V5

Instructor Guide

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Welcome to CDX ARK Plus Online 5.0

Just like a good set of tools CDX ARK Plus Online 5.0 makes your job easier, faster and more satisfying.

This guide will show you some of the different ways you can use CDX. It will help you to integrate CDX into your daily lessons to make teaching and managing your class easier.

CDX ARK Plus Online can be accessed from any PC connected to the internet, at home, at work or at school.
If you have a comment, a suggestion or a tip you'd like to share with thousands of teachers all over the world please let us know by sending an email to support@cdxglobal.com .

By taking advantage of all CDX ARK Plus Online 5.0 has to offer, you can expect to:

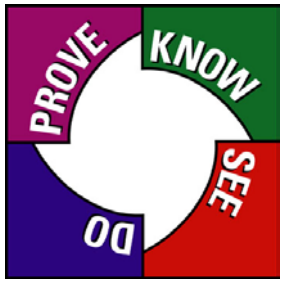
- Increase student interest, involvement and therefore performance
- Enhance your own teaching by using the very latest learning aids
- Manage your classroom better, and improve your ability to meet administration and accountability requirements
- Produce results that the automotive industry needs

This Instructor Guide will help you to get the most value from CDX ARK Plus Online 5.0 and assist you to integrate the material into your classes, whether they are:

- Instructor led, or
- Individual self-paced instruction.
-

Teaching Tip: Teaching tips like this will give you an idea of how other teachers are using CDX. Print this guide out and use it as a reference while you are becoming familiar with CDX ARK Plus Online 5.0 Online.

CDX ARK Plus Online 5.0 is designed in a very logical way around four simple teaching principles:



1. **Know** - Understand the theory component, covering how vehicle systems work;
2. **See** - Watch a workshop procedure associated with that vehicle system performed by an experienced technician;
3. **Do** - Practice the procedure in the workshop; and
4. **Prove** - Assess the student's knowledge and demonstrate that the student can perform a procedure competently.

Students are tested every step of the way:

- Over 1,000 Handout Activity Sheets and Find the Missing Word Quizzes reinforce student online study, and document their learning outcomes
- Self-paced knowledge tests confirm their understanding as they go
- Practice Exams and Final Exams for each module, delivered and marked online
- Task Sheets direct and record student learning and performance.

Everything you need to help you organize your lessons and get your students involved is in CDX Plus.

Getting Started with CDX ARK Plus Online 5.0

CDX ARK Plus Online 5.0 features:

- **CDX Content:** Hundreds of videos and thousands of illustrations covering automotive theory and procedures, structured to make it easy to teach to standards. All users of CDX ARK Plus Online 5.0 have access to the same CDX content, on the internet or on a school network.
- **CDX Assessments:** Find the Missing Word-Quizzes, , Topic Group Tests, Practice Exams and Final Exams – Delivered and graded online
- **CDX Reports:** Track student activity, grades and performance against NATEF tasks and standards

This illustrated Instructor Guide will walk you step-by-step through the key tasks required to get started with CDX ARK Plus Online 5.0 Online.

For CDX ARK Plus Online 5.0 there are 3 types of logins, or roles, with different rights and responsibilities

- **Student** - Students can login, see the CDX courseware, and undertake Find the Missing Word-Quizzes, Topic Group Tests, Practice Exams and Final Exams. Students can only see their own grades and reports.

- **Instructor** - Instructors can login, see the courseware, see all student grades, preview Activity Quizzes, Practice Tests and Final Exams for group work, analyze student results, delete students' quiz attempts, view reports and export information to Excel®.

- **Supervisor** - Supervisors can do everything that Instructors can do, plus add or delete students, set the default menu, allocate the role of instructor set up class groups,. enroll students into Find the Missing Word-Quizzes, Topic Group Tests, Practice Exams and Final Exams so instructors can see their results.

- Quick Guide - Using CDX ARK Plus Online 5.0 in the Classroom

	Step 1. THEORY. Show the theory components in class and discuss them with the students so they understand them. Knowledge Checks are used to encourage group discussion. Find the Missing Word Quizzes, designed to reinforce the underpinning knowledge, are set as homework, or for class activity. This could take 1 - 3 class periods depending on the unit and length of class period.
	Step 2. DEMONSTRATION Show the video demonstration of the procedural task(s). This can take one class period or less. In the workshop the instructor and students review the printed Workshop Procedure guides, vehicle service specifications etc and note any differences required to perform the task on the school's vehicles before commencing the procedure.
	Step 3. PRACTICE Then the students practice the procedure in the workshop using the Workshop Procedure guides as reference. The time required depends on student, shop resources, etc
	Step 4. ASSESS Students undertake Topic GroupTests online and when successful progress to the next topic group.
	Step 5. ASSESS When all topic groups, for the category being studied, are completed Students undertake Practice Exams online and when successful complete the Final Exam online.
	Step 6. ASSESS You review students' online grades and activities and export the data for submission to administration.

Before You Start.

Before you start using CDX ARK Plus Online 5.0 your CDX Online Supervisor should have:

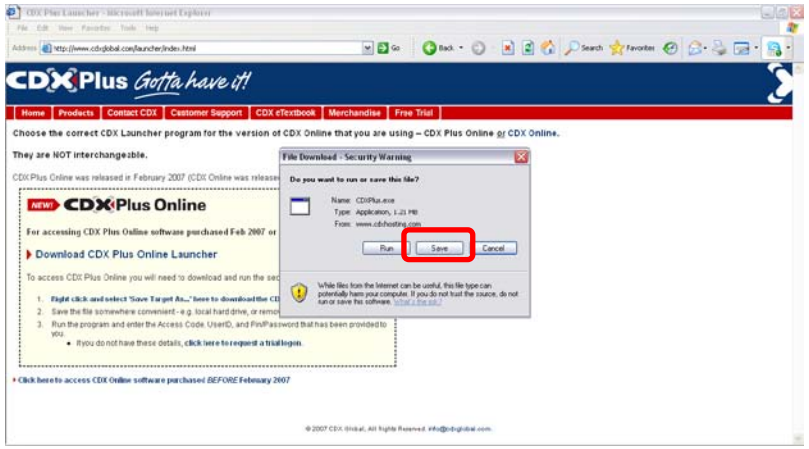
- Entered students' information
- Set the default menu
- Set up the shortcut to the CDX Online Launcher on all PCs required to access CDX ARK Plus Online 5.0
- Identified relevant ASE Task Areas for Tasksheet submission (ASE menu)
- Told students and instructors their Access Codes, Usernames and Passwords

Accessing Your CDX ARK Plus Online 5.0 Site as an Instructor

Locate the information from your CDX Online Supervisor which contains your Instructor credentials, your:

- Access Code – a 4 letter code
- Username
- PIN / Password

To use CDX ARK Plus Online 5.0 you will need the CDX ARK Plus Online 5.0 Launcher. This is available from the CDX website www.cdxglobal.com/launcher You may also have it available on a CDX jump drive. You will need this program on every PC that is going to access CDX ARK Plus Online 5.0 Online.



Either

1. Follow the onscreen instructions to download and save the file to your PC.

   or

2. If your institution's IT security settings prevent you from saving the Launcher go to the CDX website www.cdxglobal.com/launcher and select "Run" to run the CDX Launcher from the internet.

Teaching Tip: Find CDX Online – You can also go to the CDX website www.cdxglobal.com or just type CDX into Google, CDX Global should come up pretty much at the top.

Locate the CDX Launcher Icon that you saved to your desktop and double-click it to run. The CDX ARK Plus Online 5.0 Launcher program will start and the you enter your :

- Access Code
- Username and
- Password.

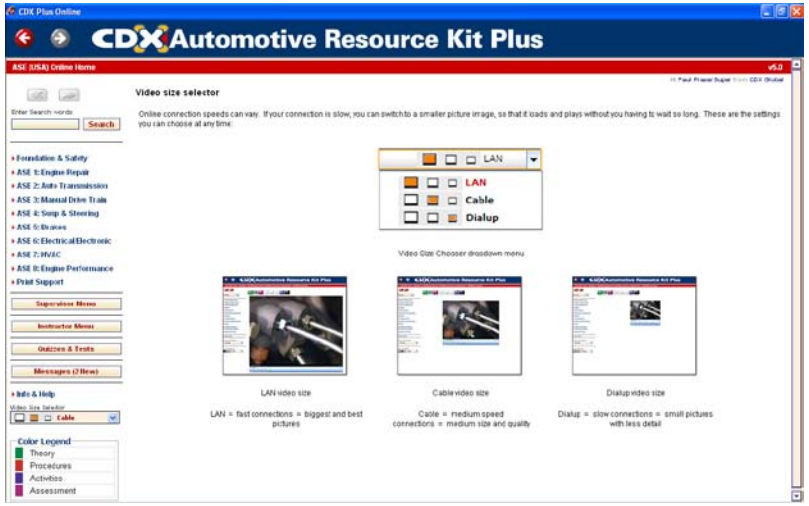
NOTE: The “Resume” button allows users to resume their place in the CDX courseware. It does not provide a resume facility for quizzes and tests.

You will see the CDX Plus 5.0 Home Page. The central menu gives you 8 options:

- How to Navigate CDX Plus
- The Video Size Selector
- The Quizzes and Tests
- What’s new in V5.0
- Know – See – Do – Prove Color Codes
- Teaching with CDX Plus
- Learning with CDX Plus
- View the V5.0 User Guide

“How to Navigate CDX Plus” provides a guided tour of the CDX navigation.

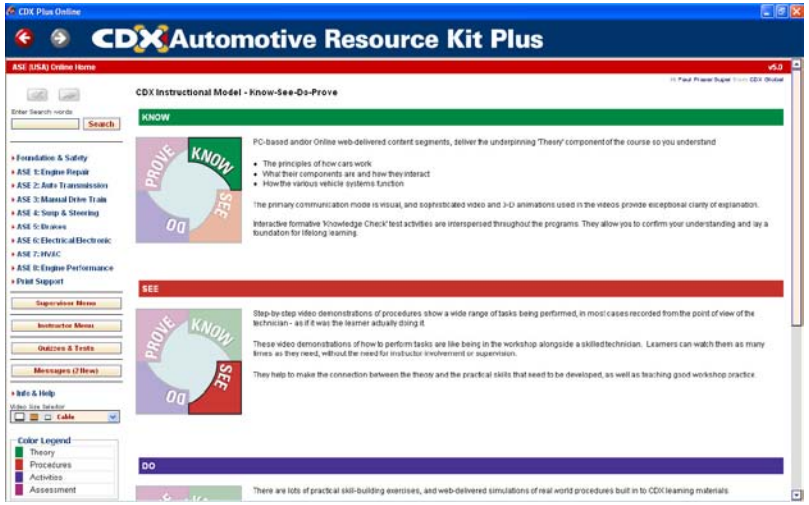
The Video Size Selector box lets you optimize the video for your connection. You can change it at any time, for example if you have a faster connection at home you can select a larger video size. The Video Size Selector allows you to choose from 3 different video sizes to best meet your needs and the data speed of your network:



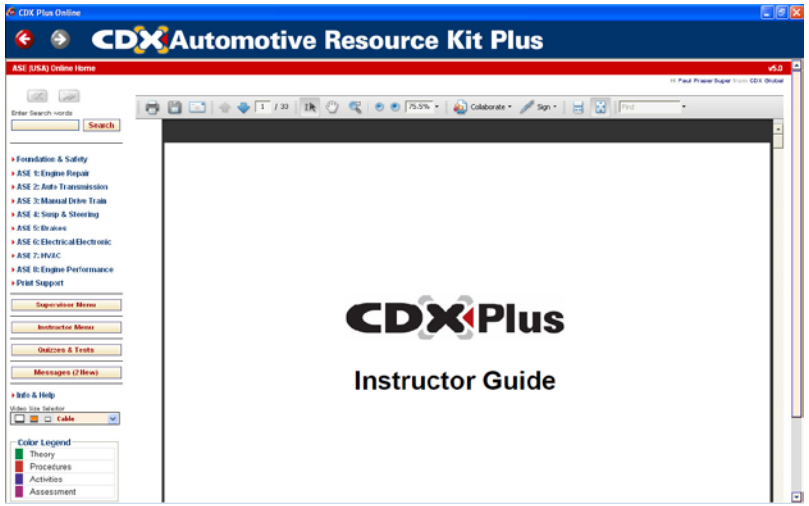
- LAN - Largest image, requires high speed connection
- Cable - Medium image
- Dialup - Smallest image, fastest download

Selecting “Quizzes and Tests” provides an overview of the quiz and test functions of CDX ARK Plus Online 5.0 Online.

Selecting “Know – See – Do – Prove Color Codes” provides and explanation of the color legend used in CDX ARK Plus Online 5.0 Online.

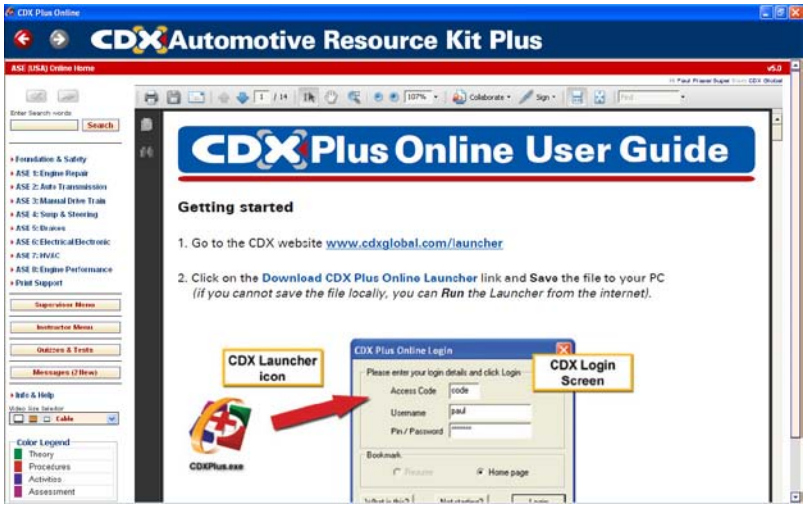


Selecting “Teaching with CDX Plus” or “Learning with CDX Plus” opens the Instructor and Student guides. These can be printed if required.



Selecting “What’s new in CDX Plus Online 5” provides a summary of the changes in this release.

Selecting “View the CDX Plus Online User Guide” provides a summary of key instructions.



Quizzes & Tests

Quizzes and Tests link you to all types of online assessment.

CDX ARK Plus Online 5.0 Content

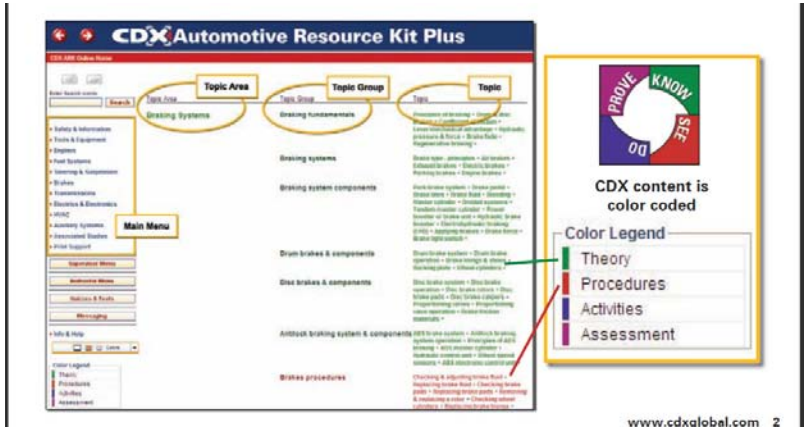
Select a main content category from the menu on the left of screen.

NOTE: Your supervisor has selected this menu from the choices available to align CDX Quizzes and Tests to your local standards. Your Supervisor can change the default menu displayed for an individual student if required.

The Main Categories menu opens to display:

- Topic Area
- Topic Group
- Topic

And each heading links to more detailed content.

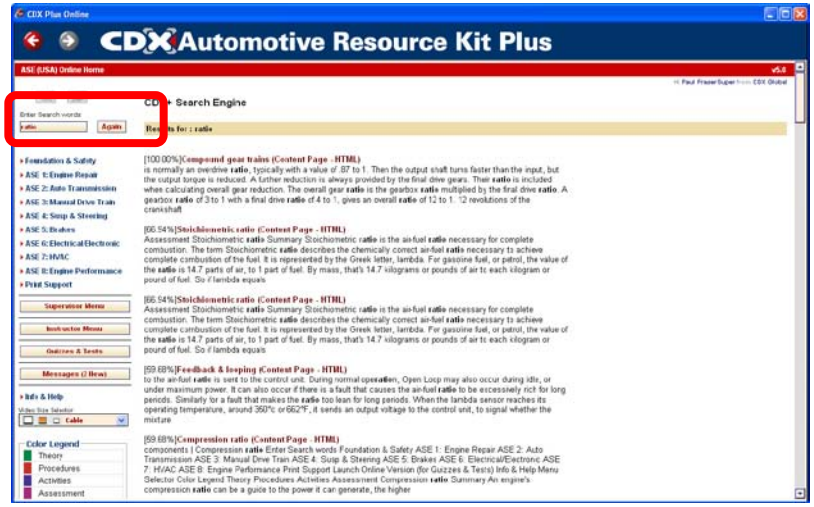


The Topic groups and the Topics below them are color coded. This color coding is also used in the content in CDX ARK Plus Online 5.0 Online.

Select a topic group for more information about topic, or select a topic.

Select an Automotive Tasksheet to access printable student activities aligned to key automotive tasks.

Search lets you finds any word or phrase in the entire program.

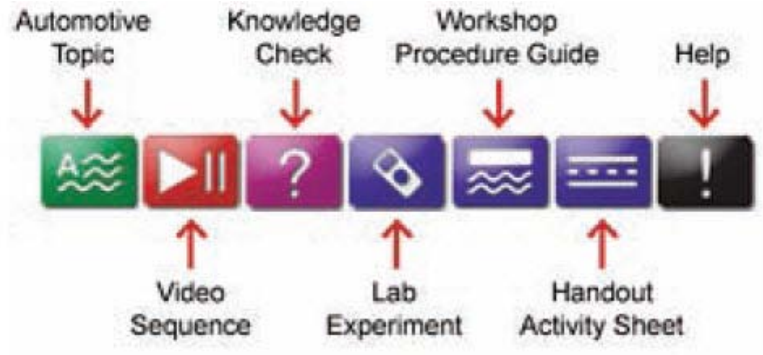


When you select a Topic you will see a row of toolbar Icons, the non-active icons are grayed out. Select one of the active icon buttons on the Topic Introduction screen.

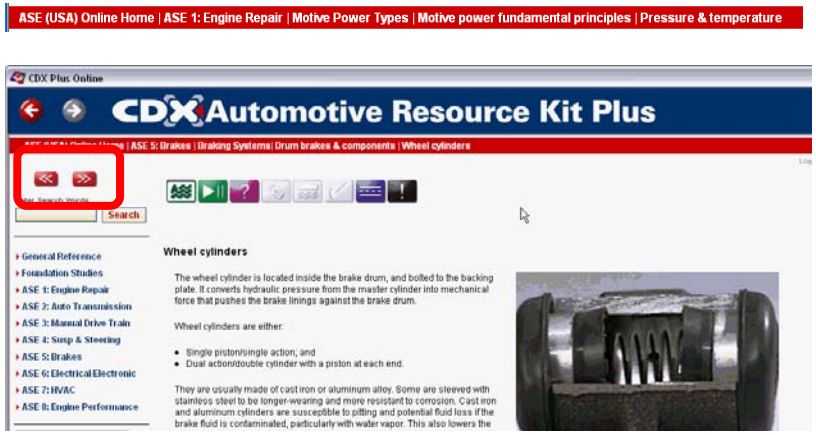
Note: CDX basic automotive *theory* written materials require grade 9 reading levels, and advanced theory topics are covered at reading grade level 12.

CDX *procedure* videos demonstrate key tasks, step-by-step, supported by illustrated guides with an average reading level of grade 8.

What each of the icons mean…



You can navigate using the “Breadcrumb Menu” along the top of the screen which shows you where you are and how you got there.
The Forward and Next buttons step you through all the topics in sequence.

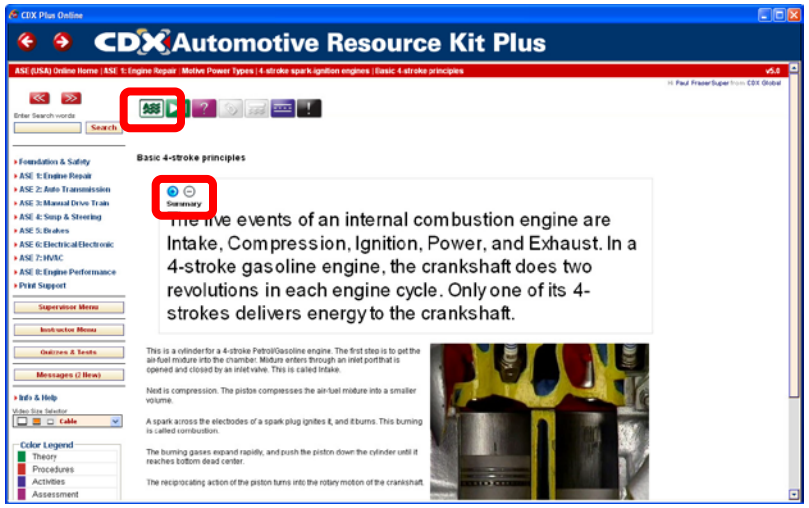


Topic Introduction

This icon takes you to the first page of information on your chosen topic. The information here is a resource for students to use in completing the Handout Activity Sheets and Find the Missing Word Quizzes. These topics are supported by over 900 video sequences. The CDX basic automotive theory materials require grade 9 reading levels, and advanced theory topics are covered at reading grade level 12.

Summary Zoom – Click the 'plus' button to enlarge the Summary text so that even the students at the back of the class can read it clearly (click 'minus' to shrink it again).

Teaching Tip: Write This Down – Have your students keep a notebook and write down all the summaries shown for each class.



Video Sequence

This icon takes you to a theory (green) or procedural (red) video.

The Control Bar at the bottom of the video allows you to pause or play the video and to mute or change the volume. A slider bar allows you to skip forward, however with CDX ARK Plus Online you must wait for the video to download first before you can jump forward.

Your download speed is dependent on the speed of your internet connection.

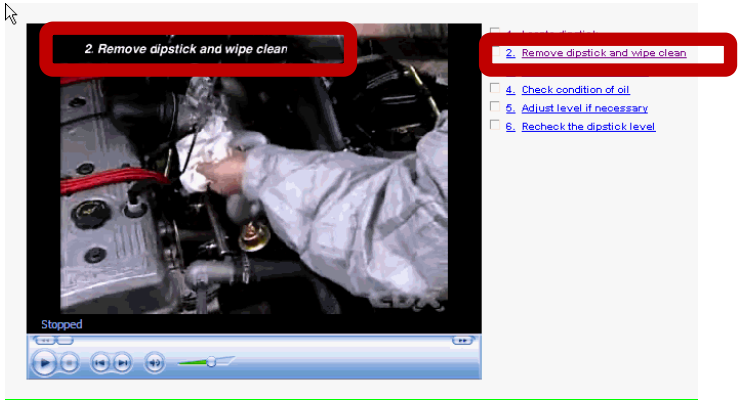
The video size selector allows you to choose from 3 different video sizes to best meet your needs and the data speed of your network:

- LAN – Largest Image, requires high speed connection
- Cable – Medium image
- Dialup – Smallest image, fastest download

The theory videos are brief, averaging from two to four minutes, to hold students' attention. They use sophisticated video and 3-D animations to deliver the underpinning 'Theory' component of the course so students understand.

- The principles of how cars work
- What their components are and how they interact
- How the various vehicle systems function

Procedural videos provide step-by-step video demonstrations of procedures. They are longer than the theory videos, but are segmented into short key steps. For LAN and Cable connections a menu to the right of the video allows students to return to a particular section, identified by a section heading on the video.



NOTE: The printable Workshop Procedure Guides follow the structure and content of the video exactly.

NOTE: This section menu only works after the whole video has been downloaded, i.e. watched once.

NOTE: The CDX videos that demonstrate step-by-step procedures are supported by illustrated guides with an average reading level of grade 8.

These video demonstrations of how to perform tasks are like being in the workshop alongside a skilled technician. Learners can watch them as many times as they need, without the need for instructor involvement or supervision.

They help to make the connection between the theory and the practical skills that need to be developed, prepare students for workshop activities in a safe and "learner friendly" environment and teach best workshop practice.

Teaching Tip: Managing A Large Class - If you have a large class use the appropriate procedural videos before any workshop activity to ensure all students have seen the activity demonstrated. There are also supporting illustrated Workshop Procedure Guides available for each of these procedural videos. They can be located using the icons shown later in this document

Teaching Tip: Class Teaching - If you know that a section is going to be difficult for students to understand play the video segment all the way through without stopping to give them the big picture first. The next time hit "pause" regularly (every 15 to 30 seconds) to explain the information in your own words, highlight concepts, or ask students pertinent questions to insure they understand the concepts. You may want to replay the segment again in a non-stop fashion to let the students get a grasp of the complete concept in one continuous flow. For the more difficult concepts the students may benefit if you replay the section one or more times to make sure they understand it.

Teaching Tip: Tell It Your Way" – Pause the video when appropriate to add information relevant to your shop environment, or drawn from your professional experience, to make the videos even more relevant to your class.

Teaching Tip: Self-Paced Learning - Students with access to CDX demonstrate higher grades because they can proceed at their own pace, and review material in a timely manner, with activities and quizzes to help them confirm their understanding.

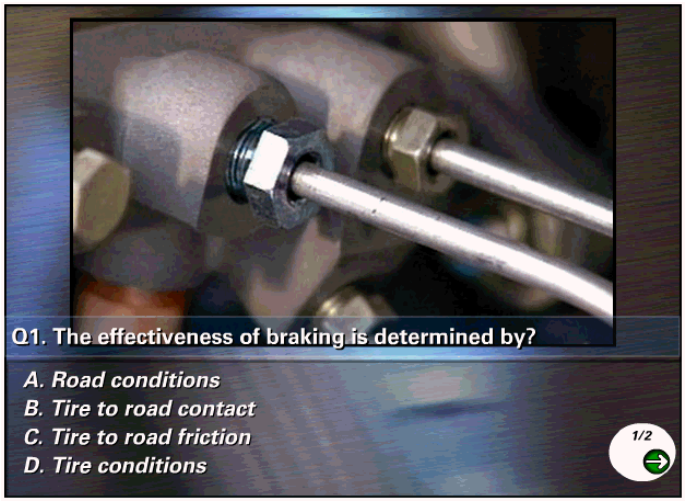
Teaching Tip: Remedial Learning - It really helps students if you they can access CDX at home or in your library so they can go through it at their own pace. Later you can encourage them to review the information, after they have had some hands on experience. This will allow students to review the material and apply it to workshop situations they have encountered. This will enhance their learning even more.

Teaching Tip: Learning Styles - Students who face learning challenges may also prefer to learn at their own pace, and to learn from their mistakes in private. CDX is endlessly patient, and non-judgmental, providing students the opportunity of more repetition than class schedules permit.

Teaching Tip: Catching Up - Students who are absent for all or part of a class can be directed to a particular module from CDX to catch up with the rest of the class.

Knowledge Check

This icon takes you to one of 649 Knowledge Checks. After every Theory Video these interactive, formative test activities allow students to confirm their understanding. These answers are not recorded, so learners are able to assess their own progress and take ownership of their learning. They allow students to confirm to themselves that they have fully understood the content.

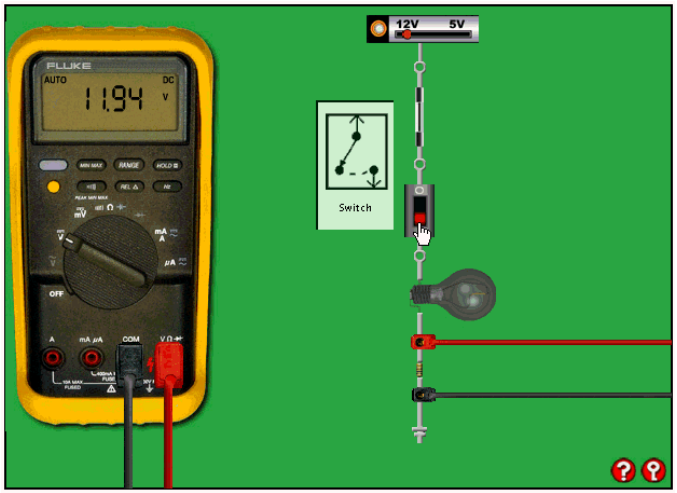


Teaching Tip: Classroom Reinforcement - Use the Knowledge Checks immediately after you show a theory video to a class to facilitate discussion e.g. “What is the correct answer, why are the other answers wrong?”

Teaching Tip: Study Skills - The Knowledge Checks helps students test themselves. Let your students know that you can monitor their results, and their activities online and that jumping ahead without really understanding will set them up for failure in the formal tests.

Lab Experiment:

This takes you to a DVOM simulator, a safe and easy way to learn how to use a DVOM. More than 20 experiments can be done prior to workshop activities with no risk of damaging equipment.



You’ll notice that in the simulator there are both diagrammatic and schematic representations of the circuit tying the two concepts together.

When you move your cursor to something that you can manipulate the pointer will change to a hand.

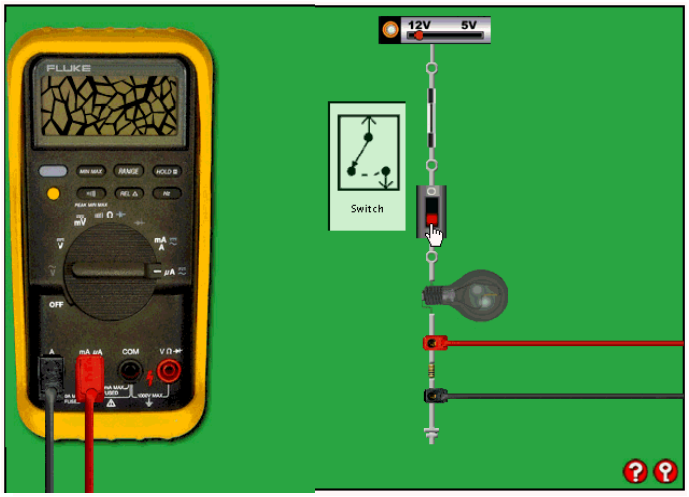
Hold down the left mouse button, grab hold of the lead and a white circle will indicate that you can now let it go and that it will be connected.

Turn on the meter, turn on the backlight to make it easier to see and then connect the probes and turn the circuit on.

As you move the probes, the readings change just like a real DVOM.

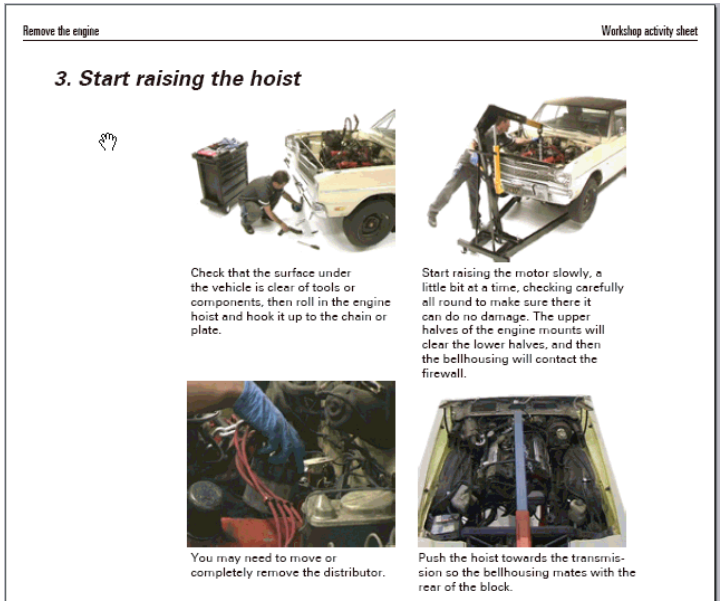
Teaching Tip: Learning Schematics - During your explanation pass your cursor over the circuit elements to show the schematic representation. Have your students create a circuit diagram as a summary of the procedure.

Teaching Tip: Avoiding Mistakes - You can use the simulator to show the students the consequences of connecting the meter up incorrectly, it will “break” just like the real thing! This can save you fuses, time and money. Like this: imagine you misconnect a meter, it’ll generate a beep, but if you persevere and connect the probes, what would happen to a real meter if you did this? Turn it off, turn it back on again, you’re back in business.



Workshop Procedure Guide

Extensively illustrated, printable worksheets remind learners of the correct procedures as they perform real workshop exercises. These follow the structure and format of the Workshop Procedure videos and support activities in the workshop by documenting the CDX step-by-step procedures. They are exceptionally clear, with an average reading level of grade 8.



Teaching Tip: "**Print the Procedural Videos"** – The Workshop Procedure Guides follow the videos exactly, with section headings and pictures taken from the videos and the complete narration. You can print these out as "Master Copies" and laminate them for your students. Keep them in binders accessible from the workshop to help students recall the video when they are in the workshop.

Teaching Tip: Support for Hearing Impaired - The Workshop Procdure Guides are excellent support materials for students with hearing disabilities. The written script matches the narration on the video.

Teaching Tip: English Studies - Students whose first language is not English benefit from the illustrated guides, which they can translate at leisure, perhaps as a group activity, and which provide the opportunity to work at their own pace.

Handout Activity Sheet

More than 1,000 Handout Activity Sheets provide students with a detailed summary of a topic. They are a "learning activity" with "fill in the missing word" style questions taken directly from the CDX content. CDX ARK Plus Online 5.0 also provides these questions in Find-the-Missing-Word Quizzes which feature a link to the CDX search engine and CDX content. These are graded and reported electronically, reducing your administrative load. Both the printed Handout Activity Sheets and the electronic versions provide instructors with evidence of student learning activities.

Teaching Tip: Printable Quizzes - If local regulations require printed tests students can use the printable Handout Activity Quizzes.

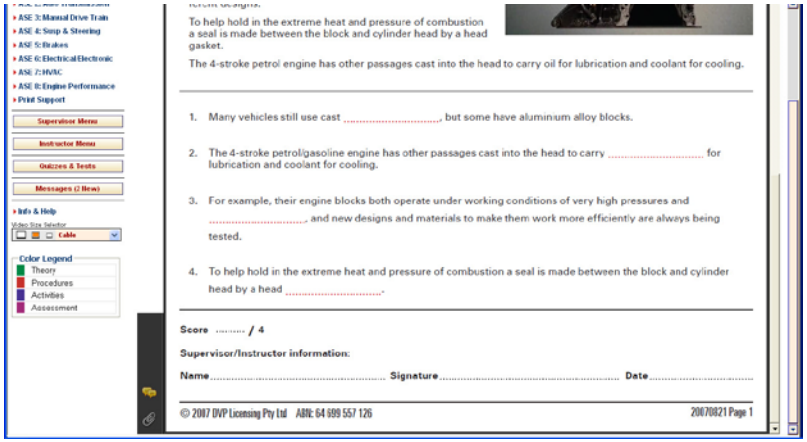
Teaching Tip: Accuracy Required - CDX ARK Plus Online 5.0 checks

responses against the answers in the CDX content. If you need to allow for misspellings, other answers etc use the printable Handout Activity Sheets.

Teaching Tip: Save Your Time - Students can use the printed version as a research tool and then enter the data they gather into the online system for grading, saving you time. Students receive immediate feedback, including the correct answer.

Teaching Tip: Managing Large Classes - If you have access to PCs in your workshop area you can split your class in two smaller groups. One group works on the PCs to get the foundation knowledge, see demonstrations of the procedures and to confirm their understanding. The other group works in the workshop. Then the groups swap places. Eventually you can allow individual students to move at their own pace, knowing CDX ARK Plus Online 5.0 will help you keep an eye on individual progress.

Teaching Tip: Student Workbooks - If your students have access to a printer at home you can set homework by requiring them to print out the Handout Activity Sheets, completing the questions and placing them in a binder, building their own textbook.



Automotive Tasksheets

Automotive Tasksheets provide students with structured activities and guide them through a comprehensive set of challenging practical tasks. They document achievement of practical competence and understanding and can become part of the

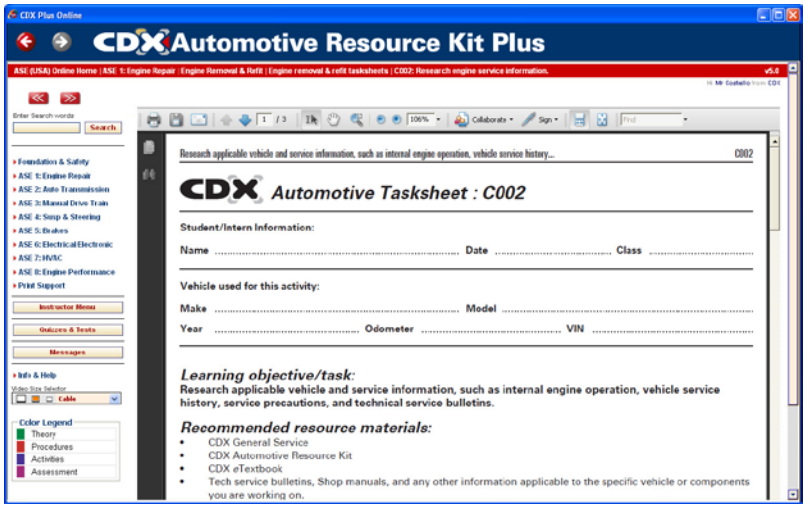
Motive power types tasksheets

C001: Interpret engine concern. + C004: Locate fuel oil coolant & other leaks. + C006: Diagnose oil usage & exhaust color problems. + C540: Work order: Engine repair. (2005 only) +

learner's portfolio of evidence.

These all have clear learning objectives; safety information, step-by-step instructions for carrying out the task; room to record all the necessary findings and measurements and observations; and instructor or workshop supervisor sign-off.

CDX ARK Plus Online 5.0 can record and report on student completion of these Automotive Tasksheets against the NATEF standards.



Print Support

Selecting Print Support from the menu provides several different ways to access CDX printed materials. These pages give you easy access to each of the Tasksheets, Handout Activity Sheets, and Workshop Procedure Guides – all in the one place. From here you can also print out collections of print support documents all at once, by Category, by Topic Area, or by Topic Group. The Tasksheets are aligned to the menu your supervisor has selected.

Alignment to National Standards - CDX Automotive Tasksheets align to national standards. When planning your lessons review the correlation of Tasksheets to your national standards (NATEF/ASE, AUR, IMI, Red Seal).

Tasksheets

1. Select a category in this column and you can then view or print any individual tasksheet or group of tasksheets in that category.

2. In this column you can choose to view or print all of the tasksheets in that category, all at once.

Handout Activity Sheets

3. Selecting a Topic Area List in this column lets you view or print individual Handout Activity Sheets, or all those sheets in any Topic Group.

4. This link gives you all the Handout Activity Sheets in the whole category, all at once.

Workshop Procedure Guides
5. Selecting a Topic Area List in this column lets you view or print individual Workshop Procedure Guides, or all those sheets in any Topic Group.

Quizzes and Tests

There are over 1,000 Topic Tests, Find-the Missing-Word Quizzes, Practice Exams and Final Exams in CDX ARK Plus Online 5.0 Online. To make these easy to navigate they are grouped into topic areas, depending on the menu selected by the supervisor for the site. The questions are drawn randomly from the topic database. The order of the correct answer and the incorrect distracters is randomized, reducing the chance that students will see a question repeated.

- **Topic GroupTests** – 180 short tests, each with 5 to 10 questions, confirm a learner's recall and understanding of the content in each of the Topic Groups. Every topic group has a scored and recorded topic group test with randomized questions and distracters and feedback with every answer. These allow you to test-as-you go, and provide evidence of student progress through the course.
- **Find-the-Missing-Word Quizzes** – Unlike most types of test, these

180 quizzes do not test a learner's knowledge or recall. Instead, they have a very different purpose. They require the learner to review content from a Topic Group, and to identify and accurately transcribe specific information - a skill that all technicians need, but some find very difficult without extensive practice.

These "fill in the missing word" activities reinforce the lessons learnt in the CDX courseware. They are provided as printable activities and in CDX ARK Plus Online 5.0 and they can also be delivered and graded electronically in the Quiz and test module. Online students are initially provided with three opportunities to complete the Find the Missing Word Quizzes, which deliver a specific set of questions and are untimed. Online students get feedback on their results.

- **Practice Exams** – these short 10 question online tests allow students to practice for their final exams. These tests draw multiple-choice questions from a relevant question bank and randomize both the order of questions and the order of answers and distracters, so every quiz is different. They are untimed and may be undertaken as many times as necessary by a student. They provide feedback on the correct answer.
- **Final Exams** – these are comprehensive exams, 30-50 questions depending on the subject area, with a fixed time limit. Students are initially provided with three opportunities to complete the Final Exams, which are timed. These Final Exams are scored automatically and the results are stored for later reporting.

Teaching Tip: Final Exam – Although final exams can be done online, and off-campus, consider whether they should be proctored or observed by a responsible person to ensure that the student undertaking the exam is the actual student enrolled in the course, not a substitute.

NOTE: The default menu choice set up by the CDX Online Supervisor will determine which Quizzes and Tests students see, unless your Supervisor has nominated a different, individual menu choice in Add/Edit Users.

Selecting a Quiz or Test area opens up a list of all the quizzes or tests. It also provides access to Grades and to Find-the-Missing-Word Quizzes, Topic Group Tests, Practice Exams and Final Exams.

The information presented by CDX ARK Plus Online 5.0 differs, depending on whether you are logged on as a student or as an instructor.

Students can only see and complete Quizzes and Tests, and view their own grades. Instructors see additional information.

NOTE: Topic Group Tests are new in Version 5, allowing teachers to test students progressively as they work through a subject.

Teaching Tip: Topic Group Tests - If your students have online access out of class time or at home you can set homework by requiring them to complete these Tests, and then reviewing their work with them in the next class.

The Instructor's View of Quizzes and Tests

If you are in the Quizzes and Tests module and select any Quiz or Test you will see three tabs:

- Info – summarizing the number of students and attempts
- Results – detailing student progress
- Preview – allowing a preview of the Quiz or Test

Teaching Tip: Group Discussion - You can use the Preview feature with a projector as an activity for class involvement.

NOTE: In Preview mode for Find the Missing Word Quizzes there is no link to the CDX ARK Plus Online 5.0 content.

NOTE: You can also access grade reports by going to the main Instructor menu and selecting from the Reports sub-menu.

Results

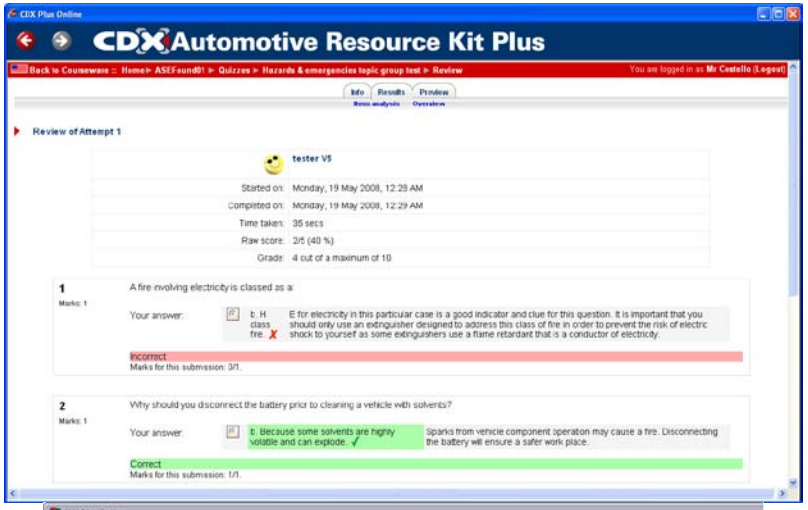
Selecting the "Results" tab provides a summary of student progress in Quizzes and Tests. Instructors can see which students have attempted any particular quiz, how long they spent on the quiz and their grades. In the Final Exams students are limited to 3 attempts. However using the checkbox and selecting "Delete" from the drop down menu allows an instructor to delete an attempt which permits the student to attempt the exam again.

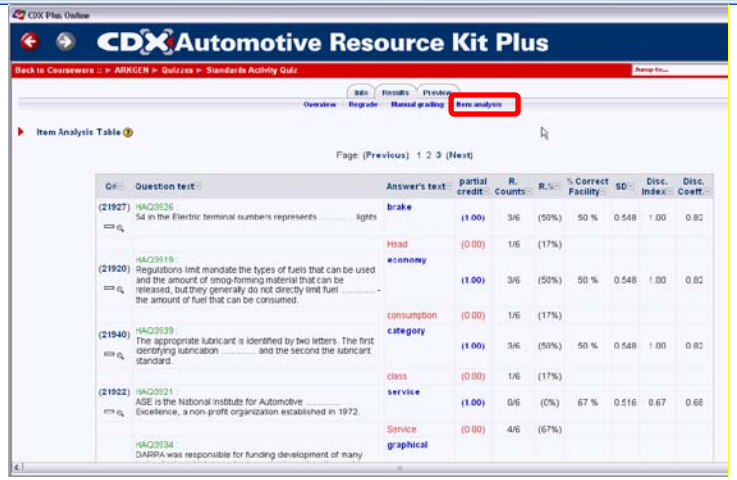
Download buttons allow the data to be exported in common formats.

Teaching Tip: Review Their Answers - You can review any student's individual, graded quiz attempt by selecting the date started, the completed date or the grade.

Teaching Tip: Build Study Skills - Tell students that you can monitor their results, and their activities online. Remind them that jumping ahead without really understanding will lead to failure in the formal exams.

When you review a student's attempt you can see the results, and also the student's answers and feedback for questions that were answered incorrectly.





Item Analysis

At the top of the "Results" tab is the link to the "Item Analysis" screen. This provides a summary and statistical analysis of all results for that quiz. The correct answers from the quiz database are in dark blue, and incorrect answers are in red.

"R Counts" shows the number of answers/the number of students starting the quiz. E.g. 3/6 means 3 students gave this answer of 6 who have started the quiz.

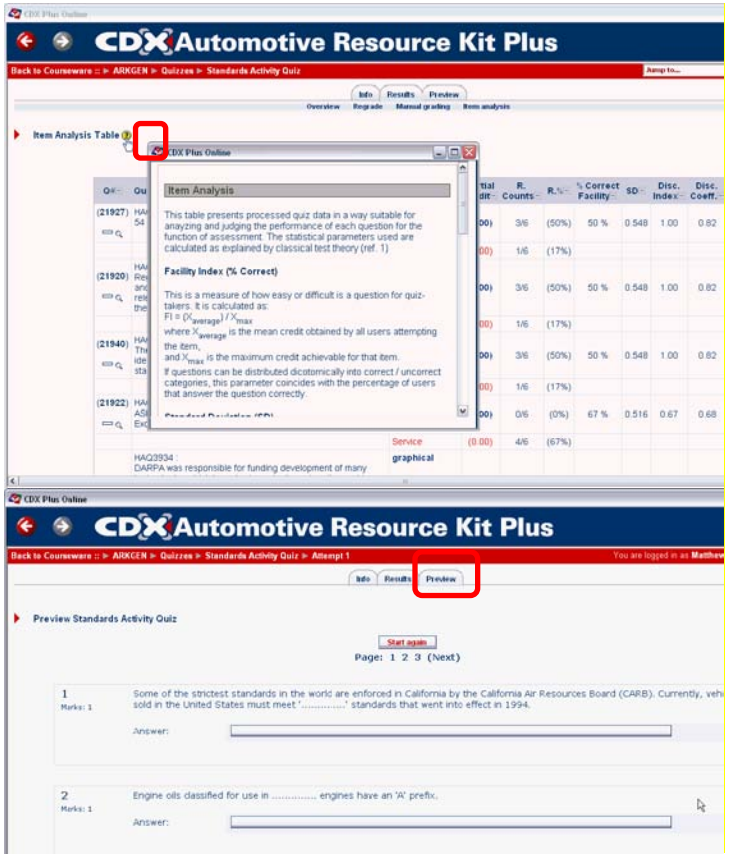
"% Correct Facility" shows the % of students who answered correctly.

NOTE: Totals and percentages may not equal 100% since the number of students answering may be less than the number starting the quiz, either because they skipped the question, or have not completed the quiz at the time of the report.

Teaching Tip: Class Review - Item analysis allows you to identify and focus on areas that the class as a whole has not understood.

The additional statistical functions covered in Item analysis are explained in the online help.

Download buttons allow the data to be exported in common formats.



Completing a Find-the-Missing-Word Quiz

The “Preview” tab allows an instructor in a class to show the Find-the-Missing-Word Quiz for group interaction.

Find-the-Missing-Word quizzes correspond to the printed Handout Activity Sheets and the answers are drawn from the CDX content. They are intended as a learning activity, and so the questions are not randomized. In the student version there is a link to the CDX search engine.

Teaching Tip: Accuracy Required - The CDX system checks student responses against the answers in the CDX content. If you need to allow for misspellings, other answers etc use the printable Handout Activity Sheets.

Teaching Tip: Printed Tests - If you have special circumstances or need to allow for misspellings, other possible correct answers etc use the printable Handout Activity Sheets.

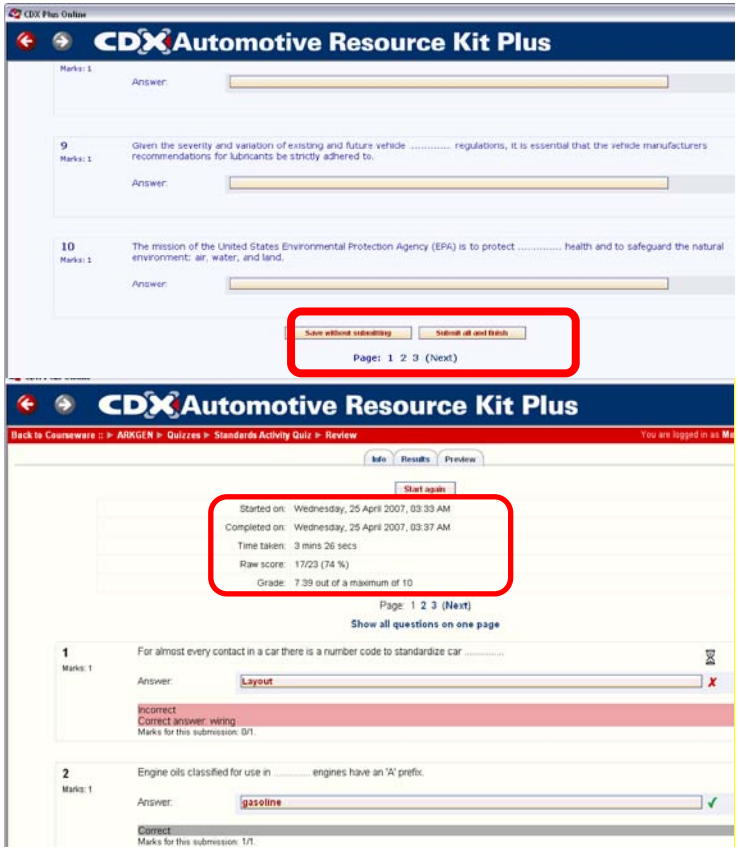
NOTE: Quizzes and Practice Exams can be saved without submitting them for grading, allowing students to resume the activity in the next scheduled class or at home. Final Exams are timed.

NOTE: The “Submit and Finish” button should only be used when the whole test is completed. Make sure students answer all questions before selecting the “Submit and Finish” button at the end of the Quiz. If the progress indicator says “(Next)” e.g `Page: 1 2 3 (Next)` the Quiz is not finished.

Immediately after selecting “Submit and Finish” the Quiz or Exam is graded and students can see their results. They can also see feedback for questions that they answered correctly and can identify which questions were answered incorrectly.

For Practice Exams students see their grade and instructional feedback.

For Final Exams students only see their grade ; feedback on their answers is available to the instructor but not to the student.



The Instructor Menu

The instructor menu provides:

User Management - Edit User Details allows instructors to update student data, replace a lost password, assign students to classes and to modify their own information.

Tasksheet Management - instructors can either:

- collect the completed Tasksheets from students, grade them and then easily enter the results, or
- they can grade the Tasksheets and then have students enter the results for review and approval by the instructor

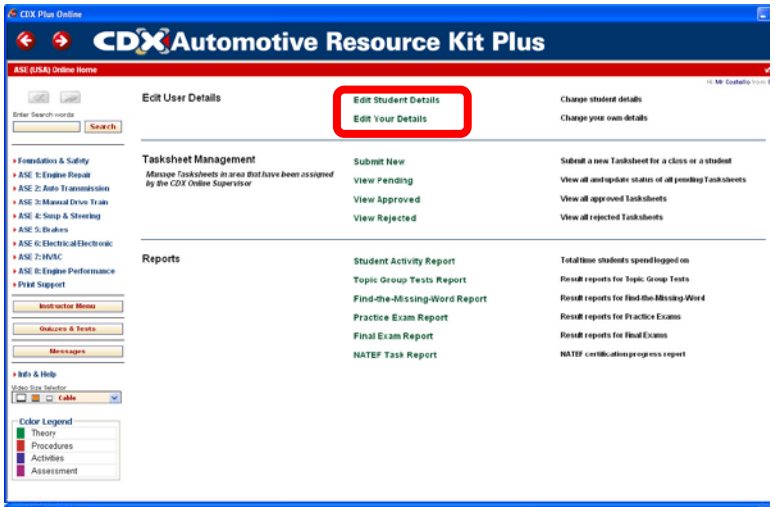
Reports – track student activity, application and results online:

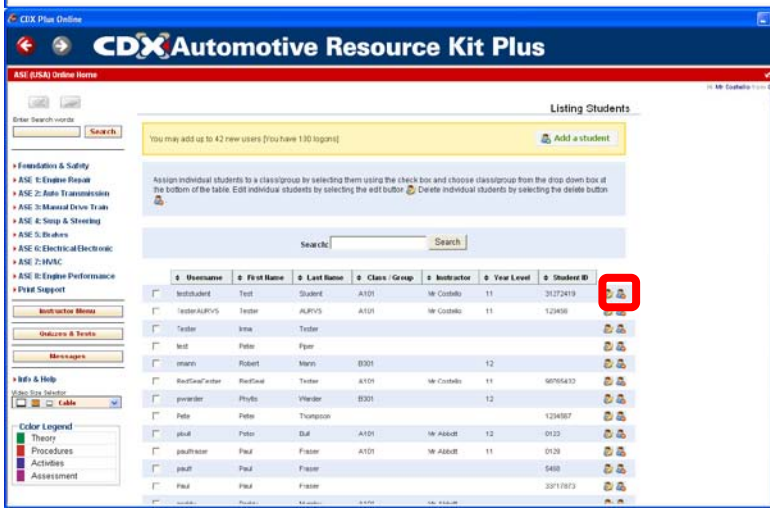
- Student Activity Report
- Topic Group Test Report
- Find-the-Missing-Word Report
- Practice Exam Report
- Final Exam Report
- NATEF Task Report (ASE Menu)

User Management

Edit User Details

If you want edit user's details go to the instructor menu and select 'Edit Student Details' to add to or delete user's information.





You can search for an individual student, or sort the student list by selecting any of the column headings.

You can assign individual students to a class/group by selecting them using the check box and choose class/group from the drop down box at the bottom of the table.

You can edit individual students by selecting the edit button

To delete individual students select the delete button .

If you want to edit your details go to the instructor menu and select ‘Edit Your Details’ to add to or change you information.

Tasksheet Management (ASE Menu)

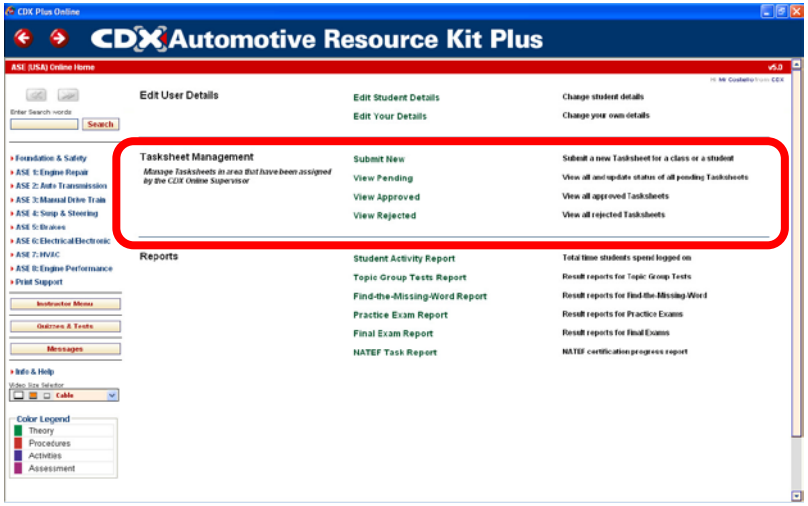
CDX ARK Plus Online 5.0 includes an easy to use Tasksheet Tracking System designed to minimize paperwork, make practical task tracking easier and to report against ASE/NATEF standards.

Supported by over 500 NATEF Tasksheets the CDX Practical Task Tracking System allows:

- Supervisors to select the ASE/NATEF Task areas that are relevant to their course
- Students to electronically submit Tasksheets for reporting after they are reviewed and graded by their instructor,

  or
- Instructors to easily enter Tasksheets completed by individuals or groups of students.

  NOTE: The student submission model is most efficient use of the instructor’s time.



Submit New

There are two approaches; the student can do the data entry, validated by the instructor, or the instructor can enter the data.

The Submit New display supports the instructor submission model.

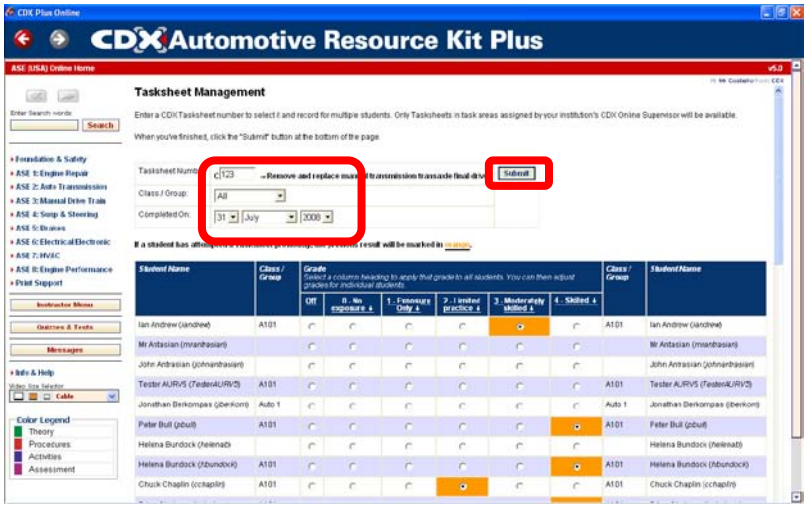
The students submit completed Tasksheets to the instructor, the instructor grades them and the instructor is then responsible for entering the data.

If you have Tasksheets for several tasks sort them by Tasksheet number and then select ‘Submit New’. Type in the Tasksheet number, and select a class group to enter the task for the group as a whole or for individuals.

If a student has attempted a Tasksheet previously, the previous result will be marked in orange.

You can update student grades one at a time however to update all students quickly select a column heading to apply that grade to all students. You can then adjust grades for individual students.

Then select “Submit” to update the data.



View Pending

The View Pending display supports the student submission model since it’s the most efficient use of the instructor’s time.

Tasksheets are done in the workshop, graded and signed off by the instructor. Then the student simply logs in, enters the Tasksheet number and their assigned grade and submits it for approval or rejection by their instructor.

An instructor can then view pending Tasksheets submitted by students and accept or reject them either in a batch process, or one at a time.

At any time the student can see a report showing the status of all their Tasksheets.

Teaching Tip: Show Me - Of course at any time an instructor can ask a student to show him the signed Tasksheets, for audit and review,

just to keep everyone confident in the accuracy of the information.

Teaching Tip: Trust Me - You may want to discuss this delegation and review process with your NATEF evaluation team as a measure of student workplace ethics training.

The instructor can see just the pending task sheets, who submitted them, and can either select them individually for approval, or can select all of them at once.

When you select all of them at once that's a quick way of highlighting the majority of responses and then you can mark the exceptions and then select 'update tasksheet status' to feed them into the reporting system.

View Approved and View Rejected

These views provide an alternative way to see the status of Tasksheets.

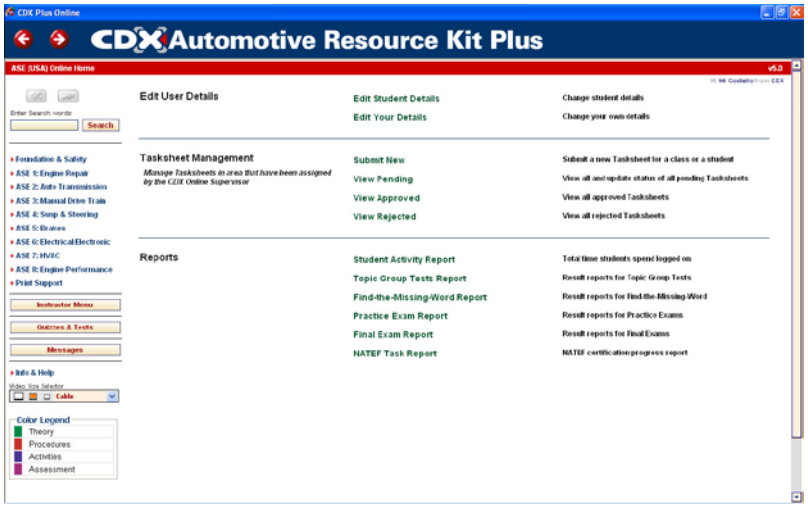
Reports

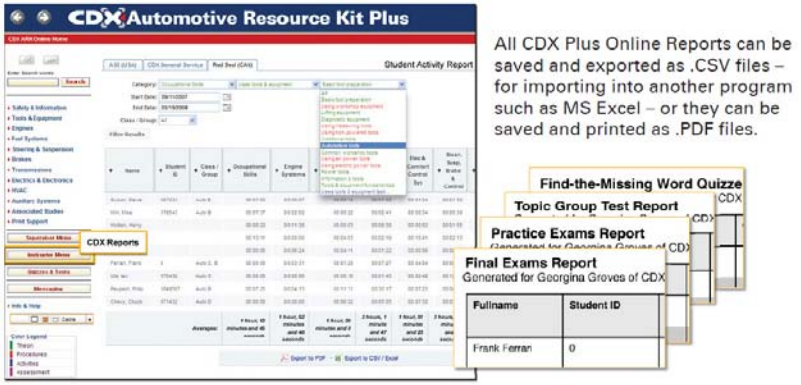
The new CDX Reporting module gives you the reports you need, when you need them. Accountability requirements are growing, and managing the learning process properly means that you need both accurate and timely information.

CDX ARK Plus Online 5.0 provides instructors and administrators with detailed reports on a number of key measures:

- Student performance, in topic group tests, practice exams and final exams, ensuring a structured development of competency and facilitating remediation at the time of need.
- Student and instructor activity, time logged on in total, and by ASE area, helping to provide management information on utilization and the effectiveness of the CDX investment.
- Student effort, the number and grades for over 150 activity quizzes, aligned to every topic area, providing detailed assistance and assessment aligned to skills development.
- Student completion of workshop tasks, documenting dates and outcomes, task-by-task. These are, mapped to ASE areas and measured against the mandatory NATEF P1s, P2s and P3s, greatly assisting in the NATEF certification/recertification process.

The structure and manipulation of the reports is consistent, so when you understand how to use one report, you can use them all.





Using Reports

1. Selecting the menu group
You may have different groups of students using CDX with different menu structures. The report information is different for each group so it is stored in different datasets. The tabs at the top of the report screen let you switch from one menu group to another.

2. - 3. - 4. Filtering the data:
For each report, you can then filter the results by a number of different criteria, so you get just the information you need.
… by content area
You can see exactly which parts of CDX Plus your students have been engaging with, by subject category *[2]* , by topic area *[3]* , or even by topic group *[4]*.

5. …by date range
You can also set a time duration for this report by selecting start and finish dates.

6. …by student group
The report can include all students, or only students in a particular group.

7. Then select 'Filter Results' to display what you have chosen.

8. Sorting the data:
Your report rows can then be sorted by clicking on the name of the column you want the table to sort by.

9. – 10. Saving and exporting the report:
Export the report data to a .csv file *[9]*, or save it for printing in .pdf format *[10]*

Teaching Tip: Managing Information - You can use the date filter to limit your view to a day or a week, so you can check online to see if students have undertaken the online activities, tests etc that you have assigned to them. Then you can use the CDX messaging system to follow up as necessary.

Student Activity Report

CDX Student Activity Reports give you the precise and detailed information you need to manage your students' progress better than ever before.

- "How long did my students spend on the activities I asked them to carry out?"
- "How many of my students actually attempted the homework I set them?"
- "How can I prove it when I say that a low exam mark was a result of the student not doing the required revision?"

Different students learn at different speeds and in different ways, but now you can see exactly how much time each of your students has actually spent doing any of the work you ask them to do.

CDX Activity Reports give you the information that puts you in control.

The Test Reports

Three tests measure student ***performance***, topic group tests, practice exams and final exams, ensuring a structured development of competency and facilitating remediation at the time of need.

The Find-the-Missing-Word quizzes measure student ***effort***, the number and grades for over 150 activity quizzes, aligned to every topic group, providing detailed assistance and assessment aligned to skills development.

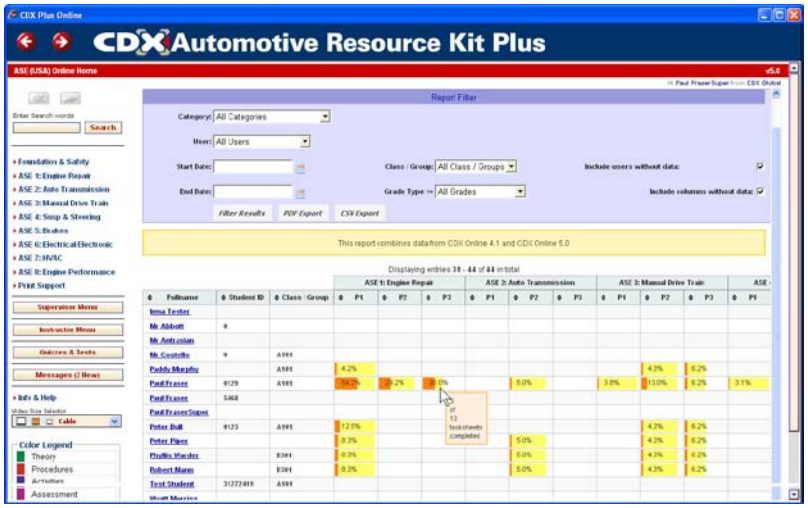
NATEF Task Report (ASE Menu)

Teachers and students can review and print reports on student ***completion*** of workshop tasks, documenting dates and outcomes, task-by-task. These are, mapped to ASE areas and measured against the mandatory NATEF P1s, P2s and P3s, greatly assisting in the NATEF certification/recertification process.

The colored bars on the NATEF Task Report provide a visual representation of the students' progress against the NATEF requirements for P-1, P-2 and P-3 tasks.

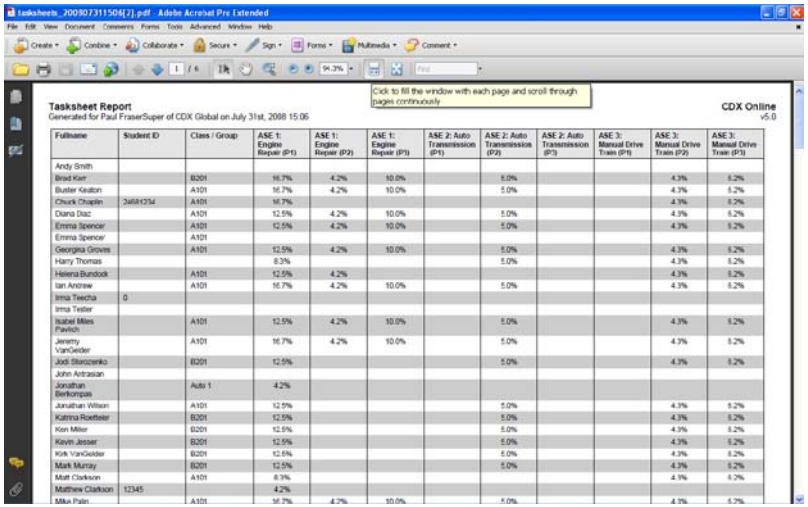
There are additional filters on the NATEF Task Report that allow you to filter by grade level.

Teaching Tip: Managing Information - You can use the date filter to limit your view to a day or a week, so you can check online to see if students have undertaken the online quizzes etc that you have assigned to them. Then you can use the CDX messaging system to follow up as necessary.



You can create a printable report by selecting the pdf button.

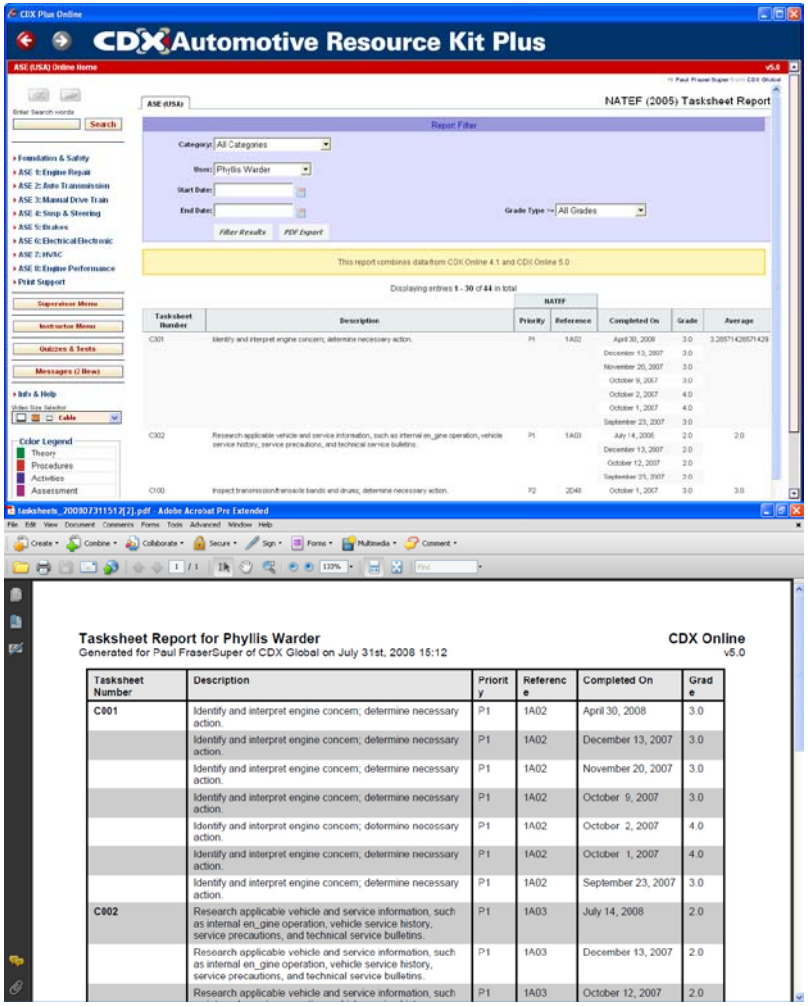
Teaching Tip: NATEF Evaluation Support – If you print this report it provides a NATEF evaluation team with with a valuable tool to support them in their review.



You can drill down to view an individual students Task completion data by selecting their name. This report shows all the attempts undertaken by the student and the date and grade for the attempt.

You can create a printable report by selecting the pdf button, and students can print their own reports.

Teaching Tip: Employment Support – If you stamp, sign and date the students report it provides them with a valuable tool to support them in an employment interview. The comprehensive documentation provides a future employer with an understanding of the task exposure and skill level of the candidate.



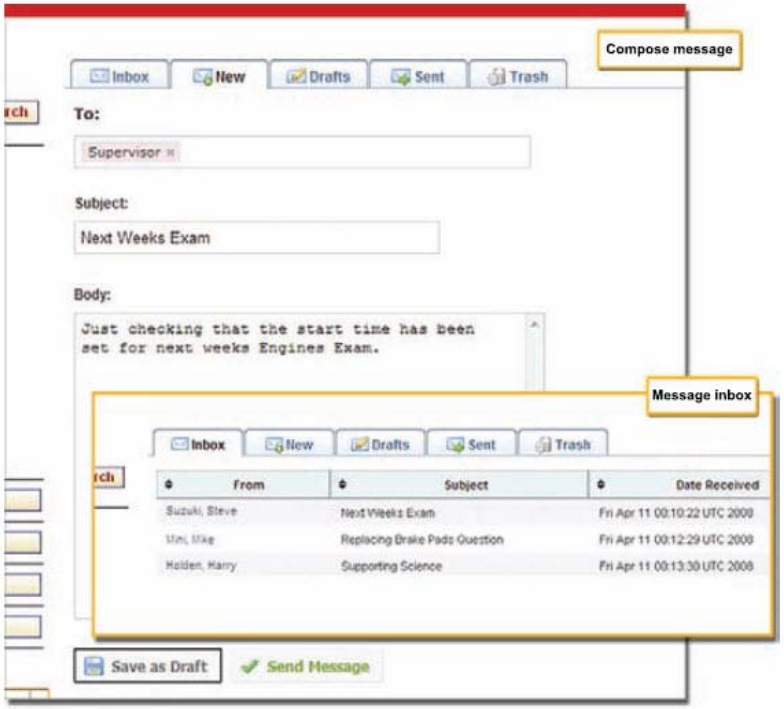
Messaging

CDX Plus Online Messaging

Even when you're not face to face, you still need to be able to communicate with your CDX Plus Online V5 students. CDX Plus Online now includes a secure messaging system that lets you give out assignments for an individual student or a whole class group at once, or answer your students' technical or administrative questions, or respond to their excuses, or coach remote students, or set remedial work for absentees.... all without leaving CDX Plus Online.

With CDX Plus Online you don't need to share your email address with everyone in your class, and you don't need to know their email addresses to communicate effectively with your students. All you need is a CDX login....it's that simple.

- Send a message to one, or select a group, or all of them at once.
- Next time they logon to CDX Plus Online, your message will be waiting.
- They can read it, respond to it, save it, or delete it.
- When they respond, their message will be waiting for you next time you go to the CDX messaging system or the next time you logon to CDX Plus Online.



Teaching Tip: Group Mail - The CDX messaging system will bring up a list of student names as you begin to type. If you want to send a message to a whole class type "Group" to display a list of classes that have been set up by your supervisor.

CASE STUDY: Teaching with CDX in a Computer Lab

CDX ARK Plus Online 5.0 is a flexible program. Here's how one instructor from a community college in Nevada uses CDX materials in his computer lab:

"The way we have set up our program is to introduce the students to the area that we are about to cover. We let the student view the components or systems on the vehicle along with a short explanation of its operation.

Then we assemble all of the students into our computer lab and go through the topics on the CDX discs that we will be covering and highlight the areas to focus on. The students are then allowed to go to work in the computer lab at their own pace.

For some students who feel that they can complete the CDX worksheets without any further review they proceed into the workshop area and demonstrate their skill level, while being graded on the CDX Assessment sheets. (Upon successful completion they go back to the CDX program in the PC lab).

Other students who feel less confident with their capacity to perform a task will move in to the shop area to practice the task, guided by their CDX Worksheets, on a vehicle or simulator. The instructor can monitor and guide the progress of the students who work at their own pace until they are ready to be formally assessed.

If the student is unable to complete a task on the CDX Worksheet, the student is asked to go back to the computer lab and review the CDX information.

Because students are progressing at their own pace and some are in the PC lab while some are in the workshop one instructor can handle a larger student body while maintaining a high level of instruction and interaction.

The next day starts with a short review of the information that was covered the prior day and what will be covered today. We also use a general automotive book to supplement our training."

Minimum Requirements – CDX ARK Plus Online 5.0 Online

You can access CDX ARK Plus Online 5.0 from any PC connected to the internet, however the CDX Online programs require an application, the CDX Online Launcher, that prevents students from accessing any unauthorized websites while using CDX Online programs. You can be confident that students using the CDX Online Launcher can only reach CDX Online, and other sites as specifically authorized by your school's CDX Online supervisor. However, access to CDX Online within your school system may require specific permissions under your school's internet security policy. The following information may assist you to set up and use CDX Online while maintaining the integrity and security of your system.

1. Security

A. If your school's policy only allows access to specific websites from your network you will need to ensure that you permit unrestricted access to the following URLs:

- www.cdxglobal.com
- www.cdxhosting.com
- www.cdxweb.com
- www.cdxautowiki.net
- www.cdxetextbook.com
- audiovideoweb.com

B. If your school's policy disables access to specific file types you will need to ensure that you permit users access to the following files or file types:

- CDXOnlineLauncher.exe
- *.mpeg
- *.mpg
- *.wmv
- *.pdf
- *.html
- *.htm
- *.css
- *.js

To preserve your existing security ensure that these file types are only permitted from URLs in the list A above.

C. Your policy may require you to set specialized port access for web-based programs to operate correctly. The CDX Online Launcher obtains its settings directly from your default browser's configuration. If you are able to access the internet and can reach the domains listed above, you don't need to set or change any specialized port settings in your browser configuration.

2. Network Performance and Minimum Hardware Specifications

A. Your Network connection to the internet should be capable of providing modest broadband speed to about 40% of your users simultaneously. For a 20 user site this means you need approx 3-5Mbit data transfer rate.

It can also be beneficial to performance if your LAN accesses the internet through a proxy server. When CDX Online accesses its content through a proxy server, downloaded content will be cached locally on your proxy server. If the TTL (time to live) on your proxy server cache is set to be quite long, with continued use this cache should eventually contain most of the videos and other material. Your network would then not need to continually get content from the CDX Online server, increasing performance, and reducing internet traffic and cost.

B. The CDX Online Launcher must be used to access the CDX Online courses and should be been installed on all the computers that will be accessing CDX Online. To install, please follow these steps:

1. Download the secure CDX Online Launcher from http://www.cdxglobal.com/launcher/

2. If you see the **File Download - Security Warning**, press
   - **Run**: if you have privileges to install programs on your PC, or
   - **Save**: if you require a computer administrator to install the program.

3. Follow the **Setup - CDX Online Launcher** prompts to install the program
   If you accept the default folder installation location, it will be easier for the program to regularly update itself.

4. Enter the **Access Code**, **Username**, and **Pin/Password** that has been provided to you.

C. The CDX Online program requires a minimum hardware and software specification, as follows:

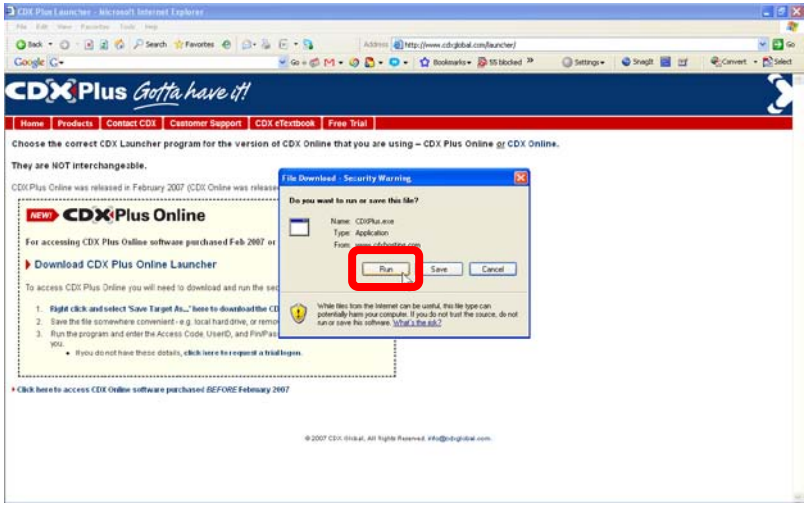
- Internet Access
- Preferred monitor resolution 1024x768
- Sound card and speakers, or headphones
- Microsoft Windows 2000 or later
- Microsoft Internet Explorer V6.0 or later
- Microsoft Windows Media Player
- Abobe Flash & Shockwave Player ®
- Adobe Acrobat Reader ®

Troubleshooting.

NOTE: Check that your PC meets the minimum specifications listed on the previous page.

Launcher

I cannot download the CDX Online Launcher.



You school's IT policy may prevent you from saving an executable file. Try selecting "Run"

Try downloading the launcher at home to see if it is an issue with your school's IT settings.

Download the Launcher to a USB drive/Jump drive (at school or at home) and then try running the launcher from the drive
If it works at home see [Minimum Requirements – CDX ARK Plus Online 5.0 Online]

Diagnostics

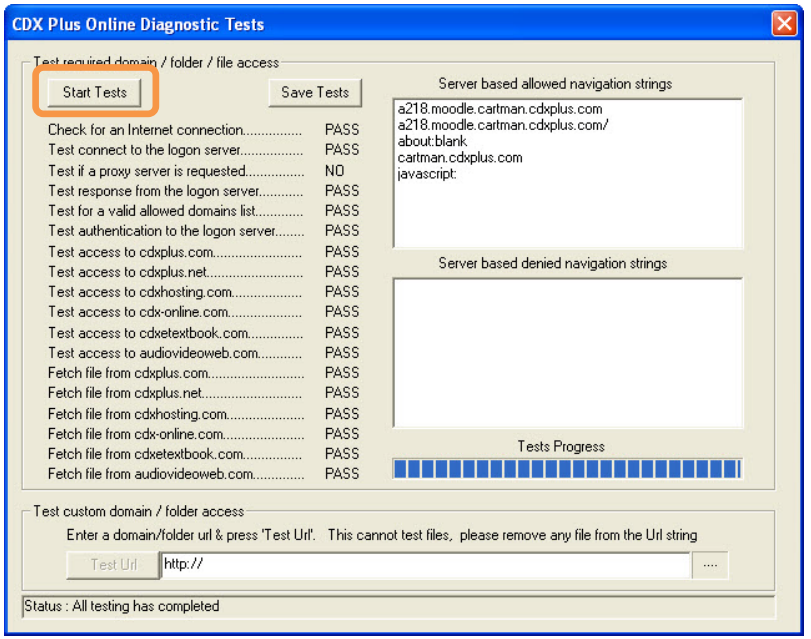
If you can download the launcher but the program doesn't work as you expect: then make sure you have entered your login details correctly and select the '**Not starting?**' system diagnostics button.

This will bring up a new box, select '**Start Tests**'. This should tell you why the program is not loading.

You can save the test results for discussion with your IT department or with CDX Support.

Please contact your IT Department first. In almost all cases the issue is internal to your IT system and only they will be able to resolve it, however the diagnostics should make this easier for them.

CDX Contact/Customer Support
Web support: **www.cdxglobal.com/support**
Email support: **support@cdxglobal.com**
Contact information: **www.cdxglobal.com/contact**



The CDX Online Launcher won't accept my Access Code

Make sure you are using the correct launcher for CDX Plus, not the launcher for an earlier CDX Program. The latest launcher for CDX ARK Plus Online 5.0 is at http://www.cdxglobal.com/launcher/

CDX Content – Video Display

I can't see video

a) On a projector connected to my laptop:

If video is visible on your laptop but not on your projected image you may need to change the video hardware acceleration settings on your PC.

1. *Click **Start**, click **Control Panel**, and then click **Display**.*
2. *Then click the **Settings** tab.*
3. *Click **Advanced**, click the **Troubleshooting** tab, and then*

*move the **Hardware Acceleration** slider to the left of the sliding bar.*

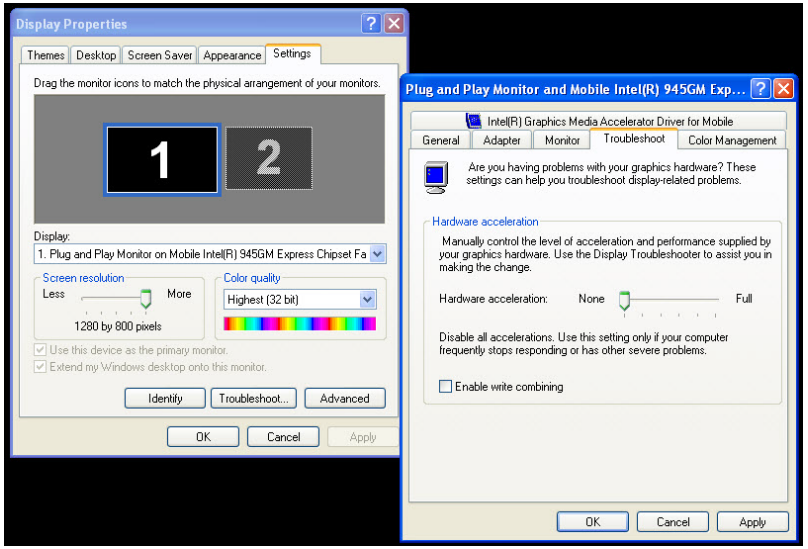
4. *Click **OK**, and then click **OK** again.*

b) On my PC:

First check if you can see any video from the internet

1. *Go to http://www.cdxetextbook.com/video/video.html and click the play button*

2. *Can you see the video? If you can't then see [Minimum Requirements – CDX ARK+ Online]*
   ***NOTE**: Your IT department must permit access to video files in the following formats: .wmv, .mpg and .mpeg and the specific domain URLs including audiovideoweb.com.*



CDX Online

I can't see my students or
I can't see the changes I made to student data or
I can't see my students' results.

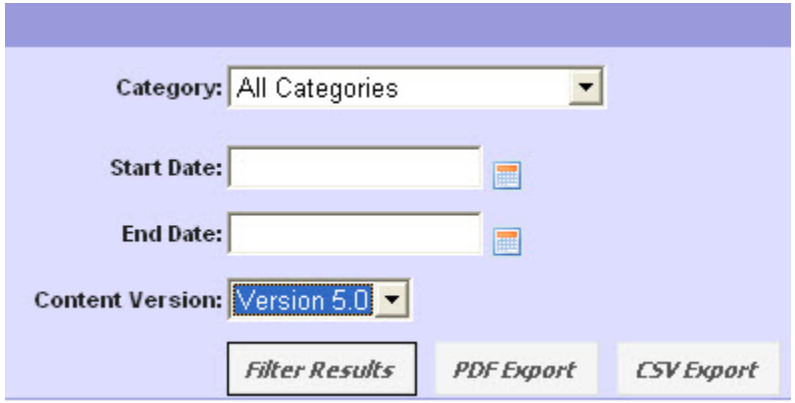
Has your CDX Supervisor entered student names and passwords?

Has your CDX Supervisor enrolled students in the Quizzes and Tests?

Has your CDX Supervisor changed the default menu? If the default menu is changed after students have started taking quizzes and tests their results will "disappear". They haven't really disappeared, but you are now looking at results for a different set of quizzes and tests. Change the default menu back to recover the original data.

Have you had students entered in one version of CDX Online e.g. V4 and then selected reports for a different version, e.g. V5? In the report menu change the

information display to the appropriate version and select “Filter Results”



I see a screen with a message like “Database Error”

Close the screen with the and log in again.

Notes: