

Gage Control:
Gage Calibration Management Software (Version 2.9.5)
User's Manual
www.gagecontrol.com

Getting Started

At *Gage Control* we are committed to ensuring your software experience is: **easy, simple, no stress**.

What makes our software so effective and user-friendly?

- Our report generator (**Deep Blue**) can query and generate thousands of specific reports and requires little end-user training.
- Gages that require calibration display with just **one** click of a button.
- Barcode labels can be generated directly to label printers.
- Our user interface is **ECONOMICAL**. Entering new gages and calibrating existing gages are quick, easy, and straightforward.
- Our software allows you to go PAPERLESS!!—scan and attach calibration procedures and outside calibration certifications directly to the software.
- Copy/Clone gage functionality allows you to save time and ensure continuity.
- *Gage Control Software* allows for multiple concurrent users and utilizes a SQL Server database.
- Our user manual and all implementation documentation are thorough, intuitive and easy-to-understand.
- New employees require very little training and supervision when learning to calibrate, transfer, or view gages.

Our User's Guide is designed to '**get you up and running**' as quickly and easily as possible. It is you and your shop's decision how (and to what extent) you need to utilize the powerful capabilities of *Gage Control Software*. We strongly recommend you familiarize yourself with the specific features of the software your company requires and carefully read the sections of the **User's Guide** that explains these features.

Table of Contents:

Electronically Converting Legacy Data.....	5
Manually Converting Legacy Data.....	7
Logging into the Software.....	8
Table Maintenance:	
Overview—Adding a record to a table.....	10
Company Set-up Table.....	10
Calibrators Table.....	12
Where Calibrated Table.....	13
Gage Status Codes Table.....	14
Units of Measure Table.....	15
Specifications Table.....	15
Work Instructions Table.....	15
Types Table.....	15
Gage Description Table.....	16
Departments Table.....	16
Locations Table.....	16
Manufacturers Table.....	17
Employees Table.....	17
Shifts.....	17
Calibration Vendors Table.....	17
Offsite Locations Table.....	17
Calibration Standards Table.....	17
Emailing/Text Messaging Table.....	18
User-Defined Fields.....	19
Find and Replace Utility.....	19

Gage Overview Screen.....	20
Adding a Gage.....	23
Guide to Navigating <i>Gage Calibration Management Software's</i> 'Add Gage' Feature.....	27
Adding Calibration Information.....	29
Understanding the 'Save Attributes' button.....	31
Copying (or Cloning) a Gage.....	32
Transferring a Gage.....	33
The Transfer Gage Screen.....	35
The Return Gage/Edit Number of Days Screen.....	36
The Deep Blue Inquiry Screen/Report Generator.....	37
An Overview of Gage History and the Calibration History Report.....	39
Understanding the Dashboard.....	40
The Gage Master List.....	42
A Note on Reporting Functionality.....	42

Electronically Converting Legacy Data

As a benefit to our customers, our company offers data conversion services. If your shop is able to provide current calibration data in a spreadsheet format (e.g. Microsoft Excel™), we will be able to accurately convert your data and provide you with a customized database. *Gage Control: Gage Calibration Management Software* will convert current gage information, but we are unable to convert your gage history.

- Your current gage data spreadsheet should contain (at least): gage IDs, gage descriptions (e.g. caliper, micrometer, and thread ring gage), days between calibrations, next calibration dates, and current location information (e.g. Final Inspection, Calibration Lab, CNC).
- Once you have sent us your data, we recommend you DO NOT make any changes or updates to your data until we have completed the conversion. While we are converting your data, you may want to take this opportunity to initiate other activities (e.g. a physical inventory of your gages).
- While we are converting your data, do not attempt to independently create (i.e. establish) your company in *Gage Control: Gage Calibration Management Software*. The conversion database we provide will include your company information and all other data necessary to get you started.
- You may also want to take this opportunity to clean up (or scrub) your data (e.g. standardize spelling) before you forward it to us.

Below is an example of calibration data. It is important to label each column of data (e.g. Gage ID, Description, Days between Calibration, etc...). The easier it is for us to identify your data, the quicker we can convert it.

	A	B	C	D	E	F
	Gage ID	Description	Day of Next Cal	Days Between Calibration	Manufacturer	Location
2	5554	Micrometer	1/1/2012	120	Mitutoyo	Final Inspection
3	5555	Micrometer	2/6/2012	120	Starret	Calibration Lab
4	5556	Caliper	2/23/2012	120	Starrett	CNC
5	5557	Optical Comparator	1/4/2011	365	Deltronic	Final Inspection

Your data should contain (at least): gage IDs, gage descriptions (e.g. caliper, micrometer, and thread ring gage), days between calibrations, next calibration dates, and current location information.

You may want to standardize spelling (e.g. change Starret to Starrett)

If you are unable to provide data in spreadsheet format, we offer specialized/customized conversion services.

Please fill out this form and include it when providing us with your conversion data:

Contact Person at your Company (in case we have any questions) _____

Company Name: _____

Address 1: _____

Address2: _____

City: _____ State: _____ Zip: _____

Telephone1: _____

Telephone2 (Optional): _____

Fax1: _____

Fax2 (Optional): _____

Email: _____

Main Standard (Optional): _____

Manually Converting Legacy Data

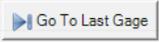
There will be instances where we will be unable to electronically convert your data (e.g. your shop is currently using index cards or a manual ledger to record gage information). Simply put: *Manually Converting Legacy Data* requires transferring current gage information (including the date of next calibration) from your current manual method of tracking to the *Gage Calibration Management Software* program by manually keying (or 'typing in') current gage information.

Step 1—Manually populating table information:

Review the following tables and determine which tables are appropriate for you and your company's calibration tracking needs. Before you begin entering specific information for individual gages, enter as much information in these tables as possible. Taking time to understand and populate these tables—in advance—will allow for easier gage entry:

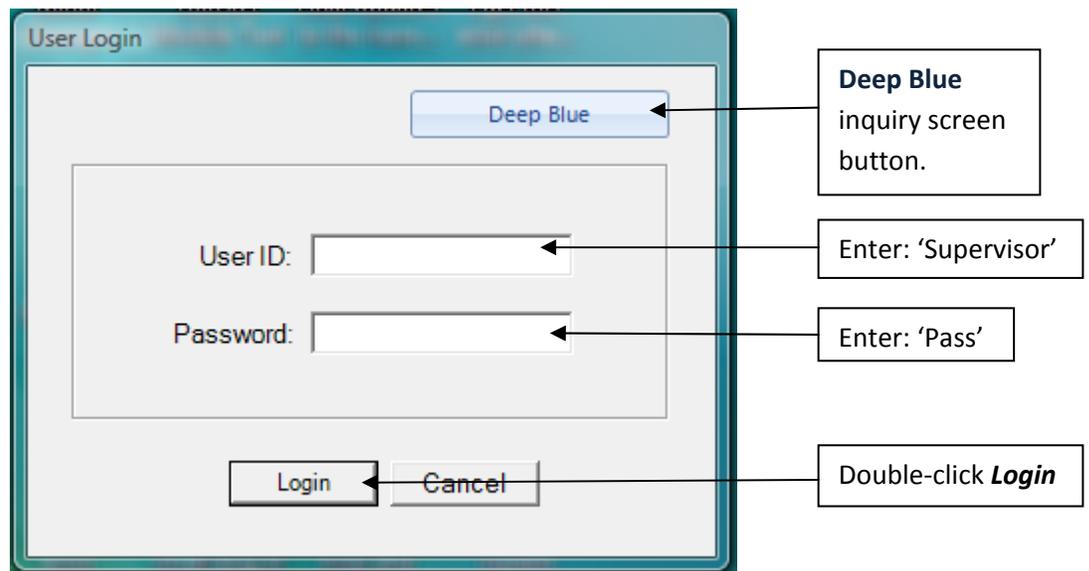
- Update Company: see page 10
- Calibrators: see page 12
- Where Calibrated: see page 13
- Units of Measure: see page 15
- Specifications: see page 15
- Work Instructions: see page 15
- Types: see page 15. Types are an integral part of Gage Descriptions.
- Gage Descriptions: see page 16
- Departments: see page 16
- Locations: see page 16
- Manufacturers: see page 17
- Employees: see page 17
- Shift: see page 17
- Calibration Vendors: see page 17
- Offsite Location: see page 17
- Calibration Standards: see page 17

Step 2—Manually converting your existing gages: Important Note—during the initial data conversion, you will need to disable the gage auto numbering feature (see page 11). The gage ID physically etched on your gages should be recorded in the *Gage Calibration Management Software* program.

- ***We suggest you review each of the following fields, and then print pages: 22-26.***
- **Highlight** the fields that are important to you and your company.
- To ensure uniformity when entering gages, use this **highlighted** printout as a guide during the initial phase of your implementation.
- It is recommended that you enter 'Calibration Standard' gages first (so you can reference the 'Gage ID' when populating the *Calibration Standards* table).
- Review and follow directions for adding a gage (see pages 22-26). Once the individual gage has been added and calibrated, click the 'Go To Last Gage' button,  and then update the 'Date of Next Cal.' date with the actual date of next calibration.

Logging into the Software

Double-click the *Gage Control: Gage Calibration Management Software* icon on the user's Desktop. This screen will appear:



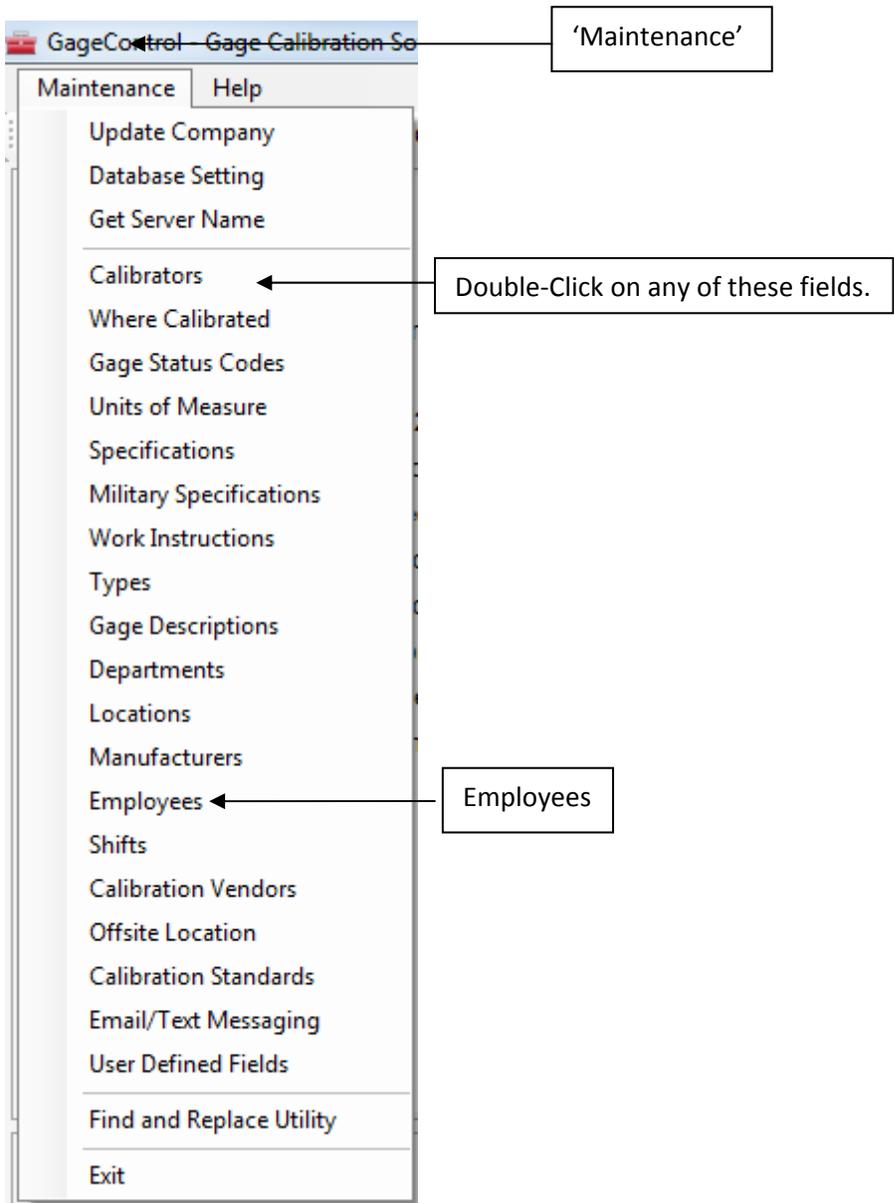
Enter 'supervisor' in the **User ID:** field. Then enter 'pass' in the **Password** field. Double-click the **Login** button. *'User Login' fields are not case sensitive.*

The *Gage Calibration Management Software* Dashboard will now display on your screen.

***Gage Calibration Management Software* comes with the 'Supervisor' user. You cannot inactivate the 'Supervisor' user, but we suggest changing the password.**

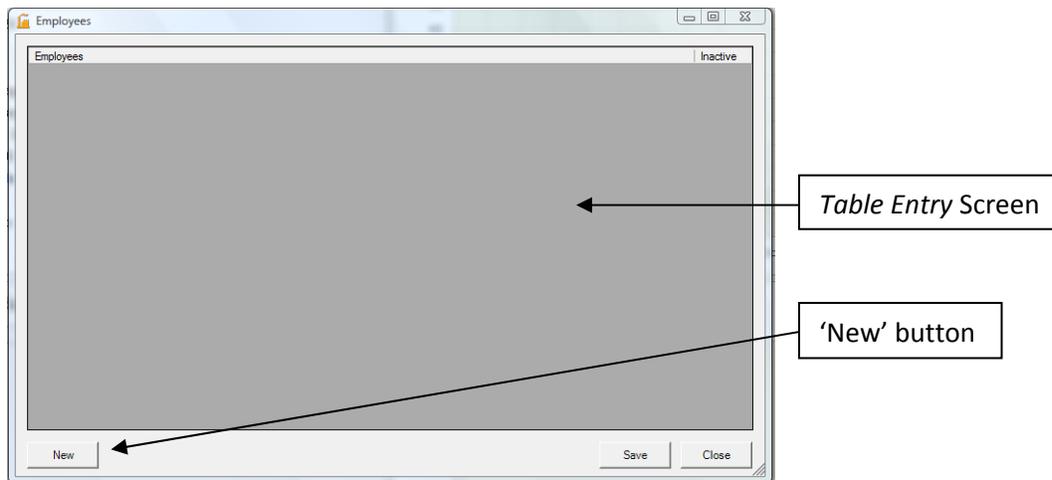
Table Maintenance

In the upper left hand corner of the software, click on 'Maintenance' Maintenance and this screen will appear:



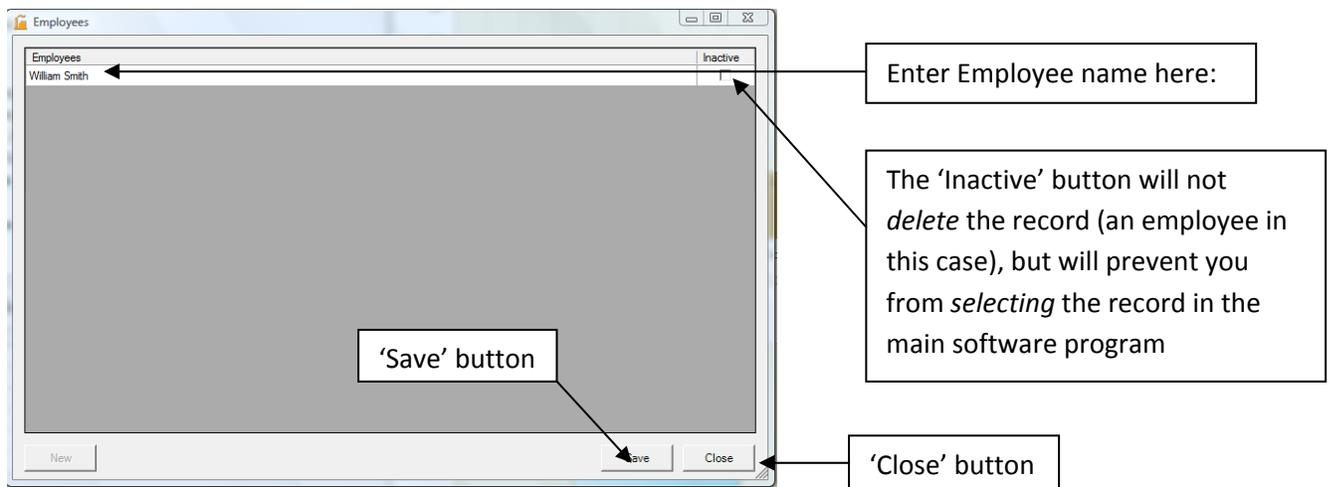
Overview—Adding a Record to a Table:

Place your cursor over any field in the **Maintenance Menu** (I'm using 'Employees' as an example) and left-click your mouse. The *table entry* screen will now be visible:



Click the 'New' button to add a new record (in this case a new employee):

A blank line will appear. Enter information in this field (e.g. under 'Employees') and click the 'Save' button:



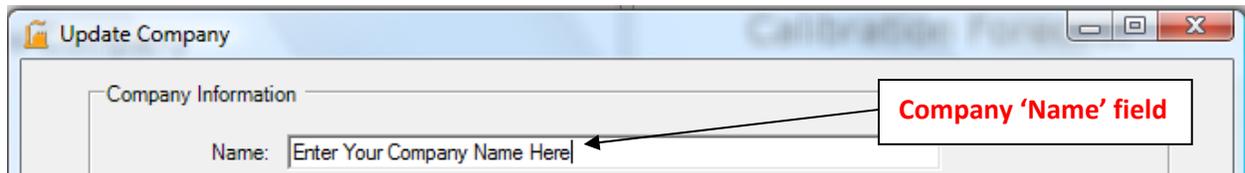
At this point, the operator can either click on the 'New' button to add a new record (e.g. employee name) or click the 'Close' button to exit the screen (without updating the database).

Clicking the 'Inactive' field will not *delete* the record, but will prevent you from *selecting* the record in the main software program.

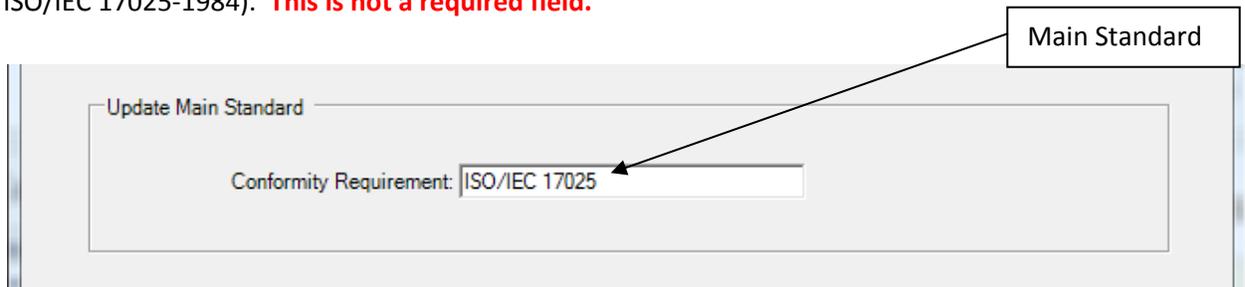
Company Setup Table:

The *Company Setup* Screen is divided into three sections:

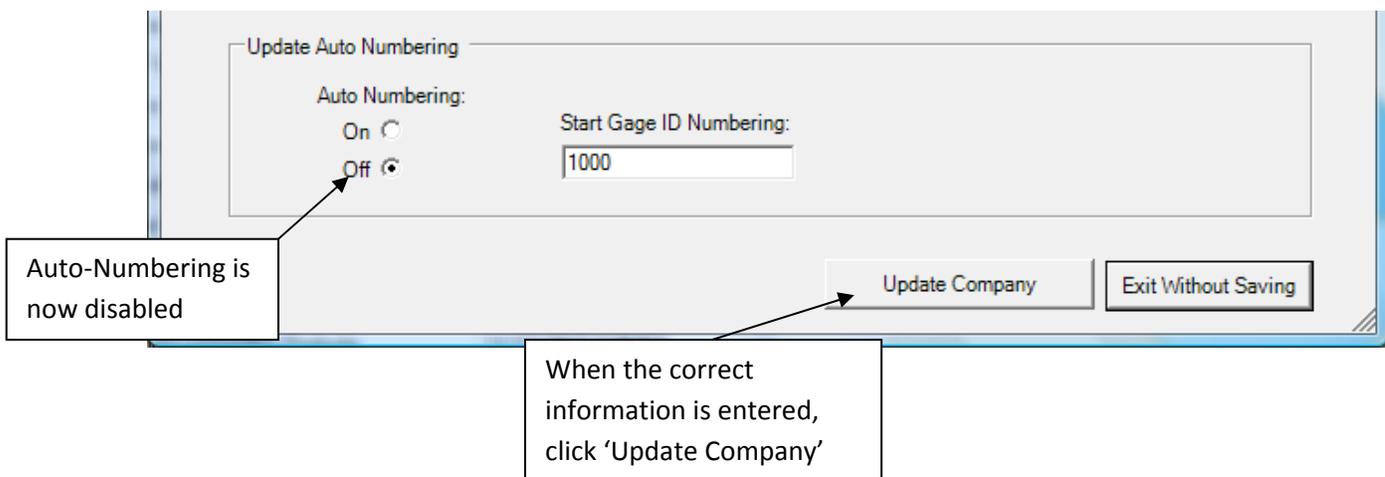
- **Company Information**—this section holds address and contact information for your company.
- **You are required to enter your company name in the 'Name' field.**



Update Main Standard—this section holds the main standard used by your calibration laboratory (e.g. ISO/IEC 17025-1984). **This is not a required field.**



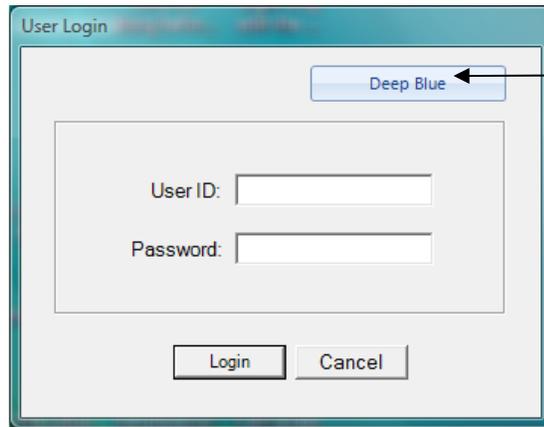
Update Auto Numbering—this section *either* allows *Gage Calibration Management Software* to sequentially number Gage IDs, *or* requires your calibrators to determine gage IDs independently (by some other method). If *Update Auto Numbering* is selected, *Start Gage ID Numbering* is a required field. For example: if 1000 is entered in the *Start Gage ID Numbering* field, the first gage ID will be 1000, the second will be 1001, etc... If the *Update Auto Numbering* field is not selected, the software will prompt the calibrator to enter a unique alphanumeric Gage ID. If you are manually converting data (see pages: 7-8), you will need to turn auto numbering off to enable you to convert your company's existing gage data.



Calibrators Table:

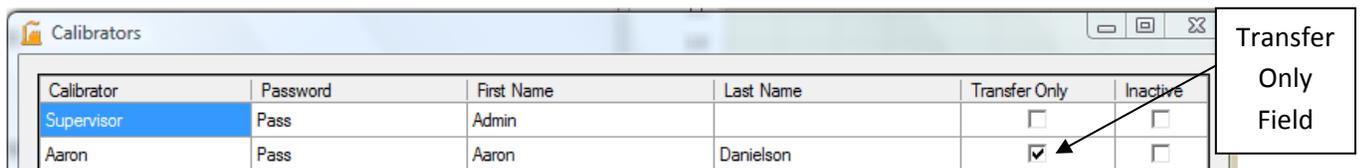
The 'Calibrators' table determines an individual user's access to the software (i.e. security). *Gage Calibration Management Software* has four levels of security: *Read Only*, *Transfer Only*, *Calibrator Access*, and *Supervisor Access*.

- 1) **Read Only**—*Gage Control: Gage Calibration Management Software* allows employees 'Read Only' access to the software. Specifically, **it allows users to view gage information, but does not allow them to add, change, or update information**. You need to install the *Gage Control: Gage Calibration Management Software* program on your employee's computer for them to access the 'Read Only' program (**Deep Blue**).



Once the Software is installed the user can double click the *Gage Calibration Management Software* icon on their desktop. The 'User Login' screen will appear. The 'view only user' only needs to double click the **Deep Blue** icon to view 'read only' data

- 2) **Transfer Only**—*Gage Control: Gage Calibration Management Software* can limit a user's access to the 'Transfer Gage' module (see page 32) and the 'Read Only' program (**Deep Blue**). 'Transfer Only' status allows an operator to transfer and return gages (and also view gage information by clicking the **Deep Blue** icon). To add a 'Transfer Only' operator, access the 'Calibrator' screen and click the 'New' button. A blank line will appear. In the new blank line, add a name in the Calibrator field, a Password, a First Name, and a Last Name. Clicking the 'Transfer Only' field will limit the operator's access (i.e. the operator will only have access to the Transfer Gage Module and the **Deep Blue** inquiry screen).



Calibrator	Password	First Name	Last Name	Transfer Only	Inactive
Supervisor	Pass	Admin		<input type="checkbox"/>	<input type="checkbox"/>
Aaron	Pass	Aaron	Danielson	<input checked="" type="checkbox"/>	<input type="checkbox"/>

- 3) **Calibrator Access**—your calibrators will have access to the entire software program with the exception of the 'Company' table, 'Calibrators' table, the 'Database Setting' table, 'User Defined' fields, and the 'Find and Replace' utility. To add a 'Calibrator', access the 'Calibrator' screen and click the 'New' button. A blank line will appear. In the new blank line, add a name in the 'Calibrator' field, enter a Password, a First Name, and a Last Name. **DO NOT** Click the 'Transfer Only' field.
- 4) **Supervisor Access**—the Supervisor is the only user with total/complete access to the software program. Your calibrators will have access to the entire software program with the exception of the 'Company' table, 'Database Setting table', 'Calibrators' table, the 'Database Setting' table,

'User Defined' fields, 'Email/Text Messaging' and the 'Find and Replace' utility. The supervisor is the only user with access to the 'Company' table, 'Database Setting table', 'Calibrators' table, the 'Database Setting' table, 'User Defined' fields, 'Email/Text Messaging' and the 'Find and Replace' utility. *Gage Calibration Management Software* comes preloaded with the 'Supervisor' user. **The 'Supervisor' user cannot be flagged as inactive**, but we suggest changing the password.

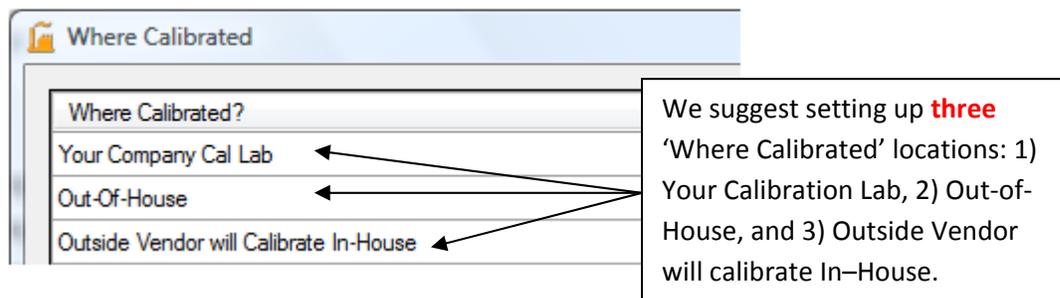
The 'Supervisor' is the only user with access to the 'Company' table, the 'Calibrators' table, the 'Database Setting' table, 'User Defined' fields, and the 'Find and Replace' utility.

For tracking and calibration purposes, it is strongly recommended that you establish individual IDs for all calibrators and operators that transfer gages.

Where Calibrated? Table:

This screen allows you to link calibration locations to individual Gage IDs. Most calibration labs do not have the equipment (or training) to calibrate **all** their own gages. This table allows you to identify gages **either** calibrated by your calibration lab **or** gages where the calibration is outsourced (i.e. the calibration is performed by an outside vendor). This information is helpful for calibration labs that:

- Calibrate gages on site (in your company's calibration lab). If this is applicable, enter your shop's calibration lab as a location.
- Send gages to outside calibration services to be calibrated. If this is applicable, enter 'Out-of-House' as a location.
- Schedule outside calibration services to travel to your shop to calibrate equipment. For example: it is impractical to send a large surface plate offsite to be calibrated. If your shop schedules outside calibration services to calibrate onsite (at your shop), enter 'Outside Vendor will Calibrate In-House' as a location.

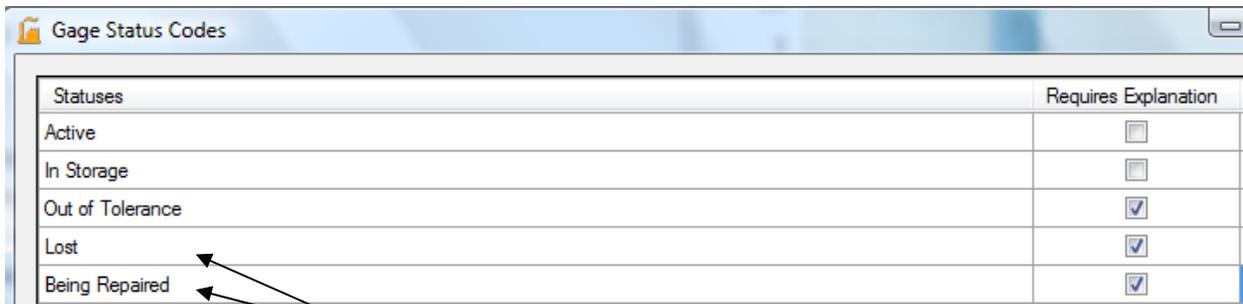


Gage Status Codes Table:

'Gage Status Codes' will determine the status of an individual gage. Gage Status codes determine if gages are included in the current calibration cycle (e.g. *Active gages*), or have been removed (because of damage, wear, loss, etc...). *Gage Calibration Management Software* comes with three status codes: 'Active', 'In Storage', and 'Out of Tolerance.' Other gage status codes may be added (e.g. 'Lost', 'Damaged', Employee No Longer with Company, and 'Being Repaired').

- **Active Gages**—are gages that are included in the calibration cycle.
- **In Storage Gages**—this code is intended to hold gages that have been acquired by your company, but not yet calibrated (i.e. not included in the calibration cycle). For example: a competitor goes out of business and your company acquires their gages in bulk. It may not be practical to calibrate every gage upon acquisition, but you may want the gages to be visible throughout the software (in case one is needed).
- **Out of Tolerance Gages**—are gages that are in an 'Out of Tolerance' condition. If a gage status is changed to 'Out of Tolerance' the software will prompt your calibrator for a brief explanation of the 'Out of Tolerance' condition.

Other Gage Status codes can be added. **These gage status codes can only be used to remove gages from the calibration cycle.** Examples of these types of codes are: 'Lost', 'Damaged', Employee No Longer with Company, and 'Being Repaired'. When a gage is removed from the calibration cycle, the software will require an explanation (e.g. "Employee no longer works at facility").



Statuses	Requires Explanation
Active	<input type="checkbox"/>
In Storage	<input type="checkbox"/>
Out of Tolerance	<input checked="" type="checkbox"/>
Lost	<input checked="" type="checkbox"/>
Being Repaired	<input checked="" type="checkbox"/>

Examples of Gage status codes that can be added

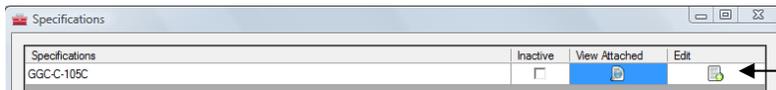
Units of Measure Table:

Units of Measure—are defined as standard measures for a physical quantity. Examples of ‘Units of Measure’ are: Inches, Millimeters, Degrees, Foot LBS, etc... The Unit of Measure: ‘Inches’ comes preloaded with the software.

UNITS OF MEASURE CAN BE A HELPFUL TOOL WHEN SEARCHING FOR A PARTICULAR GAGE. For example: the **DEEP BLUE** search application can search for all metric thread ring gages (see page 36).

Specifications Table:

Specifications (or Standards)—are specific instructions that ensure the characteristics and performances of gages are consistent (e.g. Federal Specification GGG-C-105C for calipers and micrometers). Documents can be attached to individual specifications for reference purposes.

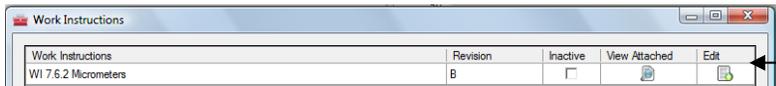


Specifications	Inactive	View Attached	Edit
GGC-C-105C	<input type="checkbox"/>		

PDF documents can be linked to individual specifications by clicking the ‘Edit’ button

Work Instructions Table:

Work Instructions—are controlled documents that provide validated methods for evaluating and verifying performances of test equipment. Work instructions can be tracked by revision letters or numbers that mark additions/changes/updates to the individual work instructions. Documents can be attached to individual Work Instructions for reference purposes.



Work Instructions	Revision	Inactive	View Attached	Edit
WII 7.6.2 Micrometers	B	<input type="checkbox"/>		

PDF documents can be linked to individual work instructions by clicking the ‘Edit’ button

Types Table:

Types—further define gages. For example Micrometers can be further defined by these types: Outside Diameter, Inside Diameter, Depth, Bore, Blade, Pitch, Anvil, etc... Other examples of types are Unified Screw Threads and their classes (UN2A, UNC2A, etc...).

TYPES CAN BE A HELPFUL TOOL WHEN SEARCHING FOR A PARTICULAR GAGE. For example: the **DEEP BLUE** search application can search for all thread ring gages that are calibrated for UN2B threads. Types can also help you quickly view and locate all **Bore** Micrometers (see page 36).

Types can also flag gages that require a parallelism check during calibration.



Parallelism	<input type="checkbox"/>
-------------	--------------------------

The ‘Types’ table works collectively with ‘Gage Descriptions’ (see: ‘Gage Descriptions’ on the following page).

Gage Description Table:

Gage Description—is the key identifier of gages. Examples of ‘Gage Descriptions’ are: Micrometer, Caliper, Indicator, and Thread Ring Gages. ‘Gage Description’ also allows you to link default ‘Work Instructions’, ‘Specifications’, and ‘Days Between Calibrations’ to each Gage Description (**these fields are not required and may be left blank**). The ‘*Edit*’ field can be used to link ‘Types’ to individual Gage Descriptions. For example: you may want to link the ‘Type’: **Bore** to the ‘Gage Description’: **Micrometer**. *Gage Control: Gage Calibration Management Software* allows you to select from a list of ‘Types’ for each Gage Description. For example, micrometers may have multiple Types: Outside Diameter, Inside Diameter, Anvil, Depth, Blade, Pitch, and Bore.

TYPES CAN BE A HELPFUL TOOL WHEN SEARCHING FOR A PARTICULAR GAGE. For example: the **DEEP BLUE** search application can search and display all **Depth** Micrometers.

The screenshot shows a window titled "Gage Description" containing a table with the following columns: Gage Description, Work Instructions, Specifications, Days Between Cal., Inactive, and Edit. The table lists various gage types such as Optical Comparator, Set Plug Gage, Set Ring Gage, Thread Plug Gage, Thread Ring Gage, V Block Set, Optical Parallel Set, Tensile Tester, Mag Particle Tester, Surface Plate, Hex Plug Gage, Indicator, Micrometer, and Caliper. Each row has a corresponding 'Days Between Cal.' value, an 'Inactive' checkbox, and an 'Edit' icon. Two callout boxes provide additional information: one points to the 'Edit' icon, stating "The 'Edit' field allows you to select 'Types' for a 'Gage Description'", and another points to the 'Days Between Cal.' column, stating "If the 'Days Between Calibration' varies (depending on the gage and the amount it is used), you may want to leave the 'Days Between Cal.' field blank."

Gage Description	Work Instructions	Specifications	Days Between Cal.	Inactive	Edit
Optical Comparator	Nav Air 17-20 MD - 63	ANSI NCSL Z540-1	365	<input type="checkbox"/>	
Set Plug Gage	WI 7.6.14 Thread Plug Gage	ANSI BI.2/H28	365	<input type="checkbox"/>	
Set Ring Gage	WI 7.6.13 Set Ring Gage	B89.1.6M	365	<input type="checkbox"/>	
Thread Plug Gage	WI 7.6.14 Thread Plug Gage	ANSI BI.2/H28	365	<input type="checkbox"/>	
Thread Ring Gage	WI 7.6.13 Thread Ring Gage	ANSI BI.2/H28	270	<input type="checkbox"/>	
V Block Set	WI 7.6.22 V Block Set		730	<input type="checkbox"/>	
Optical Parallel Set			730	<input type="checkbox"/>	
Tensile Tester	WI 7.6.20 Tensile Tester		365	<input type="checkbox"/>	
Mag Particle Tester	JS&P-1A	ASTM-E-1444-05	90	<input type="checkbox"/>	
Surface Plate	WI 7.6.8 Surface Plate	GGG-P-463C	365	<input type="checkbox"/>	
Hex Plug Gage	WI 7.6.11 Hex Plug Gage	ANSI B18.3	180	<input type="checkbox"/>	
Indicator	WI 7.6.4 Indicator	B89.1.0M	180	<input type="checkbox"/>	
Micrometer	WI 7.6.2 Micrometer	GGG-C-105C	120	<input type="checkbox"/>	
Caliper	WI 7.6.3 Caliper	GGG-C-111C	120	<input type="checkbox"/>	

Departments Table:

Departments—define an area in your shop where gages are stored: Examples of ‘Departments’ are: Calibration Lab, Final Inspection, and CNC.

Locations Table:

Locations—further define an area in your shop where gages are stores. Examples of *Locations* are: Shelf D or Cabinet #3.

Departments and Locations may be used in tandem to pinpoint a gage’s location (e.g. the Gage may be stored in the Department: ‘Calibration’ and the Location: ‘Shelf 2’).

Manufacturers Table:

Manufacturers—are companies that manufacture gages. Examples of *Manufacturers* are: Mitutoyo and Starrett.

Employees Table:

Employees—are individuals that *either own or have been assigned* specific gages.

Shifts:

Shifts—define when employees tend to work: Examples of *Shifts* are: First, Second, Third, or Weekends.

Calibration Vendors Table:

Calibration Vendors—define *either* outside calibration sources (where your shop's gages are sent to be calibrated), *or* outside calibration sources that travel to your shop to calibrate gages or equipment (for example: it is impractical to send large surface plates offsite to be calibrated). Examples of 'Calibration Vendors' are: *Glastonbury Southern Gage* or *Standridge Granite*.

Offsite Locations Table:

Offsite Locations—are areas outside of your shop where gages are sent/stored. *Offsite Locations* most often fall into two categories:

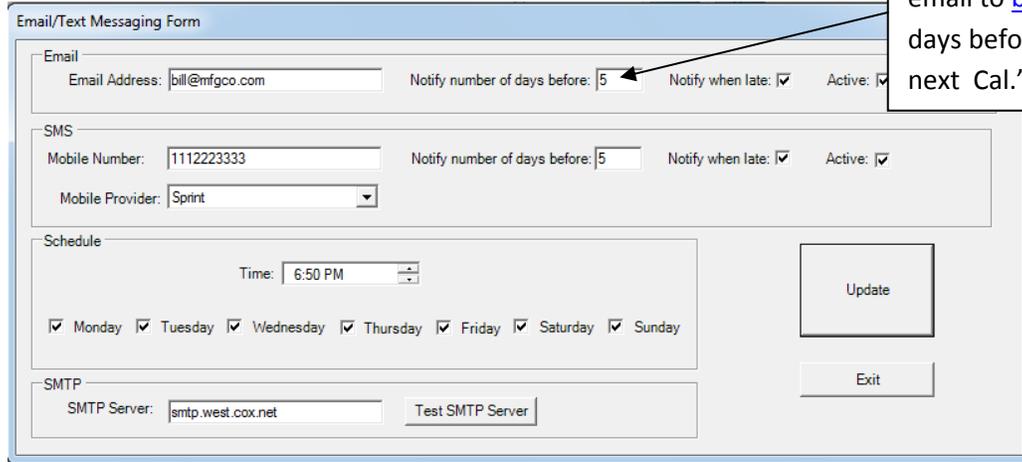
- Outside Processing Services that require **your** gages at their facility to confirm your parts are in tolerance before shipping. Examples: *plating services*.
- Outside Calibration Vendors where gages are sent to be calibrated. An example is *Glastonbury Southern Gage*.

Calibration Standards Table:

Calibration Standards—are references (i.e. gages) that define a relationship to units of measure, against which other measuring devices are compared. Examples of Calibration Standards are: gage blocks and length standards.

Emailing/Text Messaging Table:

Emailing/Text messaging—allows users to schedule emails or text messages when individual gages are approaching past due status or have exceeded past due status.



Email—the ‘Email’ feature allows the program to send two emails:

- 1) **Notify number of days before**—when gages are approaching past due status, the software will send an email to the recipient (in the Email Address field) based on the ‘number of days’ entered. Example: if a ‘5’ is entered in the ‘number of days’ field and the ‘Date of next cal’ is 5/11/2013, the software will generate an email notification on 5/16/2013.
- 2) **Notify when late**—when gages have exceeded their ‘Date of next cal’ and the ‘Notify when late’ field is checked, the software will generate an email notification.
- 3) If a number is entered in the both the ‘**Notify number of days before**’ field and the ‘**Notify when late**’ field is checked, the software will send **TWO** email notifications.

SMS—the ‘SMS’ feature allows the program to send two text messages:

- 1) **Notify number of days before**—when gages are approaching past due status, the software will send a text message to the recipient (in the Mobile Number field) based on the ‘number of days’ entered. Example: if a ‘5’ is entered in the ‘number of days’ field and the ‘Date of next cal’ is 5/11/2013, the software will generate a text mail notification on 5/16/2013.
- 2) **Notify when late**—when gages have exceeded their ‘Date of next cal’ and the ‘Notify when late’ field is checked, the software will generate a text mail notification.
- 3) If a number is entered in the ‘**Notify number of days before**’ field and the ‘**Notify when late**’ field, the software will send **TWO** text mail notifications.
- 4) Your Mobile Provider may charge for text messages.

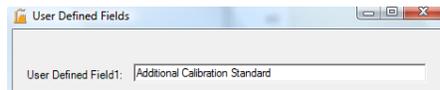
Schedule—determines the time when the software generates the emails/text messages.

ALL DATES SHOULD BE CHECKED TO ENSURE ALL EMAILS/TEXT MESSAGES ARE RECEIVED.

SMTP—**Simple Mail Transfer Protocol (SMTP)** is an Internet standard for electronic mail (e-mail) transmission across Internet Protocol (IP) networks. Your internet provider can provide you with this information.

User-Defined Fields:

User-Defined Fields—are blank fields that can be modified based on the particular needs of your shop. For example, certain gages in your shop *may* require three Calibration Standard fields. A User-defined field can be labeled on the ‘User Defined Fields’ screen:



This label will now appear on the ‘Add Gage’ screen:

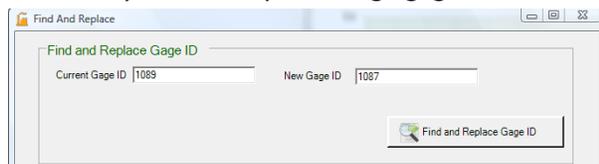


Gage Control Software also allows operators to use ‘User Defined Fields’ to search (see the *Deep Blue* inquiry screen).

The Find and Replace Utility:

The Find and Replace Utility—allows you to find and replace a Gage ID, Work Instruction Revisions, and your Lab’s *Conformity Requirement*.

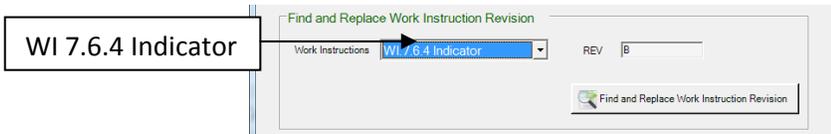
Find and Replace Gage ID—allows you to change the Gage ID for an existing gage. For example, you etched a gage with the ID: 1089. However, you entered the gage incorrectly in the *Gage Calibration Management Software* using the ID: 1087. Providing gage 1087 does not currently exist in the software, the *Find and Replace Utility* will allow you change gage 1087 to 1089.



Find and Replace Work Instruction Revision—allows you to mass update a Work Instruction Revision.

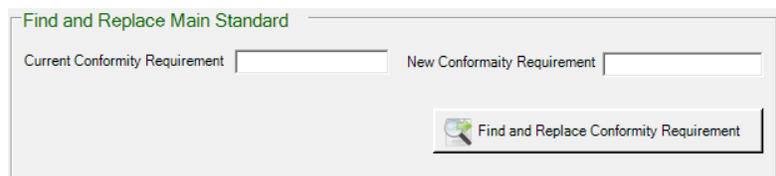
For Example: a Work Instruction Revision changes from ‘A’ to ‘B’.

- First update the revision on the ‘Work Instruction’ table.
- Second select the ‘Work Instruction’ on the *Find and Replace Utility*.



When you click the ‘Find and Replace Work Instruction Revision’ button the software will search for all gage’s that have the ‘Work Instructions’ field populated with ‘WI 7.6.4 Indicator’. When the software finds the string: “WI 7.6.4 Indicator”, the program will update the revision to “B”.

Find and Replace Main Standard—allows for the mass update of the ‘Main Standard’.



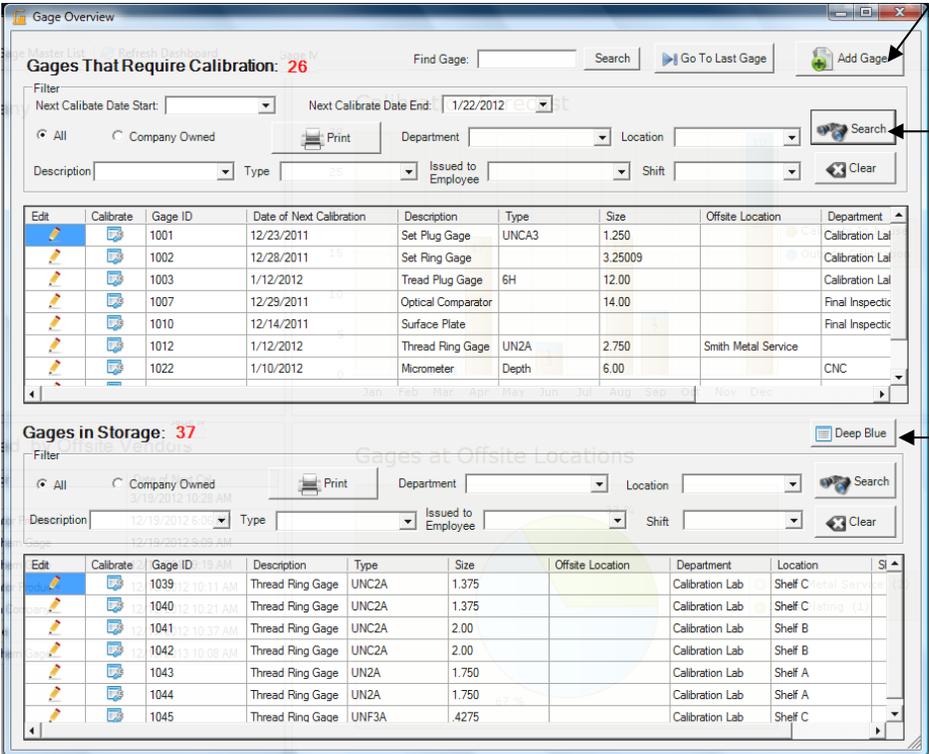
Gage Overview Screen

The **Gage Overview Screen** is the primary tool that your calibrators will use to:

- Manage gages that require calibration.
- Manage 'Gages in Storage'.
- Navigate the software (negotiate and perform tasks).

To access the 'Gage Overview' screen, double click the 'Add/Change Gage' button on the upper left hand corner of the **Dashboard**. 

This screen will appear:



The screenshot shows the 'Gage Overview' window. It is divided into two main sections: 'Gages That Require Calibration' and 'Gages in Storage'. The top section has a title 'Gages That Require Calibration: 26' and a search bar. Below it are filter options for 'Next Calibrate Date Start' and 'Next Calibrate Date End' (set to 1/22/2012). There are also radio buttons for 'All' and 'Company Owned', a 'Print' button, and dropdown menus for 'Department' and 'Location'. A 'Search' button is on the right. Below the filters is a table with columns: Edit, Calibrate, Gage ID, Date of Next Calibration, Description, Type, Size, Offsite Location, and Department. The bottom section is titled 'Gages in Storage: 37' and has a 'Deep Blue' button on the right. It also has filter options for 'Next Calibrate Date Start' and 'Next Calibrate Date End' (set to 1/22/2012), radio buttons for 'All' and 'Company Owned', a 'Print' button, and dropdown menus for 'Department' and 'Location'. A 'Search' button is on the right. Below the filters is a table with columns: Edit, Calibrate, Gage ID, Description, Type, Size, Offsite Location, Department, Location, and Status.

Callouts in the image:

- 'Add Gage' Button (points to the 'Add Gage' button in the top right of the first section)
- 'Search' Button (points to the 'Search' button in the top right of the first section)
- Deep Blue button will Drill Down to the Deep Blue Screen (points to the 'Deep Blue' button in the top right of the second section)

The Gage Overview screen is divided into two sections:

- **Gages that Require Calibration**—this section of the screen displays gages that require calibration based on selected parameters (e.g. date range). **When the screen is first generated, the date range will default to all gages due for calibration one month from the current date.**
- **Gages in Storage**—this section of the screen displays gages that are NOT scheduled to be calibrated at regular intervals. **Gages in Storage** is intended to hold gages that have been acquired by your company, but not yet calibrated (i.e. not included in the calibration cycle). For example: a competitor goes out of business and your company acquires their gages in bulk. It may not be practical to calibrate every gage upon acquisition, but you may want the gages to be visible throughout the software (in case one is required).

Managing the Gage Overview Screen: *Gage Control: Gage Calibration Management Software* offers many tools that allow your calibrators to manage the **Gage Overview Screen**.

- The **Date Range** is the primary selection tool used to view gages that require calibration.
- If the *Next Calibration Start Date* field is left blank, *Gage Control: Gage Calibration Management Software* will display ALL gages past due from the *Next Calibration Date End* field.
- It is easy to change the 'Date Range' for gages that require calibration. When the 'Drop Down' button is clicked, a calendar will be displayed.

- Once a **Date Range** has been established—the *Department, Location, Description, Type, Issued to Employee,* and *Shift* fields will allow the calibrator to narrow the selection criteria of the 'Gage Overview Screen'. The *Department, Location, Description, Type, Issued to Employee,* and *Shift* fields can be used individually or in combinations to filter information. For example: selecting a *Department* and clicking the 'Search' button will display all gages due for calibration for a specific *Department* (for the selected **Date Range**). Furthermore, selecting BOTH a *Department* and a *Shift* field will display **ONLY** gages due for the specific *Department* and the specific *Shift* (for the selected **Date Range**).
- Clicking the 'Company Owned' button will display **only** gages owned by your shop (it will filter out gages owned by your employees and gages owned by other companies).
 All Company Owned
- Clicking the Category Header will arrange data based on the category (e.g. column) selected.

Edit	Calibrate	Gage ID	Date of Next Calibration	Description	Type	Size	Offsite Location	Depa
		2679	11/25/2011	Thread Ring Gage	UNF2A	10.00		QA
		2680	11/25/2011	Gage Blocks		3.000	Glastonbury Southern...	

Clicking the 'Description' field will sort the *Gage Overview* screen by the Description column.

- Clicking the 'Edit' and 'Calibrate' buttons will transfer the operator to the 'Gage Detail' tab and the 'Calibration' tab (see the **Adding a Gage** section of this manual).



- The 'Print' button  will generate either the *Gage Status Active Report* or the *Gages in Storage Report*.

Sample Company
Gage Status Active Report

Next Calibration Start Date: All Next Calibration End Date: 12/22/2011

Gage ID	Date of Next Calibration	Description	Information	Offsite	Department	Location	Issue to Employee	Shift
2679	11/25/2011 10:40:08 AM	Thread Ring Gage	10-24 UNF2A GO		QA	Cal Lab		
2680	11/25/2011 11:00:41 AM	Gage Blocks	3"	Glastonbury Southern Gage				

- The 'Gage Overview' screen includes a **Deep Blue** button that allows the user to *Drill Down* to the **Deep Blue** screen.



- The 'Gage Overview' screen also includes a 'Go To Last Gage' button. When this button is clicked the software will jump to the last gage added or edited by the individual calibrator currently logged into the software (based on their User ID).



- The 'Clear' button will clear all previously selected criteria (except the date range).

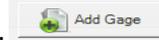


Adding a Gage

The 'Add Gage' Screen is the primary tool that your calibrators will use to establish (i.e. Add) and manage (i.e. Calibrate) individual gages'.

Adding a Gage:

On the *Gage Overview* screen, click the 'Add Gage' button.



- The 'Add Gage' screen (specifically the 'Gage Detail') Tab will generate:

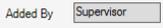
The screenshot shows the 'Add Gage' software interface with the following sections:

- Gage Detail:** Date Added In Service (6/ 4/2012), Added By (Aaron Danielson), Last Calibration Date (6/ 4/2012), Status (In Storage), Cost, Conformity Requirement (ISO/IEC 17025-1984), Calibration Standard (Yes/No), and a Print Label button.
- Gage Information:** Gage ID, Description, Type, Manufacturer, Serial Number, UoM, Size, Information, Supplier, Parallelism (Yes/No), Gage Capability (100), NIST #, Model, and Reason why Gage Capability is less than 100%.
- Proprietary Information:** Company (Your Company Name), Employee, Shift, Customer, and Other.
- Calibration Information:** Where Calibrated?, Calibration Vendor, Calibration Standard, Work Instructions, REV, Specification, Military Specification, Calibration Frequency (Number of days between calibrations, Date of next Cal., Update Date of Next Cal.), UoM, +Tolerance, and -Tolerance.
- User Defined Fields:** Six User Defined Fields and six User Defined Dates, along with an Internal Notes section and buttons for Add Calibrated Gage, Store Gage, and Exit Without Saving.
- Location Information:** Offsite, Department, Location, Issue to Employee, Shift, and Return.

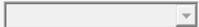
Although *Gage Control: Gage Calibration Management Software* allows you to manage and track a great variety of data, only a few fields are required when adding a gage: *Gage ID, Description, one Proprietary Information field, Number of Days between Calibrations, Date of Next Calibration, and at least one storage area (Offsite, Department, Location, or Issue to Employee).*

- We suggest you review each of the following fields, and then print pages: 19-21.
- **Highlight** the fields that are important to your company.
- To ensure uniformity when entering gages, use this **highlighted** printout as a guide during the initial phase of your implementation.

This section of the *User Guide* details both **required** and optional fields:

- **Date Added/In Service**—this is the date the gage was originally acquired by your shop (this field defaults to the current date). 
- **Added By**—this field identifies the calibrator that initially added the gage to the *Gage Calibration Management Software* program. This field defaults automatically based on the User ID (First and Last Name fields). 
- **Last Calibration Date**—displays the date the gage was last calibrated. 
- **Status**—displays the gage’s status (In Storage, Active, Out of Tolerance, etc...). The program defaults to the *In Storage* status during the ‘Add Gage’ process. 
- **Cost**—this field allows you to enter the initial price/cost of the gage. 
- **Conformity Requirement**—this section holds the main standard used by your calibration laboratory (e.g. ISO/IEC 17025-1984). This record *can* be set to default from the ‘Update Company’ Table. 
- **Calibration Standard**—allows you to flag the individual gage as a calibration standard (i.e. a gage used to calibrate another gage). You may want to enter ‘Calibration Standards’ first (so you can reference the ‘Gage ID’ when populating the *Calibration Standards* table). 
- **Print Label**—allows you to print a barcode label. 

Gage Information—This section of the software tracks information specific to the gage.

- **Gage ID**—*Gage Calibration Management Software* allows you the option of having Gage IDs generate automatically (based on sequential numbering). The software also allows calibrators to assign Gage IDs based on your shop’s own parameters (see the ‘Company Set-up’ Table). *If you are manually converting your data, you will need to turn off auto-numbering in order to convert your legacy data. This is a required field.* 
- **Description**—Gage Descriptions are the **key** identifier of gages. Examples of *Gage Descriptions* are: Micrometer, Caliper, Indicator, and Thread Ring Gage. These records are established in the ‘Gage Descriptions’ Table. **This is a required field.** 
- **Types**—further define gages. For example Micrometers can be further defined by the types: Outside Diameter, Inside Diameter, Depth, Bore, Blade, Pitch, Anvil, etc... Other examples of ‘Types’ are Unified Screw Threads and their classes (e.g. UN2A, UNC2A, etc...). These records are established in the ‘Types’ Table. 
- **Manufacturers**—identifies the company that originally manufactured the gage (e.g. Mitutoyo and Starrett). These records can be added directly to the data base from the ‘Add Gage’ screen. 
- **Serial Number**—identifies the gage’s serial number. 
- **Unit of Measure**—Units of Measure are defined as standard measures for a physical quantity. Examples of Units of Measure are: Inches, Millimeters, Degrees, Foot LBS, etc... These records are established in the ‘Units of Measure’ Table. 

- **Size**—identifies the size of the gage. *Gage Calibration Management Software* suggests you use the maximum size of the gage in this field. For example: If you are entering a 0-.500” indicator, we suggest entering “.500” in this field. Size
- **Information**—the ‘Information’ field is intended to hold a brief description of the gage’s capability. For example: if you are entering a 0-.500 indicator to the data base, we suggest entering “0-.500” in this field. Information
- **Supplier**—your shop may purchase gages from a vendor that is not the original manufacturer (e.g. MSC). Supplier
- **Model**—this field refers to the gage’s model number. Model
- **Parallelism**—identifies that a parallelism check is requirement when calibrating a gage. Parallelism defaults from the ‘Types’ table. Parallelism Yes No
- **Gage Capability and Reason why gage Capability is less than 100%**—these fields refer to limitations set upon the gage by the calibration lab (e.g. a caliper’s inside jaws may be out of tolerance , but the rest of the caliper’s functionality may be well within tolerance). Gage Capability Reason why Gage Capability is less than 100%
- **NIST Number**—this field allows you to link a NIST number to a gage to allow for traceability back to the standard. *This field is used primarily if the gage is a Calibration Standard.* NIST #

Proprietary Information—Simply refers to the **owner** of a gage in your company’s possession. **One Proprietary field is required.**

- **Company**—your company’s name will default based on information populated in the ‘Name’ field established in the ‘Update Company’ Table. Company
- **Employee**—this field should be populated ONLY if the gage is OWNED by an employee. Populating this field would be required if your calibration lab calibrates your employee’s gages (this field makes it easy to confirm employee ownership). **If a company owned gage is ISSUED to an employee, this information should be recorded below (in the ‘Location’ section of the software).** Employee
- **Shift**—this field identifies the shift of the employee that **owns** the gage. Shift
- **Customer**—this field identifies gages that are on **loan to your shop** by another company. **If your company LOANS a gage to another company (e.g. a plating company), it should be recorded below (in the ‘Location’ Section of the software).** Customer
- **Other**—identifies all other owners of gages in your company’s possession. Other

Calibration Information—Refers to information pertinent to calibrating individual gages.

- **Where Calibrated?**—this screen allows you to link calibration locations to individual Gage IDs. This information is established in the ‘Where Calibrated Table’. It is recommended that you enter three ‘Calibration Locations’: ‘Your Company’s Calibration Lab’, ‘Outside Vendor’, and ‘Outside Vendor will Calibrate In-house’ (see the ‘Where Calibrated’ Table). Where Calibrated?
- **Calibration Vendor**—defines either vendors that calibrate **your** gages at **their** location, or **vendors that travel to your shop to calibrate gages** or equipment. These records are established in the ‘Calibration Vendor’ Table. Calibration Vendor

- **Calibration Standards**—are gages (references) that define a relationship to units of measure, against which other measuring devices are compared. Examples of Calibration Standards are: gage blocks and length standards. The software has two Calibration Standard fields (in case calibrating the Gage requires more than one Calibration Standard). These records are established in the ‘Calibration Standards’

Table.

Calibration Standard:	<input type="text"/>
Calibration Standard:	<input type="text"/>

- **Work Instructions** and **Revision** fields—refer to controlled documents that provide validated methods for evaluating and verifying performances of test equipment. Work instructions are tracked by revision letters (or numbers). Work Instructions can default based on the ‘Gage Description’ (see the ‘Gage Description’ Table).

Work Instructions	<input type="text"/>	REV	<input type="text"/>		View attached documents
-------------------	----------------------	-----	----------------------	--	-------------------------

- **Specifications**—are specific instructions that ensure the characteristics and performances of gages are consistent. Specifications can default based on the ‘Gage Description’ (see the ‘Gage Description’ Table).

Specification	<input type="text"/>	
---------------	----------------------	--

- **Number of Days between Calibrations**—this field tracks the calibration frequency of your gage. Days between calibrations can default based on the ‘Gage Description’ (see the ‘Gage Description’ Table. **This is a required field.**

Number of days between calibrations:	<input type="text"/>
--------------------------------------	----------------------

- **Unit of Measure**— Gage Calibration Management Software has two ‘Unit of Measure’ fields (see the ‘Gage Information’ section). This field indicates the **calibration** unit of measure (for example: metric gages may be calibrated in inches).

UofM	<input type="text"/>
------	----------------------

- **Date of Next Cal**—indicates the date of next calibration (based on the Last Calibration Date field). Gage Calibration Management Software calculates the date of next calibration based on this formula: Last Calibration Date + Number of Days between Calibrations = Date of Next Cal. **This is a required field.**

Date of next Cal.	<input type="text"/>
-------------------	----------------------

- **Update Date of Next Cal**—allows the operator to recalculate the date of next calibration if the *Number of Days between Calibrations* is changed after the gage has been added.

Update Date of Next Cal.

- **Tolerance**—indicates the permissible over and/or under limits of variation allowed for the gage.

+Tolerance	<input type="text"/>
-Tolerance	<input type="text"/>

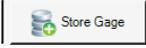
- **User-Defined fields**—are blank field that can be modified based on the needs of your shop. These records are labeled in the ‘User-Defined Fields’ Table.

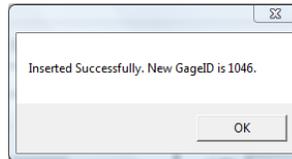
User Defined Field1	<input type="text"/>	User Defined Date1	<input type="text"/>
---------------------	----------------------	--------------------	----------------------

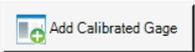
- **Internal Notes**—is a blank field where comments, reminders, and communications between calibrators can be populated.

Internal Notes

Location Information—tracks the current location of your gage. **Although more than one Location field may be populated, only one Location field is required.** These fields should be considered the default (or typical) locations for a gage. If a gage is temporarily assigned (for a specific number of days) to: an employee, department, outside processor, or outside calibration service, we recommend your shop utilize the ‘Gage Transfer’ module.

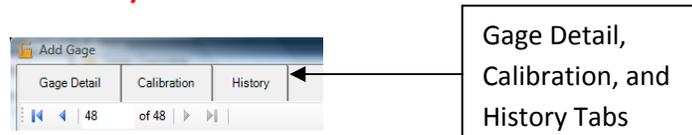
- *Offsite*—are areas outside of your shop where gages are sent/stored. *Offsite Locations* most often fall into two categories: Outside Processing Services (e.g. plating services) and Outside Calibration Vendors (e.g. Glastonbury Southern Gage). *Offsite*
- *Departments*—define an area in your shop where gages are stored: Examples of *Departments* are: Calibration Lab, Final Inspection, and CNC. *Department*
- *Locations*—further define specific areas where gages are stores. Examples of *Locations* are: Shelf D or Cabinet #3. *Location*
- *Issue to Employees*—indicates if the gage is issued to a specific employee. *Issue to Employee*
- *Shift*—indicates the shift the employee works (e.g. first, weekends, etc...). *Shift*
- A highlighted 'Return' button indicates the gage has been issued using the 'Transfer Module'. Clicking the highlighted 'Return' button will allow you to return the gage.
- Once you have populated information specific to your shop, you can either click the 'Add Calibrated Gage' button or the 'Store Calibrated Gage' button:
- When the 'Store Gage' button  is clicked, a pop-up screen will generate and confirm the gage has an 'In Storage' status. You will then be returned to the 'Gage Overview' screen.



- If the 'Exit Without Saving' button is checked, none of your work will be saved and you will be returned to the 'Gage Overview Screen'. 
- If the 'Add Calibrated Gage' button  is clicked, a pop-up screen will generate to confirm the gage has been added successfully, click on **OK** and the 'Calibration' screen will be visible. See *Adding Calibration Information* on page:28

A Quick Guide to Navigating *Gage Calibration Management Software's* 'Add Gage' Feature

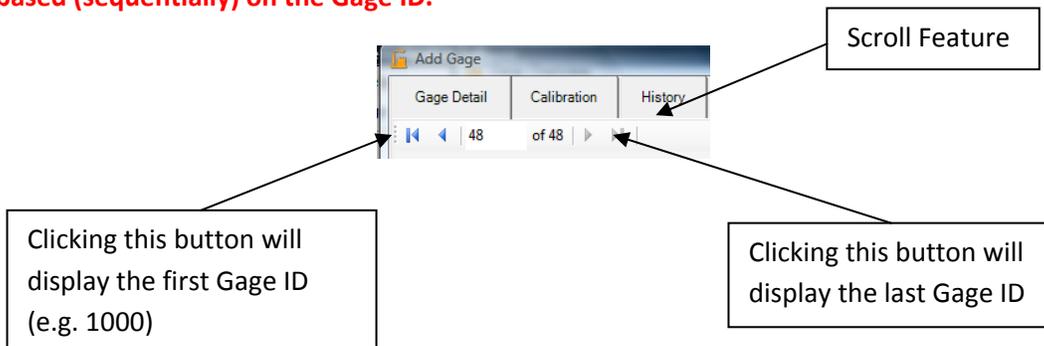
Once a Gage has been added, three tabs will become visible in the upper left hand corner of your screen: **Gage Detail, Calibration, and History:**



- **The Gage Detail Tab**—holds both static (e.g. gage serial number, unit of measure, and size) and dynamic (e.g. date of next calibration and location) information for an individual gage.
- **The Calibration Tab**—allows you to enter information that confirms a gage is in calibration or allows your calibrators to remove a gage from the calibration cycle.

- **The History Tab**—displays calibration and location history. The ‘Calibration History Report’ can be generated from this screen.

Gages can also be accessed by using the ‘Scroll’ feature. This feature allows your calibrators to access gages based (sequentially) on the Gage ID.



Adding Calibration Information

Gage Calibration Management Software's 'Calibration' screen allows you to enter information that:

- **Either confirms a gage was calibrated in-house (by your shop's employees),**
- **Or confirms the gage was calibrated by an outside calibration source.**
- **The 'Calibration' screen also allows your calibrators to change the gage's status (e.g. from Active to Out of Tolerance).**

This Tab indicates you have accessed the 'Calibration' screen

'Check' if the gage is being calibrated In-house

Check if gage is being calibrated by an outside vendor

'Calibration Internal Notes' field

Date calibration transaction posted to history field

'Confirm Gage is in Calibration' button

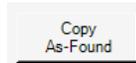
The screenshot shows the 'Add Gage' window with tabs for 'Gage Detail', 'Calibration', and 'History'. The 'Calibration' tab is active. Fields include Gage ID (M886), Date (1/7/2013), Manufacturer (Mitutoyo), Work Instructions (WI 7.6.2), REV. (B), Edited By (Supervisor), Description (Micrometer), Type (Outside Diameter), and Specification (GGG-C-105C). The 'Calibrate In-house' section has a checked 'Calibrate In-house' box, a 'Standard(s)' dropdown (Gage Block Set: GBS-001 Nit# 65467654), and an 'Attach Document' button. Below is a table with columns 'Order', 'Characteristics', 'As-Found', and 'As-Left'. The table contains 11 rows of data. To the right of the table are buttons for 'Copy As-Found' and 'Save Attributes'. Further right are 'UoM' (Inches), tolerance fields (+Tolerance: .0001, -Tolerance: .0001), and 'Parallelism' (Yes/No) options. The 'Outside Calibration' section has an unchecked 'Outside Calibration' box, 'Calibration Vendor', 'Reference Number', and 'Cost' fields. The 'Calibrate' section has a 'Calibration Internal Notes' text area, a 'Status' dropdown (Active), and buttons for 'Confirm Gage in Calibration', 'Remove Gage From Service', and 'Exit Without Saving'. A 'Date calibration transaction posted to history' dropdown is set to 1/7/2013.

In-house Calibration—if the gage has been calibrated In-house (by your shop's calibrators) follow these steps:

- Click the Calibrate In-house button. Calibrate In-house **This is a Required Field.**
- You can add/change/update information in the 'Calibration Standard', 'Unit of Measure', and 'Tolerances' fields.
- You can populate gage characteristics being inspected in the 'Characteristics Column'. The software will save/update information entered here. This information will default when this gage is calibrated in the future.
- You can populate the 'As Found' readings in the 'As Found' column. The software will save/update information entered here. The software will retain this information when the gage is calibrated in the future.

- You can populate the 'As Left' readings to the 'As Left Column'. 'Using the 'Copy as

Found' button, the software **will copy information in the 'As Found' column to the 'As Left' column.**

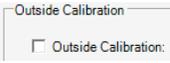


- **In-house calibration requires that both the 'Temperature' and 'Humidity' fields are populated.** If they are left blank, the software will prompt you to populate these fields.
- Add 'Calibration Internal Notes' if additional information is appropriate.
- If the gage is in calibration, click the 'Confirm Gage in Calibration' button.



- If the gage is NOT in calibration, see 'Removing a Gage from the Calibration Cycle.'

Outside Calibration—if the gage has been calibrated by an Outside Calibration service, follow these steps:

- Click the 'Outside Calibration' button . **This is a Required Field.**
- If 'Calibration Vendor' field does not populate, select a 'Calibration Vendor'. **This is a Required Field.**
- The 'Reference Number' refers to the outside calibration services' internal control number. **This is a Required Field.**
- Enter the outside calibration services cost (this is not a required field).
- Documentation can be scanned and attached by clicking this button: 
- Add 'Calibration Internal Notes' if additional information is appropriate.
- If the gage is in calibration, click the 'Confirm Gage in Calibration' button. 
- If the gage is NOT in calibration, see 'Removing a Gage from the Calibration Cycle.'

Date calibration transaction posted to history—determines the date either the In-house or the Outside Calibration is updated to the transaction history (see date and time on the History Tab). This field can be extremely useful when processing Outside Calibration transactions (you can backdate this field and input the exact date the gage was calibrated).

Removing a gage from the Calibration Cycle—there are many reasons gages are removed from the calibration cycle: the gage may be found 'Out of Tolerance', a gage may be lost, damaged, or an employee may leave your company (and takes his gages with him).

- **To remove a gage from the Calibration Cycle:**
- Go to the 'Status' field and select a status.
- The 'Reason Why Gage Removed from Service' field will now be visible. **This is a Required Field.**
- The software will NOW allow you to click the 'Remove Gage from Service' button.
- Clicking the 'Remove Gage from Service' button will remove the gage from the calibration cycle.

- The removed gage can be easily reestablished in the Calibration Cycle by (re)calibrating the gage.

A software interface window with a 'Status' dropdown menu set to 'Out of Tolerance'. Below it is a text field for 'Reason Why Gage Removed From Service:'. To the right are three buttons: 'Confirm Gage in Calibration', 'Remove Gage From Service', and 'Exit Without Saving'.

Understanding the 'Save Attributes' button.

The 'Attributes' table has columns: Order, Characteristics, As-Found, and As-Left. The data rows are:

Order	Characteristics	As-Found	As-Left
1	0%	.000	
2	1.000	1.000	
3	2.000	2.000	
4	

Callouts: 'Characteristics' points to the 'Characteristics' column; 'As-Found' points to the 'As-Found' column; 'Save Attributes Button' points to the 'Save Attributes' button in the table's toolbar.

- The 'Save Attributes' button allows calibrators to update information in the *Characteristics* and/or the *As-Found* column without requiring gage calibration.
- To change 'Characteristics' and/or 'As-Found' column information, access the 'Calibration' tab and click on the *Characteristic* or *As-Found* field(s) you would like to replace. Change the information and click the 'Save Attributes' button.
- **The software will not allow any additional changes to any field (except the *Characteristic* or *As-Found* fields) when saving changes to attributes.**

Copying (or Cloning) a Gage

Copying (or Cloning) a gage can make the gage entry process much easier. It is especially useful during the initial data conversion process and when your shop acquires multiple new gages (e.g. ten new identical micrometers with consecutive serial numbers).

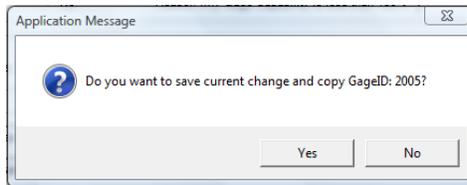
Copying or Cloning a Gage:

- Access the gage that is being copied **from** (using either the 'Find Gage'

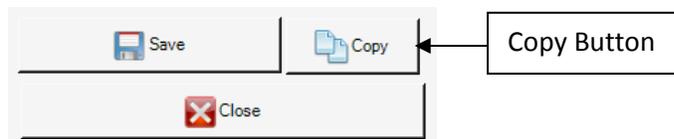
Find Gage: Search or the 'Go To Last Gage' features).

- Click on the 'Copy' button in the lower right hand of the 'Gage Detail' screen. 

- This pop-up will display on your screen:

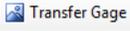


- Click 'Yes' to copy. A new 'Gage Detail' screen (for the new copy-to gage) will generate.
- If 'Update Auto-numbering' is switched off, then populate the 'Gage ID' field.
- Carefully review copied fields. You may need to update or change certain fields (e.g. if you are utilizing the 'Serial Number' field, then you will have to update the new gage's serial number).
- At this point you can click the 'Add Calibrated Gage' button and confirm the gage is in calibration, or click the 'Store Gage' button to give the gage an 'In-storage' status.

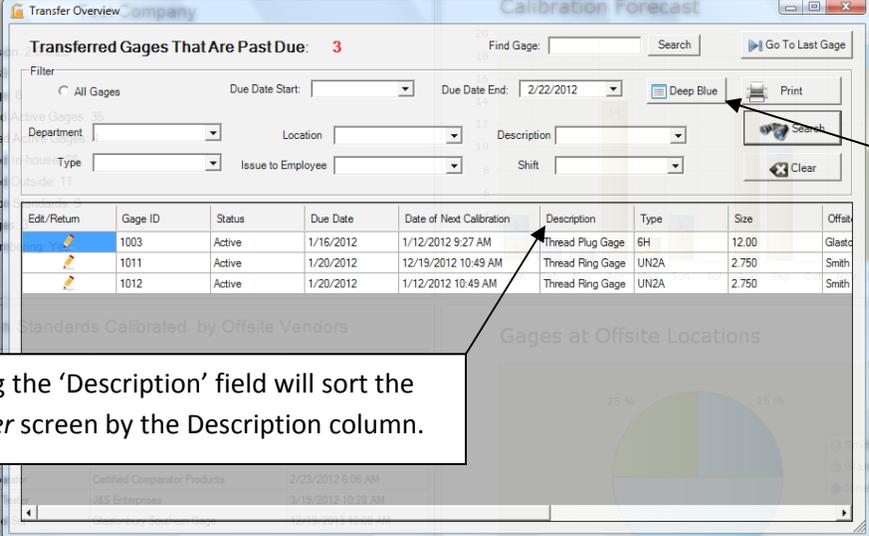


Transferring a Gage

The **Gage Transfer Module** allows your company to **Transfer, Track, and Return** gages that have been temporarily loaned to an employee or outside location (e.g. a plating service). The '**Gage Transfer Module**' is designed to easily and efficiently track gages temporarily lent to employees, departments, outside processors (e.g. plating services), or gages sent to outside calibration services.

To access the 'Transfer Overview' screen, double click the 'Transfer Gage' button on the upper left hand corner of the *Dashboard*. 

This screen will appear:



The screenshot shows the 'Transfer Overview' screen with a table of gages. A callout box points to the 'Description' column header, stating: "Clicking the 'Description' field will sort the *Transfer* screen by the Description column." Another callout box points to the 'Deep Blue' button, stating: "Deep Blue button".

Edt/Return	Gage ID	Status	Due Date	Date of Next Calibration	Description	Type	Size	Offsit
	1003	Active	1/16/2012	1/12/2012 9:27 AM	Thread Plug Gage	6H	12.00	Glastc
	1011	Active	1/20/2012	12/19/2012 10:49 AM	Thread Ring Gage	UN2A	2.750	Smith
	1012	Active	1/20/2012	1/12/2012 10:49 AM	Thread Ring Gage	UN2A	2.750	Smith

The Transfer Overview Screen:

The *Transfer Overview* Screen is the primary tool that your operators will use to temporarily transfer gages to: employees, departments, outside processing services, and outside calibration services. Only gages with the status of 'Active' or 'In-storage' can be transferred.

Managing the *Transfer Overview* Screen:

- When the *Transfer Overview* Screen is generated, all overdue gages (including transferred gages due on the current date) will display on the screen.
- It is easy to see gages due in the future by manipulating the 'Due Date End' field and then clicking the 'Search' button. 
- It is easy to see **all gages due** by clicking the 'All Gages' button  and then clicking the 'Search' button. 
- You may also filter based on any combination of 'Department', 'Location', 'Description', 'Type', 'Issue to Employee', and 'Shift'.

- A *Deep Blue* button is located on the 'Transfer Screen' to help the operator *DRILL DOWN* and locate appropriate gages.



- Once the gage that you want to transfer has been located, enter the Gage ID in the 'Find Gage' field and click the 'Search' button.
- The 'Transfer Gage' screen will now display.



The Transfer Gage Screen

Transferring a Gage:

- Once the 'Gage ID' (of the gage to be transferred) has been determined, the operator can enter the Gage ID in the 'Find Gage' field and click the 'Search' button.

Find Gage: Search

When the 'Search' button is clicked, the 'Transfer Screen' will be visible:

The screenshot shows the 'Transfer Gage' window with the following fields and buttons:

- Gage ID: 1047
- Current Date: 12/22/2011
- Description: Micrometer
- Type: Outside Diameter
- Information: 1-2"
- Status: Active
- Offsite:
- Department: Calibration Lab
- Location: Shelf B
- Issue to Employee:
- Shift:
- Number of days before gage is required to be returned:
- Due Date: 12/22/2011
- Internal Notes:
- Buttons: Clear, Edit Location Information, Exit Without Saving

Callout boxes provide the following information:

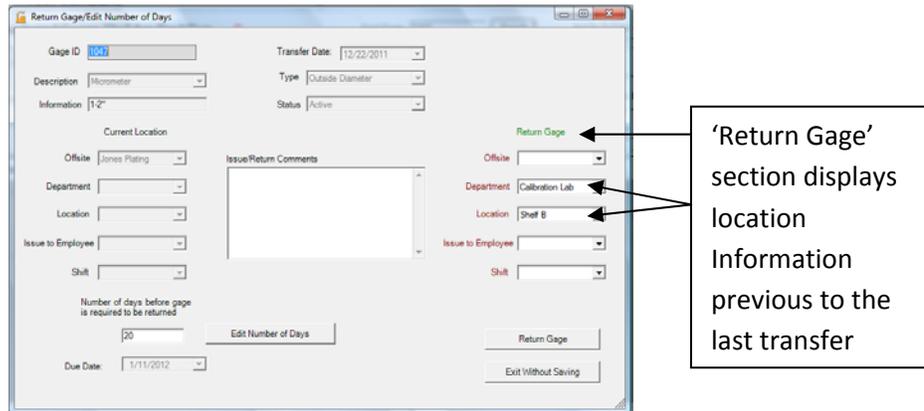
- Current Location of the Gage:** Points to the Department and Location dropdowns.
- 'Number of days before the gage is required to be returned' field:** Points to the corresponding input field.
- Notes can be entered using the 'Internal Notes' screen:** Points to the Internal Notes text area.
- Click the 'Clear' button to clear current location information:** Points to the Clear button.

- The 'Transfer Gage' screen displays the current location of the gage.
- Click the 'Clear' button to **clear the current location(s) of the gage**. The 'Edit Location Information' button will now be visible.
- Enter new 'Location' Information. At least one 'Location' is required.
- Enter a number of days in the 'Number of days before the gage is required to be returned' field. This field may be edited without returning the gage. **This is a required field.**
- Notes can be entered in the 'Internal Notes' field.
- Click the 'Edit Location Information' button to transfer the gage.

The Return Gage/Edit Number of Days Screen

Returning a Gage:

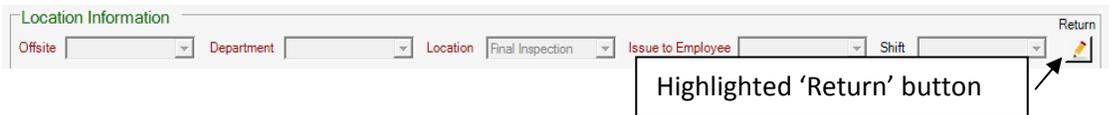
To return a gage, either: enter the Gage ID in the 'Find Gage' field, Find Gage: or locate the gage on the 'Transfer Overview' screen and click the 'Edit/Return' button. The *Return Gage/Edit Number of Days Screen* will generate. **The 'Return Gage' section of the screen will display the Location Information previous to the last transfer.** The operator can either return the gage to the previous location or select a new location



- Once the return location information has been entered, the operator can click 'Return Gage' to complete the return.

Gages may also be returned from the 'Gage Detail' screen.

- If a gage has a 'Transferred' status (gage has been transferred but not returned), the 'Return' button will be highlighted in the lower right hand corner of the screen (in the 'Locations' section). When the 'Return' button is highlighted, the 'Location' information will be "grayed-out" and the calibrator will not be able to change any 'Location' fields. The calibrator must return the gage (using the highlighted 'Return' button).



- **When the operator clicks the 'Return' button, the *Return Gage/Edit Number of Days Screen* will display.**

The Deep Blue Inquiry Screen/Report Generator

The Deep Blue Inquiry Screen/Report Generator—is a dynamic and powerful search application that allows your operators to search, locate, and organize gage information quickly and easily. *Deep Blue* can be accessed from the Login Menu, the Dashboard, the Gage Overview screen, and the Transfer Overview Screen.

There are two versions of the *Deep Blue* inquiry screen/report generator:

- Your calibrators are allowed to edit and calibrate directly from the *Deep Blue* screen.
- All other users have READ ONLY access.

Your calibrators can edit and calibrate directly from the **Deep Blue** screen

Edit	Calibrate	Gage ID	Status
		1022	Active
		1025	Active

An outstanding feature of the 'Deep Blue' inquiry screen is the ability to narrow your search by selecting multiple fields: For example: you can search all 'Active' 'Thread Ring Gages' that have 'millimeter' as a unit of measure.

Thousands of different inquiries/reports can be generated using this utility.

Utilizing the *Deep Blue* search inquiry screen/report generator:

After clicking the *Deep Blue* button, this screen will be visible:

The screenshot shows the 'Deep Blue' application window. At the top, there is a search bar with 'Find Gage:' and a 'Search' button. Below this are radio buttons for 'All Gages', 'Active Only', and 'Removed from Service Only', along with a 'Calibration Standard' section with 'Yes' and 'No' options. The main area is divided into five filter categories: 'Gage Information', 'Proprietary Information', 'Calibration Information', 'Location Information', and 'User Defined Fields'. Each category contains several dropdown menus for filtering. At the bottom, there is a table header with columns: Edit, Calibrate, Gage ID, Status, Date of Next Calibration, Description, Type, Size, Information, Offsite Location, Department, Location, and Shift. An arrow points from the 'Description' column header to a text box below.

Clicking the 'Description' field will sort the **Deep Blue** screen by the Description

- When initially generated, the 'Deep Blue' screen defaults to the 'All Gages' status.
 All Gages When the large 'Search' button is clicked, all gages (regardless of the gage status) will display on the screen.
- Narrowing your search will make it more efficient to find information. USE COMBINATIONS OF BUTTONS AND FILTERS to fine-tune your search.
- Clicking the 'Active Only' button (along with the 'Search' button) will display **only** gages with an 'Active' status. Active Only
- Clicking the 'Remove from Service' button (along with the 'Search' button) will display all gages that do NOT have an 'Active' or 'In-storage' status. Removed from Service Only

- Specific gages can be located by using the 'Find Gage' utility

- The 'Calibration Standard' button will either include or exclude all gages flagged as 'Calibration Standards'.

- The 'Go To Last Gage' button is available only on the Calibrator's version of the **Deep Blue** Inquiry screen. Clicking this button will jump to the last gage added or edited by the individual Calibrator (based on their User ID).

Filters:

- The Gage Information Column—allows you to filter the screen by: 'Description', 'Type', 'Manufacturer', 'Gage Unit of Measure', and individual 'Status' (e.g. Active, In-storage, Out of Tolerance, etc...).
- Proprietary Information—allows you to filter the screen by: 'Company', 'Employee Owned Gages', 'Shift', 'Customer Owned Gages', and all other gages not owned by your organization.
- Calibration Information—allows you to filter gages by: 'Where the Gages are Calibrated', the 'Calibration Vendor', both 'Calibration Standard' fields, and the 'Calibration Unit of Measure'.
- Location Information— allows you to filter gages by: 'Offsite Location', 'Department', 'Location', 'Issue to Employee', and 'Shift'.
- User Defined Fields—allows you to filter by User Defined fields (e.g. Gages to Watch). User Defined fields are defined under the User Defined fields table and populated under individual gages.
- A report can be generated at any time by clicking the 'Print' button :

Sample Company
Deep Blue Report

Next Callibration Start Date: All Next Callibration End Date: All

Gage ID	Date of Next Calibration	Description	Information	Offsite	Department	Location	Issue to Employee	Shift
2670	10/1/2012 8:41:57 PM	Thread Ring Gage	2 3/4-8 UN2A GO	Jones Plating				
2673	8/16/2012 9:32:24 AM	Thread Ring Gage	1 3/8-8 UNC2A NO GO		Manufacturing	CNC	Edward Jones	First

An Overview of Gage History and the Calibration History Report

Gage Calibration Management Software's calibration and location history allows your company to retain and recall a detailed account of your gage's calibration activity as well as activity based on the gage's physical movement.

Each time a gage is calibrated, the location of the gage is changed, or the gage is taken out of service, this activity can be viewed in the gage's 'History' Tab:



The 'History Tab' can be viewed in the upper left-hand corner of the 'Add Gage' screen

- **'Location' History**—the software tracks the date, time, operator, location information, and comments whenever a gage is added, moved (using the 'Gage Detail' tab), or transferred (using the 'Transfer Gage' module).
- **'Calibration' History**—tracks the date, time, operator, location information, status, and comment information. It also allows the operator to readily differentiate between gages calibrated In-house and gages calibrated by outside calibration services. The 'Calibration Detail' icon allows the operator to view internal/external calibration results in detail. The cost section tracks costs for outside calibration services.
- **'Removed from Service' History**—the software tracks the status code used to remove a gage from the calibration cycle. The software also tracks the date, time, operator, and comments when a gage is removed from the calibration cycle.
- **The Calibrator ID**—is a sequentially generated number used for tracking purposes.
- **The 'Calibration History Report'** generates detailed records of the individual gages calibration history:

Test Company
Calibration History Report

Operator:	Arron Danielson	Calibrate ID:	40
Gage ID:	1047	Manufacturer:	Mittutoyo
Description:	Micrometer		
Information:	1-2"		
Date Calibrated:	12/22/2011 12:51:22 PM	Number of day between calibration:	120
Department:	Calibration Lab		
Location:	Shelf B		
Conformity Requirement:	ISO/IEC 17025-1984		
Work Instruction:	WI 7.6.2 Micrometer		
Specification:	GGG-C-105C		
Calibrated In-house:	<input checked="" type="checkbox"/>	Calibrated Outside:	<input type="checkbox"/>

Calibration Standards:
Gage Blocks 1265

Understanding the Dashboard

The Dashboard displays information in a variety of formats (bar chart, pie chart, etc...) and allows your operators to visualize complex information required to make management decisions. It also helps individuals not directly involved with calibration to view and understand detailed calibration information.

The Dashboard is divided into four sections: 'Company Overview', 'Gage Forecast', 'Gages at Offsite Locations', and 'Calibration Standards Calibrated by Offsite Vendors.'

The Company Overview Section—This section displays: your company's name, total 'Active Gages', total 'Gages in Storage', total 'Company Owned Gages', total 'Employee Owned Gages' the total number of "Gages Calibrated In-house", the total number of 'Gages Calibrated Outside', 'Active Calibration Standards', gages that have a 'Transferred' status, your company's gage numbering method, the 'Number of User' Licenses purchased by your company, and 'Current Number of Users' logged into the software (not including those users *only* accessing the **DEEP BLUE** program).

- **Company Name**—defaults from the 'Name' field in the 'Update Company' table.
- **Active Gages**—are the total number of gages that have an 'Active' gage status code.
- **Gages in Storage**—are the total number of gages that have an 'In Storage' gage status code.
- **Company Owned Gages**—are all gages that have 'Your Company Name' populated in the gage's company field (under *Proprietary Information*).
- **Employee Owned Gages**—are all gages that have an 'Employees Name' populated in the gage's employee field (under *Proprietary Information*).
- **Gages Calibrated In-house**—is the total number of all active gages that have the 'Calibration Vendor' field *unpopulated*.
- **Gages Calibrated Outside**—are the total number of all active gages that have the 'Calibration Vendor' field *populated*.
- **Active Calibration Standards**—are the total number of all active gages that have the 'Calibration Standard' field selected as: **YES**.
- **Transferred Gages**—are the total number of gages that are currently have a 'Transferred Status' in the **Transfer Module**. This number can be confirmed by accessing the **Transfer Module**, clicking the 'All' button, and then clicking the search button.
- **Update Auto Numbering**—refers to the 'Update Auto Numbering' field in the 'Update Company' table.
- **Number of User Licenses**—the number of User Licenses purchased by your company (if more users are required, contact *Gage Control Software*).
- **Current Number of Users**—number of users currently logged into *Gage Control Software*

The Gage Forecast Module—generates a forecast (or estimate) for the total number of gages that require calibration per month (twelve months in the future). It is important to note many gages (e.g. gages that are calibrated every 90 days) will require multiple calibrations over the subsequent twelve months. As a consequence: the forecast is calculated by **both** the number of days from the current date

the gage will require calibration and **also** the number of days from the current date the gage will require calibration **plus** an additional number of days based on the gage's 'Number of Days Between Calibrations'.

Gages at Offsite Locations—are active gages that have a vendor or customer populated in the 'Offsite' field under the gage's 'Locations' section.

Calibration Standards Calibrated by Offsite Vendors—this section is a quick reference for 'Calibration Standards' calibrated by offsite vendors that are coming due for calibration. Certain 'Calibration Standards' (e.g. gage blocks) are used by your calibrators on a daily basis and are critical to ensure your gages remain calibration. This section gives your calibrators a 'heads up' that these types of gages are **either** going to be out of service (when they are sent to an outside vendor for calibration) **or** require scheduling an outside vendor to travel to your shop to provide calibration services.

Refreshing the Dashboard—the 'Refresh Dashboard' button will refresh (or update) the 'Dashboard' with current information.

The Gage Master List

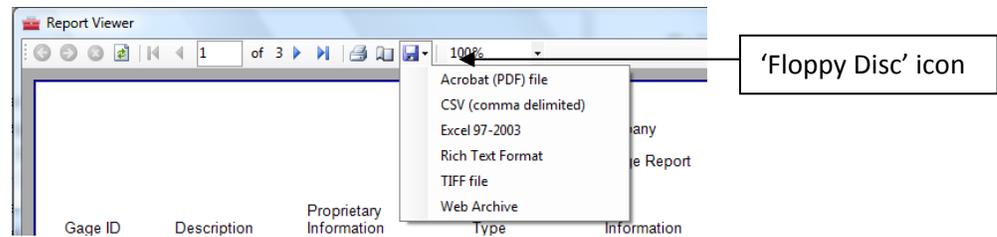
The *Gage Master List* is a comprehensive report that generates primary information for all gages.

The Gage Master List—generates a report of all gages sorted by 'Gage ID'. The report includes: Gage ID, Description, Proprietary Information (who owns the gage), Type, Manufacturer, Date in Service, Cost, and Date of Next Calibration.

Test Company Master List Gage Report									
Gage ID	Description	Proprietary Information	Type	Information	Manufacturer	Date In Service	Status	Cost	Date of Next Calibration
1000	Optical Comparator	Test Company		14"	Deltronic	12/20/2011	Active	2750.00	2/23/2012
1001	Set Plug Gage	Test Company	UNCA3	1 1/4"-7 UNCA3	Wafco Gage	12/20/2011	Active	332.00	1/6/2012
1002	Set Ring Gage	Test Company		3.25009 (Plain)	Starrett	12/20/2011	Active	1037.91	3/16/2012
1003	Thread Plug Gage	Test Company	6H	M12 X 1.75 6H	Starrett	12/20/2011	Active	74.00	1/12/2012
1004	Thread Ring Gage	Test Company	UNF3A	7/16-20 UNF3A	Alpha Thread	12/20/2011	Active	69.28	9/15/2012

A Note on Reporting Functionality

Clicking the 'Floppy Disc' icon allow the user to export reports to: *Excel™*, *Adobe™*, etc...



- *Excel™* allows for additional sorting features.
- *Adobe™* allows for easier emailing.