

Table of Contents

Welcome	1
Installation	2
System Requirements	2
Installing the Program	3
Getting Started.....	7
Starting the Application	7
To Start the Application.....	7
Activating Your Product.....	7
Logging into the Product.....	8
User Maintenance.....	9
Creating a New User.....	9
Deleting a User	10
Editing a User	11
Field Operator Maintenance.....	11
Exiting the Application	12
Getting Help	12
The Program Interface.....	12
Add/Remove/Working with Dashlets.....	15
Adding Dashlets.....	15
Removing Dashlets	15
Working with Dashlets	15
Creating/Editing a Company	17
Creating a New Company	17
Editing a Current Company	18
Close a Company	18
Switching Companies	19

Editing Actions.....	20
District Maintenance	20
Sub-division Maintenance.....	21
Reoccurrence Period Maintenance.....	22
Repair/Maint. Action Maintenance	22
Hydrant Actions.....	23
Valve Actions	23
Main Actions	24
Creating/Editing/Deleting Devices.....	25
Manufacturer Maintenance	25
Adding a New Manufacturer	26
Deleting a manufacturer	26
Hydrant Maintenance	26
Hydrant Model Maintenance	27
Create a new model	28
Delete current model.....	28
Edit current model	28
Restraint Types Maintenance	28
Hydrant Paint Color Maintenance	29
NFPA Code Maintenance	30
Vandal Proof Type Maintenance	30
Hydrant Deficiency Maintenance	31
Hydrant Maintenance.....	32
Add a new hydrant	32
Valve Maintenance	36
Valve Type Maintenance	36
Valve Drive Type Maintenance	37
Valve Function Maintenance	38
Valve Access Type Maintenance	38
Valve Deficiency Maintenance	39
Valve Maintenance	40
Add a new valve	40

Flow Device Maintenance	44
Main Maintenance	44
Connection Type Maintenance	45
Pipe Type Maintenance.....	46
Fitting Maintenance	46
Main Maintenance	47
Add new main.....	48
Creating Tests & Test Groups	50
Fire Flow Testing.....	50
Fire Flow Test Maintenance	50
Add a new test	51
Delete a test	52
Fire Flow Test Group Maintenance	53
Add a new Fire Flow test group.....	53
Delete a Fire Flow test group.....	54
Exercise Group Maintenance	54
Add a new Exercise group	54
Delete an Exercise group.....	55
C-Factor Testing.....	55
C-Factor Test Maintenance.....	55
Add a new C-Factor test.....	56
Delete a C-Factor test.....	58
C-Factor Test Group Maintenance.....	58
Add a new C-Factor test group	59
Delete a C-Factor test group.....	59
Uni-directional Flushing	59
Uni-directional Flush Test Maintenance.....	59
Add a new Uni-directional Flush test.....	60
Delete a Uni-directional Flush test.....	62
Uni-directional Flush Test Group Maintenance	63
Add a new Uni-directional Flush test group	63
Delete a Uni-directional Flush test group.....	64

Hydrant Flushing Group Maintenance	64
Add a new hydrant flushing group	64
Delete a hydrant flushing group	65
Creating/Submitting Fire Flow Work Order.....	66
Fire Flow Work Order	66
Add new Fire Flow Work Order.....	67
To Export Fire Flow Work Order to QSI Handheld	69
To Import Fire Flow Work Order to QSI Handheld.....	69
To Edit Results from the Fire Flow Work Order.....	70
To Submit Results from the Fire Flow Work Order	71
Creating/Submitting Valve Exercise Work Order	72
Valve Exercise Work Order	72
Add a new Valve Exercise Work Order	73
To Export Valve Exercise Work Order to QSI Handheld	75
To Import Valve Exercise Work Order to QSI Handheld	75
To Edit Results from the Valve Exercise Work Order.....	76
To Import Torque Log	76
To Submit Results from the Fire Flow Work Order	77
Creating/Submitting Repair/Maintenance Work Order.....	78
Repair/Maintenance Work Order	78
Add a new Repair/Maintenance Work Order	79
To Edit Results from the Repair/Maintenance Work Order	81
To Submit Results from the Repair/Maintenance Work Order.....	82
Creating/Submitting C-Factor Work Order.....	83
C-Factor Work Order	83
Add a new C-Factor Work Order	84
To Edit Results from the C-Factor Work Order	86
To Submit Results from the C-Factor Work Order.....	88
Creating/Submitting Uni-directional Flush Work Order	89
Uni-directional Flush Work Order	89

Add a new Uni-directional Flush Work Order	90
To Edit Results from the Uni-directional Flush Work Order	92
To Submit Results from the Uni-directional Flush Work Order.....	94
Creating/Submitting a Hydrant Flushing Work Order	95
Hydrant Flushing Work Order	95
Add a new Hydrant Flushing Work Order	90
To Edit Results from the Hydrant Flushing Work Order	98
To Submit Results from the Hydrant Flushing Work Order	99
Reports	100
Fire Flow Work Order Results	100
Filtering & Viewing Fire Flow Work Order Results	101
Fire Flow History Comparison	102
Valve Exercise Work Order Results.....	103
Filtering & Viewing Valve Exercise Work Order Results.....	104
Valve Exercise History Comparison	106
Repair/Maintenance Work Order Results	107
Filtering & Viewing Repair/Maintenance Work Order Results	107
Repair/Maintenance by Priority Report.....	109
Uni-directional Flush Work Order Results.....	110
Filtering & Viewing Uni-directional Flush Work Order Results	110
C-Factor Work Order Results.....	112
Filtering & Viewing C-Factor Work Order Results	113
Hydrant Flushing Work Order Results	114
Filtering & Viewing Hydrant Flushing Work Order Results	115
Water Usage Results.....	116
Filtering & Viewing Fire Flow Water Usage Results.....	116
Filtering & Viewing Uni-directional Flush Water Usage Results	118
Filtering & Viewing C-Factor Water Usage Results	119
Filtering & Viewing Hydrant Flushing Water Usage Results	121
Master Device List Reports.....	122
Filtering & Viewing Hydrant Master Reports.....	122
Filtering & Viewing Valve Master Reports.....	124

Filtering & Viewing Main Master Reports	126
Hydrant Sticker Reports.....	128
Custom Report Viewer	129
Utilities.....	131
Database Backup	131
Restore Database from Backup	132
QSI Fire Flow Directory Export	132
QSI Valve Exercise Directory Export	132
QSI New Valve Import	133
QSI New Hydrant Import	133
Hydrant/Valve Import	134
Export Hydrant Template File	134
Export Valve Template File.....	134
Start Import Wizard	135
Help.....	138
Updates	138
About IMS by Hurco	139
Support.....	139
IMS Video Users Guide	140
IMS Mobile Video Users Guide	140

Chapter 1

Installation

System Requirements

Minimum System Requirements

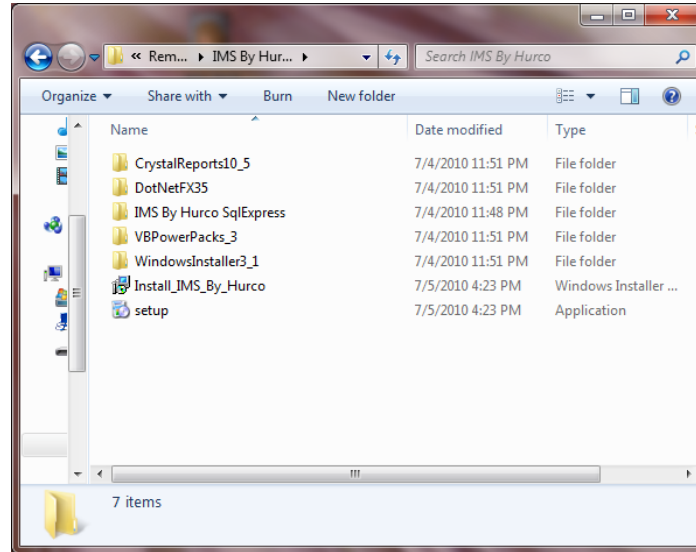
- 1 gigahertz (GHz) or faster 32-bit (x86) or 64-bit (x64) processor
- 512 megabyte (MB) RAM (1 gigabyte (GB) Recommended)
- **1.5 gigabytes (GB)** free hard disc space (application data entered by the user will take up additional space)
- CD-ROM or DVD drive
- 1024 x 768 or higher resolution monitor
- .Net framework 2.0
- Internet Access (fees may apply) – *Used only for google maps addon*
- Adobe Reader

Supported Operating Systems

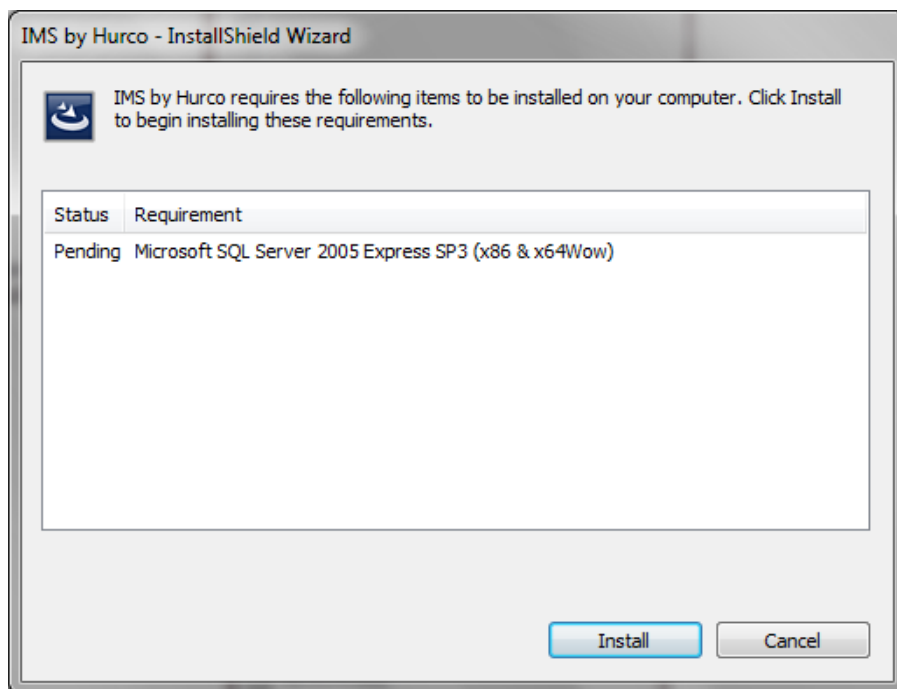
- XP Home SP2
- XP Professional SP2
- XP Media Center
- Vista Home Basic
- Vista Home Premium
- Vista Business
- Vista Ultimate
- Vista Enterprise
- Windows 7 Home
- Windows 7 Business
- Windows 7 Ultimate
- Server 2003 SP1
- SBS 2003 Standard
- SBS 2003 Premium
- SBS 2003 R2 Standard
- SBS 2003 R2 Premium

Installing the Program

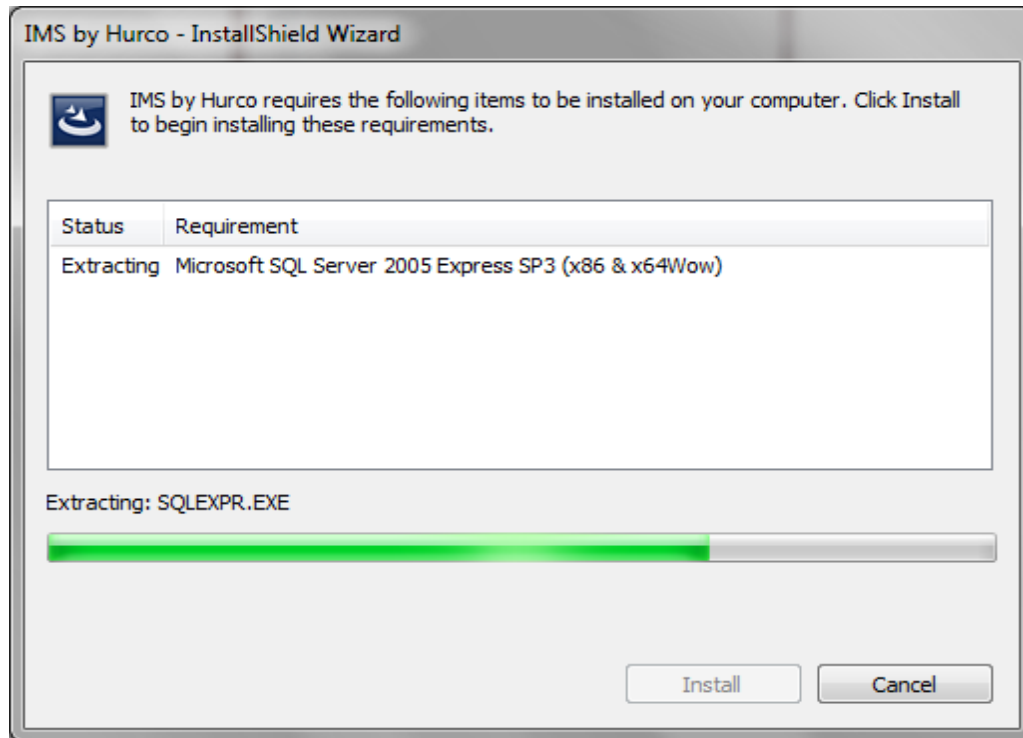
To begin the installation of IMS by Hurco, double click on the “setup.exe” file located on your installation CD (or inside your downloaded zip file). You must run the setup file with administrative privileges. Also temporarily shut down any antivirus programs to prevent interference during installation.



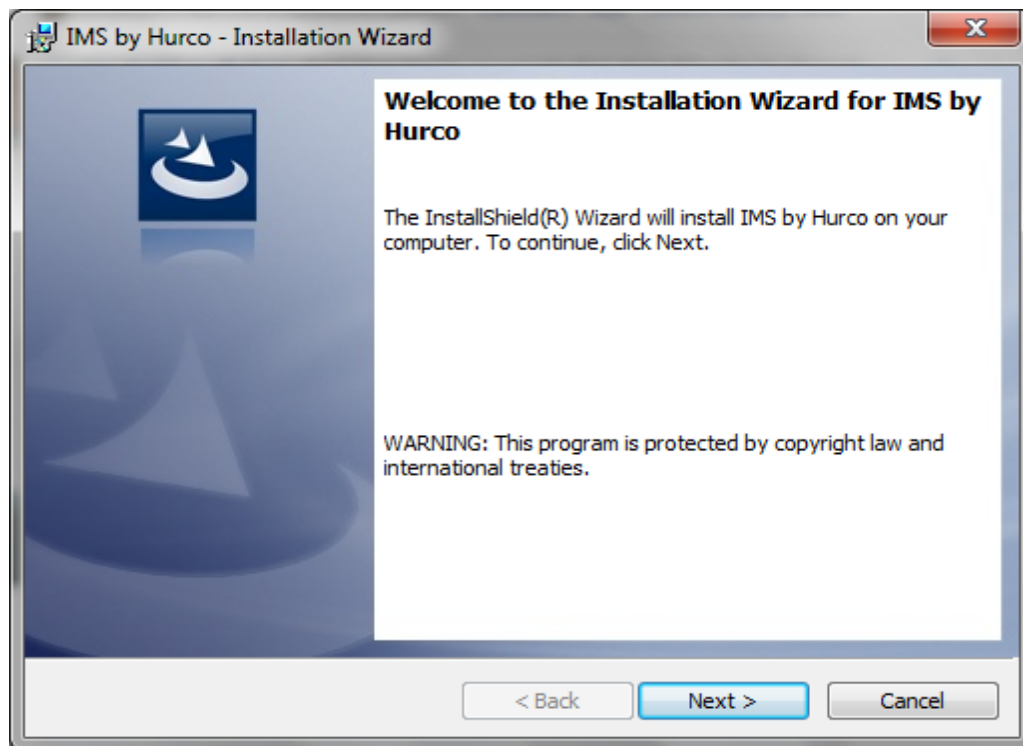
When the installation begins, you will see the following screens. This screen will appear if you do not have the required pre-requisite programs loaded on your computer at the time of installation. Clicking “Install” will move the installation forward.



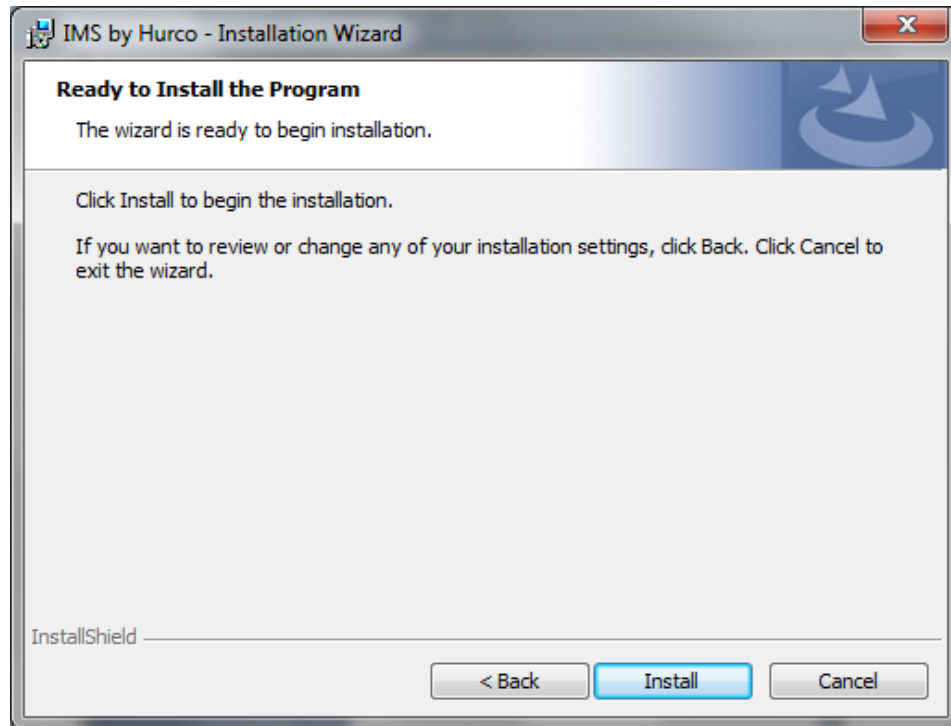
After clicking “Install”, you will see a progress bar. Please be patient, this install may take several minutes depending on the speed of your PC.



Once the pre-requisites have been installed, the following screen will appear to start the installation of IMS by Hurco. Click “Next” to proceed with the install.

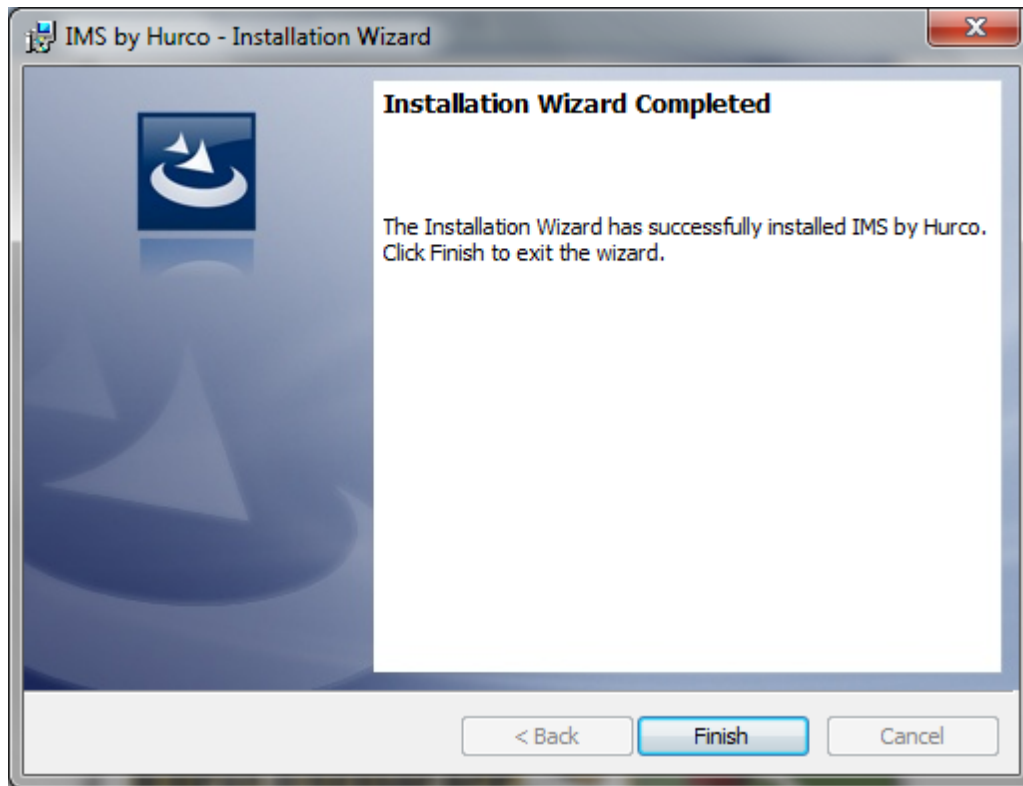


To proceed with the installation, click “Install” to continue. you will see a progress bar. Please be patient, this install may take several minutes depending on the speed of your PC.



After clicking “Install” , you will see a progress bar. Please be patient, this install may take several minutes depending on the speed of your PC.





Once the installation finishes, you will be asked to click “Finish”. Do so and you are all done!

For network environments, IMS by Hurco can be set up to share its database with other installations. To learn more about this feature, contact Hurco Technologies Inc.

Chapter 2

GETTING STARTED

Starting the Application

The IMS by Hurco software icon appears under the Hurco Technologies group by default and on the desktop as a shortcut.

To start the application

1. Click the Start button on the Windows taskbar, and then select Programs from the Start menu.
2. Select Hurco Technologies from the Programs submenu, and then select the IMS by Hurco icon.

OR

1. Select the IMS by Hurco software icon.

We have provided demonstration data for a company called “Sample Company.” This demonstration data makes it much easier for new users to learn the application. Depending on whether you are a new user, or the first user of the application for your company, Sample Company might open automatically after startup. If not, you can open it as you would any other company.

Activating Your Product

Upon first opening your program, you will see the activation screen. If you have not purchased an activation ID, you will have 15 uses before you will be required to purchase one. To use your trial uses, click Cancel and you will be taken to the user login screen. After you have purchased your activation ID, you will need to enter it on the screen and click Activate. This screen will not appear again after activating your product. If you purchase additional modules at a later date, you will need to go to the Help menu to enter new activation ID. See “[Help Section](#).”



Logging into the Program

You must enter your user login name and password to access the application. The default user name is **Admin**. The default password is **imsadmin**.

To enter a user login name and password

1. The User Login screen appears when the application is started. (It may be the second screen if the program has not been activated.)
2. Type your user name in the User Name and password.
3. Select the company under Connect To. You must choose a company to continue.
4. You now have access only to those functions as defined by program administrator.



Note: User names and passwords are case-sensitive. That is, Admin and ADMIN are two different user names/passwords.

User Maintenance

Select User Maint from the Edit menu to edit the permissions and options for each user. This is where password and user names for each user are created. Also access to certain parts of the program can be restricted here. Certain fields are automatically set to “Deny” when the program is installed. These items are denoted by two asterisks. These are pertinent fields that affect other parts of the program.

Create new user

1. To create a new user, select Add New.
2. Enter User Name for new user.
3. Enter password for new user.
4. Select device rights for the new user. To change access for a field, select the drop down box and chose either Allow or Deny. Allow will grant the user access to that menu option. Deny will prevent that option from appearing in the users menu options.

The screenshot shows a software window titled "User Maint." with a standard Windows-style title bar. Below the title bar is a toolbar with buttons for "Add new", "Delete", and "Save Data". The main area contains fields for "User Index:" (value: 11), "User Name:" (value: Admin), and "User Pass:" (value: msadmin). A red double asterisk (**) is shown below the User Name field with a note: "-- Indicates a field will default to 'Deny' all other fields will default to 'Allow' unless changed." Below these fields are three tabs: "Device Rights", "Work Order Rights", and "Other Rights". The "Device Rights" tab is selected and contains three sub-sections: "Hydrant Rights", "Valve Rights", and "Main Rights". Each sub-section has several dropdown menus with "Allow" selected. The "Hydrant Rights" section includes: Hydrant Maint, Model Maint, Paint Color, NFPA Codes, Vandal Proof Maint, Hyd Deficiency, and Restraint. The "Valve Rights" section includes: Valve Maint, Val Type Maint, Val Drive Maint, Val Func Maint, Val Deficiency, and Access Type. The "Main Rights" section includes: Main Maint, Connections, and Pipe Maint. Below these is a "Misc. Rights" section with "Flow Device" and "Device Import" dropdowns, both set to "Allow".

5. Select work order rights for the new user. To change access for a field, select the drop down box and chose either Allow or Deny. Allow will grant the user access to that menu option. Deny will prevent that option from appearing in the users menu options.

User Maint.

1 of 1 | Add new | Delete | Save Data

User Index: 11
 User Name: Admin | User Pass: imssadmin

--- Indicates a field will default to "Deny" all other fields will default to "Allow" unless changed.

Device Rights | **Work Order Rights** | Other Rights

Repair_Maint_WO	Fire Flow WO	Valve Exercise WO
Repair / Maint WO: Allow	Fire Flow WO: Allow	Exercise WO: Allow
Repair / Maint Results: Allow	Fire Flow Results: Allow	Exercise Results: Allow
	Fire Flow Test: Allow	Exercise Group: Allow
	Fire Flow Test Grp: Allow	QSI Exercise Exports: Allow
	QSI Fire Flow Exports: Allow	QSIDirectory Imports: Allow

Uni-Directional Flushing WO	C-Factor WO	Hydrant Flushing WO
UDF WO: Allow	CFactor WO: Allow	Hyd Flush WO: Allow
UDF Result: Allow	CFactor Result: Allow	Flush Result: Allow
UDF Group: Allow	CFactor Group: Allow	Flush Group: Allow
UDF Test: Allow	CFactor Test: Allow	

6. Select other rights for the new user. To change access for a field, select the drop down box and chose either Allow or Deny. Allow will grant the user access to that menu option. Deny will prevent that option from appearing in the users menu options.

User Maint.

1 of 1 | Add new | Delete | Save Data

User Index: 11
 User Name: Admin | User Pass: imssadmin

--- Indicates a field will default to "Deny" all other fields will default to "Allow" unless changed.

Device Rights | Work Order Rights | **Other Rights**

Report Rights	System Rights
Core Reports: Allow	Edit License: Allow
Custom Reports: Allow	Company Maint: Allow
	User Maint: Allow
	Reoccurrence: Allow
	WOAction: Allow
	Backup Data: Allow

Misc Rights
Manuf Maint: Allow
District Maint: Allow
Sub Div Maint: Allow
Bulk WOSubmit: Allow
Reopen WO: Allow

7. Select Save Data to save new user or Cancel to not save new user.

Delete current user

1. To delete a user, select the user that needs to be deleted.
2. Click Delete.

3. Confirmation box will appear asking if you are sure you want to delete user.
4. Select yes to confirm deletion or no to cancel deletion.

Edit current user

1. To edit a user, select the user that needs to be edited.
2. You can update the user name or password.
3. Select access level for new user. To change access for a field, select the drop down box and chose either Allow or Deny. Allow will grant the user access to that menu option. Deny will prevent that option from appearing in the users menu options.
4. Select Save Data to save updated information.

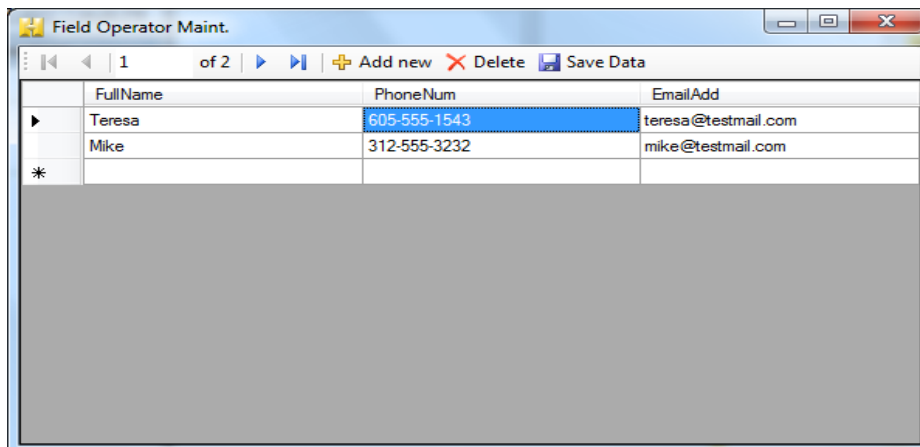
Field Operator Maintenance

Select Field Operator Maint from the Edit menu to add or edit the individuals who will be performing maintenance and tests.

- FullName – Enter the name of the field operator.
- PhoneNum – Enter the phone number of the field operator.
- EmailAdd – Enter the email address of the field operator.

To create a new field operator, either click Add new or start entering the information in the first blank row. Select Save Data to save the new Field Operator.

To delete a field operator, select the field operator to delete. Select Delete.

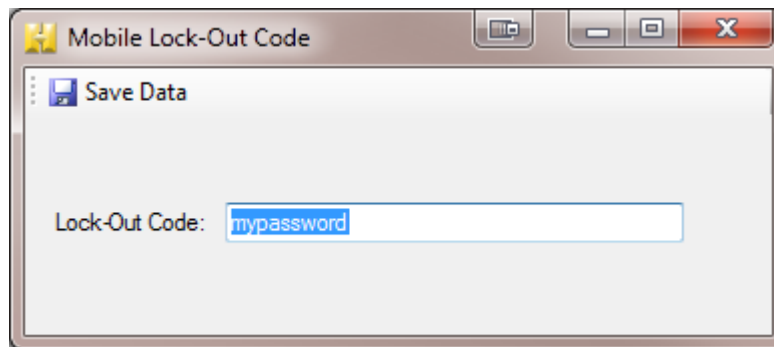


The screenshot shows a window titled "Field Operator Maint." with a toolbar containing "Add new", "Delete", and "Save Data". Below the toolbar is a table with three columns: "FullName", "PhoneNum", and "EmailAdd". The table contains two rows of data: "Teresa" with phone number "605-555-1543" and email "teresa@testmail.com", and "Mike" with phone number "312-555-3232" and email "mike@testmail.com". A third row is partially visible with an asterisk in the first column. The "PhoneNum" cell for "Teresa" is highlighted in blue.

	FullName	PhoneNum	EmailAdd
▶	Teresa	605-555-1543	teresa@testmail.com
	Mike	312-555-3232	mike@testmail.com
*			

IMS Mobile Lock-Out Code

Select Mobile Lock-Out Code from the Edit menu to change the password used on IMS Mobile to lock or unlock editing abilities on the handheld unit.



Exiting the Application

There are a couple of ways to exit IMS by Hurco. Once this is done, you will be taken to the Windows desktop. Do one of the following:

- Select File and Close Company from the menu bar.
- Click the “X” button in the upper right corner.

Getting Help

There are many ways to obtain help with this the application. Your options include:

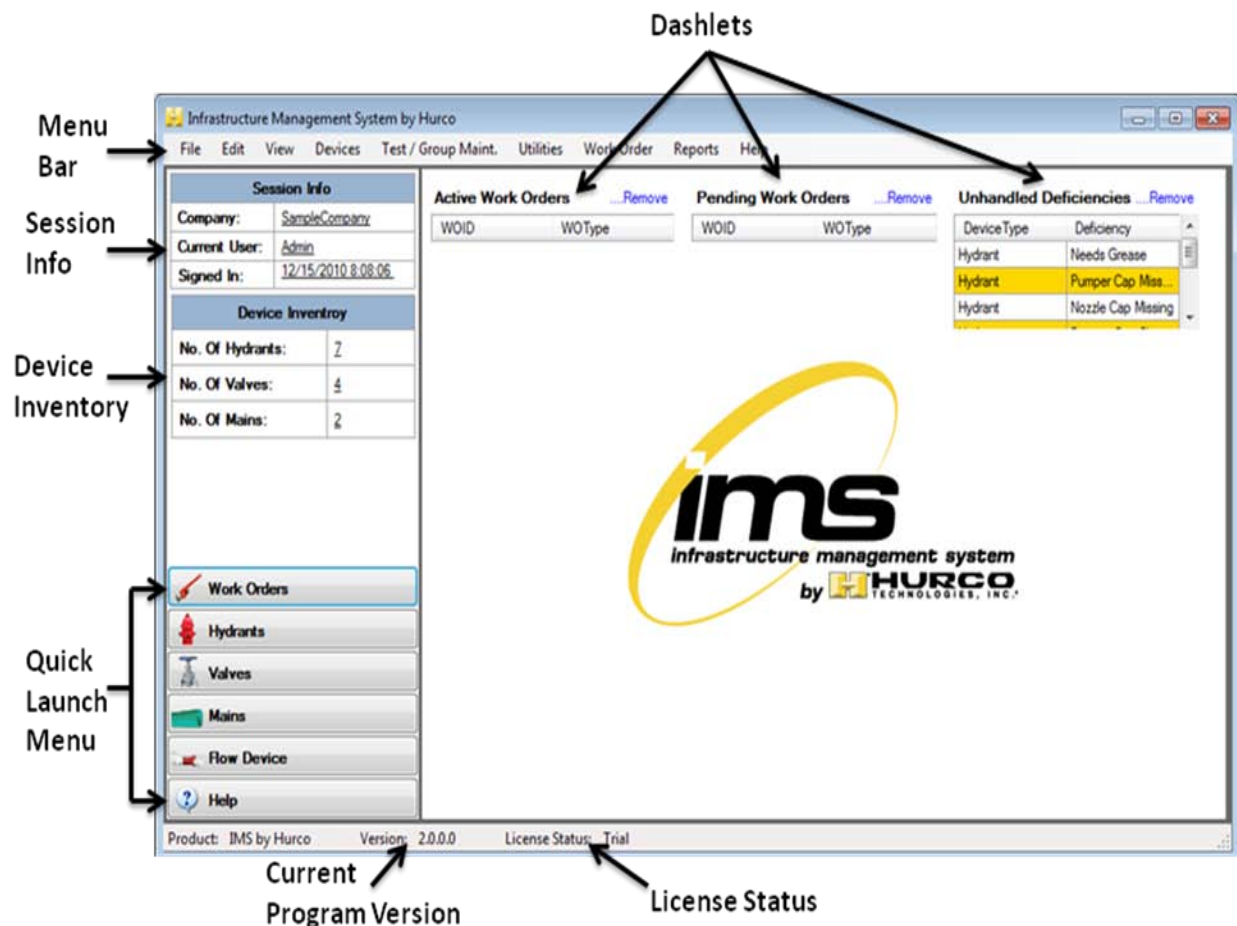
- Using the online Help system
- Viewing the online user’s guide
- View the tutorial videos
- Contacting Hurco Technologies

The Program Interface

After starting the application, the main program window appears. The main window contains all the options that are needed to maneuver in IMS by Hurco.

Elements of the Main Window

The diagram below illustrates the most important elements of the main window. Following the diagrams are brief explanations of most elements.



The following describes most elements of the IMS by Hurco interface listed in the above illustration.

- **Menu Bar**

The menu bar is a standard Windows interface tool used to access specific areas of a program. The menu bar contains menu headings that list specific functions or actions in the program. To initiate an action, click the menu heading that corresponds to the desired action.

- **Session Info**

This section gives the name of the company that user is currently logged into. It also gives the current users name and the date and time that they signed into the program.

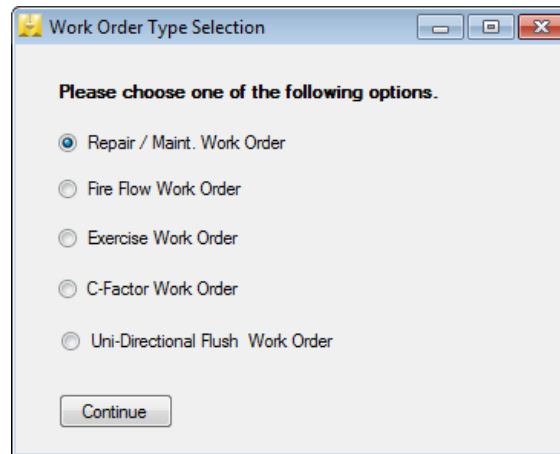
- **Device Inventory**

This section gives details of the number of devices that are currently in the program.

- **Quick Launch Menu**

These are buttons that can be clicked on in order to access a specific function in the program easily and quickly.

- Work Order – This will take you to a new menu where you can choose what type of work order you would like to create or view. Select a work order type and then click continue and you will be taken to the appropriate work order screen.



- Hydrants – This will take you to the hydrant maintenance screen where you can view or create a new hydrant.
- Valves – This will take you to the valve maintenance screen where you can view or create a new valve.
- Mains– This will take you to the main maintenance screen where you can view or create a new main.
- Flow Devices– This will take you to the flow device maintenance screen where you can view or create a new flow device.
- Help– This will take you the user manual.

▪ **Dashlets**

These areas give quick access to important functions in the program.

- Active Work Orders – This lists all of the work orders that are active and have not been completed or closed.
- Pending Work Orders –This lists all of the pending work orders that have been created by the system due to reoccurrence period being met on a past work order.
- Recent Work Orders – This lists the 10 most recent work orders that have been completed.
- Unhandled Deficiencies – This lists pending deficiencies that have been logged from work orders.

▪ **Current Program Version**

This displays the current version of IMS by Hurco that is running.

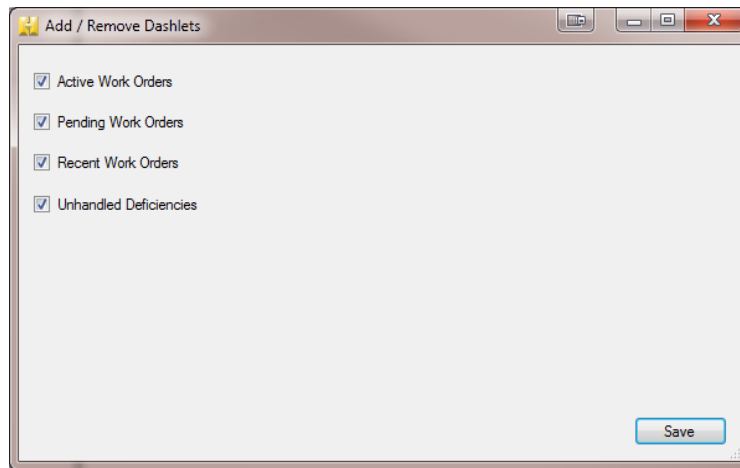
▪ **License Status**

This displays the status of your license. It will either be Registered or Trial. Trial means that you have not purchased and activated a license code.

Add/Remove/Working with Dashlets

Adding dashlets

To add dashlets, select Add/Remove Dashlets from the View menu. There are five dashlets that are available. You can select one, all or none. To add a dashlet, click inside the box next to the dashlet that is wanted.



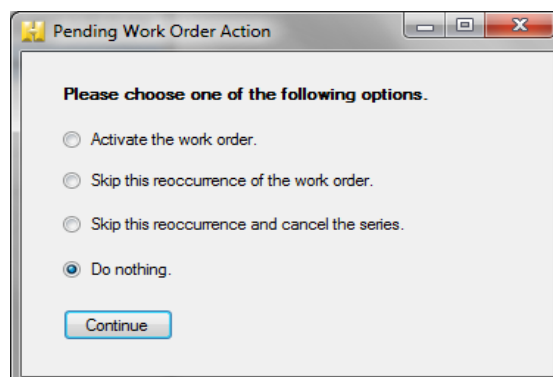
Removing dashlets

There are two ways to remove a dashlet, you can uncheck the box in this screen or you click the Remove option that is next to each dashlet on the main window.

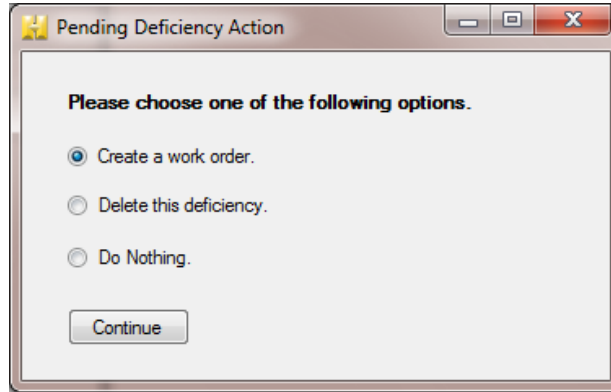
Working with dashlets

Each dashlet has a unique function. Below is how the dashlets work.

- 1) **Active Work Orders**- Double clicking on any work order in this dashlet will pull up the work order selected.
- 2) **Pending Work Orders**- Double clicking on any work order in this dashlet will pull up the following menu.



- a) **Activate the work order** – This will create the work order and add it to the active work orders.
 - b) **Skip this reoccurrence of the work order** – This will remove the selected pending work order and it will reoccur on the next scheduled date.
 - c) **Skip this reoccurrence and cancel the series** – This will remove the selected pending work order and will also cancel any further reoccurrences.
 - d) **Do nothing** – This will close the menu option and will not affect the selected pending work order.
- 3) **Recent Work Orders** – Double clicking on any work order in this dashlet will pull up the results report for the selected work order.
- 4) **Unhandled Deficiencies** – Double clicking on any deficiency listed in this dashlet will pull up the following menu.



- a) **Create a work order** – This will create a new work repair/maintenance work order. Once this is created, it will appear as an active work order.
- b) **Delete this deficiency** – This will remove the deficiency from the unhandled deficiencies and will require no additional procedures.
- c) **Do nothing** – This will close the menu option and will not affect the selected deficiency.

Chapter 3

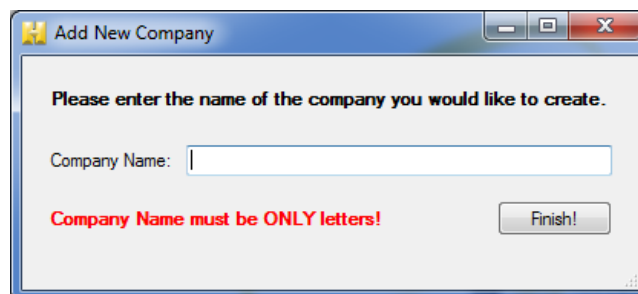
Creating/Editing/Switching Companies

In this chapter you'll learn the creating and editing companies. These options are located under the File option on the Menu Bar.



Creating a New Company

To create a new company, enter the name of the company you want to create. This will create you new company. Once a new company is created, user will need to close program. Upon login, select newly created company from Connect To list.



Note: Company names can only be letters. If the company name includes number, you will need to spell out the number words or exclude the characters that are not letters.

Edit a Current Company

To edit company information Select Edit Company to enter or update company details. This will need to be done when a new company is created or the company information changes.



- Company name- Use this field to enter a unique name for the company you are creating.
- Enter Addr1/Addr2.
- Enter City.
- Enter State. Use two letter state code.
- Enter Zip Code.
- Enter Phone number. Use the following format (xxx) xxx-xxxx.
- Enter Fax Number. Use the following format (xxx) xxx-xxxx.
- Enter company email address.
- Chose the Upload Logo button and go to the location of you logo file. Select the file and chose Open.
- Select Remove Image if the logo isn't needed.

Close a company

Select Close Company when you want to close the current company to access a new company or to stop using the program.

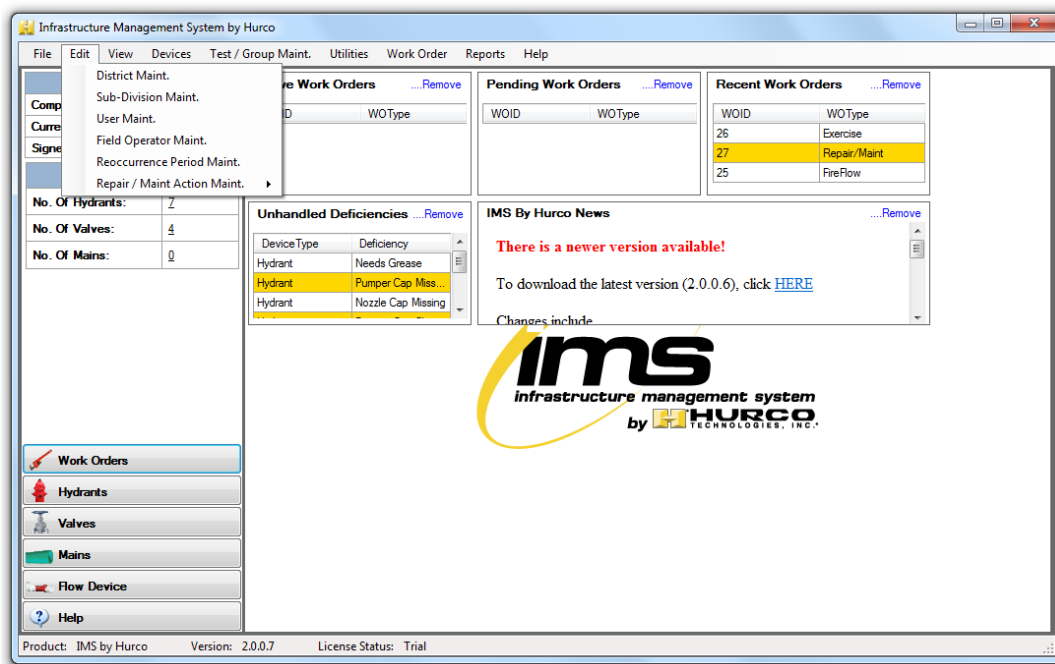
Switch companies

Select switch company to move from one company to another. The login screen will appear. Enter login user name and password then select the new company that is desired.

Chapter 4

Editing Actions

In this chapter, you will learn how to edit actions that are need in work orders. These options are located under the Edit option on the Menu Bar.



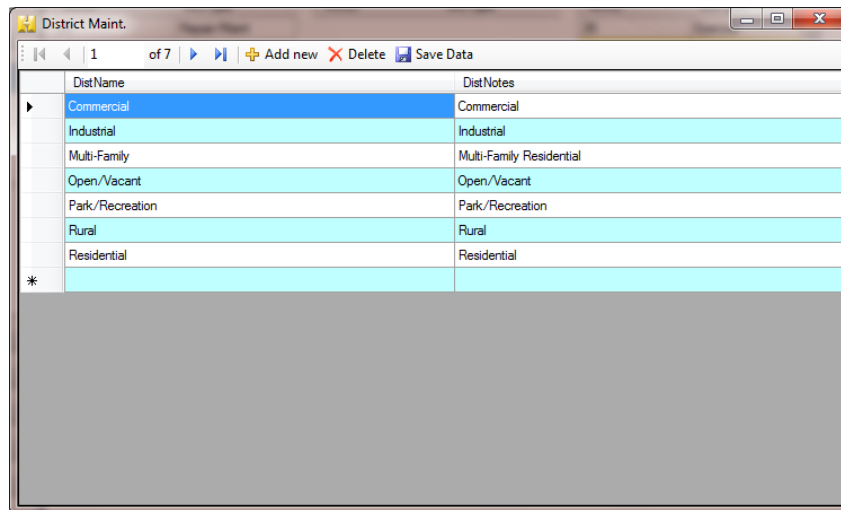
District Maintenance

Select District Maint to edit districts for devices. This is the screen that is used to set the districts for where the devices are located. By default, standard districts are included.

- DistName – Enter the name of the district.
- DistNotes – Enter any notes that are needed.

To create a new district, either click Add new or start entering the district name and description in the first blank row. Select Save Data to save the new district.

To delete a district, select the district to delete. Select Delete. A confirmation screen will appear to confirm the deletion. Select Yes to delete and No to not delete.



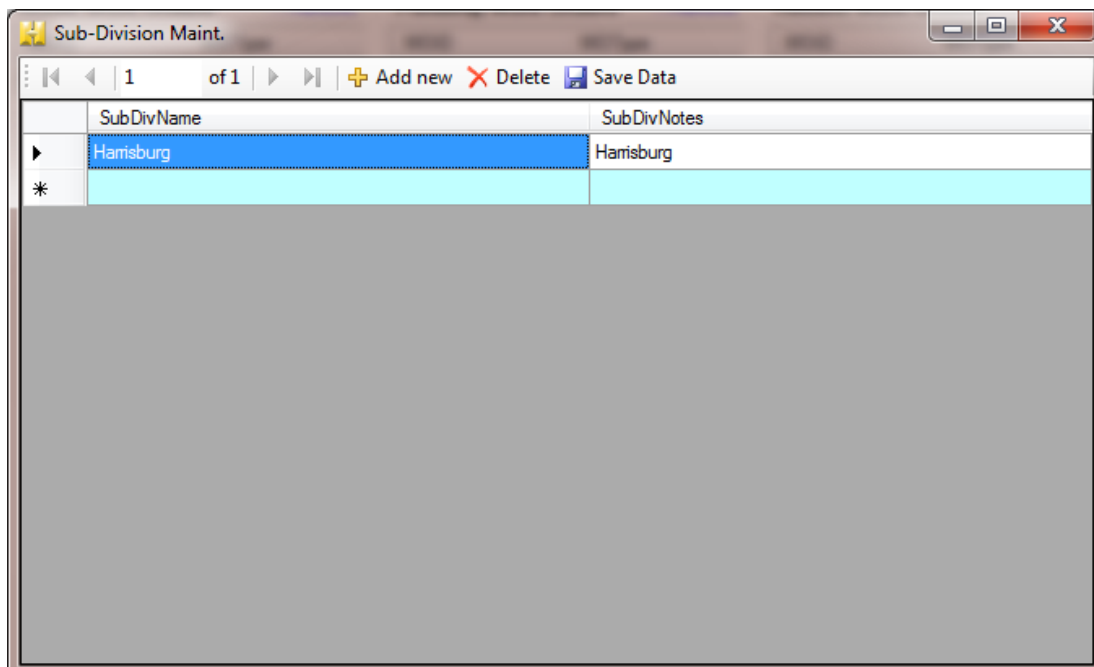
Sub-Division Maintenance

Select Sub-Division Maint to edit sub-divisions for devices. This is the screen that is used to set the sub-divisions for where the devices are located.

- SubDivName – Enter the name of the district.
- SubDivNotes – Enter any notes that are needed.

To create a new sub-division, either click Add new or start entering the sub-division name and description in the first blank row. Select Save Data to save the new sub-division.

To delete a sub-division, select the sub-division to delete. Select Delete. A confirmation screen will appear to confirm the deletion. Select Yes to delete and No to not delete.



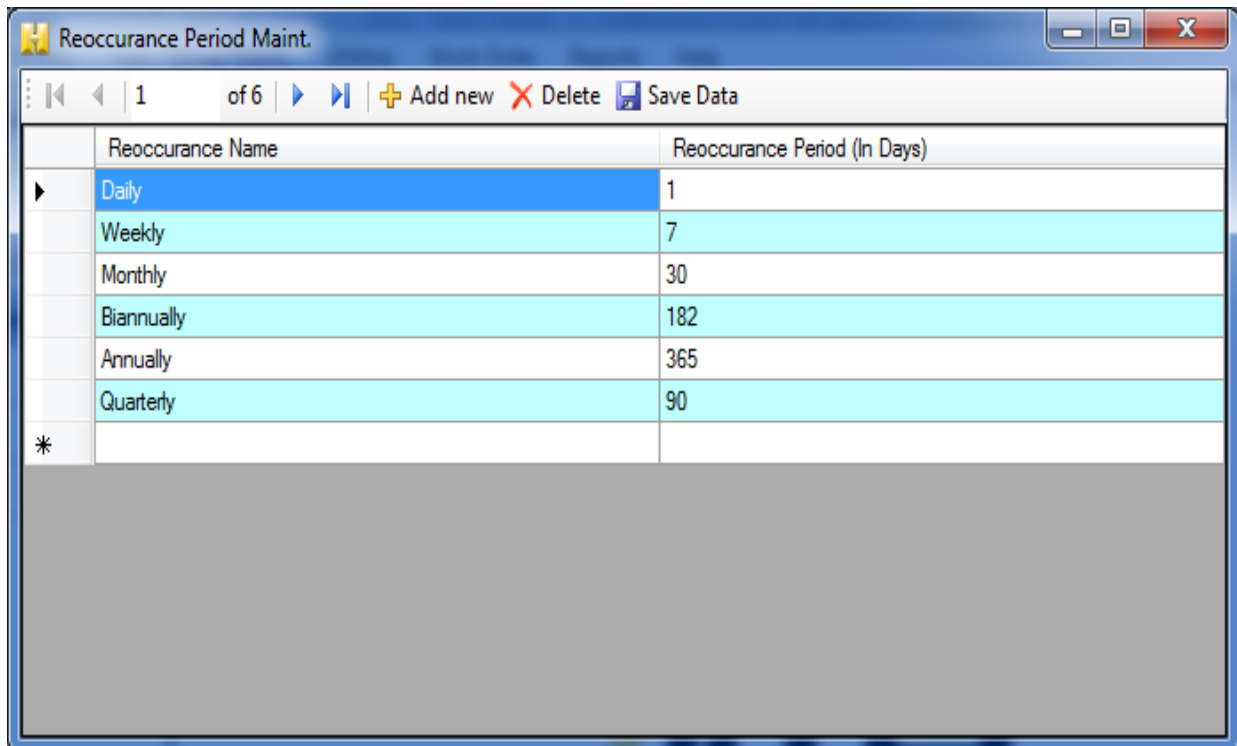
Reoccurrence Period Maintenance

Select Reoccurrence Period Maint to edit the reoccurrence period for work orders. This is the screen that is used to set the number of days for each reoccurrence. For example, daily is 1 day and weekly is 7 days. These are used in calculating new work order dates for reoccurring work orders. By default, standard period are included.

- Reoccurrence Name – Enter the name for the reoccurrence period.
- Reoccurrence Period (In Days) – Enter the number of days for the reoccurrence period. This needs to be a number.

To create a new period, either click Add new or start entering the reoccurrence name and description in the first blank row. Select Save Data to save the new reoccurrence period.

To delete a period, select the period to delete. Select Delete. A confirmation screen will appear to confirm the deletion. Select Yes to delete and No to not delete.



The screenshot shows a window titled "Reoccurrence Period Maint." with a toolbar containing navigation buttons, "1 of 6", "Add new", "Delete", and "Save Data". Below the toolbar is a table with two columns: "Reoccurrence Name" and "Reoccurrence Period (In Days)". The table contains the following data:

Reoccurrence Name	Reoccurrence Period (In Days)
Daily	1
Weekly	7
Monthly	30
Biannually	182
Annually	365
Quarterly	90
*	

The bottom of the window is a large gray area, likely for additional data entry or a confirmation message.

Repair/Maint Action Maintenance

Select Repair/Maint Action Maint to edit actions that are available for work orders. Choose either Hydrant Actions, Valve Actions or Main Actions. These are the screens used to set up the actions that are available to be selected on any work order screen.

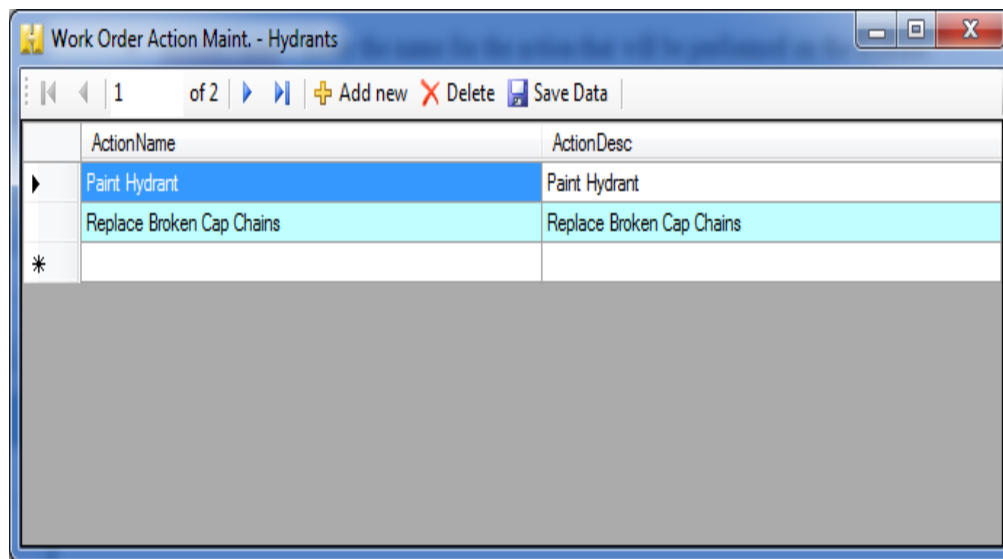
Hydrant Actions

- ActionName – Enter the name for the action that will be performed on the hydrant.
- ActionDesc– Enter the description of the action that will be performed on the hydrant.

To create a new hydrant action, either click Add new or start entering the action name and description in the first blank row. Select Save Changes to save the new action.

To edit a hydrant action, enter the changes that are needed and select Save Data.

To remove an action, select the action to delete. Select Remove Selection. A confirmation screen will appear to confirm the deletion. Select Yes to delete and No to not delete.



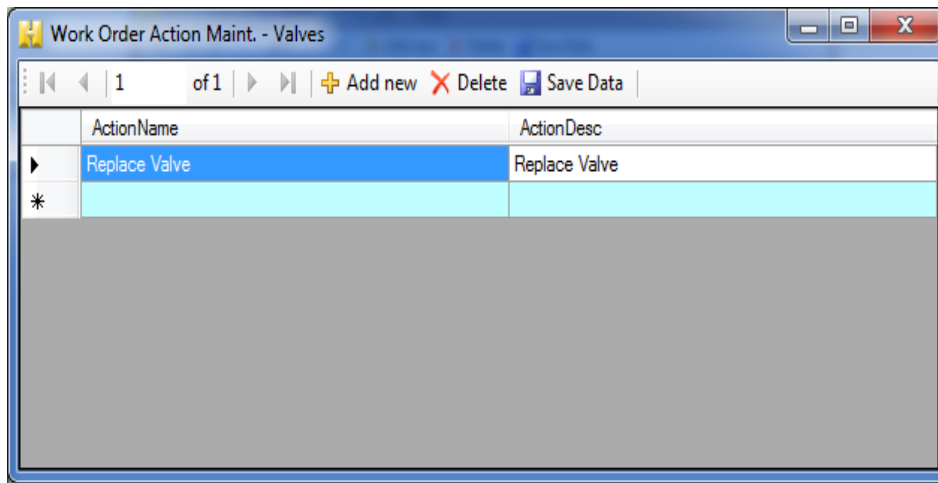
Valve Actions

- ActionName – Enter the name for the action that will be performed on the valve.
- ActionDesc– Enter the description of the action that will be performed on the valve.

To create a new valve action, either click Add new or start entering the action name and description in the first blank row. Select Save Changes to save the new action.

To edit a valve action, enter the changes that are needed and select Save Data.

To remove an action, select the action to delete. Select Remove Selection. A confirmation screen will appear to confirm the deletion. Select Yes to delete and No to not delete.



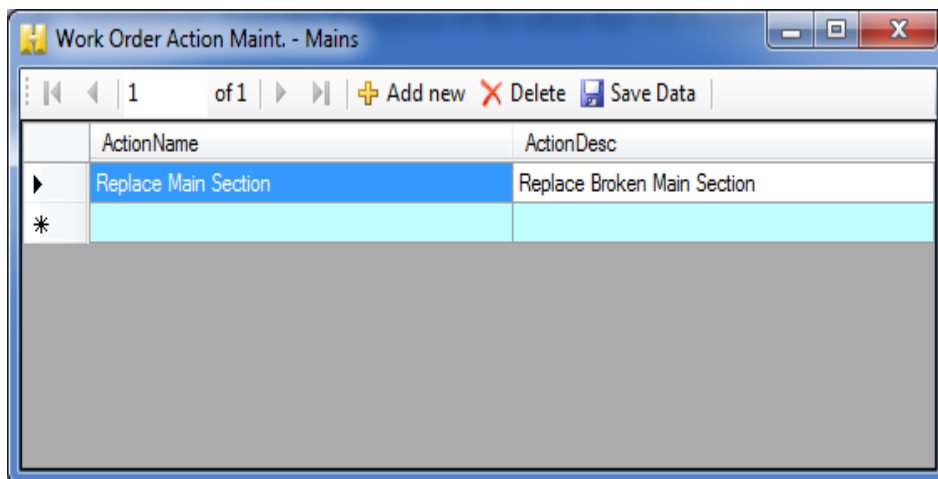
Main Actions

- ActionName – Enter the name for the action that will be performed on the main.
- ActionDesc– Enter the description of the action that will be performed on the main.

To create a new main action, either click Add new or start entering the action name and description in the first blank row. Select Save Changes to save the new action.

To edit a main action, enter the changes that are needed and select Save Data.

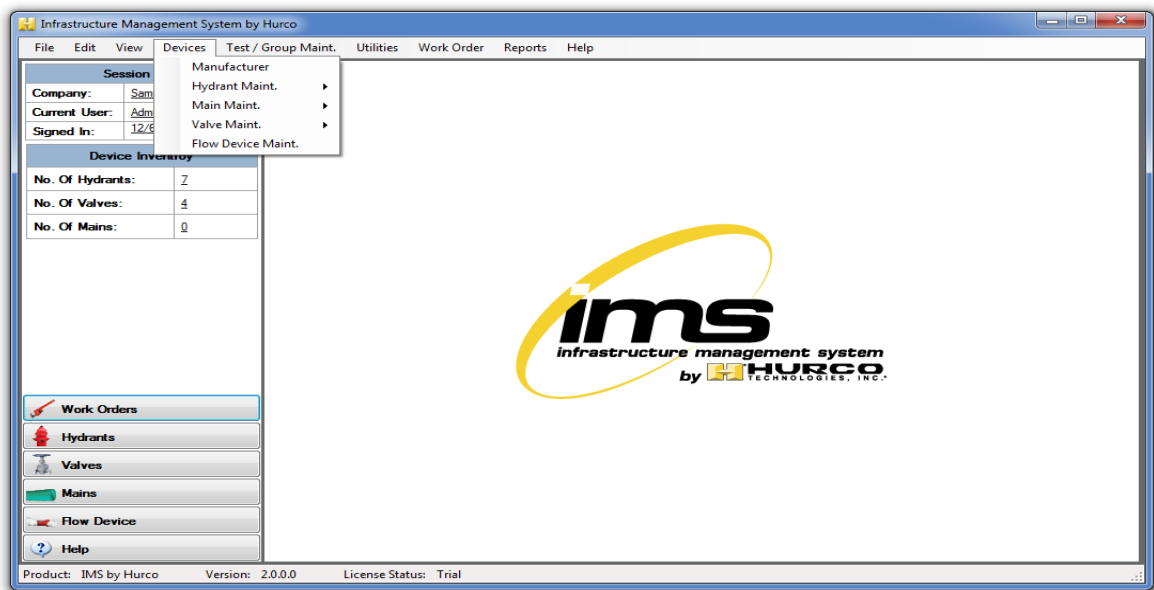
To remove an action, select the action to delete. Select Remove Selection. A confirmation screen will appear to confirm the deletion. Select Yes to delete and No to not delete.



Chapter 5

Creating/Editing/Deleting Devices

In this chapter, you'll learn about creating, editing, and deleting hydrants, valves & mains. You will also be able to add manufacturers, models, and related details. These options are located under the Devices option on the Menu Bar.



Manufacturer Maintenance

This screen keeps track of the manufacturer of your products. Fill this out to keep track of all the manufacturers. These will be needed when entering your devices into the system. It is a quick way to access the manufacturer address & phone numbers if there are issues with your products.

Manufacturer Maint.											
8 of 8 Add new Delete Save Data											
	Name	Address 1	Address 2	City	State	Zip	Phone	Mobile Phone	Fax	Contact Name	Web
	Clow	902 South 2...		Oskaloosa	IA	52577	(800) 829-2...		(641) 673-8...		www.clowval...
	James Jones	1470 South ...		Ontario	California	91761	(800) 523-8...		(800) 246-5...		www.jamesjo...
	Mueller	1200 Abern...		Atlanta	GA	30328	(770) 206-4...				www.mueller...
	Kennedy Va...	1021 East ...		Elmira	NY	14901	(607) 734-2...				www.kenned...
	TCIW										www.firehydr...
	Waterous	125 Hardma...		South St. Paul	MN	55075	(651) 450-5...		(651) 450-5...		www.waterou...
	American A...	2155 Meridi...		Minden	NV	89423	(775) 552-1...		(775) 783-1...		www.america...
▶	Other										
*											

Add a new manufacturer

To add a new manufacturer, either click Add new or start entering the following information in the first blank row.

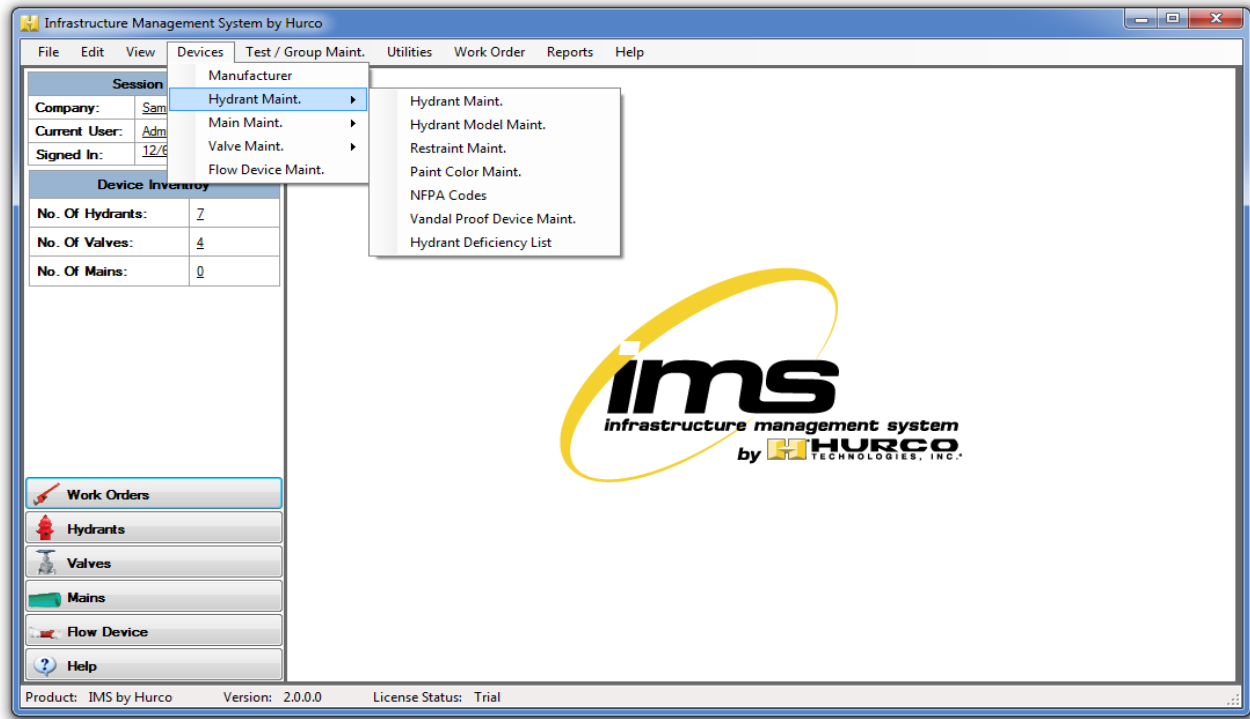
1. Manufacturers name.
2. Manufacturers address.
 - a. Address
 - b. City
 - c. State
 - d. Zip Code
3. Manufacturers contact numbers
 - a. Direct phone number
 - b. Mobile phone number
 - c. Fax number
4. Contact name
5. Email address – double clicking on the email address after entering and saving it will give access to email the manufacturer.
6. Manufacturer's web site address – double clicking on the web address after entering and saving it will take you to the manufacturer's website.
7. Select Save Data to save the information that was entered.

Delete a manufacturer

To remove a manufacturer, select the manufacturer to delete. Select Delete. A confirmation screen will appear to confirm the deletion. Select Yes to delete and No to not delete.

Hydrant Maintenance

This section is where the aspects of the hydrants can be edited. You can add new hydrants, delete hydrants, and maintain hydrant maintenance options.



Hydrant Model Maintenance

This screen keeps track of the brands and types of hydrants that are used. These will be needed when entering a new hydrant into the system. This information can be obtained from the manufacturer of the hydrant. You can click on the green “+” sign and it will take you to the respective menu option to enter a new device. (Example: If you click the one next to the Manuf ID box, it will take you to the Manufacturer Maintenance screen to enter a new manufacturer.)

Model Index	Model ID	Model Desc	Manuf ID	Open Dir	Valve Turns	Valve Opening Size	Barrel Type	Num of Pumps	Pumper Diam	Pumper Coef	Pumper Thread Diam	Pumper Threads/in	Num of Nozzels	Nozzel Diam	Nozl Coefficient	Nozl Thread Diam	Nozl Threads/in
3	Mueller A121-1998	Mueller A121-1998	Clow	Left	5.00	0.00	Wet Barrel	2	4.000	0.009	4.000	5.000	2	2.500	0.009	2.500	5.000

Valve Star Settings

Set Rev: 20.000
Set Torque: 50.000
Set Speed: 25.000
Set Cycle: 1

Upload Image Remove Image

Create a new model

1. To create a new model, select Add New.
2. Enter all pertinent information for the model.
3. Upload an image of the model number. (optional)
4. Select Save Data to save new model or Cancel to not save new model.

Delete current model

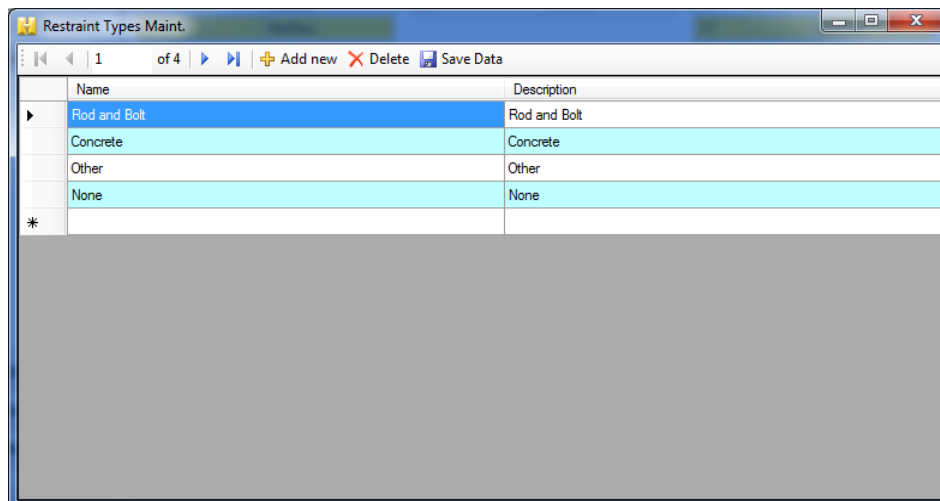
1. To delete a model, select the model that needs to be deleted.
2. Click Delete.
3. Confirmation box will appear asking if you are sure you want to delete model.
4. Select yes to confirm deletion or no to cancel deletion.

Edit current model

1. To edit a model, select the model that needs to be edited.
2. Change the information that requires change.
3. Select Save Data to save updated information.

Restraint Types Maintenance

This screen keeps track of the types of hydrants restraints that are used. These will be needed when entering a new hydrant into the system.



Name	Description
Rod and Bolt	Rod and Bolt
Concrete	Concrete
Other	Other
None	None

- Name – Enter the name for the restraint.
- Description– Enter the description of the restraint.

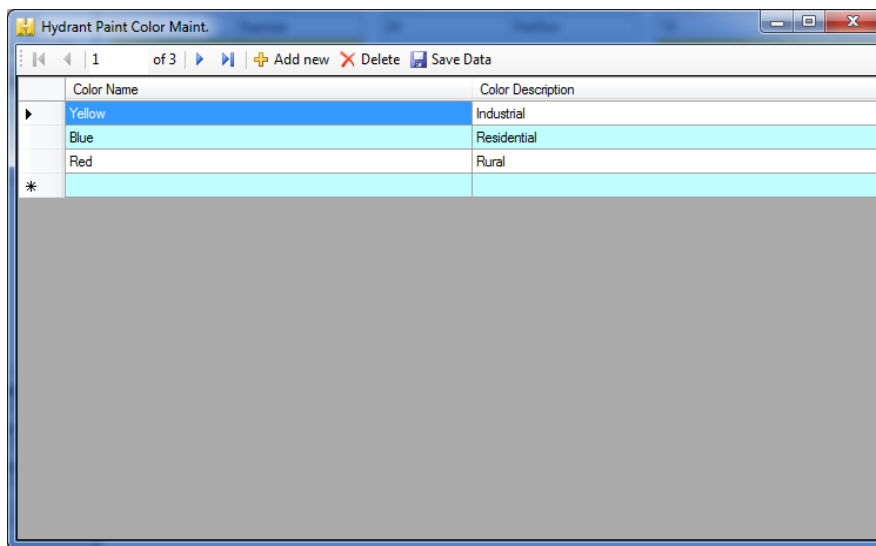
To create a new restraint type, either click Add new or start entering the restraint type name and description in the first blank row. Select Save Data to save the new restraint type.

To edit a restraint type, enter the desired changes. Select Save Data to save the restraint type changes.

To remove a restraint, select the restraint to delete. Select Delete. A confirmation screen will appear to confirm the deletion. Select Yes to delete and No to not delete.

Hydrant Paint Color Maintenance

This list the paint colors used to identify hydrants. These will be needed when entering a new hydrant into the system.



	Color Name	Color Description
▶	Yellow	Industrial
	Blue	Residential
	Red	Rural
*		

- Color Name – Enter the name for the color.
- Color Description– Enter the description of the color.

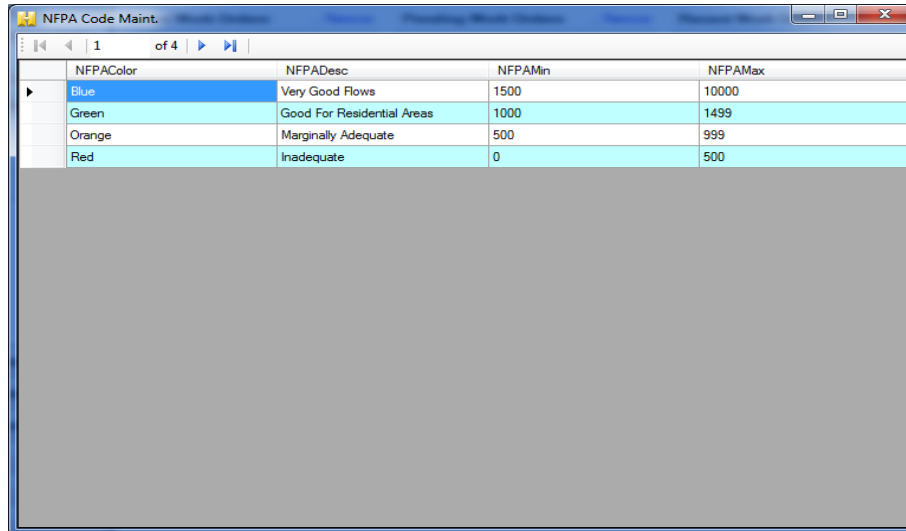
To create a new paint color, either click Add new or start entering the color name and description in the first blank row. Select Save Data to save the new paint color.

To edit a paint color, enter the desired changes. Select Save Data to save the new paint color.

To remove a paint color, select the paint color to delete. Select Delete. A confirmation screen will appear to confirm the deletion. Select Yes to delete and No to not delete.

NFPA Code Maintenance

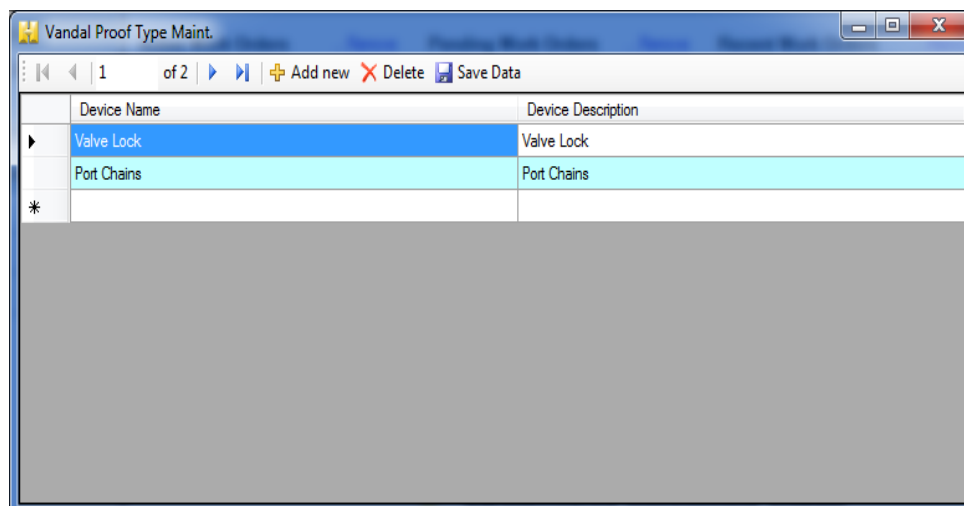
This lists the requirements and codes for NFPA standards. This screen is informational only and cannot be changed. This information will be used in the work order reports and hydrant details.



	NFPAColor	NFPA Desc	NFPAMin	NFPAMax
▶	Blue	Very Good Flows	1500	10000
	Green	Good For Residential Areas	1000	1499
	Orange	Marginally Adequate	500	999
	Red	Inadequate	0	500

Vandal Proof Type Maintenance

This screen keeps track of the types of vandal proofs that are used. These will be needed when entering a new hydrant into the system.



	Device Name	Device Description
▶	Valve Lock	Valve Lock
	Port Chains	Port Chains
*		

- Device Name – Enter the name for the vandal proof device.
- Device Description– Enter the description of the vandal proof device.

To create a new vandal proof type, either click Add new or start entering the device name and device description in the first blank row. Select Save Data to save the new vandal proof device

To edit a vandal proof type, enter the desired changes. Select Save Data to save the vandal proof type.

To remove a vandal proof type, select the vandal proof type to delete. Select Delete. A confirmation screen will appear to confirm the deletion. Select Yes to delete and No to not delete.

Hydrant Deficiency Maintenance

This screen keeps track of the types of maintenance that may be required on a hydrant. These will be needed when entering a new maintenance work order.

Deficiency Name	Deficiency Description
Unable To Locate	Unable to locate
Operates Hard	
Needs Grease	
Pumper Cap Missing	
Nozzle Cap Missing	
Pumper Cap Chain Missing	
Nozzle Cap Chain Missing	
Needs Paint	
Barrel Needs Raising	
Barrel Needs Lowering	
Needs To Be Replaced	
Inoperable	

- Deficiency Name – Enter the name for the deficiency.
- Deficiency Description– Enter the description of the deficiency.

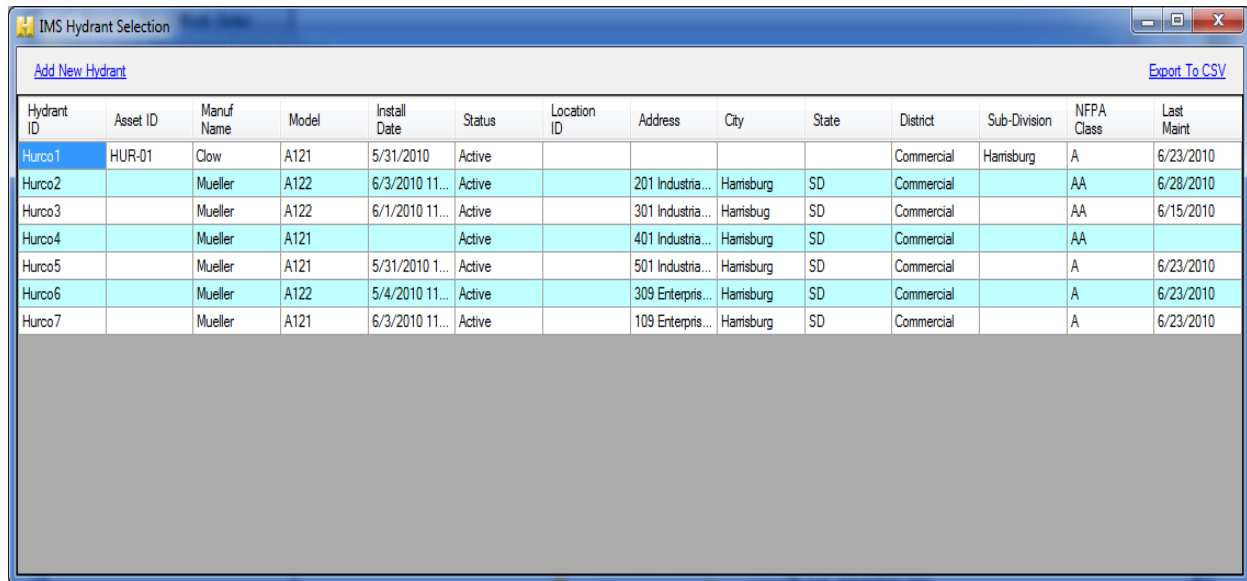
To create a new deficiency, either click Add new or start entering the deficiency name and deficiency description in the first blank row. Select Save Data to save the deficiency.

To edit a deficiency, enter the desired changes. Select Save Data to save deficiency.

To remove a deficiency, select the deficiency to delete. Select Delete. A confirmation screen will appear to confirm the deletion. Select Yes to delete and No to not delete.

Hydrant Maintenance

This screen keeps track of the hydrants. These will be needed when entering your work orders into the system. New Hydrants can be added here and the list of hydrants can be exported.



The screenshot shows a window titled "IMS Hydrant Selection". At the top left is a link "Add New Hydrant" and at the top right is a link "Export To CSV". Below these links is a table with 13 columns: Hydrant ID, Asset ID, Manuf Name, Model, Install Date, Status, Location ID, Address, City, State, District, Sub-Division, NFPA Class, and Last Maint. The table contains 7 rows of data, all with a light blue background. The first row is highlighted in blue.

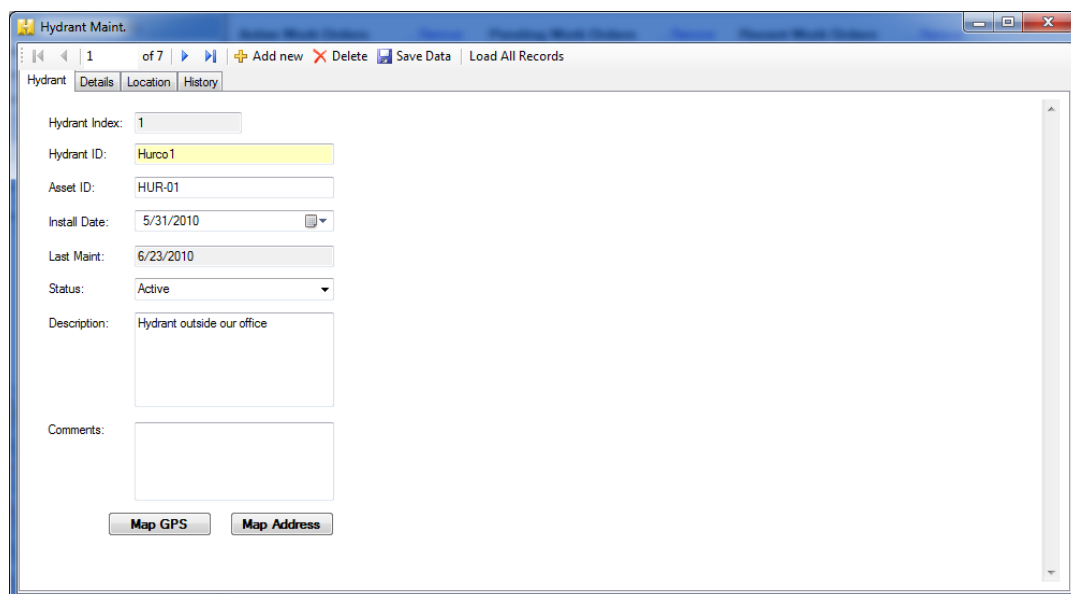
Hydrant ID	Asset ID	Manuf Name	Model	Install Date	Status	Location ID	Address	City	State	District	Sub-Division	NFPA Class	Last Maint
Hurco1	HUR-01	Clow	A121	5/31/2010	Active					Commercial	Harrisburg	A	6/23/2010
Hurco2		Mueller	A122	6/3/2010 11...	Active		201 Industria...	Harrisburg	SD	Commercial		AA	6/28/2010
Hurco3		Mueller	A122	6/1/2010 11...	Active		301 Industria...	Harrisburg	SD	Commercial		AA	6/15/2010
Hurco4		Mueller	A121		Active		401 Industria...	Harrisburg	SD	Commercial		AA	
Hurco5		Mueller	A121	5/31/2010 1...	Active		501 Industria...	Harrisburg	SD	Commercial		A	6/23/2010
Hurco6		Mueller	A122	5/4/2010 11...	Active		309 Enterpris...	Harrisburg	SD	Commercial		A	6/23/2010
Hurco7		Mueller	A121	6/3/2010 11...	Active		109 Enterpris...	Harrisburg	SD	Commercial		A	6/23/2010

To add a new hydrant, select Add New Hydrant. See Add New Hydrant Section to continue.

To export a list of hydrants, select Export to CSV. Next, select the location in which the file will be saved. Click Save. Remember the location that the file was saved.

Add a new hydrant

To add a new hydrant, select Add New.



The screenshot shows a window titled "Hydrant Maint.". At the top is a toolbar with buttons: "Add new", "Delete", "Save Data", and "Load All Records". Below the toolbar are tabs: "Hydrant", "Details", "Location", and "History". The "Hydrant" tab is selected. The form contains the following fields:

- Hydrant Index: 1
- Hydrant ID: Hurco1
- Asset ID: HUR-01
- Install Date: 5/31/2010
- Last Maint: 6/23/2010
- Status: Active
- Description: Hydrant outside our office
- Comments: (empty text area)

At the bottom of the form are two buttons: "Map GPS" and "Map Address".

1. On the Hydrant Tab, enter the following information.
 - a. Hydrant ID. This name will identify the hydrants in the work orders.
 - b. Asset ID. This is optional. It can be used as an alternative way to identify a hydrant.
 - c. Install Date. This is the date that the hydrant was installed in its location.
 - d. Last Maintenance. This field will auto-populate from maintenance work orders.
 - e. Description. A description of the hydrant.
 - f. Comments. Any comments for the hydrant can be entered here.
 - g. Map GPS button. This can be used once the longitude and latitude have been entered on the Location tab.
 - h. Map Address. This can be used once the address has been entered on the Location tab.
2. On the Details Tab, enter the following information. You can click on the green “+” sign and it will take you to the respective menu option to enter a new device. (Example: If you click the one next to the Model ID box, it will take you to the Model ID screen to enter a new hydrant model.)

The screenshot shows a software window titled "Hydrant Maint." with a menu bar containing "Hydrant", "Details", "Location", and "History". Below the menu bar is a toolbar with icons for "Add new", "Delete", "Save Data", and "Load All Records". The "Details" tab is active, displaying a form for hydrant information. The form is divided into two main sections: "Hydrant Information" on the left and "NFPA Information" on the right. The "Hydrant Information" section includes fields for "Manuf ID" (Clow), "Model ID" (A121), "Hydrant Paint Color" (Yellow), "Vandal Proof Type" (Valve Lock), "Restraint ID" (Rod and Bolt), "Main Size" (8.00), "Bury Depth" (5.00), "Control Valve ID" (V-101), "Control Val Direction" (East), and "Control Val Dist" (0.00). The "NFPA Information" section includes fields for "NFPA Color" (Green), "NFPA Desc" (Good For Residential Areas), "Rating Min" (1000), "Rating Max" (1499), and "Last Reading" (1097.0000). To the right of the form is a large image of a red fire hydrant. Below the image are two buttons: "Upload Image" and "Remove Image".

- a. Manuf ID. Manufacturer of the hydrant.
- b. Model ID. The model of the hydrant.
- c. Hydrant Paint Color.
- d. Vandal Proof Type. What type of equipment is installed for vandal proofing.

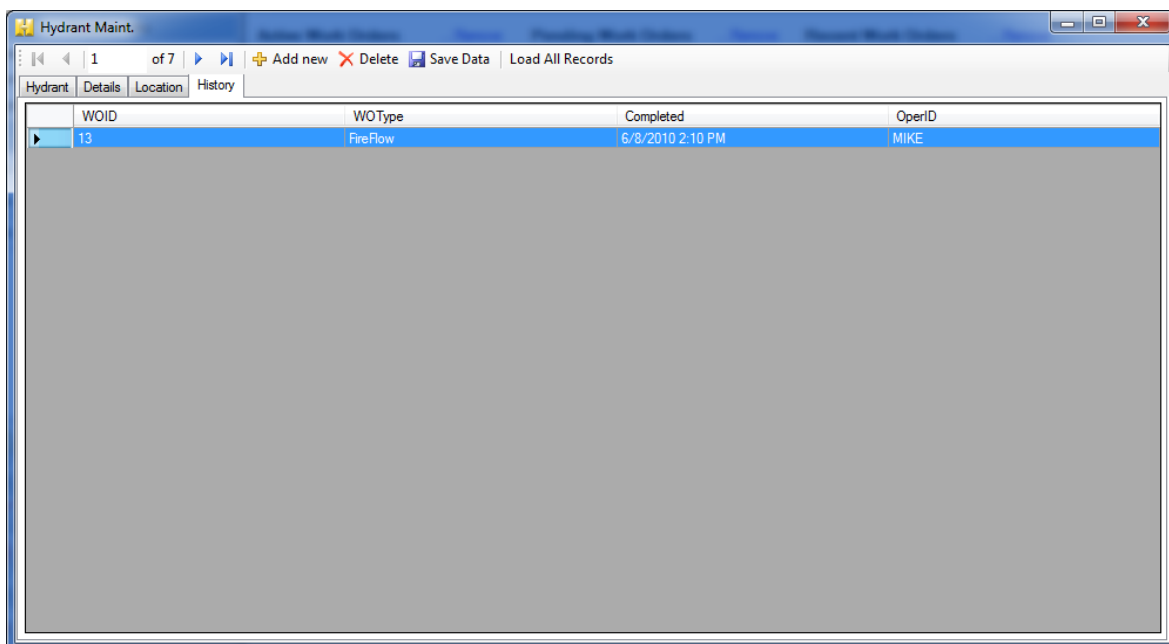
- e. Restraint ID.
 - f. Main Size.
 - g. Bury Depth. How deep does the hydrant go?
 - h. Control Valve ID. Select the type of control valve that is on the hydrant.
 - i. Control Valv Direction. Select the direction that the control valve is located on.
 - j. Control Val Dist. Enter the distance in feet of the control valve.
 - k. NFPA Information. This information is auto populated after a flow test has been completed on the hydrant. It gives the NFPA color, NFPA description, rating minimum, rating maximum, and the last GPM reading on the hydrant.
 - l. Upload Image/Remove Image. A picture of the hydrant can be uploaded or removed.
3. On the Location Tab, enter the following information. You can click on the green “+” sign and it will take you to the respective menu option to enter a new device. (Example: If you click the one next to the Model ID box, it will take you to the Model ID screen to enter a new hydrant model.)

The screenshot shows a software window titled "Hydrant Maint." with a toolbar containing "Add new", "Delete", and "Save Data" buttons. Below the toolbar are tabs for "Hydrant", "Details", "Location", and "History". The "Location" tab is active, displaying a form with the following fields:

Latitude:	43.441765	XStreet:	
Longitude:	-96.705803	State X:	
Elevation:	1476.031982	State Y:	
VDOP:	1.5	General Loc:	
HDOP:	1.6	Loc Notes:	N side (mid block)
Street Number:	201	District ID:	Commercial
Street Name:	Industrial Dr.	Sub Div ID:	
Loc City:	Harrisburg	Location ID:	
Loc State:	SD		
Loc Zip:	57032		

- a. Latitude
- b. Longitude

- c. Elevation
 - d. VDOP-This information will come from a GPS unit. The lower the number the more accurate the GPS reading.
 - e. HDOP-This information will come from a GPS unit. The lower the number the more accurate the GPS reading.
 - f. Street Number & Name- Address of the hydrant
 - g. Loc City- City in which the hydrant is located.
 - h. Loc State- State in which the hydrant is located.
 - i. Loc Zip- Zip code for the hydrant location.
 - j. XStreet- The cross street for the hydrant location
 - k. State X.
 - l. State Y.
 - m. District ID-Select the type of district that the hydrant is located in.
 - n. SubDiv ID- Chose the subdivision for the hydrant.
 - o. Location ID- This is optional. Use if there are alternate location references for the hydrant.
4. History Tab. This will list any work orders that have been opened that include the hydrant. Click on any work order and it will display the related report for that work order.

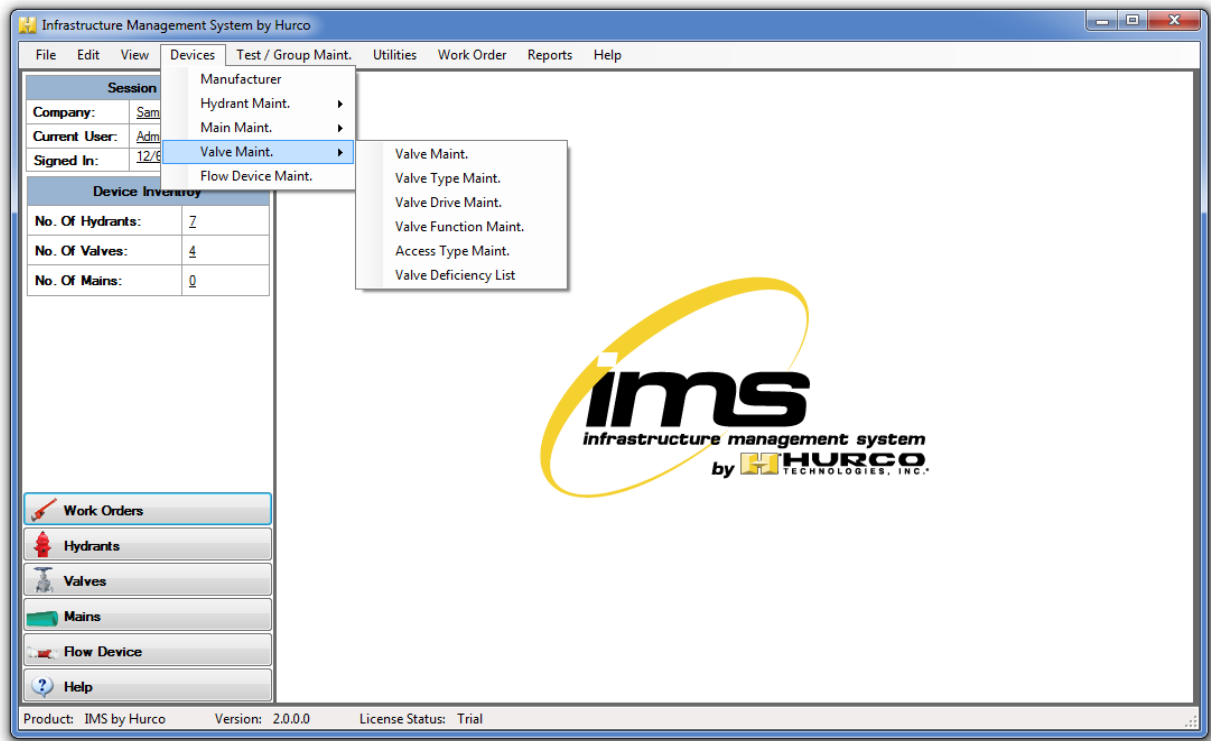


The screenshot shows a software window titled "Hydrant Maint." with a menu bar containing "Hydrant", "Details", "Location", and "History". Below the menu bar is a toolbar with buttons for "Add new", "Delete", "Save Data", and "Load All Records". The "History" tab is selected, displaying a table with the following data:

WOID	WOType	Completed	OperID
13	FireFlow	6/8/2010 2:10 PM	MIKE

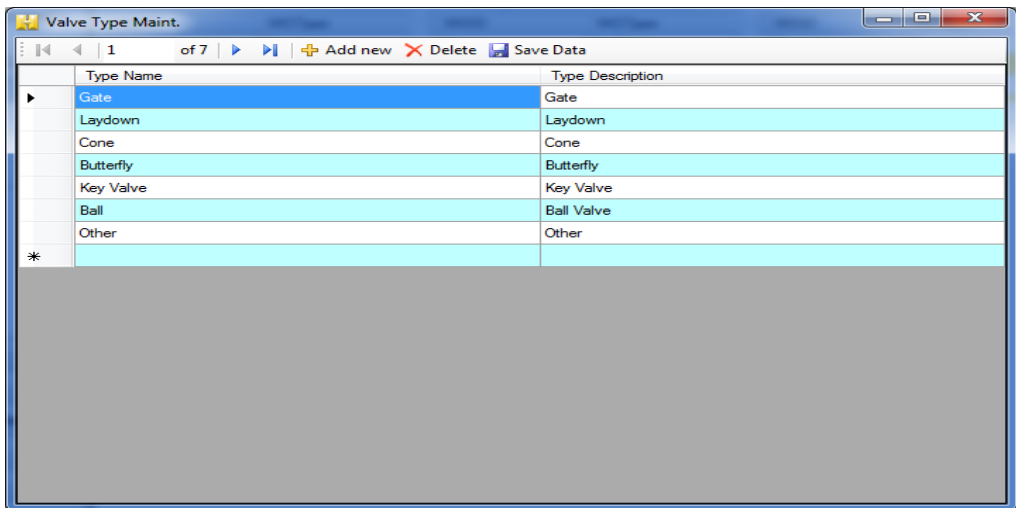
Valve Maintenance

This section is where the aspects of the valve can be edited. You can add new valves, delete valves, and maintain valves maintenance options.



Valve Type Maintenance

This screen keeps track of the types of valves that are used. These will be needed when entering a new valve into the system.



- Type Name – Enter the type of valve used.
- Type Description– Enter the description for the type of valve used.

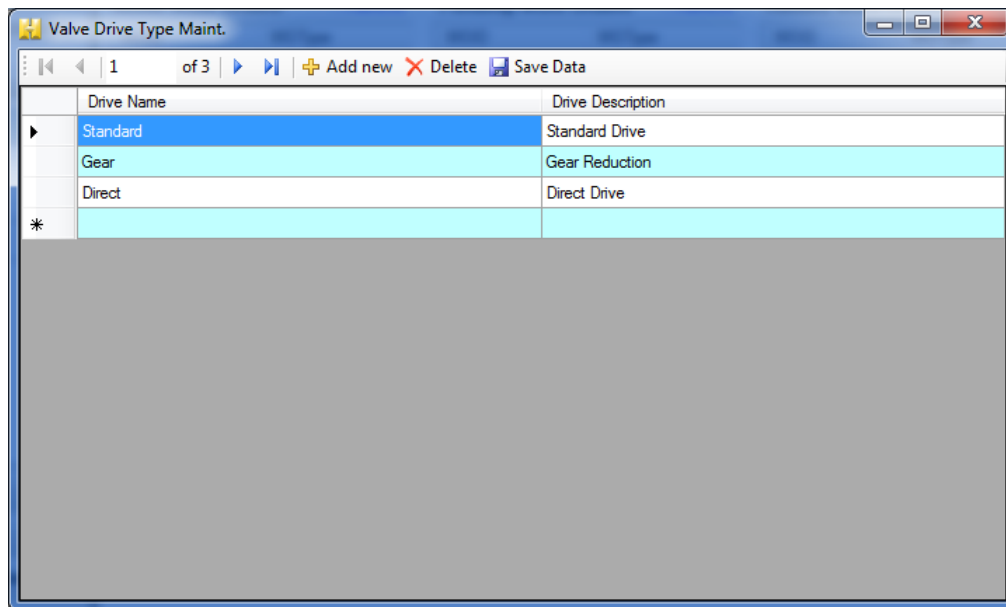
To create a new valve type, either click Add new or start entering the type name and type description in the first blank row. Select Save Data to save the valve type.

To edit a valve type, enter the desired changes. Select Save Data to save valve type.

To remove a valve type, select the valve type to delete. Select Delete. A confirmation screen will appear to confirm the deletion. Select Yes to delete and No to not delete.

Valve Drive Type Maintenance

This screen keeps track of the types of valve drives that are used. These will be needed when entering a new valve into the system.



- Drive Name – Enter the type of valve drive used.
- Drive Description– Enter the description for the type of valve drive used.

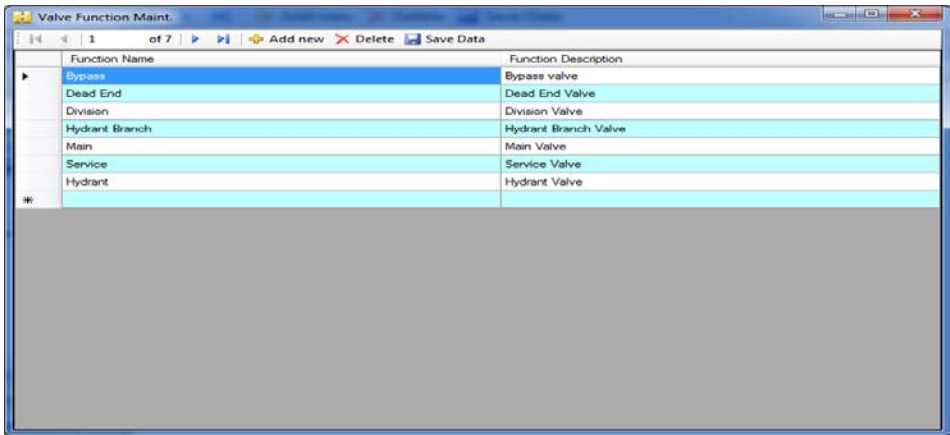
To create a new valve drive type, either click Add new or start entering the type name and type description in the first blank row. Select Save Data to save the valve drive type.

To edit a valve drive type, enter the desired changes. Select Save Data to save valve drive type.

To remove a valve drive type, select the valve drive type to delete. Select Delete. A confirmation screen will appear to confirm the deletion. Select Yes to delete and No to not delete.

Valve Function Maintenance

This screen keeps track of the different functions of valves that are used. These will be needed when entering a new valve into the system.



The screenshot shows a software window titled "Valve Function Maint." with a toolbar containing "Add new", "Delete", and "Save Data" buttons. The window displays a table with the following data:

Function Name	Function Description
Bypass	Bypass valve
Dead End	Dead End Valve
Division	Division Valve
Hydrant Branch	Hydrant Branch Valve
Main	Main Valve
Service	Service Valve
Hydrant	Hydrant Valve

- Function Name – Enter the valve function used.
- Function Description– Enter the description for the valve function used.

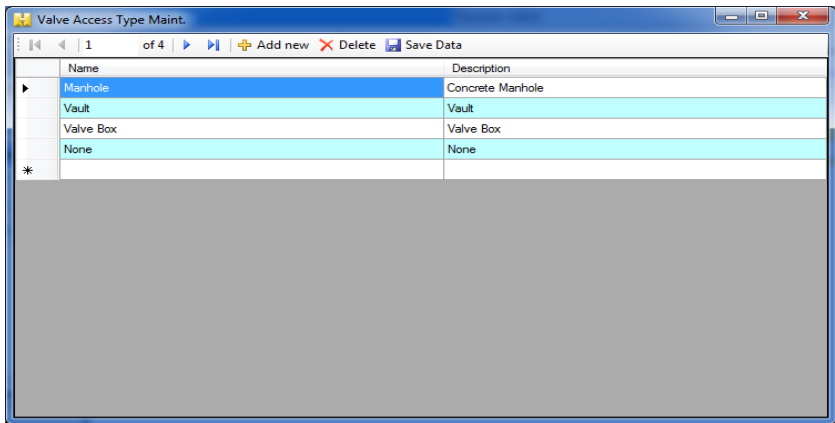
To create a new valve function, either click Add new or start entering the function name and function description in the first blank row. Select Save Data to save the valve function.

To edit a valve drive type, enter the desired changes. Select Save Data to save valve drive type.

To remove a valve function, select the valve function to delete. Select Delete. A confirmation screen will appear to confirm the deletion. Select Yes to delete and No to not delete.

Valve Access Type Maintenance

This screen keeps track of the types of valve accesses that are used. These will be needed when entering a new valve into the system.



The screenshot shows a software window titled "Valve Access Type Maint." with a toolbar containing "Add new", "Delete", and "Save Data" buttons. The window displays a table with the following data:

Name	Description
Manhole	Concrete Manhole
Vault	Vault
Valve Box	Valve Box
None	None

- Name – Enter the type of valve access used.
- Description– Enter the description for the type of valve access used.

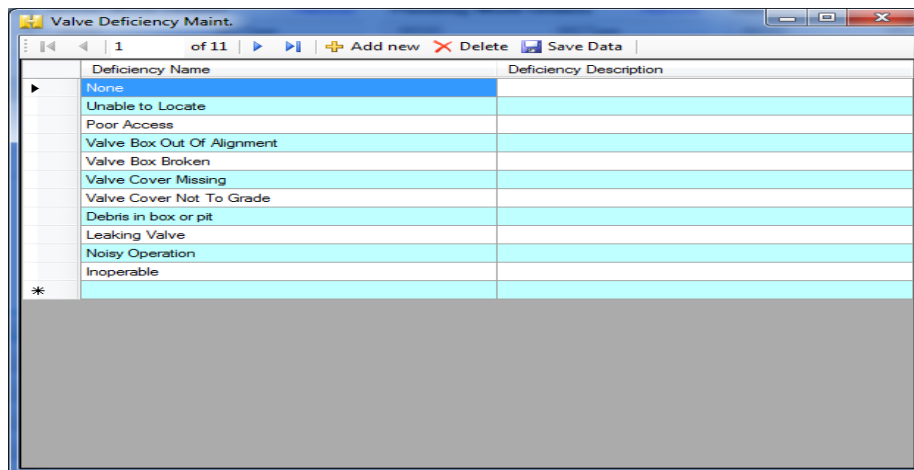
To create a new valve access type, either click Add new or start entering the type name and type description in the first blank row. Select Save Data to save the valve access type.

To edit a valve access type, enter the desired changes. Select Save Data to save valve access type.

To remove a valve access type, select the valve access type to delete. Select Delete. A confirmation screen will appear to confirm the deletion. Select Yes to delete and No to not delete.

Valve Deficiency Maintenance

This screen keeps track of the types of deficiencies that might need to be fixed on a valve.



- Deficiency Name – Enter the deficiency name.
- Deficiency Description– Enter the description for the deficiency.

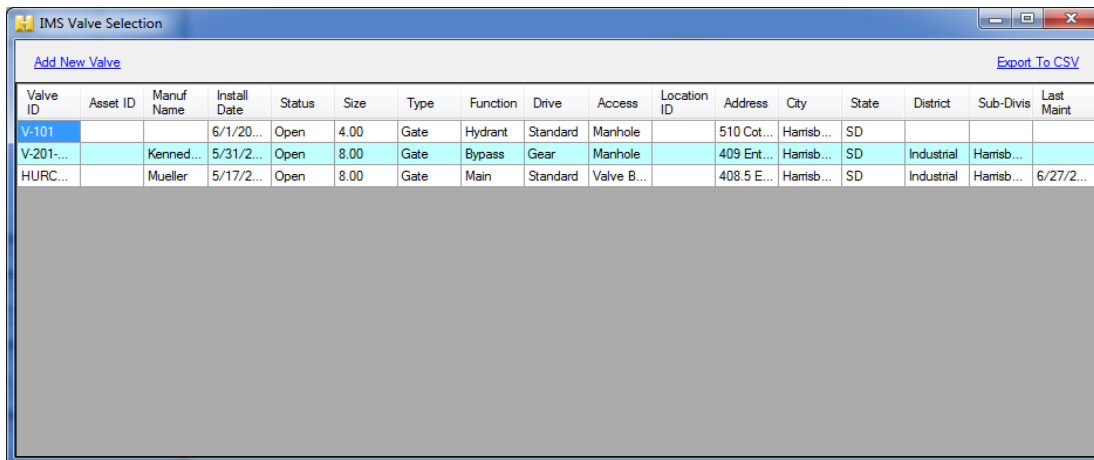
To create a new deficiency, either click Add new or start entering the type name and type description in the first blank row. Select Save Data to save the deficiency.

To edit a deficiency, enter the desired changes. Select Save Data to save deficiency.

To remove a deficiency, select the deficiency to delete. Select Delete. A confirmation screen will appear to confirm the deletion. Select Yes to delete and No to not delete.

Valve Maintenance

This screen keeps track of the valves. These will be needed when entering your work orders into the system. New valves can be added here and the list of valves can be exported.



The screenshot shows a window titled "IMS Valve Selection". At the top left is a button "Add New Valve" and at the top right is a button "Export To CSV". Below these is a table with the following columns: Valve ID, Asset ID, Manuf Name, Install Date, Status, Size, Type, Function, Drive, Access, Location ID, Address, City, State, District, Sub-Divis, and Last Maint. The table contains three rows of data:

Valve ID	Asset ID	Manuf Name	Install Date	Status	Size	Type	Function	Drive	Access	Location ID	Address	City	State	District	Sub-Divis	Last Maint
V-101			6/1/20...	Open	4.00	Gate	Hydrant	Standard	Manhole		510 Cot...	Harrisb...	SD			
V-201-...		Kenned...	5/31/2...	Open	8.00	Gate	Bypass	Gear	Manhole		409 Ent...	Harrisb...	SD	Industrial	Harrisb...	
HURC...		Mueller	5/17/2...	Open	8.00	Gate	Main	Standard	Valve B...		408.5 E...	Harrisb...	SD	Industrial	Harrisb...	6/27/2...

To add a new valve, select Add New Valve. See Add New Valve Section to continue.

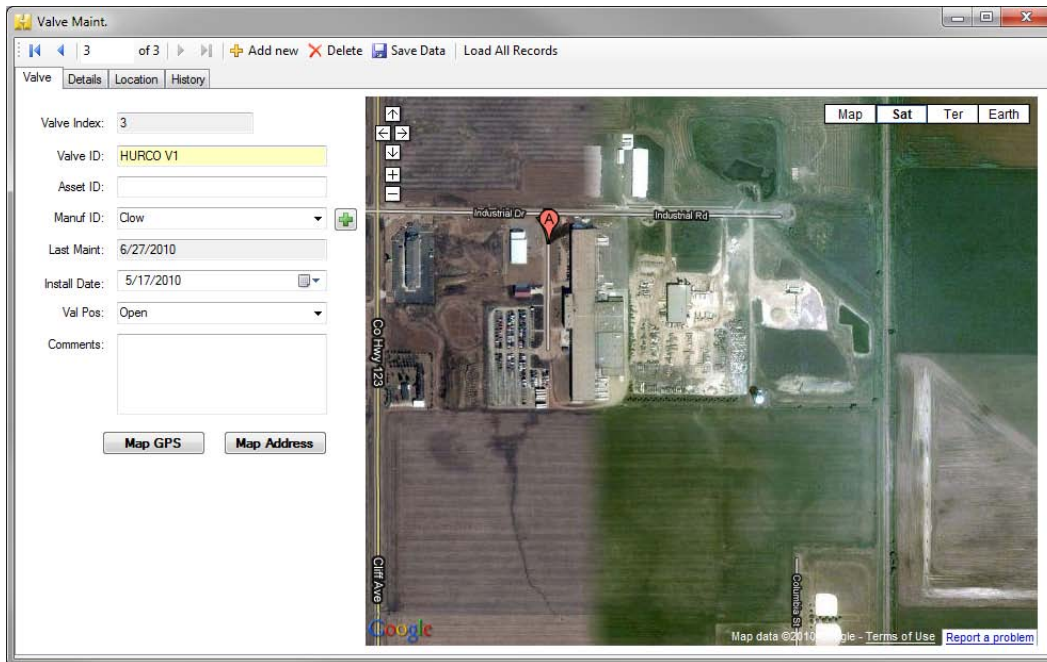
To export a list of valves, select Export to CSV. Next, select the location in which the file will be saved. Click Save. Remember the location that the file was saved.

Add a new valve

To add a new valve, select Add New.

1. On the Valve Tab, enter the following information. You can click on the green “+” sign and it will take you to the respective menu option to enter a new device. (Example: If you click the one next to the Model ID box, it will take you to the Model ID screen to enter a new hydrant model.)
 - a. Valve ID- This name will identify the valves in the work orders.
 - b. Asset ID- This is optional. It can be used as an alternative way to identify a valve.
 - c. Manuf ID- Select the manufacturer from the drop down list. If the manufacture is not listed, a new manufacturer will need to be entered in the Manufacturer Maintenance screen.
 - d. Last Maintenance- This field will auto-populate from maintenance work orders.
 - e. Install Date- This is the date that the valve was installed in its location.
 - f. Val Pos- This acknowledges whether the valve is open or closed.
 - g. Comments. Any comments for the valve can be entered here.

- h. Map GPS button. This can be used once the longitude and latitude have been entered on the Location tab.
- i. Map Address. This can be used once the address has been entered on the Location tab.



2. On the Details Tab, enter the following information. Some of this information can be obtained from the manufacturer of the valve. You can click on the green “+” sign and it will take you to the respective menu option to enter a new device. (Example: If you click the one next to the Model ID box, it will take you to the Model ID screen to enter a new hydrant model.)
 - a. Valve size
 - b. Valve Box Size
 - c. Valve type
 - d. Valve function
 - e. Valve Drive
 - f. Valve Open Dir- This is the direction the valve opens. It will be either left or right.
 - g. Access Type- This is how the valve is accessed.
 - h. Box Depth
 - i. Set Torque
 - j. Set Rev
 - k. Set Speed

1. Set Cycle

The screenshot shows the 'Valve Maint.' application window. At the top, there's a toolbar with icons for navigation and actions like 'Add new', 'Delete', and 'Save Data'. Below the toolbar are tabs for 'Valve', 'Details', 'Location', and 'History'. The 'Details' tab is active, displaying several input fields for valve configuration. On the left, there's a vertical list of settings: 'Valve Size' (6.00), 'Val Box Size' (4.00), 'Val Type' (Gate), 'Val Func' (Bypass), 'Val Drive' (Standard), and 'Val Open Dir' (Left). On the right, there's a section for 'Access Type' (Valve Box) and 'Box Depth' (7.00). Below these is a 'Valve Star Settings' box containing 'Set Torque' (160.00), 'Set Rev' (18.00), 'Set Speed' (40.00), and 'Set Cycle' (1.00). Each dropdown menu has a green '+' icon next to it, indicating a selection menu.

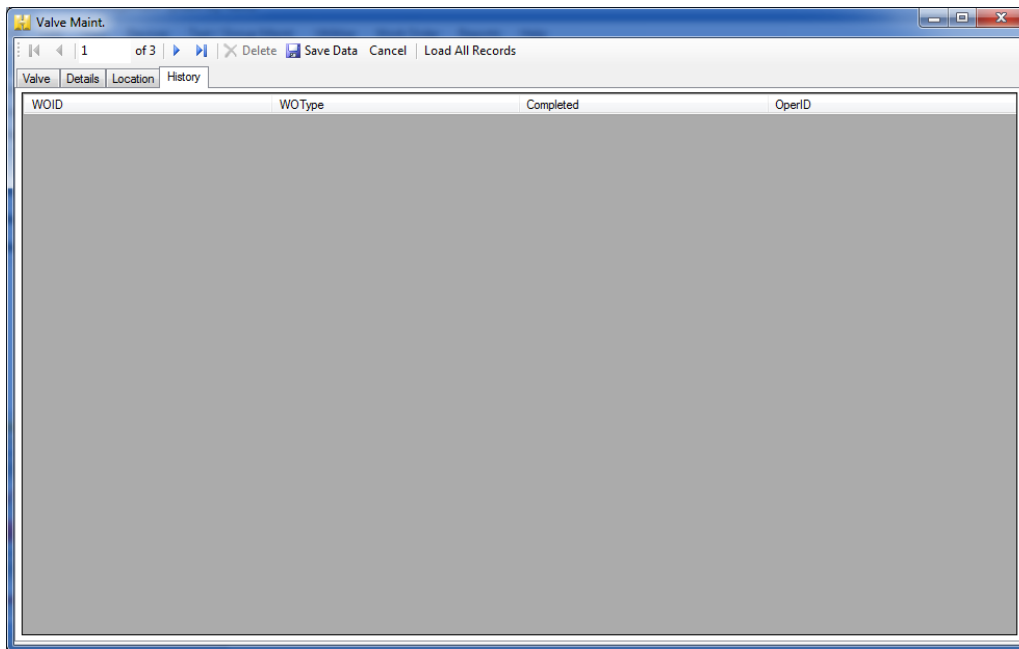
3. On the Location Tab, enter the following information. You can click on the green “+” sign and it will take you to the respective menu option to enter a new device. (Example: If you click the one next to the Model ID box, it will take you to the Model ID screen to enter a new hydrant model.)
- Latitude
 - Longitude
 - Elevation
 - VDOP-This information will come from a GPS unit. The lower the number the more accurate the GPS reading
 - HDOP-This information will come from a GPS unit. The lower the number the more accurate the GPS reading
 - Street Number & Name- Address of the valve
 - Loc City- City in which the valve is located
 - Loc State- State in which the valve is located
 - Loc Zip- Zip code for the valve location
 - XStreet- The cross street for the valve location

- k. State X
- l. State Y
- m. Loc notes
- n. District ID
- o. Sub Div ID
- p. Location ID

The screenshot shows a software window titled "Valve Maint." with a menu bar containing "Add new", "Delete", and "Save Data". Below the menu bar are four tabs: "Valve", "Details", "Location", and "History". The "Location" tab is currently selected. The form contains the following fields:

Latitude: 43.445423	XStreet:
Longitude: -96.716911	State X:
Elevation: 1438.65	State Y:
VDOP: 1.1	General Loc:
HDOP: 0.8	Loc Notes: SE Comer
Street Number:	District ID:
Street Name: United Ave.	Sub Div ID:
Loc City: Harrisburg	Location ID:
Loc State: SD	
Loc Zip: 57032-	

4. History Tab. This will list any work orders that have been opened that include the valve. Click on any work order and it will display the related report for that work order.



Flow Device Maintenance

This section is where the aspects of the flow devices can be edited. You can add new flow devices, delete flow devices, and maintain flow devices maintenance options. This information must be accurate as it is used in calculations on work order results. You can obtain this information from the manufacturer if not known.

	Device Name	Device Description	Diameter	Coefficient
▶	2.5" Hose Monster	2.5" Hose Monster	2.5000000000	0.9060000000
	4" Hose Monster	4" Hose Monster	4.0000000000	0.7120000000
	4.5" Hose Monster	4.5" Hose Monster	4.5000000000	0.5480000000
	1.125 Nozzle Insert	1.125 Nozzle Insert	1.1300000000	0.9900000000
	1.75 Nozzle Insert	1.175 Nozzle Insert	1.1750000000	0.9750000000
	1.125" Pitotless Nozzle	1.125" Pitotless Nozzle	37.4300000000	0.9250000000
	1.75" Pitotless Nozzle	1.75" Pitotless Nozzle	1.7500000000	1.1660000000
	2" Pitotless Nozzle	2" Pitotless Nozzle	2.0000000000	1.3810000000
*			0.0000	0.0000

- Device Name – Enter the name of the flow device.
- Device Description– Enter the description for the flow device.
- Diameter – Enter the diameter of the flow device.

- Coefficient – This number is used in formulas.

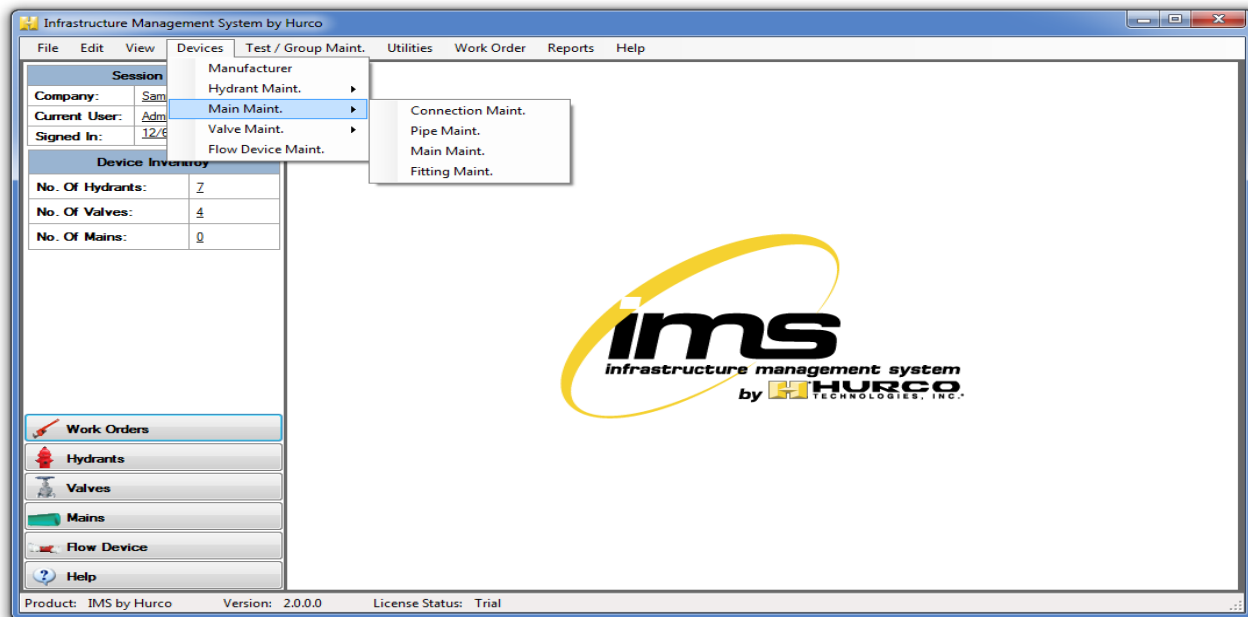
To create a new flow device, either click Add new or start entering the device name in the first blank row. Select Save Data to save the flow device.

To edit a flow device, enter the desired changes. Select Save Data to save flow device.

To remove a flow device, select the flow device to delete. Select Delete. A confirmation screen will appear to confirm the deletion. Select Yes to delete and No to not delete.

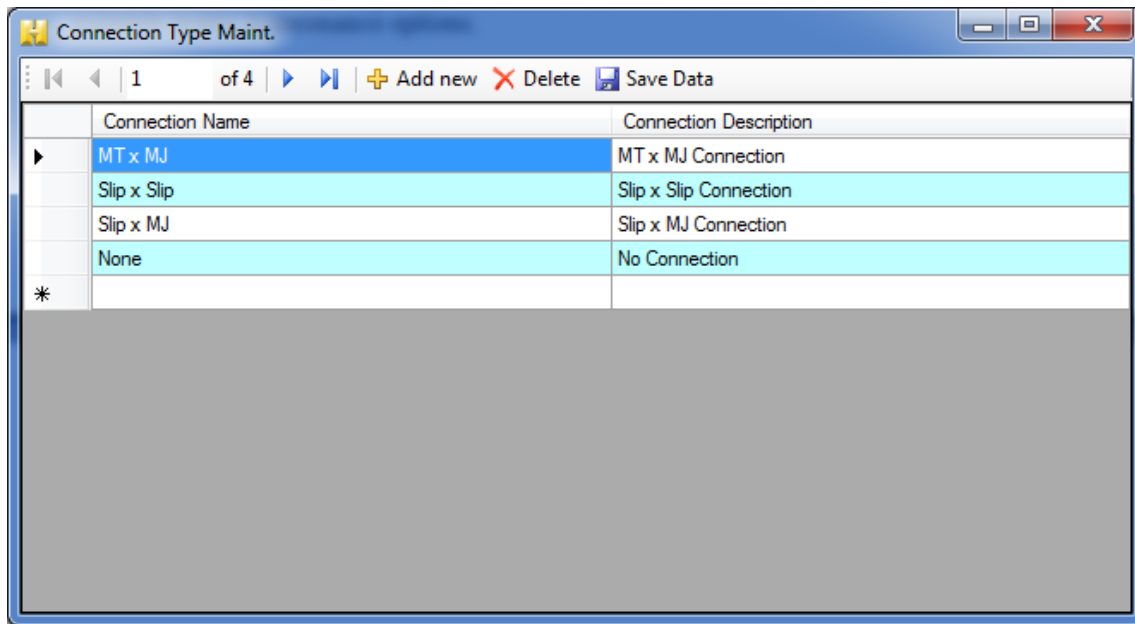
Main Maintenance

This section is where the aspects of the mains can be edited. You can add new mains, delete mains, and maintain mains maintenance options.



Connection Type Maintenance

This screen keeps track of the types of connections that are used. These will be needed when entering a new main into the system.



- Connection Name – Enter the name of the connection device.
- Connection Description– Enter the description for the connection device.

To create a new connection device, either click Add new or start entering the device name in the first blank row. Select Save Data to save the connection device.

To edit a connection device, enter the desired changes. Select Save Data to save connection device.

To remove a connection device, select the connection device to delete. Select Delete. A confirmation screen will appear to confirm the deletion. Select Yes to delete and No to not delete.

Pipe Type Maintenance

This screen keeps track of the types of pipes that are used. These will be needed when entering a new main into the system.

	Name	Description	Coefic
▶	PVC	PVC Pipe	0.17
*			

- Name – Enter the name of the type of pipe.
- Description– Enter the description for the type of pipe
- Coefic– Enter the coefficient for the selected type of pipe

To create a new type of pipe, either click Add new or start entering the type of pipe in the first blank row. Select Save Data to save the pipe type.

To edit a pipe type, enter the desired changes. Select Save Data to save the pipe type.

To remove a pipe type, select the pipe type to delete. Select Delete. A confirmation screen will appear to confirm the deletion. Select Yes to delete and No to not delete.

Fittings Maintenance

This screen keeps track of the types of fittings that are used. These will be needed when entering a new main into the system.

	FittingName	FittingDesc	LngthAdj
▶	90 degree elbow	90 degree elbow	13.00
*			

- Fitting Name – Enter the name of the fitting.

- Fitting Desc– Enter the description for the fitting.
- LngthAdj– Enter the length adjustment for the selected fitting.

To create a new type of fitting, either click Add new or start entering the type of fitting in the first blank row. Select Save Data to save the pipe type.

To edit a fitting, enter the desired changes. Select Save Data to save the fitting.

To remove a fitting, select the fitting to delete. Select Delete. A confirmation screen will appear to confirm the deletion. Select Yes to delete and No to not delete.

Main Maintenance

This screen keeps track of the mains. These will be needed when entering your work orders into the system. New mains can be added here and the list of mains can be exported.

MainID	MainName	MainDesc	PipeType	MainLngth	ConnType	InstallDate	Status	AssetID	LastMaint	LocNotes	MaxSize	MinSize
2	Harrisburg In...	Main runnin...	5	12	2		Active	542			8	6

To add a new main, select Add New Main. See Add New Main Section to continue.

To export a list of main, select Export to CSV. Next, select the location in which the file will be saved. Click Save. Remember the location that the file was saved.

Add a new main

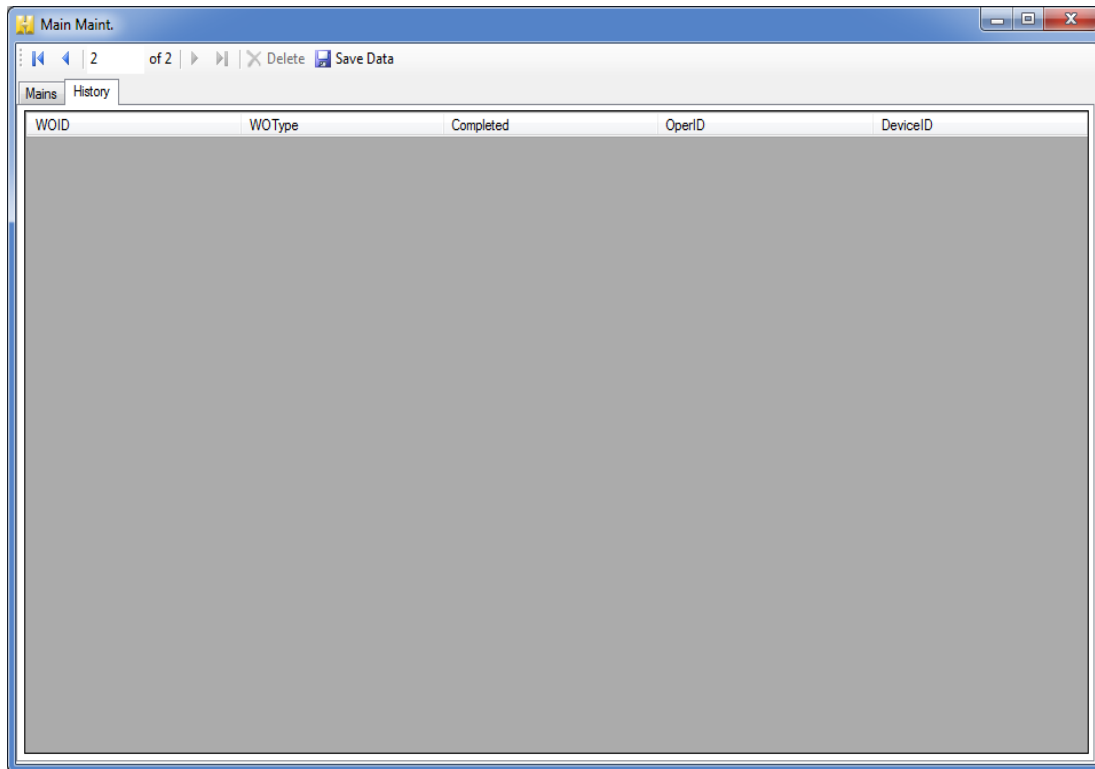
To add a new main, select Add New.

1. On the Mains Tab, enter the following information. You can click on the green “+” sign and it will take you to the respective menu option to enter a new device. (Example: If you click the one next to the Model ID box, it will take you to the Model ID screen to enter a new hydrant model.)

- a. Main Name- This name will identify the main on the work orders.
- b. Asset ID- This is optional. It can be used as an alternative way to identify a main.
- c. Main Desc- Enter a description of the main.
- d. Install Date- This is the date that the main was installed in its location.
- e. Location Notes- Enter notes to help with the location of the main.
- f. Pipe Type- Select the type of pipe that the main is.
- g. Conn Type- Select the type of connection for the main.
- h. Main Lngth- Enter the length of the main.
- i. Min Pipe Size- Enter the minimum diameter of the main.
- j. Max Pipe Size- Enter the maximum diameter of the main.
- k. Devices on Main- Select options from the drop down menus. Then select Add to Main. If you added a device that needs to be removed. Highlight the device and select Remove Selected.
 - i. Device Type- Select whether the device is a fitting, hydrant or valve.
 - ii. Device- Select the appropriate device from the listing.

The screenshot shows a software window titled "Main Maint." with a menu bar containing "Main", "History", "Delete", and "Save Data". The window is divided into two main sections. The left section contains input fields for "Main Index" (set to -5), "Main Name", "Asset ID", "Main Desc", "Install Date" (12/ 7/2010), "Status", "Location Notes", "Pipe Type", "Conn Type", "Main Lngth" (in feet), "Min Pipe Size" (inches), and "Max Pipe Size" (inches). The right section, titled "Devices On Main", features a table with columns "DevID", "Device Type", and "Device Name". Below the table is a "Remove Selected" button. At the bottom of the right section, there are two dropdown menus: "Device Type" (set to "Fitting") and "Device" (set to "90 degree elbow"), followed by an "Add To Main" button.

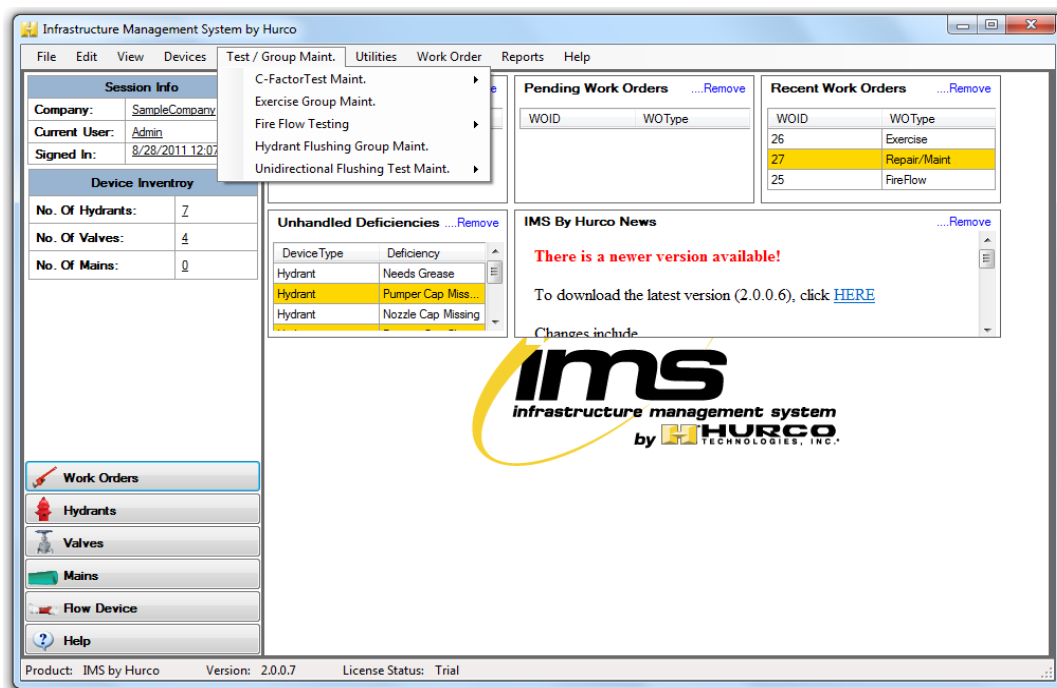
2. History Tab. This will list any work orders that have been opened that include the main. Click on any work order and it will display the related report for that work order.



Chapter 6

Creating Tests & Test Groups

In this chapter, you'll learn to create Tests and Test Groups for Fire Flow & Valve Exercises. These options are located under the Test/Group Maint. option on the Menu Bar.

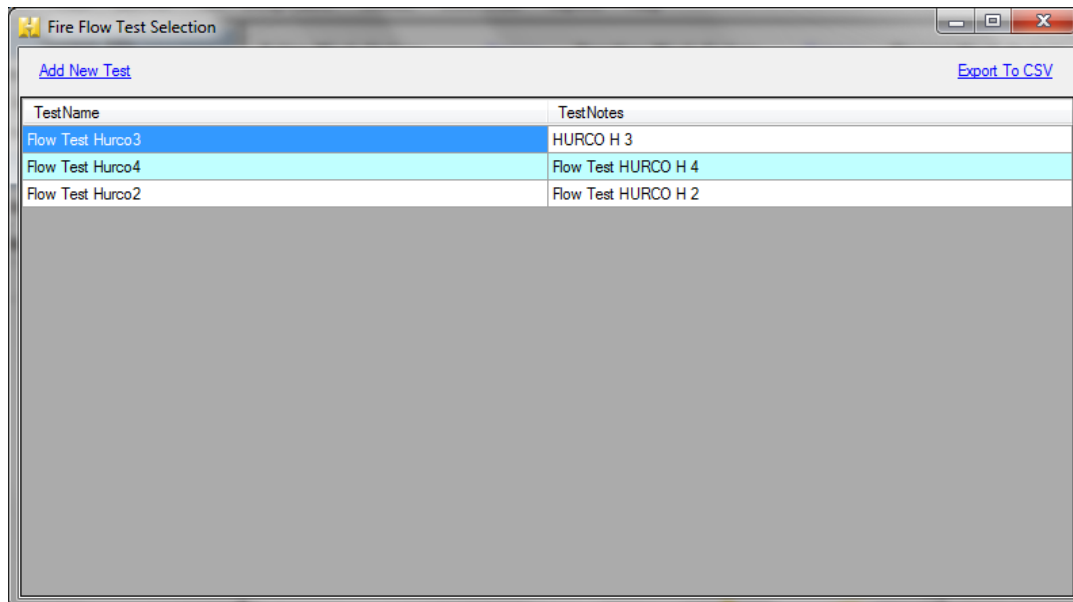


Fire Flow Testing

This section gives details for editing the tests and the test groups for a Fire Flow Test. These will be needed when entering your work orders into the system.

Fire Flow Test Maintenance

This screen keeps track of the tests that are available to be added to a work order. New Tests can be added here and the list of tests can be exported. Test must be entered before a work order can entered into the system.



Add a new Fire Flow test

To add a new test, select Add New Test. You can click on the green “+” sign and it will take you to the respective menu option to enter a new device. (Example: If you click the one next to the Model ID box, it will take you to the Model ID screen to enter a new hydrant model.)

1. Enter the name for the test.
2. Enter any notes that will be needed for the test.
3. Then select Save Data. You will then be able to add the required test and flow hydrants.
4. Next, the test hydrant(s) will need to be added.
 - a. Select the test hydrant from the drop down menu.
 - b. Once you have the test hydrant that is needed, click the Add Test Hydrant button. This will add the test hydrant to the Test Hydrants list. To see details of the flow hydrant added, double click on the line item. This will take you to the hydrant details.
5. Then flow hydrant(s) will need to be added.
 - a. Select the proper direction from the Direction From Test Hyd drop down box.
 - b. Select the hydrant that will be used as the Flow Hydrant from the drop down box. To see details of the test hydrant added, double click on the line item. This will take you to the hydrant details.
 - c. Select the flow device from the drop down box.
 - d. Once you have selected all of the above information, click the Add Flow Hydrant button. This will add the flow hydrant to the Flow Hydrants list. To see details of the flow hydrant added, double click on the line item. This will take you to the hydrant details

6. When all of the test hydrants and flow hydrants have been added, select Save Data. This will save the test into the Test lists so that it can be added to a work order.

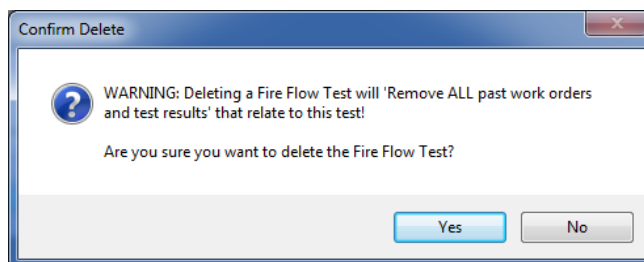
The screenshot shows the 'Fire Flow Test Maint.' window. At the top, there's a toolbar with navigation arrows, a page indicator '9 of 11', and buttons for 'Add new', 'Delete', and 'Save Data'. Below the toolbar, there are input fields for 'Test ID: 13', 'Test Name: Hamsburg Industrial Park', and 'Test Notes: For sales meeting 2010'. The main area contains two tables: 'Test Hydrants' and 'Flow Hydrants'. The 'Test Hydrants' table has columns: HydName, Addr1, XStreet, DistName, and SubDivName. It contains one row with 'Hurco2', '201 Industrial Dr.', 'cliff', 'Commercial', and an empty 'SubDivName' field. The 'Flow Hydrants' table has columns: HydName, Addr1, XStreet, DistName, SubDivName, and FlowDevName. It contains one row with 'Hurco3', '301 Industrial Dr.', 'Enterprise St.', 'Commercial', an empty 'SubDivName' field, and '2" Pitotless Nozzle'. Below each table are buttons for 'Remove Test Hydrant' and 'Add Test Hydrant'. At the bottom, there are buttons for 'Remove Flow Hydrant' and 'Add Flow Hydrant', along with dropdown menus for 'Direction From Test Hyd:', 'Flow Hydrant', and 'Flow Device'.

HydName	Addr1	XStreet	DistName	SubDivName
Hurco2	201 Industrial Dr.	cliff	Commercial	

HydName	Addr1	XStreet	DistName	SubDivName	FlowDevName
Hurco3	301 Industrial Dr.	Enterprise St.	Commercial		2" Pitotless Nozzle

Delete a Fire Flow test

To delete a test, use the arrows to select the test that needs to be deleted. Once it is on the selected test, click on Delete. You will receive the following warning:



If you wish to continue deleting the test, select Yes. If you do not want to delete the test, select No.

Note: If you delete a test, all work orders and test results that are associated with that test will be deleted.

Fire Flow Test Group Maintenance

This screen keeps track of the test groups available to be added to work orders. Test Groups can be added or deleted here. Test groups must be entered before a work order can entered into the system.

Fire Flow Test Group Maint.

1 of 4 | Add new | Delete | Save Data

Group ID: 2

Group Name: Test

Group Description: Industrial part from Hyd1, Hyd5, 6, and 7

To view test details, "Double Click" the line item.

Test Name	Test Description
Test 1 And 5	flow 2-4
Test 6-7	Flow 1-2

Remove Selected Tests

Add Fire Flow Test to Group

Fire Flow Test:

Add Test

Add a new Fire Flow test group

To add a new test group, select Add New. You can click on the green “+” sign and it will take you to the respective menu option to enter a new device. (Example: If you click the one next to the Model ID box, it will take you to the Model ID screen to enter a new hydrant model.)

1. Enter the name for the group.
2. Enter a group description.
3. Select Save Data to save the test group. Then the test can be added to the group.
4. Select the Fire Flow Test from the drop down menu that needs to be added.
5. Click the Add Test button. This will add the test to the test group. To see details of the test added, double click on the line item. This will take you to the test details.
6. If a test is added and needs to be removed from the group, click the Remove Selected Test button. A confirmation will appear asking if you are sure you want to remove the selected test. Click yes to continue with the removal or no to cancel the removal.
7. When all of the tests have been added, select Save Data. This will save the group.

Delete a Fire Flow test group

To delete a test group, select the test group that needs to be deleted. Use the arrows to move between groups. Once you have the group that needs to be deleted, click delete. A confirmation will appear asking if you are sure you want to delete the group. Click yes to continue with the removal or no to cancel the removal.

Exercise Group Maintenance

This screen keeps track of the exercise test groups that are available to be added to work orders. Test Groups can be added or deleted here. Test groups must be entered before a work order can entered into the system.

The screenshot shows the 'Exercise Group Maint.' window. At the top, there are navigation buttons: '1 of 3', 'Add new', 'Delete', and 'Save Data'. Below these, there are input fields for 'Grip ID' (value: 2), 'Grip Name' (value: Hamsburg Test Group), and 'Grip Description' (value: Hamsburg Test Group). A note says 'To view device details, "Double Click" the line item.' Below this is a table with two columns: 'DeviceType' and 'DeviceName'. The table contains three rows: 'Valve' (V-101), 'Valve' (V-201-Aux), and 'Hydrant' (Hurco1). The first two rows are highlighted in blue and cyan respectively. Below the table, there are two sections: 'Remove Selected' and 'Add Valve To Group'. The 'Add Valve To Group' section has a dropdown menu with 'Valve' selected, a green '+' button, and an 'Add Valve' button. The 'Add Hydrant To Group' section has a dropdown menu with 'Hydrant' selected, a green '+' button, and an 'Add Hydrant' button.

DeviceType	DeviceName
Valve	V-101
Valve	V-201-Aux
Hydrant	Hurco1

Add a new Exercise Group

To add a new exercise group, select Add New. You can click on the green “+” sign and it will take you to the respective menu option to enter a new device. (Example: If you click the one next to the Model ID box, it will take you to the Model ID screen to enter a new hydrant model.)

1. Enter the name for the group.
2. Enter a group description.
3. Select Save Data to save the exercise group.
4. Select the Valve that needs to be added to the group. Click Add Valve. To see details of the valve added, double click on the line item. This will take you to the valve details.

5. Select the hydrant that needs to be added to the group. Click Add Hydrant. To see details of the hydrant added, double click on the line item. This will take you to the hydrant details.
6. If a valve or hydrant is added and needs to be removed from the group, click the Remove Selected button. A confirmation will appear asking if you are sure you want to remove the selected test. Click yes to continue with the removal or no to cancel the removal.
7. When all of the valves and hydrants have been added, select Save Data. This will save the group.

Delete an Exercise group

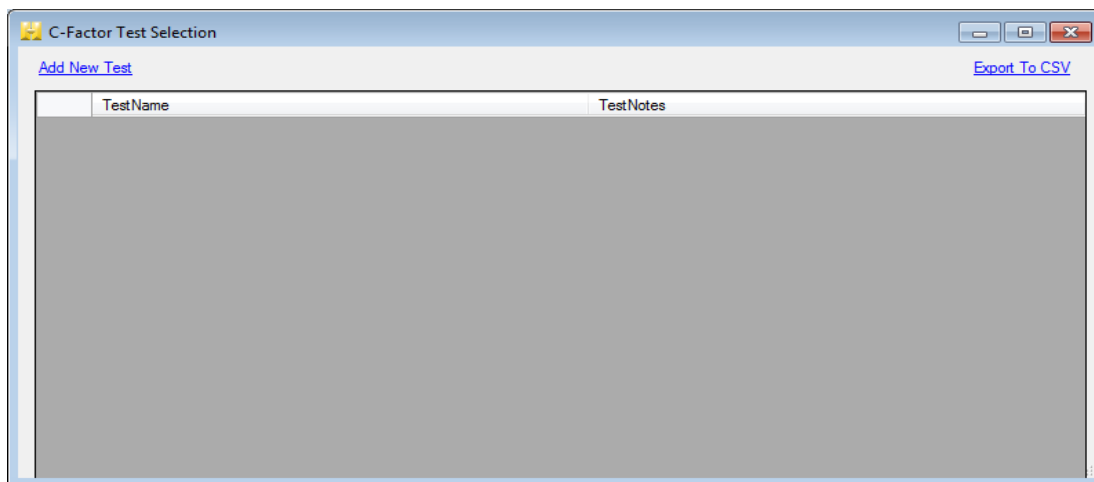
To delete an exercise group, select the group that needs to be deleted. Use the arrows to move between groups. Once you have the group that needs to be deleted, click Delete. A confirmation will appear asking if you are sure you want to remove the delete the group. Click yes to continue with the removal or no to cancel the removal.

C-Factor Testing

This section gives details for editing the tests and the test groups for C-Factor Testing. These will be needed when entering your work orders into the system.

C-Factor Test Maintenance

This screen keeps track of the tests that are available to be added to a work order. New Tests can be added here and the list of tests can be exported. Test must be entered before a work order can entered into the system.



Add a new C-Factor test

To add a new test, select Add New Test. You can click on the green “+” sign and it will take you to the respective menu option to enter a new device. (Example: If you click the one next to the Model ID box, it will take you to the Model ID screen to enter a new hydrant model.)

- 1) Enter the name for the test.
- 2) Enter any notes that will be needed for the test.
- 3) Then select Save Data. You will then be able to add the required test main and hydrants.
- 4) Next, the main(s) will need to be added.
 - a) Select the test main from the drop down menu.
 - b) Once you have the test main that is needed, click the Add Test Main button. This will add the test main to the Main Being Flushed list. To see details of the flow main added, double click on the line item. This will take you to the main details.
- 5) Then flow hydrant(s) will need to be added.
 - a) Select the Flow Hydrant from the drop down box.
 - b) Select the flow device from the drop down box.
 - c) Once those two items have been selected, click the Add Flow Hydrant.
 - d) If additional flow hydrants are needed, select them from the drop down menu.

The screenshot displays the 'C-Factor Test Maint.' application window. At the top, there's a toolbar with navigation icons, a page indicator '1 of 1', and buttons for 'Delete', 'Save Data', and 'Cancel'. Below this, the 'Test ID' is set to '-2'. The 'Test Name' and 'Test Notes' fields are empty. The 'Main Being Flushed' section features a table with columns: MainName, MaxSize, MainLength, and LocNotes. Below the table is a 'Remove Main' button. To the right, a 'Test Main' dropdown menu is set to 'Main Street', with an 'Add Test Main' button next to it. The 'Flow Hydrants' section has tabs for 'Flow Hydrants', 'Residual Hydrants', and 'Isolation Valves'. The 'Flow Hydrants' tab is active, showing a table with columns: HydName, FlowDevName, Addr1, Addr2, XStreet, and GeneralLoc. Below the table is a 'Remove Hydrant' button. At the bottom, there are dropdown menus for 'Flow Hydrant' (set to 'HURCO H 1') and 'Flow Device' (set to '2.5" Hose Monster'), followed by an 'Add Flow Hydrant' button. A blue tip text at the top right of the table areas reads: 'To view device details, "Double Click" the line item.'

- 6) Then residual hydrant(s) will need to be added. There must be two residual hydrants added for a C-Factor test.
- a) Select the residual hydrant from the drop down list. Only the hydrants that were added to the main on the Main Maintenance will appear in this drop down.
 - b) Click the Add Hydrant to add the hydrant to the Residual Hydrants list.

C-Factor Test Maint.

Test ID: 1 of 1 | Add new | Delete | Save Data

Test Name: Test Test | Test Notes: No Notes

Main Being Flushed *To view device details, "Double Click" the line item.*

MainName	MaxSize	MainLength	LocNotes
O Ave Main	7	300	

Remove Main | Test Main: Main Street | Add Test Main

Flow Hydrants | **Residual Hydrants** | Isolation Valves

Residual Hydrants *To view device details, "Double Click" the line item.*

HydName	Addr1	Addr2	XStreet	GeneralLoc
---------	-------	-------	---------	------------

Remove Hydrant | Residual Hydrant: HURCO H 1 | Add Hydrant

- 7) Then the isolation valve(s) will need to be added.
- a. Select the isolation valve from the drop down list.
 - b. Click the Add Valve to add the valve to the Shut-Off Valves list.

C-Factor Test Maint.

Test ID: 1 of 1 | Add new | Delete | Save Data

Test Name: Test Test | Test Notes: No Notes

Main Being Flushed *To view device details, "Double Click" the line item.*

MainName	MaxSize	MainLength	LocNotes
O Ave Main	7	300	

Remove Main | Test Main: Main Street | Add Test Main

Flow Hydrants | Residual Hydrants | **Isolation Valves**

Shut-Off Valves *To view device details, "Double Click" the line item.*

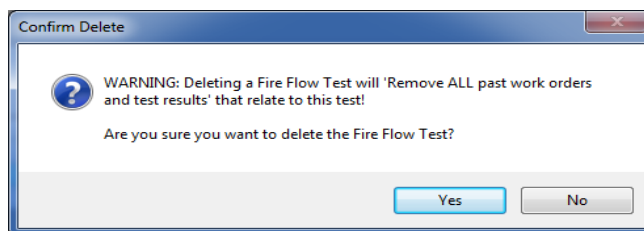
ValveName	Addr1	Addr2	XStreet	GeneralLoc
HNWD002		United Ave.		

Remove Valve | Shut-Off Valve: HNWD001 | Add Valve

- 8) When all of hydrants and valves have been added, select Save Data. This will save the test into the Test lists so that it can be added to a work order.

Delete a C-Factor test

To delete a test, use the arrows to select the test that needs to be deleted. Once it is on the selected test, click on Delete. You will receive the following warning:

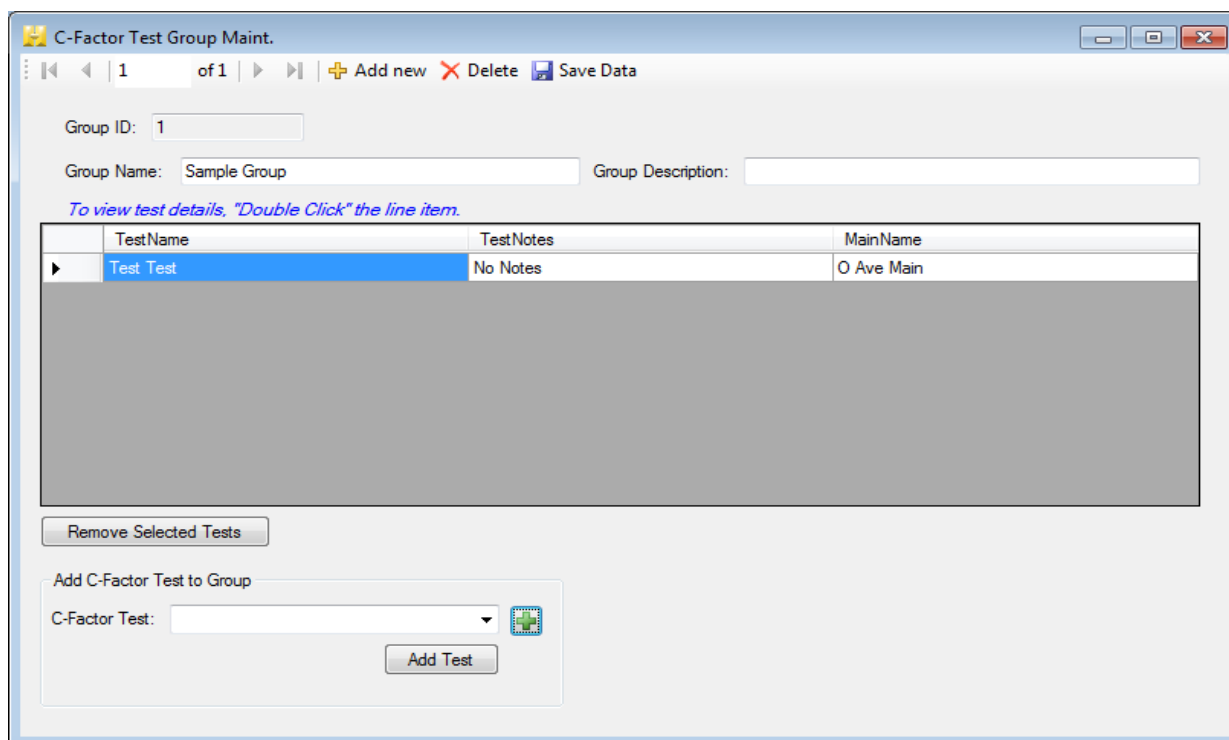


If you wish to continue deleting the test, select Yes. If you do not want to delete the test, select No.

Note: If you delete a test, all work orders and test results that are associated with that test will be deleted.

C-Factor Test Group Maintenance

This screen keeps track of the test groups available to be added to work orders. Test Groups can be added or deleted here. Test groups must be entered before a work order can entered into the system.

A screenshot of the "C-Factor Test Group Maint." window. The window has a title bar and standard Windows controls. Below the title bar is a toolbar with "Add new", "Delete", and "Save Data" buttons. The main area contains a form with "Group ID: 1", "Group Name: Sample Group", and "Group Description:". Below this is a table with columns "TestName", "TestNotes", and "MainName". The table has one row: "Test Test", "No Notes", "O Ave Main". Below the table is a "Remove Selected Tests" button. At the bottom, there is a section "Add C-Factor Test to Group" with a "C-Factor Test:" dropdown menu and an "Add Test" button.

TestName	TestNotes	MainName
Test Test	No Notes	O Ave Main

Add a new C-Factor test group

To add a new test group, select Add New. You can click on the green “+” sign and it will take you to the respective menu option to enter a new device. (Example: If you click the one next to the Model ID box, it will take you to the Model ID screen to enter a new hydrant model.)

1. Enter the name for the group.
2. Enter a group description.
3. Select Save Data to save the test group. Then the tests can be added to the group.
4. Select the C-Factor test from the drop down menu that needs to be added.
5. Click the Add Test button. This will add the test to the test group. To see details of the test added, double click on the line item. This will take you to the test details.
6. If a test is added and needs to be removed from the group, click the Remove Selected Test button. A confirmation will appear asking if you are sure you want to remove the selected test. Click yes to continue with the removal or no to cancel the removal.
7. When all of the tests have been added, select Save Data. This will save the group.

Delete a C-Factor test group

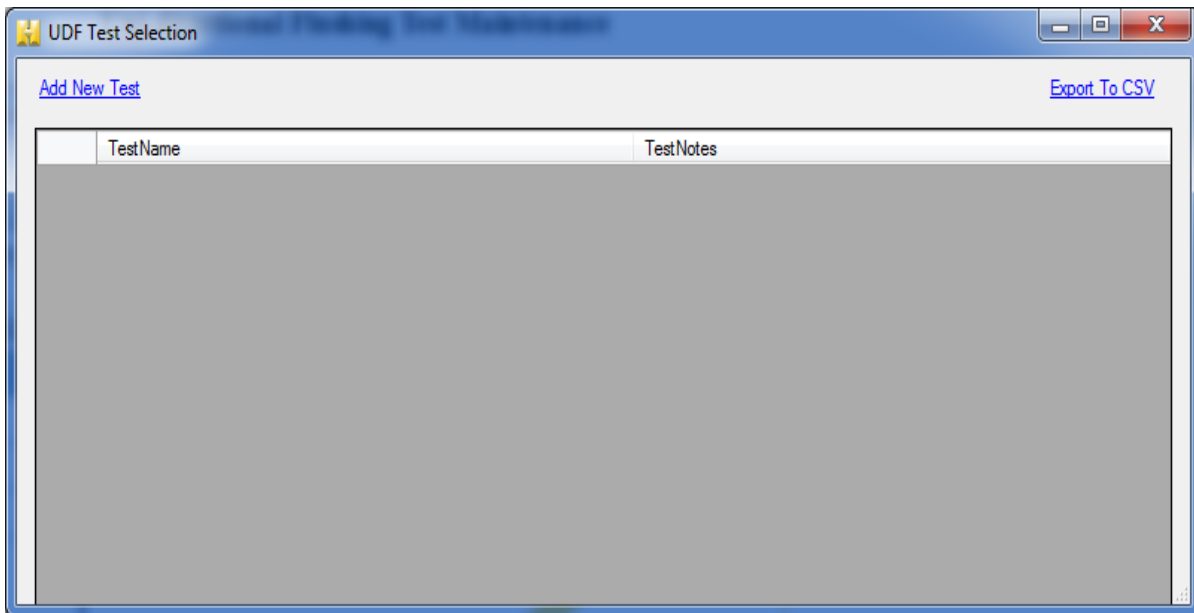
To delete a test group, select the test group that needs to be deleted. Use the arrows to move between groups. Once you have the group that needs to be deleted, click delete. A confirmation will appear asking if you are sure you want to delete the group. Click yes to continue with the removal or no to cancel the removal.

Uni-directional Flushing

This section gives details for editing the tests and the test groups for Uni-directional Flushing. These will be needed when entering your work orders into the system.

Uni-directional Flush Test Maintenance

This screen keeps track of the tests that are available to be added to a work order. New Tests can be added here and the list of tests can be exported. Test must be entered before a work order can entered into the system.



Add a new Uni-directional Flush test

To add a new test, select Add New Test. You can click on the green “+” sign and it will take you to the respective menu option to enter a new device. (Example: If you click the one next to the Model ID box, it will take you to the Model ID screen to enter a new hydrant model.)

- 9) Enter the name for the test.
- 10) Enter any notes that will be needed for the test.
- 11) Then select Save Data. You will then be able to add the required test main and flow hydrants.
- 12) Next, the main(s) will need to be added.
 - a) Select the test main from the drop down menu.
 - b) Once you have the test main that is needed, click the Add Test Main button. This will add the test main to the Main Being Flushed list. To see details of the flow main added, double click on the line item. This will take you to the main details.
- 13) Then flow hydrant(s) will need to be added.
 - a) Select the Primary Flow Hydrant from the drop down box. Only the hydrants that were added to the main on the Main Maintenance will appear in this drop down.
 - b) Select the flow device from the drop down box.
 - c) Once those two items have been selected, click the Add Primary Hydrant.
 - d) If additional flow hydrants are needed, select them from the drop down menu. Once the flow hydrant and flow device is selected, click the Add Additional Hydrant.

UDF Test Maint.

Test ID: 1 of 1 | Delete | Save Data

Test Name: Test Test Test Notes: New Test

Main Being Flushed *To view device details, "Double Click" the line item.*

TestID	MainName	MainDesc	PipeName	MinSize	MaxSize	MainLngth	LocNotes
1	Hamsburg Industrial	Main running to Ind...	PVC	6	8	12	

Remove Main Test Main: Hamsburg Industrial Add Test Main

Flow Hydrants | Residual Hydrants | Isolation Valves

Shut-Off Valves *To view device details, "Double Click" the line item.*

ValveName	Addr1	Addr2	XStreet	GeneralLoc
-----------	-------	-------	---------	------------

Remove Valve Shut-Off Valve: HNW0001 Add Valve

- 14) When all of hydrants and valves have been added, select Save Data. This will save the test into the Test lists so that it can be added to a work order.

UDF Test Maint.

Test ID: -1 of 1 | Delete | Save Data | Cancel

Test Name: Test Notes:

Main Being Flushed *To view device details, "Double Click" the line item.*

MainName	MainDesc	PipeName	MinSize	MaxSize	MainLngth	LocNotes
----------	----------	----------	---------	---------	-----------	----------

Remove Main Test Main: Hamsburg Industrial Add Test Main

Flow Hydrants | Residual Hydrants | Isolation Valves

Flow Hydrants *To view device details, "Double Click" the line item.*

HydName	FlowDevName	Addr1	Addr2	XStreet	GeneralLoc
---------	-------------	-------	-------	---------	------------

Remove Hydrant Primary Flow Hydrant: Flow Device: 2.5" Hose Monster Add Primary Hydrant

Additional Flow Hydrant: HURCO H 1 Flow Device: 2.5" Hose Monster Add Additional Hydrant

- 15) Then residual hydrant(s) will need to be added.

- Select the residual hydrant from the drop down list. Only the hydrants that were added to the main on the Main Maintenance will appear in this drop down.
- Click the Add Hydrant to add the hydrant to the Residual Hydrants list.

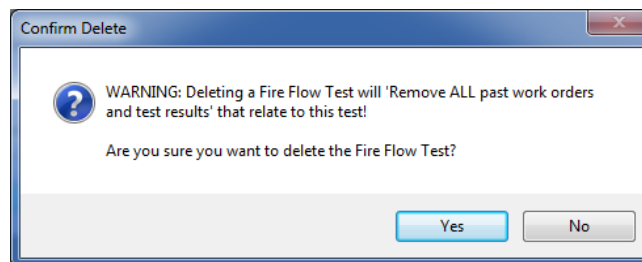
16) Then the isolation valve(s) will need to be added.

- a. Select the isolation valve from the drop down list.
- b. Click the Add Valve to add the valve to the Shut-Off Valves list.

17) When all of hydrants and valves have been added, select Save Data. This will save the test into the Test lists so that it can be added to a work order.

Delete a Uni-directional Flush test

To delete a test, use the arrows to select the test that needs to be deleted. Once it is on the selected test, click on Delete. You will receive the following warning:



If you wish to continue deleting the test, select Yes. If you do not want to delete the test, select No.

Note: If you delete a test, all work orders and test results that are associated with that test will be deleted.

Uni-directional Flush Test Group Maintenance

This screen keeps track of the test groups available to be added to work orders. Test Groups can be added or deleted here. Test groups must be entered before a work order can entered into the system.

The screenshot shows a software window titled "UDF Test Group Maint.". At the top, there is a toolbar with buttons for "Add new", "Delete", "Save Data", and "Cancel". Below the toolbar, there are input fields for "Group ID:", "Group Name:", and "Group Description:". A blue instruction text reads: "To view test details, 'Double Click' the line item." Below this is a table with three columns: "TestName", "TestNotes", and "MainName". The table area is currently empty. Below the table is a button labeled "Remove Selected Tests". At the bottom, there is a section titled "Add UDF Test to Group" which contains a dropdown menu labeled "UDF Test:", a green plus icon, and an "Add Test" button.

Add a new Uni-directional Flush test group

To add a new test group, select Add New. You can click on the green “+” sign and it will take you to the respective menu option to enter a new device. (Example: If you click the one next to the Model ID box, it will take you to the Model ID screen to enter a new hydrant model.)

8. Enter the name for the group.
9. Enter a group description.
10. Select Save Data to save the test group. Then the test can be added to the group.
11. Select the Uni-directional Flush test from the drop down menu that needs to be added.
12. Click the Add Test button. This will add the test to the test group. To see details of the test added, double click on the line item. This will take you to the test details.
13. If a test is added and needs to be removed from the group, click the Remove Selected Test button. A confirmation will appear asking if you are sure you want to remove the selected test. Click yes to continue with the removal or no to cancel the removal.
14. When all of the tests have been added, select Save Data. This will save the group.

Delete a Uni-directional Flush test group

To delete a test group, select the test group that needs to be deleted. Use the arrows to move between groups. Once you have the group that needs to be deleted, click delete. A confirmation will appear asking if you are sure you want to delete the group. Click yes to continue with the removal or no to cancel the removal.

Hydrant Flushing Group Maintenance

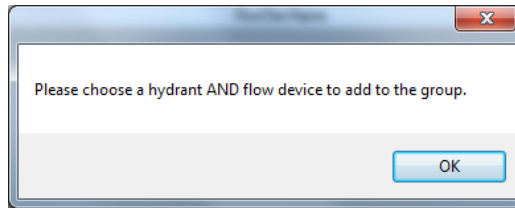
This screen keeps track of the hydrant flushing groups available to be added to work orders. Flushing Groups can be added or deleted here. Flushing groups must be entered before a work order can entered into the system.

The screenshot shows a software window titled "Hydrant Flushing Group Maint.". At the top, there are navigation buttons (back, forward, etc.) and a status bar showing "1 of 1". Below this are buttons for "Add new", "Delete", and "Save Data". The main form has two input fields: "Group ID:" with the value "1" and "Group Name:" with the value "Hydrant Flushing Group 1". To the right of the Group Name field is a "Group Desc:" field with the value "Southeast corner of Harrisburg". Below these fields is a blue instruction text: "To view device details, 'Double Click' the line item." Underneath is a large, empty table with two columns: "HydName" and "FlowDevName". At the bottom of the window, there is a "Remove Selected" button and an "Add Hydrant To Group" section. This section contains two dropdown menus: "Hydrant:" with the selected value "HURCO H 2" and "Flow Device:" with the selected value "4.5\" Hose Monster". There are green "+" icons next to each dropdown menu and an "Add Hydrant" button to the right.

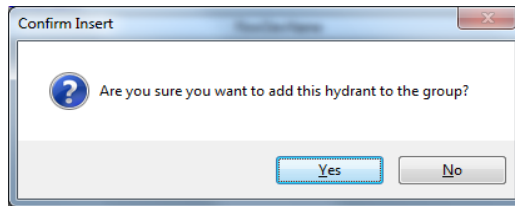
Add a new hydrant flushing group

To add a new flushing group, select Add New. You can click on the green “+” sign and it will take you to the respective menu option to enter a new device. (Example: If you click the one next to the Hydrant box, it will take you to the Hydrant screen to enter a new hydrant.)

1. Enter the name for the group.
2. Enter a group description.
3. Select Save Data to save the test group. Then the hydrants can be added to the group.
4. Select the hydrant from the drop down menu that needs to be added.
5. Select the flow device that is attached to the hydrant. If you fail to select a flow device the following message will appear. You cannot add a hydrant to the group unless you add a flow device.



6. Once you have selected both a hydrant and flow device, click the Add Hydrant button. The following message will appear to confirm that you want to add the hydrant.



7. If hydrant is added and needs to be removed from the group, click the Remove Selected button. A confirmation will appear asking if you are sure you want to remove the selected device. Click yes to continue with the removal or no to cancel the removal.
8. When all of the hydrants have been added, select Save Data. This will save the group.

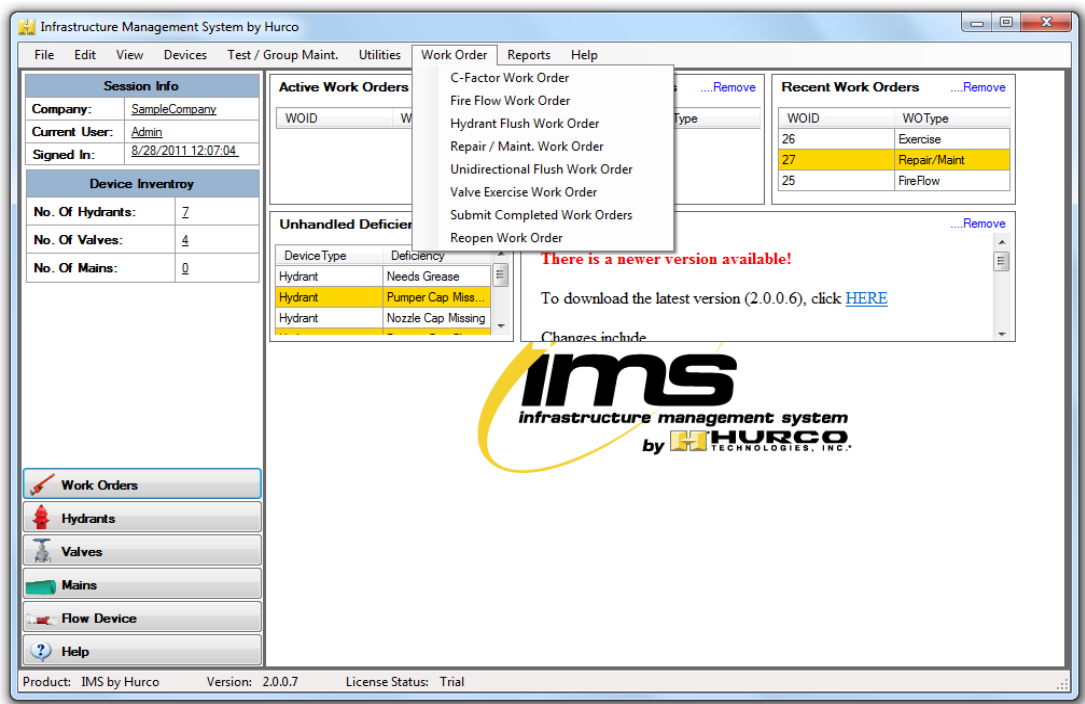
Delete a Hydrant Flushing group

To delete a flushing group, select the flushing group that needs to be deleted. Use the arrows to move between groups. Once you have the group that needs to be deleted, click delete. A confirmation will appear asking if you are sure you want to delete the group. Click yes to continue or no to cancel the removal.

Chapter 7

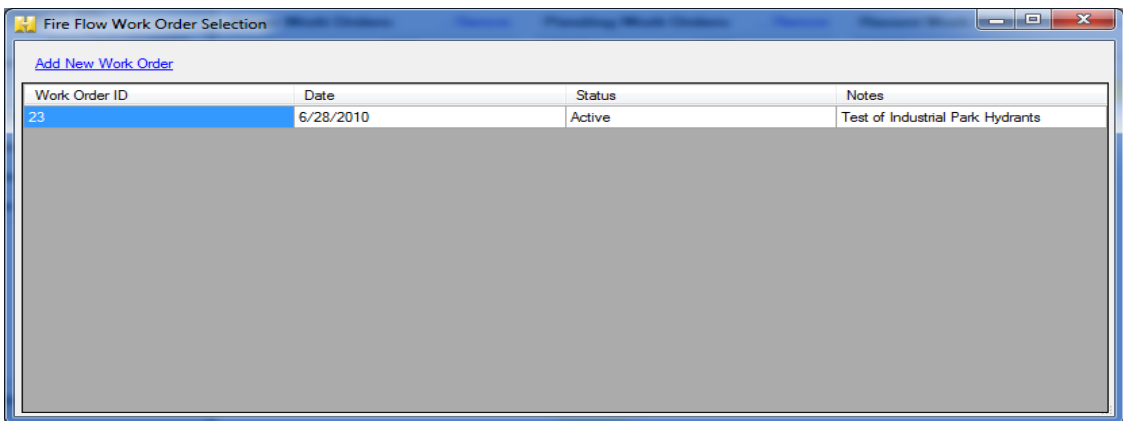
Creating/Submitting Fire Flow Work Order

In this chapter, you'll learn to create and submit Fire Flow work orders. These options are located under the Work Order option on the Menu Bar.



Fire Flow Work Order

This screen keeps track of the active work orders. New work orders can be added here. Test or test groups must be created before a work order can be created.



Add a new Fire Flow Work Order

To add a new Fire Flow Work Order, select Add New Work Order. You can click on the green “+” sign and it will take you to the respective menu option to enter a new device. (Example: If you click the one next to the Model ID box, it will take you to the Model ID screen to enter a new hydrant model.)

1. A work order number will be generated automatically.
2. Select the date.
3. Enter any notes that are needed.
4. Created by will be generated by the user that is logged in.
5. WO Type will be generated automatically depending on which work order screen you are in.
6. Status will change depending on what is being done with the work order.
7. Work Order Schedule
 - a. Select whether it is a reoccurring work order.
 - b. If it is a reoccurring work order, select the reoccurrence period.
 - c. Select whether or not the reoccurring event has an ending period.
 - d. If it does have an ending, chose the date for the reoccurrence to end.
8. Select the test or test group to add to the work order. If a test or group is added and needs to be removed, select Remove Selected. A confirmation will appear asking if you are sure you want to remove the delete the group. Click yes to continue with the removal or no to cancel the removal. To see details of the line item added, double click on the line item.
9. Once all information has been entered into the work order, select Save Data.

Fire Flow Work Order Maint.

Work Order ID: 24 Date: 6/28/2010

Notes: This is a test workorder

Created By: system

WOType: FireFlow

Status: Active

Work Order Schedule

Is Recurring: Yes

Reoccurring Period:

Is Ending:

End Date: 1/ 1/1900

To view test details, "Double Click" the line item.

TestName	TestNotes
Test 1 And 5	flow 2-4
Test 6-7	Flow 1-2

Remove Selected

Add Tests To Work Order

Fire Flow Tests

Add Test

Add Test Group To Work Order

Fire Flow Groups

Add Group

10. To print the work order, click Print and the select from the following menu.

Field Report Selection

Please choose one of the following options.

☒ Full Field Report

☐ Summary Field Report

☐ Cancel

Continue

- a. Full Field Report- This report will be the full report that goes to the field with the tester.

Fire Flow Work Order

Report Generated by: IMS by Hurco Technologies Inc. Page: 1

Company Name: Company Name

Address: My Address

City:

State:

Zip:

Work Order #: 28

Order Date:

Order Notes: Test Test Test

Test Hydrant: HURCO H 5	Latitude: 43.441860
Address: 501 Industrial Dr.	Longitude: -96.699623
Cross Street:	State X / Y:
Loc Notes:	Elevation: 1450.441772
District Name: Commercial	Static PSI:
SubDistrict Name:	Residual PSI:
Deficiencies:	

Flow Hydrant 1: HURCO H 3	Flow Device 1: 1.125" Pitotless Nozzle	Pitot PSI:	Flow Time (M/S):
Flow Hydrant 2:	Flow Device 2:	Pitot PSI:	Flow Time (M/S):
Flow Hydrant 3:	Flow Device 3:	Pitot PSI:	Flow Time (M/S):
Flow Hydrant 4:	Flow Device 4:	Pitot PSI:	Flow Time (M/S):
Flow Hydrant 5:	Flow Device 5:	Pitot PSI:	Flow Time (M/S):

Current Page No.: 1 Total Page No.: 1 Zoom Factor: 100%

- b. Summary Field Report – This report will give a summary of the walking order.

The screenshot shows a software window titled "Fire Flow Work Order". Inside, there's a "Main Report" tab. The report is titled "Fire Flow Walking Order Summary" and is "Page: 1". It was generated by "IMS by Hurco Technologies Inc.". The report includes the following fields:

- Company Name:** Company Name
- Address:** My Address
- City:**
- State:**
- Zip:**
- Work Order #:** 28
- Order Date:**
- Order Notes:** Test Test Test

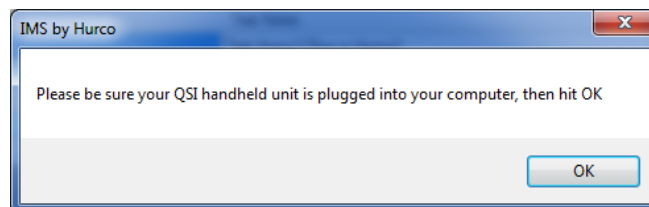
Below these fields is a section for "Flow Hydrants". It contains a table with the following data:

	Test Hydrant	HURCO H 5	Address	501 Industrial Dr.
	HURCO H 3	301 Industrial Dr.	1.125" Pitotless Nozzle	

The bottom of the window shows "Current Page No.: 1", "Total Page No.: 1", and "Zoom Factor: 100%".

To Export Fire Flow Work Order to QSI Handheld

Once the work order has been saved, it can be exported to the QSI handheld. Click the Export to QSI. The following warning will appear. If the QSI Handheld is plugged in, click Ok. If the QSI handheld is not plugged in, plug it in and click Ok. Select the location to save the Hydrant Directory file. Message will appear to alert if the export was successful.



It will then be ready to take to the field and the tests on the work orders to be performed.

To Import Fire Flow Work Order From QSI Handheld

After the tests have been run and the results are ready to be added to the work order, go to the work order list and select the work order that has been completed. Click the QSI Import button. The same warning will appear as when the work order was exported. If the QSI Handheld is plugged in, click Ok. If the QSI handheld is not plugged in, plug it in and click Ok. Select the location where the Flow Results file is saved. Click Ok to import. Message will appear to alert if the import was successful.

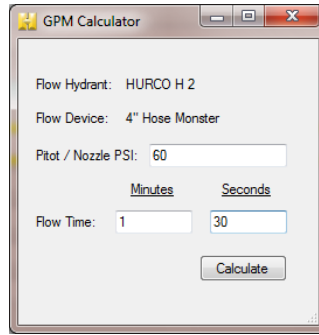
To Edit Results from the Fire Flow Work Order

After the tests have been run and the results are ready to be added to the work order, go to the work order list and select the work order that has been completed. Click the Edit Results button. There will be one screen for each test hydrant that was part of the test. You can click on the green “+” sign and it will take you to the respective menu option to enter a new device. (Example: If you click the one next to the Model ID box, it will take you to the Model ID screen to enter a new hydrant model.)

The screenshot shows a web application window titled "Fire Flow Work Order Results". At the top, there is a navigation bar with "1 of 1" and a "Save Data" button. Below this, the form contains several input fields: "WOID:" with value "28", "Test Hydrant:" with value "HURCO H 3", and "Completed:" with value "7/18/2010". There are also fields for "Oper ID:" (Mike), "Elapsed Time Min:" (1), and "Elapsed Time Sec:" (30). A "Test Notes:" text area is present. Below these are three light blue boxes for "Pitot / Nozzle PSI:" (60), "Static PSI:" (75), and "Residual PSI:" (70). A yellow highlighted section contains a table for flow data. The first row is populated: "Flow Hydrant:" (HURCO H 2), "Flow Device:" (4" Hose Monster), "Flow GPM:" (1874.1694246), and "Gallon Used:" (2811.2541369). Below this are three empty rows for additional data entry. At the bottom, there are two rows of "Deficiency:" dropdown menus, with the first one set to "Needs Paint".

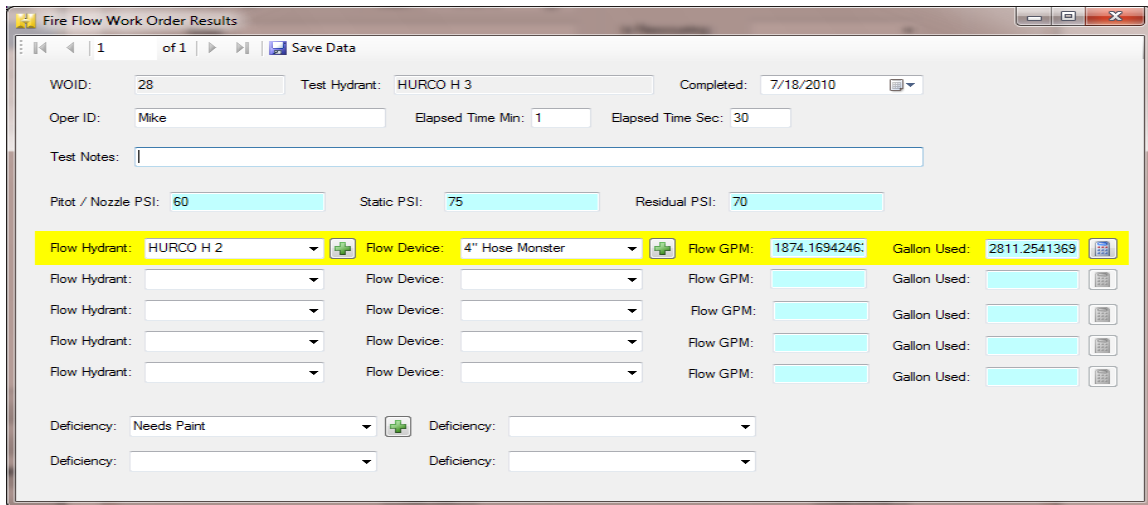
1. Completed- Enter the date that the test was completed.
2. Oper ID- Enter the person's name that performed the test.
3. Elapsed time- Enter the amount of time that the test was run.
4. Test Notes- Enter any test notes that need to be recorded.
5. Pitot PSI- Enter the pitot PSI.
6. Static PSI- Enter the static PSI.
7. Residual PSI- Enter the residual PSI.
8. Devices Used
 - a. Flow Hyd ID- Enter the flow hydrant that was used.
 - b. Flow Dev ID- Enter the flow device that was used.
 - c. Flow GPM & Gallons Used- Enter these two values that were obtained during the test.

- If you didn't calculate the gallons used during the test, click on the calculator icon. Enter the Pitot pressure and the flow time in minutes and seconds.



A small window titled "GPM Calculator". It contains the following fields: "Flow Hydrant:" with the value "HURCO H 2", "Flow Device:" with the value "4" Hose Monster", "Pitot / Nozzle PSI:" with the value "60". Below these are two input fields for "Flow Time:" labeled "Minutes" and "Seconds", with values "1" and "30" respectively. A "Calculate" button is at the bottom.

- Click the calculate button and this will fill in the values.

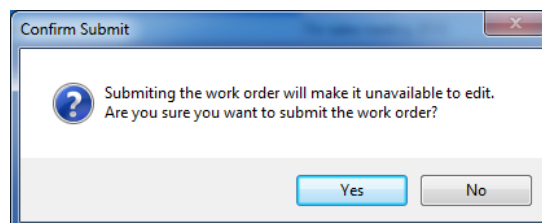


A larger window titled "Fire Flow Work Order Results". It shows a summary of test data. At the top, it says "1 of 1" and "Save Data". Below are fields for "WOID:" (28), "Test Hydrant:" (HURCO H 3), and "Completed:" (7/18/2010). There are also fields for "Oper ID:" (Mike), "Elapsed Time Min:" (1), and "Elapsed Time Sec:" (30). A "Test Notes:" field is empty. Below these are three PSI readings: "Pitot / Nozzle PSI: 60", "Static PSI: 75", and "Residual PSI: 70". A table of results follows, with the first row highlighted in yellow. The table has four columns: "Flow Hydrant:", "Flow Device:", "Flow GPM:", and "Gallon Used:". The first row shows "HURCO H 2", "4" Hose Monster", "1874.1694246", and "2811.2541369". Below the table are two "Deficiency:" fields, each with a dropdown menu. The first dropdown is set to "Needs Paint".

9. Deficiency- Use the drop down menu to select any deficiencies that were detected during the test.
10. When all results have been entered, select Save Data. This will save the test results.

To Submit Results from the Fire Flow Work Order

After the results have been entered or uploaded, the results will need to be submitted. The results must be submitted in order to view them in the Reports section. Click the Submit Results button. A warning will appear alerting to the fact that once the results are submitted the work order cannot be edited anymore. If you agree, select Yes. If you want to be able to edit the work order still, select No.

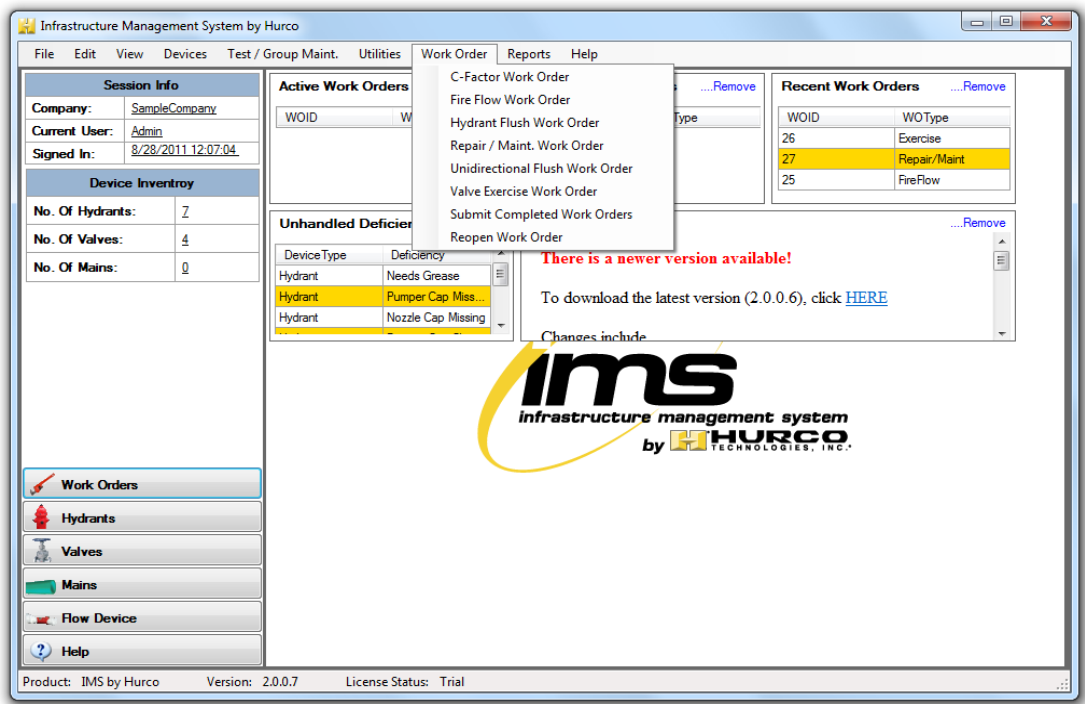


A dialog box titled "Confirm Submit". It contains a question mark icon and the text: "Submitting the work order will make it unavailable to edit. Are you sure you want to submit the work order?". At the bottom are two buttons: "Yes" and "No".

Chapter 8

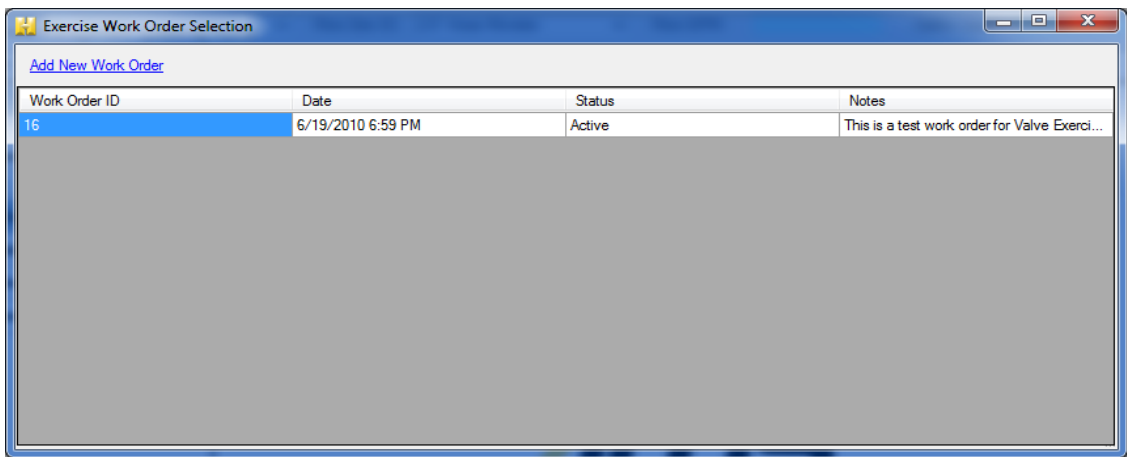
Creating/Submitting Valve Exercise Work Order

In this chapter, you'll learn to create and submit Valve Exercise work orders. These options are located under the Work Order option on the Menu Bar.



Valve Exercise Work Order

This screen keeps track of the active valve exercise work orders. New valve exercise work orders can be added here. Exercise groups must be created before a work order can be created.



Add a new Valve Exercise Work Order

To add a new Valve Exercise Work Order, select Add New Work Order. You can click on the green “+” sign and it will take you to the respective menu option to enter a new device. (Example: If you click the one next to the Model ID box, it will take you to the Model ID screen to enter a new hydrant model.)

1. A work order number will be generated automatically.
2. Select the date.
3. Enter any notes that are needed.
4. Created by will be generated by the user that is logged in.
5. Status will change depending on what is being done with the work order.
6. WO Type will be generated automatically depending on which work order screen you are in.
7. Work Order Schedule
 - a. Select whether it is a reoccurring work order.
 - b. If it is a reoccurring work order, select the reoccurrence period.
 - c. Select whether or not the reoccurring event has an ending period.
 - d. If it does have an ending, chose the date for the reoccurrence to end.
8. Select the Exercise Group(s) to add to the work order from the drop down box.
9. Select the valve(s) to add to the work order from the drop down box.
10. Select the hydrant(s) to add to the work order from the drop down box.
11. If an exercise group, valve or hydrant is added and needs to be removed, select Remove Selected. A confirmation will appear asking if you are sure you want to remove the delete the group. Click yes to continue with the removal or no to cancel the removal. To see details of the line item added, double click on the line item.
12. Once all information has been entered into the work order, select Save Data.

Valve Exercise Work Order Maint.

1 of 5 | Add new | Delete | Save Data | Print | Edit Results | Submit Results

Work Order ID: 16 Date: 6/19/2010

Notes: This is a test work order for Valve Exercising

Created By: cory
WOType: Exercise
Status: Active

Work Order Schedule

Is Recurring: No
Recurring Period: Daily
Is Ending:
End Date: 7/10/2010

To view device details, "Double Click" the line item.

DetailID	DeviceType	DeviceID	DeviceName	WOID
4	Valve	1	V-101	16
5	Valve	2	V-201-Aux	16
6	Hydrant	1	Hurco 1	16

Remove Selected

Add Exercise Group To Work Order
Groups: Add Group

Add Valve To Work Order
Valves: Add Valve

Add Hydrant To Work Order
Hydrants: Add Hydrant

13. To print the work order, click Print and the select from the following menu.

Field Report Selection

Please choose one of the following options.

☒ Full Field Report
☐ Summary Field Report
☐ Cancel

Continue

- a. Full Field Report- This report will be the full report that goes to the field with the tester.

Exercise Work Order

Main Report

Valve / Hydrant Exercise Work Order

Report generated by: IMS by Hurco Technologies Inc. Page:

Company Name: Hurco Technologies Inc
Address: 409 Enterprise Blvd
City: Hamburg
State: SD
Zip: 57032

Work Order #: _____
Order Date: _____
Operator ID: _____
Test Time: _____

Order Notes: This is a test work order for Valve Exercising

Device Type: Valve	Latitude: _____
Device ID: V-101	Longitude: _____
Manufacturer: _____	Address: 510 Cottonwood Dr.
Install Date: 06/01/2010	City: Hamburg
Bury Depth: 6.00	State: SD
Status: Open	Zip Code: 57032
Open Direction: Left	Cross Street: _____
Valve Drive Type: Standard	District: _____
Number Of Turns: 4.00	Sub-Division: _____
Valve Size: 4.00	Elevation: _____
Access Type: Manhole	State X / Y: /

Set Rev: 4.00	Set Torque: 60.00	Set Speed: 10.00
Hydrant Control Valve: N/A	Valve Size: 0.00	Valve Direction: N/A
		Valve Distance: 0.00

Total Revs: _____ Rev At Max Torque: _____ Max Rev In Set Dir: _____
Cycle Count: _____ Max Torque: _____

Deficiency 1: _____
Deficiency 2: _____
Deficiency 3: _____
Deficiency 4: _____
Field Notes: _____

Current Page No.: 1 Total Page No.: 1+ Zoom Factor: 75%

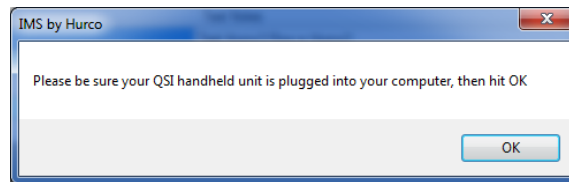
- b. Summary Field Report – This report will give a summary of the walking order.

The screenshot shows a software window titled "Exercise Work Order". Inside, there's a report titled "Valve / Hydrant Exercise Walking Order Summary". The report is generated by "IMS by Hurco Technologies Inc." and is on "Page: 1". It includes a logo for "ims infrastructure management system by HURCO". The report contains fields for "Company Name", "Address", "City", "State", "Zip", "Work Order #", "Order Date", "Operator ID", and "Test Time". Below these is a section for "Order Notes" with the text "Test 1234". At the bottom, there are three rows of device information, each with a checkbox, "Device Type", "Device ID", and "Address".

Device Type	Device ID	Address
Valve	HNWD002	United Ave.
Hydrant	HURCO H 4	401 Industrial Dr.
Hydrant	HURCO H 3	301 Industrial Dr.

To Export Valve Exercise Work Order to QSI Handheld

Once the work order has been saved, it can be exported to the QSI handheld. Click the Export to QSI. The following warning will appear. If the QSI Handheld is plugged in, click Ok. If the QSI handheld is not plugged in, plug it in and click Ok. Select the location to save the Valve Directory file. Message will appear to alert if the export was successful.



It will then be ready to be taken to the field and the tests on the work orders to be performed.

To Import Valve Exercise Work Order to QSI Handheld

After the tests have been run and the results are ready to be added to the work order, go to the work order list and select the work order that has been completed. Click the QSI Import button. The same warning will appear as when the work order was exported. If the QSI Handheld is plugged in, click Ok. If the QSI handheld is not plugged in, plug it in and click Ok. Select the location where the Exercise Results file is saved. Click Ok to import. Message will appear to alert if the import was successful.

To Edit Results from the Valve Exercise Work Order

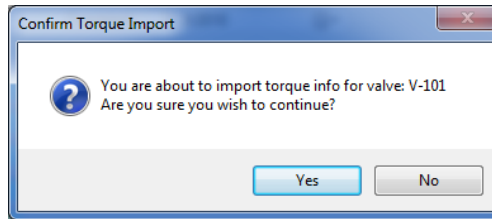
After the tests have been run and the results are ready to be added to the work order, go to the work order list and select the work order that has been completed. Click the Edit Results button. There will be one screen for each valve that was part of the test. You can click on the green “+” sign and it will take you to the respective menu option to enter a new device. (Example: If you click the one next to the Model ID box, it will take you to the Model ID screen to enter a new hydrant model.)

1. Oper ID- Enter the person’s name that performed the exercise.
2. Completed- Enter the date that the exercise was completed.
3. Total Revs- Enter the total revolutions during the exercise.
4. Cycle Count- Enter the number of cycles during the exercise.
5. Max Torque- Enter the maximum torque applied during the exercise.
6. Rev At Max Torque- Enter the revolutions at maximum torque.
7. Max Rev In Set Dir- Enter the maximum revolutions in one set direction.
8. Deficiency- Use the drop down menu to select any deficiencies that were detected during the exercise.
9. Field Notes- Enter any notes taken during in the field during the exercise.
10. When all results have been entered, select Save Data. This will save the exercise results.

The screenshot shows a software window titled "Valve Exercise Result Maint." with a toolbar at the top containing navigation icons, a "Save Data" button, and an "Import Torque Log" button. The "Result Index" is displayed as 8. The main form area is divided into several sections: "Work Order ID:" with a text box containing "113"; "Device Type:" with a dropdown menu set to "Valve"; "Device ID:" with a text box containing "V-101"; "Operator ID:" with an empty text box; "Completed:" with a date picker set to "7/10/2010"; "Total Revs:" with a light blue text box; "Cycle Count:" with a light blue text box; "Max Torque:" with a light blue text box; "Rev At Max Torque:" with a light blue text box; "Max Rev In Set Dir:" with a light blue text box; "Deficiency1:" through "Deficiency4:" each with a dropdown menu; and "Field Notes:" with a large text area. A green plus icon is located between the deficiency dropdowns and the field notes area.

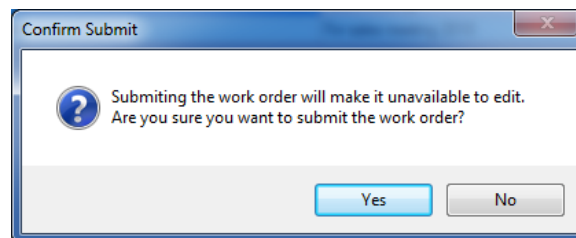
To Import Torque Log

After the exercise has been run, a torque log obtained during the valve exercise may need to upload. While in the Edit Results Screen for the Valve Exercise, click on Import Torque Log. A warning will appear to alert the user that torque information is about to be imported. If user wishes to continue, select Yes. If user doesn’t want to import the file, select NO. Message will appear to alert if the import was successful.



To Submit Results from the Valve Exercise Work Order

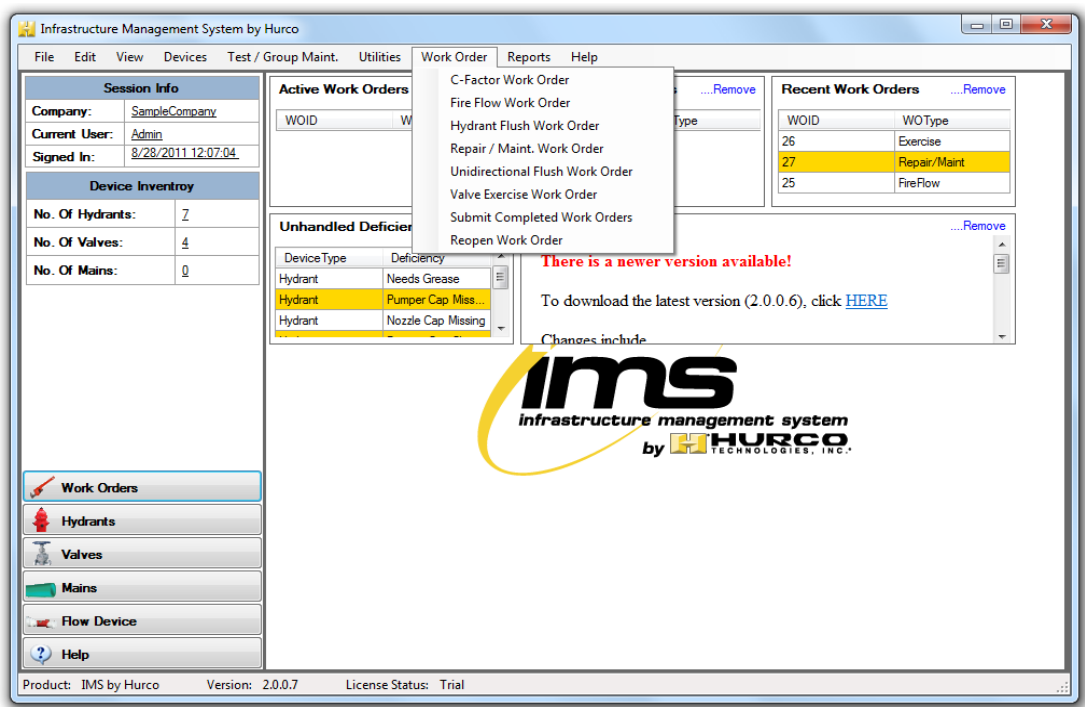
After the results have been entered or uploaded, the results will need to be submitted. The results must be submitted in order to view them in the Reports section. Click the Submit Results button. A warning will appear alerting to the fact that once the results are submitted the work order cannot be edited anymore. If you agree, select Yes. If you want to be able to edit the work order still, select No. The related Valve Exercise Work Order Report will appear.



Chapter 9

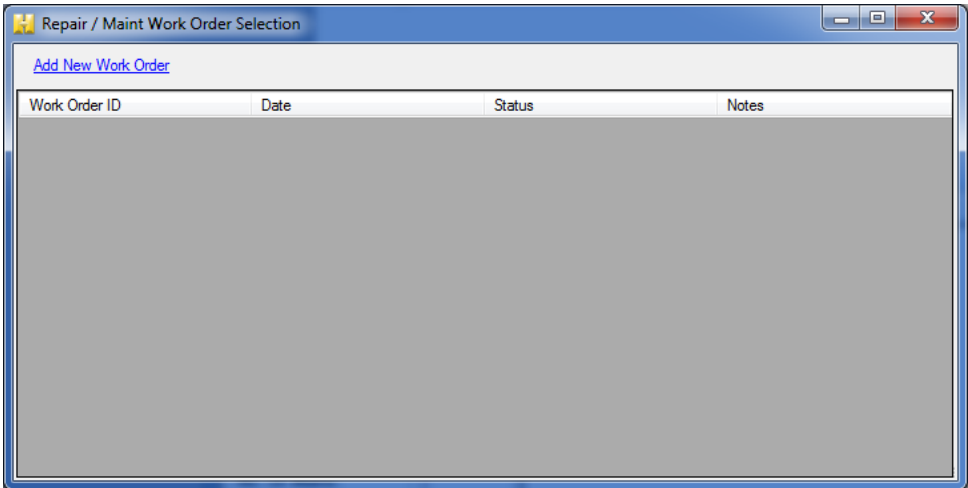
Creating/Submitting Repair/Maintenance Work Order

In this chapter, you'll learn to create and submit Repair/Maintenance work orders. These options are located under the Work Order option on the Menu Bar.



Repair/Maintenance Work Order

This screen keeps track of the active repair/maintenance work orders. New repair/maintenance work orders can be added here. Repair/Maintenance action items must be created before a work order can be created.

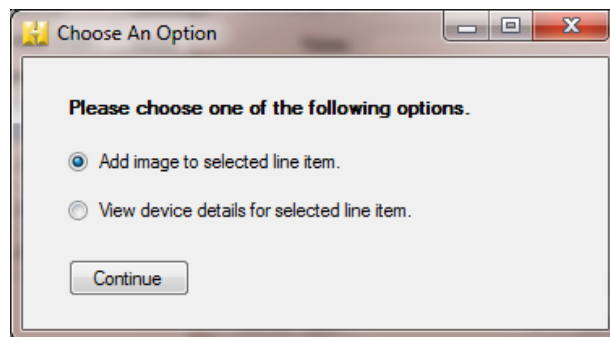


Add a new Repair/Maintenance Work Order

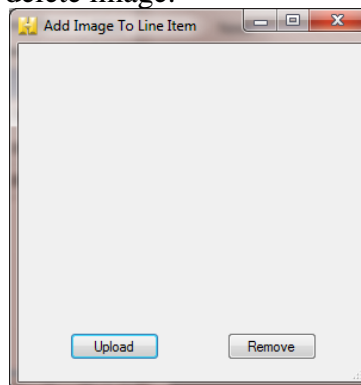
To add a new Repair/Maint Work Order, select Add New Work Order. You can click on the green “+” sign and it will take you to the respective menu option to enter a new device. (Example: If you click the one next to the Model ID box, it will take you to the Model ID screen to enter a new hydrant model.)

1. A work order ID will be generated automatically
2. Select the date.
3. Enter any notes that are needed.
4. Created by will be generated by the user that is logged in.
5. WO Type will be generated automatically depending on which work order screen you are in.
6. Status will change depending on what is being done with the work order.
7. Work Order Schedule
 - a. Select whether it is a recurring work order.
 - b. If it is a recurring work order, select the recurrence period.
 - c. Select whether or not the recurring event has an ending period.

- d. If it does have an ending, chose the date for the reoccurrence to end.
8. Select Save Data to create work order.
 9. Now that the work order has been created, chose the Device type that needs work.
 10. Select the Device ID.
 11. Select the action that needs to be performed on the device. If there are no actions to select, then actions need to be set up in the Repair/Maint Action Maint screen.
 12. If an exercise group, valve or hydrant is added and needs to be removed, select Remove Selected. A confirmation will appear asking if you are sure you want to remove the delete the group. Click yes to continue with the removal or no to cancel the removal.
 13. Select the priority of the repair or maintenance item. If no priority is selected, it will automatically default to LOW.
 14. Double click on a line item to upload/remove image or to view the details of the selected line item.



15. To add or remove image, select Add Image to selected line item. Click upload to add picture or Remove to delete image.



16. To view device details, select View device details for selected line item. This will take you to the device details.
17. Once all information has been entered into the work order, select Save Data.

18. To print the work order, click Print. The following report will appear.

Repair / Maint Work Order

Report Generated by: IMS by Hurco Technologies Inc. Page: 1

Company Name: Company Name
Address: My Address
City:
State:
Zip:

Work Order: 30
Work Order Date: 08/28/2011

Work Order Notes: Painting Hydrants

HURCO H 1

Device Type: Hydrant
Manufacture: Clow
Install Date: 6/1/2010 4:11:56PM
Status: Active

Address: 409 Enterprise St.
Location:
City: Harrisburg
State: SD
Zip: 57032

Action	Priority	Notes
Paint Hydrant	Low	Yellow

Field Notes:

HURCO H 2

Device Type: Hydrant
Manufacture: Mueller
Install Date: 5/1/2010 4:11:56PM
Status: Active

Address: 201 Industrial Dr.
Location: N side (mid block)
City: Harrisburg
State: SD
Zip: 57032

Action	Priority	Notes
Paint Hydrant	Low	Green

Field Notes:

HURCO H 3

Device Type: Hydrant
Manufacture: Mueller
Install Date: 4/1/2010 4:11:56PM
Status: Active

Address: 301 Industrial Dr.
Location: N side (mid block)
City: Harrisburg
State: SD
Zip: 57032

Action	Priority	Notes
--------	----------	-------

Current Page No.: 1 Total Page No.: 1+ Zoom Factor: 100%

To Edit Results from the Repair/Maintenance Work Order

After the repair/maintenance item has been completed, the results must be entered into the work order so that it can be closed. Click the Edit Results button. There will be one screen for each item on the work order.

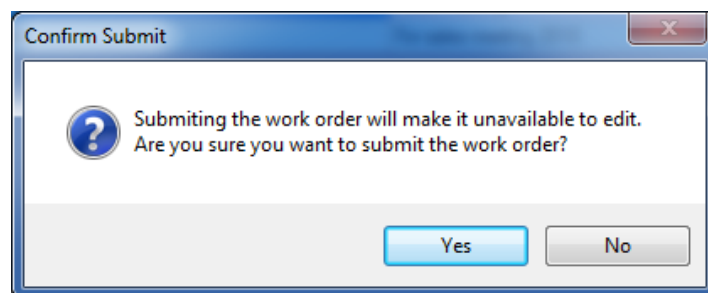
1. Work Order ID, Device Type and Device ID- These items are populated from the line items on the work order.
2. Oper ID- Enter the person's name that performed the repair/maintenance.
3. Completed- Enter the date that the repair or maintenance was completed.
4. Action- This is auto populated with one of the line items on the work order.

5. Field Notes- Enter any notes taken during in the field during the repair/maintenance.
6. When all results have been entered, select Save Data. This will save the repair/maintenance results.

The screenshot shows a software window titled "Repair / Maint Work Order Results". At the top, there are navigation buttons (back, forward, first, last) and a "Save Data" button. Below these are input fields for "Work Order ID" (containing 27), "Device Type" (Valve), and "Device ID" (HURCO V1). There are also fields for "Operator ID", "Completed" (7/7/2010), and "Action" (Paint Hydrant). A large text area for "Field Notes" is at the bottom.

To Submit Results from the Repair/Maintenance Work Order

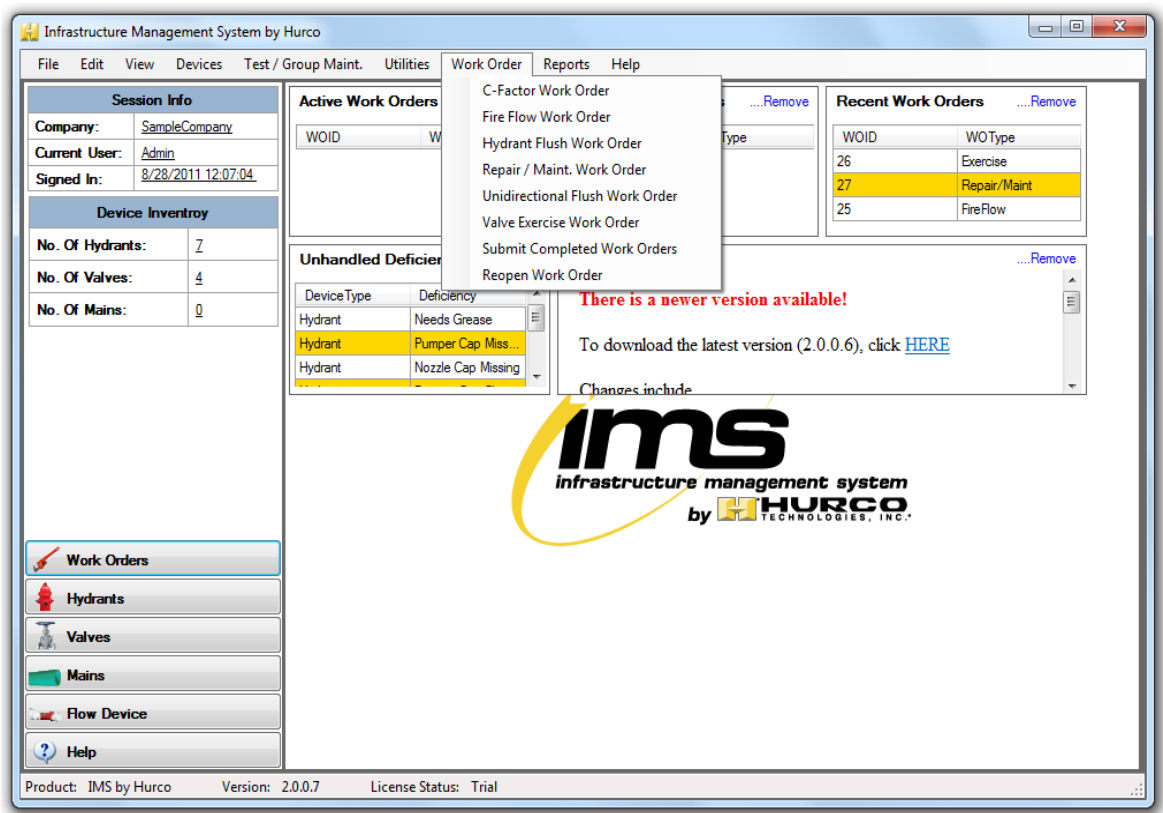
After the results have been entered or uploaded, the results will need to be submitted. The results must be submitted in order to view them in the Reports section. Click the Submit Results button. A warning will appear alerting to the fact that once the results are submitted the work order cannot be edited anymore. If you agree, select Yes. If you want to be able to edit the work order still, select No.



Chapter 10

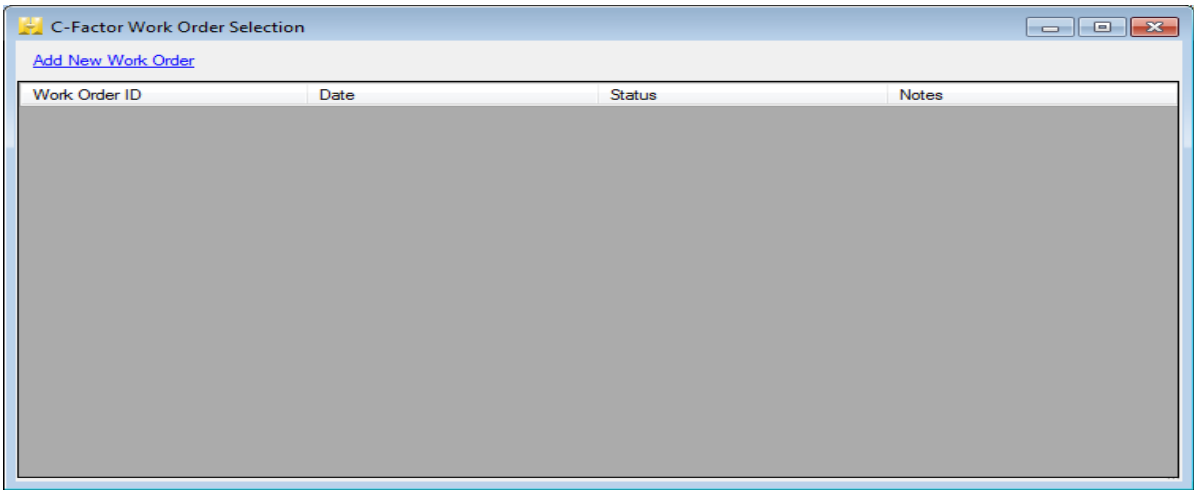
Creating/Submitting C-Factor Work Order

In this chapter, you'll learn to create and submit C-Factor work orders. These options are located under the Work Order option on the Menu Bar.



C-Factor Work Order

This screen keeps track of the active C-Factor work orders. New C-factor work orders can be added here.



Add a new C-Factor Work Order

To add a new C-Factor Work Order, select Add New Work Order. You can click on the green “+” sign and it will take you to the respective menu option to enter a new device. (Example: If you click the one next to the Model ID box, it will take you to the Model ID screen to enter a new hydrant model.)

1. A work order number will be generated automatically
2. Select the date.
3. Enter any notes that are needed.
4. Created by will be generated by the user that is logged in.
5. WO Type will be generated automatically depending on which work order screen you are in.
6. Status will change depending on what is being done with the work order.
7. Work Order Schedule
 - a. Select whether it is a reoccurring work order.
 - b. If it is a reoccurring work order, select the reoccurrence period.
 - c. Select whether or not the reoccurring event has an ending period.
 - d. If it does have an ending, chose the date for the reoccurrence to end.
8. Once all information has been entered into the work order, select Save Data.
9. Select the C-Factor test(s) to add to the work order from the drop down box. Click the Add Test button.
10. Select the C-Factor test group(s) to add to the work order from the drop down box. Click the Add Group button.
11. If a test or test group, is added and needs to be removed, select the appropriate item and click Remove Selected. A confirmation will appear asking if you are sure you want to remove the delete the test/group. Click yes to continue with the removal or no to cancel the removal. To see details of the line item added, double click on the line item.
12. Once all test/group(s) have been added, select Save Data.

C-Factor Work Order Maint.

1 of 1 | Add new | Delete | Save Data | Print | Edit Results | Submit Results

WOID: 30 Date: 12/15/2010

Notes:

Created By: Admin

Work OrderType: CF

Work Order Status: Active

Work Order Schedule

Is Reoccurring: No

Reoccurring Period: Daily

Is Ending:

End Date: 12/15/2010

To view test details, "Double Click" the line item.

TestName	TestNotes	MainName
Test Test	No Notes	O Ave Main

Remove Selected

Add Tests To Work Order

C-Factor Tests

Add Test

Add Test Group To Work Order

C-Factor Test Groups


Add Group

14. To print the work order, click Print.

C-Factor Work Order

Main Report

Report Generated by: IMS by Hurco Technologies Inc. Page: 1

 **Company Name:** Company Name **Work Order #:** 30
Address: My Address
City:
State:
Zip:
Order Date:

Order Notes:

Main ID: O Ave Main **Length:** 300.00 **Diameter:** 7.00
TestTime Min: **TestTime Sec:**

Residual Hydrant 1: HURCO H 1	Static P St:	Flowing P St:
Residual Hydrant 2: HURCO H 4	Static P St:	Flowing P St:

Flow Hydrant: HURCO H 6	Flow Device: 2.5" Hose Monster	Flow P St:
Flow Hydrant:	Flow Device:	Flow P St:
Flow Hydrant:	Flow Device:	Flow P St:
Flow Hydrant:	Flow Device:	Flow P St:

Isolation Valves To Operate

ValveName	Addr1	Addr2	XStreet	GeneralLo
HNWD002		United Ave.		

Current Page No.: 1 Total Page No.: 1 Zoom Factor: 75%

To Edit Results from the C-Factor Work Order

After the tests have been run and the results are ready to be added to the work order, go to the work order list and select the work order that has been completed. Click the Edit Results button. You can click on the green “+” sign and it will take you to the respective menu option to enter a new device. (Example: If you click the one next to the Model ID box, it will take you to the Model ID screen to enter a new hydrant model.)

The screenshot shows a software window titled "C-Factor Work Order Results". At the top, there are navigation buttons and a "Save Data" button. The form contains several input fields and dropdown menus. The "Work Order ID" is 30, "Main Name" is "O Ave Main", "Main Diameter" is 7 (with a note "Diam in Inches"), "Operator ID" is empty, "Completed" is 12/15/2010, and "Main Length" is 300 (with a note "Length in Feet"). There is a "Field Notes" text area. Below these are "Test Time Min" and "Test Time Sec" (both 0) and "Pitot / Nozzle PSI" (0.000000000). The "Residual Hydrant 1" is "HURCO H 1" with "Static PSI" 0 and "Residual PSI" 0.000000000. The "Residual Hydrant 2" is "HURCO H 4" with "Static PSI" 0 and "Residual PSI" 0.000000000. A table below shows flow data for multiple hydrants. The first row is highlighted in yellow and shows "Flow Hydrant: HURCO H 6", "Flow Device: 2.5\" Hose Monster", "Flow GPM: 0.000000000", and "Gallons Used: 0.000000000". There are four more rows with empty fields for "Flow Hydrant" and "Flow Device", and zero values for "Flow GPM" and "Gallons Used".

1. Oper ID- Enter the person's name that performed the flush.
2. Completed- Enter the date that the flush was completed.
3. Main Diam- This field is auto-populated.
4. Main Lngth- This field is auto-populated.
5. Field Notes- Enter any notes taken during in the field during the flush.
6. Test Time Min/Test Time Sec- Enter the amount of time the test was run.
7. Pitot/Nozzle PSI- Enter the pitot or nozzle PSI.
8. Residual Hydrant 1- Enter the residual hydrant that was used.
 - a. Static PSI- Enter the static PSI for this hydrant.
 - b. Residual PSI- Enter the residual PSI for this hydrant.
9. Residual Hydrant 2- Enter the residual hydrant that was used.
 - a. Static PSI- Enter the static PSI for this hydrant.

10. Residual PSI- Enter the residual PSI for this hydrant.

11. Devices Used

- a. Flow Hydrant- Enter the flow hydrant that was used.
- b. Flow Device- Enter the flow device that was used.
- c. Flow GPM & Gallons Used- Enter these two values that were obtained during the test.
 - If you didn't calculate the gallons used during the test, click on the calculator icon. Enter the Pitot pressure and the flow time in minutes and seconds.

- Click the calculate button and this will fill in the values.

C-Factor Work Order Results

1 of 1 Save Data

Work Order ID: 30 Main Name: O Ave Main Main Diameter: 7 ** Diam in Inches **

Operator ID: Teresa Completed: 12/15/2010 Main Lngth: 300 ** Length in Feet **

Field Notes:

Test Time Min: 2 Test Time Sec: 0 Pitot / Nozzle PSI: 26.0000000000

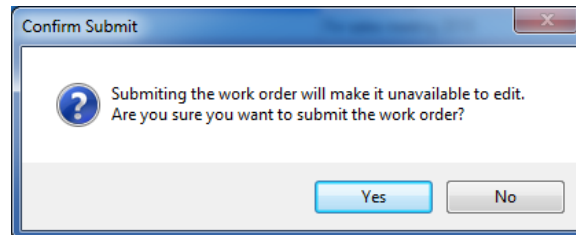
Residual Hydrant 1: HURCO H 1 Static PSI: 65 Residual PSI: 50.0000000000

Residual Hydrant 2: HURCO H 4 Static PSI: 70 Residual PSI: 54.0000000000

Flow Hydrant	Flow Device	Flow GPM	Gallons Used
HURCO H 4	2.5" Hose Monster	780.326471561	1560.6529431
		0.0000000000	0.0000000000
		0.0000000000	0.0000000000
		0.0000000000	0.0000000000
		0.0000000000	0.0000000000

To Submit Results from the C-Factor Work Order

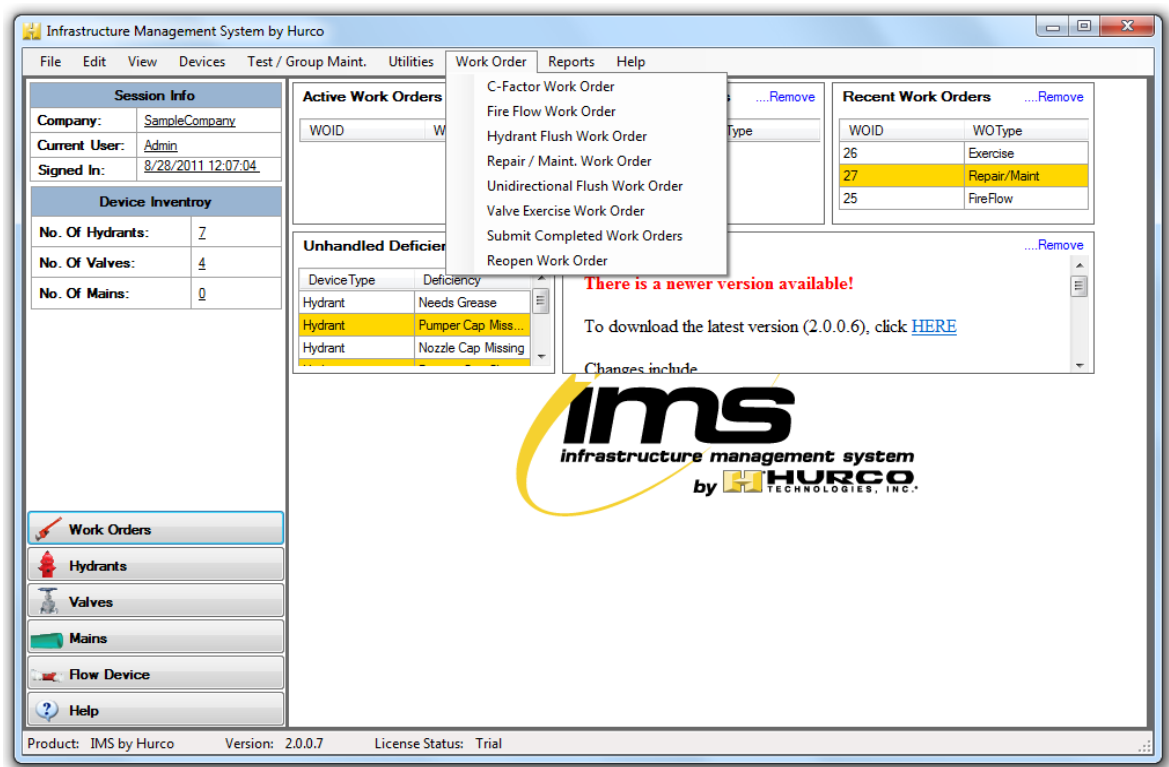
After the results have been entered or uploaded, the results will need to be submitted. The results must be submitted in order to view them in the Reports section. Click the Submit Results button. A warning will appear alerting to the fact that once the results are submitted the work order cannot be edited anymore. If you agree, select Yes. If you want to be able to edit the work order still, select No. The related C-Factor Work Order Report will appear.



Chapter 11

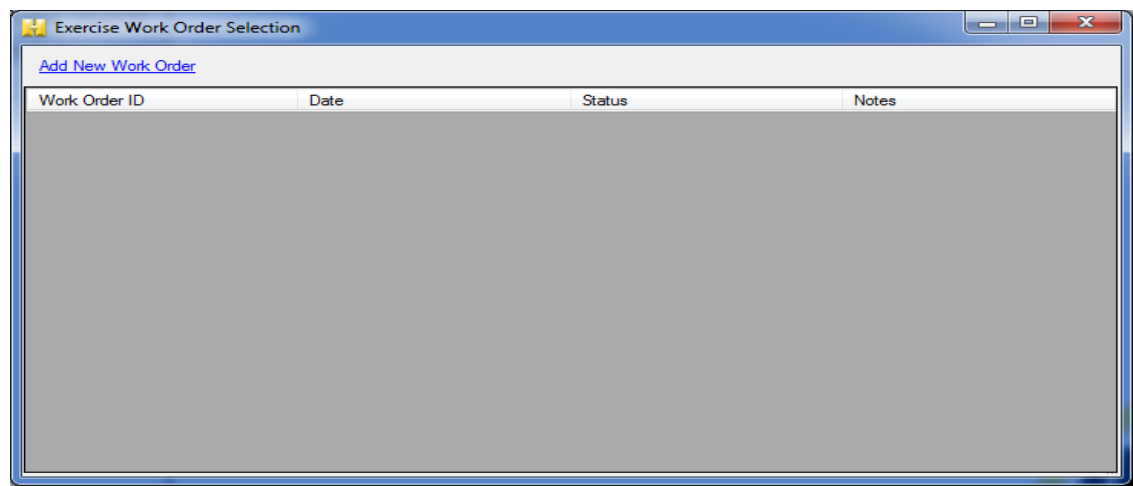
Creating/Submitting Uni-directional Flush Work Order

In this chapter, you'll learn to create and submit Valve Exercise work orders. These options are located under the Work Order option on the Menu Bar.



Uni-directional Flush Work Order

This screen keeps track of the active Uni-directional Flush work orders. New uni-directional flush work orders can be added here.



Add a new Uni-directional Flush Work Order

To add a new Uni-directional Flush Work Order, select Add New Work Order. You can click on the green “+” sign and it will take you to the respective menu option to enter a new device. (Example: If you click the one next to the Model ID box, it will take you to the Model ID screen to enter a new hydrant model.)

1. A work order number will be generated automatically
2. Select the date.
3. Enter any notes that are needed.
4. Created by will be generated by the user that is logged in.
5. WO Type will be generated automatically depending on which work order screen you are in.
6. Status will change depending on what is being done with the work order.
7. Work Order Schedule
 - a. Select whether it is a reoccurring work order.
 - b. If it is a reoccurring work order, select the reoccurrence period.
 - c. Select whether or not the reoccurring event has an ending period.
 - d. If it does have an ending, chose the date for the reoccurrence to end.
8. Once all information has been entered into the work order, select Save Data.
9. Select the Uni-directional test(s) to add to the work order from the drop down box. Click the Add Test button.
10. Select the Uni-directional test group(s) to add to the work order from the drop down box. Click the Add Group button.
11. If an test or test group, is added and needs to be removed, select the appropriate item and click Remove Selected. A confirmation will appear asking if you are sure you want to remove the delete the test/group. Click yes to continue with the removal or no to cancel the removal. To see details of the line item added, double click on the line item.
12. Once all test/group(s) have been added, select Save Data.

Uni-Directional Flush Work Order Maint.

1 of 1 | Add new | Delete | Save Data | Print | Edit Results | Submit Results

WOID: 28 Date: 12/ 8/2010

Notes:

Created By: Admin

Work Order Type: UDF

Work Order Status: Active

Work Order Schedule

Is Recurring: No

Reoccurring Period: Daily

Is Ending:

End Date: 12/14/2010

To view test details, "Double Click" the line item.

TestName	TestNotes	MainName
Main Street Test	None	Main Street

Remove Selected

Add Tests To Work Order

UDF Tests

Add Test

Add Test Group To Work Order

UDF Test Groups

Add Group

13. To print the work order, click Print.

Fire Flow Work Order

Main Report

Uni-Directional Work Order

Report Generated by: IMS by Hurco Technologies Inc. Page: 1

Company Name: Company Name
Address: My Address
City:
State:
Zip:

Work Order #: 28
Order Date:

ims
ADVANCEDITY management system
by HURCO

Order Notes:

Main ID: Main Street Main Length: 400.00 Main Diam: 8.00

Target Velocity: 2.50 Flush Time Min: Flush Time Sec:

Min GPM needed to reach desired velocity: 392.16

Flow Hydrant: HURCO H 1	Flow Device: 2.5" Hose Monster	Flow PSI:
Flow Hydrant:	Flow Device:	Flow PSI:
Flow Hydrant:	Flow Device:	Flow PSI:
Flow Hydrant:	Flow Device:	Flow PSI:
Flow Hydrant:	Flow Device:	Flow PSI:

Water Clarity

	Initial	During	Final	Comments:
Clear:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Particles:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Yellowish:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Brown:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Isolation Valves To Operate

Valve ID	Valve Position	Comments
HNWD002	<input type="checkbox"/> Opened <input type="checkbox"/> Closed	

Current Page No.: 1 Total Page No.: 1 Zoom Factor: 100%

To Edit Results from the Uni-directional Flush Work Order

After the tests have been run and the results are ready to be added to the work order, go to the work order list and select the work order that has been completed. Click the Edit Results button. You can click on the green “+” sign and it will take you to the respective menu option to enter a new device. (Example: If you click the one next to the Model ID box, it will take you to the Model ID screen to enter a new hydrant model.)

The screenshot shows a software window titled "Uni-Directional Flush Work Order Results". At the top, there are navigation buttons and a "Save Data" button. The form contains several input fields: "Work Order ID" (28), "Main Name" (Main Street), "Main Diam" (8, with a red note "Diam in Inches"), "Operator ID" (empty), "Completed" (12/14/2010), "Main Lngth" (400, with a red note "Length in Feet"), and "Field Notes" (empty). Below these are "Desired Velocity" (2.50000), "Pitot / Nozzle PSI" (empty), "Test Time Min" (empty), and "Test Time Sec" (empty). A table with a yellow header row contains "Flow Hydrant" (HURCO H 1), "Flow Device" (2.5" Hose Monster), "Flow GPM" (empty), and "Gallon Used" (empty). Below this table are four more rows, each with "Flow Hydrant", "Flow Device", "Flow GPM", and "Gallon Used" fields. At the bottom, there is a section for "Flow Water Clarity" with "Start Clarity", "During Clarity", and "Final Clarity" fields.

1. Oper ID- Enter the person's name that performed the flush.
2. Completed- Enter the date that the flush was completed.
3. Main Diam- This field is auto-populated.
4. Main Lngth- This field is auto-populated.
5. Field Notes- Enter any notes taken during in the field during the flush.
6. Desired Velocity- Enter the desired velocity.
7. Pitot/Nozzle PSI- Enter the pitot or nozzle PSI.
8. Test Time Min/Test Time Sec- Enter the amount of time the test was run.
9. Devices Used
 - a. Flow Hydrant- Enter the flow hydrant that was used.
 - b. Flow Device- Enter the flow device that was used.

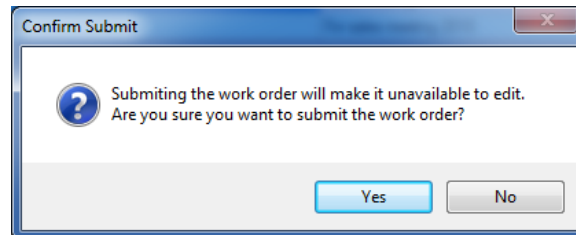
- c. Flow GPM & Gallons Used- Enter these two values that were obtained during the test.
 - If you didn't calculate the gallons used during the test, click on the calculator icon. Enter the Pitot pressure and the flow time in minutes and seconds.

- Click the calculate button and this will fill in the values.

10. Start Clarity- Use the drop down menu to select the quality of the water at the beginning of the test.
11. During Clarity- Use the drop down menu to select the quality of the water during the test.
12. Final Clarity- Use the drop down menu to select the quality of the water at the end of the test.
13. When all results have been entered, select Save Data. This will save the exercise results.

To Submit Results from the Uni-directional Flush Work Order

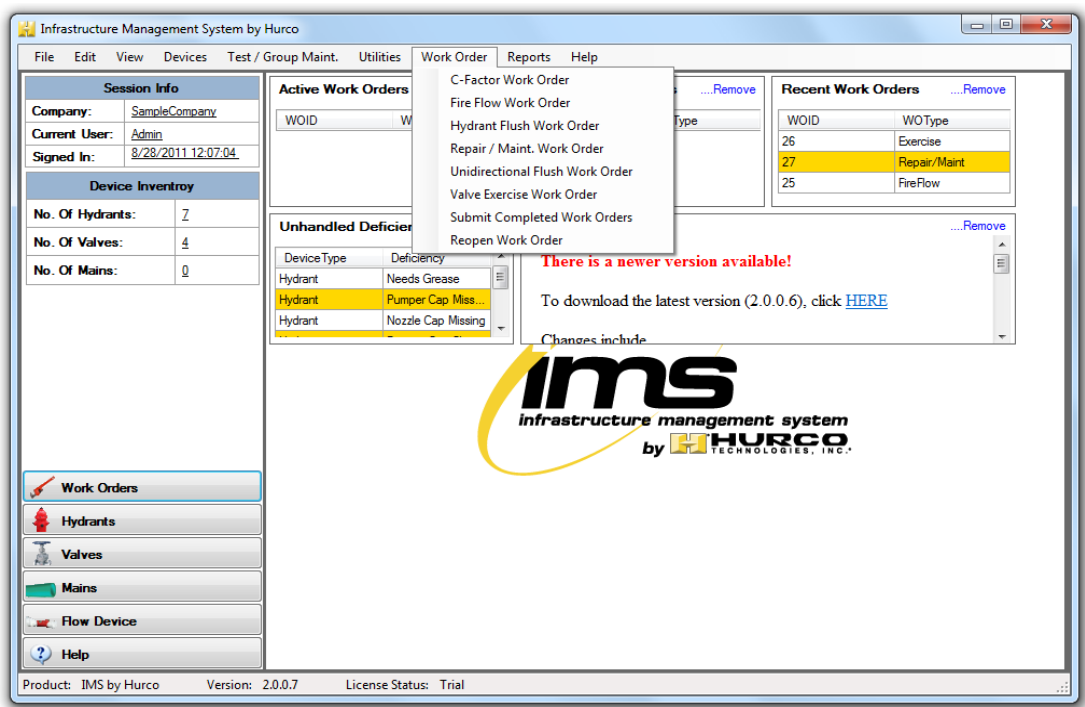
After the results have been entered or uploaded, the results will need to be submitted. The results must be submitted in order to view them in the Reports section. Click the Submit Results button. A warning will appear alerting to the fact that once the results are submitted the work order cannot be edited anymore. If you agree, select Yes. If you want to be able to edit the work order still, select No. The related Uni-directional Flush Work Order Report will appear.



Chapter 12

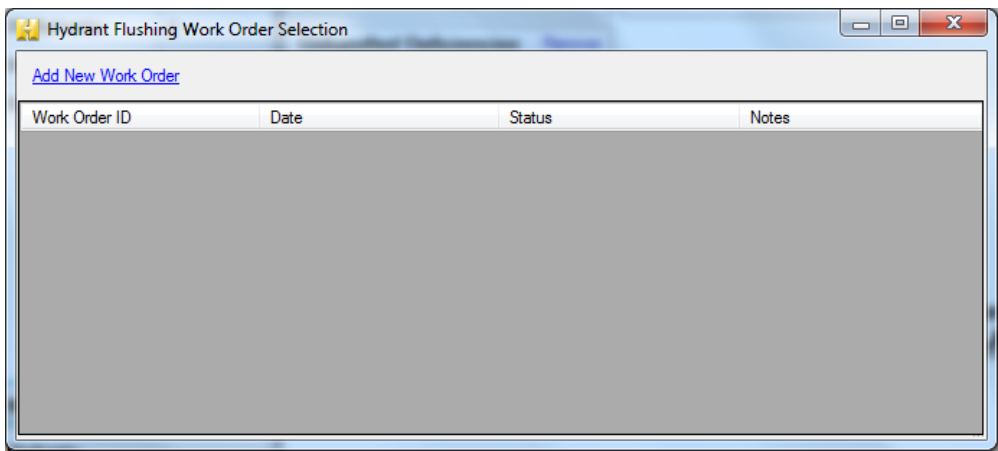
Creating/Submitting a Hydrant Flushing Work Order

In this chapter, you'll learn to create and submit Hydrant Flushing work orders. These options are located under the Work Order option on the Menu Bar.



Hydrant Flushing Work Order

This screen keeps track of the active repair/maintenance work orders. New repair/maintenance work orders can be added here. Repair/Maintenance action items must be created before a work order can be created.



Add a new Hydrant Flushing Work Order

To add a new Hydrant Flushing Work Order, select Add New Work Order. You can click on the green “+” sign and it will take you to the respective menu option to enter a new device. (Example: If you click the one next to the Hydrant box, it will take you to the Hydrant screen to enter a new hydrant.)

The screenshot shows a web application window titled "Hydrant Flushing Work Order". The interface includes a toolbar with navigation and action buttons: "Add new" (green plus), "Delete" (red X), "Save Data" (floppy disk), "Print", "Edit Results", and "Submit Results". The form is divided into several sections:

- Work Order ID:** A text field containing "33".
- Date:** A dropdown menu showing "8/28/2011".
- Notes:** A large text area.
- Created By:** A text field containing "Admin".
- WOType:** A dropdown menu showing "Flushing".
- Status:** A dropdown menu showing "Active".
- Work Order Schedule:** A section with four fields: "Is Recurring:" (dropdown), "Reoccurring Period:" (dropdown showing "Daily"), "Is Ending:" (dropdown), and "End Date:" (dropdown).
- Hydrant:** A dropdown menu with a green plus icon next to it.
- Flow Device:** A dropdown menu with a green plus icon next to it.
- Flushing Group:** A dropdown menu with a green plus icon next to it.
- Action Buttons:** "Add Hydrant" and "Add Group" buttons.
- Table:** A table with columns "WOID", "HydName", "FlowDevName", and "Notes". The table is currently empty.
- Footer:** A "Remove Selected" button.

Below the hydrant and flow device dropdowns, there is a blue link that says "To see hydrant details, 'Double Click' the line item."

1. A work order ID will be generated automatically
2. Enter any notes that are needed.
3. Created by will be generated by the user that is logged in.
4. WO Type will be generated automatically depending on which work order screen you are in.
5. Status will change depending on what is being done with the work order.
6. Work Order Schedule
 - a. Select whether it is a reoccurring work order.
 - b. If it is a reoccurring work order, select the reoccurrence period.
 - c. Select whether or not the reoccurring event has an ending period.
 - d. If it does have an ending, chose the date for the reoccurrence to end.
7. Select Save Data to create work order.

8. Now that the work order has been created, chose hydrants and flow devices. Then click the Add Hydrant button. Or select a flushing group and click Add Group.
9. Select the action that needs to be performed on the device. If there are no actions to select, then actions need to be set up in the Repair/Maint Action Maint screen.
10. If a flushing group or hydrant is added and needs to be removed, select Remove Selected. A confirmation will appear asking if you are sure you want to remove the delete the group. Click yes to continue with the removal or no to cancel the removal.
11. Once all information has been entered into the work order, select Save Data.
12. To print the work order, click Print. You must choose which type of report to view.
 - a. If you select Full Field Report the following report will appear.

Hydrant Flush Work Order

Report Generated by: IMS by Hurco Technologies Inc. Page: 1

Company Name : Company Name
Address : /y Address
City:
State:
Zip:

Work Order :
Work Order Date :

Work Order Notes : _____

Hydrant ID : Address :
Manufacture : Location :
Hydrant Model : XStreet:
Open Dir:
Barrel Type: Last Maint:

Flow Device: 2.5" Hose Monster
Flow PSI: _____ Flow Time Min / Sec: _____
Flow GPM: _____ Start Clarity : _____
Gallons Used : _____ During Clarity : _____
Final Clarity: _____

Field Notes : _____

Hydrant ID : Address :
Manufacture : Location :
Hydrant Model : XStreet:
Open Dir:
Barrel Type: Last Maint:

Flow Device: 4.5" Hose Monster
Flow PSI: _____ Flow Time Min / Sec: _____
Flow GPM: _____ Start Clarity : _____
Gallons Used : _____ During Clarity : _____
Final Clarity: _____

Field Notes : _____

Hydrant ID : Address :
Manufacture : Location :

Current Page No.: 1 Total Page No.: 3+ Zoom Factor: 100%

- b. If you select Summary Report, the following report will appear.

The screenshot shows a web browser window titled "Hydrant Flush Work Order". The main content area displays a report titled "Hydrant Flush Walking Order Summary". The report is generated by "IMS by Hurco Technologies Inc." and is Page 1 of 1. The report includes the following information:

- Company Name:** Company Name
- Address:** My Address
- City:**
- State:**
- Zip:**
- Work Order #:** 33
- Order Date:** 8/28/2011 12:00:00AM
- Operator ID:**
- Test Time:**

Below the company information, there is a section for "Order Notes". Below that, there is a table with two rows of hydrant information:

<input type="checkbox"/>	Hydrant ID: HURCO H 2	Address:	201 Industrial Dr.
<input type="checkbox"/>	Hydrant ID: HURCO H 5	Address:	501 Industrial Dr.

The bottom of the window shows the status bar with "Current Page No.: 1", "Total Page No.: 1", and "Zoom Factor: 100%".

To Edit Results from the Hydrant Flushing Work Order

After the hydrant flushing has been completed, the results must be entered into the work order so that it can be closed. Click the Edit Results button. There will be one screen for each item on the work order. Use the arrows to go between items.

The screenshot shows a web browser window titled "Hydrant Flush Result Maint.". The form contains the following fields and controls:

- WOID:** 33
- Hydrant ID:** HURCO H 2
- Flow Device:** 4" Hose Monster
- Operator ID:**
- Completed:** (dropdown menu)
- Flush Time Min:** 0
- Flush Time Sec:** 0
- Field Notes:** (text area)
- Flow PSI:** 0.000000000
- Start Clarity:** (dropdown menu)
- Flow GPM:** 0.000000000
- During Clarity:** (dropdown menu)
- Gallons Used:** 0.000000000
- Final Clarity:** (dropdown menu)

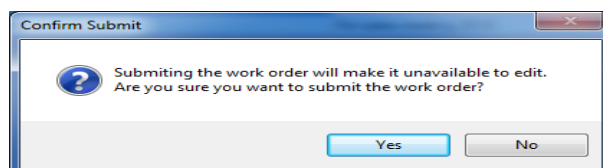
The top of the window shows navigation controls (back, forward, etc.) and a "Save Data" button. The "Result Index" is 1 of 2.

1. Work Order ID, Hydrant ID and Flow Device- These items are populated from the line items on the work order.
2. Oper ID- Enter the person's name that performed the repair/maintenance.
3. Completed- Enter the date that the repair or maintenance was completed.
4. Flush Time Min & Flush Time Sec – Enter the time of the test.
5. Flow PSI- Enter the flow PSI.
6. Flow GPM & Gallons Used- Enter these two values that were obtained during the test.
 - a. If you didn't calculate the gallons used during the test, click on the calculator icon. Enter the Pitot pressure and the flow time in minutes and seconds.

7. Water Clarity – Enter the following items.
 - a. Start Clarity – the clarity of the water at the beginning of the test.
 - b. During Clarity – clarity of the water during the test.
 - c. Final Clarity – clarity of the water at the end of the test.
8. Field Notes – enter any pertinent notes from the test.

To Submit Results from the Hydrant Flushing Work Order

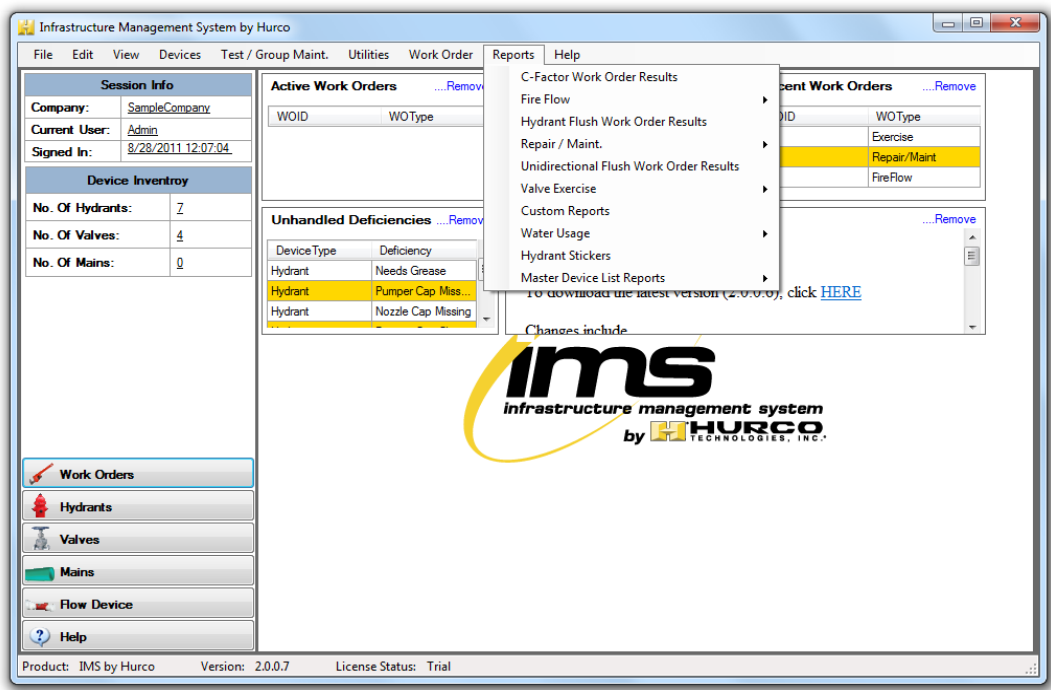
After the results have been entered or uploaded, the results will need to be submitted. The results must be submitted in order to view them in the Reports section. Click the Submit Results button. A warning will appear alerting to the fact that once the results are submitted the work order cannot be edited anymore. If you agree, select Yes. If you want to be able to edit the work order still, select No.



Chapter 13

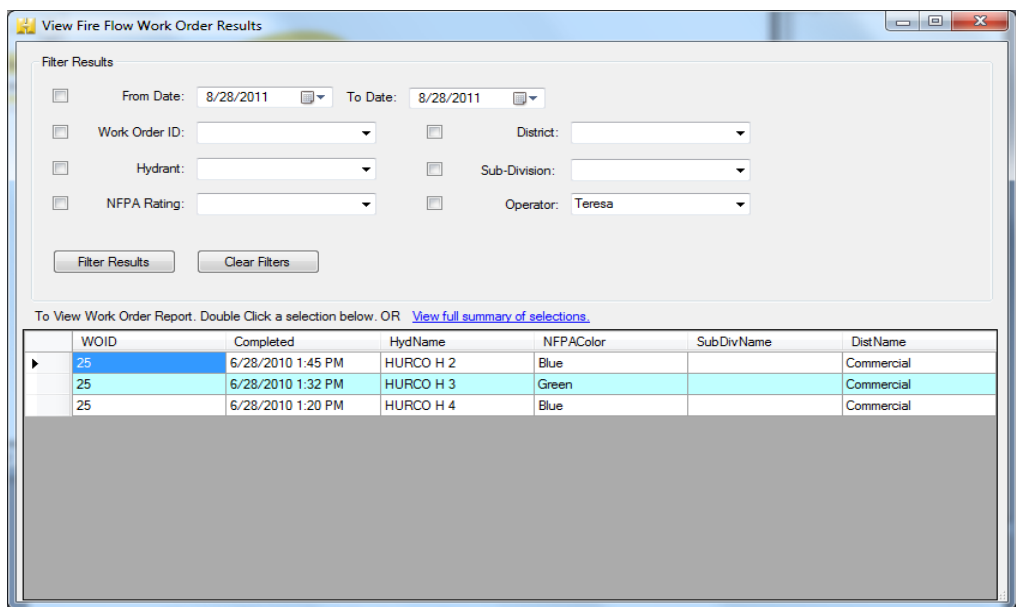
REPORTS

In this chapter, you'll learn to about reports. These options are located under the Reports option on the Menu Bar.



Fire Flow Work Order Results

This screen allows you to view & print Fire Flow Work Order Reports. Users have the ability to filter for reports by certain criteria.



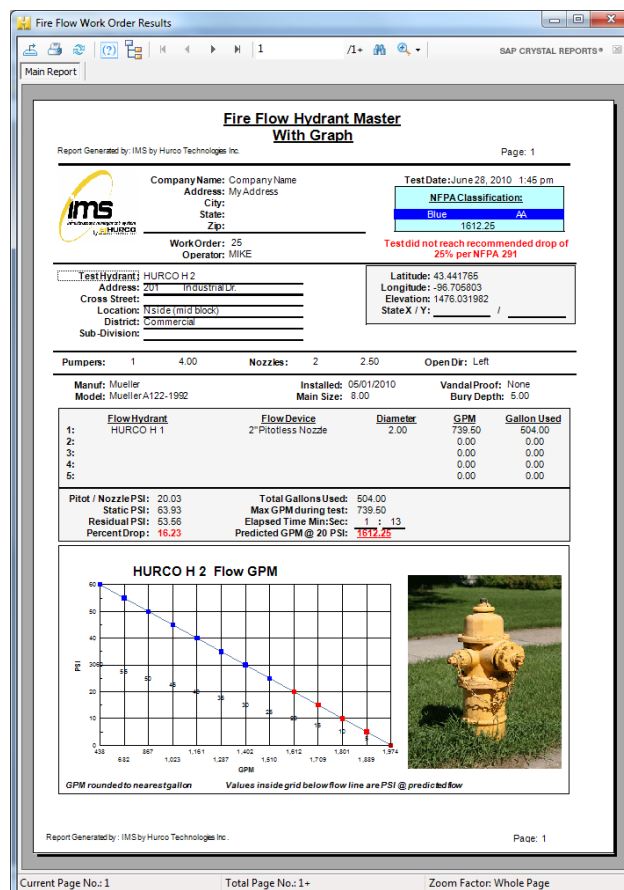
Filtering & Viewing Fire Flow Work Order Reports

User can filter by the following results:

- For a certain date period. Enter from date and to date.
- Work order ID-Use this option to see work order results for a specific work order.
- Hydrant- Use this option to see work order results for a specific hydrant.
- NFPA Rating- Use this option to see work orders results by NFPA ratings.
- District- Use this option to see all work order results for a specific divisions
- Sub-division-Use this option to see all work order results for a specific divisions.
- Operator – Use this option to see work orders completed by specific individuals.

User can chose one or more options to filter by. Once the filter options have been selected, click the Filter Results button. The results for the filter will appear on the bottom of the screen.

To view a report, double click on a work order. A confirmation will appear stating the work order ID that is being loaded. The report will show up in a new screen.



To view a summary of the filtered results, click on View full summary of selections. The report will appear in a new screen.

Fire Flow Work Order Result Summary

Report Generated by: IMS by Hurco Technologies Inc. Page: 1

Company Name: Company Name
Address: My Address
City:
State:
Zip:

Work Order: 25 Order Created: 06/27/2010
Test Hydrant: HURCO H 2 Completed: 06/28/2010 1:45:00PM Operator: MIKE
Address: 201 Industrial Dr.
Cross Street:

Static PSI	Residual PSI	Flow GPM	Predicted @ 20 PSI	Gallons Used	NFPA Class	NFPA Color
63.90	53.96	739.50	1,612.25	504.00	AA	Blue

Work Order: 25 Order Created: 06/27/2010
Test Hydrant: HURCO H 3 Completed: 06/28/2010 1:32:00PM Operator: MIKE
Address: 301 Industrial Dr.
Cross Street:

Static PSI	Residual PSI	Flow GPM	Predicted @ 20 PSI	Gallons Used	NFPA Class	NFPA Color
68.02	34.39	1,214.30	1,472.38	642.00	A	Green

Work Order: 25 Order Created: 06/27/2010
Test Hydrant: HURCO H 4 Completed: 06/28/2010 1:20:00PM Operator: MIKE
Address: 401 Industrial Dr.
Cross Street:

Static PSI	Residual PSI	Flow GPM	Predicted @ 20 PSI	Gallons Used	NFPA Class	NFPA Color
68.32	29.14	1,347.50	1,509.10	761.00	AA	Blue

Hydrants Tested: 3 Total Gallons Used: 1,907.00

Report Generated by: IMS by Hurco Technologies Inc. Page: 1

Current Page No: 1 Total Page No: 1 Zoom Factor: Whole Page

Fire Flow History Comparison

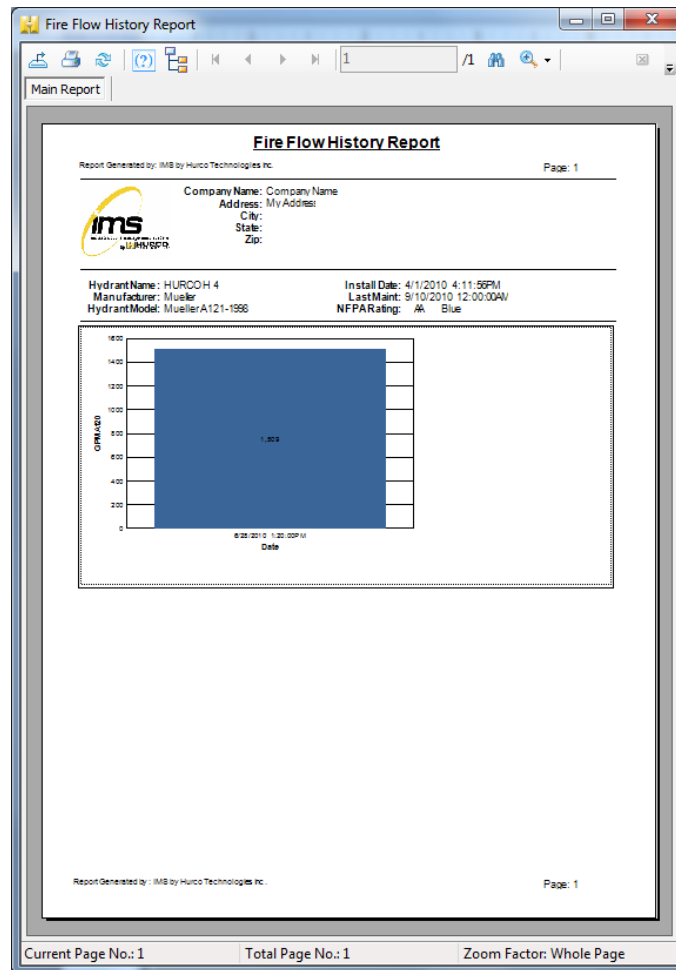
This screen allows you to view & print a Fire Flow History Comparison Report. Select the hydrant that you would like to see a comparison on and click View Report.

Fire Flow History Hydrant Selection

Select the hydrant you wish to view fire flow history on, then click view.

Hydrant ID:

The report will appear showing a comparison of the fire flow tests for a certain hydrant.



Valve Exercise Work Order Results

This screen allows you to view & print Valve Exercise Work Order Reports. Users have the ability to filter for reports by certain criteria.

View Valve / Hydrant Exercise Results

Filter Results

☒ From Date: 8/28/2011 To Date: 8/28/2011

☐ Work Order ID: ☐ Manufacturer:

☐ Device Type: ☐ Valve Size: 0

☐ Hydrant: ☐ District:

☐ Valve: ☐ Sub-Division:

☐ Operator: Teresa

To View Work Order Report, Double Click a selection below. OR [View full summary of selections.](#)

	WOID	Status	Completed	Device Type	Device Name	Dist Name	Sub Div Name	Valve Size	Manuf Name	Oper ID
▶	26	Closed	6/30/20...	Valve	HNWD001			6.00	Clow	MIKE
	26	Closed	6/30/20...	Valve	HNWD002	Commercial		6.00	American...	MIKE
	26	Closed	6/30/20...	Valve	HNWD003	Commercial		6.00	American...	MIKE

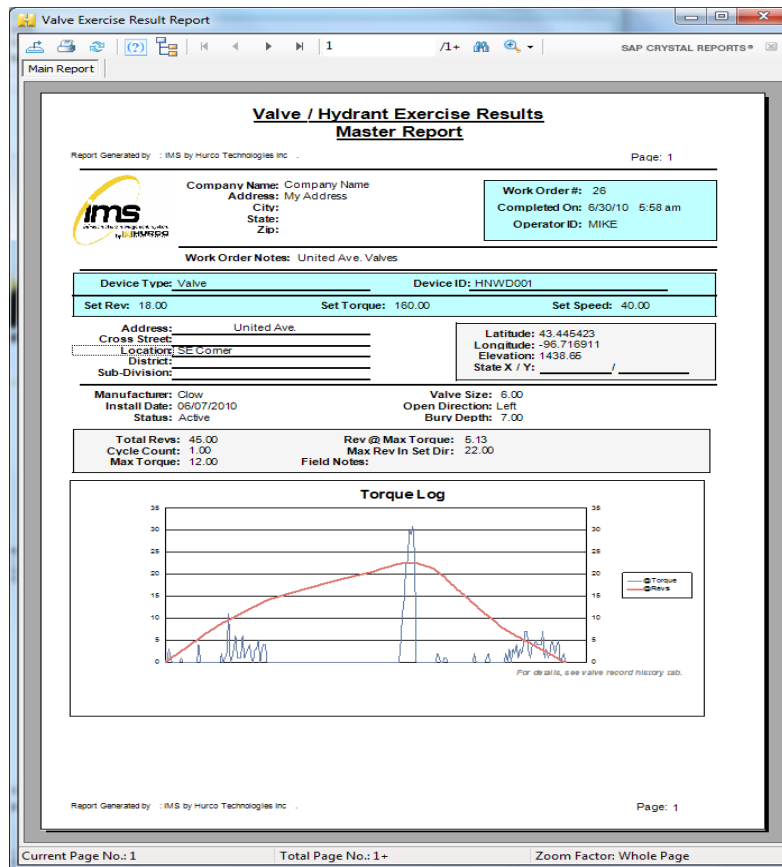
Filtering & Viewing Valve Exercise Work Order Reports

User can filter by the following results:

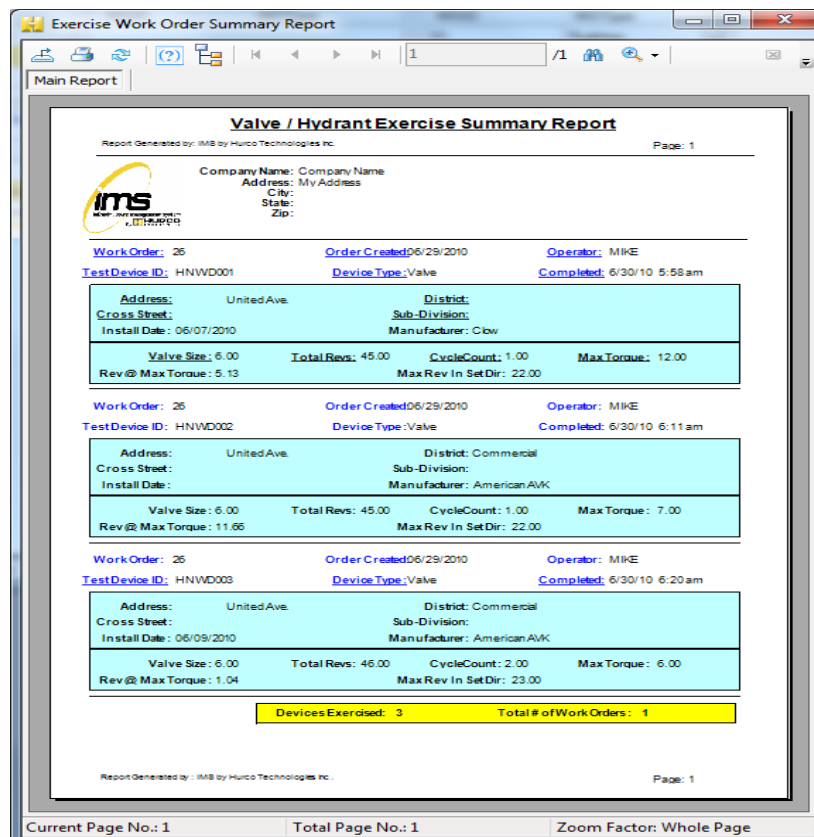
- For a certain date period. Enter from date and to date.
- Work order ID-Use this option to see work order results for a specific work order.
- Device Type- Use this option to see work order results for a specific device type.
- Hydrant- Use this option to see work orders results for a specific hydrant.
- Valve- Use this option to see work orders results for a specific valve.
- Manufacturer- Use this option to see work orders for a specific manufacturer.
- Valve Size- Use this option to see work orders for specific valve sizes.
- District- Use this option to see all work order results for a specific divisions
- Sub-division-Use this option to see all work order results for a specific divisions.
- Operator – Use this option to see work orders completed by specific individuals.

User can chose one or more options to filter by. Once the filter options have been selected, click the Filter Results button. The results for the filter will appear on the bottom of the screen.

To view a report, double click on a work order. A confirmation will appear stating the work order ID that is being loaded. The report will show up in a new screen.



To view a summary of the filtered results, click on View full summary of selections. The report will appear in a new screen.



Valve Exercise History Comparison

This screen allows you to view & print a Valve Exercise History Comparison Report. Select the type of device and then choose the Device ID that you would like to see a comparison on and click View Report.

Valve Exercise History Selection

Select the valve or hydrant you wish to view exercise history on, then click view.

Device Type: Valve

Device ID: HNWD003

View Report

The report will appear showing a comparison of the valve excercises for a certain device.

Valve Exercise History Report

Report Generated by : IMS by Hurco Technologies Inc .

Page: 1

ims

IMMEDIATE RESPONSE
MURCO

Company Name : Company Name
Address: My Address
City:
State:
Zip:

Device Type: Valve
Device ID: HNWD003
Manufacturer: American AVK

Install Date: 06/09/2010
Last Maint: 06/30/2010

Completed 06/30/2010	TotalRevs 46.00	Cycle Count 2.00	Max Torque 6.00	Rev At Max Torque 1.04	Max Rev 23
-------------------------	--------------------	---------------------	--------------------	---------------------------	---------------

Report Generated by : IMS by Hurco Technologies Inc .

Page: 1

Current Page No.: 1

Total Page No.: 1

Zoom Factor: Whole Page

Repair/Maintenance Work Order Results

This screen allows you to view & print Repair/Maint Work Order Reports. Users have the ability to filter for reports by certain criteria.

View Repair / Maint. Work Order Results

Filter Results

☐ From Date: 8/28/2011 To Date: 8/28/2011

☐ Work Order ID: ☐ Manufacturer:

☐ Device Type: ☐ Action:

☐ Hydrant: ☐ District:

☐ Valve: ☐ Sub-Division:

☐ Main: ☐ Operator: Teresa

To View Work Order Report. Double Click a selection below. OR [View full summary of selections.](#)

	WOID	Status	Completed	DeviceTyp	DeviceNan	DistName	SubDivNar	ManufNam	ActionNam	OperID
▶	27	Closed	6/30/2010	Hydrant	HURCO ...	Commercial		Mueller	Paint Hy...	MIKE

Filtering & Viewing Repair/Maint Work Order Reports

User can filter by the following results:

- For a certain date period. Enter from date and to date.
- Work order ID-Use this option to see work order results for a specific work order.
- Device Type- Use this option to see work order results for a specific device type.
- Hydrant- Use this option to see work order results for a specific hydrant.
- Valve- Use this option to see work order results for a specific valve.
- Main- Use this option to see work order results for a specific main.
- Manufacturer- Use this option to see work order results for a specific manufacturer.
- Action- Use this option to see work order results for specific repair/maintenance action.
- District- Use this option to see all work order results for a specific divisions
- Sub-division-Use this option to see all work order results for a specific divisions.
- Operator – Use this option to see work orders completed by specific individuals.

User can chose one or more options to filter by. Once the filter options have been selected, click the Filter Results button. The results for the filter will appear on the bottom of the screen.

To view a report, double click on a work order. A confirmation will appear stating the work order ID that is being loaded. The report will show up in a new screen.

Repair / Maint Work Order Report

Report Generated by : IMS by Hurco Technologies Inc. Page: 1

ims
INDUSTRIAL MAINTENANCE SYSTEMS

Company Name: Company Name
Address: My Address
City:
State:
Zip:

Work Order: 27
Work Order Date: 06/28/2010

Work Order Notes: Repair HURCO H2 Needs paint.

Device Type: Hydrant
Manufacture: Mueller
Install Date: 5/1/2010 4:11:56PM
Status: Active

Address: 201 Industrial Dr.
Location: N side (mid block)
City: Harrisburg
State: SD
Zip: 57032

Action	Completed	Operator
Paint Hydrant	06/30/2010	MIKE

Field Notes:

Report Generated by : IMS by Hurco Technologies Inc. Page: 1

Current Page No.: 1 Total Page No.: 1 Zoom Factor: Whole Page

To view a summary of the filtered results, click on View full summary of selections. The report will appear in a new screen.

Exercise Work Order Summary Report

Report Generated by : IMS by Hurco Technologies Inc. Page: 1

ims
INDUSTRIAL MAINTENANCE SYSTEMS

Company Name: Company Name
Address: My Address
City:
State:
Zip:

Work Order: 27
Completed On: 06/30/2010
Operator: MIKE

Device Type: Hydrant
Manufacture: Mueller
Install Date: 5/1/2010 4:11:56PM
Status: Active

Action Taken: Paint Hydrant
Field Notes:

Number Of Work Orders	Number Of Valves	Number Of Hydrants	Number Of Mains
1	0	1	0

Report Generated by : IMS by Hurco Technologies Inc. Page: 1

Current Page No.: 1 Total Page No.: 1 Zoom Factor: Whole Page

Repair/Maintenance by Priority Report

This screen allows you to view & print a Repair/Maint by Priority Report. Select the priority that you would like to see and click View.

Repair / Maint. Priority Selection

View all repair and maint. work orders containing one of the selected priority levels

☒ Low

☐ Medium

☐ High

View

The following report will display

Exercise Work Order Summary Report

1

/1

SAP CRYSTAL REPORTS

Main Report

Repair / Maint Work Order Result Summary

Report Generated by: IMS by Hurco Technologies Inc.

Page: 1

ims

IMS by Hurco Technologies Inc.

Company Name: Company Name

Address: My Address

City:

State:

Zip:

Device Type: Hydrant

Work Order: 27

Manufacture: Mueller

Completed On: 06/30/2010

Install Date: 5/1/2010 4:11:56PM

Operator: MIKE

Status: Active

HURCO H2

Action Taken: Paint Hydrant

Field Notes:

Number Of Work Orders	Number Of Valves	Number Of Hydrants	Number Of Mains
1	0	1	0

Report Generated by: IMS by Hurco Technologies Inc.

Page: 1

Current Page No.: 1

Total Page No.: 1

Zoom Factor: Whole Page

110

Uni-directional Flush Work Order Results

This screen allows you to view & print Uni-directional Flush Work Order Reports. Users have the ability to filter for reports by certain criteria.

View full summary of selections.'. Below this is a table with four columns: 'WOID', 'Completed', 'MainName', and 'HydName'. The table body is currently empty."/>

View Unidirectional Flush Work Order Results

Filter Results

☐ From Date: 8/28/2011 To Date: 8/28/2011

☐ Work Order ID:

☐ Hydrant:

☐ Main:

☐ Operator: Teresa

Filter Results Clear Filters

To View Work Order Report. Double Click a selection below. OR [View full summary of selections.](#)

WOID	Completed	MainName	HydName
------	-----------	----------	---------

Filtering & Viewing Uni-directional Flush Work Order Reports

User can filter by the following results:

- For a certain date period. Enter from date and to date.
- Work order ID-Use this option to see work order results for a specific work order.
- Hydrant- Use this option to see work order results for a specific hydrant.
- Main- Use this option to see work orders results for a specific main.
- Operator – Use this option to see work orders completed by specific individuals.

User can chose one or more options to filter by. Once the filter options have been selected, click the Filter Results button. The results for the filter will appear on the bottom of the screen.

To view a report, double click on a work order. A confirmation will appear stating the work order ID that is being loaded. The report will show up in a new screen.

Unidirectional Flush Work Order Results


1 / 1

SAP CRYSTAL REPORTS

Main Report

Unidirectional Flush Results Master Report

Report Generated by: IMS by Hurco Technologies Inc. Page: 1



Company Name: Company Name
Address: My Address
City:
State:
Zip:

Work Order #: 32
Completed On: 08/28/2011
Operator ID:

Work Order Notes:

WARNING! - Did not reach AWWA recommended number of detentions.

Main ID: Main Street		Min Size: 8.00	In.
Length: 1,000.00 Ft.		Max Size: 8.00	In.
Install Date: 8/28/2011 12:00:00AM			
Location Notes:			

Flow Time:	2:30	Target Velocity:	2.50	Actual Velocity:	8.80
------------	------	------------------	------	------------------	------

Flow Hydrant:	Flow Device:	Flow PSI:	GPM:	Gallons Used:
HURCO H 3	2.5" Hose Monster	67.00	1,380.62	3,451.56

Water Quality:	Initial	During	Final
	Particles	Particles	Clear

# Of Detentions:	1.32	Total Gallons Used:	3451.56
------------------	------	---------------------	---------

Report Generated by: IMS by Hurco Technologies Inc. Page: 1

Current Page No.: 1 Total Page No.: 1 Zoom Factor: Whole Page

To view a summary of the filtered results, click on View full summary of selections. The report will appear in a new screen.

Unidirectional Flow Work Order Result Summary

Report Generated by: IMS by Hurco Technologies Inc. Page: 1

Company Name: Company Name
Address: My Address
City:
State:
Zip:

Work Order #: 32 Order Date: 08/28/2011
[Test Main:](#) Main Street [Completed](#) 08/28/2011 [Operator:](#)

Target Velocity: 2.50	Actual Velocity: 8.80	Main Length: 1,000.00
Start Clarity: Particles	During Clarity: Particles	Final Clarity: Clear
Total GPM: 1,380.62	Total Gallons: 3,451.56	

Mains Flushed: 1 Total Gallons: 3,451.56

Report Generated by: IMS by Hurco Technologies Inc. Page: 1

Current Page No.: 1 Total Page No.: 1 Zoom Factor: Whole Page

C-Factor Work Order Results

This screen allows you to view & print C-Factor Work Order Reports. Users have the ability to filter for reports by certain criteria.

View C-Factor Work Order Results

Filter Results

☐ From Date: 8/ 1/2011 To Date: 8/28/2011

☐ Work Order ID:

☐ Hydrant:

☐ Main:

☒ Operator: Teresa

[Filter Results](#) [Clear Filters](#)

To View Work Order Report. Double Click a selection below. OR [View full summary of selections.](#)

WOID	Completed	MainName	HydName
28	8/28/2011	Main Street	HURCO H 2

Filtering & Viewing C-Factor Work Order Reports

User can filter by the following results:

- For a certain date period. Enter from date and to date.
- Work order ID-Use this option to see work order results for a specific work order.
- Hydrant- Use this option to see work order results for a specific hydrant.
- Main- Use this option to see work orders results for a specific main.
- Operator – Use this option to see work orders completed by specific individuals.

User can chose one or more options to filter by. Once the filter options have been selected, click the Filter Results button. The results for the filter will appear on the bottom of the screen.

To view a report, double click on a work order. A confirmation will appear stating the work order ID that is being loaded. The report will show up in a new screen.

C-Factor Results Master Report

Report Generated by: IMS by Hurco Technologies Inc. Page: 1

Company Name: Company Name
Address: My Address
City:
State:
Zip:

Work Order #: 28
Completed On: 08/28/2011
Operator ID: Teresa

Work Order Notes:

Main ID: Main Street
Length: 1,000.00 Ft.
Install Date: 08/28/2011
Pipe Type: Cast Iron
Location Notes:

Residual Hydrant	Static PSI	Residual PSI	% Of Drop	PSI Differential
HURCO H 1	70.00	55.00	21.43	15.00
HURCO H 4	70.00	55.00	21.43	15.00

Total PSI Differential: 0.00
Did not reach minimum 15 PSI differential per AWWA Standards

Flow Time: 2: 25
Flow Time: 2: 25
Target C-Factor: 0.03
Fitting Lngth Adj: 7.00
Actual C-Factor: 2496.00
Head Loss: 0.00
Theoretical Pipe Diameter: 591.74
Uncertified formula, for reference only.

Flow Hydrant:	Flow Device:	Flow PSI:	GPM:	Gallons Used:
HURCO H 2	2.5" Hose Monster	62.00	1,328.11	3209.60
HURCO H 5	2.5" Hose Monster	0.00	1,328.11	3209.60
HURCO H 3	2.5" Hose Monster	0.00	1,328.11	3209.60

Total Gallons Used: 9628.79

Current Page No.: 1 Total Page No.: 1 Zoom Factor: 100%

To view a summary of the filtered results, click on View full summary of selections. The report will appear in a new screen.

C-Factor Work Order Result Summary

SAP CRYSTAL REPORTS

Main Report

C-Factor Work Order Summary

Report Generated by: IMS by Hurco Technologies Inc.

Page: 1

ims

infrastructure management system

HURCO

Company Name : Company Name

Address : My Address

City:

State:

Zip:

Work Order #: 28

Order Date : 08/28/2011

Test Main : Main Street

Target C-Factor: 0.03

Actual C-Factor: 2,496.00

Main Diameter: 8.00

Theoretical Pipe Diameter : 591.74

Uncertified formula, for reference only.

Total GPM: 3,984.33

Total Gallons: 9,628.79

Mains Tested : 1

Total Gallons: 9,628.79

Current Page No: 1

Total Page No: 1

Zoom Factor: 100%

Hydrant Flushing Work Order Results

This screen allows you to view & print Hydrant Flushing Work Order Reports. Users have the ability to filter for reports by certain criteria.

Hydrant Flush Work Order Results

Filter Results

☐

From Date:

8/28/2011

☐

To Date:

8/28/2011

☐

Work Order ID:

☐

District:

☐

Hydrant:

☐

Sub-Division:

☐

NFPA Rating:

☐

Operator:

Teresa

Filter Results

Clear Filters

To View Work Order Report. Double Click a selection below. OR [View full summary of selections.](#)

	WOID	Completed	HydName	NFPAColor	SubDivName	DistName
▶	33	8/28/2011	HURCO H 2	Blue		Commercial

Filtering & Viewing Hydrant Flushing Work Order Reports

User can filter by the following results:

- For a certain date period. Enter from date and to date.
- Work order ID-Use this option to see work order results for a specific work order.
- Hydrant- Use this option to see work order results for a specific hydrant.
- NFPA Rating- Use this option to see work orders results by NFPA ratings.
- District- Use this option to see all work order results for a specific divisions
- Sub-division-Use this option to see all work order results for a specific divisions.
- Operator – Use this option to see work orders completed by specific individuals.

User can chose one or more options to filter by. Once the filter options have been selected, click the Filter Results button. The results for the filter will appear on the bottom of the screen.

To view a report, double click on a work order. A confirmation will appear stating the work order ID that is being loaded. The report will show up in a new screen.

The screenshot displays a software window titled "Hydrant Flush Result Report". The window contains a report titled "Hydrant Flush Master" generated by IMS by Hurco Technologies Inc. The report is on page 1 of 1. It lists two hydrant records, each with a unique ID and address. The first record is for Hydrant ID HURCO H 2, located at 201 Industrial Dr. The second record is for Hydrant ID HURCO H 5, located at 501 Industrial Dr. Both records include details such as the flow device (4" Hose Monster), flow PSI (60.00), diameter (4.00), flow GPM (2,841.72), gallons used (7,104.29), elapsed time (2:30), and clarity (Brown, Yellowish, Clear). The report also includes the company name, address, city, state, zip, test date (8/28/11), work order number (33), and operator (Teresa). The window has a standard toolbar at the top and a status bar at the bottom showing "Current Page No.: 1", "Total Page No.: 1", and "Zoom Factor: Whole Page".

Hydrant ID	Address	Flow Device	Flow PSI	Diameter	Flow GPM	Gallons Used	Elapsed Time	Start Clarity	During Clarity	Final Clarity
HURCO H 2	201 Industrial Dr.	4" Hose Monster	60.00	4.00	2,841.72	7,104.29	2:30	Brown	Yellowish	Clear
HURCO H 5	501 Industrial Dr.	4" Hose Monster	60.00	4.00	2,841.72	7,104.29	2:30	Brown	Yellowish	Clear

To view a summary of the filtered results, click on View full summary of selections. The report will appear in a new screen.

Hydrant Flush Work Order Result Summary

Report Generated by : IMS by Hurco Technologies Inc . Page 1

Hydrant Flush Summary Report

Company Name: Company Name
Address: Iv Address
City:
State:
Zip:

Work Order: 33 Order Created: 8/28/2011 12:00:00AM
Address: 201 Industrial Dr.
Cross Street:

Hydrant ID: HURCO H 2	Flow GPM	Gallons Used	NFPA Class	NFPA Color
Flush Time Min / Sec: 2 30	2,841.72	7,104.29	AA	Blue

Work Order: 33 Order Created: 8/28/2011 12:00:00AM
Address: 501 Industrial Dr.
Cross Street:

Hydrant ID: HURCO H 5	Flow GPM	Gallons Used	NFPA Class	NFPA Color
Flush Time Min / Sec: 2 30	2,841.72	7,104.29		

Hydrants Tested: 2 Total Gallons Used: 14,208.58

Report Generated by : IMS by Hurco Technologies Inc . Page: 1

Current Page No.: 1 Total Page No.: 1 Zoom Factor: Whole Page

Water Usage Results

There are three water usage reports that can be viewed. Choose Fire Flow, Uni-directional Flush or C-Factor. Users have the ability to filter for reports by certain criteria.

Filtering & Viewing Fire Flow Water Usage Reports

View Fire Flow Water Usage Results

Filter Results

☐ From Date: 12/15/2010 To Date: 12/15/2010

☐ Work Order ID:

☐ Hydrant:

☐ NFPA Rating:

☐ District:

☐ Sub-Division:

[Export List To CSV](#)

	WOID	WOType	Status	Completed	OperID	HydName	Gallons	DistName	SubDivName	NFPAColor
▶	25	FireFlow	Closed	6/28/2010...	MIKE	HURCO H 4	761.00000...	Commercial		Blue
	25	FireFlow	Closed	6/28/2010...	MIKE	HURCO H 3	642.00000...	Commercial		Green
	25	FireFlow	Closed	6/28/2010...	MIKE	HURCO H 2	504.00000...	Commercial		Blue

User can filter by the following results:

- For a certain date period. Enter from date and to date.
- Work order ID-Use this option to see water usage results for a specific work order.
- Hydrant- Use this option to see water usages results for a specific hydrant.
- Valve- Use this option to see water usages results for a specific valve.
- NFPA Rating- Use this option to see water usages results by NFPA ratings.
- District- Use this option to see all water usage results for a specific divisions
- Sub-division-Use this option to see all water usage results for a specific divisions.

User can chose one or more options to filter by. Once the filter options have been selected, click the Filter Results button. The results for the filter will appear on the bottom of the screen.

To view a report, click View Report. A confirmation will appear stating the selection is being loaded. The report will show up in a new screen.

Water Usage Report

Report Generated by: IMS by Hurco Technologies Inc. Page: 1

ims
A HURCO TECHNOLOGIES COMPANY

Company Name: Company Name
Address: My Address
City:
State:
Zip:

TestName: Flow TestHurco3

Work Order ID: 25 Work Order Type: FireFlow
Operator: MIKE Test Date: 6/28/2010 1:32:00 PM
Test Hydrant: HURCO H 3 Gallons Used: 642.00
Total Gallons Used in Test: 642.00

Number Of Work Orders: 1 Hydrants Tested: 1 Total Gallons Used: 642.00

Current Page No.: 1 Total Page No.: 1 Zoom Factor: 75%

The water usage list can also be exported to a CSV file. Click Export List to CSV. Select the destination for the file to be saved. Click Ok to save file. A confirmation will appear stating that file was successfully exported.

Filtering & Viewing Uni-directional Flush Water Usage Reports

Unidirectional Flush Water Usage Results

Filter Results

☐ From Date: 8/28/2011 To Date: 8/28/2011

☐ Work Order ID:

☐ Hydrant:

☐ Main:

☐ Operator: Teresa

[Export List To CSV](#)

WOID	WOType	Status	Completed	OperID	MainName	Gallons	HydName
32	UDF	Closed	8/28/2011		Main Street	3451.5586300...	HURCO H 3

User can filter by the following results:

- For a certain date period. Enter from date and to date.
- Work order ID-Use this option to see water usage results for a specific work order.
- Hydrant- Use this option to see water usages results for a specific hydrant.
- Main- Use this option to see water usages results for a specific main.
- Operator – Use this option to see work orders completed by specific individuals.

User can chose one or more options to filter by. Once the filter options have been selected, click the Filter Results button. The results for the filter will appear on the bottom of the screen.

To view a report, click View Report. A confirmation will appear stating the selection is being loaded. The report will show up in a new screen.

UDF Water Usage Report

Report Generated by: IMS by Hurco Technologies Inc. Page: 1

ims
Infrastructure Management System
by HURCO

Company Name: Company Name
Address: My Address
City:
State:
Zip:

Work Order ID: 29 Test Date: 12/15/2010
Operator: Teresa Gallons Used: 1,619.57
Test Main: Main Street

Number Of Work Orders: 1 Mains Tested: 1 Total Gallons Used: 1,619.57

Current Page No.: 1 Total Page No.: 1 Zoom Factor: 75%

The water usage list can also be exported to a CSV file. Click Export List to CSV. Select the destination for the file to be saved. Click Ok to save file. A confirmation will appear stating that file was successfully exported.

Filtering & Viewing C-Factor Water Usage Reports

C-Factor Water Usage Results

Filter Results

☐ From Date: 8/28/2011 To Date: 8/28/2011

☐ Work Order ID:

☐ Hydrant:

☐ Main:

☐ Operator: Teresa

Filter Results Clear Filters

View Report [Export List To CSV](#)

	WOID	WOType	Status	Completed	OperID	MainName	Gallons	HydName
▶	28	CF	Closed	8/28/2011	Teresa	Main Street	9628.7895837...	HURCO H 2

User can filter by the following results:

- For a certain date period. Enter from date and to date.
- Work order ID-Use this option to see water usage results for a specific work order.
- Hydrant- Use this option to see water usages results for a specific hydrant.
- Main- Use this option to see water usages results for a specific main.
- Operator – Use this option to see work orders completed by specific individuals.

User can chose one or more options to filter by. Once the filter options have been selected, click the Filter Results button. The results for the filter will appear on the bottom of the screen.

To view a report, click View Report. A confirmation will appear stating the selection is being loaded. The report will show up in a new screen.

C-Factor Water Usage Report

Report Generated by : IMS by Hurco Technologies Inc . Page: 1

ims
HURCO TECHNOLOGIES INC.

Company Name: Company Name
Address: My Address
City:
State:
Zip:

Work Order ID: 28 TestDate: 08/28/2011
Operator: Teresa Gallons Used: 9,628.79
TestMain: Main Street

Number Of Work Orders: 1	Mains Tested: 1	Total Gallons Used: 9,628.79
--------------------------	-----------------	------------------------------

Report Generated by : IMS by Hurco Technologies Inc . Page: 1

Current Page No.: 1 Total Page No.: 1 Zoom Factor: Whole Page

The water usage list can also be exported to a CSV file. Click Export List to CSV. Select the destination for the file to be saved. Click Ok to save file. A confirmation will appear stating that file was successfully exported.

Filtering & Viewing Hydrant Flushing Water Usage Reports

WOID	WOType	Status	Completed	OperID	HydName	Gallons	DistName	SubDivName	NFPAColor
33	Flushing	Closed	8/28/2011	Teresa	HURCO H 2	7104.2894...	Commercial		Blue
33	Flushing	Closed	8/28/2011	Teresa	HURCO H 5	7104.2894...	Commercial		

User can filter by the following results:

- For a certain date period. Enter from date and to date.
- Work order ID-Use this option to see work order results for a specific work order.
- Hydrant- Use this option to see work order results for a specific hydrant.
- NFPA Rating- Use this option to see work orders results by NFPA ratings.
- District- Use this option to see all work order results for a specific divisions
- Sub-division-Use this option to see all work order results for a specific divisions.
- Operator – Use this option to see work orders completed by specific individuals.

User can chose one or more options to filter by. Once the filter options have been selected, click the Filter Results button. The results for the filter will appear on the bottom of the screen.

To view a report, click View Report. A confirmation will appear stating the selection is being loaded. The report will show up in a new screen.

Water Usage Report

Report Generated by : IMS by Hurco Technologies Inc. Page: 1

Company Name: Company Name
Address: My Address
City:
State:
Zip:

Work Order ID: 33 **Work Order Type:** Flushing
Operator: Teresa **Flush Date:** 8/28/2011 12:00:00 AM
Hydrant ID: HURCO H 2 **Gallons Used:** 7,104.29

Work Order ID: 33 **Work Order Type:** Flushing
Operator: Teresa **Flush Date:** 8/28/2011 12:00:00 AM
Hydrant ID: HURCO H 5 **Gallons Used:** 7,104.29

Number Of Work Orders: 1 **Hydrants Tested:** 2 **Total Gallons Used:** 14,208.58

Report Generated by : IMS by Hurco Technologies Inc. Page: 1

Current Page No.: 1 Total Page No.: 1 Zoom Factor: Whole Page

Master Device List Reports

This screen allows you to view & print reports on devices. Users have the ability to filter for reports by certain criteria.

Filtering & Viewing Hydrant Master Reports

Hydrant Master Report Selection

Filter Results

☐ Install Date Between: 8/28/2011 And: 8/28/2011

☐ Last Maint. Between: 8/28/2011 And: 8/28/2011

☒ Hydrant: HURCO H 2 ☐ Status:

☐ NFPA Rating: ☐ Color:

☐ Manufacturer: ☐ Model:

☐ Vandal Proof: ☐ Restraint:

☐ District: ☐ Sub-Division:

HydName	ManufNan	ModelNan	InstallDate	Status	Addr1	Addr2	DistName	SubDivNe	AssetID	NFPAColc	LastMaint	LocID
HURCO...	Mueller	Mueller...	5/1/201...	Active	201	Industri...	Commer...		Hurco2	Blue	8/28/20...	

User can filter by the following results:

- Install Date. Use this option to see hydrant details by date range of installation.
- Last Maint Date. Use this option to see hydrant details by date range of last maintenance.
- Hydrant- Use this option to see hydrant details results for a specific hydrant.
- NFPA Rating- Use this option to see hydrant details by NFPA ratings.
- Manufacturer- Use this option to see hydrant details by manufacturer.
- Vandal Proof- Use this option to see hydrant details by vandal proof types.
- District- Use this option to see hydrant details for a specific divisions.
- Status- Use this option to see hydrant details for a specific status.
- Color- Use this option to see hydrant details for a specific hydrant paint color.
- Model- Use this option to see hydrant details for a specific hydrant model.
- Restraint- Use this option to see hydrant details for a specific hydrant restraint type.
- Sub-division-Use this option to see hydrant details for a specific sub-divisions.

User can chose one or more options to filter by. Once the filter options have been selected, click the Filter Results button. The results for the filter will appear on the bottom of the screen.

To view a report, click View Report. A confirmation will appear stating the selection is being loaded. The report will show up in a new screen.

Hydrant Master Report


Report Generated by: IMS by Hurco Technologies Inc. Page: 1

Company Name: Hurco Technologies Inc.
Address: 409 Enterprise Street
City: Harrisburg
State: SD
Zip: 57032

HydName	ManuName	ModelName	InstallDate	Status
Huroc2	Mueier	A122	06/03/2010	Active

Asset ID: _____
 Restraint: Rod and Bolt
 Vandal Proof: Valve Lock
 Location ID: _____
 Address: 201 Industrial Dr
 City: Harrisburg
 State: SD
 Cross Street: Cliff
 District: Commercial
 Sub-Division: _____
 Location Notes: N side (mid block)


Last Maint: 06/28/2010
 NFPA Color: Blue
 NFPA Class: AA
 Predicted Flow @ 20 PSI: 2,477.00



HydName	ManuName	ModelName	InstallDate	Status
Huroc3	Mueier	A122	06/01/2010	Active

Asset ID: _____
 Restraint: Rod and Bolt
 Vandal Proof: Valve Lock
 Location ID: _____
 Address: 201 Industrial Dr
 City: Harrisburg
 State: SD
 Cross Street: Enterprise St
 District: Commercial
 Sub-Division: _____
 Location Notes: N side (mid block)

Last Maint: 06/15/2010
 NFPA Color: Blue
 NFPA Class: AA
 Predicted Flow @ 20 PSI: 2,313.00



HydName	ManuName	ModelName	InstallDate	Status
Huroc4	Mueier	A121		Active

Asset ID: _____
 Restraint: Rod and Bolt
 Vandal Proof: Valve Lock
 Location ID: _____
 Address: 201 Industrial Dr
 City: Harrisburg
 State: SD
 Cross Street: _____
 District: Commercial
 Sub-Division: _____
 Location Notes: N side (mid block)

Last Maint: _____
 NFPA Color: Blue
 NFPA Class: AA
 Predicted Flow @ 20 PSI: _____

Report Generated by: IMS by Hurco Technologies Inc. Page: 1

Current Page No.: 1 Total Page No.: 1 Zoom Factor: Whole Page

The hydrant master list can also be exported to a CSV file. Click Export List to CSV. Select the destination for the file to be saved. Click Ok to save file. A confirmation will appear stating that file was successfully exported.

Filtering & Viewing Valve Master Reports

Valve Master Report Selection

Filter Results

☐ Install Date Between: 8/28/2011 And: 8/28/2011

☐ Last Maint. Between: 8/28/2011 And: 8/28/2011

☐ Valve Size Between: And:

☐ Valve: ☐ Valve Function:

☐ Manufacturer: ☐ Drive Type:

☐ Status: ☐ Access Type:

☐ District: ☐ Valve Type:

☐ Sub-Division:

ValveNa	ManufN	InstallDat	ValveSiz	ValveTy	ValFunc	DriveNan	ValPos	AccNam	Addr1	Addr2	DistNam	SubDivN	LastMain	AssetID	LocID
HNW...	Clow	6/7/20...	6.00	Gate	Bypass	Standard	Open	Valve ...		United ...			6/30/...		
HNW...	Americ...		6.00	Gate	Bypass	Standard	Open	Valve ...		United ...	Comm...		6/30/...		
HNW...	Americ...	6/9/20...	6.00	Gate	Bypass	Standard	Open	Valve ...		United ...	Comm...		6/30/...		

User can filter by the following results:

- Install Date. Use this option to see valve details by date range of installation.
- Last Maint Date. Use this option to see valve details by date range of last maintenance.
- Valve- Use this option to see valve details results for a specific valve.
- Manufacturer- Use this option to see valve details by manufacturer.
- Status- Use this option to see valve details for a specific status.
- District- Use this option to see valve details for a specific divisions.
- Sub-division-Use this option to see valve details for a specific sub-divisions.
- Valve function- Use this option to see valve details for a specific valve function.
- Drive Type- Use this option to see valve details for a specific drive type.
- Access Type- Use this option to see valve details for a specific access type.
- Valve Type- Use this option to see valve details for a specific valve type.

User can chose one or more options to filter by. Once the filter options have been selected, click the Filter Results button. The results for the filter will appear on the bottom of the screen.

To view a report, click View Report. A confirmation will appear stating the selection is being loaded. The report will show up in a new screen.

Hydrant Master Report

Main Report

Valve Master Report

Report Generated by: IMS by Hurco Technologies Inc. Page: 1

Company Name: Hurco Technologies Inc.
Address: 409 Enterprise Street
City: Harrisburg
State: SD
Zip: 57032

Valve Information:

Manufacture:	Address: 510 Cottonwood Dr.
Install Date: 05/01/2010	Cross Street:
Valve Type: Gate	Location Notes:
Function: Hydrant	City: Harrisburg
Drive Type: Standard	State: SD
Access Type: Manhole	District:
Valve Size: 4	Sub-Division:
Status: Open	Location ID:
Asset ID:	Box Size: 4.00
Last Maint:	Box Depth: 6.00
Open Direction: Left	

Valve Information:

Manufacture: Kennedy Valve	Address: 409 Enterprise St.
Install Date: 05/31/2010	Cross Street: Cliff Ave.
Valve Type: Gate	Location Notes: North Side Of Street
Function: Curb	City: Harrisburg
Drive Type: Gear	State: SD
Access Type: Manhole	District: Industrial
Valve Size: 8	Sub-Division: Harrisburg
Status: Open	Location ID:
Asset ID:	Box Size: 10.00
Last Maint:	Box Depth: 6.00
Open Direction: Left	

Number Of Valves	Oldest Valve Install Date	Newest Valve Install Date
2	05/31/2010	06/01/2010

Report Generated by: IMS by Hurco Technologies Inc. Page: 1

Current Page No.: 1 Total Page No.: 1 Zoom Factor: Whole Page

The valve master list can also be exported to a CSV file. Click Export List to CSV. Select the destination for the file to be saved. Click Ok to save file. A confirmation will appear stating that file was successfully exported.

Filtering & Viewing Main Master Reports

Main Master Report Selection

Filter Results

☐ Install Date Between: 12/15/2010 And: 12/15/2010 ☐ Main ID:

☐ Last Maint. Between: 12/15/2010 And: 12/15/2010 ☐ Status:

☐ Max Size Between: And: ☐ Pipe Type:

☐ Main Length Between: And: ☐ Connection:

[Export To CSV](#)

MainID	MainName	PipeName	MaxSize	MinSize	MainLength	ConnName	InstallDate	Status	LastMaint	AssetID	LocNotes
2	Main Street	PVC	8	6	400	Slip x Slip		Active	12/15/2010		

User can filter by the following results:

- Install Date- Use this option to see main details by date range of installation.
- Last Maint Date- Use this option to see main details by date range of last maintenance.
- Max Size Between- Use this option to see main detail results for a max size range.
- Main Length Between- Use this option to see mains by a range in length.
- Main ID- Use this option to see main details for a specific main ID.
- Status- Use this option to see main details for a specific status.
- Pipe Type-Use this option to see main details for a specific type of pipe.
- Connection- Use this option to see main details for a specific main connection.

User can chose one or more options to filter by. Once the filter options have been selected, click the Filter Results button. The results for the filter will appear on the bottom of the screen.

To view a report, click View Report. A confirmation will appear stating the selection is being loaded. The report will show up in a new screen.

Main Master Report

Report Generated by: IMS by Hurco Technologies Inc. Page: 1

ims
HURCO

Company Name: Company Name
Address: My Address
City:
State:
Zip:

AssetID:
Install Date: 12/14/2010
Main Length: 300.00
Pipe Type: Iron
Min Size: 7.00
Max Size: 5.00
Connection Type: MT x MJ
Status: Active
Last Maint:

Location Notes:

Number Of Mains	Oldest Main Install Date	Newest Main Install Date
1	12/14/2010	12/14/2010

Current Page No.: 1 Total Page No.: 1 Zoom Factor: 75%

The main master list can also be exported to a CSV file. Click Export List to CSV. Select the destination for the file to be saved. Click Ok to save file. A confirmation will appear stating that file was successfully exported.

Hydrant Sticker Report

This screen allows you to view & print stickers for hydrants.

View Hydrant Sticker Report

Filter Results

☐ From Date: 8/28/2011 To Date: 8/28/2011

☐ Work Order ID:
☐ Hydrant:
☐ NFPA Rating:
☐ District:
☐ Sub-Division:

Filter Results Clear Filters

WOID	Completed	HydName	NFPAColor	SubDivName	DistName
25	6/28/2010 1:45 PM	HURCO H 2	Blue		Commercial
25	6/28/2010 1:32 PM	HURCO H 3	Green		Commercial
25	6/28/2010 1:20 PM	HURCO H 4	Blue		Commercial

User can filter by the following results:

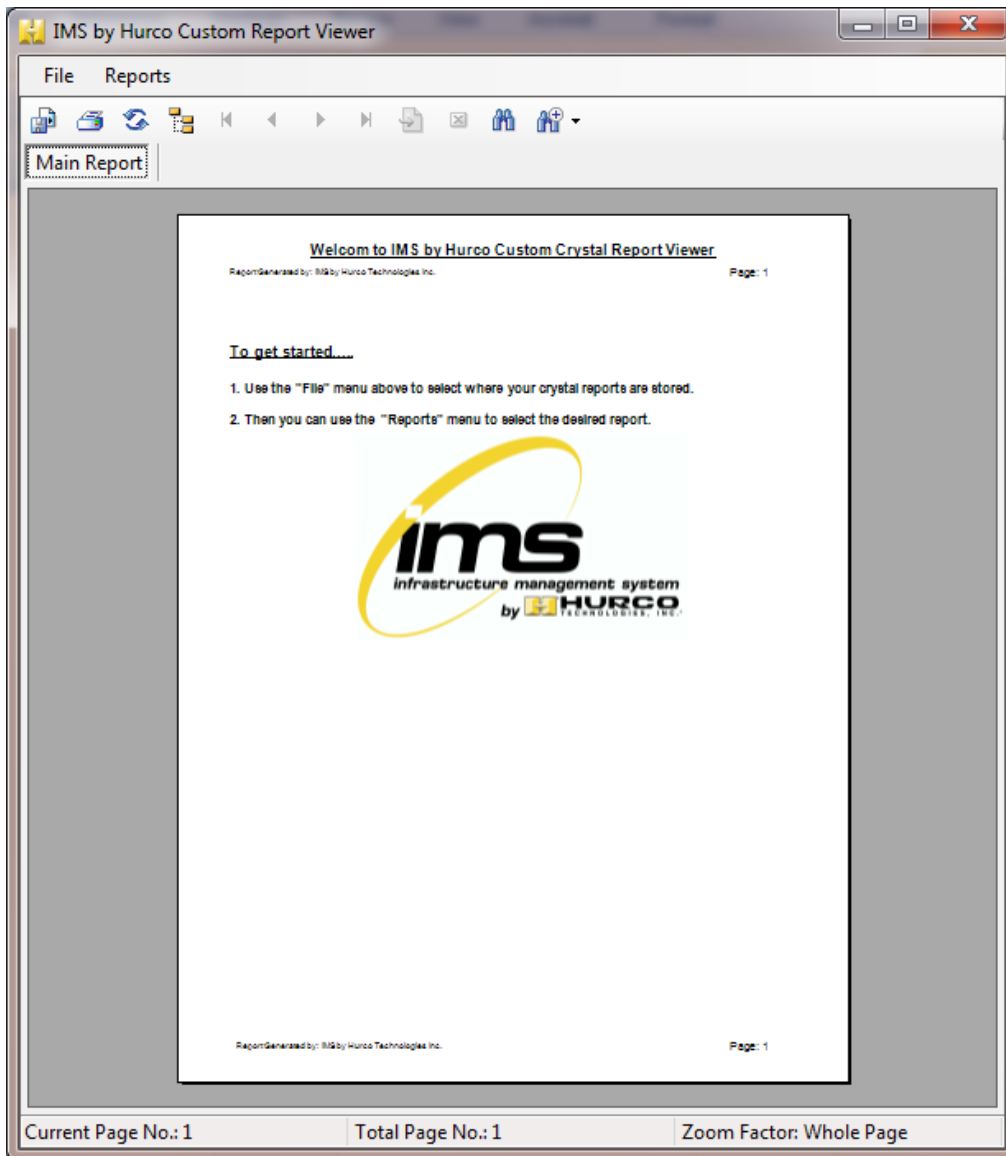
- For a certain date period. Enter from date and to date.
- Work order ID-Use this option to see work order results for a specific work order.
- Hydrant- Use this option to see work order results for a specific hydrant.
- NFPA Rating- Use this option to see work orders results by NFPA ratings.
- District- Use this option to see all work order results for a specific divisions
- Sub-division-Use this option to see all work order results for a specific divisions.
- Operator – Use this option to see work orders completed by specific individuals.

User can chose one or more options to filter by. Once the filter options have been selected, click the Filter Results button. The results for the filter will appear on the bottom of the screen.

To view a report, click View Report. A confirmation will appear stating the selection is being loaded. The report will show up in a new screen.

Custom Report Viewer

This screen allows you to view & print Custom Reports. These are custom reports that have been created by the user in Crystal Report Writer. No custom reports are included with the program.

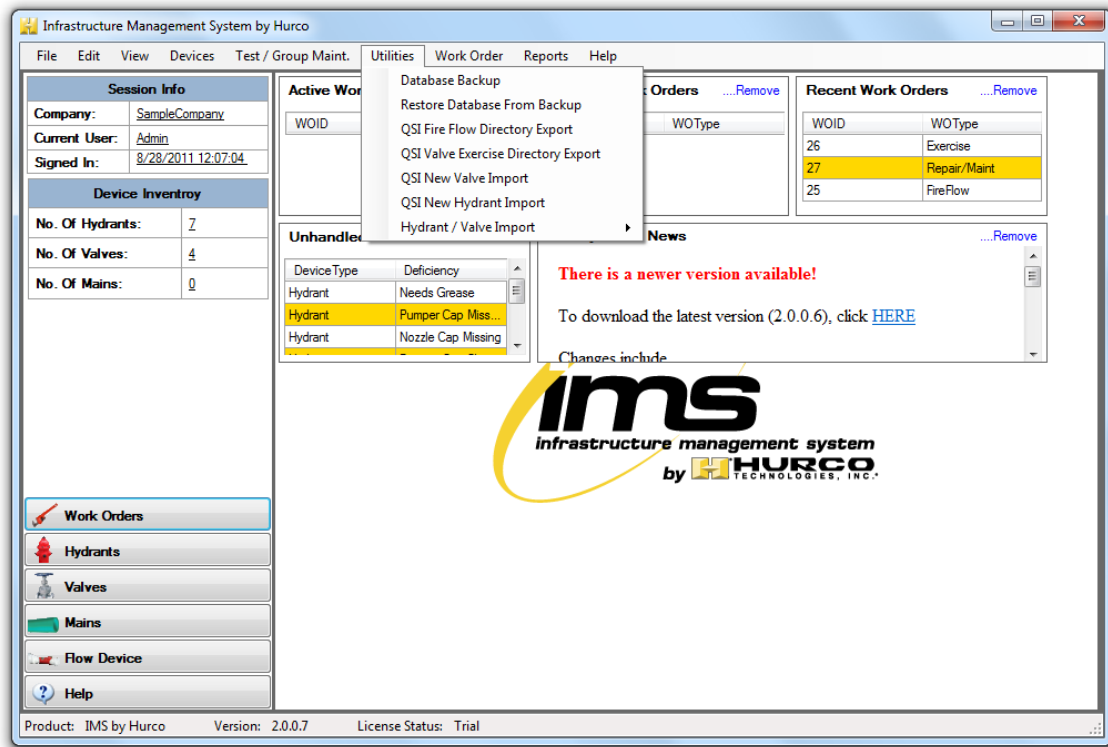


To view reports in this selection, you must first set the report directory. This is where the custom reports that are created will be saved. Once you set the directory, all custom reports will need to be saved in that directory in order to be access by IMS by Hurco. For more information on the database structure and writing reports, contact Hurco Technologies.

Chapter 13

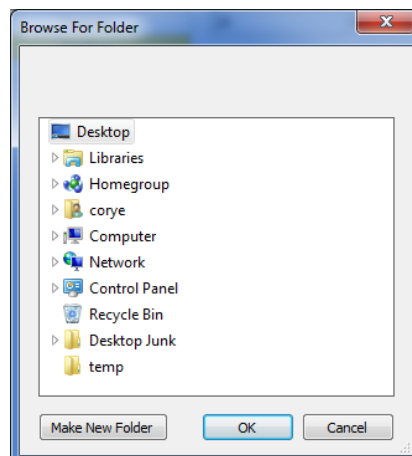
Utilities

In this chapter, you'll learn the utilities that are available for the program. These options are located under the Utilities option on the Menu Bar.



Database Backup

This option allows the user to save a backup of the database. To back up the database, chose Backup Database. A screen will appear asking for the location to save the backup file. Select a location or make a new folder to save it in. Once you have the location, select Ok.



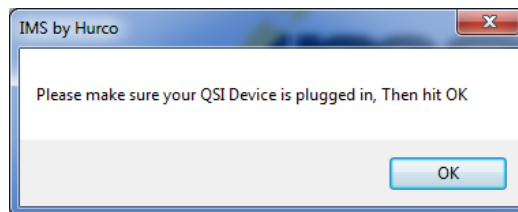
Restore Database from Backup

This option allows the user to restore a backup of the database. To restore the database, chose Restore Database from Backup. A screen will appear asking for the location of the backup file. Select the backup file and select Ok.

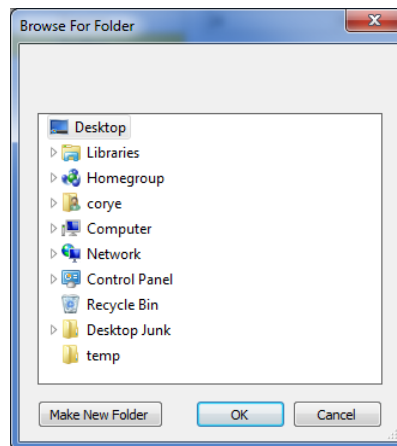
Warning: Restoring a backup will overwrite all current data in your company. Please make sure that you are selecting the correct backup file for your company.

QSI Fire Flow Directory Export

This option allows the user export the Fire Flow Directory. You will get the following warning. If the QSI Device is pulled in, select Ok. If the QSI is not plugged in, plug it in and then select Ok.

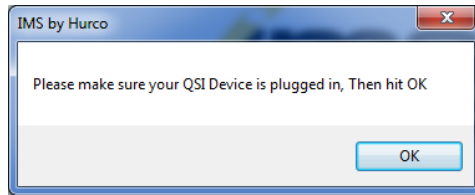


A screen will appear asking for the location to save the directory file. Select a location or make a new folder to save it in. Once you have the location, select Ok.



QSI Valve Exercise Directory Export

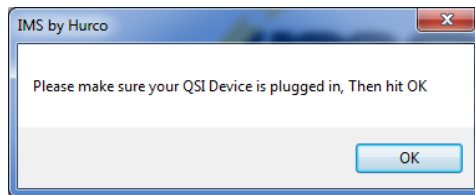
This option allows the user export the Valve Exercise Directory. You will get the following warning. If the QSI Device is pulled in, select Ok. If the QSI is not plugged in, plug it in and then select Ok.



A screen will appear asking for the location to save the directory file. Select a location or make a new folder to save it in. Once you have the location, select Ok.

QSI New Valve Import

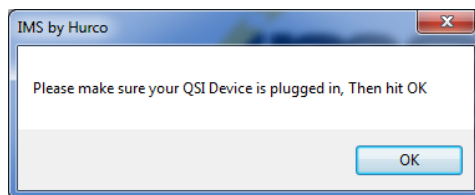
This option allows the user to import the Valve Directory. You will get the following warning. If the QSI Device is pulled in, select Ok. If the QSI is not plugged in, plug it in and then select Ok.



A screen will appear asking for the location to retrieve the file from. Select the file and click “Open”. A confirmation will appear to confirm the import.

QSI New Hydrant Import

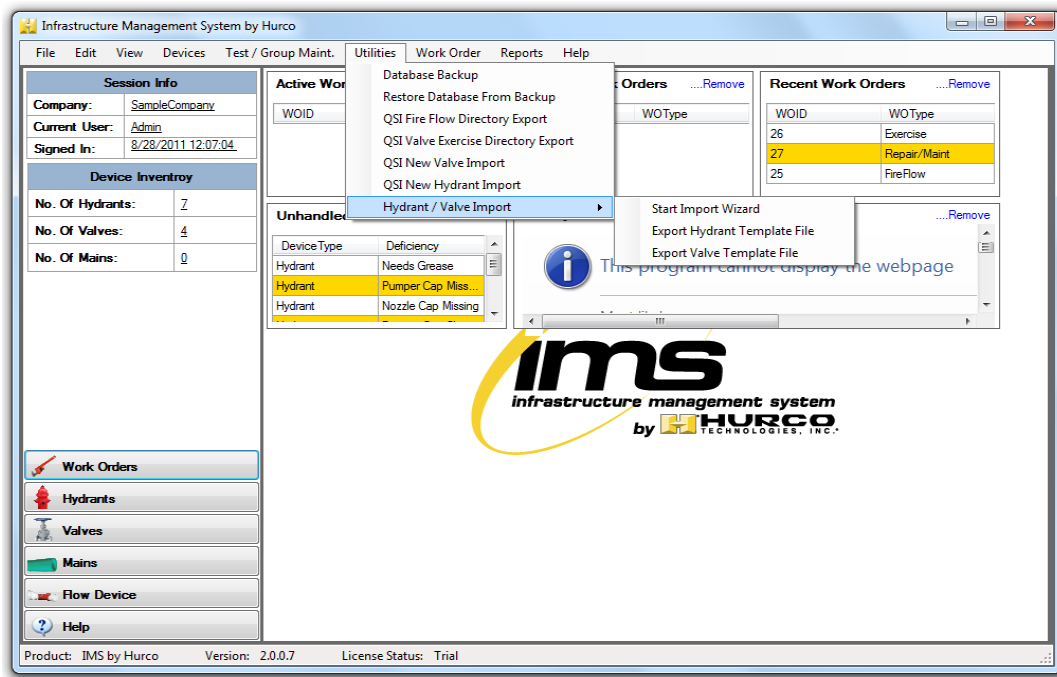
This option allows the user to import the Hydrant Directory. You will get the following warning. If the QSI Device is pulled in, select Ok. If the QSI is not plugged in, plug it in and then select Ok.



A screen will appear asking for the location to retrieve the file from. Select the file and click “Open”. A confirmation will appear to confirm the import.

Hydrant/Valve Import

This option allows the user to import a list of hydrants or valves. The files that are used to import valves and hydrants must be in a certain format.



Export Hydrant Template File

This option allows you to export a file with the correct format for importing hydrants into IMS By Hurco. Once you click on this option, a screen will appear asking where you want to save your file. Select the location for your file and click OK. If your file was saved, it will give you a message confirming the export finished.

The file will save as a .csv file. The file will be named “HydrantImportTemplate.” You can open the file and enter the information in a new row for each hydrant.

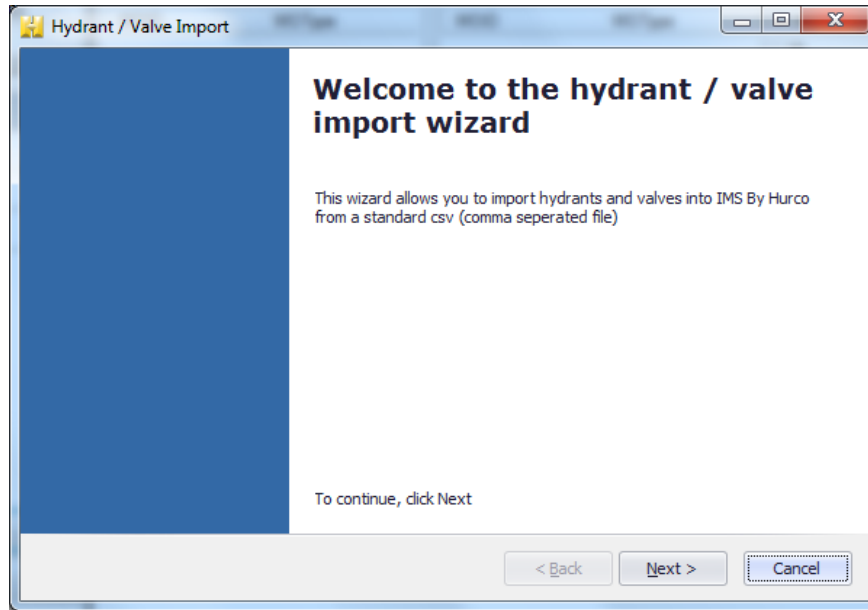
Export Valve Template File

This option allows you to export a file with the correct format for importing valves into IMS By Hurco. Once you click on this option, a screen will appear asking where you want to save your file. Select the location for your file and click OK. If your file was saved, it will give you a message confirming the export finished.

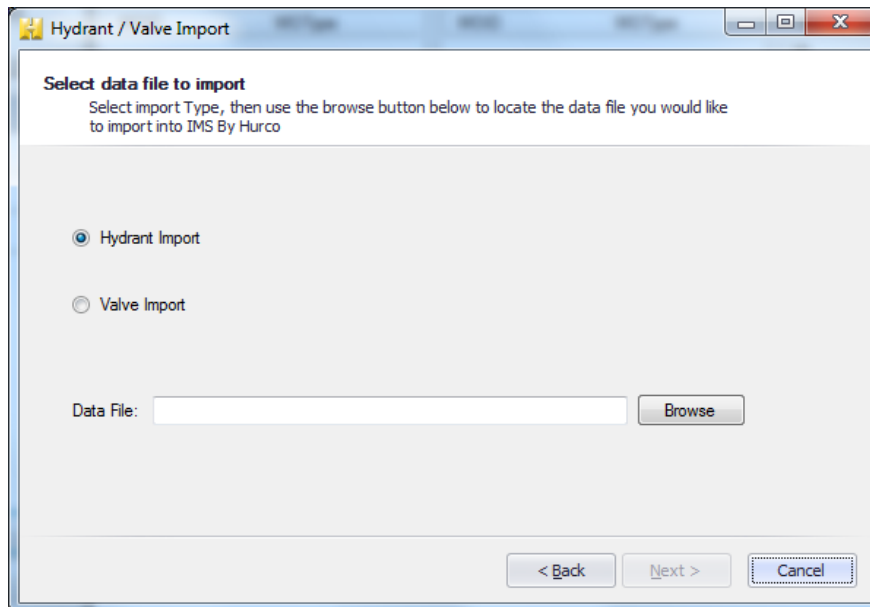
The file will save as a .csv file. The file will be named “ValveImportTemplate.” You can open the file and enter the information in a new row for each valve.

Start Import Wizard

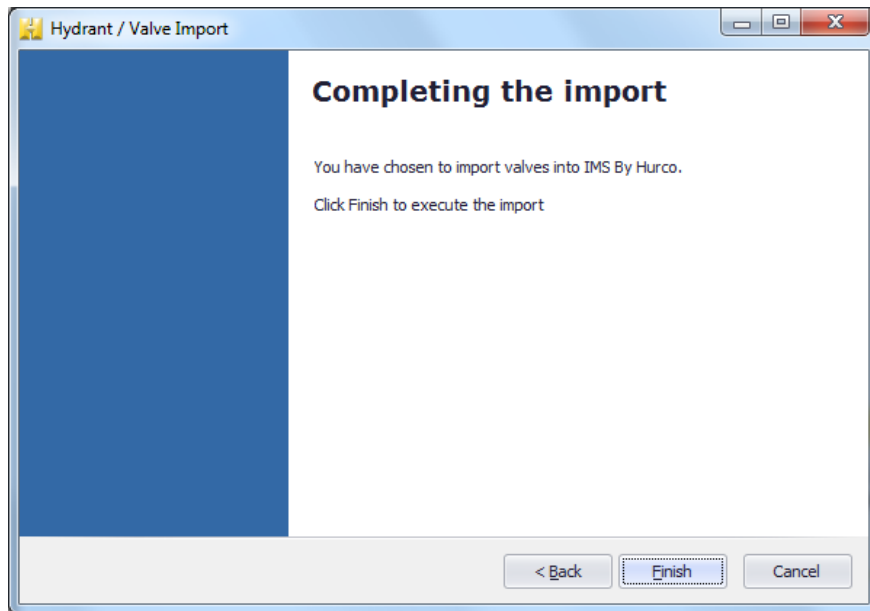
This option allows you to import the hydrant and valve files into IMS by Hurco. To start click, Start Import Wizard.



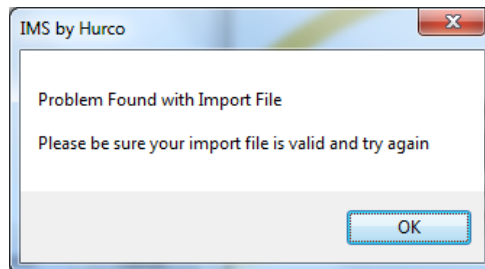
Click Next to continue.



Select the type of devices you are importing. You may choose either Hydrants or Valves. Then select Browse to find the location of the file that is being imported. Once you found your file, click Next.



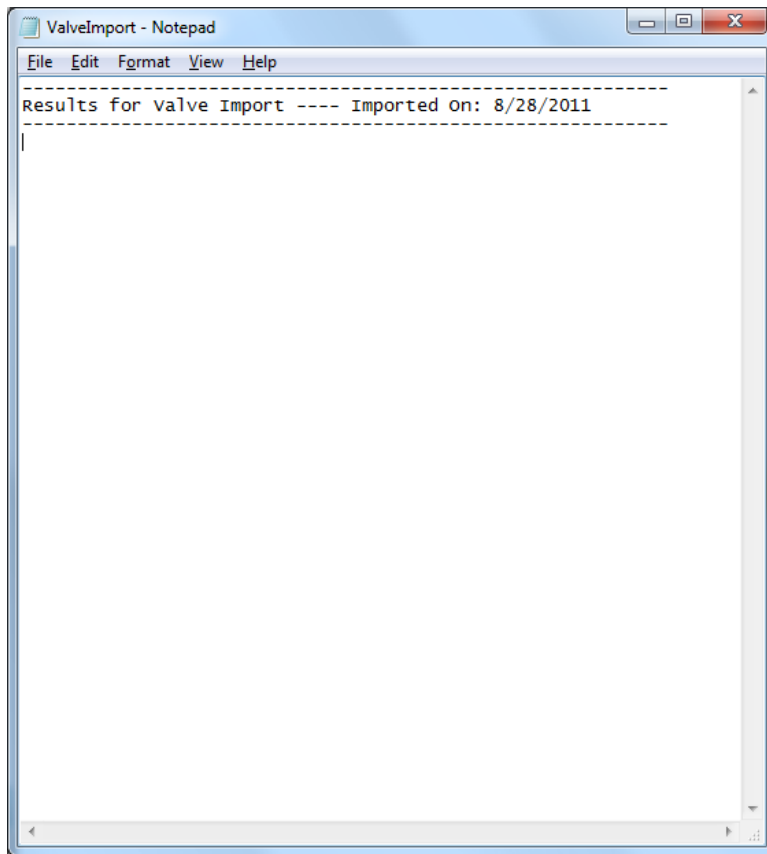
A confirmation screen will appear letting you know which type of devices you are importing. Click Finish to complete the import or click Cancel to stop the import. You can also click Back to change the file or type of devices you are importing.



If a file is imported and the information in it is not valid, you will receive the above message. Check the information in your file and go back through the import procedures.



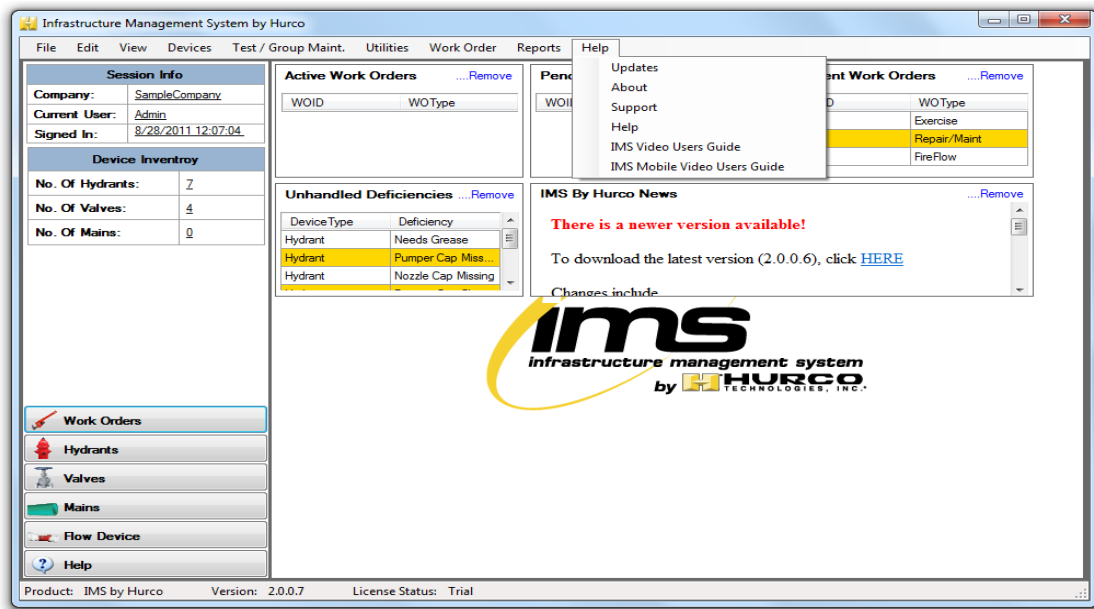
If the file was successfully imported, you will receive a message informing you that the import is complete. Then the following report will appear showing what was successfully imported into IMS By Hurco.



Chapter 14

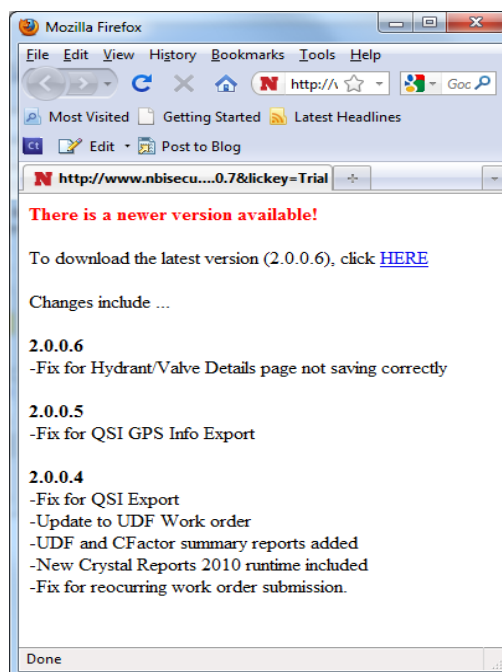
Help

The options under this menu will help you through your IMS By Hurco experience.



Updates

This link takes you to a website to verify if you have the most current version of IMS By Hurco.



About IMS by Hurco

This screen gives you details of the program. If you need to find the version of this program that is installed, it will be located on this screen.

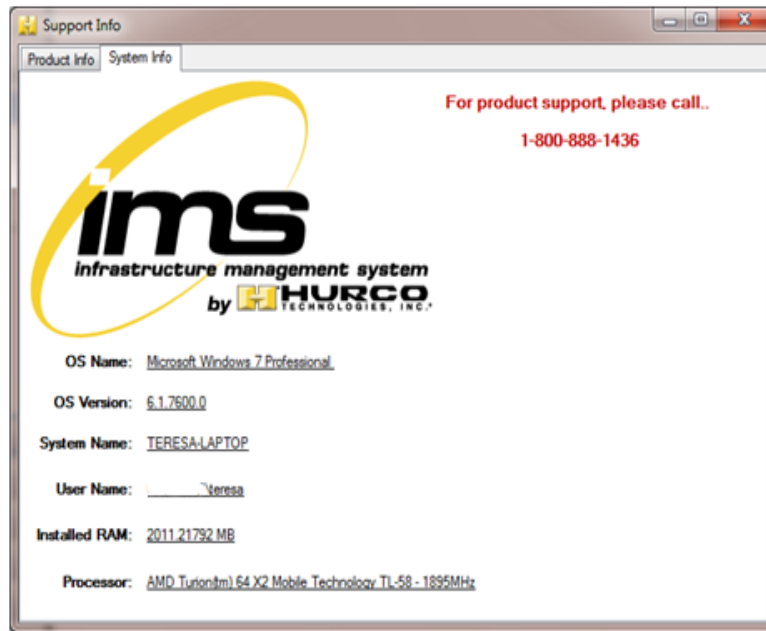


Support

This screen gives you support details. This is pertinent information that is need if the user contacts product support for help.



If additional modules are purchase, you will need to reactivate the software. Once you have you new activation code, click Enter New License Key. This will bring up the screen for you to enter the new activation ID. You will need to restart the program in order for the new changes to take effect.



This Screen gives details about the computer that the program is running on.

IMS Video Users Guide

This option will take you to our website to view videos on how to use this program.

IMS Mobile Video Users Guide

This option will take you to our website to view videos on how to use the IMS Mobile program.