

THE EUROSYS DATABASE

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Abstract

Eurobodalla Shire Council is one of over one hundred councils across NSW participating in the RTA Single Invitation Maintenance Contract (SIMC) for State Roads. When introduced, the SIMC document presented as two simple A4 folders of text and an accompanying spreadsheet of forms. It was however soon discovered that the administrative component to service the contract was both complex and demanding. Eurobodalla Shire Council looked to the other councils around the State in the hope of finding a developed system to assist in the administration of the contract. Nothing had been developed - a solution wasn't to be found.

Thus was borne the EuroSyS database, developed by Eurobodalla to meet its own contract requirements and to provide a system for those Councils less able to develop a system of their own.

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Introduction - The database

The RTA sought Single Invitations from participating Councils to tender for the maintenance of the State roads already in their care. The Single Invitation was in the form of a contract that clearly defined the qualities and outcomes expected by the RTA. Full accountability was expected in the process each council was to use in defining the work to be done, undertaking the work and documenting the accomplishment.

Eurobodalla Shire Council is just one of over one hundred Councils across New South Wales presently undertaking the RTA Single Invitation Contract for road maintenance. When introduced, the SIMCs document comprised two A4 folders of text and an accompanying spreadsheet of forms, each outlining the

conditions of the contract and the reports required. On closer investigation of these three documents it was found that the administrative component to service the contract was both complex and demanding.

In order to service the contract Eurobodalla Shire Council needed to develop an administrative system that would store and report on the wide array of data required, based, as described, by the processes and outcomes sought. Council was required to develop and initiate a system that could best meet these requirements. The system needed to be accountable, capable and acceptable under the terms of the contract.

From the outset it was clear that the contract was administratively heavy. A paper trail was required at each turning

point to either measure quantities of work or to assure the quality of work carried out met a prescribed standard. Reams of paper were to be generated by countless inspections, daily work sheets and audits as well as an array of site forms covering induction, material testing, plant hire compliance and work site meetings. Further to these forms were the countless reports required, derived from this collected data.

It had been left to each participating Council to put in place whatever system they wished to best achieve the administrative requirements of the contract. Eurobodalla Shire Council began its search of other Single Invitational Contractors around the State in hope of finding an effective process already under development or in use by a more advanced Council.

It soon became evident whilst making these statewide enquires that the contacted Councils were having their own difficulties, primarily as a result of little or no additional staffing resources being made available to implement the contract. This work now rested with current staff required to develop and implement their own systems whilst undertaking their already burdening workloads. Each Council was inventing a its own rickety "wheel" whilst "under fire".

The contract specifications and reporting requirements of the SIMC's agreement are practically identical for each Council. It was clear that a single, simple, cost effective and capable computerised system was required to provide the data to the RTA but such a system didn't exist. There were a host of part-systems developed using an assortment of spreadsheets, databases and manilla folders but nothing in place that would manage the contract as a whole.

A system to best service such an array of administrative demands would have to be

computerised yet remain in a form that was easy to use, instantly accessible and flexible enough to allow further in-house development.

This is a brief overview of the EuroSyS database, developed by Eurobodalla Shire Council to meet its own contract needs though simultaneously developed to be available as an assistance to those Councils, as yet, without a "wheel" of their own.

An Overview

The database was constructed to reflect the primary elements of the contract. These were:

- The Inspections
- The Unit rates and response times
- The Maintenance Defects register as a combination of the fields above
- The Work Schedule
- The Daily Work accomplishment registry

Entwined about these elements are a selection of sub-systems addressing the secondary aspects of the contract. These sub-systems include salvaged material statements, customer complaints and incidents, warranty registers for work carried out and non-compliance reports for variations in the contract. Supplementing these core areas of the contract are the ancillary functions that service the hire of plant, registration of customer complaints and materials testing results. In each of these cases a fully independent database has been developed permanently located within the EuroSyS system.

Having collected and collated this data it was then possible to respond the demands of the assemblage of reports

required by the RTA. In all there are thirty-nine separate reports to be made monthly in addition to another nine to be made annually. In all an administrative minefield.

The database serves as a central repository for the diverse assortment of documentation associated with the contract. These documents cover those associated with the registries mentioned above as well as the wealth of OH&S documents, the activity guidelines, environmental reports, plans and spreadsheets (each independently developed by each participating Council) also required.

A primary objective in developing the system was to minimise the impact of the administrative requirements on Councils already burdened staff. Eurobodalla Councils' outdoor staff had already been working under the RTA Maintenance Management System (MMS) for some time and were well versed in paper work. The MMS required field staff to document the time taken to accomplish a task as well as the quantity and locality of the work performed. The RTA SIMC's contract was merely an extension of these work practices so the crews were to remain least affected in the move from MMS to SIC, however the additional administrative requirements requested of Site Supervisors, Works Co-ordinators and Supervising Engineer seemed overwhelming.

To overcome this initial "shock of the new" the increased workload was presented as individually achievable tasks. The development of the database was undertaken, hand in hand, with development of the procedures required to meet the outcomes of the contract. These procedures established the primary structure of the database and provided the supervisors and crews with the support they needed. By developing and introducing these procedures an

increased accuracy of the field data being provided would assist in the quality of the current status of works and subsequent accomplishment reports. Through consultation the supervisors were encouraged to have a wider understanding of the administration requirements of the contract and to assist in improving communication of the contract to field staff.

It was essential that the SIC database be able to assess and present the bulk of the administrative reports with the least amount of resource. Availability of training time to a new system was minimal so the database was designed to present itself as easy-to-use by a wide array of staff. In addition to this it was vital that the database be as simple as possible to access, ensuring the widest range of use from labourers to engineers. Without their ownership and commitment the system would fail.

The RTA SIMC's contract was broken down into its primary areas. Each of these was then assessed and translated into stepped procedures for data capture and reporting, clearly identifying the participating staff and their role in the process.

Conclusion

The database was developed in-house using MS Access to ensure that it remained in the ownership of Council and could be modified by engineering staff. This ensured maximum flexibility across Councils computer network as well as providing full authoring access to other potential users eager to use the system on their own State and Regional roads.

This database is an example of establishing good technique in communication to return a result that may not be world shattering, but does however satisfy the needs of a Council to meet the Single Invitation Contract requirements.

The EuroSyS database represents this Council's best efforts to date to maintain an asset under its control. By undertaking a process of considered, methodical observation and response to the State road, Council is now considering introducing a similar system for its regional and local roads as a further development in the pursuit to best-management of its road network whilst pro-actively reducing its risk exposure in light of the recent non-feasance ruling.

Beyond the Boundaries

In order to anticipate the future it is necessary to continually review the present. On a regular basis major changes affect our daily work

environment but we prevail. The flexibility to adapt to these changes is due in part to a single constant. That "constant" being - A complex and difficult problem can be overcome by identifying the task at hand, establishing sound methods and procedures and applying them fastidiously to ensure a better result.

The very nature of our profession requires us to look beyond the boundaries, each and every day. In a world that requires more from less and where litigation waits to leap on the unsuspecting the boundaries may appear to be closing in. It is only beyond those boundaries that the brave new world awaits.

Author Biography



Lei Parker has been involved in asset management for eleven years. To date he has been instrumental in setting up computerised asset systems for Eurobodalla Shire Council. These systems have allowed Eurobodalla to simplify the processes required to best manage their assets, negating the costs of purchasing proprietary software "solutions" whilst also providing the databases to those councils not in a position to purchase or develop their own systems. To date Lei has received commendations for his databases from Statewide Mutual and the IPWEA and his databases are in use throughout Australia and South East Asia.

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