Banking/Finance Vertical Market Case Study:

Investors Group—Client Account Servicing System

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(An AGS Information Services Canadian affiliate)

FINANCIAL SERVICES SECTOR

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CASE STUDY

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DEVELOPMENT OF AN INTEGRATED CLIENT ACCOUNT SERVICING SYSTEM

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AGENDA

1 CLIENT BACKGROUND

2 SYSTEMS ENVIRONMENT TO BE REPLACED

3 BUSINESS OBJECTIVES

4 APPROACH TO ARCHITECTURE

5 PROJECT MANAGEMENT

6 DELIVERED SYSTEM

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CLIENT BACKGROUND

BUSINESS OVERVIEW

- LEADING CANADIAN DISTRIBUTOR OF MUTUAL FUNDS AND INVESTMENT SERVICES
- OFFERS FINANCIAL INVESTMENT AND PLANNING SERVICES TO INDIVIDUALS
- 950,000 ACCOUNTS
- $14.5 BILLION (CDN) OF ASSETS UNDER ADMINISTRATION
- HEADQUARTERS IN CANADA
- 75 REGION OFFICES ACROSS COUNTRY
- 2000 CUSTOMER REPRESENTATIVES
- PROVIDES SERVICES IN 2 LANGUAGES

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CLIENT BACKGROUND

FINANCIAL PRODUCTS

- MUTUAL FUNDS (ASSETS UNDER MANAGEMENT)
- NON-FUNDS (LIABILITIES) INCLUDING:
  - GIC (GUARANTEED INVESTMENT CERTIFICATES)
  - TCA (TERM CERTAIN ANNUITIES)
- TAX SHELTER REGISTRATIONS:
  - RETIREMENT
  - EDUCATION
  - INVESTMENT FUNDS
- AUTOMATED SERVICES:
  - AUTOMATIC PERIODIC CONTRIBUTIONS
  - PERIODIC SHARE PURCHASE PLANS
  - PERIODIC REDEMPTIONS, DISBURSED OR TRANSFERRED
  - TRANSFER OF INCOME PAYOUTS TO OTHER ACCOUNTS (INSTEAD OF DISBURSED)
  - CLIENT AND GOVERNMENT REPORTING

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SYSTEMS ENVIRONMENT TO BE REPLACED

GENERAL CHARACERISTICS

- MULTIPLE PARALLEL SYSTEMS
- FUNCTIONAL REDUNDANCIES AND INCONSISTENCIES
- MULTIPLE BRIDGES AND INTERFACES
- HIGH ERROR RATES
- OUTDATED TECHNOLOGY PLATFORMS
- LARGE QUANTITY OF SOFTWARE WITH A LOT OF FUNCTIONALITY
- 23 SYSTEMS, 2 MILLION L.O.C.

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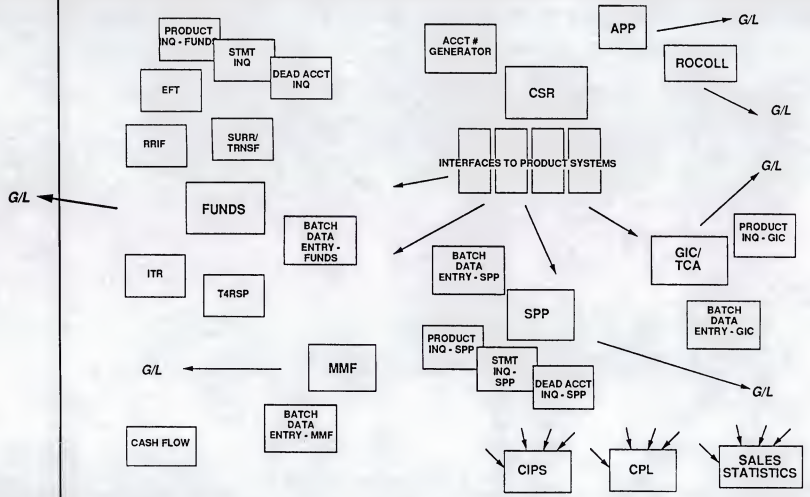
SYSTEMS ENVIRONMENT TO BE REPLACED



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OBJECTIVES

BUSINESS

- BE ABLE TO INTRODUCE NEW FINANCIAL PRODUCTS AND SERVICES RAPIDLY
- IMPROVE CUSTOMER SERVICE:
  - MORE CONSISTENT SERVICES
  - PORTFOLIO MANAGEMENT
- MANAGEMENT INFORMATION:
  - IMPROVED MARKETING KNOWLEDGE
- DECENTRALIZE WORK TO REGION OFFICES

TECHNICAL

- RENEW TECHNOLOGY PLATFORM

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APPROACH TO ARCHITECTURE

OBJECTIVE

The system had to be relatively small - less software would mean less time

In order to impose low maintenance costs and low risks, the system had to be independent of organization and procedures

System had to overcome the pitfalls of today's systems

DEVELOP A SMALLER SYSTEM

FLEXIBLE

CONSISTENT

ACCURATE

ARCHITECTURAL APPROACH

CONCEPT - ING ™

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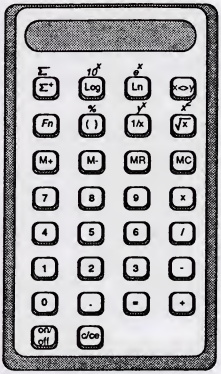
APPROACH TO ARCHITECTURE

CONCEPT-ING

ANALOGY OF THE SCIENTIFIC CALCULATOR

*The **goal of Concept-ing** is to find the ideal set of "buttons" such that, for any business procedure, **some combination of "buttons"** will automate the procedure*



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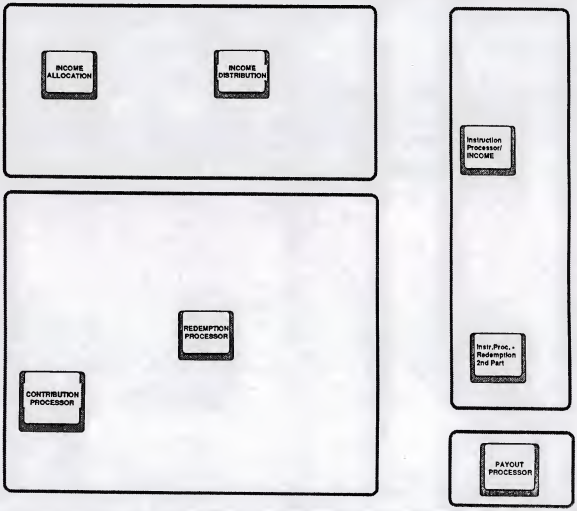
APPROACH TO ARCHITECTURE



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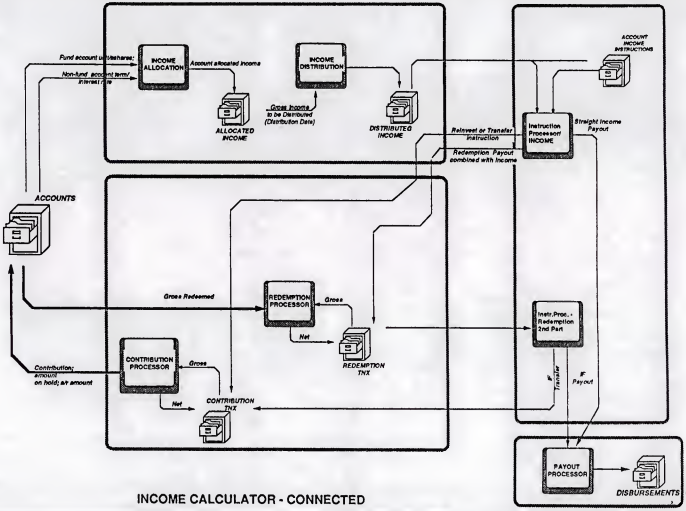
APPROACH TO ARCHITECTURE



INCOME CALCULATOR - CONNECTED

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APPROACH TO ARCHITECTURE

BENEFITS

- HIGH LEVEL OF REUTILIZATION OF SOFTWARE COMPONENTS (70-80%)
- SOFTWARE NOT CIRCUMSTANTIAL IN DESIGN
  - STABLE
  - ADAPTABLE
- SEPARATION OF SYSTEM FUNCTIONS FROM USER INTERFACE
- TESTING SIMPLIFIED:
  - FOCUSED IN UNIT FUNCTION TESTING
  - INTEGRATION ONLY CONSISTS OF TESTING LINKS

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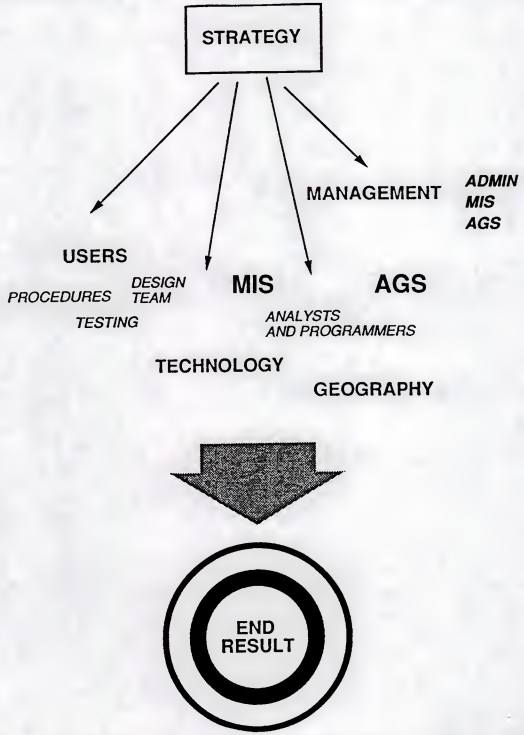
PROJECT MANAGEMENT



Strategy is the means by which each player is framed in the direction of the target result of the project

If circumstances change or assumptions don't hold true, the strategy must change in order to keep the project on target.

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PRINCIPLES OF
PROJECT MANAGEMENT
STRATEGY

CHANGE STRATEGY TO *REMAIN ON TARGET*

DEFENSE

NEVER GO BACK AND REDO

CONTINUALLY IMPROVE PRODUCTIVITY

TARGET

INCREASE IN $ ⟶ MORE SOFTWARE

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BENEFITS

- NEVER HAD TO STOP AND REDO PART OR WHOLE OF SYSTEM
- PRODUCTIVITY HAS INCREASED THROUGHOUT PROJECT
- SIZE OF SYSTEM CONTROLLED
- USABLE PARTS OF SYSTEM DELIVERED EARLY, TESTED AND IMPLEMENTED BY USER

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DELIVERED SYSTEM

SIZE

- FIRST VERSION - 3500 FUNCTION POINTS
  - ONE NEW PRODUCT - NON-FUND
- SECOND VERSION - 5500 FUNCTION POINTS
  - NON-FUNDS
- THIRD VERSION - 8000 FUNCTION POINTS
  - FUNDS

QUALITY

- DEFECT REMOVAL RATE > 97%

PRODUCTIVITY

- SECOND VERSION - 11.7 FP/PM (INCLUDING V.1)
- THIRD VERSION - 20 FP/PM

PERTINENCE

- USER DEVELOPED ALL PROCEDURES ON HIS OWN
- NO BUSINESS PROCESS FOUND THAT SYSTEM WOULD NOT DO

PERFORMANCE

- BATCH RUN TIMES IMPROVED WITHOUT DISRUPTING ARCHITECTURE

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Charles N. Gregory
Senior Vice President
Atkinson, Tremblay & Associates Inc. (ATA)

PROFILE

Charles Gregory is a Senior Vice President of ATA in Montreal and is responsible for the operations of the Montreal Consulting Unit and the ATA Software Factory.

Charles joined ATA in August 1983 as Vice President, Montreal Consulting Unit, and during the next five years increased business to over $5 million in annual revenues. ATA offers a full range of information systems services, including strategic planning, systems development and implementation of advanced methodologies and tools.

In 1898, as Senior Vice President of Marketing, he was responsible for the launching of the ATA Software Factory. The mission of the Factory is to undertake the development of custom business software systems.

Prior to joining ATA, Charles worked for sixteen years for IBM Canada. When he left IBM, his position was that of Branch Manager, Montreal Banking and Transport. Prior to that he held a variety of positions in marketing management, marketing, business practices and systems engineering.

He was awarded a Bachelor of Science, Honors degree in Physics from the University of Bristol and a Diploma of Education from the University of Oxford. He started his career in education, working in France and England prior to emigrating to Canada in 1965.

Charles is an active amateur musician playing the violin and viola in orchestras and chamber music groups. He is a member of the Board of Directors of the Montreal International Music Competition.

Charles and his wife, Suzanne, live in Westmount, Quebec with their two daughters, Anne-Marie and Valerie, who both attend the Villa Ste. Marcelline school.