

CLEANFLOW SYSTEMS

Advanced technology for a healthy environment

CleanFlow products are approved
worldwide by:



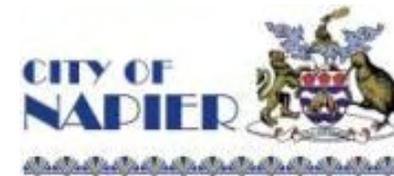
Water Research Council of Great Britain



Institute for Underground Infrastructure of Germany

CleanFlow Customers

Local Authorities:



Contractors:



PipeWorks



CleanFlow Worldwide



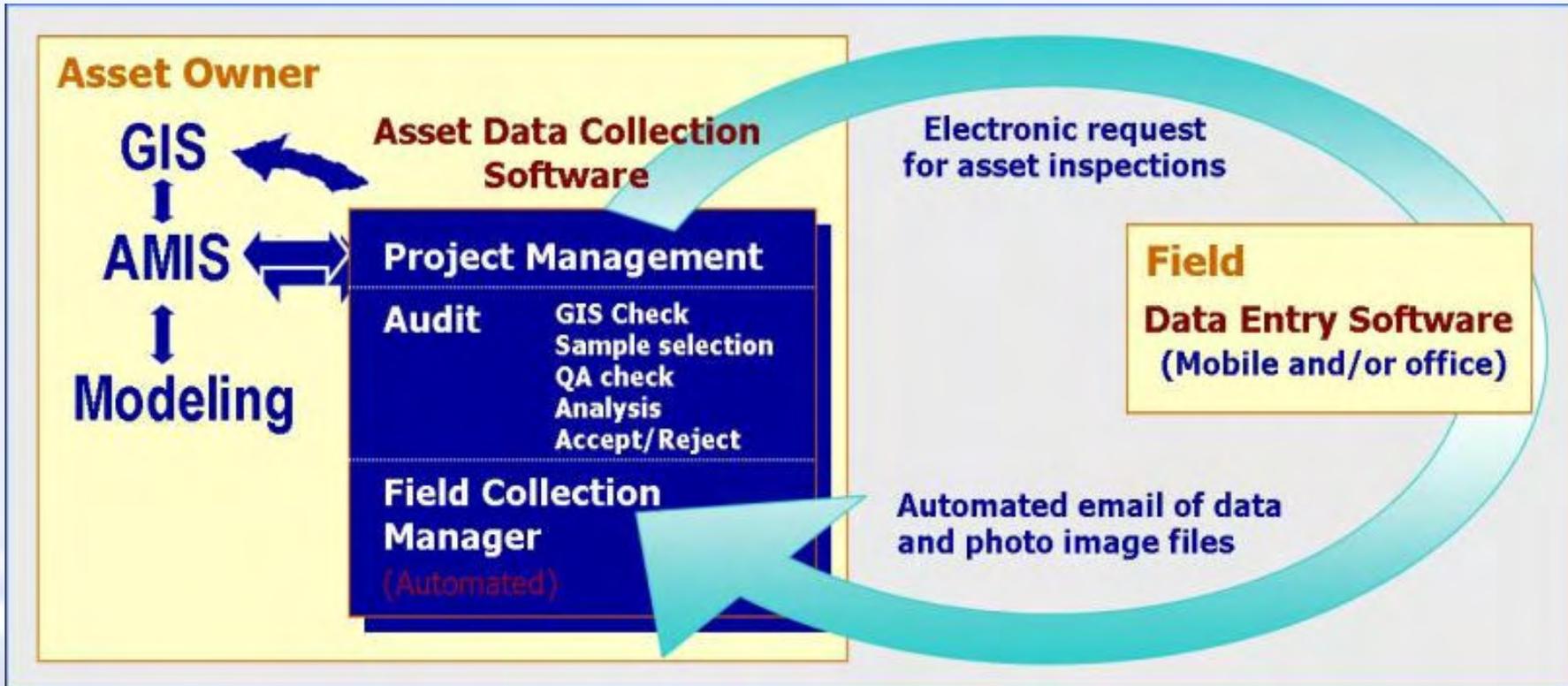
CleanFlow V3

ClearLine Profiler

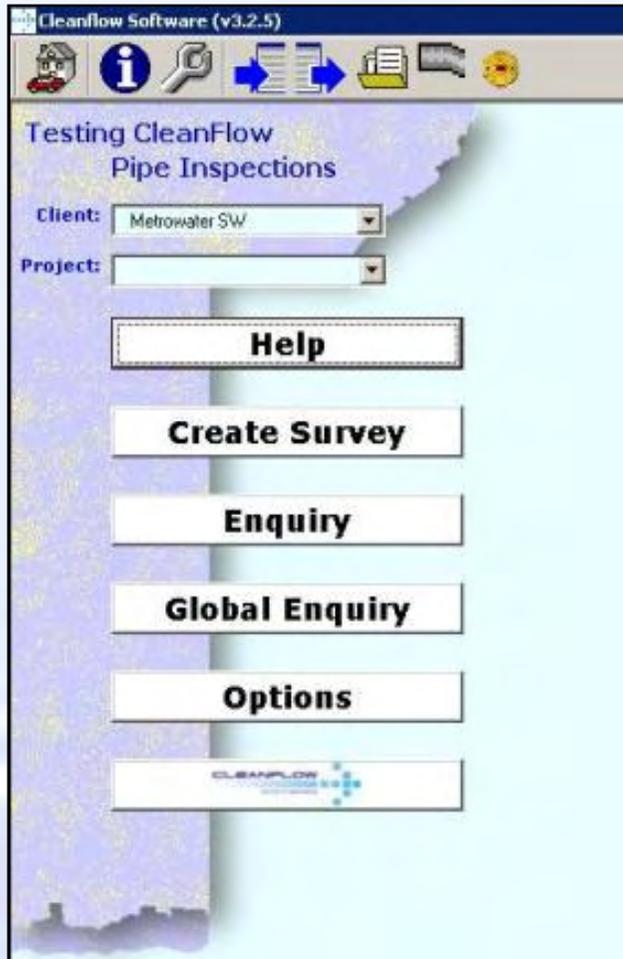
- CleanFlow Data Flow
- Homepage
- Enquiry
- Embedded GIS
- Intelligent Sketch Control
- Project Creation
- Pipe Data Entry
- Manhole Data Entry

- Asset Change Planning
- Import/Export
- Audit
- Rehabilitation Plan
- Scoring
- DVD File Attachment
- Reporting

CleanFlow Data Flow



Homepage



Starting point for the CleanFlow application

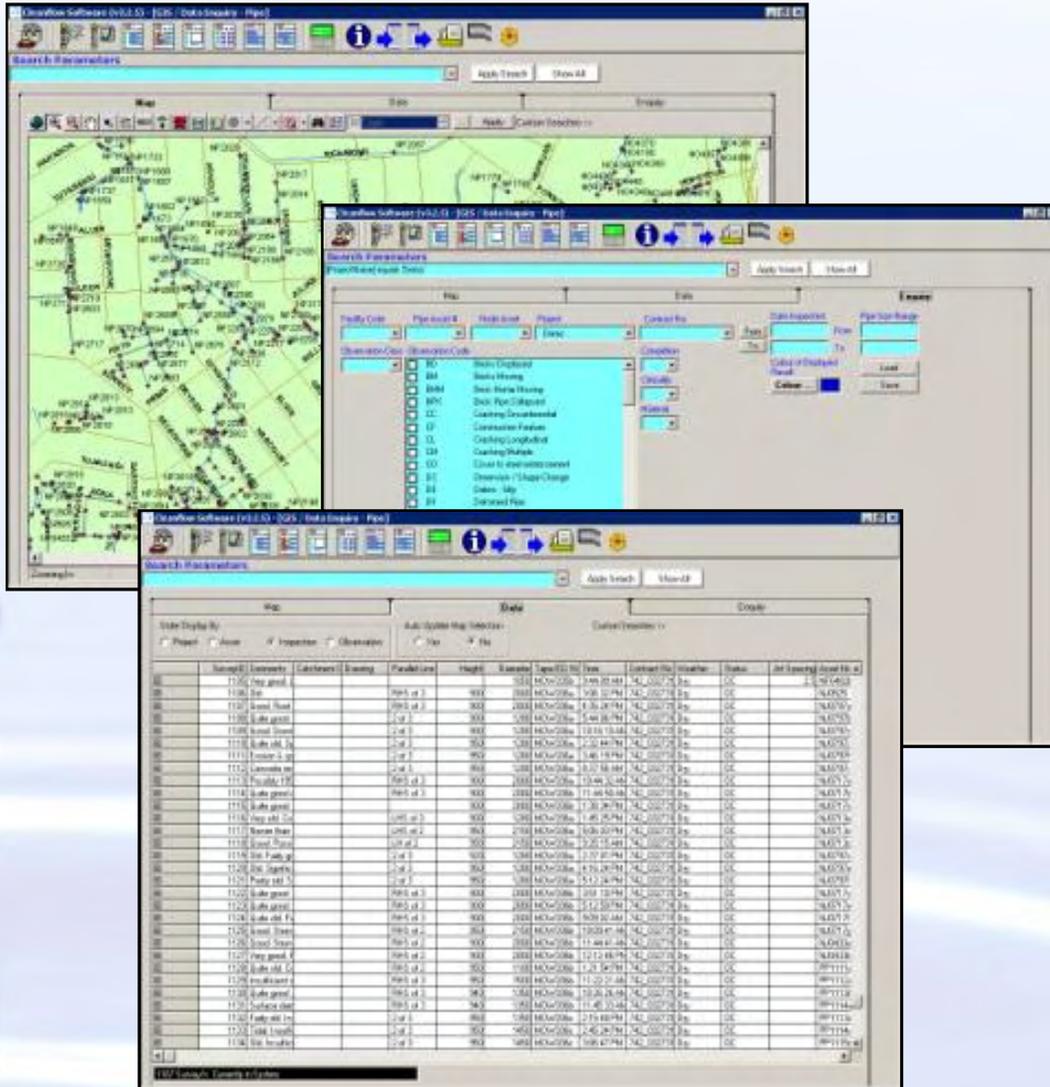
Select pipes or manholes to view/audit

Create new surveys

Import/export projects

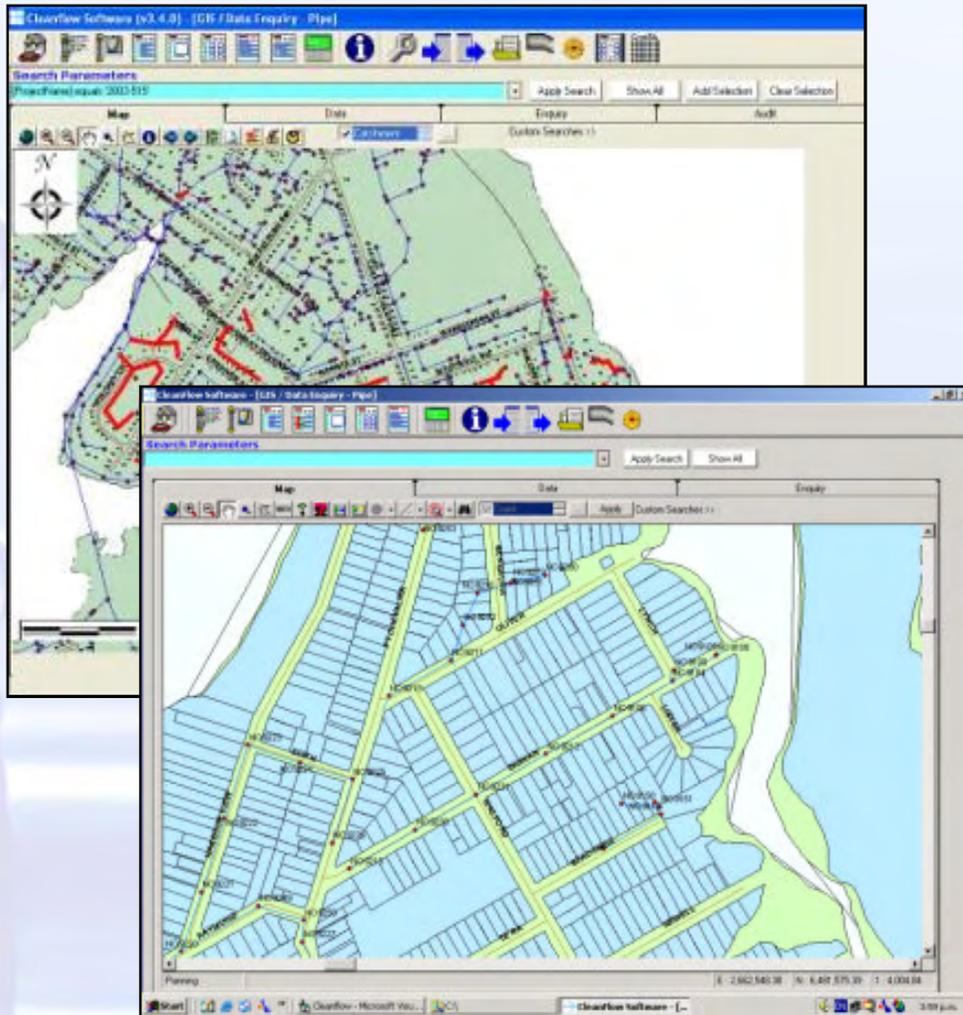
Alter CleanFlow settings and create new clients

Enquiry



- GIS map embedded
- Search tool for auditing of records
- Full list of records includes:
 - Assets
 - Projects
 - Inspections
 - Observations

Embedded GIS



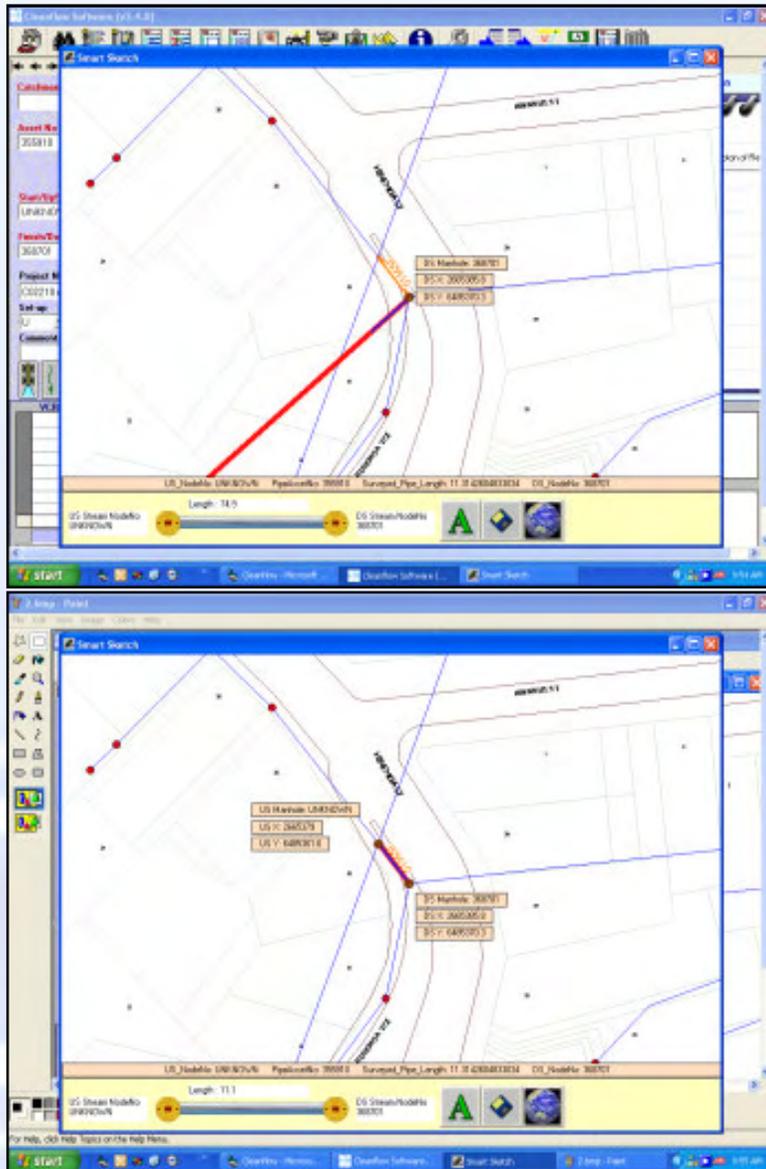
CleanFlow has GIS mapping embedded – it has been designed for managing and reviewing CCTV and Manhole inspections as well as network condition analysis.

Example - Embedded GIS Use



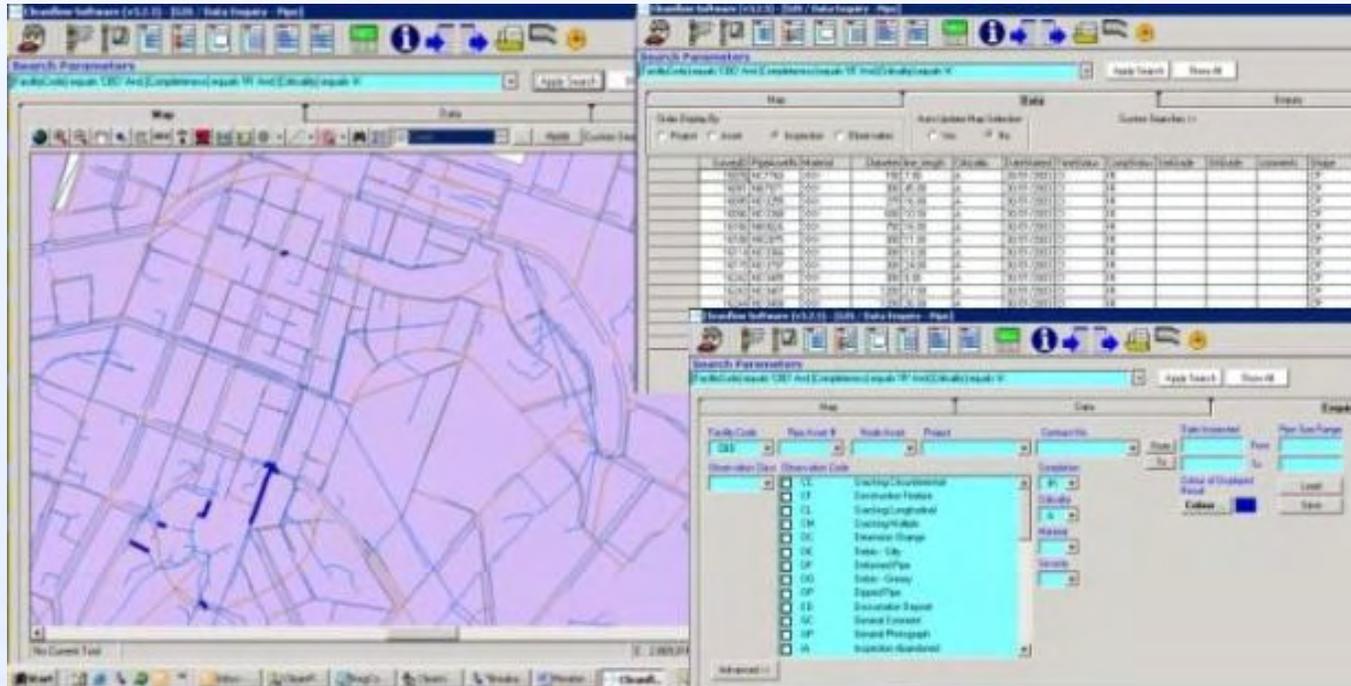
- Enquire on a project using one colour
- Using a different colour, enquire on inspections complete within the project
- Choose another colour and enquire on the uncomplete inspections
- Shows a complete map of the project status

Intelligent Sketch Control



- Field operators enter new asset information
- Snaps to actual position on the map
- Gives real coordinates / length
- Exports change GIS layer

Project Creation



As simple as 'Enquire', 'Select', 'Create'.....
.....and email to contractor.

Asset Change Planning

- New module of CleanFlow
- Records asset changes when data is imported from the field
- Sends asset changes to the GIS department
- Receives updated assets from GIS department
- Updates assets within CleanFlow
- Keeps history of asset changes
- Distributes changes back to field operators

Pipe Data Entry



- Header entry
- Observation entry
- Rehabilitation planning
- Observation images
- Reports
- Video clip attachment
- DVD file attachment to observation lines
- Scoring of observations
- All boxes easily maintained by users

Manhole Data Entry

Cleanflow Software (v3.5.101)

Node No: 14407 Project: MD-100-281_m

Header Inspection Calculate Scores for all Headers

Inspection Details

Location: Market Road
Location Type: [Dropdown]
Land Owner: OSDNCL
Criticality: [Dropdown]
Use of System: [Dropdown]
Hole Type: Maintenance hole
Material: Concrete, Precast
Depth (C to I): 1.75 m Depth of Chamber: 1.75 m
Shape of Chamber: Circle Width: 1000 mm Breadth: [Dropdown]

Date of Inspection: 5 January, 2001 Time: 09:30 Operator: [Dropdown]
Surcharge Evidence: [Dropdown] Max. Observed Water Level: [Dropdown]
Flow Level (Outlet): 1/4 Total Score: 100

Cleaning: [Dropdown]
Recent Weather: Dry Weather
General Remark: [Text Area]

Last Modified: Inspection Complete - LATEST Current Inspection
Status: Deferral Condition

Cleanflow Software (v3.5.101)

Node No: 14407 Project: MD-100-285_m

Header Inspection

Condition Assessment Pipeline Inspection All Observation 2 of 9

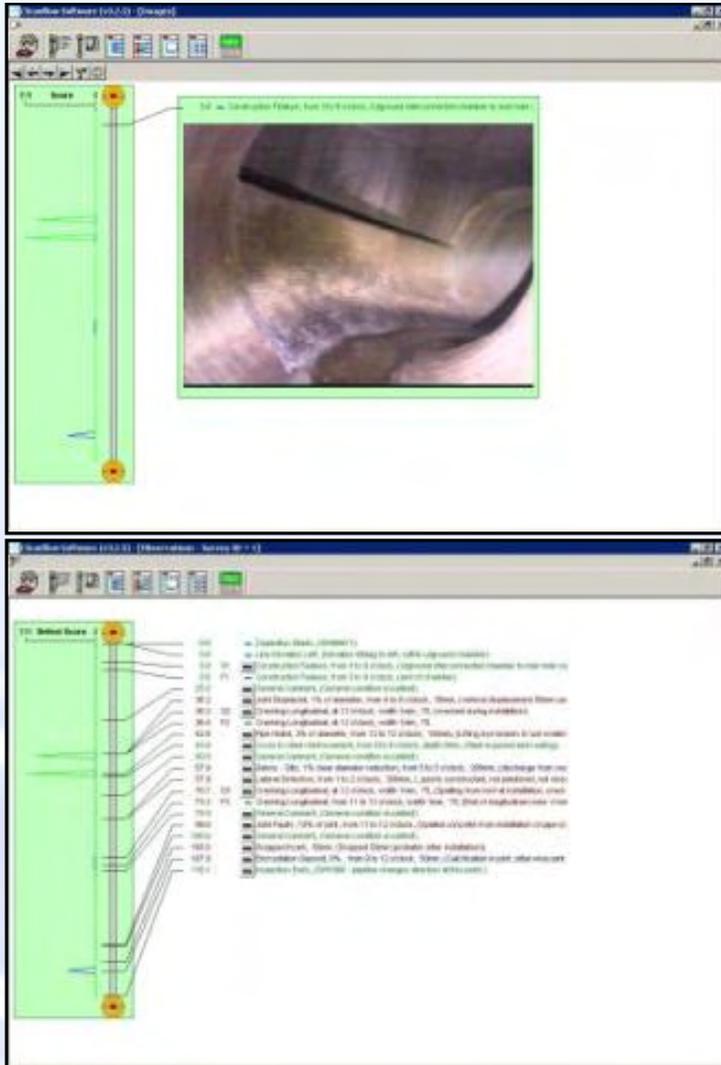
Depth: 1.75 m
Location: Shan/Ladder
Condition: Condition 1 - Very good to excellent
Infiltration: No Infiltration

Quantification

Remarks

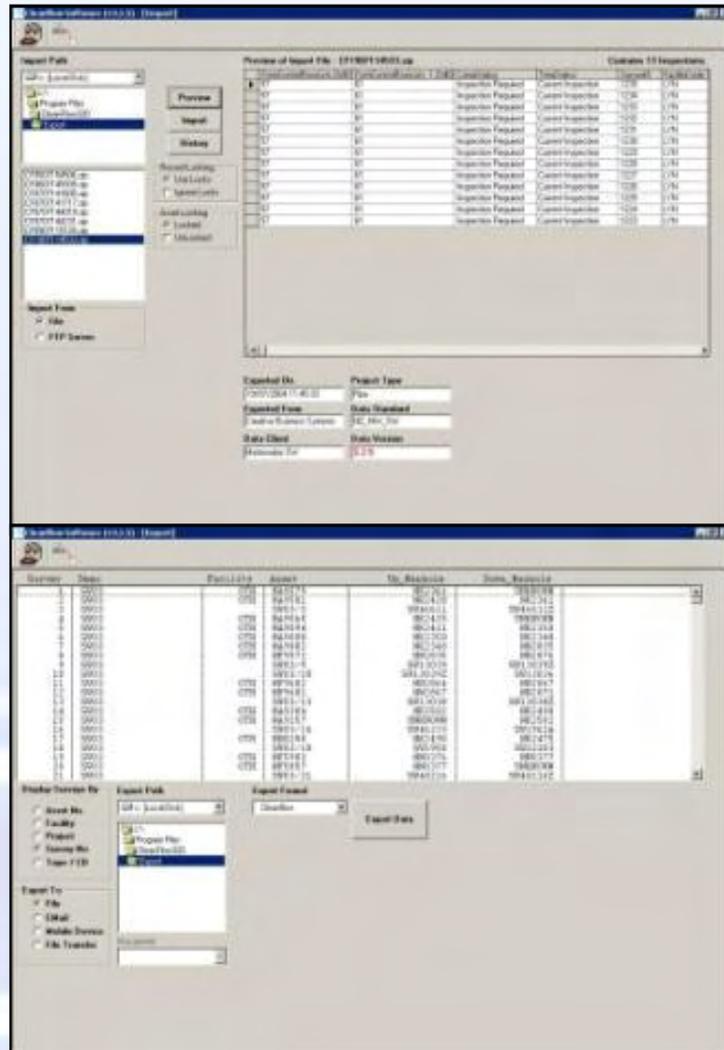
2 [Image of manhole interior]

- Header entry
- Observation entry
- Graphical representation of manhole and inlets/outlets
- Image attachment for observations
- Image/observation reports



- Slide show preview of all pipe images
- Graphical view of all observations along the pipe
- Useful auditing tool

Import / Export



- CleanFlow's Import/Export has come from 15 years experience in systems interfacing. Unique to CleanFlow, all inspections, projects, pipe and node assets are given unique numbers. This means information can be sent to/from councils, consultants, contractors/sub-contractors without the fear of losing or duplicating data
- View history of data imported
- Export to file, to email, or via FTP transfer
- Detailed Import/Export log produced

Inspection Audit

Search Parameters

Map Date Etc Audit of Inspection - SurveyID 1

Pipe Asset: Inspection Data GIS Asset Data

Asset Number: AC7944 Date: 23/10/11

Line Length: 55

Diameter: 750

Material: 2000

Category: 8

Node U/S: N46703 Date: 23/10/11

Node Type: 2

Depth: 0

Sheet Number: 1

Sheet Name: 1

Node U/S: N46714 Date: 23/10/11

Node Type: 2

Depth: 0

Sheet Number: 1

Sheet Name: 1

Contractor: Date: 23/10/2011

Project Name: Pipe Number: Operator:

Set-up: Pre-Cleaned: Weather:

Further Action:

Inspection Comments:

Completeness: Currency: Status:

Auditor: Date Completed:

Asset Audit: Header Audit: City Audit:

Accept: Accept: Accept:

Audit Comment:

VDI	Dist	Con	Set-Up	Etc	See	From	To	Photo	Remarks	Score
0.0		U	15						N46703	0
2.0		U	10							10
4.0		U	10							10
27.0		U	10	14						10
30.0		U	10	15						12
40.0		U	14	15					Large hole	10
40.0		U	14						Unable to continue survey	10

Inspection Start: 23/10/11

- Another world first!
- Highlights difference between GIS data and field data
- Locks audited inspection
- Registered auditors only
- Manhole and Pipe audit

Rehabilitation Planning

The screenshot displays the Cleanflow Software interface. The top window shows a 'Rehabilitation Plan' with a table of activities:

Rehabilitation	Description of Rehabilitation	Inspection Date	Inspector Project	Rehabilitation Planner
Clean	line needs cleaning	10/5/2005	C02212 mainline	BJ
GROUT	Grouting required at 9.9, 10.0	10/5/2005	C02212 mainline	BJ
Dig Repair	Pipe slipped at down stream manhole	10/5/2005	C02212 mainline	BJ

The bottom window shows a 'Rehabilitation Request Report' with a diagram of a pipe section. The diagram includes four circular inspection points with corresponding photos. The report also contains a table of data points:

INSTR	Dist	Calc	Status	Obs	Flow	Flow	Remarks
1056	0.0	0					
1061	0.0	0					
1064	7.7	0					
1066	6.4	0					
1069	6.9	0					
1067	10.3	0					
1070	10.8	0					
1074	11.9	0					
10544							

- Future inspection headers created from inbuilt rehabilitation plan
- Rehabilitation project built based on plan
- Notes for rehabilitation contractor included

Scoring

Peak	Mean	Average	Total	Grade	No. Def	Further Action	
Structural	50	11.31	12.39	818	5	66	
Service	0	0	0	0	1	0	

VCR	Dist	Con	Set-up	Obs	Sev	From	To	Photo	Remarks	Score
	4.3	D	RI	M	9				COME FROM INSIDE LATERAL	25
	4.3	D	LB		9		25			0
	4.8	D	RI	S	11					12
	5.6	D	RI	S	9	12				12
	5.9	D	RI	M	12	12	26			25
	5.9	D	CL	S	12	12				8
	9.0	D	RI	S	6	2	27			12
	9.0	D	CM	S	12	4				12
124.29	9.0	D	IE						AT SAME POSITION	0

Cleanflow Software [v3.4.0]

Inspection 18 of 3948

293221 Project: NSCC_7 SurveyID: 10 Sketch>>

Header Inspection Calculate Scores for All Headers

Inspection Details Photo

Location 15 GENTORIAN DRIVE

Cover Type
Ladder Type
Material
Shaft Size
Depth (C to I) 1.70 m
Shape of Chamber Width
Date of Inspection 20 March, 2003 Time 17:
Inflow/Infiltration Eng Inspection Req Buried / Found H and B Concerns GPS Locations OK Buried / Not End
Cleaning
Recent Weather
General Remark
Completeness Inspection Complete

Total Score 100001

- Two methods of scoring:
 - Calculated
 - Binary
- Calculated gives the Structural and Service Grades
- Binary shows the number of defects at a glance

DVD File Attachment

The screenshot displays the Cleanflow Software (v3.2.5) interface. The main window is titled "Cleanflow Software (v3.2.5)" and shows a project configuration screen. The "Catchment" section is set to "OAK" with a date of "5/03/2003" and a time of "13:19". The "Asset No" is "NH7810". The "Material" is "EW", "Use" is "F", "Shape" is "CP", and "Criticality" is "B". The "Start/Up/Down" section shows "Node Type" as "A", "D/S Depth" as "1.81", "St No" as "56", and "Street Name" as "Bolard st". The "Finish/Down/Down" section shows "Node Type" as "A", "D/S Depth" as "1.94", "St No" as "56", and "Street Name" as "Bolard st". The "Project No" is "MD-102-40F", "Job Number" is "MD-102-40", and "Contract No" is "MD-102-40". The "Contractor" is "Tender". The "Set-up" section shows "Video" as "VHS", "Video Rec No" as "CC40024", "Start Rec" as "0:48:55", and "Finish Rec" as "1:09:20". The "Comments" section is empty. A video thumbnail is displayed on the right side of the interface, showing a close-up of a pipe opening. The video title is "CITY CARE LTD UNIT 24/761 GREAT SOUTH RD PENROSE 56 BOLLARD RD AVONDALE 2333 U/S PH NO5251- D/S PH NO5241 SET UP PH U/S FM INVEST 158 CW CONTRACT NO RD=102-40F LINE NO NH7810 5/03/03". Below the video thumbnail, there is a table with columns for "Peak", "Mean", "Average", "Total", "Grade", and "No.". The table has two rows: "Structural" with values 40, 7.85, 6.43, 135, 5, and "Service" with values 75, 9.59, 10.31, 165, 5.9. At the bottom of the interface, there is a table with columns for "VCI", "Dist", "Con", "Set-up", "Obs", "Sev", "From", "To", "Photo", "Remarks", and "Score". The table has several rows, with the first row highlighted in red. The "VCI" column has values 0:48:55, 1.2, 1.6, 1.9, 1.9, 4.4, 4.5, 5.1, 5.1. The "Dist" column has values 0.0, 1.2, 1.6, 1.9, 1.9, 4.4, 4.5, 5.1, 5.1. The "Con" column has values U, U, U, U, U, U, U, U, U. The "Set-up" column has values U, U, U, U, U, U, U, U, U. The "Obs" column has values IS, JO, JO, LO, W, W, JF, JF, W. The "Sev" column has values L, M, M, S, S, M, S, S, S. The "From" column has values 1, 2, 3, 4, 7, 10, 9, 12. The "To" column has values 1, 2, 3, 4, 8, 10, 9, 12. The "Photo" column has values 1, 2, 3, 4, 5, 6, 7, 8, 9. The "Remarks" column has values NOS251, 100m, CCS, CCS. The "Score" column has values 0, 10, 10, 10, 25, 1, 1, 1, 1. The "Inspection Starts" button is visible at the bottom left.

- Attach points of interest in the video to the observation lines – a future click on the observation line will display the video at that point!

Hansen Export

Cleanflow Software (v3.4.0) - [Export]

SurveyID	Asset	Insp	Obs	Line Length	PipeAssetNo	Material	Diameter	Criticality	Date Started	Time Status	Comp Status
808	N	N	N	83.00	145495	EW	150		7/07/2004	C	UI
825	N	N	N	44.42	356121	CP	150		5/01/2004	SI	UI
836	N	N	N	56.60	145517	EW	150		23/03/2004	SI	UI
839	N	N	N	78.41	146453	PVC	150		20/02/2004	SI	UI
849	N	N	N	34.60	145494	EW	150		23/03/2004	SI	UI
879	N	N	N	70.30	145500	EW	150		15/03/2004	SI	UI
912	N	N	N	56.60	145517	EW	150		23/06/2004	C	UI
915	N	N	N	50.62	146495	EW	150		19/12/2003	SI	UI
926	N	N	N	56.60	145517	EW	150		23/03/2004	SI	UI
928	N	N	N	34.60	145494	EW	150		24/03/2004	SI	UI

10 of 10 Surveys Selected from Search

Display Surveys By:
 Asset No
 Facility
 Project
 Survey No
 Tape / CD

Export Path: c:\

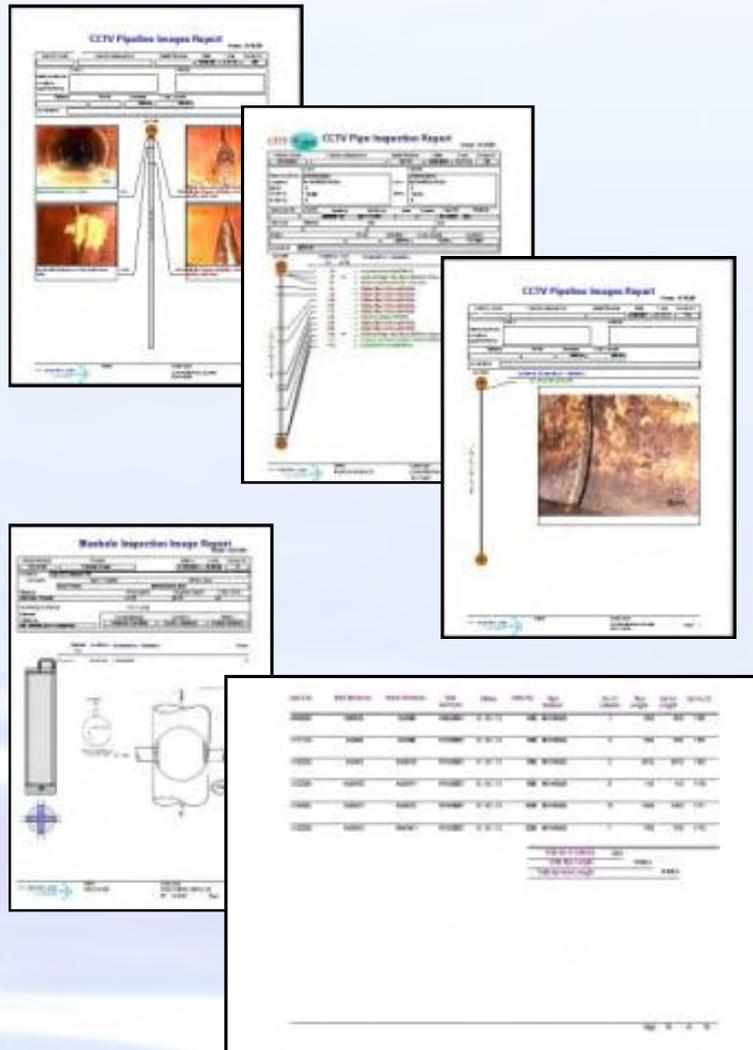
Export Format: Hansen

Export To:
 File
 EMail
 Mobile Device
 File Transfer

Recipient:

CleanFlow exports data in the Hansen format ready for running through the Hansen Interchange.

CleanFlow Reporting

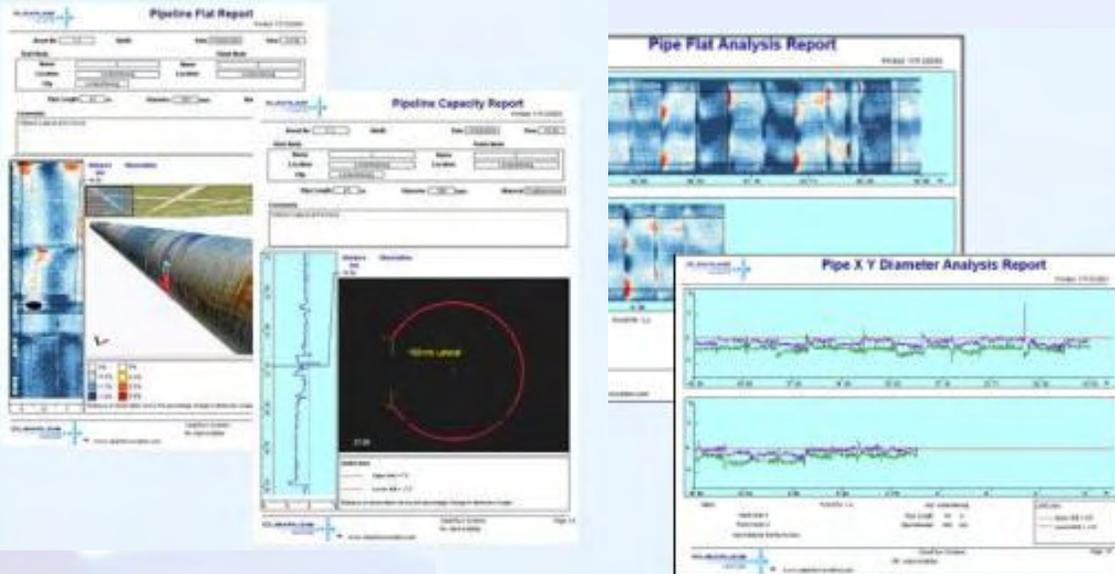


- Multiple image reports
- Single image reports
- Scoring reports
- Observation reports
- Manhole reports
- Summary reports
- And more.....

Profiler



- CleanFlow Systems product
- Precision laser image processing
- Pipe interior measurements accurate to 1mm
- Pipeline ovality, corrosion deformation, pre and post relining, measurement built-in



Your Authorized Dealer is:

Municipal Equipment Sales, Inc.

Mailing Address: PO Box 1233
Location: 208 Bell Place
Woodstock, GA 30188

Local: 770-928-0424
Fax: 770-928-7512
Nationwide Toll Free: **1-800-782-2243**
Email: sales@municipalequipment.com
Web: www.municipalequipment.com

