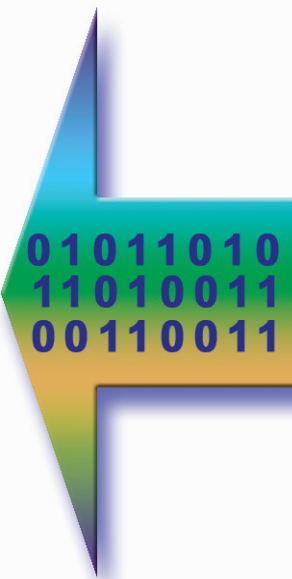


CP-Data management system CPDMS™

Created for corrosion protection data management by corrosion protection experts

If you need a cathodic protection data management system based on periodic data collection, then *-CPDMS™-* is the tool you need. Data collection in cathodic protection systems is a complex matter and the databases needed to store the vast amount of data generated must be well designed, flexible and yet easy to use. *-CPDMS™-* has been specially created for use on multiple sites and plants with subsystems. Data can be collected using portable equipment, and cathodic protection personnel can then perform an required management, storage and migration operations with a minimum of effort. *-CPDMS™-* lowers the administrative costs of operating cathodic protection systems by enabling staff freeing personnel to perform engineering tasks or other works. *-CPDMS™-* is an indispensable package for cathodic protection professionals. It allows the scheduling of routine field data collection, the monitoring of CP system performance and effectiveness, the location of system failures or other operating problems, the preparation of on site regulatory audits and all other tasks necessary for total CP system management.

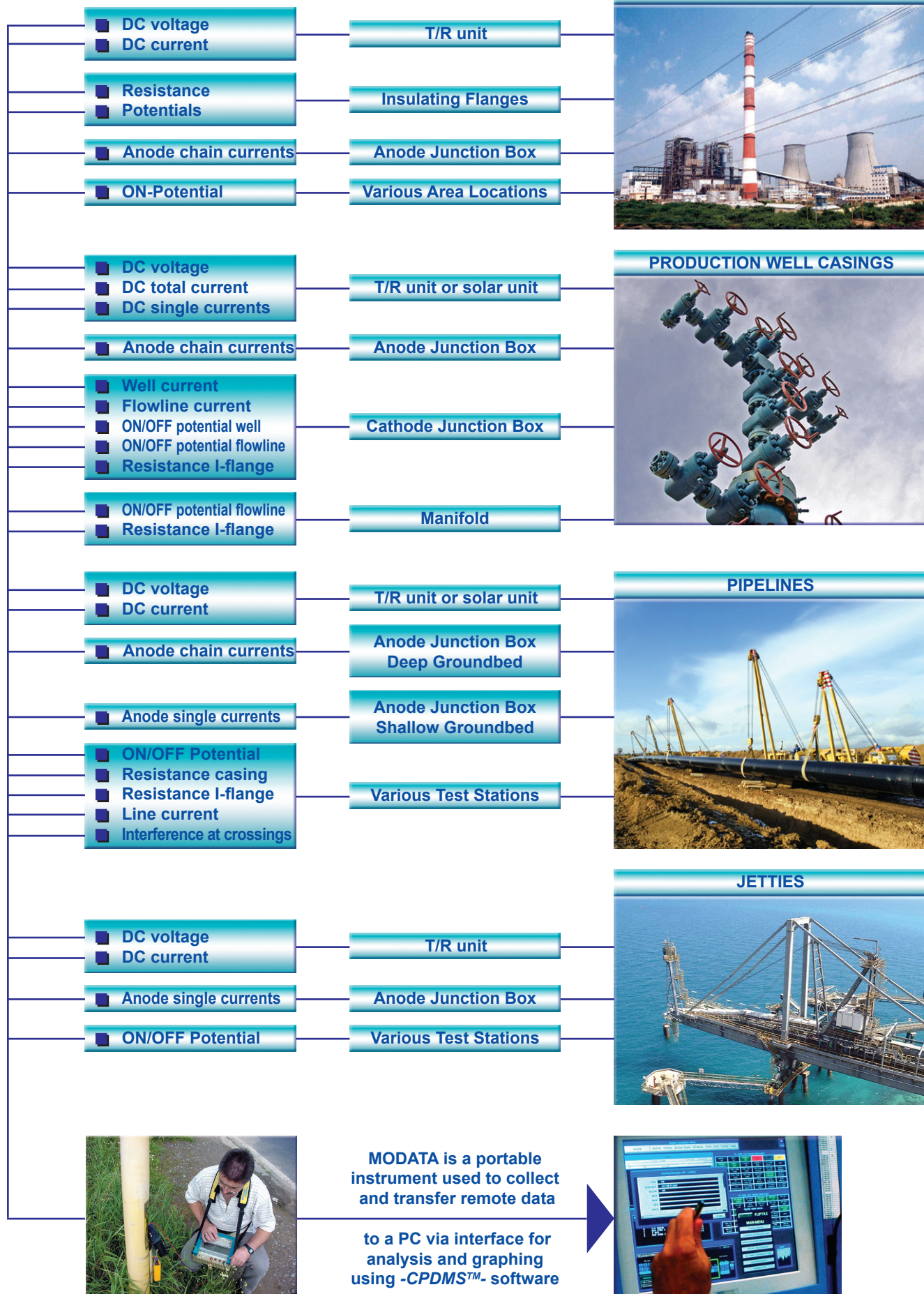


For more than 10 years, *-CPDMS™-* has been implemented in many of cathodic protection systems. We are continuously improving and upgrading the software using the wealth of day-to-day experience gathered in cathodic protection data management operations. It has been developed by engineers and experts to satisfy the requirements of cathodic protection professionals - from data managers to field maintenance departments, from investigators to statisticians. No other commercially available software package has such a strong background in cathodic protection.

-CPDMS™- combines flexibility with easy-of-use. It has a proven track record in managing all types and configurations of cathodic corrosion protection systems. Starting from the individual needs of small companies right up to the special requirements of the largest major oil companies working in accordance with extensive, well defined internal standards, and everything else in between.



CP - Systems and Measurement Data Collection



Graphical Displays

Data collection in cathodic protection systems is a complex matter and the databases needed to store the vast amount of data generated must be well designed, flexible and yet easy to use.

Data

Please select Client from the Database:
 Company - A

Existing sub-systems in the Database:

Sub-System name	Sub-System area
Satellite Area	S-13
Satellite Area	S-14
Satellite Area	S-15
Satellite Area	S-16
Satellite Area	S-17
Satellite Area	S-18
Satellite Area	S-19
Satellite Area	S-20

View, add, edit, erase

Client
 System
 Sub-System
 Object
 C.P. Station
 Measuring Station
 Groundbed
 A.JB
 C.JB
 I-Flange

Close

New Sub-System Add Sub-System

The software for multiple cathodic protection systems and subsystems. Local users can use their own existing network for system maintenance. Graphical displays with all recorded data are easily produced for interpretation by corrosion protection staff.

Data

Please select Client from the Database:
 Company - A

Existing systems in the Database:

System name	System area
Oilfield - A	Location - OFA
Oilfield - B	Location - OFB
Central Station - A	Location - CSA
Central Station - B	Location - CSB
Oil Shipping Line - A	CSA - STA
Oil Shipping Line - B	CSB - STB
Sea Terminal - A	STA
Sea Terminal - B	STB

System name: Oilfield - A System area: Location - OFA

Close

New System Add System Edit System Erase System

The system must offer comprehensive support for the intricate procedures required in a regulated environment. It must ensure data quality control, special coding terminologies, query management, database loading and exporting functions, etc.

Data

Please select Client from the Database:
 Company - A

Please select Sub-System from the Database:
 Satellite Area S-15

Existing objects in the Database:

Object name	Object kind	Location	Eastings	Northings
C180	Well	Coordinates	763057.5	2633351.6
C184	Well	Coordinates	761028.8	2633732.3
C191	Well	Coordinates	763897.6	2633816.6
C215	Well	Coordinates	762926.1	2634878.6

Object kind: ☐ Pipeline ☐ Plant ☒ Casing ☐ Jetty

Object name: C184 Well

View, add, edit, erase

Client
 System
 Sub-System
 Object
 C.P. Station
 Measuring Station
 Groundbed
 A.JB
 C.JB
 I-Flange

Data

Please select Client from the Database:
 Company - A

Please select Sub-System from the Database:
 Satellite Area S-15

Existing C.P. Stations in the Database:

Name	Location	Kind	Voltage	Current	Modes
C184-PCV-5040	Well C184	T/R-unit	50 V	40 A	PCV

Manufacturer: Year of manufacturing: 1999

C.P. name: C184-PCV-5040 Location: Well C184 Kind: T/R-unit

Voltage: 50 V Current: 40 A Power: 2000 W Modes: Potential

Connections: Modem: Com: TCP/IP: Telephone number for modem connection: C.P.: Directly Home: Branch

Fax message: ☐ Yes ☒ No SMS message: ☐ Yes ☒ No

Close

New C.P. Station Add C.P. Station Edit C.P. Station Erase C.P. Station

The system also includes a remote monitoring and control system which allows data to be required by GSM/ Radio, telephone, ethernet or fibre optic network.

This enables a significant saving of time and expense otherwise incurred in visiting sites simply to make routine measurements and adjustments.

Graphical Displays

The creation of a software package that is efficient and effective in meeting the needs of cathodic protection data management requires a careful balance of automatic features, modularity, system design, database structure, and flexibility to meet a vast and divergent set of requirements.

Top Screenshot: Groundbed Data Entry

Data

- C.P. Station
- Measuring Station
- Groundbed
- AJB
- CJB
- I-Flange

Please select Client from the Database: Company - A

Please select System from the Database: Oilfield - A

Please select Sub-System from the Database: Satellite Area S-15

Please select Object from the Database: C184

Existing Groundbed in the Database:

Name	Location	T/R name	Material	Typ of Groundbed
GB184	C184	C184-PCV-5040	Magnetite	Open Hole

Name: GB184 **Distance between anodes:** 2.5 m

Location: C184 **Groundbed depth:** 85.0 m

Type: Open Hole **Groundbed dia.:** 0.3 m

Anode material: Fe₃O₄ **Groundbed length:** 35.0 m

Anode length: 740 mm **Year of construction:** 1999

Anode dia.: 60 mm

Anode weight: 4.7 kg

Anode quantity: 10 no(s).

Buttons: New Groundbed, Add Groundbed, Edit Groundbed, Erase Groundbed

Bottom Screenshot: C.P. Station Data Entry

Data

- C.P. Station
- Measuring Station
- Groundbed
- AJB
- CJB
- I-Flange

Please select Client from the Database: Company - A

Please select Sub-System from the Database: Satellite Area S-16

Please select C.P. Station: C184-PCV-5040

Existing Data in the Database:

Date	Time	Current total in A	Current 1 in A Well C184	Current 2 in A Well C180	Current 3 in A Well C191	Current 4 in A Well C215
09.05.99	11:30:14	36	8	10	10	8
10.06.99	10:06:58	34	7	9	9	9
08.07.99	15:24:36	35	9	10	8	8

Date: 08.07.99 **Total current output:** 35 A

Time: 15:24:36

Current output 1: 9 A Well C184 **Potential 1:** -1500 mV

Current output 2: 10 A Well C180 **Potential 2:** -1480 mV

Current output 3: 8 A Well C191 **Potential 3:** -1470 mV

Current output 4: 8 A Well C215 **Potential 4:** -1520 mV

Buttons: New C.P. data, Add C.P. data, Edit C.P. data, Erase C.P. data

-CPDMS™- is the perfect corrosion protection data management system, allowing on & off line data collection, storage, analysis and reporting.