



The
**Wapiti
Whistler**

Wapiti Micro Systems

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What's new!

Over 3 months have passed since the ownership of Wapiti Micro Systems has changed hands and it's time to bring everyone up to date on recent developments. We will continue to support the following programs:

W4IKS-Rev. 58
W4IKS/HC11-Rev. 17
W7OSM-Rev. 25
W7OSM/HC11-Rev. 25

All of this software has been field-tested and is operating at various intersections throughout the country at present. We do not expect to make

changes to any of these programs, as we do not have any requests in house for any modifications at this time. Most of our programming and development time is being spent on one new program presently, the PC104 (see below). However, once this task is completed we expect to review the ramp metering local and master programs for up grading.

The Wapiti Manuals will be re-printed later this year. All manuals need to be up-dated and brought current. We hope to complete this task after the

software programs are up and running.

There are other programs that we will be involved in as the industry requires. We have the expertise and personnel to develop programs as the traffic industry evolves into another era of traffic controllers. We will stay in contact with the Wapiti users and are willing to listen to and respond to their needs. Should you have questions regarding our programs or if you require any assistance or additional information please do not hesitate to contact us.

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PC104 Firmware

Great News! The development of W4-PC104 is finally complete! This new program is an Actuated PC Engine Board software that we have written in C++.

Safetran has developed the PC104 engine board controller because of the major shortcomings of the 2070L controller. The 2070L is based on the OS9 operating system which is unstable, outdated, and no longer supported by its manufacturer, Microware.

Operationally it is equivalent to the 2070L controller, but will be considered an Advanced Traffic Controller - ATC.

This project has been "in the works" for the past sixteen months and has now been deployed in the first intersections for testing.

This software will seem almost identical to the original W4IKS and will utilize the same programming key-

strokes. It will have the same functionality including (8) phases, (8) overlaps, (2) rings, (4) EVA preemptions, (2) RR, command box, etc.

In addition, after this version of the program has been operating successfully, we expect to start work on an enhanced version—W4PC104E. This program will be even more powerful with (16) Phases, (16) Overlaps, (4) Rings, (8) EVA Preemption, (4) RR (6) LRT..... too many

features to list.

Our new firmware W4-PC104 and W4PC104E will both operate with Traffic View 32, our new Traffic Management software (see page 2), as well as all of our past firmware. This will allow you to keep all of your existing 170 controllers and gradually introduce the PC104 controller (2070 equivalent) and operate them all in Traffic View 32.

Traffic View 32 - Closed Loop Traffic Management Software

TrafficView32 is a 32-bit Windows application designed to provide sophisticated closed-loop traffic management functions. It is written in a high-level development language to take full advantage of Microsoft's latest operations systems. TrafficView32 has been developed to support 170 controllers running the latest versions of Wapiti Microsystems Corp.'s master and local software programs. The software is capable of running in stand-alone mode on a single workstation or laptop and in a client-server mode across a network. It is compatible with all Windows operating systems from Windows 95 and above.

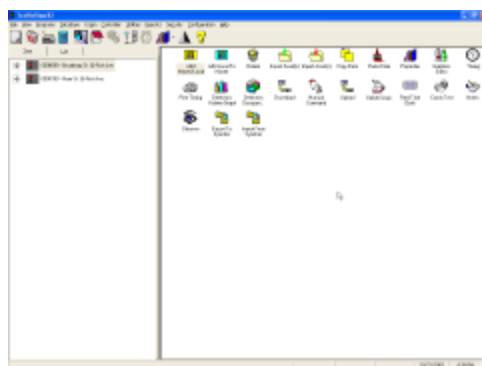
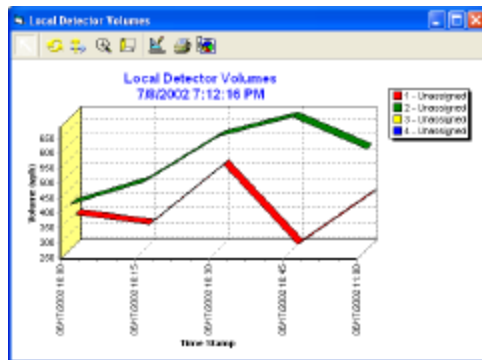
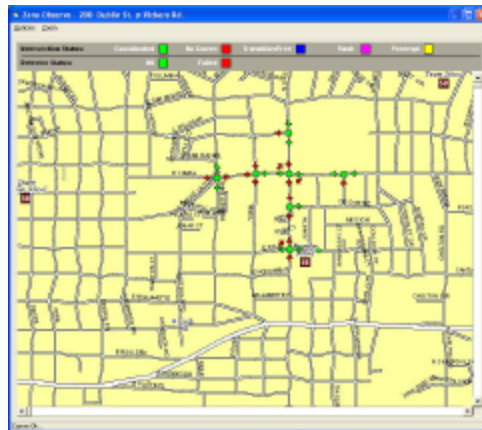
The user interface is designed to meet the latest Microsoft Windows design standards. Drop-down menus and toolbars provide quick access to all features and functions. An explorer-style interface provides a user friendly representation of the traffic signal system architecture. Pre-defined reports provide information on all aspects of the system. Custom filters may be applied to most reports so that only the data of interest is displayed. TrafficView32 uses Crystal Reports, an off-the-shelf report generator. Custom reports may be defined by the end user and added to TrafficView32's report menu. Reports may be exported to a wide variety of popular formats, including Microsoft Word, Microsoft Excel, Microsoft Access, comma-delimited text files and comma separated values.

Microsoft Access 2000 is the database used by TrafficView32. The database is used to store timing data, graphics and all log data. Backup and restore functions are provided by TrafficView32. Database replication is also supported. This feature allows workstations to synchronize with a master database. The workstation or notebook may then be disconnected from the network. Any changes made to the database while in disconnected mode are tracked by the system. When the workstation is reconnected to the network, the data is synchronized with the master database. This method provides maximum

flexibility while maintaining database integrity.

Features

- TrafficView32 provides all of the standard closed-loop functionality, including spreadsheet style data entry, upload, download and compare of timing, real-time displays and log data uploads.



- TrafficView32 supports a multi-level security system, including administrators, read/write users and read-only users. All system and user activities may be logged by TrafficView32.
- TrafficView32 has a sophisticated scheduler that can support as many scheduled events as can be programmed within a 24 hour period. Events may be scheduled by day-of-week, weekly, monthly or annually. The scheduler also supports group scheduling. Events may include upload and download of timing, upload of log data and broadcast of system time.
- Alarm monitoring is also supported by TrafficView32. Alarms are initiated by the on-street masters and are received and logged by TrafficView32. Operators are also provided visual indicators that an alarm has been received. All alarm conditions defined by Wapiti Microsystems Corp. are supported.
- TrafficView32 also has paging capabilities. When alarms are received from on-street masters, TrafficView32 can be configured to send the alarm data to a pager in addition to logging the alarm. Standard digital paging as well as internet-based paging is supported.
- TrafficView32 supports both direct and dialup connections. Supported communications includes twisted-pair, fiber optics, radios, CDPD, or any combination of the above. Support has been added for future IP addressing. TrafficView32 also supports multiple phone numbers and multiple communication port profiles. All baud rates supported by the 170 controller are supported and are selectable on a per intersection basis.
- TrafficView32 will run on any Pentium-based computer with 32M of RAM, 1024X768 screen resolution and at least 50M of available disk space.

Traffic View for Pocket PC

One of the latest products to be developed by wapiti Micro Systems is the TV2 Program for the palm top computers. The Traffic View Pocket PC has most of the features and all of the benefits of a laptop computer except that it can be carried in a technicians' shirt pocket! The pocket pc has the capacity to hold the data files for several hundred intersections; an entire cities' traffic signal system in your pocket!

The pocket pc is compatible with the latest versions of Wapiti Micro System's software. It is possible through an interconnecting cable to upload, download and compare data. The intersection can be observed while in operation. The operator can upload all master and local log data. Wapiti defined manual commands can be sent to the controllers and the current status of the controllers can be displayed.

There is a test display that is shown in real time. In this mode, the phase condi-



tion, vehicle calls, preempt inputs and coordination information is all displayed. There is a communication test that will display a visual indication of the communication status. A real time clock that compares the controller date and time with that in the pocket pc and allows the operator to choose which one to use. There are many other features and benefits to the pocket pc with Traffic View 2.

An excellent tool for the maintenance and traffic engineering personnel who are charged with the responsibility of downloading, changing or otherwise modifying the local intersection programs. Changes done in the field can be made through the pocket pc for a permanent record. Emergency repairs or replacements can be made and the program downloaded to the replacement controllers. The uses of the pocket pc are varied and many.

The minimum requirements for the pocket pc are:

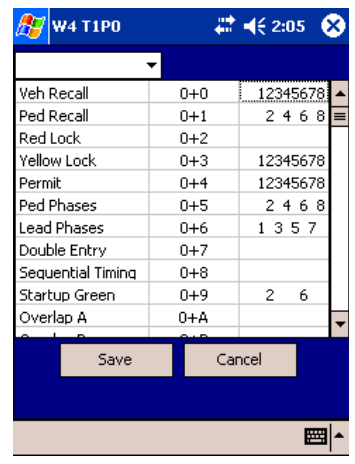
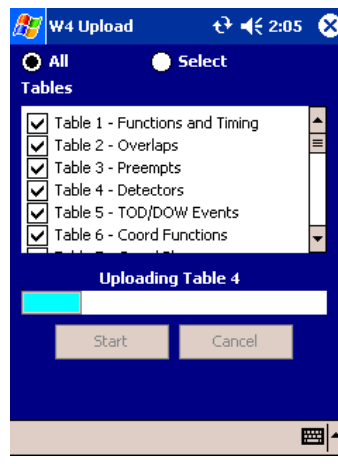
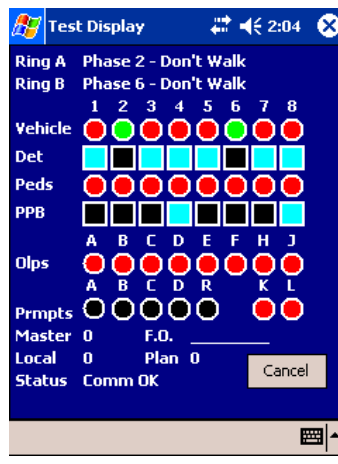
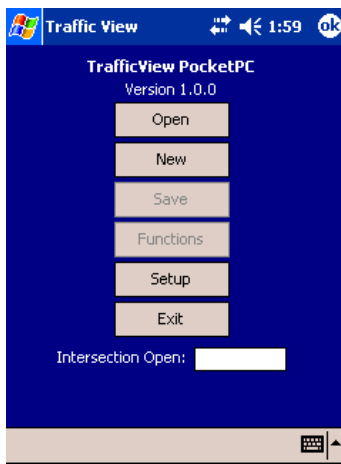
- Pocket 2002 O/S or Above
- 64MHz RAM
- Compact Flash Card Slot
- Flash High Speed Serial Cards

Recommended:

- HP IPAQ 2210
- HP IPAQ 2215
- DELL AXIM X50

Our new website is under construction! We will include more product info and keep you posted on all the latest news and updates. The website will be completed soon. Keep checking: www.wapitimicrosystems.com

Screen shots for Traffic View Pocket:



What is the PC104?

The PC104 is a standard CPU that is manufactured by multiple sources. It is a very stable operating platform that operates at 33MHz and utilizes ROSDOS 7 Operating System. The reason for developing the PC104 controller is because of the unstable operating system in the current 2070L controllers—OS9. OS9 is an outdated operating system that is no longer supported by its manufacturer, Microware. By utilizing the PC104, we are able to write our W4 software in C++.

Option benefits of utilizing the PC104:
Operates at a minimum of 25MHz
Software can be written in C or C++
Utilizes ROSDOS or Linux O/S
Greater communication capabilities
Interface to serial cabinets
NTCIP compatibility
Serial communication to external devices.

Retro-fitting existing controllers with the PC104:
2070L—The PC104 can be placed on the 2070-1B module and will fit into existing 2070L controllers

170ATC—The CPU in the 170ATC can be replaced with the PC104 and will work with both the standard front panel or the LCD front panel display

**Please help us update our customer list! Please forward your email address so that we can keep you informed on the latest Wapiti news. Also please pass this along to anyone that you think may be using Wapiti software or may want to use Wapiti software.
Send info to kd@wapitimicrosystems.com**

Coded Serial Numbers for all Wapiti Firmware and Software

Wapiti Micro Systems has always been coding all chips with a serial number that we are able to keep record of and track if necessary. We will continue to do this in order to protect our customers from pirated software. If you suspect any illegal pirating of Wapiti firmware or software, please contact us.



More Features of W4-PC104

The W4-PC104 with the proper interface board will run in a 170e, 170ATC, and the 2070 controllers. It will also work with both the parallel and serial ITS cabinets.

The W4-PC104 will be able to meet ATC specs – NTCIP, Ethernet, OS, API, and multitasking.

Capable of 5,000 command box entries!

Enhanced 170 type FREE DISPLAY
(* when used with 8X40 LCD display)

- Phase & Condition stay in view when entering data.
- Phase Condition also shown in English.
- Keystrokes displayed on separate line.

For data entry - the data label is shown with its value.

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