select OK

The Detector Volume Report file with be stored in the "C:\Program Files\ITS Software\MarcNX\report output files\{Intersection/signal name} folder and have the following file name: Detector Volume Report from {start date and time} to {end date and time}.csv. This file can now be processed using ATAC's MarcNX Detector Volume Reader.