

AutoTeacher News & AIPC News

May 2004 Copyright ATech Training Inc.



Where:

This year's conference will take place in Crystal Lake, Illinois, which is located 50 miles northwest of downtown Chicago. It is a short drive from O'Hare International Airport and is near major highways and interstates. Crystal Lake has many cultural and recreational opportunities and yet it has a pleasant, friendly small town atmosphere. For visitor information, see the Crystal Lake Chamber of Commerce Web page at www.clchamber.com or the city of Crystal Lake Web page at www.crystallake.org.

When:

The traditional third week in July has been set-aside for the NACAT 2004 Conference. The Conference will take place July 18 - 23, with pre-registration on the 18th.

Registration:

Please mail registration forms and payment to Kim Kill at McHenry County College, 8900 U.S. HWY 14, Crystal Lake, IL, 60012. The registration form can be downloaded as a PDF, printed and filled out by hand. Credit card payments and registration forms may be faxed to Kim Kill at (815) 455-3671.

Seminars:

The latest in technical and educational seminars will be presented at this year's NACAT Conference. Seminars are scheduled in 1 1/2 hr. time slots. The list of presenters will be available in mid-January. If you would like to present a seminar at this year's conference, please contact, Kim Kill at (815) 455-8545.

Trade Show:

It will be held at the Holiday Inn.

Social Events:

Two social events will be included in the conference fees. On Monday evening, enjoy a barbeque as well as the Annual "NACAT NATIONAL" Valve Cover Race. The Awards Banquet will take place early Thursday evening at the Holiday Inn. Come prepared to share your funniest automotive stories (everyone should have at least one). This is historically an informal event where we recognize our peers who have earned our respect and gratitude.

Family Activities:

While we attend seminars and meetings, our families can enjoy a number of planned events including trips to Chicago, amusement park, water park, shopping trip and racetrack.

www.mchenry.edu/nacat

Transportation

Do you need a way to get to Crystal Lake from the airport? The Van Galder Bus Company offers convenient and comfortable service from Chicago O'Hare to Crystal Lake. [Van Galder Bus Schedule](#)



www.nacat.com

This a "must attend" event. The annual NACAT Conference is the place to; attend great seminars/workshops, meet other teachers with similar problems, find possible solutions to many of your teaching difficulties, and network with some of the best automotive teachers in the world.

The Automotive Industry Planning Council (AIPC) will have a booth at the NACAT 2004 Conference trade show. National winners of the AIPC Awards of Excellence in Automotive Training will be present to discuss the application process and give you their insight. Actual application books of previous winning programs will be available for viewing.

ATech will once again be exhibiting new equipment and curriculum. It is also our pleasure to present seminars utilizing the techniques of the ATech/AIPC Invitational Workshops

Get involved with NACAT, you'll be glad you did.

A handwritten signature in cursive that reads "Fred Hines".

“Invitational” Instructor Workshops

The ATech - AIPC “Invitational” Workshops are conducted three times each year; April, June, and October. All expenses are paid for each attendee including air transportation, airport pickup, hotel, and meals. The location is the Belterra Riverboat Resort. Each group is selected to provide a mix of Secondary, Post-Secondary, and Industrial Instructors. Technical topics and teaching techniques emphasizing “hands on” instruction are presented and discussed. Over \$1000.00 of books and teaching materials are given to each Instructor attending. **In addition, each workshop satisfies the 20 hour annual training requirement of NATEF.**

October 2003 Workshop



Front Row: John Wood, Thomas Hill-Wayne County CC, Loren York-North Canyon High School, Mary Hutchinson-NATEF Executive Director, Jeff Parks-Tarrant County College, Ken Collins-Central Piedmont CC, Carl McClure-Honda Training Center Troy
Back Row: Brett Colson- Heart of GA Tech, Don Sheets-Mckenzie Career Center, Melvin White-Tulsa Tech Center, Jeff Hunt-Spartanburg Tech, Mark Spisak-Central Piedmont CC, Rick Griffin-Daniel Morgan Tech, Dan Beeson-Bellingham Tech



Belterra Riverboat Resort Photo by Merle Saunders



The Riverboat Photo by Merle Saunders



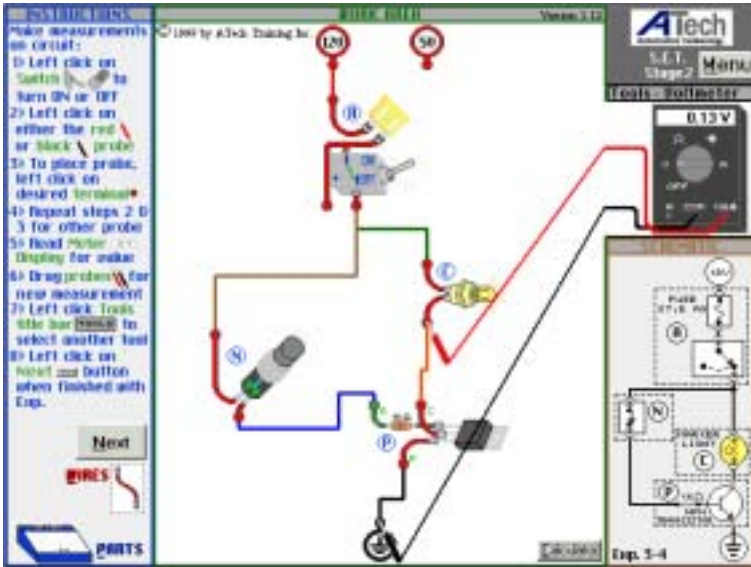
ATech Manufacturing Tour Photo by Merle Saunders

Send an email to sales@atechtraining.com including School, program, contact information including phone numbers, mailing address and email address to have your name added to the list for consideration.

ATech Training Inc.
A Veteran Owned and Operated American Company

“Invitational” Instructor Workshops cont’d

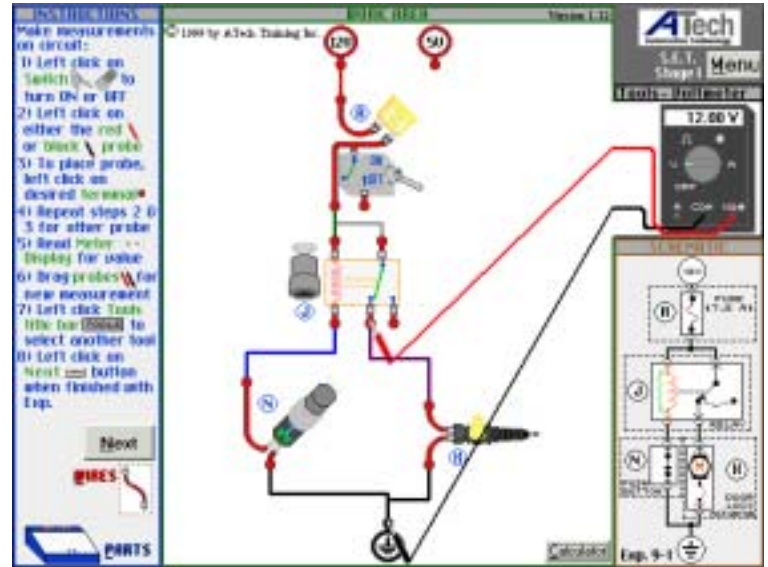
“Hands On” Electrical/Electronic Diagnostics -10 Hours



Voltage Measurement from S.E.T. Stage 2

Electrical/Electronic Troubleshooting is a skill that is essential to the identification/repair of present day engine control systems, body control modules, networking, etc. The ATech - AIPC workshops develop this skill in an efficient structured environment. Laptop computers and ATech 3600 Engine Performance Troubleshooting Trainers are provided at each work station.

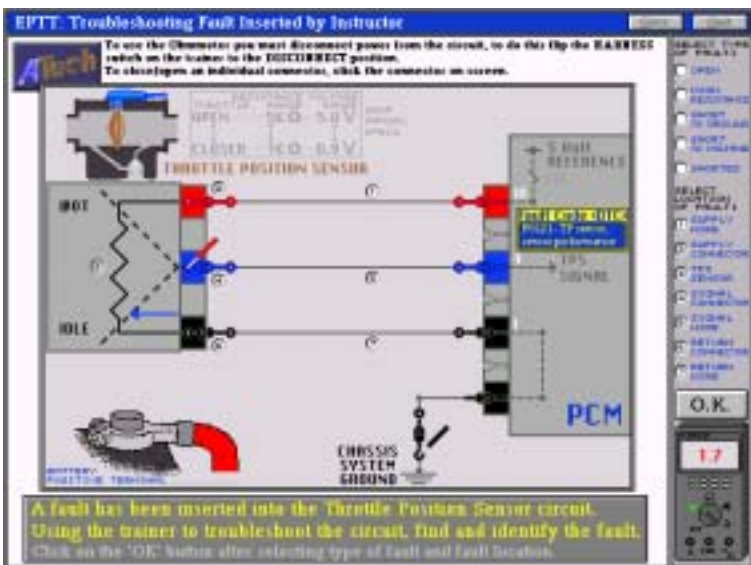
Each participant builds and troubleshoots virtual circuits utilizing ATech’s Virtual S.E.T. Program. Also, troubleshooting techniques of Engine Control systems are discussed and participants troubleshoot malfunctioning circuits utilizing scan tool codes and multimeters. A final troubleshooting contest is held with AutoTap Scan Tools awarded to the winning team.



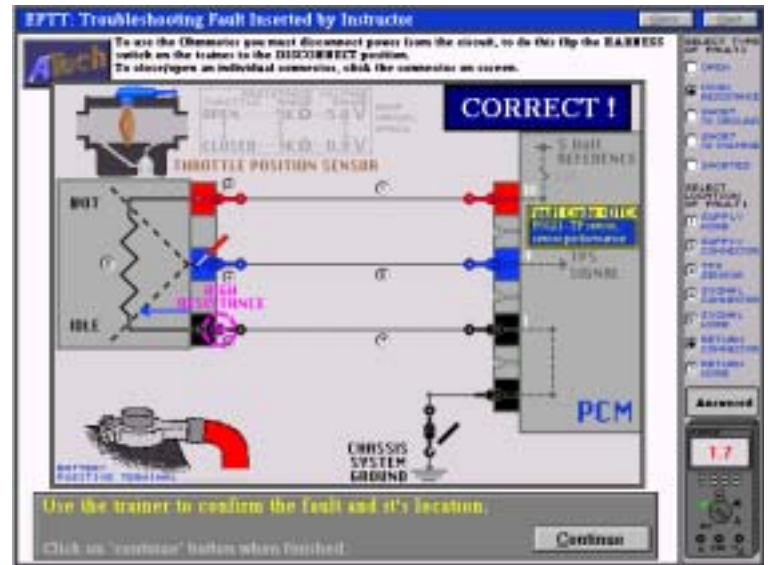
Troubleshooting Practice Program

Electrical/Electronics Program Agenda

1. Investigation of Circuit Characteristics using all three stages of the General Motors S.E.T. program.
2. Basic/intermediate troubleshooting skill development with the AIPC troubleshooter program.
3. Class fault diagnosis through directed measurements and discussions.
4. Individual diagnosis of 15 faults of the Throttle Position Sensor circuit using Scan Tool readout and voltage readings.
5. Intermediate/Advanced troubleshooting practice of the typical Engine Control System.
6. Troubleshooting Contest
7. Troubleshooting Contest Winners Presentation



Troubleshooting TPS Circuit



Problem Correctly Diagnosed

“Invitational” Instructor Workshops cont'd

“Hands-On” OBD II Training - 11 Hours



GM OBD II Training System with PDA

The primary focus of this session of the workshop is to allow participants an opportunity to observe a completely operational OBD II system (no fault codes) in an educational setting. The emphasis is on understanding system component relationships, for example - oxygen sensor and fuel trim, EGR and fuel trim. Additional discussion will relate to teaching and presentation techniques

Each work station will have an OBD II engine control system demonstrator, a Laptop PC Scan Tool, a PDA Scan Tool, and a color Palm Pilot. Participants will:

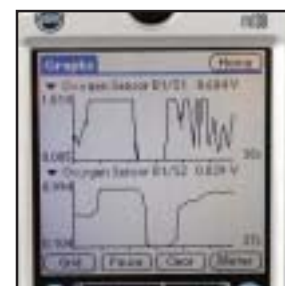
- Perform a “drive cycle” and complete all OBD II monitors at their work station.
- Take control of the fuel control oxygen sensor signal in a closed loop system and observe the effects on short term fuel trim, long term fuel trim, and injector pulse width.
- Study MAP sensor and oxygen sensor output signal changes in response to OBD II EGR monitor operation during drive cycle coast down.
- Cause DTCs in the system and then use the Scan Tool to read DTCs and Freeze Frame.
- Use the Scan Tool to clear DTCs.
- Manipulate/study short term/long term fuel trim.
- Perform a Catalytic Converter “Punch Thru”.
- Observe PCM engine protection operation at idle
- Observe PCM vehicle speed control .
- Demonstrate and control PCM “choke” operation
- Receive Books and Software valued over \$1,000.
- Receive Framed Completion Certificate.



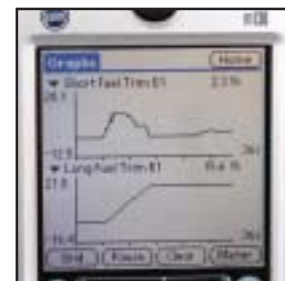
Laptop Scan Tool Display Capabilities

OBD II Program Agenda

1. System Hardware
2. Comprehensive Component Monitoring
3. Rationality Checks
4. System Status Flags
5. Intrusive Oxygen Sensor Testing
6. Non-Intrusive Oxygen Sensor Testing
7. DTC Types
8. Data Format Definition
9. Drive Cycle
10. Ford 2000 Drive Cycle
11. Catalytic Converter OBD II Monitor
12. Intrusive CAT Test
13. CAT Monitor Frequency Amplitude Relationship
14. Emission Levels during “Lean Punch-Thru”
15. Emission Levels during “Rich Punch-Thru”
16. Short Term Fuel Trim
17. Short Term/Long Term Fuel Trim Relationship
18. EGR Check with MAP
19. EGR Check with Short Term Fuel Trim
20. EGR Check with DPFE
21. Misfire
22. Knock Sensor
23. Evaporative Systems
24. Freeze Frame Data
25. MIL Illumination
26. TWC Test Count
27. EGR Test Count
28. Bidirectional Control
29. Symptom Diagnosis
30. Cat Converter Temperature Control
31. Enhanced Evaporative Systems
32. MAF, Engine Load, and Injector Pulse Width.



CAT “Punch-Thru” on PDA



Short/Long Term FT on PDA

ATech Training Inc.
12290 Chandler Drive
Walton, KY 41094
(859) 485 7229
www.atechtraining.com



General Motors S.E.T. Program

ATech was involved with the design and manufacturing of the electricity and electronic trainers currently used by General Motors, DaimlerChrysler, Ford, Nissan, and Bosch.



GM “Specialized Electronic Training”(SET) Program - Model 18002TR

- Used by GM Training Centers, ASEP Schools, Saturn, John Deere, and Caterpillar
- Selected Vehicle Components
- 12-Volt and 5-Volt Power Supplies
- Complete **licensed** “Factory” Courseware Available
 - * Instructor Guide - Model 18002IG
 - * Student Workbook - Model 18002SM

“VIRTUAL” TRAINER - SOFTWARE ONLY

(Can be purchased with a Site License for 5, 10, 15, or 20 stations)

This ATech software is a low cost Complement/Alternative to the GM S.E.T. project board. This program provides a virtual simulation of the GM S.E.T. Trainer and the instructional resources to perform the experiments from the GM “Electrical/Electronics” Stage 1, Stage 2, and Stage 3 courses.

- Features:**
- Submount/Component Placement
 - Simulated Wiring of Submounts
 - Voltage Measurements
 - Resistance Measurements
 - Current Measurements
 - Experiment Schematics
 - Simulated Component Operations

“I’m impressed with ATech’s superior dedication to quality training. It clearly shows in both product design and customer service. General Motors is pleased!”

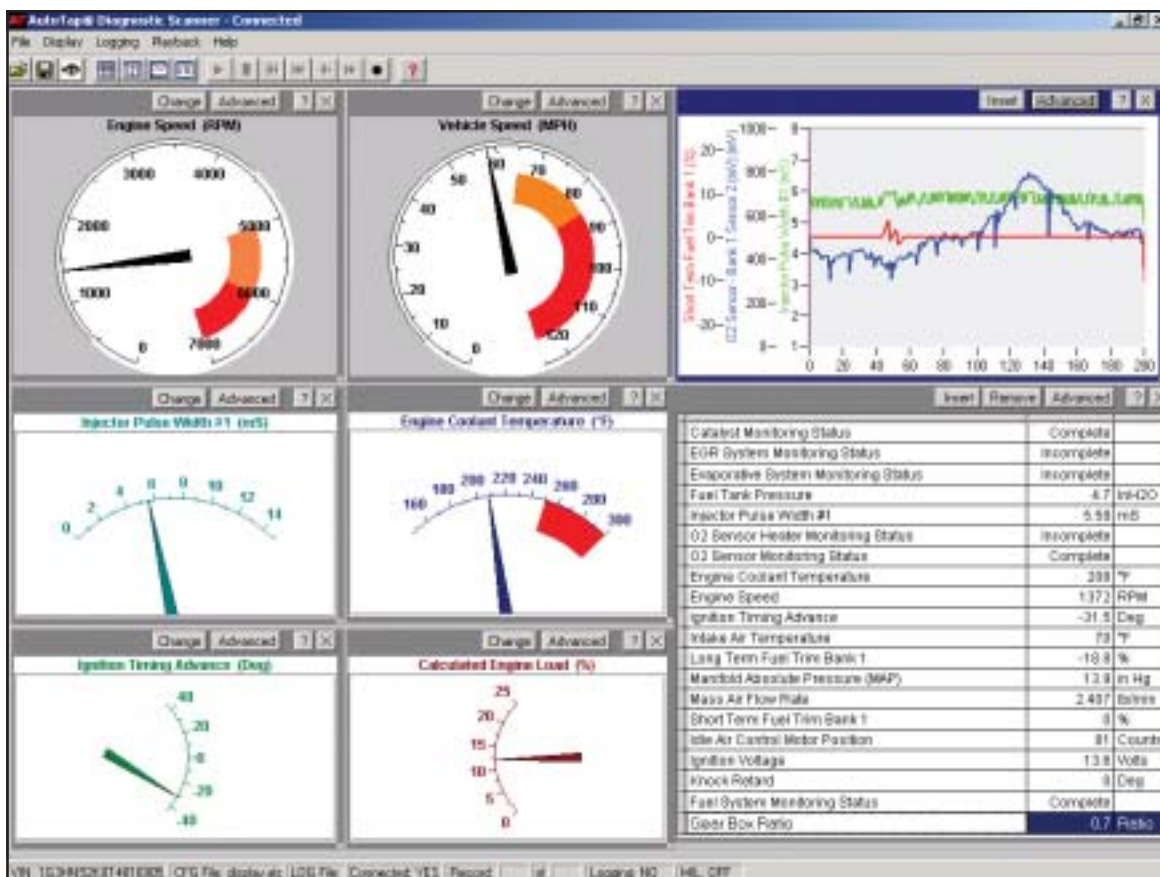
*GM Service
Technology Group*

“This is the best automotive electronics training program anywhere!”

*Automotive Technology
Instructor
Wheeling High School
Wheeling, IL*

“New” Expanded Program

ATech, AIPC, AutoTap (A-A-A) Educator Scan Tool Program



Multiple Data Display - Screen LapTop Computer

Use your PC or Palm to quickly diagnose and fix problems on 1996 and newer OBD II equipped cars and light trucks.



- Read Diagnostic Trouble Codes
- Read Freeze Frame Data
- Clear the Check Engine Light
- View emissions readiness monitors
- View and log real-time sensor data, including manufacturers enhanced data for GM, Ford and Chrysler
- Graph signals to illustrate relationships for classroom presentation
- Allow students to “discover” operational characteristics of systems.
- USB version also available

The A-A-A Educator Program

Schools in the United States and Canada can purchase limited quantities of the AutoTap Scan Tool at the \$249.95 price for program use under the new expanded A-A-A educator purchase program.

ATech Training and the Automotive Industry Planning Council (AIPC) in collaboration with AutoTap are very excited about this opportunity for schools across the United States and Canada. In an effort to improve instruction of OBD II and, as a result, improve the skills of the graduating technicians, this enhanced data scanner for laptop computers or Palm™ PDA devices is being made available at a special greatly discounted price.

After many requests from Schools, this special pricing is being made available to students. A qualification form from the School is required.

This is a 50% price reduction from list. A combination of the LapTop version and the PDA version can be purchased for \$349.95. Visit the ATech website for the required application and additional details:

www.atechtraining.com



Diagnostic Scanner

NATEF™ Recommended??

“NATEF does not endorse or support any product, tool line, training aid, curriculum, or curricular materials, nor any company or agency that produces such items.” - Mary Hutchinson, Executive Director of NATEF

If an individual or a sales representative of a company that produces tools, training devices, or curriculum for automotive training tells you that their products are recommended by NATEF, to put it bluntly, they are lying as indicated by the above quote. Most of these same companies also sell products for other areas of training such as Tech Ed, therefore you should talk to your local and State administration about the company's actions. If a company lies about NATEF recommendation, are they likely to tell you the truth about the capabilities of their equipment, quality of their curriculum, service, or delivery times? **The easiest way to prevent future problems is to avoid them in the beginning.**

AIPC 2004 Awards Program

The 2004 Guidelines and Application are available on the AutoIPC website, www.autoipc.org. Registration is required at the website to receive the documents in an email. Ensure that the email address you enter is correct. In year 2003, 99% of the problems with receiving the documents was due to an incorrect email address. The first year for registration was 2002 and proved to be very valuable in tracking submissions from schools and obtaining input on improving the process.

The entry process requires some time and effort, but the materials you produced for NATEF certification are an excellent resource. You must perform a thorough self evaluation of your program and involve other members of your school, including the administration. The improvements in your program that will result from going through the process are worth the effort. Don't be discouraged if you aren't a State or National winner on your first try. Continue to improve your program and your submitted documents. The typical winning program has been through the process at least three times.

The prizes for this year's program have not been determined as they depend on donations and commitments received by AIPC during the year. Prizes for the 2003 winners and runners up were valued at greater than \$500,000.00.

Visit the AIPC booth at NACAT!



Education Foundation

Educational Grant Opportunity

The IMACA Education Foundation was formed in 1999 to promote educational training and assistance to persons or organizations for the advancement and improvement of automotive air conditioning education and related technology. The Foundation operates exclusively for charitable or educational purposes within the meaning of Section 501(c)(3) of the Internal Revenue Code.

In furtherance of that general purpose, the Foundation performs the following specific activities:

1. Awards financial assistance to qualified organizations for the advancement and improvement of automotive air conditioning education in order to benefit specific schools, educators and students;
2. Awards grants and endowments to advance and improve the automotive air conditioning industry by supporting vocational institutions, high schools, private and public colleges and universities.

The Foundation will make awards and payments of various grants using the Foundation's funds as determined by the Foundation's Board of Directors.

If your organization is a qualified tax exempt, charitable or governmental entity and has an interest in seeking additional funds to support qualified training programs, please submit to the Foundation a one-page, type written letter briefly describing the general purposes for which the proposed grant would be used. The letter, with appropriate contact name and address for the Applicant, should be mailed to: **Executive Director, IMACA Education Foundation, 6410 Southwest Blvd., Suite 212, Fort Worth, TX 76109.**

The primary emphasis of these grants is to improve the Basic A/C Service equipment at schools. Ensure that you have all of the essential tools needed for A/C service and that they are up to date before requesting funds for other items.



A Tech Training Inc.
 12290 Chandler Drive
 P.O. Box 297
 Walton, Ky 41094
 (859) 485-7229
 www.atechtraining.com
 sales@atechtraining.com

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A Tech Training is a member of:



Automotive Industry Planning Council



Automotive Training Managers Council

And actively supports:



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 NACAT is an organization that all automotive teachers should join. Their conferences are about you and your problems.
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A Tech Training Inc.

A Veteran Owned and Operated American Company