



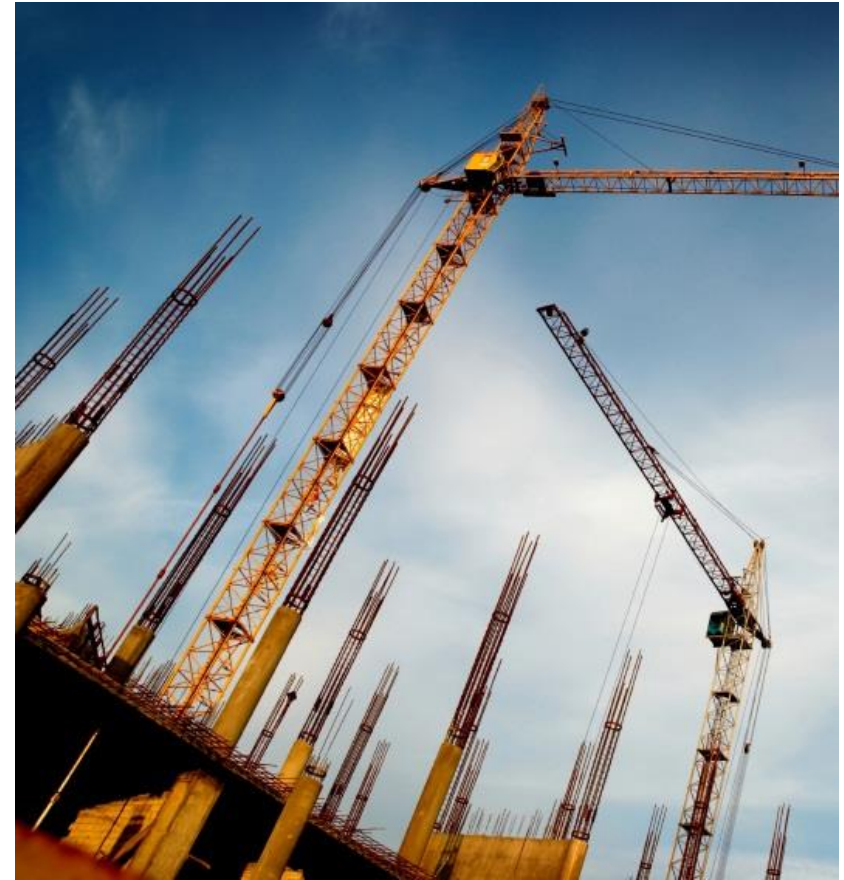
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Progress Measurement and Workforce Reporting Tool

Introduction

- MGA has had significant exposure to major resources sector projects
- Our experience is that most competent contractors have the in-house capability to measure and report physical progress to a reasonable level of accuracy
- The challenge for most major projects however is how to assemble the individual contractor's information into a meaningful report.



Introduction

- Monitor Progress provides the platform which allows efficient and consistent reporting of physical progress across the entire project
- This is achieved by giving contractors access to the measurable items* in their scope through a password controlled web-based system
- The result is access to multiple project-wide reports without any further manipulation by the Project Manager or EPCM
- This is achieved without removing the responsibility for measurement and reporting of physical progress from the individual contractors.

Introduction



- A significant benefit of providing such a platform to the individual contractors is uniformity of approach i.e. consistency of:
 - Measurable Item Types
 - Rules of Credit
 - Man-hour Weightings
 - Reports
- The system has many other useful features which are identified later in the presentation



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Specification

Specification – Physical Process

Measurable Items

- Each Project is assembled into standard “Measurable Items” or Building Blocks
- For every Measurable Item the Tool facilitates the calculation of the % Complete by applying a Rule of Credit and a Man-hour Installation Norm
- Factors considered in establishing the standard Measurable Items for each commodity included:
 - Practicality of measurement in the field
 - Relative Man-hour weighting
 - Rule of credit set
 - Reporting requirements.

Specification – Physical Process

Man-hour Weighting

- Man-hour Weightings are applied to each Measurable Item to establish Earned Value
- The tool contains an in-built man-hour matrix
- Alternatively the man-hours can be established and input from:
 - The Project Estimate
 - The Contract Break-down.

Specification – Physical Process

Rules of Credit

- Standard Rules of Credit are used to determine the % complete of each Measurable Item
- The tool contains in-built standard Rules of Credit
- The flexibility exists to easily adapt the Rules of Credit on a project by project basis.

Specification – Physical Process

Summary

- Sum of ... Each Measurable Item
 - × Measurable Item Quantity
 - × Unit Man-hour Norm
 - × Rule of Credit
 - = Total Hours Earned
- Total Man-hours Earned ÷ Total Man-hour Budget = % Complete

Specification – Expended Man-hours



- Man-hours Expended are recorded on an ongoing basis and assigned by commodity
- Information can be recorded at Individual worker level or summarised and entered by Contract & Commodity.

Specification – Expended Man-hours

Expended Man-hours Categories:

- Construction
- Construction Support
- Management

The capability exists to easily amend Man-hour categories on a project by project basis.



Specification – Physical Process

Force Reporting

- The Tool provides a mechanism for production of project-wide Standard Force Reports as a by-product of the process for recording expended hours
- Weekly or Daily Labour and Equipment Force Reports are produced by summarising the Expended Hours information
- The degree of automation is influenced by the level at which the Expended Hours are recorded.



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Features

Features

Tool

- Web Based System
- PDA/iPad/iPhone Compliant
- Metric or Imperial
- Controlled Levels of Access.



Features

Measurement of Physical Process

- Contract Factors
- Man-hour Matrix – Modelled, Estimated, Contracted
- Tagged, Temp, Growth
- Flexible Man-hour Matrix
- Flexible Rules of Credit
- Show/Hide Man-hours

Features

Measurement of Physical Process - Continued

- Automatic Importing/Exporting
- Periodical Data Dumping
- Automatic Generation of Progress Claims
- Automatic Reporting against Project Schedule
- Tagged to Commissioning Activities

Features

Recording of Expended Man-hours

- Flexibility in Direct/Indirect Labour Definitions
- Information can be entered by Employee or in Summary

Features



Force Reporting

- Employee management system
- Flexible employee roles
- Flexible equipment lists.



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Reporting

Reporting

% Complete

The following pieces of information are tagged to each Measurable Item:

- Commodity
- Contract Number
- Work Breakdown Structure
- Test Pack
- Type (Tagged, Temp, Growth)
- Contract Work Pack
- System
- Price Schedule Item
- Project Schedule Identification Number.

Reporting

% Complete

- A significant advantage of Monitor Progress is its reporting capability
- The Tool has an in-built comprehensive suite of Standard Reports
- Alternatively the user can generate custom reports to suit their specific requirements.

Reporting



Expended Man-hours

Man-hours Expended can be reported by:

- Contract
- Date Range
- Commodity

Separate totals are provided for

- Direct Manual Hours
- Indirect Manual Hours



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Summary

Summary

- Monitor Progress is an “Earned Value” driven web based tool which provides an accurate and consistent platform for Measurement and Reporting of Construction Physical Progress
- The Tool has capability to record Hours Expended and produce Standard Force Reports
- The underlying principle is that the information contained within the data base is controlled by the Project, input of progress against each measurable item however typically remains the responsibility of the Contractor(s)
- The tool has significant flexibility and limitless reporting capacity.



Thank-you