THE FUTURE OF TRAFFIC SOFTWARE HAS ARRIVED...

Karen Giese, M.Sc., P.E.
Bill Cisco, M.Sc., P.E.
WHAT IS PTV VISTRO?

- Intersection Level of Service Analysis
- Signal Optimization
- TIA Functionality
- Scenario Management
- Comprehensive Reporting
- Simulation Integration

Complete Traffic Engineering Analysis tool
HOW DOES VISTRO FIT INTO THE VISION TRAFFIC SUITE?

PTV VISUM
For strategic planning

PTV VISTRO
For traffic engineering

PTV VISSIM
For detailed simulation analysis
EVOLUTION OF PTV VISTRO

1987
Dowling Associates
TRAFFIX

2006
Dowling Associates –

New Software with Rich Heritage

2012
PTV VISTRO
the mind of movement

www.ptv-vision.com
VISTRO USE CASES

- Conducting Signal Timing and System Evaluations
- Performing Corridor Studies
- Conducting Traffic Impact Analysis (TIA)
- Developing Transportation Master Plans
VISTRO OVERVIEW

Full Standalone Product in the Vision Traffic Suite

Focus on:
- Simplicity
- Signal optimization
- Traffic engineering functions
- Integration with PTV Vissim

Workflow-based Design

Two primary applications:
- Traffic Engineering / Transportation Planning Studies
- Traffic Impact Analyses
TYPICAL VISTRO WORKFLOW

Obtain Data
Build Base Network Model
- Geometry
- Volumes
- Traffic Control
Run Base Network Analysis and Generate Output
Generate Future Model
- Update Geometry
- Update Volumes
- Update Traffic Control
  - Traffic Control Changes
  - Signal Timing Updates, including Optimization
Run Future Model Analysis and Generate Output
Repeat for Scenarios
(Export to Simulation)
TYPICAL VISTRO WORKFLOW

Additional Tasks for TIAs

- Build Zone and “Gate” Structure
- Trip Generation
- Trip Distribution
- Traffic Assignment
- In-Process Trips
- Diverted Trips
- Mitigation Analysis
INTERSECTION ANALYSIS

Four Control Types

Multiple Analysis Methodologies

- HCM 2010
- HCM 2000
- Kimber (Roundabout)
- Critical Movement (Circular 212 / ICU)

A “Clear Box” Concept Software

- Detailed Parameter Sets for Capacity Analysis

Different Methodologies within the Same Network

Signal Warrant Analysis (Volume-Based)
VISTRO METHODOLOGIES

Capacity Analysis
- HCM 2010
- HCM 2000
- Kimber Method (Roundabouts)
- Critical Movement (ICU / Circular 212)
- Others in the future

Signal Warrant Analysis

Signal Optimization
- Local Optimization
- Network Optimization
LOCAL SIGNAL TIMING OPTIMIZATION

Optimization of
- Splits
- Cycle Lengths

Objective Function Options
- Minimize delay
- Balance v/c

Functionality Options
- Accessible for single intersection
- Optimize all intersections
- Accessible for mitigation analysis
NETWORK SIGNAL TIMING OPTIMIZATION

Optimization of

- Cycles
- Splits
- Lead / Lag
- Offsets

Two Methods Available

- Hill Climb (faster)
- Genetic Algorithm (extensive)

Objective Function Options

- Weighting of Delay and Number of Stops
VISTRO NETWORK OPTIMIZATION
ADDITIONAL OPTIONS

Coordination Groups

Coordination Corridors

- User-defined
- Can be weighted / prioritized
- Used for evaluation

Optimization Solution Space

- Offset optimization precision (0.1 to 1.0 seconds)
- Cycle length min, max, and increments

Half cycles

Lead / Lag

Output / Graphical View
TRAFFIC IMPACT ANALYSIS (TIA) FUNCTIONALITY

Network Component for TIA

- (Zone), (Gate), (Path)

Trip Generation

- Trip Generation Manual or Custom Trip Generation Data (e.g. OTISS Import)
- One-Click Land Use Updates
- Multiple Zones for Redevelopment or Mixed Use Development Cases
- Negative Trip Generation

Volume Adjustment

- In-process / Approved, Diverted, Pass-by, etc.
TRAFFIC IMPACT ANALYSIS (TIA) FUNCTIONALITY

Trip Distribution
- Tabular Input To / From Development Zones
- Mirror Trips (From / To Trips)

Trip Assignment
- Shortest Path Search
- Manual Input for Paths
- Visual Display of Paths
- Automatic Error Check

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VISTRO ADDITIONAL FEATURES

Mitigation Analysis Parameters

- Compare Mitigation Strategies for Intersections
- Geometry / Lane Configuration
- Traffic Control

Scenario Management

- Various analysis hours, years
- Various Network configurations
- All in one project setup

Data Import / Export

- Visum
- Vissim
- Synchro
VISTRO REPORTING

Quantitative Reports
- Network Summaries
  - Analysis Summary
  - Trip Generation / Distribution
  - Volume Summary
- Intersection Analysis Report
- PDF, HTML, csv

Graphical Reports
- Turning Volumes (with options for various volume types)
- Turning Volume Percentage by Zone (Fair Share)
- Link Volume Percentage Distribution (Zone – Gate)
- LOS Summary by Intersection
- Geometry
Vistro Demo
Licensing and Support
LICENSE STRUCTURE

- Licenses sold on a “per seat” basis
- Discounts for multiple licenses and suite combinations
- Access controlled by a USB dongle
  - Accessed locally or via network
  - Check-in and Check-out basis
- Software updates and support provided through annual maintenance agreement
  - 15% of owned software value
SOFTWARE SUPPORT

- Technical Support
  - Email or Phone or Web
  - On-call technical support staff
  - Initial response within 1 business day

- Training
  - Scheduled classroom training
  - On-site custom training
  - E-learning (web-based training)

- Others: Annual user group meeting, tutorials, etc.
The Future of Traffic Software has Arrived...

PTV VISTRO

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