

# GTS Software Pty Ltd

## eCMS

### Information Bulletin – June 2022

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#### GTS Software Pty Ltd

ABN 82 809 059 038  
PO Box 654 Mt Eliza VIC 3930 Australia  
Tel: (613) 9708-8988 Fax: (613) 9708-8622  
info@gtssoftware.com.au www.gtssoftware.com.au

## Introduction

GTS Software Pty Ltd is pleased to share the following information and update pending its first releases of eCMS (CMS Enterprise Edition). This information is intended primarily for existing CMS / eCMS clients to allow them to understand the timing and expected capabilities for delivery of a robust application that corporate decision makers can be confident in evaluating and selecting for their future business requirements.

It remains the priority of GTS that existing CMSV3 clients be provided with a path forward for their Project Management Systems requirements. To this end, GTS resources are being maximized to deliver the earliest possible outcome. A further Bulletin will be provided approximately 24 July 2022.

## Key eCMS Target Dates

- **31 July 2022** – access to be provided to some clients for User Interface Experience feedback. Not suitable for intensive UAT/Evaluation.
- **28 August 2022** – access to be provided to some clients for Evaluation / UAT suitable for Testing Project Commencement (“Getting Started / Quick Start”) processes, individual processes involving low volumes of data and example(s) of Clients migrated CMSV3 data by arrangement.
- **30 September 2022** – eCMS deployable for production by agreement between GTS and clients having undertaken agreed UAT and identified and resolved issues that may present obstacles to proceeding. eCMS available to new clients subject to satisfactory outcomes from preceding target milestones
- **31 Dec 2022** - continue broader rollout of production deployments across existing client base

## eCMS Recap

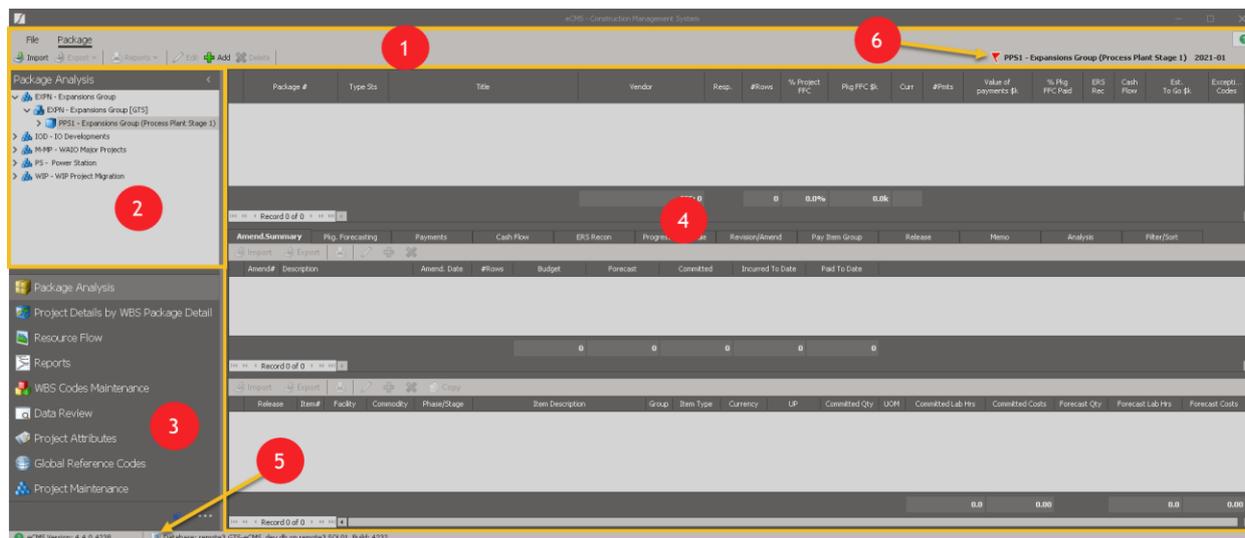
eCMS, as GTS’s new generation of Construction Management System, includes the following features delivered under new technology.

- Enterprise Database Design – CMS projects are retained in one enterprise database – including full project historical data enabling month-end recall & reporting and supporting resource (cash) flow analysis. The single enterprise database design is also conducive to future enterprise cross-project analysis.
- Multi-Entity - separate enterprise divisions or external entities such as EPCMS can work on the same project at the same time with data masked or visible as required and determined by role-based security settings incorporating entity membership.
- Auditing - User activity logging and extensive data change logging (who changed what & when).
- Retains CMS Fundamentals. CMV3 generic functionality retained in eCMS.
- Multi-Currency / multi-lingual (later but designed in)
- Data Management flexibility (querying / import / export)
- eCMS provides increased emphasis on work package analysis allowing minor and closed packages to be isolated and greater focus on opportunities to influence outcomes.
- Reporting Flexibility including some degree of User report customisation / report writer (later versions)
- Two implementations of Resource Flow capability; Basic Cash Flow & Comprehensive Resource Flow capability Cash, Quantities & Labour Hours
- Interface-ready – prepared for interface to other applications such as ERP, SAP, Primavera.
- Microsoft .Net Framework technology
- Designed for Future web enablement

eCMS is a .Net Framework application using a 3-layered application architecture comprising of a Presentation Layer, Business Layer and Data Access Layer. eCMS connects to a SQL Server database that houses "enterprise" wide data for all eCMS projects, eliminating the need for separate project databases, as was the case with earlier versions of CMS. Isolation of data at the project and organisation (entity) level is controlled via user role and user entity membership as described in the following security section. eCMS is developed using Microsoft Visual Studio 2015 for the Microsoft .Net Framework windows runtime environment.

## User Interface Experience Update

### Package Analysis – General



#### 1 Toolbar

- Provides access to options and functions available for the current items
- Top left [File Menu](#) provides access to settings and options.

#### 2 Project Navigation Tree

Project navigation throughout eCMS is provided by a hierarchical project tree. Allows navigation within the list of Projects the user has permissions to view and / or edit.

#### 3 Navigation Bar

List topics available to access different functional aspects of eCMS

Allows the user to switch between the different areas of eCMS, such as Project Details and Package Processes views, Reports, Code Maintenance and Resource Flow.

The bottom of the Navigation Pane contains the view buttons that enable you to switch between views.

To see more or fewer buttons or folders, point to the horizontal splitter bar between the folders and the buttons, and drag the bar up or down when the pointer turns into a double-headed arrow Double-headed arrow. If you drag the horizontal splitter bar to the bottom of the Navigation Pane, all the large buttons become small buttons and appear as a single row of icons at the bottom of the Navigation Pane.

Navigation Bar - items:-

- **Package Analysis**
- **Project Details by WBS Package Detail (Classic CMS Project Details View...)**
- **Resource Flow**
- **Reports**

- **WBS Codes Maintenance**
- **System Administration Procedures**
- **Project Attributes**
- **Global Reference Codes**
- **Project Maintenance**

#### 4 Main data presentation section

Data entry and presentation elements are provided in this section with layout and content appropriate for the current select navigation item.

#### 5 Status bar

Application version number and database name and version information is displayed in the status bar.

#### 6 Project context display

Shows the current selected project and current period. Only shown in some contexts.

### Package Analysis Grid Highlights

Package #	Type Str	Title	Vendor	Resp.	#Rows	% Project FFC	Pkg FFC \$k	Curr	#Pnts	Value of payments \$k	% Pkg FFC Paid	ERS Rec	Cash Flow	Est. To Go \$k	Exception Codes
AD1	A.C	Mine Development	Southern Mine Services P/L	TBA	36	6.2%	3,493.4k	\$\$\$	10	1,890.5k	54.1%	0	0	1,604.3k	
AAAAAAAAA	A.P	Test Description	Test Vendor	TBA	1	0.0%	0.0k	AUD	2	0.0k	0.0%	0	0	-0.2k	
Budget	A.B	Budget Estimate	Budget Estimate	TBA	195	63.2%	35,587.0k	\$\$\$	0	0.0k	0.0%	0	0	35,587.0k	
CD1	A.C	K74 Exhaust Civils	Select Civil Engineering P/L	TBA	97	3.9%	2,210.0k	\$\$\$	3	148.2k	6.7%	0	0	1,400.2k	
CD2	A.C	PCS Mixing Stn 1 & 2 Civils	Select Civil Engineering P/L	TBA	16	0.4%	198.0k	\$\$\$	0	0.0k	0.0%	0	0	96.5k	
CCCCCCCCCC	A.C	Contract Test	Test Contractor	TBA	1	0.0%	0.0k	AUD	2	2.4k	0.0%	0	0	0.0k	
E001	A.P	Transformers	Industrial Electrics P/L	TBA	7	0.2%	98.8k	\$\$\$	5	52.1k	52.7%	0	0	46.7k	
E002	A.P.#	Switchgear	SwitchVendor Pty Ltd	TBA	6	0.3%	143.3k	\$\$\$	3	316.3k	220.8%	0	0	-173.0k	
					FFC: 56,285,299	543	100.0%	56,285.3k	AUD						

Package#	Double-Click to launch the Package Maintenance edit form for this package. May contain "Closed" or "Minor" depending upon options selected (wip)
Type/Status	Awarded / Unawarded / Contract / PO / Closed
#Rows	Count of Project Details Rows - Double Click to Launch Project Details form (classic) for the specified rows.

%FFC	% of Project Final Forecast Cost the Forecast of this package represents (a measure of influence)
Pkg FFC	Package FFC (Project Currency)
Curr	Currency of this Package \$\$\$=mixed currencies
ERS Rec.	ERS Reconciled (wip)
Cash Flow	Cash Flow Reconciled
Est.ToGo	Package Estimate To Go = [Package FFC] - [Package Incurred To Date] - a measure of remaining influence of this package



## Reports...

Menu	
<ul style="list-style-type: none"> <li>▼ *** Demo Reports               <ul style="list-style-type: none"> <li>Cost report - commodity / facility / package / detail</li> <li>Cost report - facility / commodity / package / detail</li> </ul> </li> <li>&gt; Cost Commitment And Forecast</li> <li>&gt; Estimate/Budget</li> <li>&gt; Financial</li> <li>&gt; Foreign Exchange Reconciliation</li> <li>&gt; Miscellaneous</li> <li>&gt; Package Registers and Worksheets</li> <li>&gt; Progress Reports and Worksheets</li> <li>&gt; Progress Worksheets</li> <li>&gt; System</li> </ul>	<p>Project: <b>EXPN - Expansions Group [GTS]</b></p> <p>Sub Project: <b>PPS1 - Expansions Group (Process Plant Stage 1)</b></p> <p>Reporting Period: <b>2021-01</b></p> <p>Comparison Period: <b>2020-12</b></p> <p><b>Packages</b></p> <p>Include Open: <input checked="" type="checkbox"/></p> <p>Include Closed: <input checked="" type="checkbox"/> Individ. Totals for Closed Pkg <input checked="" type="checkbox"/></p> <p>Minor Pkg Included: <input checked="" type="checkbox"/> Individ. Totals for Minor Pkg <input checked="" type="checkbox"/></p> <p>Minor Pkg Threshold: <b>456</b></p> <p><b>Progress PF</b></p> <p>Earned Calc Type: <b>Committed/Contract</b> Earned Baseline: <b>789</b></p> <p><b>Currency</b></p> <p>Report Currency: <b>AUD</b></p> <p>Include Other Currencies: <input checked="" type="checkbox"/></p> <p>Include Exchange Variance: <input checked="" type="checkbox"/></p> <p><b>Other</b></p> <p>Variance Calc Type: <b>Forecast - Budget</b></p> <p>Suppress Zero Inactive: <input checked="" type="checkbox"/></p>

When report menu item is double-clicked the filter criteria form is opened.

**Filter - KP Filter** [X]

---

Condition 1

Source: **ProjectDetail**

Field	Expression	Value(s)
Package Number	is equal to	<input type="text"/> OR
Package Type Code	is not equal to	<input type="text"/> OR
Facility	is greater than ( > )	<input type="text"/> OR
Commodity	is greater than or equal to ( > = )	<input type="text"/> OR
Area	is less than ( < )	<input type="text"/> OR
Phase/Stage	is less than or equal to ( < = )	<input type="text"/> OR
Project ID	is between	<input type="text"/> OR
Currency Code	contains the character(s)	<input type="text"/> OR
Item Number	starts with the character(s)	<input type="text"/> OR
Sort JVCode	ends with the character(s)	<input type="text"/> OR
Sort Sorting	is null (blank)	<input type="text"/>

OR this condition    
  AND this condition    
  Exclude records that satisfy this condition

+ (    - (            ) -    ) +

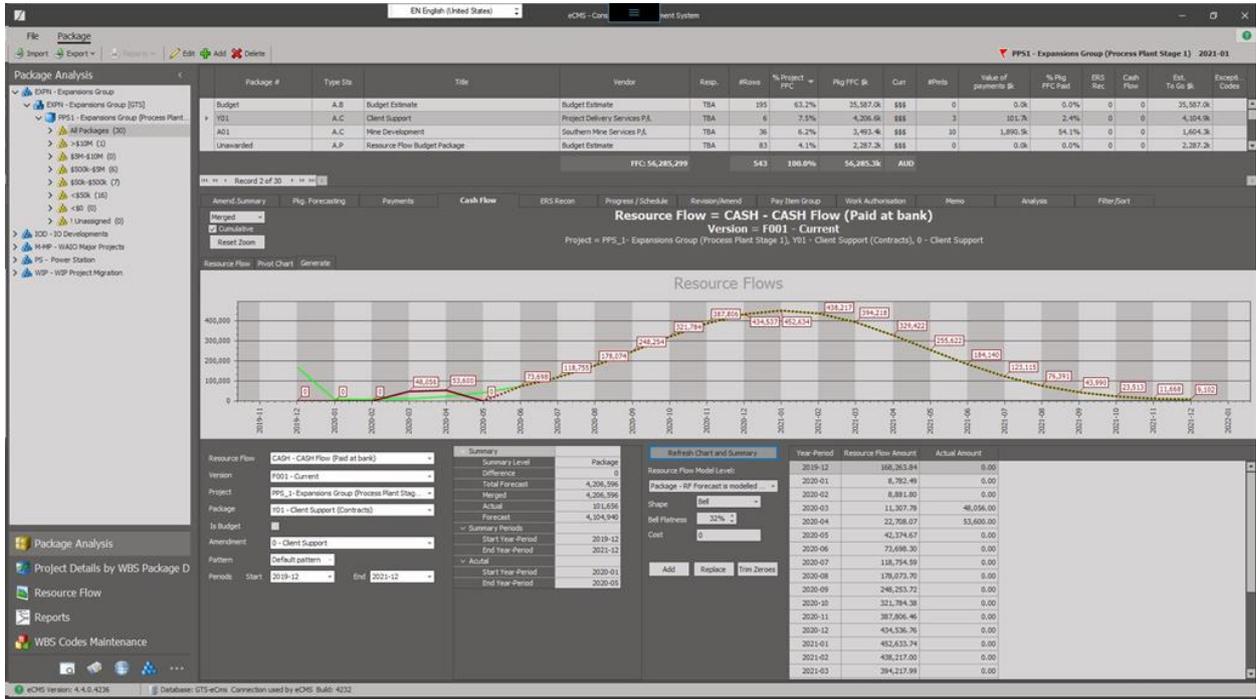
Report Example

Cost report - commodity / facility / package / detail													
Costs													
Commodity/Facility/Package/Item	Budget Estimate	Approved (Bud) Changes	Current Budget	Committed	Committed This Mth	Forecast	Inv. Incurred To Date	Inv. Incurred This Month	VOWD To Date	VOWD This Mth	Previous Forecast	Variance (Calculated)	Paid To Date
> 1 - Project Services	0	0	0	0	0	0	0	0	0	0	0	0	0
> 110 - Design	6,000	0	6,000	2,295	0	2,295	0	0	1,913	0	2,295	0	765
> 6110 - Mine HO EPCM Contractors	6,000	0	6,000	2,295	0	2,295	0	0	1,913	0	2,295	0	765
> 1001 - Mine Infrastructure Design & Manage	3,000	0	3,000	2,295	0	2,295	0	0	1,913	0	2,295	0	765
> 1001.0.7.1.20 - Engineering - Exhaust System	3,000	0	3,000	2,295	0	2,295	0	0	1,913	0	2,295	0	765
> Budget - Budget Estimate	3,000	0	3,000	0	0	0	0	0	0	0	0	0	0
> 120 - Project Management	3,515,946	0	3,515,946	1,757,973	0	2,237,468	0	0	76,656	0	1,757,973	479,495	76,656
> 130 - Construction Management	0	0	0	0	0	0	0	0	0	0	0	0	0
> 140 - Commissioning	0	0	0	123	0	0	0	0	0	0	0	0	0
> 199 - Consultants	3,320,000	0	3,320,000	1,054,060	0	1,091,087	0	0	264,005	0	1,085,836	5,251	194,514
> 210 - Office Expenses	0	0	0	351,350	0	347,650	0	0	87,578	0	347,650	0	63,871
> 310 - EPCM Fee	0	0	0	245,495	0	240,465	0	0	64,238	0	240,465	0	47,166
> 8 - Services	0	0	0	0	0	0	0	0	0	0	0	0	0
> 851P - General Overhead	3,780,000	0	3,780,000	1,890,000	0	1,890,000	0	0	0	0	0	1,890,000	0
> 8540 - Common Project Operations	3,780,000	0	3,780,000	1,890,000	0	1,890,000	0	0	0	0	0	1,890,000	0
> A - Site Development	0	0	0	0	0	2,188,435	0	0	0	0	0	2,188,435	0
> ABA - Mass Excavation To Fill	0	0	0	9,000	0	9,000	0	0	8,108	0	9,000	0	0
> 1291 - L74 Exhaust	0	0	0	9,000	0	9,000	0	0	8,108	0	9,000	0	0
> C01 - K74 Exhaust Civils	0	0	0	9,000	0	9,000	0	0	8,108	0	9,000	0	0
> C01.0.7.2001.20 - Level Site	0	0	0	9,000	0	9,000	0	0	8,108	0	9,000	0	0
> Budget - Budget Estimate	0	0	0	0	0	0	0	0	0	0	0	0	0
> ABB - Mass Excavation To Spoil < 1Km	0	0	0	21,600	0	21,600	0	0	21,600	0	0	21,600	0
> ABD - Mass Fill - Select	0	0	0	159,625	0	159,625	0	0	159,625	0	158,625	1,000	0
	66,661,053	0	66,661,053	15,889,778	0	56,285,299	0	0	6,217,441	99,349	50,329,035	5,956,265	2,392,181

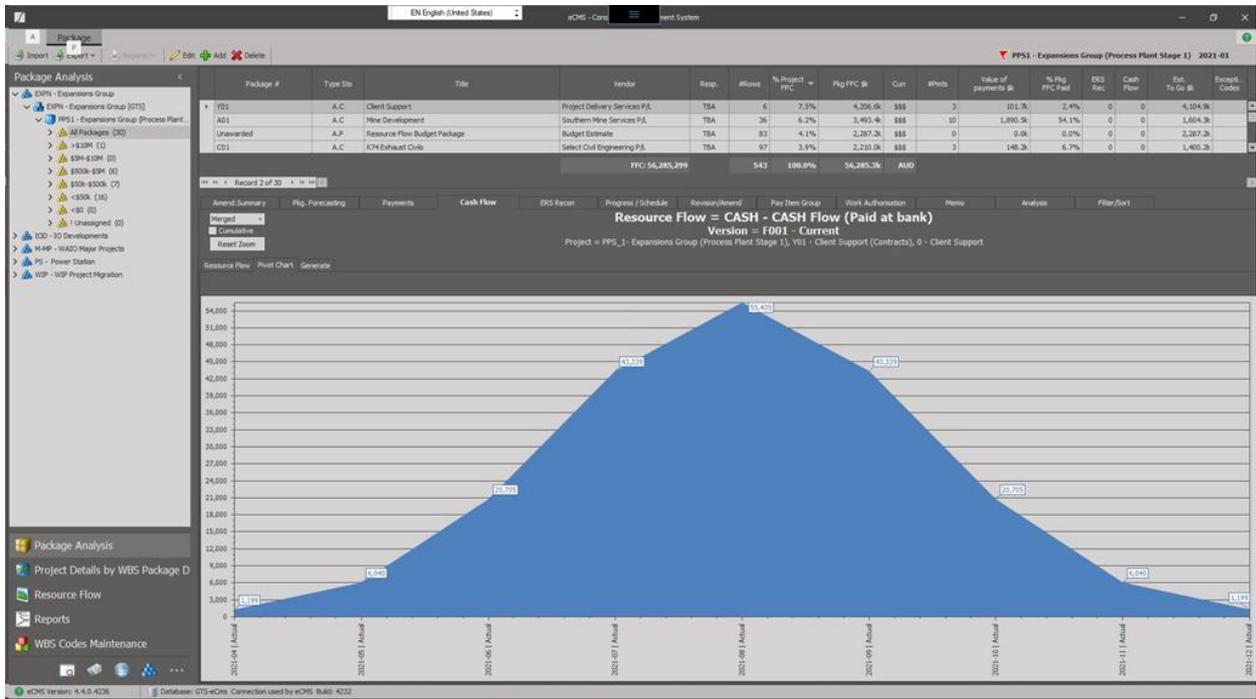
# Cash (Resource) Flow...

Latest screenshots

Generate Tab:



Pivot Table Tab



# Resource Flow Data Tab

EN English (United States) | vCME - Core | vCME System

File: Package | Import | Export | Edit | Add | Delete

PPS1 - Expansions Group (Process Plant Stage 1) 2021-01

Package Analysis

- EDPH - Expansions Group (275)
  - PPS1 - Expansions Group (Process Plant)
    - All Packages (30)
      - > 11294 (1)
        - ↳ 8500-8504 (5)
          - ↳ 8500-8500k (7)
            - ↳ 8500 (16)
              - ↳ 85 (0)
                - ↳ 1 Unassigned (0)
                  - ↳ 100 - 100 Developments
                    - ↳ M-PP - WAO Major Projects
                      - ↳ PS - Power Station
                        - ↳ WPP - WPP Project Migration

| Package # | Type | Title                        | Vendor                         | Resp. | WBS | % Project PFC | Plg PFC \$             | Curr   | WBS | Value of payments \$ | % Plg PFC Paid | ESS Rec | Cash Flow        | Est. To Go \$ | Excess Codes |
|-----------|------|------------------------------|--------------------------------|-------|-----|---------------|------------------------|--------|-----|----------------------|----------------|---------|------------------|---------------|--------------|
| Y01       | A.C  | Client Support               | Project Delivery Services P.A. | TBA   | 6   | 7.3%          | 4,206.6k               | \$\$\$ | 3   | 101.7k               | 2.4%           | 0       | 0                | 4,104.9k      |              |
| A01       | A.C  | Mine Development             | Southern Mine Services P.A.    | TBA   | 36  | 6.2%          | 3,491.9k               | \$\$\$ | 10  | 1,890.5k             | 54.1%          | 0       | 0                | 1,604.3k      |              |
| Unawarded | A.P  | Resource Flow Budget Package | Budget Estimate                | TBA   | 83  | 4.1%          | 2,287.2k               | \$\$\$ | 0   | 0.0k                 | 0.0%           | 0       | 0                | 2,287.2k      |              |
| CD1       | A.C  | OTM Exhaust Cables           | Select Civil Engineering P.A.  | TBA   | 97  | 3.3%          | 2,210.3k               | \$\$\$ | 3   | 148.2k               | 6.7%           | 0       | 0                | 1,400.2k      |              |
|           |      |                              |                                |       |     |               | <b>PFC: 56,285,299</b> |        |     | <b>543</b>           | <b>100.0%</b>  |         | <b>56,285.3k</b> | <b>A000</b>   |              |

Record 2 of 20

Amend/Summary | Plg Forecasting | Payments | Cash Flow | ESS Reason | Progress / Schedule | Revision/Amend | Pay Item Group | Work Authorisation | Memo | Analysis | Filter/Sort

Merged | Cumulative | Resource Flow = CASH - CASH Flow (Paid at bank) | Version = F001 - Current

Project = PPS\_1 - Expansions Group (Process Plant Stage 1), Y01 - Client Support (Contracts), 0 - Client Support

Resource Flow | Print Chart | Generate | Edit Call

| Year Number | Period Number | Parent Project | Fin Year | Budget/Package | Amendment | Pattern | Resource Flow | Version | Package |        |         |        |         |        |         |        |         |             |
|-------------|---------------|----------------|----------|----------------|-----------|---------|---------------|---------|---------|--------|---------|--------|---------|--------|---------|--------|---------|-------------|
| PPS_1       | 2021-04       | Actual         | 2021-05  | Actual         | 2021-06   | Actual  | 2021-07       | Actual  | 2021-08 | Actual | 2021-09 | Actual | 2021-10 | Actual | 2021-11 | Actual | 2021-12 | Grand Total |
|             |               | 1,199          | 6,040    | 20,705         | 43,339    | 55,435  | 43,339        | 20,705  | 6,040   | 1,199  |         |        |         |        |         |        |         | 198,000     |

Package Analysis | Project Details by WBS Package D | Resource Flow | Reports | WBS Codes Maintenance

vCME version: 4.4.0.4236 | Database: QTS-vCME\_Connector used by vCME Sub#: 4232

## **GTS Software**

### **GTS Development & Support Team**

The Development of eCMS has been undertaken by a small but dedicated team to achieve a solution designed to provide the existing CMSV3 User base with a smooth transition to the new application with minimal requirement for retraining or interruption to Project work processes. Our team has worked together over more than 25 years including the entire life of CMSV3 and the lessons and opportunities from CMSV3 have been designed in to eCMS to further leverage the solution.

GTS will support eCMS using the development team in the background and by introducing an additional Application Specialist and a Technical Assistant to service the client base.

These roles will be filled by individuals with extensive CMSV3 experience and who have approached GTS and expressed an interest in opportunities of this type.

Additionally, eCMS will incorporate an online help resource which will include video tutorials as well a forum and knowledge for sharing eCMS knowledge and experience.

### **eCMS Licensing Model**

The existing License Model used for CMSV3 Clients and EPCMs and Consultants supporting Client Projects, is based upon a per User per Month rate including volume discount.

Licensing includes Maintenance & Support. At the time of this Bulletin, GTS has determined, the existing model shall be applied to eCMS to cover transitions from CMSV3 and new agreements entered into in the short term.

GTS in conjunction with its Client base, will investigate License Model options with a view to improving the link between actual usage and cost as well as providing increased Administrative efficiency for both Clients and GTS. Model options should not disadvantage either Clients or GTS significantly relative to the existing model and should not include features that are likely to drive Application User behaviour.

eCMS Administrative Functionality provides for the detailed logging of Application Usage at a User / Session level. This information is available for the support of Model options that may be identified and pursued in the context of the objectives.