

		<input checked="" type="checkbox"/> New Product Release	<input type="checkbox"/> Calibration Procedure
		<input checked="" type="checkbox"/> Sales Bulletin	<input type="checkbox"/> Operation Procedure
Release Date: <b>September, 2006</b>		<input type="checkbox"/> Service Bulletin	<input type="checkbox"/> Part / Accessory
Priority Status: <b>Category</b>		Model(s) Affected: <b>All Aligners</b>	<b>WA-1092</b>
<b>Pro32 4.3 Software</b>			

## GENERAL OVERVIEW

The next major release of Windows Alignment Software is here. Software version 4.3 (3-41526KC1) is being introduced on new alignment machines produced in the month of September (JZ serial number). This new release contains several new features and enhances a few existing features. It even includes a new look for the initial Splash Screen.



This software release is not a free upgrade for existing customers nor is it initially being offered for sale. It will initially only be available on new aligner sales. The software does require a new keydisk to activate. If this software is installed on an aligner as an upgrade without a keydisk, the aligner will be non-operational until a keydisk or keycode is installed.

The improvements made to the rear shim feature, which includes the addition of front-end kits, require a new vehicle spec database. Due to the large increase in data, the spec database is now a 2-disc set. Disc 1 (3-21826WC1) is the standard vehicle database and disc 2 (3-51326AC1) contains the tools and kits multimedia files. Loading an aligner with version 4.3 software, but without the new database will result in reduced shim/kit multimedia capability.

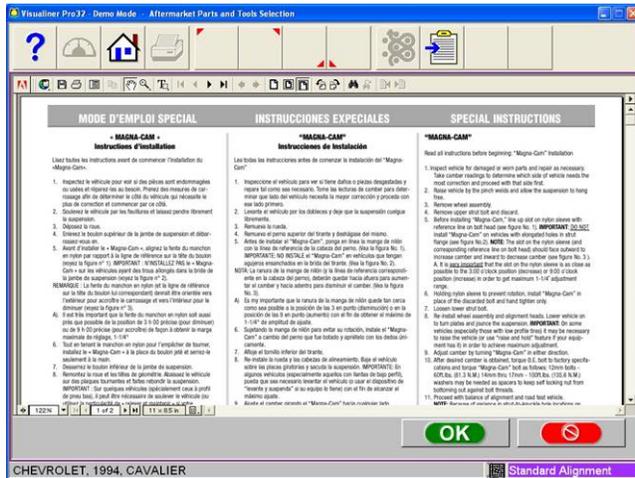
# DETAILS

## Aftermarket Parts, Kits & Tools

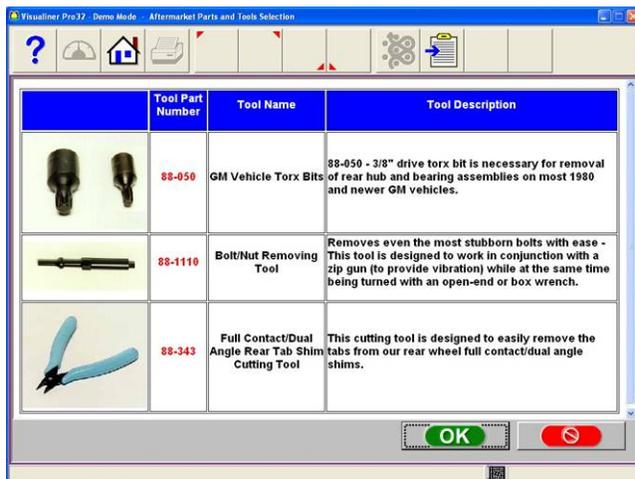
All Software Levels

Imaging & CCD

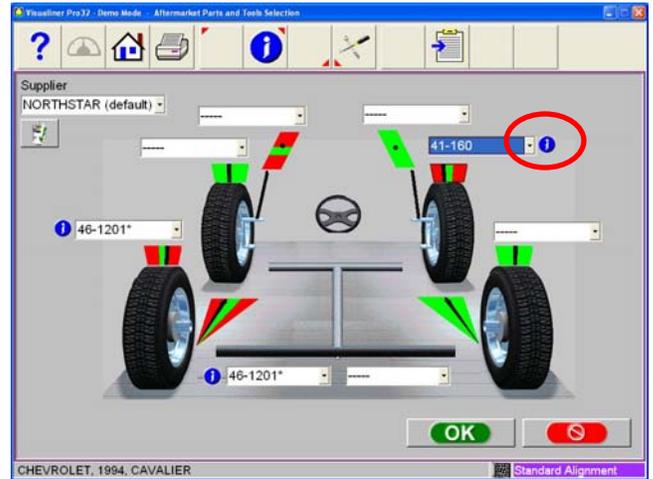
This feature is a complete overhaul of the integrated rear shim program. The shim feature now includes front-end parts and kits as well as special tools. The shim and kit database contains parts from the following suppliers: NorthStar, Specialty, NAPA, AC-Delco, Spicer, McQuay-Norris, TRW, MOOG and GM. The software allows the operator to select a preferred manufacturer. Parts selection is based on initial alignment readings.



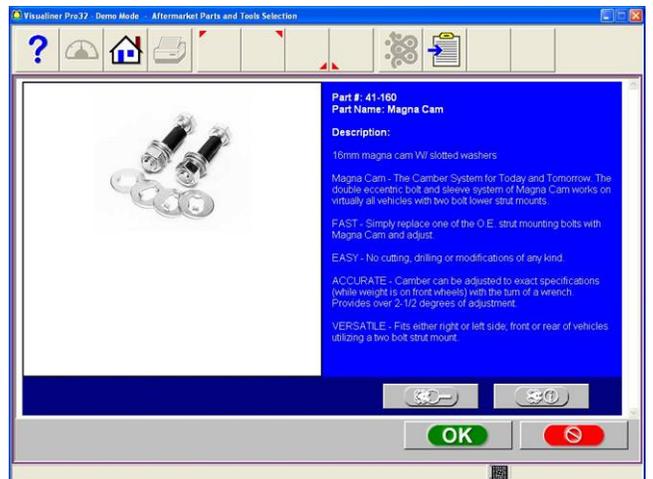
Installation Instructions



Special Tools List



Some manufacturers also have installation instructions, graphics and video. Simply clicking the "i" button next to the part number will pull up available information for that part.



Part Description and Picture

A print report is available which includes the part number, description and picture which can be used as a customer sales aid. The multimedia disc is required to view instructions, part pictures, installation videos and tools.

### ISO Certification Software

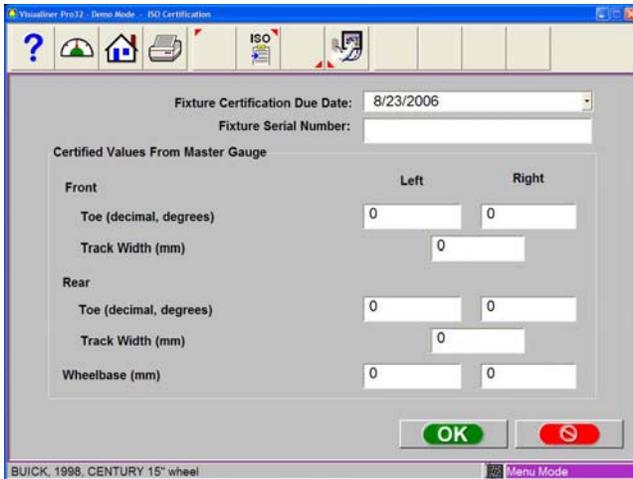
#### All Software Levels

#### Imaging & CCD

The process for performing an ISO Certification on an aligner is now included in the software. Previously an engineer or trained technician was required to perform the ISO Certification, but now the Pro32 software provides a step by step instruction. Anyone with an ISO Fixture can now perform the certification. Please note that fixtures are in limited supply at this time. Please contact Technical Support if you have a need for ISO certification.



The ISO Certification process is accessed through the Calibration menu.



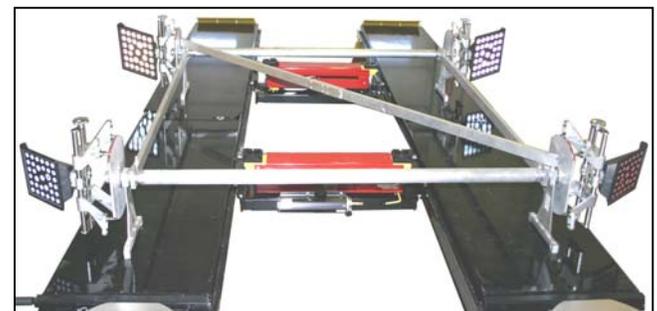
Fixture Information is entered



Additional information is entered for certificate printing



Assembly & set-up instructions are included



Assembled ISO Fixture

The software will then guide the operator through a sequence of 10 rollbacks, acquiring 10 sets of alignment data. This data is then compared to the known readings of the ISO fixture and the aligner is optimized. Finally a certification certificate is printed at the end of the process. The ISO Fixture is transported in a custom fitted case and is easy to assemble.

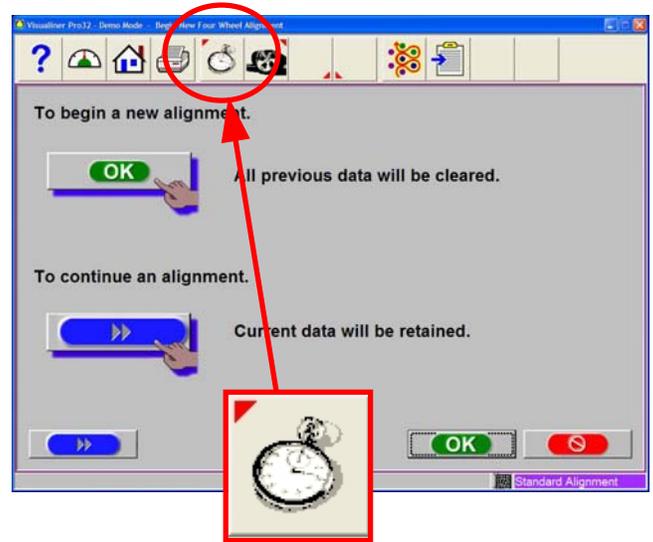
**FastAlign Feature**

*Standard & Platinum Feature*      *Imaging & CCD*

For the fastest possible alignment check, a "FastAlign" feature has been added. The feature is accessed by clicking the stopwatch icon (F5) in the *Begin New Alignment* screen. Activating FastAlign starts a Wizard similar to the standard alignment process found in the Entry Level aligner models:

1. Vehicle Selection
2. Rollback (V3D) or Runout (CCD)
3. All Readings
4. Rear Readings
5. Front Readings

Customer data is not entered, inspections are not performed and Caster/SAI is not included. If you wish to measure Caster/SAI, it must be selected from the *Measurement* screen. The process is like the meter button (F2) on the *Main Menu* with the addition of vehicle selection.



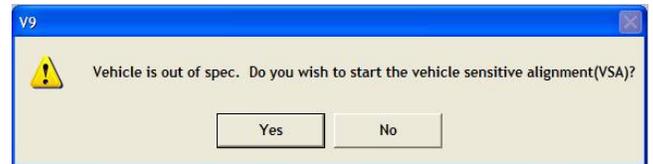
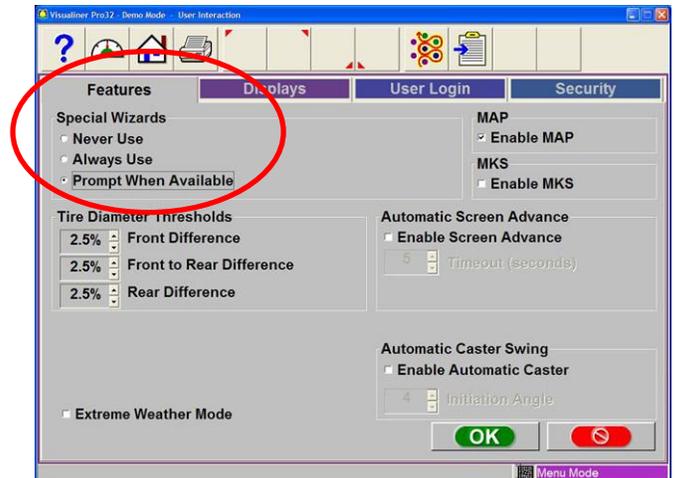
**Vehicle Sensitive Alignment**

*Platinum Feature*      *Imaging & CCD*

Vehicle Sensitive Alignment (VSA) is a feature added to help the novice user perform the correct measurement and adjustments, based on vehicle model and measured alignment. When activated, VSA dynamically creates a Wizard based on vehicle suspension type (A-Arm, Cradle, Shims, etc) and the measured alignment relative to specifications. The VAS Wizard will guide the operator through the vehicle alignment process based on best practice. VSA is part of the "OEM Wizard" selection within User Interaction Preferences. The selection group is now called "Special Wizards". Options for use are as follows:

- Never Use
- Always Use
- Prompt When Available

If "Prompt When Available" is selected, the aligner will prompt the operator with the question of starting VSA. If activated, the aligner will then automatically proceed to the appropriate measurements/adjustments for the vehicle and its present alignment condition.



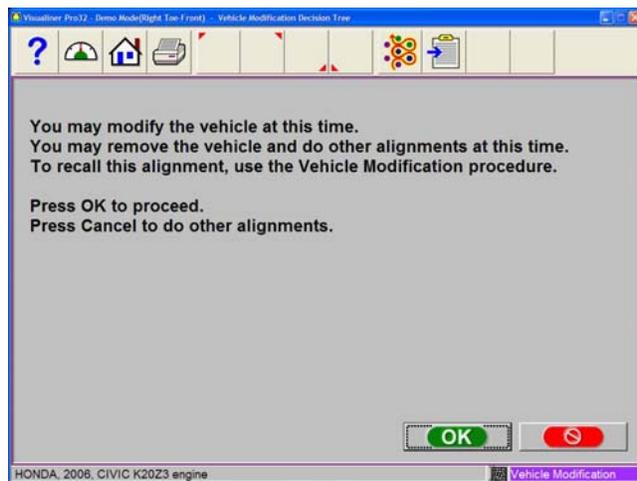
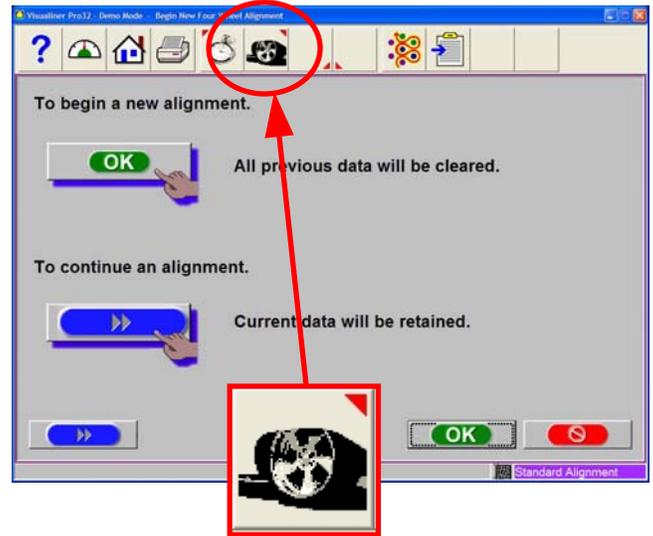
**Scrub Radius Modifications**

*Platinum Feature*

*Imaging Only*

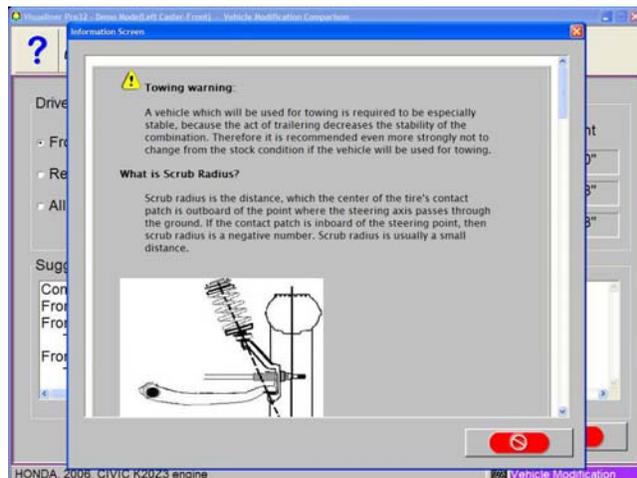
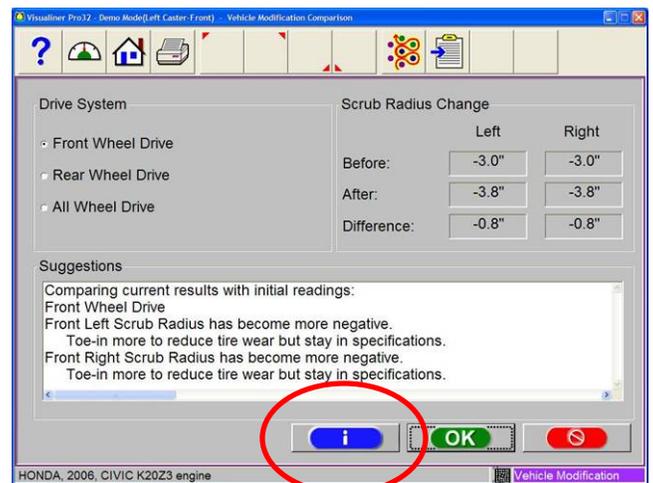
Today's trends in aftermarket modifications to wheels/tires as well as suspension components many times lead to disrupting the vehicle's intended suspension performance and handling. One significant area of change that many shops are not capable of detecting is scrub radius. Changes in a vehicle's scrub radius will affect vehicle handling as well as negatively impact tire wear. With the Image Aligner's capability to measure scrub radius, we are able to detect the effects of aftermarket modifications and therefore suggest adjustments to the vehicle's alignment. Please note that we simply "suggest" adjusting a vehicle toward one end of its OEM specification and not outside the specification. We DO NOT advise adjusting the vehicle outside OEM specifications.

The Vehicle Modification Wizard (F6) is accessed via the Begin New Alignment screen. Once started, the Wizard will look like the normal alignment wizard with scrub radius measured.



Once alignment readings are completed, the aligner will instruct the operator to make the wheel, tire or suspension modifications to the vehicle. This can be done at that time or other alignments can be done on the system and the modified vehicle returned at a later time for completion (pre-modified measurements are saved for the vehicle).

Once the second set of measurements are made on the modified vehicle, a screen with setup recommendations is displayed. The operator must select the type of drive system on the vehicle (front/rear/all-wheel). The recommendations are based on the scrub radius change as well as drive type.



There is an information "i" button which provides help on scrub radius and its affect on handling and tire wear.

The aligner continues through the normal alignment path of all readings, rear meters and finally front meters. At front meters the suggested "bias" of the front toe alignment is indicated within the meter as a dark gray shaded area. This is the area in which the front toe should be set in order to minimize the affects of the vehicle aftermarket modification.

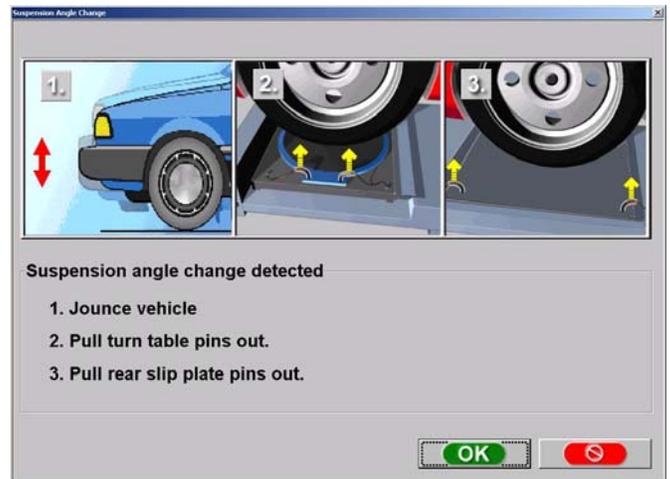


**Suspension Change Warning**

*All Software Levels*

*Imaging & CCD*

Whenever a vehicle is elevated or jacked, there is a possibility that suspension components might be restricted once the vehicle is lowered back onto the lift, resulting in measurement errors. The Suspension Change Warning feature monitors the vehicle alignment before and after elevating. If a variation is detected, then the system will notify the operator and suggest corrective action. This feature is active during runout compensation of a CCD system and during any elevated adjustment procedures on Imaging and CCD systems.



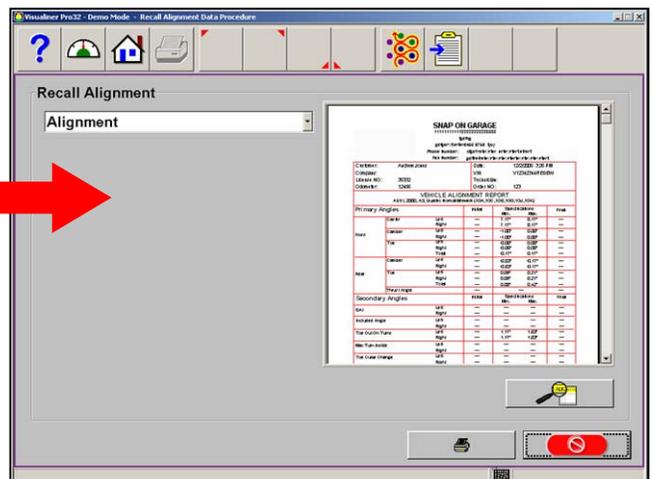
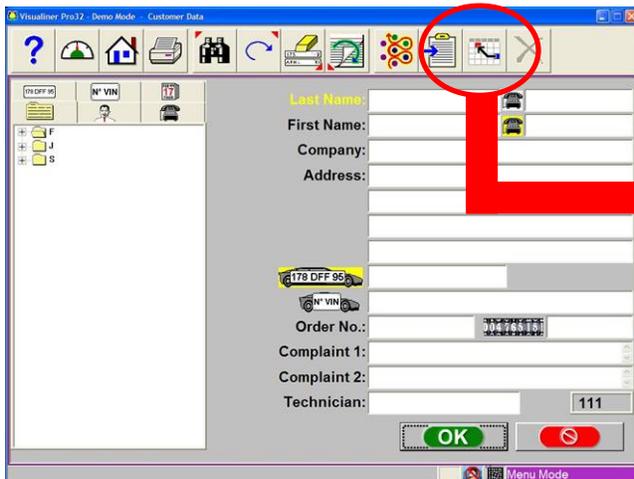
The screen will continue to pop up when clicking "OK" until the variance is resolved. Clicking the "Cancel" button will bypass the feature.

**Recall Alignment Improvement**

*All Software Levels*

*Imaging & CCD*

The old method for recalling a previous alignment involved multiple steps that could sometimes be confusing. The new method utilizes the Print Preview feature to display the alignment selected for recall. Since the Print Preview is used for viewing the alignment, the alignment results can also be printed using any of the available report formats.



### CCD Rolling Runout

All Software Levels

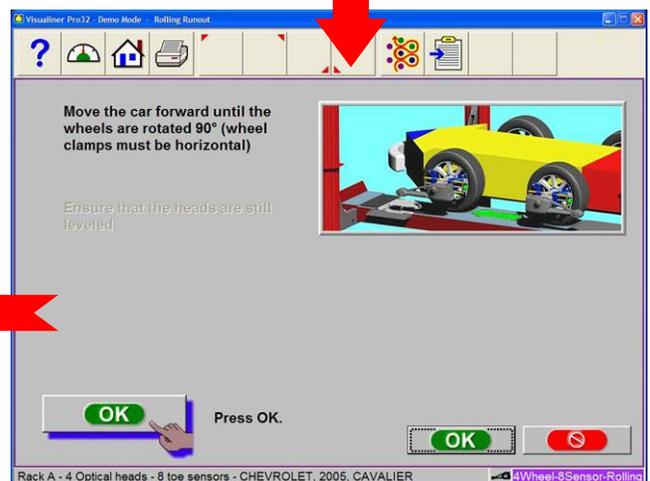
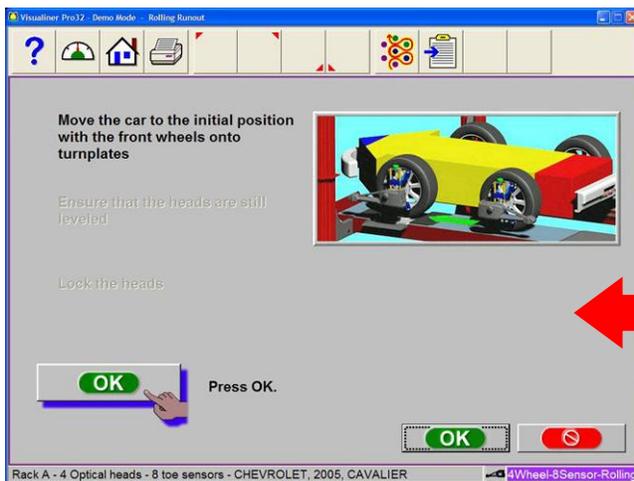
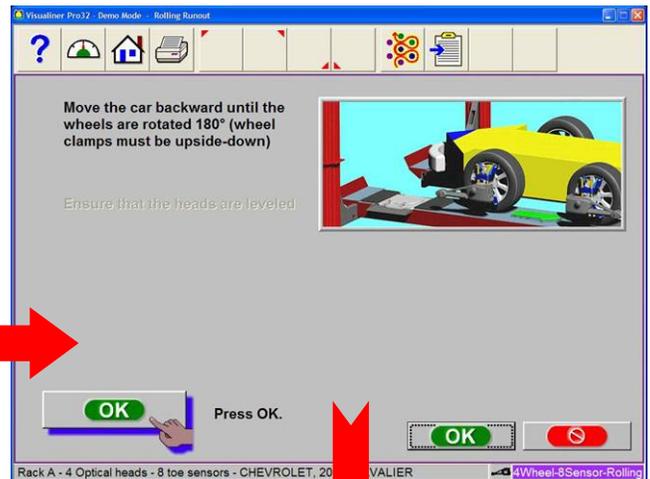
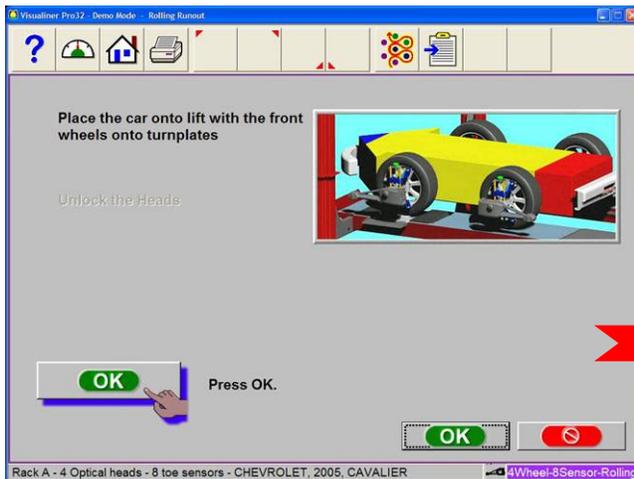
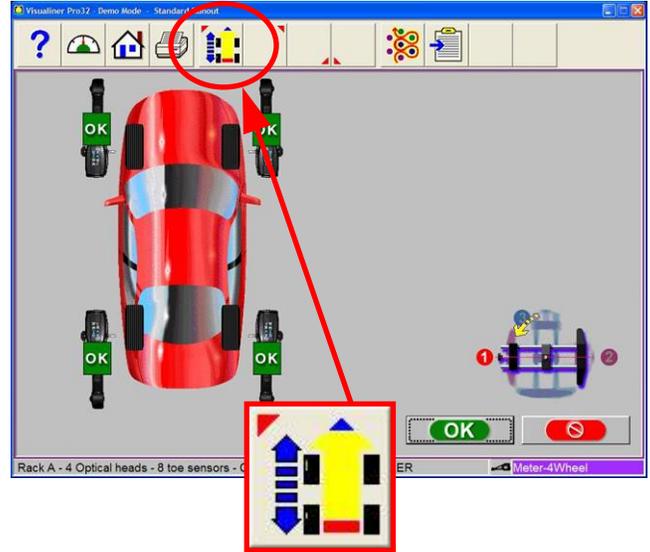
CCD Only

Rolling Runout provides an alternative to traditional elevated runout compensation on CCD systems. With Rolling Runout, the vehicle is rolled backward on the alignment surface, much like an Imaging alignment system. The CCD rolling compensation is different from that of the Imaging rollback in that the tires must go through a 180° rotation on CCD as opposed to a 35° rotation on Imaging.

The main advantage of Rolling Runout is that the vehicle suspension is not disturbed during the runout compensation. Keep in mind that a 180° rotation equates to 44"/1.12m of travel for a 28"/710mm diameter tire. A large vehicle on a short lift will likely not be compatible with Rolling Runout.

Rolling Runout is accessed via F5 on the standard runout screen. It is also listed as a separate process in the Wizard editor and can be added to any custom Wizard.

The process guides the operator through a series of steps, starting with the vehicle positioned on the turntables and ending on the turntables as shown below. There are additional screens between these steps which instruct the operator to level, lock and un-lock heads as required.

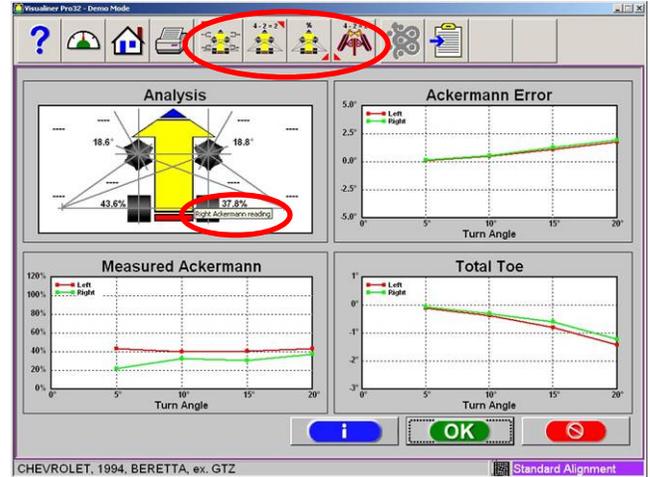
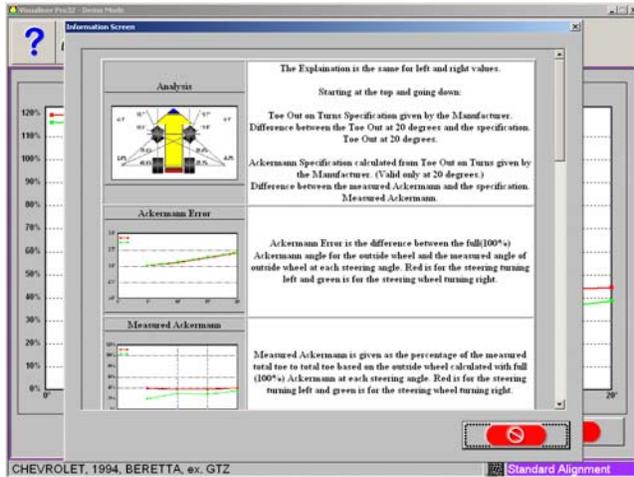


**ProAckermann Update**

*Platinum Feature Imaging Only*

Several improvements have been added to ProAckermann screens in an effort to clarify the feature as well as help educate the operator on its use. Rim width input has been added to the initial measurement screen in order to more accurately measure Ackermann. Previously the outside of the rim was used, now the rim centerline is used.

Tooltips have been added to all elements of the screen, including data points on the graphs. Each section of the screen can be zoomed to full screen via function keys F5-F8, or by mouse click in the screen area.



An information button has been added next to the OK button. Clicking on this button will pull up detailed information about ProAckermann, including information about each graph.

**Automated Ride Height Improvements**

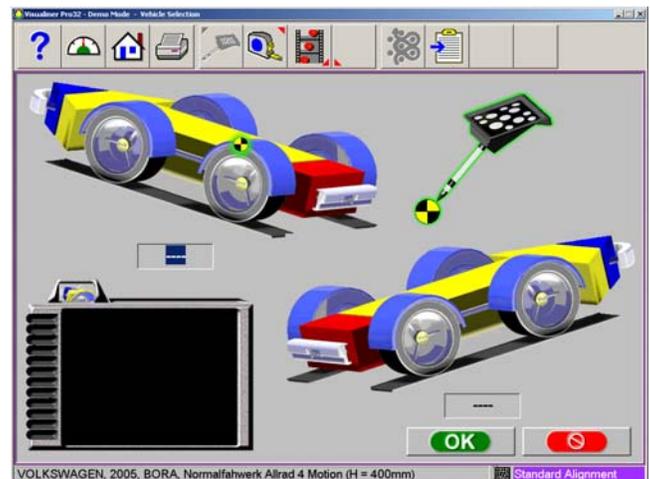
*Standard & Platinum Feature Imaging Only*

Several improvements have been made to the Imaging Aligner automated ride height measurement process.

Some vehicles only have specification for rear ride height. Previously these vehicles were not compatible with our ride height target system, but now rear-only ride height measurement is available.

For vehicles that have ride height which is referenced to the wheel center, each position measured is updated live rather than after the complete vehicle is measured.

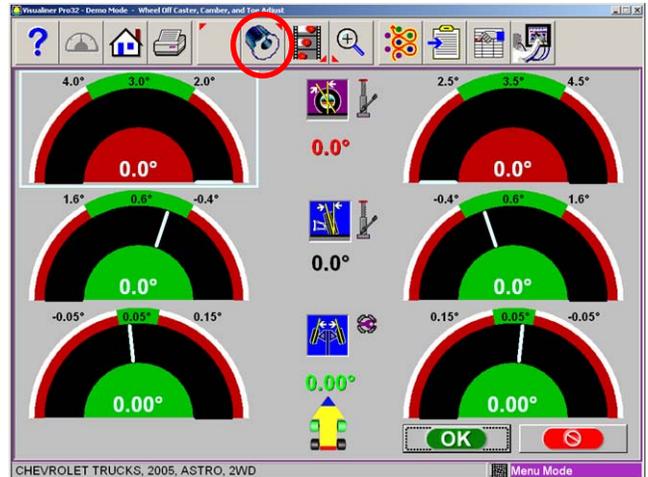
Previously it was required to completely repeat the entire ride height measurement in order to re-measure even a single point. Now and point can be re-measured after the initial pass with live updates.



**EZ Access & Front Cams Combined**

*Platinum Feature* *Imaging & CCD*

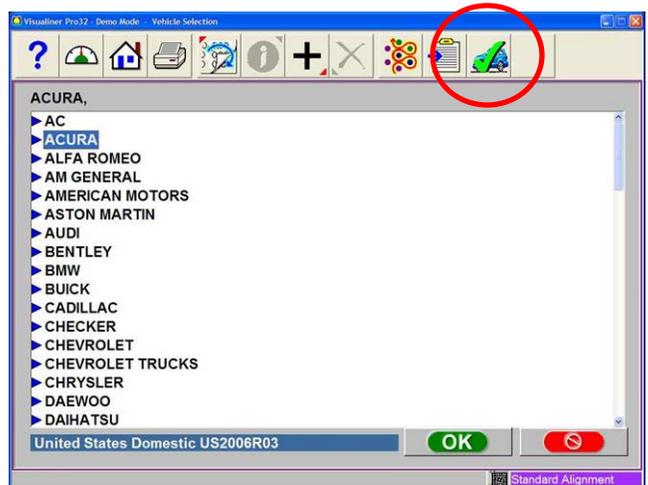
A button (F6) has been added to the EZ Access “wheels off” process which allows a quick link to the eccentric cam feature. This will allow efficient replacement and adjustment of vehicles with front caster/camber adjustment cams, such as older model Ford trucks.



**Default Vehicle Manufacturer**

*All Software Levels* *Imaging & CCD*

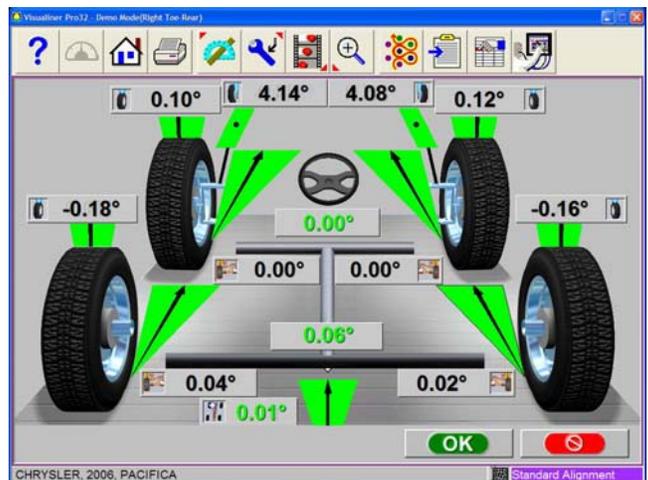
This feature allows any make of vehicle in the selected vehicle database to be set as the default choice whenever the vehicle selection screen is entered. This is done by pressing or clicking function key F11. This feature will reduce wasted time in shops which primarily service a specific make of vehicle, such as a dealership or an automobile factory.



**Thrust Angle Value on 3D All Readings Screen**

*All Software Levels* *Imaging Only*

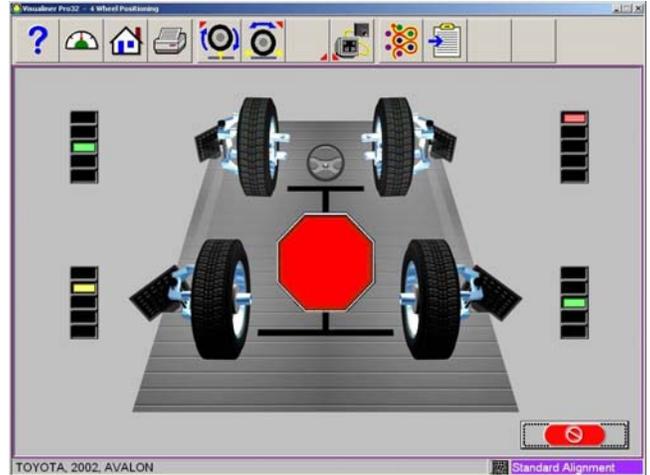
Previously the Imaging aligner 3-dimensional all readings screen contained only a needle in the lower center of the graphic to represent thrust angle. The actual measured thrust angle value is now displayed to the left of the needle for clarity.



**Rollback Wheel Stability Indicators**

*All Software Levels* *Imaging Only*

Everyone has probably experienced a rollback which seemed to take forever. You roll the vehicle back, stop sign comes up and then you wait for the roll forward arrow. The general underlying reason for this delay is target stability and our pursuit of best accuracy. Many times the vehicle will continue to creep even though you stopped pushing or pulling. Sometimes the creep is caused by an un-level rack, poor rollback surface or unpinned turnplates or rear slip plates. Regardless of the reason, the vehicle can move at a rate that is completely undetectable by the human eye but more than the aligner is willing to accept. To give the operator and/or technician an idea of what is happening, wheel stability indicators have been added to the positioning screen on the Imaging Aligner. These indicators appear as a 5-segment LED display next to each wheel on the positioning screen. The middle segment is green for good. The next segments above and below the middle are yellow and the outer segments are red. **Do not be confused – these are not level indicators.** These represent stability and indicate the direction in which the wheel is moving. The indicators only pop up if the wheels are not stable for 5 seconds following the appearance of the STOP sign. Under normal operating conditions, the indicators should not appear. The indicators can appear at any point in the positioning sequence in which the STOP sign appears.



**Dynamic Toe Resolution**

*All Software Levels* *Imaging & CCD*

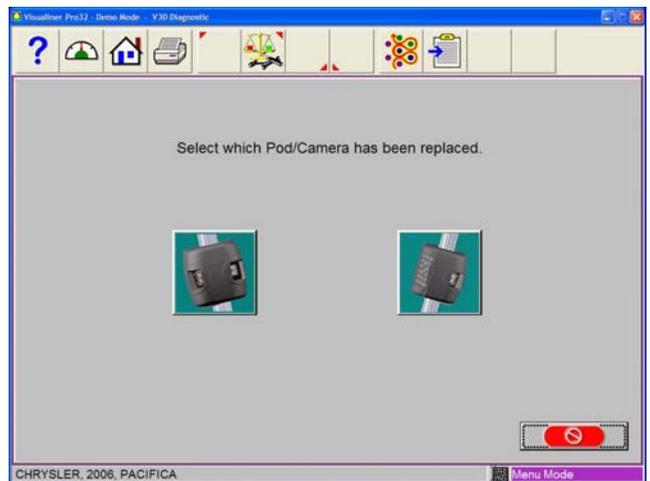
In the event of very tight toe specifications for a vehicle and the aligner being set to “normal” display resolution, the aligner will now dynamically switch to “high” resolution for toe measurements. This feature is dependent on the selected vehicle specs and requires no interaction by the operator. Without this feature it might be impossible to achieve in-spec results for narrow toe spec vehicles on an aligner set for normal display resolution.

**Arago Single Camera Replacement**

*Platinum Feature* *3-camera Imaging*

In the past it was required to replace a complete camera pod on the 3-camera Imaging Aligner. Now we have the capability to replace a single camera on either the Cam-Cam pod or the Cam-Target pod. This feature will save significant time and cost when servicing a camera on a 3-camera aligner. RCP Check is still the process for calibrating the system after camera replacement. However, there is now a new screen in which you must identify the pod containing the new camera.

The RCP Check process on 3-camera models also now requests a system reboot after completing the RCP Check process. Reboot has always been recommended in service documentation, but now the system pops up a reminder for the technician.



**Additional Changes/Enhancements/Fixes**

- 3-camera imaging system displays a warning icon when calibration target is blocked
- 3-camera imaging system will not allow motor calibration before camera identification is completed
- 3-camera imaging system will no longer erroneously display the wheel roll warning when in 2-wheel alignment mode
- Print logos now support JPEG file format
- Added sound at completion of each vehicle positioning step (rollback)
- Fixed printout to show mm toe readings if selected
- Updated language translations
- Added Hebrew Language
- Corrected Japanese language translation errors
- Added decimal inch and mm display units for the optional digital remote display
- Fixed color for ride height measurements on the color alignment report
- Added custom language selection for future language additions