

CEMAR is a simple to deploy, web-based solution to contract management and reporting with a minimum 99.5% availability. CEMAR achieves compliance through a tailored workflow that:

- covers NEC3 and NEC4 ECC, SC, TSC, PSC, ECS, ECSC & TSSC
- ECS version allows the *Contractor* to manage its subcontracts and
- FIDIC with option to utilise project management processes based on NEC3 and NEC4, such as early warnings and programme submission workflows
- covers core procedures with specifically-designed and tailored workflows for;
  - Early warnings
  - Instructions
  - Compensation event notifications
  - Proposed instructions
  - Contractor proposals
  - Request for proposals, Claims & Variations (FIDIC)
  - Task Orders (TSC, TSSC and PSC)
  - Programme submission & acceptance
  - Design submission & acceptance
  - Forecast to Completion
  - Payment application, assessment & certification
  - Test & inspections
  - Searches & Defects
  - Request for information (FIDIC)
  - Technical queries
  - General communications
- is sensitive to individual User accounts in terms of Party identity and presents workflow accordingly whilst applying Superuser-defined governance settings
- is sensitive to specific individual User delegations and authorities, both contractual and internal:
  - by limiting what actions (instruct, notify, accept, submit etc.) under the contract Users can perform
  - by defining financial thresholds to which actions can be performed
  - establishing a set of internal signatories/approvers before communication is sent
- validates at various key stages to drive consistency and compliance with processes
- provides clear statements as to clause numbering and actions under the contract
- drop-down selections to avoid human error, drive compliance and enhance reporting capability
- lists reasons for withholding acceptances and captures details of decisions made
- can be configured for specific Z clauses

Stability and security is achieved given CEMAR:

- is provided as 'Software as a Service' and is fully hosted, supported and maintained
- requires no components to be installed on end-User machines and is immediately accessible
- is operated over an SSL encrypted environment
- Two Factor Authentication provided as standard
- is developed using industry technologies
- has duplicate, fully-redundant server infrastructure
- Client Data backed up every hour
- is developed and maintained under an ISO9001 & ISO27001 certification
- infrastructure provided and managed under ISO20000 & ISO27001

## CEMAR achieves collaboration:

- the Parties and their teams access and administer contracts in a common environment
- available 24 hours per day, 365 days per year
- comprehensive real-time reports and registers of communications with single, shared numbering systems
- allows teams to build associations between communications
- upload and storage of any file attachment(s) locally to the events they relate to
- provides Party privacy for communication drafting, notes and internal sign-off

## CEMAR maintains administrative records by:

- tracking changes to the Prices, Activity Schedule, Completion Date, Sectional Completion, Key Dates, extensions to reply periods etc.
- assigning each communication with an event number and entering onto the corresponding register
- assigning each communication with unique serial number and logging this in a document log, together with author, Party, time and date stamps
- providing secure PDF printable versions of all communications
- on completion of final account, or at any time, the ability to archive and download all communications into a folder structure which can then be viewed without requiring access to the internet

## CEMAR keeps Parties informed of their outstanding actions and progress by:

- sending out automated email alerts when new communications are sent through the system
- employing an interactive Red/Amber/Green (with days left countdown) reminders page on the desktop
- providing a varied and significant selection of reports including:
  - summary reports for Price, time, quality and administrative performance, priced schedules etc.
  - printed version of registers (PMI, CE, EW, TQ, Defects, Tests & Inspections etc.)
  - additional reports that show outstanding actions under each of the processes
  - reports that show how events and matters are linked and associated with each-other
  - User definable reports that enable teams to build their own
  - comprehensive keyword search tool that interrogates all communications, attachment titles etc.
- providing an option on all reports that enables export to MS applications e.g. word, excel, CSV, PDF etc.

## CEMAR provides integrated business intelligence and programme controls by:

- aggregated action lists, reports and charts across multiple contracts
- sift by WBS, Control Accounts, Frameworks, Division, Projects or other business categories
- extensive and powerful suite of charts across broad range of NEC3 and NEC4, cost, price, time, quality and behavioural metrics
- aggregated benchmarking, analysis and trending
- financial alarms and 'critical events' reporting with User definable parameters
- ability to "drag & drop" real time dashboards into a desktop area
- User defined favourite dashboards to maximise efficiency and flexibility in one-off or regular reporting
- accessible database warehouse for third party software applications to link to CEMAR data for use within common data environments and reporting e.g. PowerBI
- ability to provide web services to automate and reconcile data held outside of CEMAR.

Control and Governance - provides Party privacy for communication drafting, notes and internal sign-off. Intuitive wizards facilitate rapid configuration of contract data and portfolio structure. Comprehensive user and process-orientated governance provides total flexibility with delegated authorities, approvals and financial thresholds.

**Contract Information: A99 Steepletown Link Road**

Basic Information | Details | Parties | Time | Communications / Thresholds | CE Types | Activities

The Employer is: Steepleshire County Council  
 Organisation: Steepleshire County Council  
 Address: Shire Hall, 1 High Street, Steepletown, Steepleshire, ST3 1DB, Phone: 070 2883 2451

The Contractor is: NSEW Construction International  
 Organisation: NSEW Construction International  
 Address: Jesmond Industrial Estate, Hayton, Steepleshire, HSS 3KJ, Phone: 01290 458669

The Project Manager is: Dominic Briggs (Steepleshire County Cou...)  
 The Contractor's Manager is: Sam Hale (NSEW Construction Internat...)  
 The Supervisor is:  Supervisor not used, Spencer Pickering (Steepleshire County C...)

**Activities allowed for this role**

Allowed	Activity Title
<input checked="" type="checkbox"/>	Group: Compensation Events
<input checked="" type="checkbox"/>	Group: Contract Data
<input checked="" type="checkbox"/>	Group: Early Warnings
<input checked="" type="checkbox"/>	Create a draft EW
<input checked="" type="checkbox"/>	View the Risk Register
<input checked="" type="checkbox"/>	View EW edit screen
<input checked="" type="checkbox"/>	Notify an EW
<input checked="" type="checkbox"/>	Reply to an EW
<input checked="" type="checkbox"/>	Create / edit risk reduction proposals
<input checked="" type="checkbox"/>	Set the 'No Reply' to EW setting
<input checked="" type="checkbox"/>	Set EW risk status
<input checked="" type="checkbox"/>	Group: General Communications
<input checked="" type="checkbox"/>	Group: General Instructions
<input checked="" type="checkbox"/>	Group: Miscellaneous
<input checked="" type="checkbox"/>	Group: Payment Assessments
<input checked="" type="checkbox"/>	Group: Programme Submission
<input checked="" type="checkbox"/>	Group: Project Teams
<input checked="" type="checkbox"/>	Group: Proposed Instructions / Changed Decisions
<input checked="" type="checkbox"/>	Group: Quotations
<input checked="" type="checkbox"/>	Group: Reports
<input checked="" type="checkbox"/>	Group: Roles and Permissions

'Paper Based' Approach - PDF hardcopy 'letters' are produced for every communication and provide clear statements as to clause numbering and actions under the contract. Create links between events and matters, upload and share photos, drawings, records, programmes, etc.

**File Upload Table:**

Title	Filename	Uploaded On	Uploaded By
Crane Photo.jpg	Crane Photo.jpg	19-Feb-2015 09:23	Dominic Briggs
Met Office Forecast.pdf	Met Office Forecast.pdf	17-Feb-2015 11:33	Dominic Briggs
Damages.jpg	Damages.jpg	14-Feb-2015 15:13	

**Early Warning: EW-13 by Project Manager**

CE-8: Hydraulic Coupling Structure S2  
 CE-1: Extend Site Clearance to Area G  
 EW-11: Residence letter about vibration

**Edit Associations**

Current Associations:

- CE-INTD-8: Unexpected Physical Conditions
- CE-INTD-6: Nesting Birds
- TQ-1: Bird Relocation
- CE-1: Extend Site Clearance to Area G
- CE-3: Hydraulic Coupling Structure S2
- EW-4: Wheel Washers
- EW-6: Residence letter about noise
- EW-11: Residence letter about vibration

**Compliant and Consistent** - The tailored gateway approach ensures teams remain compliant in process. On-screen reminders, countdowns and email alerts keep teams aware of outstanding actions. This significantly reduces risk of non-compliance.

The screenshot displays several overlapping windows from the CEMAR software:

- Left Panel:** A navigation menu with options like 'Create New', 'Back', 'Early Warning', 'PMI (General)', 'PMI to submit a revised Programme', 'Payment Assessment', 'PMI/Compensation Event', 'Proposed Instr'n/Changed C...', 'Technical Query', 'Test / Inspection', 'Search', and 'Defect'.
- Top Window (Ref: CE-GNTFD-8 by Contractor):** Shows details for a communication titled 'Unexpected Physical Conditions'. It includes fields for 'Cross Ref', 'CE Type', 'Estimated change to: Prices (341.00)', and 'Completion Date (days) (2)'. A 'Detail' section contains the text: 'Fallen Tree on site is blocking access for works vehicles.' Below this is a 'Detail of Decision' section with a 'Progress' bar and a list of options: 'Pending decision', 'CE notified correctly', and 'CE notified incorrectly because this event...'
- Middle Window (Ref: DRAFT by Project Manager):** Shows details for a communication titled 'Change to Works'. It includes a 'CE Type' dropdown menu with options: '(1) PM instruction changing the Works information', '(2) Employer does not allow access to and use of Site', '(3) Employer does not provide something', '(4) PM instruction to stop or not start work', '(5) Employer or Others not in accordance with times or WI conditions of Site', and '(6) PM or Supervisor slow on or late response'.
- Right Window (Reminders):** A list of reminders and task orders, including 'Task Orders Proposed by Employer (2)', 'Task Orders to be Completed by Contractor (1)', 'Early Warnings awaiting a Reply (5)', and 'Compensation Events awaiting an Employer's Assessment (3)'. Each item includes a brief description and a due date.

**Manage contract events** - A single truth with shared registers and automated numbering of events. Collaboratively manage early warnings, compensation events, Activity Schedule, Task Orders, programme submission and acceptance, tests and inspections, design submission and acceptance, forecasts, proposals, technical queries, RFIs, Claims, Variations, Defects and much more.

The screenshot displays two main windows from the CEMAR software:

- Early Warnings Register (Left):** A table listing various early warning events. The table has columns for 'Ref', 'Notified', 'Author', and 'Party'.
 

Ref	Notified	Author	Party
DRAFT		Dominic Briggs	Project Manager
EW-23	18-Feb-2015	Dominic Briggs	Project Manager
EW-22	16-Feb-2015	Lucy Adams	Project Manager
EW-21	16-Feb-2015	Steve McGee	Project Manager
EW-20	13-Feb-2015	Sarah Smith	Contractor
EW-19	12-Feb-2015	Steve McGee	Project Manager
EW-18	10-Feb-2015	Lucy Adams	Project Manager
EW-17	08-Feb-2015	Sarah Smith	Contractor
EW-16	06-Feb-2015	William Mason	Contractor
EW-15	04-Feb-2015	William Mason	Contractor
EW-14	31-Jan-2015	Lucy Adams	Project Manager
EW-13	28-Jan-2015	Lucy Adams	Project Manager
EW-12	27-Jan-2015	William Mason	Contractor
EW-11	26-Jan-2015	Lucy Adams	Project Manager
- Early Warning: EW-17 by Contractor (Right):** A detailed view of an early warning event. It includes:
  - Title:** Nesting birds to south west corner of site
  - Cross Ref:** NB-33882R
  - Description:** A recent study by our ecologist has shown that there are potentially nesting birds in the hedgerow adjacent to the highway at ch. 450 - 470.
  - Information:** Notified By: Sarah Smith, Email: sarah.smith@cemar.co.uk, Phone: 01234567890, Notification Date: 08-Feb-2015.
  - Options:** 'Increase the total of the Prices', 'Delay Completion', 'Delay meeting a Key Date', 'Impair the performance of the works in use', 'Increase the Contractor's cost'.
  - Risk Status:** A section with a 'Risk Status' dropdown (set to 'Risk Still Present'), 'Severity/Consequence' (set to 1), and 'Likelihood Score' (set to 3).
  - Activity Status:** A table showing the status of activities: 'VOIDED / PASSED' (20), 'CURRENT' (10), 'CURRENT' (15), 'CURRENT' (3), 'CURRENT' (9), 'VOIDED / PASSED' (6), 'VOIDED / PASSED' (1), 'CURRENT' (3), 'CURRENT' (4), 'CURRENT' (9).

