

**SAICE INFORMATION TECHNOLOGY DIVISION
15th NATIONAL CONFERENCE ON COMPUTERS IN CIVIL ENGINEERING**

The Benefits of Management Information Systems to The Professional Practice

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& Associates**

V3 CONSULTING ENGINEERS



OUTLINE - SYSTEM OVERVIEW

- **Introduction**
- **System Overview**
- **Objectives for the System**
- **Implementation Experience**
- **Benefits of the System**
- **Conclusion**

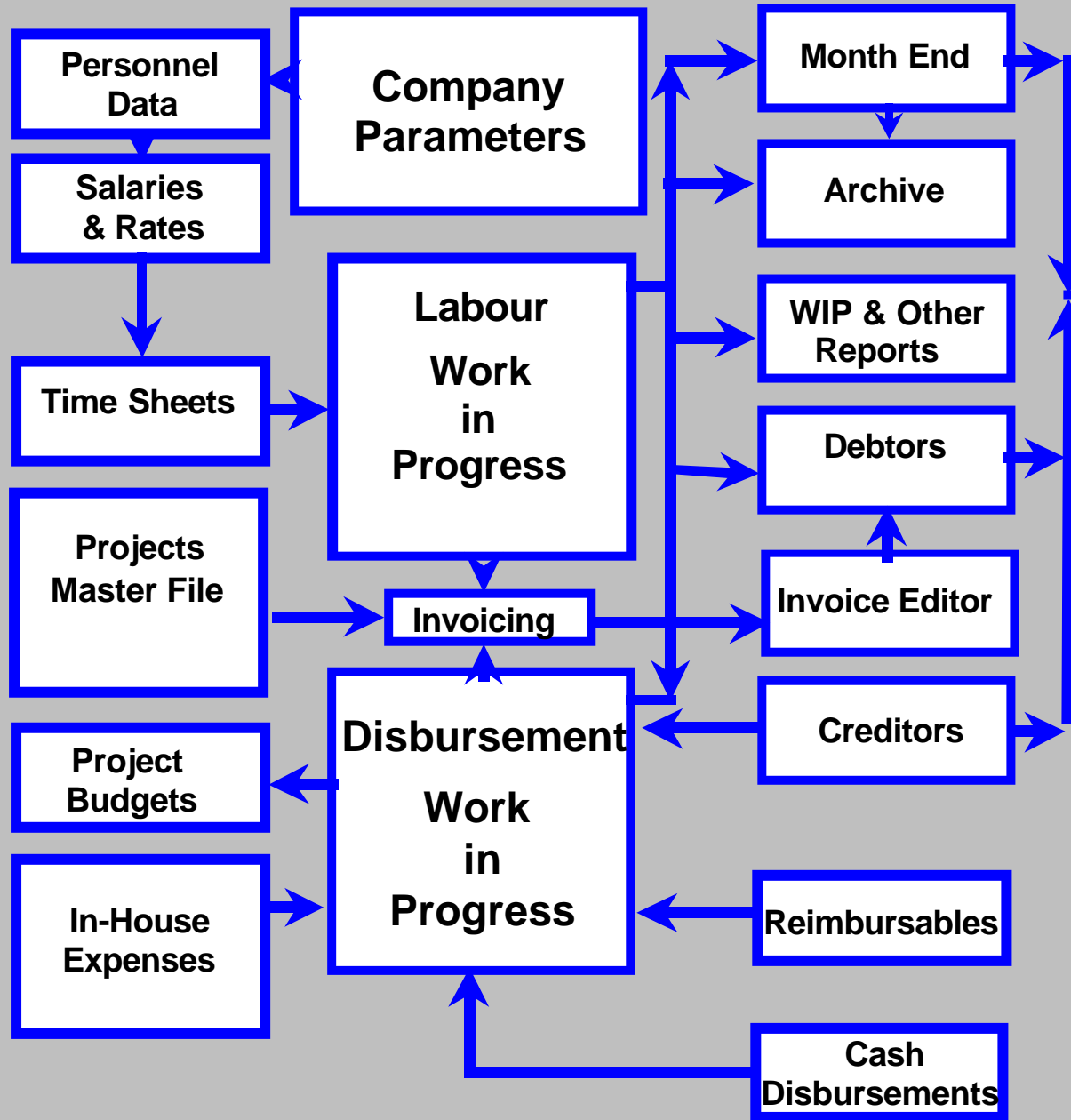


COMPONENTS OF SYSTEM

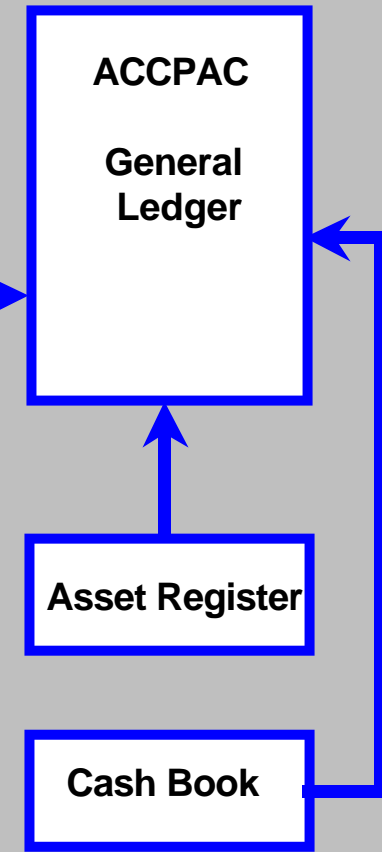
- **Projects System**
- **Financial System**
- **National Consolidation**
- **Executive Information System**



PROMAN MODULES



ACCPAC MODULES



NON ACCPAC



THE BENEFITS OF M I S TO THE PROFESSIONAL PRACTICE

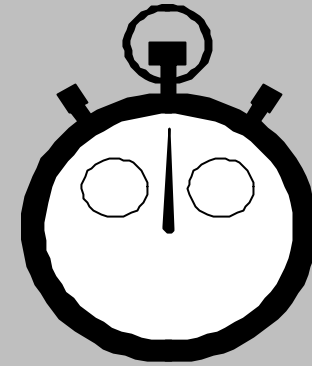
PROJECTS SYSTEM

- **Projects**
- **Personnel**
- **Salary and Rates**
- **Company Parameters**
- **Setup Options**
- **General Ledger Interface**
- **Debtors and Creditors**
- **Multi-Level Projects**
- **Client Data**
- **Management Reports**



PROJECTS SYSTEM

- **Processing of Time & Expense Information**
- **Work In Progress**
- **Audit Trails**
- **Analysis Reports**
- **Automated Billing**



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THE BENEFITS OF M I S TO THE PROFESSIONAL PRACTICE

FINANCIAL SYSTEM

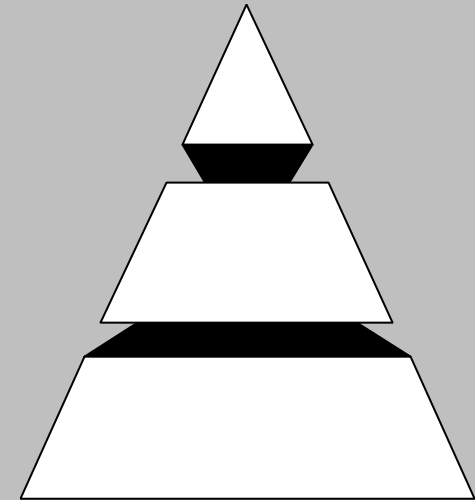
- **General Ledger**
- **Cash Book**
- **Salary Module**
- **Assets Register with Barcode Reader**



THE BENEFITS OF M I S TO THE PROFESSIONAL PRACTICE

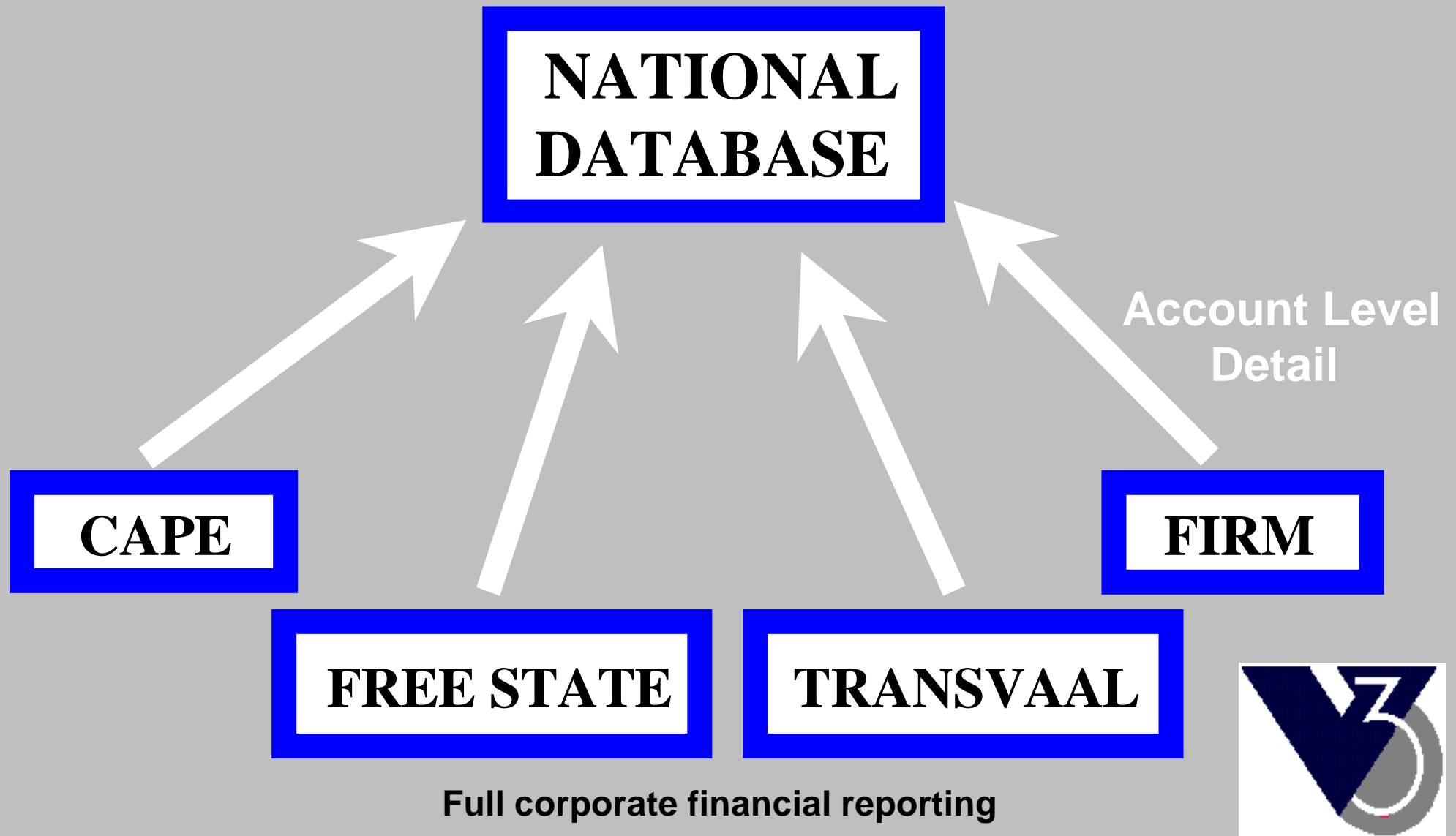
FINANCIAL SYSTEM

- **Cost and Profit Centres**
- **Hierarchical, Structured Coding**
- **Activity Based Costing**
- **Progressive Summarization**
- **Linked directly to the Projects System**
- **Summarized in EIS**



THE BENEFITS OF M I S TO THE PROFESSIONAL PRACTICE

NATIONAL CONSOLIDATION



THE BENEFITS OF M I S TO THE PROFESSIONAL PRACTICE

EXECUTIVE INFORMATION SYSTEM

- **Production Analysis**
with extensive grouping, summarization
and drill down capabilities
- **Client Focused Project Profitability**
Analysis with drill down capability
and multiple views of director contribution
- **Activity Based Financial Distribution**
and Matrix Analysis of Financials



THE BENEFITS OF M I S TO THE PROFESSIONAL PRACTICE

OBJECTIVES

- **Monitor and Improve Productivity and Profitability**
- **Measure Profitability on a Project, Department and Office Basis**
- **Assist to Offer Highest Possible Levels of Service**



Achieved



OBJECTIVES

- **Ensure Charges for Work are Realistic**
- **Comprehensive Budgeting for Projects and Financials**
- **Evaluation of Current and Future Directors**
- **Concise Management Summaries**

Achieved



THE BENEFITS OF M I S TO THE PROFESSIONAL PRACTICE

OBJECTIVES

- **Global View of the Practice**
- **Detailed Enquiry on all Aspects of Operations and Job Costing**
- **Minimum Management Time and Manpower**
- **Affordable**

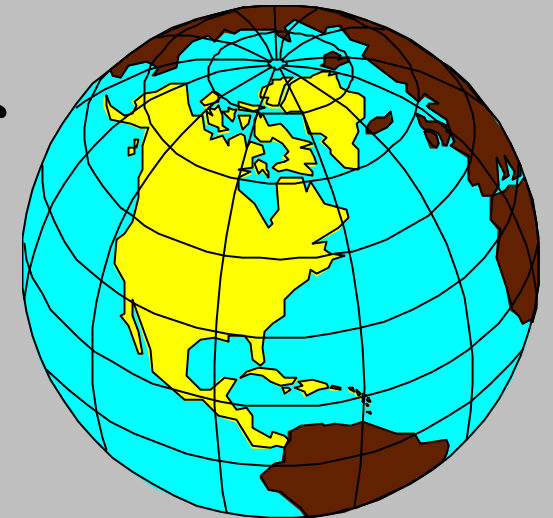
Achieved



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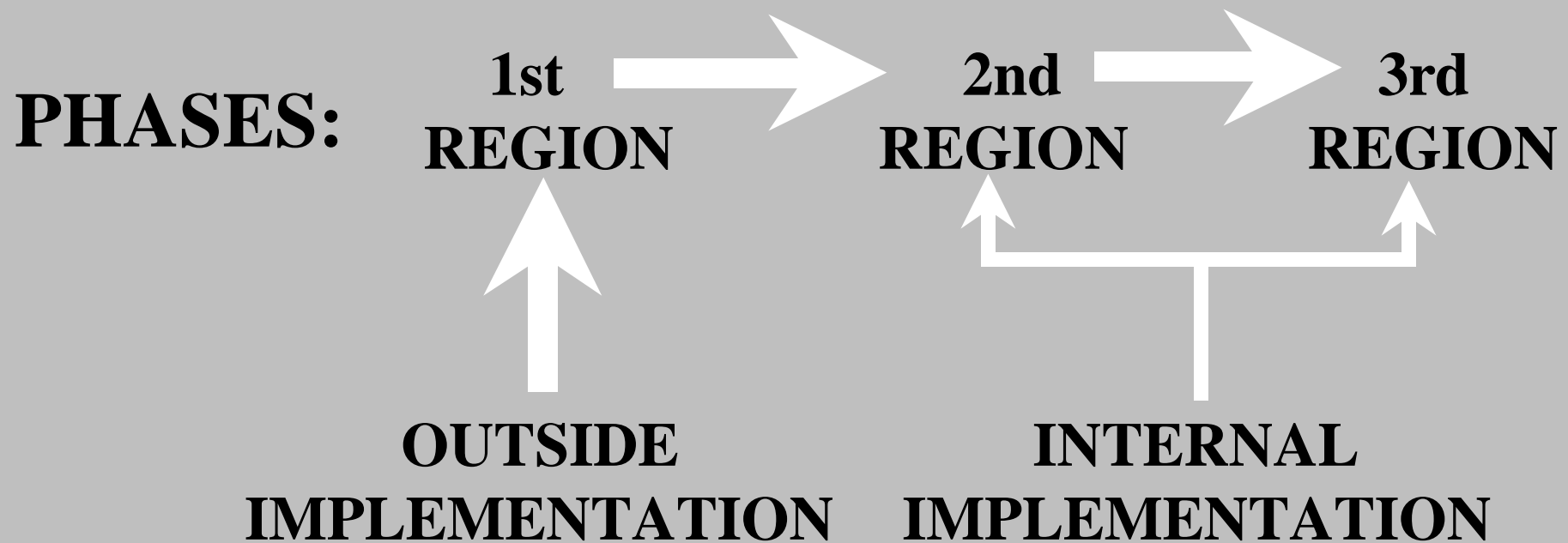


Achieved



THE BENEFITS OF M I S TO THE PROFESSIONAL PRACTICE

IMPLEMENTATION EXPERIENCE



THE BENEFITS OF M I S TO THE PROFESSIONAL PRACTICE

IMPLEMENTATION EXPERIENCE



PARADIGM CHANGE : 3 TO 5 YEARS



THE BENEFITS OF M I S TO THE PROFESSIONAL PRACTICE

BENEFITS

- **Reliability & Timeousness of Information**
- **Cubic Business Model**
- **Senior Management Work Load & Effectiveness**
- **Strategic Advantages**



RELIABILITY & TIMEOUSNESS OF INFORMATION

- **Timesheet Analysis**
- **Project Update Report**
- **Project Leaders Reports**
- **Projects Profit Reports**
- **Budgets and Actuals on Projects**

**2 Days
After
Month
End**



THE BENEFITS OF M I S TO THE PROFESSIONAL PRACTICE

RELIABILITY & TIMEOUSNESS OF INFORMATION

- **Debtors and Creditors Reports :
Daily If Required**



RELIABILITY & TIMEOUSNESS OF INFORMATION

- **Financial Statements**
- **Income Statements**
- **Balance Sheet**
- **Cash Flow Projections**



**10 DAYS
AFTER
MONTH END**



THE BENEFITS OF M I S TO THE PROFESSIONAL PRACTICE

OWNERSHIP OF INFORMATION

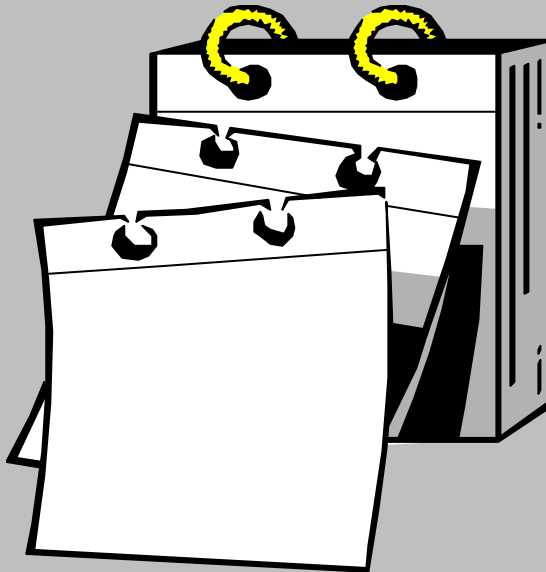
- **All items allocated to
specific managers**



THE BENEFITS OF M I S TO THE PROFESSIONAL PRACTICE

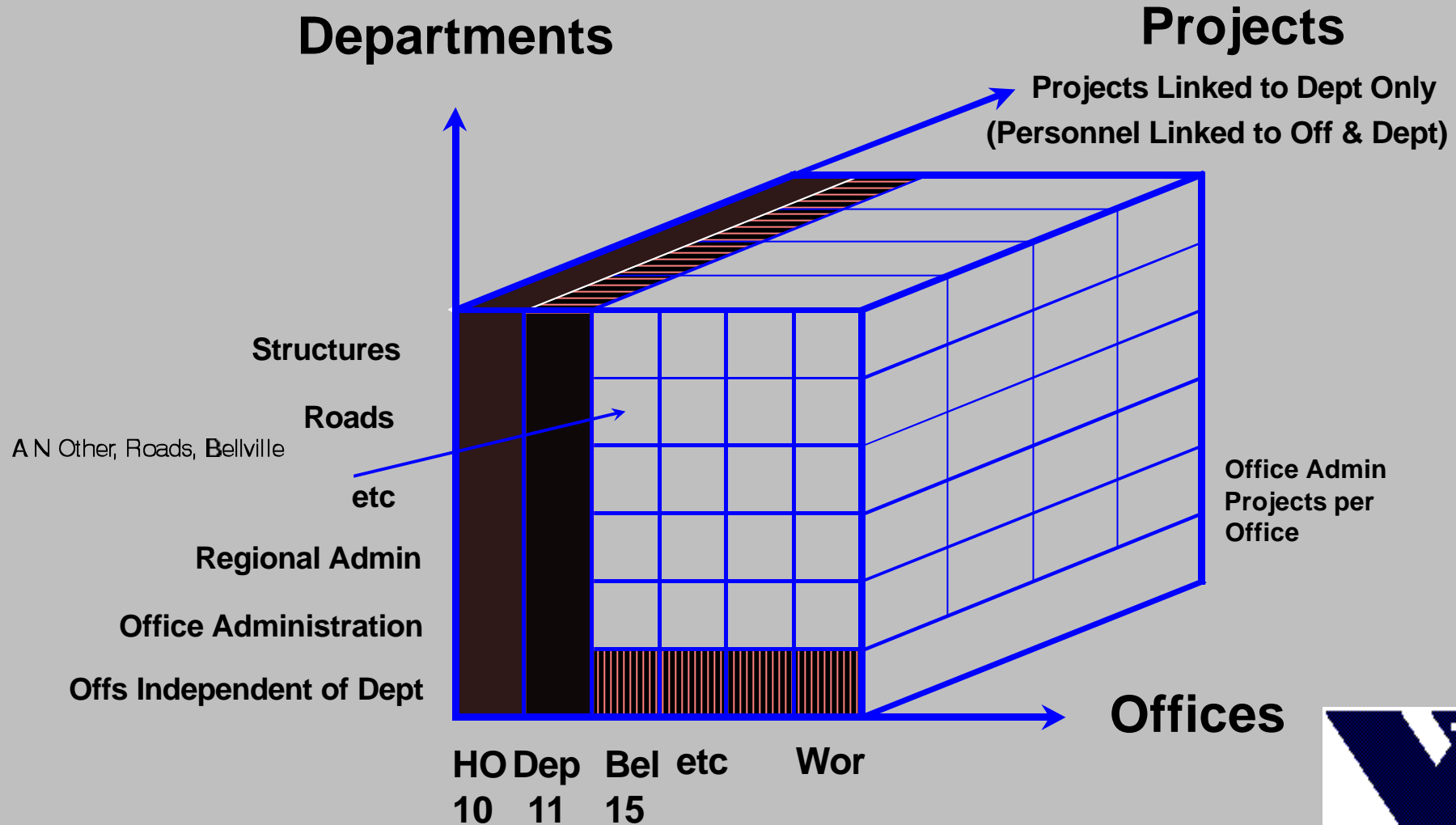
YEAR END PROCESSING

- **Completed 17 Days After Month End**
- **Auditors Signed Off 5 Weeks Later**



THE BENEFITS OF M I S TO THE PROFESSIONAL PRACTICE

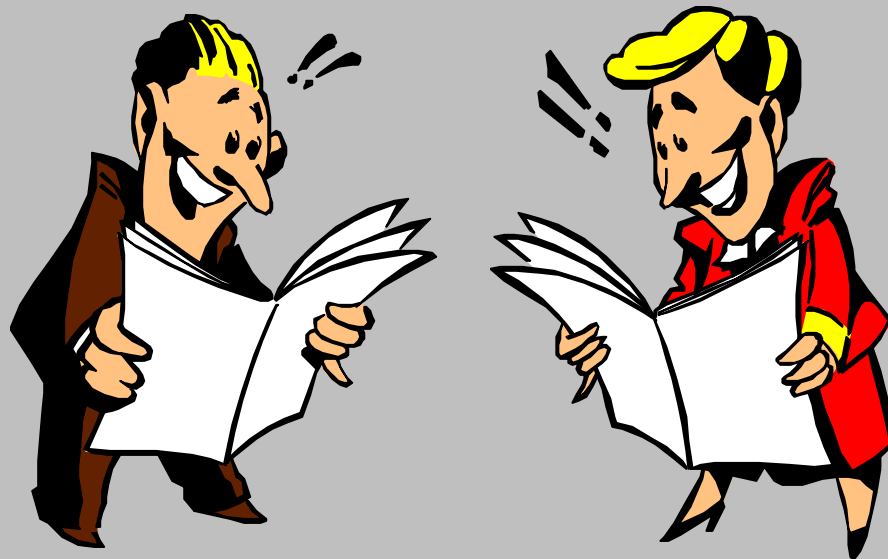
CUBIC BUSINESS MODEL



THE BENEFITS OF M I S TO THE PROFESSIONAL PRACTICE

SENIOR MANAGEMENT WORK LOAD AND EFFECTIVENESS

- **Wide Variety of Analysis**
- **Ready Availability of Information**
- **Identify Opportunities**
- **Increase Delegation**



SENIOR MANAGEMENT WORK LOAD AND EFFECTIVENESS

- **Work Load on Mundane Analysis Greatly Reduced**
- **Mis-allocation Considerably Reduced**
- **Summarized Reports**
- **"Drill Down"**



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STRATEGIC ADVANTAGE

- **Identify Market Related Factors that can have a Bearing on Marketing Strategy, Product mix and Other Matters**
- **Offer Innovative and Competitive Services**
- **Creating and Sustaining Competitive Advantage**



CONCLUSION

The system has met most of the objectives set for it and is assisting the firm in it's objective of creating and maintaining competitive advantage through the provision of focused, appropriate and cost effective consulting engineering services.

James A Robertson & Associates

