

The HELIX Factor

The key to streamlining your business processes

By

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Welcome

We Will be Spending 4 Days Together

- ❑ Day 1 – Definitions, Theory & Principles
- ❑ Day 2 & 3– Tools, Models & Methods using JMI Case Study
- ❑ Day 4 – Application of Helix to One of Your Business Processes

The Helix Methodology

Welcome

What You Will Leave With
A Fundamental Understanding of
HOW TO CONDUCT
a Process Improvement Project
– Philosophy – Tools – Techniques – The Works!

Plus a Veritable @!#%! Load of Material

Introductions

Start and Stop Times

Breaks

Interaction, Questions and Dialogue

Preface - The Quest

Develop a Method to Help People and Organizations to

- ❑ Discover and define opportunities for improvement
- ❑ Gain consensus and support for changes needed to achieve improvement
- ❑ Increase empathy and teamwork between cross functional work groups
- ❑ Build criteria for knowing how and when improvements will be realized
- ❑ Develop a framework for renewal for future improvements
- ❑ Enhance organizational learning opportunities by improving communications between, people, departments and divisions

Preface – History 1978

- ❑ Knew there had to be a predictable way to Discover, Define, Design, Build and Implement IT leveraged improvements in organizations
- ❑ Greatest Asset - did not know it was supposed to be difficult
- ❑ Found that companies moving to first computer systems provided best opportunity
- ❑ Decided to use the implementation of new systems as a catalyst for implementing process improvements.
- ❑ Found Richard Cole - Exec. Education on Introducing Computers into a culture - He provided access to key executives and decision makers.

Preface – History 1979

- ❑ Found Ken Orr - DSSD - Good method once you knew what you wanted
- ❑ Had to be a way to facilitate the discovery of needs
- ❑ Had to be a way to consider the impact of non linear feedback systems, organizational dynamics and politics

Preface – History 1980

Found Bill Bearly –

- Had a strong influence on my Organizational Behavior thinking and on using model based approaches.

Break Through in Sacramento –

- Concept of an Organization defined as a series of Value Added Delivery Systems Born
- Offered to incorporate ideas in to Ken Orr's DSSD but he idea rejected.

Preface – History 1981

Many Successes –

Realized the impact on companies far exceeded the physical systems put in place –

- Weight of responsibility hit me
- Had to formalize and add proofs of correctness to method.

Preface – History 1982-1988

Many projects - All successful

Golden Nugget – Marketing & Financial Systems

Warner Bros – Marketing & Film Distribution

Hospitals – Distribution - Aerospace

Focus now on

Discovery Independent of IT Projects

Preface – History 1989 - Present

- ❑ 27 Years of Research, Field Proven Experience and Refinement
- ❑ 2 Books Published and Distributed in over 15 Countries
- ❑ PI Subject Matter Expert for www.ganttthead.com
- ❑ Strategic Alliance with BOT International for Helix on Demand

The Helix Methodology

Introduction - Topics Presented

- ❑ Goal of the Workshop
- ❑ Goal of Process Improvement Initiatives
- ❑ The Organization - Structure vs. Delivery Systems
- ❑ The Importance of Context
- ❑ Terminology and Definitions
- ❑ Workflow Facilitation Tools
- ❑ Focus Group Work Sessions
- ❑ Post Work Session Diagnostics
- ❑ Workflow Documentation and Organization
- ❑ Estimating Workflow Engineering Project Effort
- ❑ Managing Workflow Engineering Projects

Goal of the Workshop

Provide Your Organization (through you) with a Context and Structure for:

- ⇒ Collecting,
- ⇒ Organizing,
- ⇒ Analyzing,
- ⇒ Correlating,
- ⇒ Documenting,
- ⇒ Managing and
- ⇒ Completing

Breakthrough Process Improvement Initiatives

Goal of Process Improvement

To Understand, Define and Align:

- ❑ Strategy to Stakeholder Needs
- ❑ Business Objective to Strategy
- ❑ Business Processes to Business Objectives
- ❑ Workgroups Involved in Business Processes
- ❑ Information being Shared & Moved Between Workgroups
- ❑ Objects being Processed Through each Workflow
- ❑ Value Added Transformations each Object goes Through
- ❑ Stimulus Triggers that let Workgroups Know when to Take Action
- ❑ Actions that Workgroups Take
- ❑ Sequence of Processes and Actions Taken
- ❑ Process Failures that can Stop or Impede a Workflow
- ❑ Value Added to each Object as it is Transformed through a Workflow
- ❑ Relationships between Objects, Data, Workgroups and Processes

Measurable Results of Process Improvement

- ❑ Increased Value Delivered to Stakeholders
- ❑ Reduced Delivery System Fragmentation
- ❑ Increased Productivity, Efficiency & Profitability
- ❑ Reduced / Eliminated Non-Cost Effective Controls
- ❑ Increased Customer Service
- ❑ Reduced Steps to Complete Delivery System Goals
- ❑ Increased Employee Buy-in and Satisfaction
- ❑ Reduced Errors, Failures & Defects

Organization Structure vs. Delivery Systems

- ❑ **Organization Structures Provide a Method for Delegating Authority**
- ❑ **Delivery Systems are the Processes in an Organization Used to Add Value to Stakeholders**
 - Delivery Systems Transcend Departmental Boundaries
 - Delivery Systems have Predictable and Desired Outcomes
 - Delivery Systems have Phases that are Traceable
 - Delivery Systems are the Vehicle used to meet Organizational Objectives
 - Delivery Systems Provide the Context in which Organizations do Business
- ❑ **Process Improvement Initiatives Identify and Streamline an Organization's Delivery Systems in Context to it's Goals.**

The Importance of Context

- ❑ Analyzing an Organization Department by Department would be like seeing a Play One Character at a Time Independent of the Plot, Relationship Dynamics and Dialogue

There would not be any CONTEXT or Frame of Reference

- ❑ Analyzing an Organization, Delivery System by Delivery System (its Workflows), is like seeing a Play in its full CONTEXT.
- ❑ Business Process Improvement /Workflow Engineering Allows Us to Understand an Organization in CONTEXT to its Business Functions and purpose.

Terminology & Definitions

- ❑ Business Process (Workflow)
- ❑ Business Process Objective
- ❑ Business Process Alignment
- ❑ Workgroups
- ❑ Information Sharing Sequence
- ❑ Objects
- ❑ Object Transformation
- ❑ Stimulus Triggers
- ❑ Workflow Actions and Processes
- ❑ Action & Process Sequence
- ❑ Process Failure
- ❑ Value Added Object Transformations
- ❑ Object, Data, Workgroup & Process Relationships
- ❑ Process Velocity
- ❑ Process Cycles

Business Process (Value-added Delivery System / Workflow)

***A sequential set of events and actions,
taken between and within workgroups,
designed to accomplish a predefined set
of results.***

Business Process Objective

***The Value Added to the business as a result
of the successful completion of a
Business Process Cycle.***

Business Process Alignment

The process of engineering or re-engineering a Business Process so it supports the intended business objectives consistently and efficiently

Workgroups

One or more people within or related to an organization that perform the same function(s) within the context of a given Business Process.

Information Sharing Sequence

The order in which information is shared within and between workgroups to expedite the successful completion of a Business Process cycle.

Objects

***The subject matter being tracked as it is
processed through a Process
(Customers, Orders, Inventory,
Employees, etc.....).***

Object Transformation

The Value Added (Business Objective Supporting) changes that take place to an object as it is processed through a Workflow Cycle.

Stimulus Triggers

The events and communications that inform and encourage a Workgroup member to take a predefined action or follow a predefined process.

Workflow Actions and Processes

The predefined steps taken by people and systems to add value to the objects being moved through a Workflow.

Helix: Definitions & Terminology -

Action & Process Sequence

The order that actions and processes are executed within a Workflow.

Process Failure

A breakdown in a process that erroneously transforms an object, stops the Workflow from correctly proceeding or negatively impacts future process cycles (directly or indirectly related).

Value Added Object Transformations

Changes made to the information represented by or about an object that enables the object to be successfully processed through a Workflow Cycle.

Object, Data, Workgroup & Process Relationships

***The physical attributes that logically bind
and link information together within an
organization***

Process Velocity

How Fast it Happens

The elapsed time it takes to process one workflow cycle.

Process Cycles

How Often it Happens

The number of times a workflow is repeated within a period of time (shift, day, week, month, quarter, year ...)

Helix: Definitions & Terminology -

The Helix Factors – The Principle Factors

- ❑ **Factor #1 - The Principle of Making a Difference**
- ❑ **Factor #2 - The Principle of Value-added Delivery Systems**
- ❑ **Factor #3 - The Principle of Discovery**
- ❑ **Factor #4 - The Principle of Collaboration**
- ❑ **Factor #5 - The Principle of Context**
- ❑ **Factor #6 - The Principle of Conditioning for Change**
- ❑ **Factor #7 - The Principle of Catharsis and Revelation**
- ❑ **Factor #8 - The Principle of Focused Urgency and Momentum**

Helix: Definitions & Terminology -

The Helix Factors – The Principle Factors

Factor #1 - The Principle of Making a Difference

We All Make a Difference

The only question is

“What Kind of Difference Will We Make?”

Positive or Negative

Making consistently positive differences is a matter of persistent and conscious intent

**Helix is Designed to Add Value to the
Outcomes We Influence**

Helix: Definitions & Terminology -

The Helix Factors – The Principle Factors

Factor #2 - The Principle of Value-added Delivery Systems Organizations are Value-added Delivery Systems

HELIX views Organizations as a Group of Value-added Delivery Systems (VADS).

By Definition the Value Delivered (Outcomes) Benefit Stakeholders

- Owners
- Employees
- Customers
- Suppliers
- Community

VADS are “**End-to-End**” processes where people share information and take action geared toward achieving specific outcomes

Helix: Definitions & Terminology -

The Helix Factors – The Principle Factors

Factor #3 - The Principle of Discovery

Discovery is Critical to Learning and Improvement

Provides a Framework for Exploring the Implications of Change in a Non-Threatening Way.

Allows Teams to be Creative about Solutions

Enables Practical and Cost-effective ways for Improving Processes

Discovery Seeks Ways to Achieve the Needs of the Business

John F. Kennedy created a compelling vision for the future that was concrete and extremely focused when he declared that we would land a man on the moon by the end of the decade in the early 1960s..

What happened next took a lot of DISCOVERY

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The Helix Factors – The Principle Factors

Factor #4 - The Principle of Collaboration

Breaking Down Barriers Requires Collaboration

Political and Communication Barriers can make Positive Change Difficult

HELIX 's Tools and Techniques Encourage Collaboration

In a Structured and Collaborative Process barriers can be Dissolved

People are Free to Focus on Process Not Each Other

They Become Open to Exploring Possibilities

True Buy-in Occurs

Magic Happens

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The Helix Factors — The Principle Factors

Factor #5 - The Principle of Context

Building a Context for Dialogue and Understanding is Essential

**Words and Events MUST BE Viewed in Their
Situational Context to be Understood**

**Helix's Facilitation Process Provides the
Context in which People can Communicate
and Share Information**

Helix: Definitions & Terminology -

The Helix Factors – The Principle Factors

Factor #6 - The Principle of Conditioning for Change **Unconditioned Change Creates Resistance and Chaos**

Change is Inevitable

Gradual Change is Comfortable - We have Time to Adjust

Too Much Change too Fast Creates Upheaval and often Radical Reactions

People and Organizations can be Thrown Out of Control and into Chaos

The Natural Response to Change is Resistance - Its not Good or Bad

People and Organizations Prefer to Stay in a Predictable and Stable State

Science calls this State Homeostasis, the Self-regulating of Life Processes

Helix: Definitions & Terminology -

The Helix Factors – The Principle Factors

Factor #7 - The Principle of Catharsis and Revelation **Catharsis and Revelation are Keys to Creative Solutions**

Getting Leverage on Change Requires

- Frustrations to be Released,
- Perspectives to be Built
- Focusing on the Future, NOT the Past

The Change Analysis Facilitation Process - a Place for Groups to Collectively

- Release Frustration
- Experience Revelations Stemming from Creative and Collaborative Solutions
- Build the Creative Tension Needed to Achieve Desired Outcomes

Helix: Definitions & Terminology -

The Helix Factors – The Principle Factors

Factor #8 - The Principle of Focused Urgency and Momentum

Focused Urgency is Key to Maintaining Momentum

Focused Urgency - the Process of Acting on Important Goals with Deliberate Dispatch

Focused Urgency - Rivets Attention on the Important – Screens Out Interference and Distraction.

Focused Urgency – Accelerates the Pace that Results are Achieved

Helix: Definitions & Terminology -

The Helix Factors – The Alignment Factors

- Factor 9** -- Alignment of Stakeholder Needs to Strategic Direction
- Factor 10** -- Alignment of Strategic Direction to Business Objectives
- Factor 11** -- Alignment of Business Objectives to Value-added Delivery Systems and Process Groups
- Factor 12** -- Alignment of Value-added Delivery Systems & Process Groups to the Information Being Shared & Moved
- Factor 13** -- Alignment of Information Being Shared to Stimulus Triggers & Process Group Actions
- Factor 14** -- Alignment of Process Group Actions to Process Sequence
- Factor 15** -- Alignment of Process Sequence to VADS' Object Transformations
- Factor 16** -- Alignment of VADS Object Transformations to the Value-added
- Factor 17** -- Alignment of VADS Object Transformation to Process Failures & VADS Impediments

Identifying Winning Projects

Is there a Good Business Case?

- ❑ Be sure that the project has the potential for a higher than average ROI
- ❑ *Can be achieved within a reasonable period.*
 - *For example, most highly successful projects are completed in 18 to 30 months.*
 - *Taking longer risks having the technology or needs change. When this happens the scope of the project can change in mid stride.*

Identifying Winning Projects (cont.)

Is there an Executive Sponsor?

- ❑ *Start with the CEO and work down from there.*

Having the right sponsor may be all that is needed.

After all, in the final analysis, it is often not what the project can do but who wants it that counts.

Identifying Winning Projects (cont.)

Has any Low-hanging Fruit been Identified?

- ❑ *A project that starts providing paybacks right away is said to have low hanging fruit.*
- ❑ *These immediate paybacks often help fund the project and build the team's credibility to deliver.*
- ❑ *Always look for low hanging fruit.*
- ❑ *Do not forget about low hanging fruit that might be preference or bias motivated.*
- ❑ *Remember people tend to buy on emotion not logic.*

Identifying Winning Projects (cont.)

Is there Grassroots Support?

- ❑ *Assess whether the people in the rank and file buy into the project.*
 - *Getting their support will often influence their superior's support.*
 - *Bottom-up supported projects typically have a greater chance of succeeding than top-down driven projects.*
 - *On the other hand, top-down driven projects have a greater chance of being approved.*
 - *Having both types of project support is ideal.*

Identifying Winning Projects (cont.)

Is there a Sense of Focused Urgency?

- ❑ *Many organizations react to fixing rather than avoiding painful situations.*
- ❑ *Assess the awareness to the amount of pain being experienced.*
- ❑ *The greater the pain the greater the urgency to relieve the pain will be increasing the likelihood of the project being approved.*
- ❑ *Be Sure the Pain is Real not just Perceived!*

Identifying Winning Projects (cont.)

Are the organizations and the key people involved committed?

Remember the Difference between Bacon and Eggs

Discovering Strategic Direction

- ❑ Assessing Where the Organization is Now
- ❑ Establishing the Organization's Potential
- ❑ Defining the GAP - Now vs Potential
- ❑ Identifying Uncontrollable and Imposed Constraints
- ❑ Setting the Mission & Realistic Goals (near & long term)
- ❑ Developing Strategic Objectives
- ❑ Identifying Programs to Achieve Objectives
- ❑ Driving Programs in to Operational Realities

Assessing Where the Organization is Now

- ❑ What is Organization's Competitive Position?
- ❑ What are the Value Added Outcomes to Stakeholders?
- ❑ What are Resource Strengths & Weaknesses?

What is Organization's Competitive Position?

- ❑ Philosophical
- ❑ Financial
- ❑ Product
- ❑ Service Level
- ❑ Organizational
- ❑ People
- ❑ Technological
- ❑ Operational

What are the Value Added Outcomes to Stakeholders

- ❑ Customers
- ❑ Shareholders
- ❑ Employees
- ❑ Suppliers
- ❑ Community

What are Resource Strengths & Weaknesses?

- ❑ Philosophical
- ❑ Financial
- ❑ Product
- ❑ Service Level
- ❑ Organizational
- ❑ People
- ❑ Technological
- ❑ Operational

Establishing the Organization's Potential

- ❑ What Could Competitive Position Be?
- ❑ What Value Added Outcomes Could be Delivered to Stakeholders?
- ❑ What Resources Would Be Required?

Defining the GAP - Now vs. Potential

- ❑ How Big a Leap is Needed to Achieve Potential?
- ❑ What are the Major Obstacles to be Overcome?
- ❑ How Much Change Would Need to Take Place?

Identifying Uncontrollable and Imposed Constraints

- ❑ What Variables are Beyond the Organization's Control & Influence?
- ❑ What are the Self Imposed Constraints?
 - What is the Organization willing & not willing to do to Achieve its Potential

Setting the Mission & Realistic Goals

(near & long term)

- ❑ What is the Organization Willing to Pursue?
- ❑ What will Change in Order to Make it Happen?
- ❑ How will Success be Measured? Failure?

Developing Strategic Objectives

- ❑ What Key things Must be Accomplished to Realize the Mission and Goals?
- ❑ What Time Frame Should Each be Achieved in?
- ❑ How do these Objectives Map to Stakeholder Needs?

Identifying Programs to Achieve Objectives

- ❑ What are the Core Value-added Delivery Systems (VADS)?
- ❑ How do the Objectives Map to these VADS?
- ❑ Which VADS will Most Likely Need to Change?

Driving Programs in to Operational Realities

- ❑ What are the Specific GAPS Between the Value the Current VADS Deliver and What the Objectives Call For?
- ❑ How can these GAPS be Quantified?
- ❑ What Organizations Participate in each VADS?
- ❑ Who are the Best Knowledge Sources?

Helix Methodology

End of Day 1

Coming Up Tomorrow

Tools and Techniques using the JMI
Case Study

The Helix Methodology

Overview of Process Improvement Discovery Phases

Phases C - D Repeat for Each Value-add Delivery System					
<i>HELIX Project Summary</i>					
Phase A	Phase B	Phase C	Phase D	Phase E	Phase F
Executive Briefing	Kick-off	1st Facilitation Work Session	1st Diagnostic Work Session	Subsequent Facilitation Session	Subsequent Diagnostic Session
1. Stakeholder needs and objectives 2. Review business plan 3. Questions for executives 4. Team consensus and understanding 5. Present project proposal	1. Identify team and VADS participants 2. Select team and VADS participants 3. Kick-off meeting 4. Confirm team's and participant's understanding of needs, strategic direction, and project goals	1. Review objectives and goal of session 2. Facilitate a Change Analysis (CA) 3. Facilitate existing level 1 workflow 4. Facilitate existing level 2 workflow 5. Map the CA current situations to EWFL2 6. Facilitate proposed level 2 workflow 7. Map project and CA preliminary goals to PWFL2	1. Summarize knowledge gained 2. Formalize CA, WFL1, EWFL2, PWFL2 3. Tests on CA, WFL1, EWFL2, PWFL2 4. Complete alignment diagnostics 5. Failure analysis & refine PWFL2 6. Prepare follow up questions for next facilitation workshop	1. Review models, issues, questions 2. Update models 3. Conduct final walkthroughs 4. Consensus on CA goals and PWFL2 5. Outline action steps for implementation	1. Finalize improvement recommendations 2. Finalize working papers 3. VADS level implementation plan 4. VADS level cost estimates 5. Present findings to management
<u>10 hours</u>	<u>4 hours</u>	<u>25 to 40 hours</u>	<u>16 hours</u>	<u>50 to 90 hours</u>	<u>48 hours</u>

Tools, Models & Methods using JMI Case Study

Phases of the Helix Discovery Process

Phase A – Executive Briefing

Phase B – Project Kick-off

For each VADS in Project

Phase C – 1st VADS Facilitation Work Session

Phase D – 1st VADS Post Diagnostic Work Session

Phase E – 2nd Facilitation and Post Diagnostic Work Session

Phase F – 3rd Facilitation and Post Diagnostic Work Session &
Presentation of Findings

Phase A – Executive Briefing

Purpose:

The purpose of the Executive Briefing is to gain a thorough understanding of the organization's Stakeholders Needs, Strategic Direction and Supporting Business Objectives.

HELIX Phase A – Executive Briefing

Procedures

**A1 - Review Stakeholder Needs, Strategic Direction
& Supporting Objectives**

A2 – Review Business Plan

A3 – Develop Questions for Executive Team

**A4 – Confirm Team's Understanding and Develop
Project Proposal**

A5 – Present Project Proposal

HELIX Phase A – Executive Briefing Overview

During this phase the following will be accomplished:

- ❑ Review of Stakeholder Needs, Strategic Direction & Supporting Objectives via and Executive Team Work Session
- ❑ Review of Business Plan (Vision, Mission, Objectives)
- ❑ Development of Questions for Executives to help clarify and operationally quantify the information gathered

HELIX Phase A – Executive Briefing Overview

- ❑ Confirmation of Team's Understanding and Project Proposal
 - **Section 1** - Project Scope and Objectives
 - **Section 2** - Scope of Work Performed to Date
 - **Section 3** - Project Benefits and Alignment Matrix
 - **Section 4** - Project Cost and Time Line for Completion
 - **Section 5** - Project Work Schedule
 - **Section 6** - Project Kick Off and Authorization to Proceed
- ❑ Presentation of Project Proposal to Management

HELIX Phase A — Executive Briefing Overview

Phase A Facts

- ❑ Frequency: Once per Year or Initiative
- ❑ Level of Effort: 25 to 35 hours
- ❑ Lapsed Time: Less than 30 days

Welcome to Jonathan, Mills Inc.

- ❑ *Project Planning and Estimating*
- ❑ *Facilitating Management's Objectives and Buy-in*
- ❑ *Working with HELIX's Facilitation Tools*
- ❑ *Workflow Modeling and Mapping*
- ❑ *Conducting Post-Work Session Diagnostics*
- ❑ *Estimating the Time and Cost of Implementation*
- ❑ *Organizing, Packaging and Presenting Results*

Welcome to JMI – case study

JMI Executive Team

- ❑ Cynthia Mills, Executive Vice President
- ❑ Michael Jacobs, Chief Financial Officer
- ❑ Brad Crenshaw, General Manager and CIO
- ❑ Steven Ethridge, Vice President, Human Resources
- ❑ Marie Richards, Vice President, Sales and Marketing

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A1 - Review Stakeholder Needs, Strategic Direction & Supporting Objectives - FACTS

JMI Wants to make Major Improvements to the Inventory and Order Management Functions

- ❑ No Growth of 2 Years
- ❑ Sales Flat at about \$600 Million – Industry growing at 8%
- ❑ Average Sale – 3 Fabrics Per Order at about 100 to 150 Yards Per Fabric
- ❑ JMI receives about 150 orders per day
- ❑ Markup ~ 40%
- ❑ Direct Cost Range from \$7.50 to \$38.50 per yard (avg \$28.50)
- ❑ Some Lines Run as high as \$150 per yard

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A1 - Review Stakeholder Needs, Strategic Direction & Supporting Objectives – FACTS (cont.)

- ❑ Active Customers ~ 5,000.
- ❑ Typical Customer Orders ~ 8 Times a Year.
- ❑ Inventory Levels Average about \$60 Million
- ❑ Accounts Receivables Averaging about 47 Days.
- ❑ ~12 % of Orders are lost due to out-of-stock inventory situations.
- ❑ Orders take about 5 Days to Ship and 2 Days to Bill

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A1 - Review Stakeholder Needs, Strategic Direction & Supporting Objectives – What JMI Wants

- ❑ *Be the industry leader.*
- ❑ *Take the company public within the next 3 years.*
- ❑ *Increase Sales about 20% a year.*
- ❑ *Stabilize Workforce at Current Levels.*
- ❑ *Increase Cash Flow by \$15 Million a Year.*

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A1 - Review Stakeholder Needs, Strategic Direction & Supporting Objectives – Taking a Closer Look

JMI wants to be the Industry Leader in Fabric Distribution

What Does This Mean?

- ❑ *Highest Sales / Market Share? (low margins, aggressive credit terms)*
- ❑ *Best Bottom Line ?(better customers, higher margins)*
- ❑ *Best Reputation / Product Quality and Service Levels? (higher prices)*

A1 - Review Stakeholder Needs, Strategic Direction & Supporting Objectives

JMI Wants to Take the Company Public within 3 Years

How does this align with becoming an industry leader?

- ❑ *Will being an industry leader make the company attractive to future stockholders?*
 - *Bottom-line Performance (i.e. shareholder value may be critical)*
 - *Largest Market Share, may be unattractive to investors.*

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A1 - Review Stakeholder Needs, Strategic Direction & Supporting Objectives

Implicit to Any Vision or Goal –

Achievement is Good.

So for JMI

Being the Industry Leader and Going Public is “GOOD”

The Question is, Good for Whom?

Next Meeting with JMI, Need to Explore WHAT these 2 Vision Points Mean to JMI's Stakeholders

- ***Customers***
- ***Owners (current & future)***
- ***Employees***
- ***Community***

What's Going on at JMI? - Next Steps

- ❑ *Correlate and Align the information Collected.*
- ❑ *Identify Missing Information and Knowledge Gaps*
- ❑ *Identify Potential Alignment Gaps.*
- ❑ *Develop Questions to Help Explore and Validate the Our Understanding of Top Management's Direction*
- ❑ *Develop a Basic Plan of Action for the Project.*

A2 – Review Business Plan

Increase Sales 20% a Year

Why 20%?

- ❑ *Will 20% Make JMI the Industry Leader?*
- ❑ *Why not 5% or 30%?*
- ❑ *Does this Objective Tie Directly to the Vision?*
- ❑ *Is JMI is Merely Trying to Make Up Lost Ground?*

A2 – Review Business Plan (cont.)

Increase Sales 20% a Year (cont.)

Is 20% Achievable?

- ❑ *What Must Change to Achieve this Growth?*
- ❑ *Where will Growth Come From?*
 - *Industry Growth?*
 - *Increased market share?*

The Answers Will Help Establish the Degree of Alignment Between The Vision and The Plan

A2 – Review Business Plan (cont.)

Stabilize the Workforce at ~ 7,500

Why 7,500?

Given - Reducing the Workforce NOT Philosophically Desirable to JMI

- ❑ *How Will Sales Grow Without Increasing Head Count?*
- ❑ *Can Workforce Handle the Volume?*
 - *If TRUE, then Tremendous Excess Capacity must Exist*
- ❑ *How many Employees do Comparable Competitors Employ?*

The Key is to Understand HOW The Vision and The Plan Align

Misalignment = Operational Confusion and Chaos

High Level Anomalies can Drive Operations in the Wrong Direction

A2 – Review Business Plan (cont.)

Increase Cash Flow by \$15 Million a Year

Why \$15 Million?

Strong Cash Position = Attractive to Investors?

What is the Money For?

- *Retire Key Debt?*
- *Acquire Competitors?*
- *Pursue Capital Investments?*

Will 20% Growth Produce the \$15 Million?

More Questions in the Data than Answers

This is a “Good Thing”

Productive Dialogue Starts with Good Questions

A2 – Review Business Plan (cont.)

So What Needs to Change?

Major Improvements to Inventory and Order Management Functions – But WHAT is JMI Unhappy With?

- ***Markup***
- ***Average Order Size***
- ***Number of Active Customers***
- ***Order Frequency***
- ***Inventory Levels***
- ***Age of Account Balances***
- ***Out-of-Stock Situations***
- ***Order Processing Times***

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A2 – Review Business Plan (cont.)

- ❑ Need to Formulate Questions to Help JMI Contrast Current Situations With Their Goals
- ❑ Need to Develop Questions to Help JMI Align Planned Improvements with Vision and Objectives Achievement
- ❑ Need JMI Management to Identify Potential Value-added Delivery Systems (VADS) for Review.

Signs are Pointing to the VADS Related to Selling Product to Customers

A3 - Develop Questions for Executive Team

Flip Chart Question Format

Statistics or Data that led to the Question
The Question
Summary of the Answer

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A3 - Develop Questions for Executive Team

JMI wants to become an industry leader.

JMI wants to grow 20% a year.

JMI wants to stabilize the workforce at 7,500

10. How does stabilizing the workforce at 7,500 support becoming an industry leader, going public and growing at 20% a year?

A3 - Develop Questions for Executive Team

Factors #9 & 10 - Alignment of Stakeholder Needs to Strategic Direction and Business Objectives

Conspicuously missing from JMI's data was any reference to its stakeholders

A New Way of Thinking for Most Organizations

Our Job:

Help Management Clarify How the Vision and Objectives Benefit the Stakeholders

A3 - Develop Questions for Executive Team

Factors #9 & 10 - Alignment of Stakeholder Needs to Strategic Direction and Business Objectives

Question Structure

- ❑ Open Ended and Non Presumptive***
- ❑ Intended to Foster Dialogue and Educate Team***

A3 - Develop Questions for Executive Team

Factors #9 & 10 - *Alignment of Stakeholder Needs to Strategic Direction and Business Objectives*

Plausible Examples Based on Vision Points

- ❑ *What does being the industry leader mean to you (JMI)?*
- ❑ *Who will benefit from you achieving the industry leader position?*
- ❑ *Why is taking the company public important, and who will be the beneficiaries of this?*
- ❑ *What is the connection between becoming the industry leader and going public?*
- ❑ *What do the employees think of going public?*
- ❑ *What do the customers think of going public?*

A3 - Develop Questions for Executive Team

Factors #9 & 10 - Alignment of Stakeholder Needs to Strategic Direction and Business Objectives

- ❑ *How does increasing sales by 20% a year help JMI achieve a leader position and eventually go public?*
- ❑ *What has kept JMI from achieving this kind of growth in the past?*
- ❑ *How much of the growth does JMI see coming from general industry growth vs. Increased market share?*
- ❑ *How does stabilizing the workforce at 7,500 support becoming an industry leader, going public and growing at 20% a year?*
- ❑ *Why does JMI want to increase cash flow by \$15 million a year?*
- ❑ *How does this increase support becoming an industry leader and going public?*

A3 - Develop Questions for Executive Team

Factor #11 - Alignment of Business Objectives to Value-added-Delivery Systems and Process Groups

Operationally Focused Questions

The Goal:

- ❑ *Further Develop Team's Knowledge & Understanding*
- ❑ *Begin to Develop Some Specific Target Objectives*
- ❑ *Identify VADS and Operational Areas for Review*

The Helix Methodology

A3 - Develop Questions for Executive Team ***Operational Questions – Building the GAP***

- ❑ *How long should an order take to ship and bill?*
- ❑ *What is an acceptable level of lost orders due to out-of-stock situations?*
- ❑ *How long should an order take to collect from an average customer?*
- ❑ *What should the average value of inventory be at any given time?*

A3 - Develop Questions for Executive Team

Operational Questions (cont.)

- ❑ *How many orders will JMI need to process each day to meet its growth objectives?*
- ❑ *What should the average value of those orders be?*
- ❑ *How many of those orders will come from new customers vs. increased order frequency or size?*
- ❑ *What changes to the 40% markup does JMI need to make to support its objectives?*

A3 - Develop Questions for Executive Team
VADS Questions

- ❑ *What organizations within JMI participate in Processing Orders and Managing Inventory?*

Order Desk	Field Sales	Sampling
New Accounts	Shipping	Credit
Billing	Collections	Purchasing
Receiving	Will Call	Contracts

The Helix Methodology

A3 - Develop Questions for Executive Team

VADS Questions

- ❑ *How many different ways does JMI sell fabric? –*
 - ***JMI sells fabric COD, On Account and via Contracts***
- ❑ *What are the various stages that a sale goes through from the point at which a customer makes an inquiry until the order is shipped and paid for?*

Open Quote	Open Order	Credit Approved Order
Shippable Order	Shipped Order	Billed Order
Paid Order		

The Helix Methodology

A3 - Develop Questions for Executive Team

VADS Questions

- ❑ *What are the ways JMI can increase or decrease inventory?*

Buying it	Selling it	Taking it back (from customers)	Throwing it away
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The Helix Methodology

A4 – Confirm Team's Understanding & Develop Project Proposal Preparing for Management Work Session Two

Remember

The goal of the Executive Briefing is to

1. Clarify the Team's Understanding of JMI's Objectives
2. Ensure the Outcomes of the Improvement Project Support JMI's Strategic Direction

The Helix Methodology

A4 – Confirm Team's Understanding & Develop Project Proposal
Work Session #2 -- Facilitating, Clarifying and Aligning Dialogue

What does being the industry leader mean to you (JMI)?

Most Profitable

The company's management realizes that they can NOT become the largest grosser in the next three years.

However, by taking most of JMI's planned growth to the bottom line, they believe JMI can become the most profitable in terms of operating profit as a percent of gross sales.

The Helix Methodology

A4 – Confirm Team's Understanding & Develop Project Proposal
Work Session #2 -- Facilitating, Clarifying and Aligning Dialogue

Who will benefit from you achieving the industry leader position?

Everyone Except Competitors

The Owners (Mr. Jonathan and Ms. Mills) - company becomes worth more.

The Employees- better salaries and benefits.

The Customers - higher customer service levels

The Helix Methodology

A4 – Confirm Team's Understanding & Develop Project Proposal
Work Session #2 -- Facilitating, Clarifying and Aligning Dialogue

Why is taking the company public important, and who are the beneficiaries of this?

- ❑ Owners Nearing Retirement
 - Robert Jonathan is now 67 years old
 - Cynthia Mills is 63
- ❑ Continued Prosperity Hinges on Growth
- ❑ Allow Employees to Become Stock Holders

**Taking the Company Public Provides a Vehicle for
ALL These Things to Happen**

The Helix Methodology

A4 – Confirm Team's Understanding & Develop Project Proposal
Work Session #2 -- Facilitating, Clarifying and Aligning Dialogue

What is the connection between becoming the industry leader and going public?

Industry Leadership makes JMI Attractive Investors

Also

Industry Leadership will Increase Stock Value

The Helix Methodology

A4 – Confirm Team's Understanding & Develop Project Proposal Work Session #2 -- Facilitating, Clarifying and Aligning Dialogue

What do the employees think of going public?

Resistant at First – idea poorly communicated

Improves after learning JMI will set aside 20% of the public offering for employees

As Cynthia Mills stated,

“There is something in this for everyone and that’s the way we want it.”

The Helix Methodology

A4 – Confirm Team's Understanding & Develop Project Proposal Work Session #2 -- Facilitating, Clarifying and Aligning Dialogue

What do the customers think of going public?

There has not been any formal discussion with the customers over the move to go public.

JMI's management team feels that communicating its plans to go public will need to be done with care at the right time and place.

The Helix Methodology

A4 – Confirm Team's Understanding & Develop Project Proposal Work Session #2 -- Facilitating, Clarifying and Aligning Dialogue

How does increasing sales by 20% a year help JMI achieve a leader position and eventually go public?

Mounting a 20% growth per year track record will demonstrate that JMI is on a strong growth path and is an aggressive competitor.

This will make JMI more attractive to investors.

The 20% growth will also exceed the current 8% trend in the industry.

Based on JMI's calculations, it needs only an 18% growth rate to achieve an industry leader position.

The extra 2% was put in for a safety net.

The Helix Methodology

A4 – Confirm Team's Understanding & Develop Project Proposal
Work Session #2 -- Facilitating, Clarifying and Aligning Dialogue

What has kept JMI from achieving this kind of growth in the past?

Inefficiency of Operations

Operations Need Streamlining

Facilities, Systems & Processes Upgrading

The Helix Methodology

A4 – Confirm Team's Understanding & Develop Project Proposal
Work Session #2 -- Facilitating, Clarifying and Aligning Dialogue

How much of the growth does JMI see coming from general industry growth vs. increased market share?

The industry growing at 8%

Remaining 12% will come increased market share.

A very aggressive marketing effort needed

The Helix Methodology

A4 – Confirm Team's Understanding & Develop Project Proposal Work Session #2 -- Facilitating, Clarifying and Aligning Dialogue

How does stabilizing the workforce at 7,500 support becoming an industry leader, going public and growing at 20% a year?

- ❑ *TOO Many Employees for its Current Volume.*
- ❑ *Improvements in Systems and Processes will Improve Efficiency*
- ❑ *Committed to NO Downsizing*
- ❑ *Physical Plant can Accommodate Growth.*
- ❑ *An Efficient and Aggressive Track Record can Only Improve JMI's Image and Value*

The Helix Methodology

A4 – Confirm Team's Understanding & Develop Project Proposal
Work Session #2 -- Facilitating, Clarifying and Aligning Dialogue

Why does JMI want to increase cash flow by \$15 million a year?

- ❑ *Relatively Debt Free but Cash Lean*
- ❑ *Improvements will Require Capital Infusion*
- ❑ *The \$15 Million Per Year = Best Guess of Expansion Effort Cost.*

The Helix Methodology

A4 – Confirm Team's Understanding & Develop Project Proposal
Work Session #2 -- Facilitating, Clarifying and Aligning Dialogue

How does this increase, support becoming an industry leader and going public?

*Financing Growth through Reinvestment
Demonstrates Commitment and Maturity*

Both Needed to Take JMI to a Strong Public Offering

The Helix Methodology

A4 – Confirm Team's Understanding & Develop Project Proposal Work Session #2 -- Facilitating, Clarifying and Aligning Dialogue

How long should an order take to ship and bill?

Orders take about 5 days to process

Competitors average about 4 days

JMI's Goal

*Process an Order, from Point of Order through
Shipping, in 24 to 36 hours (40% to 60% improvement)*

*All Orders Shipped Should be Billed the Following
Workday*

The Helix Methodology

A4 – Confirm Team's Understanding & Develop Project Proposal
Work Session #2 -- Facilitating, Clarifying and Aligning Dialogue

What is an acceptable level of lost orders due to out-of-stock situations?

Not to Exceed 1%.

No Over Stocking Situations.

Stock the Right Products Based on Better Demand Analysis

The Helix Methodology

A4 – Confirm Team's Understanding & Develop Project Proposal Work Session #2 -- Facilitating, Clarifying and Aligning Dialogue

How long should an order take to collect from an average customer?

Not the Issue

Need an Early Warning System that Detects when Customers are Changing Their Payment Habits

The Helix Methodology

A4 – Confirm Team's Understanding & Develop Project Proposal
Work Session #2 -- Facilitating, Clarifying and Aligning Dialogue

What should the average value of inventory be at any given time?

Strategy

First Align to Customer Demand

Then

Improve Inventory Turns

JMI's Ultimate Goal

Reduce Average Inventory On-hand from \$60 to \$40 million.

The Helix Methodology

A4 – Confirm Team's Understanding & Develop Project Proposal Work Session #2 -- Facilitating, Clarifying and Aligning Dialogue

How many orders will JMI need to process a day to meet its growth objectives?

What should the average value of those orders be?

How many of those orders will come from new customers vs. increased order frequency or size?

Cynthia Mills saw the value in knowing the answer to these questions.

Tasked the Team to develop a model to project the impact of the growth objective on order volume, frequency and value.

The Helix Methodology

A4 – Confirm Team's Understanding & Develop Project Proposal
Work Session #2 -- Facilitating, Clarifying and Aligning Dialogue

What changes to the 40% markup does JMI need to make to support its objectives?

Margins MUST Remain Competitive

Improvements to efficiency and stabilized operating costs will fuel profits

The Helix Methodology

A4 – Confirm Team's Understanding & Develop Project Proposal
Work Session #2 -- Facilitating, Clarifying and Aligning Dialogue

What organizations within JMI participate in processing orders and managing inventory?

Typically the Most Difficult Question for Management to Answer

Requires Thinking Outside the Silos

The Helix Methodology

A4 – Confirm Team's Understanding & Develop Project Proposal Work Session #2 -- Facilitating, Clarifying and Aligning Dialogue

Order Desk	Field Sales	Sampling
New Accounts	Shipping	Credit
Billing	Collections	Purchasing
Receiving	Will Call	Contracts

The Helix Methodology

A4 – Confirm Team's Understanding & Develop Project Proposal
Work Session #2 -- Facilitating, Clarifying and Aligning Dialogue

How many different ways does JMI sell fabric?

COD

On Account

Contracts.

The Helix Methodology

A4 – Confirm Team's Understanding & Develop Project Proposal Work Session #2 -- Facilitating, Clarifying and Aligning Dialogue

What are the various stages that a sale goes through from the point at which a customer makes an inquiry until the order is shipped and paid for?

Open Quote	Open Order	Credit Approved Order
Shippable Order	Shipped Order	Billed Order
Paid Order		

The Helix Methodology

A4 – Confirm Team's Understanding & Develop Project Proposal
Work Session #2 -- Facilitating, Clarifying and Aligning Dialogue

What are the ways JMI can increase or decrease inventory?

Buying it	Selling it	Taking it back (from customers)	Throwing it away
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The Helix Methodology

A4 – Confirm Team's Understanding & Develop Project Proposal - Formulating the Project's Objectives & Scope

Summary of Strategy

Increased Volume & Profits

JMI can increase its volume & profits without a significant increases in operating costs

20% Employee Ownership

On going public JMI will reward its employees by providing them with 20% ownership

No Downsizing

Achieving the growth objectives will avoid any downsizing programs

The Helix Methodology

A4 – Confirm Team's Understanding & Develop Project Proposal - Formulating the Project's Objectives & Scope

Summary of Operational Goal

- ❑ *Process Orders is 2 to 3 Days*
- ❑ *Increase Sales by 30 orders Per Day*
- ❑ *No more the 2 Lost Sales a Day Due to Stock Outages*
- ❑ *Implement Early Warning System on Changes in Customer Payment Habits of 3 Days (will improve collections)*
- ❑ *Reduce Average Inventory from \$60 million to \$40 million*
- ❑ *Develop Growth Impact Model (order volumes, order frequency and order value)*
- ❑ *Stay Competitive on Margins (no change on 40%)*

The Helix Methodology

A4 – Confirm Team's Understanding & Develop Project Proposal - *Estimating the Project Investment - **The Basics***

- ❑ **3 Facilitation Work Sessions Per VADS** per Cross Functional Focus Group (usually 1)
- ❑ **3 Diagnostic Work Sessions** (one after each Facilitation Work Session)
- ❑ **Each Facilitation Work Session Limited to 2-½ hours.**
- ❑ **Each Diagnostic Work Session takes about 8 hours** (assume 2 team members per session – 16 hours)
- ❑ **Facilitation Work Sessions are Attended by**
 - Cross Functional Focus Group Members (4 to 12)
 - 2 Project Team Members (facilitator and monitor)

The Helix Methodology

A4 – Confirm Team's Understanding & Develop Project Proposal - *Estimating the Project Investment - **The Basics***

- ❑ *Each work session participant can expect to spend 2 hours of data-collection time for every work session attended.*
- ❑ *The number of VADS. and participants will change during the project but not significantly, (Remember that this is a discovery process, so flexibility needs to be built into the plan and related estimates.).*
- ❑ *The management report production process takes about 40 hours to complete.*
- ❑ *There is Only 1 Facilitator/ Monitor Team per VADS*

The Helix Methodology

A4 – Confirm Team's Understanding & Develop Project Proposal - *Estimating the Project Investment – JMI Estimate Example*

JMI has 6 VADS to be reviewed ((#) items in are the number of groups / participants involved)

1. **Contract Sales** (Field Sales, Sampling, Contracts, Order Desk, Credit, Shipping, Billing & Collections) (7)
2. **Sales on Account** (Order Desk, Credit, Shipping, Billing & Collections) (5)
3. **New Account Sales** (Field Sales, New Accounts, Sampling, Order Desk, Credit, Shipping, Billing & Collections) (8)
4. **Backorder Sales** ((Field Sales, Order Desk, Credit, Purchasing, Shipping, Receiving, Billing, Collections & Accounts Payable) (9)
5. **Replenishment Purchasing** (Purchasing, Receiving & Accounts Payable) (3)
6. **New Product Purchasing** (Marketing, Purchasing, Receiving, Sampling, Field Sales & Accounts Payable) (6)

The Helix Methodology

A4 – Confirm Team's Understanding & Develop Project Proposal - Formulating the Project's Objectives & Scope

Assume

The average cost per participant is \$35 an hour.

The cost of the 2-person team is \$200 an hour.

The Helix Methodology

A4 – Confirm Team’s Understanding & Develop Project Proposal - Formulating the Project’s Objectives & Scope

	JMI Staff Participants Cost			Project Team		
VADS (6)	#	Facilitation Session Cost (\$35 x 2.5 hours x # of staff x 3 sessions)	Post Session Costs (\$35 x 2 hours x # of staff x 3 sessions)	Facilitation Session Cost (\$200 x 2.5 hours x 3 sessions)	Post Diagnostic Session Cost (\$200 x 8 hours x 3 sessions)	Total Cost
Contract Sales	7	1,838	1,470	1,500	4,800	9,608
Sales on Account	5	1,313	1,050	1,500	4,800	8,663
New Account Sales	8	2,100	1,680	1,500	4,800	10,080
Backorder Sales	9	2,363	1,890	1,500	4,800	10,553
Replenishment	3	788	630	1,500	4,800	7,718
New Products	6	1,575	1,260	1,500	4,800	9,135
Total Base Cost						55,755
Report Packaging (40 hours @ \$200 a team hour)						8,000
Allowance for New VADSs and changes in JMI participant levels (20%)						11,151
Total Estimated Project Cost						74,906
Estimated Weeks to Complete Project at One Facilitation/Diagnostic Work Session per Week						23

The Helix Methodology

A4 – Confirm Team’s Understanding & Develop Project Proposal

Building the Alignment Matrix

	Supports		Value-added to		
Project Objective	Vision	Plan	Customers	Owners	Employees
Improve our customer service and beat the competition by reducing the time it takes to process an order (from the order desk through shipping) from 5 days to 2 days.	Better sales and service levels improves industry leadership position.	Supports 20% growth objective.	Improved service levels.	Better service levels improves sales.	Reduced frustration and customer complaints.
Increase our sales by over \$40 million a year by keeping lost sales due to stock shortages to less than 2 a day.	Increased sales makes JMI more attractive to investors.	Supports 20% growth objective. Improves cash position.	Improved service levels.	Better service levels improves sales.	Reduced frustration and customer complaints.
Improve our collections by identifying when a customer has a 3-day change in their paying habits.	Better sales and service levels improves industry leadership position.	Supports cash flow objective and reduces bad debts	Avoids embarrassing bad debt situations.	Improves value of company.	Moves them closer to ownership. Avoids downsizing.
Become the industry sales leader by increasing our sales volume by 30 orders a day.	Better sales and service levels improves industry leadership position.	Supports 20% growth objective. Improves cash position.	Demonstrates customer satisfaction with JMI's products and services.	Improves value of company.	Moves them closer to ownership. Avoids downsizing.

The Helix Methodology

A4 – Confirm Team's Understanding & Develop Project Proposal - Formalizing the Proposal – Accomplishments

Executive Briefing – 3 Work Sessions with Management

Formulation of Project Objectives, Scope, Cost and Timeline

Development of an Alignment Matrix (proof of correctness - the project's objectives support the company's vision, business plan and stakeholder value)

The Helix Methodology

A4 – Confirm Team's Understanding & Develop Project Proposal - Formalizing the Proposal - Contents

- ❑ **Section 1** - Project Scope and Objectives
- ❑ **Section 2** - Scope of Work Performed to Date
- ❑ **Section 3** - Project Benefits and Alignment Matrix
- ❑ **Section 4** - Project Cost and Time Line for Completion
- ❑ **Section 5** - Project Work Schedule
- ❑ **Section 6** - Project Kick Off and Authorization to Proceed

The Helix Methodology

A4 – Confirm Team's Understanding & Develop Project Proposal - Formalizing the Proposal - Contents

- ❑ Limited to about 15 pages.
- ❑ The first section should summarize everything that management needs to know to approve the project
 - Short Description
 - ROI
 - Costs
 - Savings
 - Time Table / Level of Effort
 - Staff Commitments (team and operational participants)

The rest is backup and support material.

The Helix Methodology

A5 – Present the Project Proposal – Food for Thought

- ❑ Lead with the Outcome
 - What the Project will deliver
 - Tie it to the Business Plan
- ❑ Keep the Presentation Short
 - 10 minutes.... 5 minutes even better
- ❑ Allow the Execs to drive after that
 - Be ready to answer lots of questions or pack it in
- ❑ Stay Objective

HELIX Phase A – Executive Briefing Overview

Phase Checklist:

- ❑ Reviewed business plan and objectives for measurability.
- ❑ Correlated and aligned needs and expectations with business plan.
- ❑ Prepared questions via flip chart for work session two.
- ❑ Conducted work session two (resolved questions)
- ❑ Finalized data gathered and project proposal prepared.
- ❑ Formalized flip charts
- ❑ Formulated the project objectives and scope
- ❑ Identified Value-added Delivery Systems to be reviewed
- ❑ Formulated the project plan and cost estimates
- ❑ Built alignment matrix (Stakeholders to Business Objectives to Project)
- ❑ Prepared project proposal
- ❑ Presented proposal to management

Phase B - Kicking Off the Project

B1 – Identify Team and VADS Participants

B2 – Select & Schedule Team and VADS Participants

B3 – Conduct the Kick-off Meeting

B4 – Confirm Team's and Participant's Understanding of Stakeholder Needs, Strategic Direction and Project Goals

Phase B - Kicking Off the Project -

B1 – Identify Team and VADS Participants

For Each VADS

Review the Departments and Workgroups
Identified

Identify Best Knowledge Workers for
Participation

Phase B - Kicking Off the Project -

B2 – Select & Schedule Team and VADS Participants

Select the “Best of the Best”

Visit with Each, via Their Supervisor

Be Sure They are Willing to Participate on the Project

Conduct a Formal Kick-off Event

The Helix Methodology

Phase B - Kicking Off the Project - B2 – Select & Schedule Team and VADS

VADS / Task	Facilitation Work Session Date & Time	Diagnostic Work Session Date & Time	Other Tasks, Date & Time
Sales on Account	Week 1 - Monday - 9 to 11:30 am	Week 1 - Monday - 1 to 5 pm Tuesday - All Day	
	Week 2 - Monday - 9 to 11:30 am	Week 2 - Monday - 1 to 5 pm Tuesday - All Day	Week 2 - Wednesday - 15 minute debriefing with management - 11:45 am
	Week 3 - Monday - 9 to 11:30 am	Week 3 - Monday - 1 to 5 pm Tuesday - All Day	Week 4 - Monday & Tuesday - Package Results
Replenishment Purchasing	Week 1 - Wednesday - 9 to 11:30 am	Week 1 - Wednesday - 1 to 5 pm Thursday - All Day	
	Week 2 - Wednesday - 9 to 11:30 am	Week 2 - Wednesday - 1 to 5 pm Thursday - All Day	Week 2 - Friday - 15 minute debriefing with management - 11:45
	Week 3 - Wednesday - 9 to 11:30 am	Week 3 - Wednesday - 1 to 5 pm Thursday - All Day	Week 4 - Wednesday & Thursday - Package Results
Present Findings & Recommendations to Top Management	Week 5 - To Be Announced		

The Helix Methodology

Phase C – 1st Facilitation Work Sessions

(One 2.5 hour session per VADS Knowledge Group)

C1 – Review Objectives and Goal of Session

C2 – Facilitate a Change Analysis (CA)

C3 – Facilitate an Existing Level 1 Workflow (EWFL1)

C4 – Facilitate an Existing Level 2 Workflow (EWFL2)

C5 – Map the CA to the EWFL2

C6 – Facilitate Proposed Level 2 Workflow (PWFL2)

C7 – Map Project and CA Preliminary Goals to PWFL2

Remember this is done in 2.5 hour increments.

In the beginning this might take more than one session to complete per VADS group

Facilitation Tools and Techniques - Definitions

- ❑ *Webster's Dictionary - "To make easier"*
- ❑ *Oxford English Dictionary - "To lessen the labor of. To help promote movement forward. To allow progress with little or no effort."*
- ❑ *A person who is able to draw out of a group of knowledge workers information related to a specific VADS. and how to improve it, in a manner that encourages and rewards participation.*
- ❑ *A person who is able to work with an organization's knowledge workers to identify, plan for and implement change.*

Facilitation Tools and Techniques - Definitions

A person who, due to their mastery of the key HELIX models and facilitation techniques, can develop and correlate those models interactively with a cross functional group of knowledge workers to accurately depict how a VADS functions today and how it might be improved to achieve key organizational and workgroup goals in the future

The Helix Methodology

Facilitation Tools and Techniques – Traits and Skills

- ❑ *Projects a Good Sense of Humor*
- ❑ *Focuses at Macro and Micro Levels of Detail in Real- time.*
- ❑ *Maintains Poise in front of a Group (regardless of management level present).*
- ❑ *Takes Control of a Group without being Obtrusive, Abrasive or Autocratic.*
- ❑ *Stays on Course While Allowing Freedom in Dialogue.*

The Helix Methodology

Facilitation Tools and Techniques – Traits and Skills

- ❑ *Improvises Under Pressure with Confidence.*
- ❑ *Works with Knowledge Workers to Discover Improvement Opportunities.*
- ❑ *Works with the HELIX Models.*
- ❑ *Does Not Improvise or Take License with the HELIX Models or Model-Building Process Until Mastery is Achieved*
- ❑ *Resists Imposing Their Views and Opinions During the Facilitation Process.*
- ❑ *Demonstrates Basic Business Acumen Ensuring Understanding of Dialogue.*

Facilitation Tools and Techniques – Props, Tools & More

- ❑ *Props (flip chart, marking pens, tape, wall space)*
- ❑ *Tools (HELIX models)*
- ❑ *Pace (how fast or slow the session moves)*
- ❑ *Language (body and verbal)*
- ❑ *Group dynamics*

Facilitation Tools and Techniques – Props

- ❑ *One or two flip charts with full pads of paper*
- ❑ *Masking tape*
- ❑ *Three different colored marking pens (black, red, green)*
- ❑ *Plenty of empty wall space (for taping up completed flip chart pages).*

Facilitation Tools and Techniques – Pace

- ❑ ***Pace of Speech (how fast or slow)***
- ❑ ***Pace of Motion***

Facilitation Tools and Techniques – Language

- ❑ *Volume and intensity (how loud or soft)*
- ❑ *Inflection and tonality (what is emphasized)*
- ❑ *Vocabulary (what words are chosen)*
- ❑ *Timing (when to speak)*
- ❑ *Duration (how long)*
- ❑ *Focus (the subject of the message).*

The Helix Methodology

Facilitation Tools and Techniques – Group Dynamics

- ❑ *Needs to Maintain a Balance Between Gaining, Maintaining & Giving Control*
- ❑ *Too Much Control Fosters Participant Abdication Not Buy-in*
- ❑ *Too Little Control Results in*
 - *Chaos & Confusion*
 - *Loss of Focus*
 - *Failure to Produce the Require HELIX Models*
- ❑ *Give Control to Others Expressing Insights & Helping to Move the Process Forward*

It's a Balancing Act

- ❑ *Requires Metering Ourselves and the Participants.*
- ❑ *Must be Skilled in Reading the Verbal & Visual Cues of Participants and Able to Adjust*

Facilitation Tools and Techniques – Group Dynamics

The Facilitator Must Exhibit Respect

Participants May Feel Intimidated So

- ❑ *Always Encourage & Treat Questions, Insights and Ideas with Respect.*
- ❑ *Continually Build Credibility & Participant Self Esteem*

Facilitation Tools and Techniques – Group Dynamics

The Facilitator Must Keep the Work Session on Track

- ❑ *Must be Outcome-Oriented yet Process-Focused.*
- ❑ *Must be Consciously Aware of the Pace, Tone & Content of the Dialogue*
- ❑ *Must Encourage, Energize and Focus*

Facilitation Tools and Techniques – Group Dynamics

To Facilitator Goes the Knowledge To The Participants the Credit

- ❑ *Work Session Results can be Dramatic*
- ❑ *Often Credit for the Results is Given to the facilitator*
- ❑ *The Facilitator Must Redirect Credit to the Participants*
- ❑ *Recognize Participant Contributions*

Facilitation Tools and Techniques – Group Dynamics

The Facilitator Must be Patient, Compelling and Inspiring

- ❑ *Patience – Allow Participants to Struggle with Concepts and Ideas.*
- ❑ *Gratification and Reward comes with Discovering Improvement Opportunities*
- ❑ *The Facilitator's Gratification comes with Participant Success*

Facilitation Tools and Techniques – Group Dynamics

Filtered Listening

- ❑ *Participants Do Not Always Get Right to the Point*
- ❑ *Discussions Tend to Wander, and Idea Exchanges Fast Paced*
- ❑ *Filtered Listening Allows the Conversation to Run Freely While Capturing Model Information as it Surfaces*
- ❑ *Facilitator's Cue to Take Back Control*

Facilitation Tools and Techniques – Group Dynamics

Filtered Listening (cont.)

❑ Steps

- *Refocus the Group Back to Flip Chart*
- *Update Models*
- *Get Confirmation through Paraphrasing and Feedback*

❑ *Filtered Listening Allows Freedom of Dialogue While Maintaining Focus and Control Over the Process.*

❑ *Also Keeps Results Generated in the Proper Form*

Facilitation Tools and Techniques – Group Dynamics

Mind Pictures

- ❑ *Useful when Momentum Slows or Participants Mental Blocks*
- ❑ *Mind Pictures Help People Visualize Alternatives and Solutions.*
- ❑ *Mind Pictures:*
 - *Analogy*
 - *Example through Experience*
 - *Simulation or Exercise*

Facilitation Tools and Techniques – Group Dynamics

Mind Pictures - Provide Bridges - Maintain Creativity and Momentum

Analogies Help Draw Parallels Between Abstract Concepts & Familiar Concepts

For Example,

Use of a Football Team's Organization to Demonstrate the Flaw in Stovepipe Organizations

Examples through Experience Reduces Skepticism

Simulations & Exercises Help People Physically Experience Ideas & Situations

Facilitation Tools and Techniques – Group Dynamics

Defusing Conflict – Lively & Constructive Dialogue vs. Verbal Jousting

*Sometimes Energies are High and Tempers can
Flare*

- *Dialogue Focuses on the Subject NOT the Individual*
- *Animated & Loud Exchanges are NOT Always
Negative*

Facilitation Tools and Techniques – Group Dynamics

Arguing Tends to Focus People NOT Ideas

- ❑ *No Dialogue, Just Alternating Monologues*
- ❑ *Others Viewpoints are Met with Personal Attacks or Defensive Language*

The Facilitator Must Discern the Difference and Stay on Course

The Facilitator Must Remain Neutral and Mediate Opposing Views

Facilitation Tools and Techniques – Group Dynamics

The Facilitator Redirects, Clarifies & Quantifies

- ❑ *Humor can be Used to Break Tension & Reduce Stress*
- ❑ *Energy can be Directed Away from the Individuals on to the Subject*
- ❑ *Paraphrasing Key Points & Open-ended Questions can Help Create Common Grounds for Constructive Dialogue*
- ❑ *The Least Desirable Alternative is to Stop the Work Session*

Facilitation Tools and Techniques – Group Dynamics

When conflict arises between knowledge workers, it must be resolved.

- ❑ *The Team's Continuity and Rapport Must be Maintained*

- ❑ *Therefore, the Facilitator Must Make Every Effort to Resolve Such Conflicts Quickly and Amicably*

Facilitation Tools and Techniques – Group Dynamics

Technique - Interrupt the Process

Ask for Clarification - Promote Understanding of Viewpoints

- ❑ *Each Person Present Their Issues & Opinions Uninterrupted*
- ❑ *Facilitator - Paraphrases & Writes Down (On The Flip Chart) What They Heard And Asks If Their Understanding Is Correct*
- ❑ *Facilitator Asks Next Person To Contrast Their Viewpoint to The One Paraphrased On The Flip Chart*
- ❑ *The Contrasts are Then Paraphrased & Written Down*
- ❑ *This Goes On Until All The Contrasting Viewpoints Are Recorded & Acknowledged*

Facilitation Tools and Techniques – Group Dynamics

Facilitator Works Through Contrasting Viewpoints

Quantify & Identify Merit Objectively

Process

Diffuses Emotions

Focuses Group On Flip Chart

Goal

Understanding, Compromise or Consensus

Parties can Agree to Disagree

Facilitation Tools and Techniques – Group Dynamics

Mind Games

- ❑ *Conscious Efforts Might be Made to Derail Progress*
- ❑ *Efforts Take the Form of:*
 - **Passive Resistance --**
 - *Finding Reasons Not To Get Things Done In Order To Slow Progress*
 - **Subtle Sabotage --**
 - *Taking Direct But Hard-to-detect Actions That Hinder Progress*
 - **Overt Resistance --**
 - *Frontal Attack Approach*
 - *Typically Using Politics, Budgets Or Character Assassination To Stop The Project Dead In Its Tracks*

Facilitation Tools and Techniques – Group Dynamics

Passive Resistors & Subtle Saboteurs

Use Mind Games To Be Disruptive

- ❑ *Adept At Understanding, Manipulating & Exerting Control Over A Process*
- ❑ ***Tactic: “Bear Trapping” Or The “Now I Got You, You Sob”***
- ❑ *Questions are Asked - Intended to Embarrass Or Discredit*
- ❑ *The Question Is The Trap - “Bear Trap” Questions are Presumptive*
 - *Closed Ended In Nature*
 - *An Allegation In The Form Of A Question*

Example

“Isn’t It True That Your Company Knowingly Cut Prices To Put The Competition Out Of Business?”

Facilitation Tools and Techniques – Group Dynamics

No Matter What the Answer Guilt is Implied

Theatrics - Playing to the Audience

- ❑ *Rolling Their Eyes Or Giving An Incredulous Look*
- ❑ *Deny The Allegations & Trapper Responds With Another Attack*

“No, You Didn’t Knowingly Cut Prices Or No, You Didn’t Try To Put The Competition Out Of Business?”

The Goal:

- ❑ *Fluster And Confuse*
- ❑ *Get the Person to Lose Their Composure*
- ❑ *Say Something That Can Be Taken Out Of Context & Blown Out of Proportion*

If This Happens, The Trap Is Sprung

Facilitation Tools and Techniques – Group Dynamics

Ask Open-Ended Questions to Avoid the Trap

“What Would Lead You To Believe That Our Company Would Ever Engage In Such A Practice?”

- ❑ *Have Been Reversed*
- ❑ *A Rationale, Cordial Response*
- ❑ *Burden Of Proof Has Been Shifted*
- ❑ *The Audience Views Respondent as Reasonable And Concerned*

Facilitation Tools and Techniques – Group Dynamics

***Facilitator Must Diffuse “Bear Trapping”
Immediately***

Persistent = Removal from Team

Facilitation Tools and Techniques – Group Dynamics

Another Popular Tactic - “Yes but...”.

Agree with a “Yes”, Followed Promptly with a “BUT”

- ❑ *The “Yes” Gives Them The Floor*
- ❑ *The “But” Allows Them to Shoot Down the Idea Presented*

To Diffuse - Ask for Alternatives Ideas

- ❑ *Cannot Rebut Their Own Thoughts*
- ❑ *Nothing To Contribute Diminishes Their Credibility*
- ❑ *Peer Pressure often Corrects the Situation*

Facilitation Tools and Techniques – Group Dynamics

Removal is Rare

How to Remove a Person from a Team with Minimal Impact

- ❑ *Allow Them To Remove Themselves*
 - *Often Works Because The Disrupter Wants Out Of The Process Anyway*
 - ❑ *Have The Person Reassigned To Efforts That Are More Appropriate.*
 - *Speak With The Person's Supervisor - There Are No Guarantees.*
- Continual Adding of Negative Value = Time for Removal***

The Helix Methodology

Back to Phase C –



1st Facilitation Work Session

The Helix Methodology

C1 – Review Objectives and Goal of Session

Goals and Objectives can NOT be
Reinforced Enough

Repetition Breeds Belief

The Helix Methodology

C2 – Facilitate a Change Analysis (CA)

The First Model To Be Developed Or Updated

- ❑ Contrasts
 - **Existing Situations** (Situations Needing Improvement)
 - **Preliminary Goals** (Solutions - Acceptable Improvements)
- ❑ Developed Interactively with Knowledge Workers via Flip Chart
- ❑ Imperative To Do First –
 - Reinforces Factor 7 – The Principle Of Catharsis And Revelation
- ❑ Takes About 45 Minutes of the 2½ Hours Allocated for the Work Session

The Helix Methodology

C2 – Facilitate a Change Analysis (CA)

- ❑ The Facilitator is
 - Paraphraser
 - Clarifier
 - Recorder
- ❑ For Each Situation
 - Facilitator Paraphrases & Posts to Flip Chart

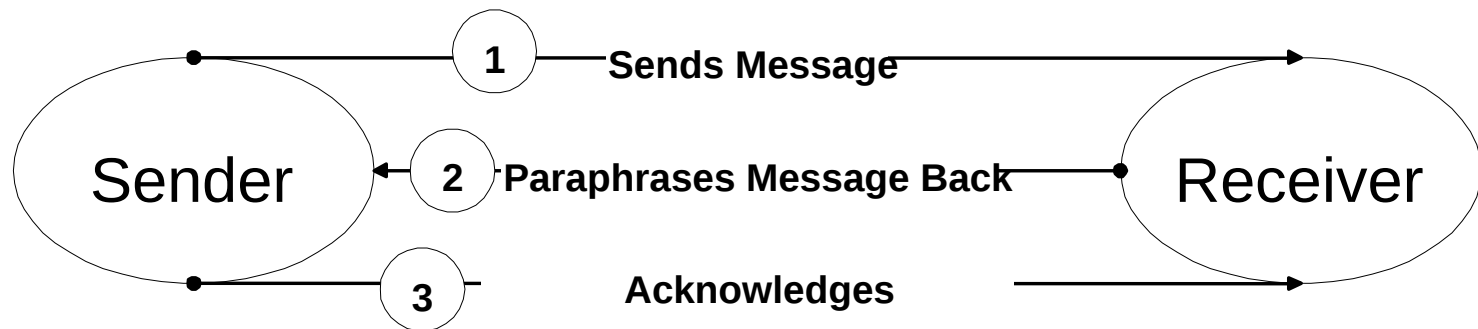
**Completing the Communication Loop is
Essential To The Ca Process**

The Helix Methodology

C2 – Facilitate a Change Analysis (CA)

Making a Complete Communication

Communications Model



The Helix Methodology

C2 – Facilitate a Change Analysis (CA) The Model

Current Situation

- ❑ What is happening
- ❑ Why it happens
- ❑ How much it costs
- ❑ What makes it undesirable
- ❑ Who is impacted (loses value) because of it happening

Preliminary Goal

- ❑ What should happen
- ❑ When it should happen
- ❑ What changes so it can happen
- ❑ Why it is better than the way it is done now
- ❑ How much it will save and
- ❑ Who will benefit (gain value)

C2 – Facilitate a Change Analysis (CA) – The Current Situation

Facilitator Works to Quantify Thinking

For Example

It *takes too long* to process sales orders through credit.

**The phrase “Too Long” needs to be
Clarified and Quantified**

It takes *too long* to process sales orders through credit.

Too long = more than 45 minutes from the time the Credit Manager receives the order from the order desk until the time the order is released to the warehouse for shipping.

C2 – Facilitate a Change Analysis (CA) – The Current Situation

So What!

Quantifying is only part of the Situation

What's so bad about **45 minutes?**

**The Facilitator needs to find out what makes the Situation
Undesirable**

**This is bad because orders received after 2 p.m. cannot be shipped
until the next business day.**

This results in poor customer service and, sometimes, in lost orders.

Ah Ha! Now we have something to work with

C2 – Facilitate a Change Analysis (CA) – The Current Situation

All We Need is One Last Piece of Information WHY it Happens and How Much its Costing?

- ❑ The volume of orders (greater than 150 a day)
- ❑ The number of steps required to review and approve credit and complete the order.
- ❑ Costs about \$22.50 an order (Average wage of \$30 an hour and 45 minutes of processing time)
- ❑ Since there are only six Credit staff, but it takes 14 to keep up with volume.
- ❑ At present, the daily cost for overtime and temporary staff is about \$1,785.
- ❑ Total Cost of \$3,375 a day (volume of 150 orders a day, about 14 Credit staff members)

C2 – Facilitate a Change Analysis (CA) – The Current Situation

Summing Up Current Situation Requirements

- ❑ What is Happening
- ❑ What Makes it Undesirable
- ❑ Why it Happens
- ❑ How Much it Costs
- ❑ Who is Impacted (loses value) Because it Happens

C2 – Facilitate a Change Analysis (CA) – The Preliminary Goal

The goal statement should always start with the phrase “The ability to...”

The facilitator wants to help the group determine what would be worth achieving.

What would Constitute “Good?”

C2 – Facilitate a Change Analysis (CA) – The Preliminary Goal

The Group Transitions from Catharsis to
REVELATION!

The Facilitator

Directs the Focus to a “Future State”

The Goal Reflect the Group’s Concept of
The Ideal

C2 – Facilitate a Change Analysis (CA) – The Preliminary Goal

The Goal Should Answer the Following:

- ❑ What should happen,
- ❑ When it should happen
- ❑ What changes so it can happen
- ❑ Why it is better than the way it is done now
- ❑ How much it will save and
- ❑ Who will benefit (gain value)

C2 – Facilitate a Change Analysis (CA) – The Preliminary Goal

The Facilitator Draws the Group Out

- ❑ Allows Participants to Brainstorm
- ❑ Asks Group to Explore “What If” Scenarios
- ❑ Identifies Variables that can be Changed
 - The number of orders requiring credit approval
 - The steps being performed to approve credit
 - The number of people used to perform the approval process
 - The information needed to perform the approval process

C2 – Facilitate a Change Analysis (CA) – The Preliminary Goal

The Goal

**Encourage the Group to Explore
Possibilities & the Implications Each
Presents**

C2 – Facilitate a Change Analysis (CA) – The Preliminary Goal

As Consensus Ideas Emerge the Facilitator

- ❑ Paraphrases them on to Flip Chart
- ❑ Works through the key Preliminary Goal Attributes
- ❑ Validates with Group they got it RIGHT
- ❑ Tapes the Flip Chart Page on the wall for future reference

C2 – Facilitate a Change Analysis (CA) – The Preliminary Goal – JMI Example

- ❑ **The ability to process work orders directly to the warehouse when the customer's available credit line is greater than the order amount and the outstanding balance is current.** This would require a change to our order processing system. Specifically, it would require the system to automatically check the order for credit-related data and route it to the appropriate location (Credit department or warehouse).
- ❑ **This would allow about 125 orders a day to be processed to the warehouse in less than 5 minutes, from the time the order was taken, saving about \$3,700 a day (elimination of overtime and temporary help).** This would also allow the 6 staff members in Credit to focus on orders with real credit issues and collections and position them to support more volume.
- ❑ **This will benefit our customers by allowing the company to ship merchandise quicker, thus improving service levels.** This will also reduce the stress in the understaffed Credit department.

The Helix Methodology

C2 – Facilitate a Change Analysis (CA) –

The Preliminary Goal – Typical Current Situation & Preliminary Goal

Current Situation	Preliminary Goal
1. It takes <i>too long</i> to process sales orders through credit. • Too long = more than 45 minutes from the time the Credit Manager receives the order from the order desk until the time the order is released to the warehouse for shipping. • This is bad because orders received after 2 p.m. cannot be shipped until the next business day. • This results in poor customer service and, sometimes, in lost orders. • The volume of orders (greater than 150 a day) The number of steps required to review and approve credit and complete the order. Costs about \$22.50 an order (Average wage of \$30 an hour and 45 minutes of processing time) Since there are only six Credit staff, but it takes 14 to keep up with volume. • At present, the daily cost for overtime and temporary staff is about \$1,785. • Total Cost of \$3,375 a day (volume of 150 orders a day, about 14 Credit staff members)	1. The ability to process work orders directly to the warehouse when the customer's available credit line is greater than the order amount and the outstanding balance is current. This would require a change to our order processing system. Specifically, it would require the system to automatically check the order for credit-related data and route it to the appropriate location (Credit department or warehouse). • This would allow about 125 orders a day to be processed to the warehouse in less than 5 minutes, from the time the order was taken, saving about \$3,700 a day (elimination of overtime and temporary help). This would also allow the 6 staff members in Credit to focus on orders with real credit issues and collections and position them to support more volume. • This will benefit our customers by allowing the company to ship merchandise quicker, thus improving service levels. This will also reduce the stress in the understaffed Credit department.

The Helix Methodology

C2 – Facilitate a Change Analysis - Review

- ❑ About 45 Minutes Used
- ❑ About 8 to 12 Change Analysis Statements Developed
- ❑ Current Situation and Preliminary Goal Pairs Tested for Measurability & Completeness
- ❑ The next steps
 - Understand Existing VADS (Level 1 & Level 2)
 - Map Current Situations
 - Develop Proposed VADS
 - Map Goals

C3 – Facilitate an Existing Level 1 Workflow (EWFL1) Model Syntax



The oval or circle represents a work or process group that participates in the VADS. This group represents one or more people who perform a specific set of procedures on a VADS. This group can be a sub-organization within the organization (division, department, specific job title or specific work area). The group can also represent outside organizations or people (customers, vendors, government, etc.). An icon can be substituted for this symbol. However, if icons are used they should be consistent throughout all models.

C3 – Facilitate an Existing Level 1 Workflow (EWFL1) Model Syntax (cont.)



File or Data Store

The rectangle represents a file, data store or system. This object can be a file cabinet, ledger card, a computer system or any other non-human repository for storing information. An icon can be substituted for this symbol. However, if icons are used they should be consistent throughout all models

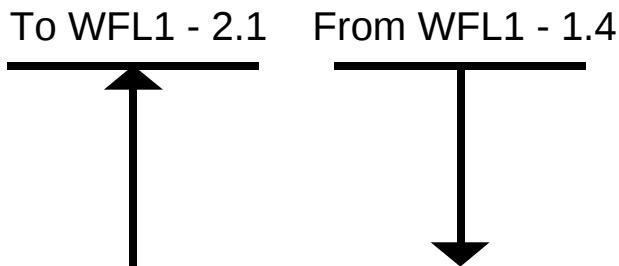
C3 – Facilitate an Existing Level 1 Workflow (EWFL1) Model Syntax (cont.)

Scope Constraint Boundary



The arc represents a constraint or boundary. It denotes an intentional limitation in the scope of the model. The text behind the arc is used to clarify the scope limitation. For instance, in a sales VADS, the model may not reflect how the customer decided to place an order. If this information was not going to be reflected in the VADS, a scope constraint boundary would be placed on the edge of the customer process group to reflect the scope limitation.

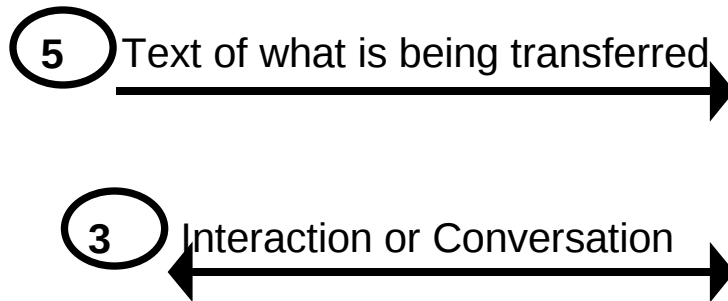
C3 – Facilitate an Existing Level 1 Workflow (EWFL1) Model Syntax (cont.)



Outbound / Inbound “Ts”

The “T” represents a link between two models. This linkage can be inbound (feeding this model) or outbound (feeding another model). The direction of the connection is indicated by the arrow. Arrows pointing toward the top of the “T” are outbound. Arrows pointing away from the “T” are inbound. The text at the end of the “T” is the reference to the model being referenced.

C3 – Facilitate an Existing Level 1 Workflow (EWFL1) Model Syntax (cont.)



The arrow and associated numbered text represents the transfer of data between two process groups or a process group and a data store. The arrow points in the direction of the information movement. A two-headed arrow represents an interaction such as a conversation or interface with a system. The number represents the sequence in which the communication takes place in context to the entire model. When the transfer is between two process groups, or from a system to a process group, it represents both information and stimulus trigger (an indication that action is needed).

C3 – Facilitate an Existing Level 1 Workflow (EWFL1) Construction – Sales Order Processing Example

Begins with Dialogue –

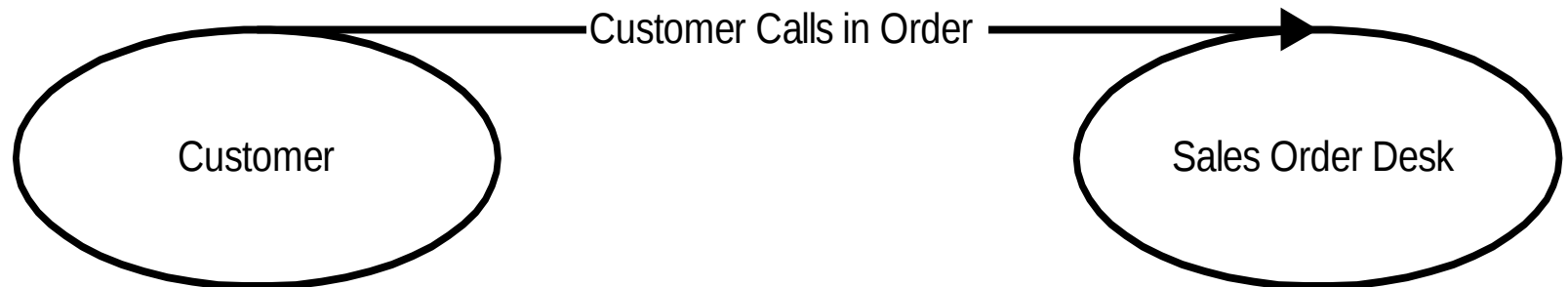
Facilitator - How does this process start?

Sales Order Desk Rep - “It starts when a customer calls an order into the order desk.”

C3 – Facilitate an Existing Level 1 Workflow (EWFL1) Construction

Now We Have the Following:

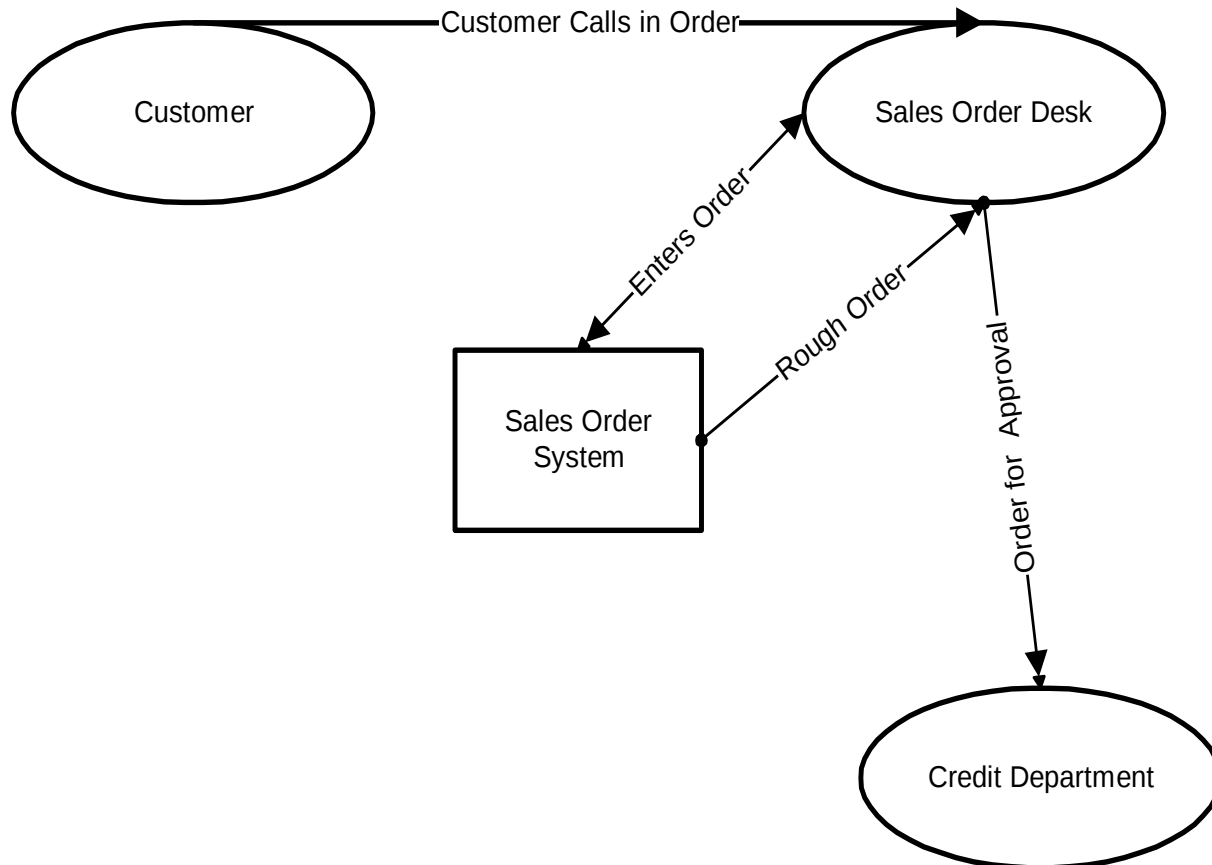
- ❑ The customer (process group)
- ❑ The sales order desk (process group)
- ❑ The order (an object)



C3 – Facilitate an Existing Level 1 Workflow (EWFL1) Construction

- ❑ **Facilitator:** So the customer calls the order desk to place an order. What happens next?
- ❑ **Sales Order Desk Rep:** (order desk): First, I bring up a new order screen and identify the customer on the computer. Then I take her order information.
- ❑ **Facilitator:** The customer and order information is maintained on the computer?
- ❑ **Order Desk:** Yes, and it really causes us problems.
- ❑ **Facilitator:** Sounds like we should talk about that, but let us finish this first. Go on.
- ❑ **Order Desk:** Well, once I enter the order, I print out the rough order and send it to Credit for approval.
- ❑ **Facilitator** (moving to flip chart): So a “rough order” is one that needs to be approved by credit?
- ❑ **Order Desk:** That right.

C3 – Facilitate an Existing Level 1 Workflow (EWFL1) Construction



C3 – Facilitate an Existing Level 1 Workflow (EWFL1) Construction – Completing the Process

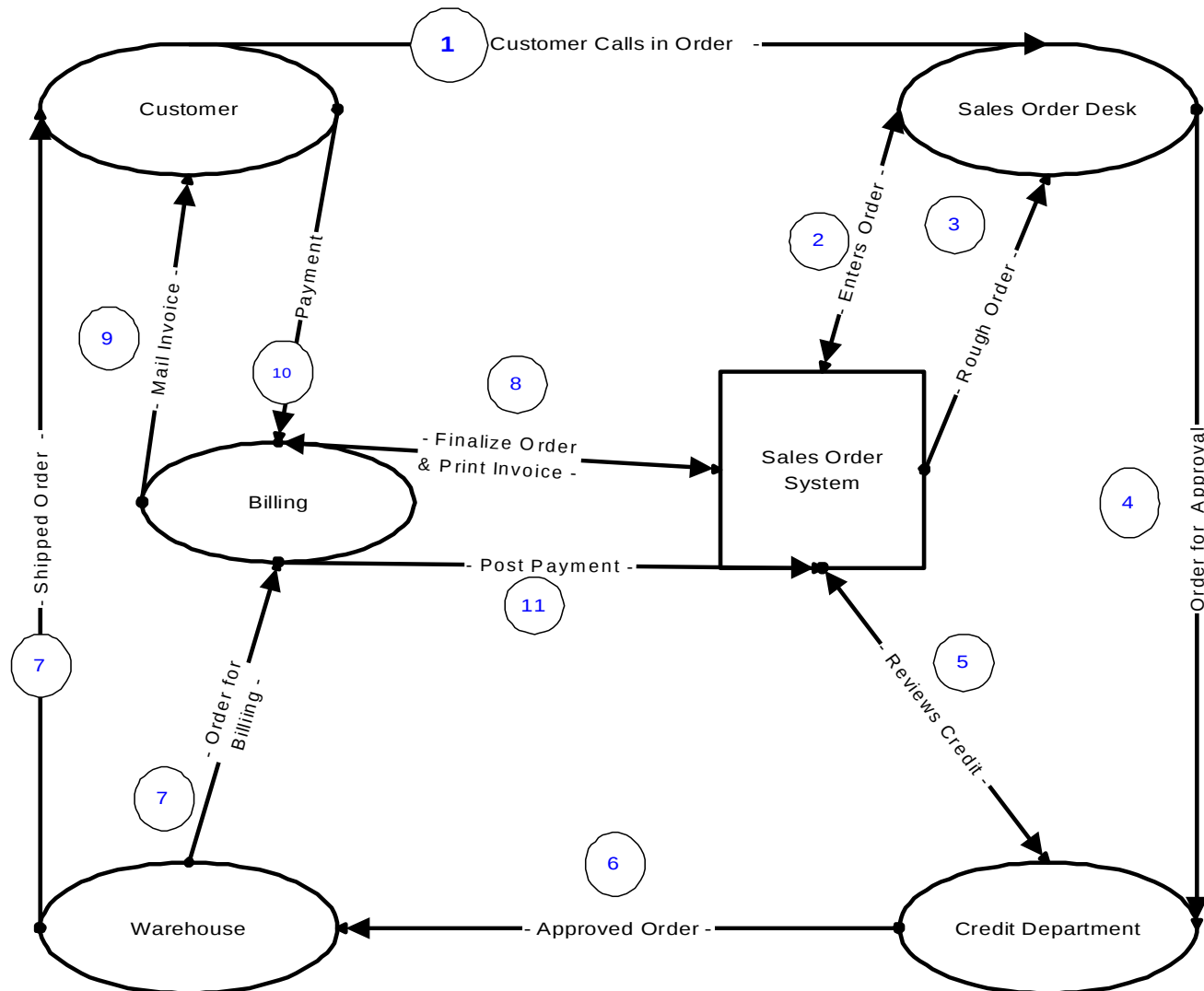
- ❑ Draw the Model
- ❑ Build a Scenario Assumption
- ❑ Number the Lines
- ❑ Walk Through the Model
- ❑ Test Model for Closure
- ❑ Post Model to Wall
- ❑ Update Change Analysis

C3 – Facilitate an Existing Level 1 Workflow (EWFL1) Construction - Rules

- ❑ Model Must be a Closed System – No Loose Ends
- ❑ Model Must be Sequential
- ❑ Model Must be Assumption Framed
- ❑ Model Should Minimize Crossed Lines

C3 – Facilitate an Existing Level 1 Workflow (EWFL1) – Numbered EWFL1

ASSUMPTION: Sales order process when credit is good, inventory is in stock and the customer pays on time.



C3 – Facilitate an Existing Level 1 Workflow (EWFL1) Construction - Review

- ❑ 8 To 12 Change Analysis Items **Done**
- ❑ Level 1 Workflow of VADS **Done**
 - Provides A Basic Picture on How Information Is Shared Between Process Groups
- ❑ About 1 Hour And 15 Minutes in to the Work Session.
- ❑ Ready to Build A Level 2 Workflow Model & Map Change Analysis Items

C4 – Facilitate an Existing Level 2 Workflow (EWFL2) Overview

- ❑ Developed Immediately After the WFL1 Model
- ❑ Represents An Expanded View Of The WFL1
- ❑ Identifies the Phases the Primary Object (In The JMI Example-a Sales Order) Moves Through during a VADS Cycle
- ❑ Provides Detail on What Procedures are Performed During The VADS Process
- ❑ Provides Framework for Diagnostics and Future Analysis

C4 – Facilitate an Existing Level 2 Workflow (EWFL2)

Overview

Pivotal Model in Helix - Establishes A Framework For

- ❑ **Identifying Specific Improvement Opportunities** in Context to How Work Is Done
- ❑ **Pinpointing Defects** In Processes & Information Systems
- ❑ Establishing Cost/Benefit Relationships - VADS to the Organization & Stakeholders
- ❑ **Aligning Business Objectives** to the Business Activities that Achieve Those Objectives
- ❑ **Conceptualizing New VADS**, Related Systems, Policies & Procedures for Achieving Breakthrough Improvements

C4 – Facilitate an Existing Level 2 Workflow (EWFL2) Overview

- ❑ Provides Snapshot of the Phases, Procedures, Time Frames & Effort needed to Complete a Single Cycle of a VADS
- ❑ Allows the Total Cost of the VADS to be developed
- ❑ Provides Basis to Computer the VADS ROI
- ❑ Identifies the Objects being Transformed (changed) during Each Cycle of the VADS.
- ❑ Provides to Completeness of Record Keeping & Information Systems

The Helix Methodology

C4 – Facilitate an Existing Level 2 Workflow (EWFL2)- Layout

VADS Name: _____ **VADS Reference: WFL2 -** _____

VADS Cycles per Year: _____ **VADS Estimated Annual Cost:** _____

Assumption: [from WFL1]: _____

	Phase A	Phase B	Phase C
Beg. Status	The Status of the Object when the Cycle begins	Phase A's Ending Status	Phase B's Ending Status
PROCEDURE	1 Text about action 2 Text about action 3 Text about action 4 Text about action	1 Text about action 2 Text about action 3 Text about action	1 Text about action 2 Text about action 3 Text about action 4 Text about action 5 Text about action
End Status	The Status of the Object when the Phase ends	The Status of the Object when the Phase ends	The Final Status of the Object. When no more transformations can take place and the Cycle ends.
Lapse Time	Time it takes to go from first to last procedure	Time it takes to go from first to last procedure	Time it takes to go from first to last procedure
Effort	Labor it takes to complete the phase	Labor it takes to complete the phase	Labor it takes to complete the phase

The Helix Methodology

C4 – Facilitate an Existing Level 2 Workflow (EWFL2) Components – Header Data

VADS Name: _____ VADS Reference: WFL2 - _____

VADS Cycles per Year: _____ VADS Estimated Annual Cost: _____

Assumption: [from WFL1]: _____

VADS Name - Describes the Business Process being Modeled

VADS Reference – Unique ID for the VADS

VADS Cycles per Year - How Many Times a VADS Cycle is Done in a Year

VADS Estimated Annual Cost – Cost per VADS Cycle X Cycles per Year

Assumptions – Scenario that Frames this VADS

C4 – Facilitate an Existing Level 2 Workflow (EWFL2) Components

Each column represents a phase within the VADS.

Each phase has five components

- ❑ Beginning Status –
 - Appears at the top of each column
 - Indicates the status of the primary object before the subsequent procedures take place.
- ❑ Procedures –
 - Appear beneath the Beginning Status
 - Lists the actions needed to move the Primary object to its ending status.
 - Actions reflect all the information/communication steps found in the WFL1 model plus the critical steps taken within each of the process groups.

C4 – Facilitate an Existing Level 2 Workflow (EWFL2) Components

- ❑ Ending Status –
 - Appears after Procedures
 - Status of the primary object of the VADS after the procedures have taken place
 - Becomes the beginning status of the next phase on the model
- ❑ Lapsed Time –
 - Appears after Ending Status
 - How long it takes to complete the related phase of the VADS
 - Can be expressed in any unit of time (days, hours, minutes, etc.)
 - Helps to identify workflow bottlenecks and improvement opportunities - lapsed time greater than the level of effort

C4 – Facilitate an Existing Level 2 Workflow (EWFL2) Components

- ❑ Level of Effort –
 - Last Item in Column
 - Actual labor needed to perform the procedures of the VADS phase
 - Can be expressed in any unit of time
 - The cost per hour of those performing the VADS multiplied by the total hours of effort provides an estimate of the cost to complete one cycle of the VADS

C4 – Facilitate an Existing Level 2 Workflow (EWFL2) Phase Rules

1. Sequentially Dependent on the Successful Completion of the Preceding Phase.
2. Must Reflect ALL the Communication Steps Contained in the related WFL1 Model
3. Must Reflect the Process Groups & Actions needed to Transform the Primary Object of the VADS from One Status to the Next.
4. Can Only Contain ONE Transformation to the Primary Object.
5. Must Contain at Least ONE Input, Process & Output Related to the Primary Object.
6. Must Identify Secondary Objects & Transformations
7. Must Contain Estimates for Lapsed Time & Actual Level of Effort Needed to Complete the Phase

C4 – Facilitate an Existing Level 2 Workflow (EWFL2)

Other Attributes

- ❑ Typically, has 3 to 8 Phases
- ❑ Rarely more than 5 objects being transformed within any one VADS
- ❑ Easy to read without Understanding its Nuances or Syntax
- ❑ Takes 10 to 20 Minutes to Complete the Existing Version
- ❑ Drawn on the Flip Chart using the WFL1 as a Starting Point

C4 – Facilitate an Existing Level 2 Workflow (EWFL2) Construction

Facilitator Draws 1st Column of WFL2

**Pointing to the WFL1 on the Wall the Facilitator Asks
“What is the first thing that happens on the
WFL1?”**

**Based on the Case Study Someone will respond
“The customer calls the order desk with an order.”**

C4 – Facilitate an Existing Level 2 Workflow (EWFL2) Construction

- ❑ The Facilitator Writes this Down as the 1st Procedure
- ❑ Facilitator asks Related Knowledge Worker (The Order Desk Rep) to Describe the Actions taken on the Order before It Is Sent to Credit for Approval
- ❑ The Knowledge Worker Talks Their Way Through All the Processes that Take Place Typically it goes like this
“First, I bring up a new order screen and identify the customer on the computer. Then I enter the order information. I confirm the inventory availability and ship dates with the customer.
Then I print out the rough order and send it to Credit for approval.”

C4 – Facilitate an Existing Level 2 Workflow (EWFL2) Construction

Facilitator Lists the Procedures in the 1st
Column of the WFL2

Paraphrased of Course

C4 – Facilitate an Existing Level 2 Workflow (EWFL2)- Construction

	Phase A
Beg. Status	A customer wanting to order product
PROCESSES	1 The customer calls the order desk with an order. 2 Order desk identifies the customer and enters order via order entry screen. 3 Inventory availability and ship dates are verified with the customer. 4 Rough order is printed and sent to credit for approval.
End Status	Rough sales order pending credit approval
Lapsed Time	
Effort	

Remember to:

Leave Room on Flip Chart for Multiple Columns

Apply Phase Rules:

1. Sequential Dependency of Phase
2. WFL1 Communication Steps Present
3. Process Groups and Actions
4. Primary Object Transformation (the Order)
5. Input, Process & Output on Primary Object
6. Secondary Objects and Transformations (Customers, Inventory)

C4 – Facilitate an Existing Level 2 Workflow (EWFL2)

Applying the Rules

Rule 1 – Phase-to-Phase Dependence – 1st phase N/A

Rule 2 – Contains Communication Steps & Process Groups

- ❑ 4 procedures that correlate exactly with the WFL1 model
- ❑ Question – what else does the Sales Order System do?

Rule 3 – Must have 1 Transformation to the Primary Object

- ❑ Primary Object = The Order. Phase 1 – order goes from nothing to a status of “rough” - It changed its state, it transformed

Rule 4 - Primary Object Must have at Least 1 Input, Process & Output

- ❑ **Input** = Customer Calling – also the stimulus trigger
- ❑ **Process** = Interaction with Customer – data entry
- ❑ **Output** = Storing of the Order with a status of Rough + the printed order

C4 – Facilitate an Existing Level 2 Workflow (EWFL2)

Applying the Rules (cont.)

Rule 5 - Must Identify Secondary Objects & Related Transformations

- ❑ Customer is being Transformed via reduction of Credit Line for value of the order – but does the current process do that?–
 - Could spawn a new Change Analysis Item
- ❑ Inventory is being Transformed via reduction to Quantity Available for Sale (once per each item ordered)

Testing Identified Flaws (defects) in the VADS

- ❑ **Customer's Credit Limit** (not being reduced for the value of the order)
- ❑ **Inventory Quantities** (quantity available for sale not being reduced for the quantity ordered)

These Flaws will need to be Resolved in the Proposed VADS

The Helix Methodology

C4 – Facilitate an Existing Level 2 Workflow (EWFL2)

Applying the Rules - Credit Limit Issue = New CA Item

Change Analysis	
Current Situation	Preliminary Goal
3 The customer's credit limit is not updated in the computer until the sales order is approved by the credit department. This sometimes results in the customer being sold products beyond what their credit limit supports. When this happens, it is embarrassing for the customer and exposes the company to a potential bad debt.	The ability to update the customer's credit limit at the time they place an order This would allow the order desk to catch potential credit limit problems before the order is taken and a delivery date promised. This would improve customer service and reduce bad debts.

C4 – Facilitate an Existing Level 2 Workflow (EWFL2)

Applying the Rules - Inventory Issue = New CA Item

Change Analysis

Current Situation

- 2 Inventory is often over sold resulting in missed delivery dates, poor customer service and / or canceled orders.

This happens because the inventory is not reserved at the time the order is taken.

About 12 to 18 orders are lost a day due to inaccurate inventory.

Preliminary Goal

The ability to reserve inventory at the time the order is taken.

This would make the inventory records more accurate and would insure that the stock would be there when the warehouse went to ship it.

This would increase sales by about \$ 57,000 a day.

The Helix Methodology

C4 – Facilitate an Existing Level 2 Workflow (EWFL2) Applying the Rules (cont.)

Rule 6 - Contain Estimates for Lapsed Time & Actual Level of Effort

- ❑ **“Best Guess”** is fine here
- ❑ For Now Assume on Average
 - Orders take 5 Minutes to Enter
 - Effort and Lapse Time are Equal due to Interactive Nature of Process

C4 – Facilitate an Existing Level 2 Workflow (EWFL2)- Construction

	Phase A	Phase B	Phase C
Beg. Status	A customer wanting to order product	Rough sales order pending credit approval	Approved sales order ready for shipping
P R O C E D U R E S	1 The customer calls the order desk with an order. 2 Order desk identifies customer and enters order via order entry screen. 3 Inventory availability and ship dates are verified with customer. 4 Rough order is printed and sent to Credit for approval.	1 Credit receives rough order from the order desk. 2 Credit retrieves order from system and verifies the credit limit. 3 Credit reviews customer's outstanding A/R. 4 Credit approves order on system, stamps it approved and forwards it to warehouse for shipping.	1 Warehouse receives order from Credit. 2 Warehouse picks order and updates quantities picked on the order form. 3 Warehouse packages and ships order to customer. 4 Warehouse sends shipped order to Billing.
End Status	Rough sales order pending credit approval	Approved sales order ready for shipping	Shipped sales order ready for billing
Lapsed Time	5 minutes	2 days	1 day
Effort	5 minutes	45 minutes	1 hour

C4 – Facilitate an Existing Level 2 Workflow (EWFL2)- Construction

	Phase D	Phase E
Beg. Status	Shipped sales order ready for billing	Billed sales order pending collection
PROCESS	1 Billing receives order from warehouse. 2 Billing retrieves order from the system and enters the actual quantities shipped. 3 The system updates inventory, adjusts the customer credit limit and creates the invoice. 4 Billing prints the invoice and mails to customer.	1 Customer receives the invoice. 2 Customer sends payment to billing. 3 Billing retrieves the customer's invoice from the system and posts the payment. 4 The system updates the customer's credit limit and accounts receivable balance.
End Status	Billed sales order pending collection	Collected sales order
Lapsed Time	2 hours	45 days
Effort	10 minutes	10 minutes

The Helix Methodology

Review

3 Core Models Completed

- ❑ Change Analysis – 3 items
- ❑ Existing Level 1 Workflow
- ❑ Existing Level 2 Workflow

About 2 hours of the 2 1/2 hours have been spent

Good Place to Stop if You are Running Out of Time

Remaining Work Session Tasks

- ❑ Correlate, “MAP,” the Current Situations from the Change Analysis to the WFL2
- ❑ Develop a Proposed WFL2 model
- ❑ Map Preliminary Goals to PWFL2
- ❑ Map Project Goals to PWFL2.
- ❑ Review Session Accomplishments
- ❑ Make Data Collection Assignments

The Helix Methodology

C5 – Map the CA to the EWFL2

First Proof of Correctness

Either Situations Map or They Don't

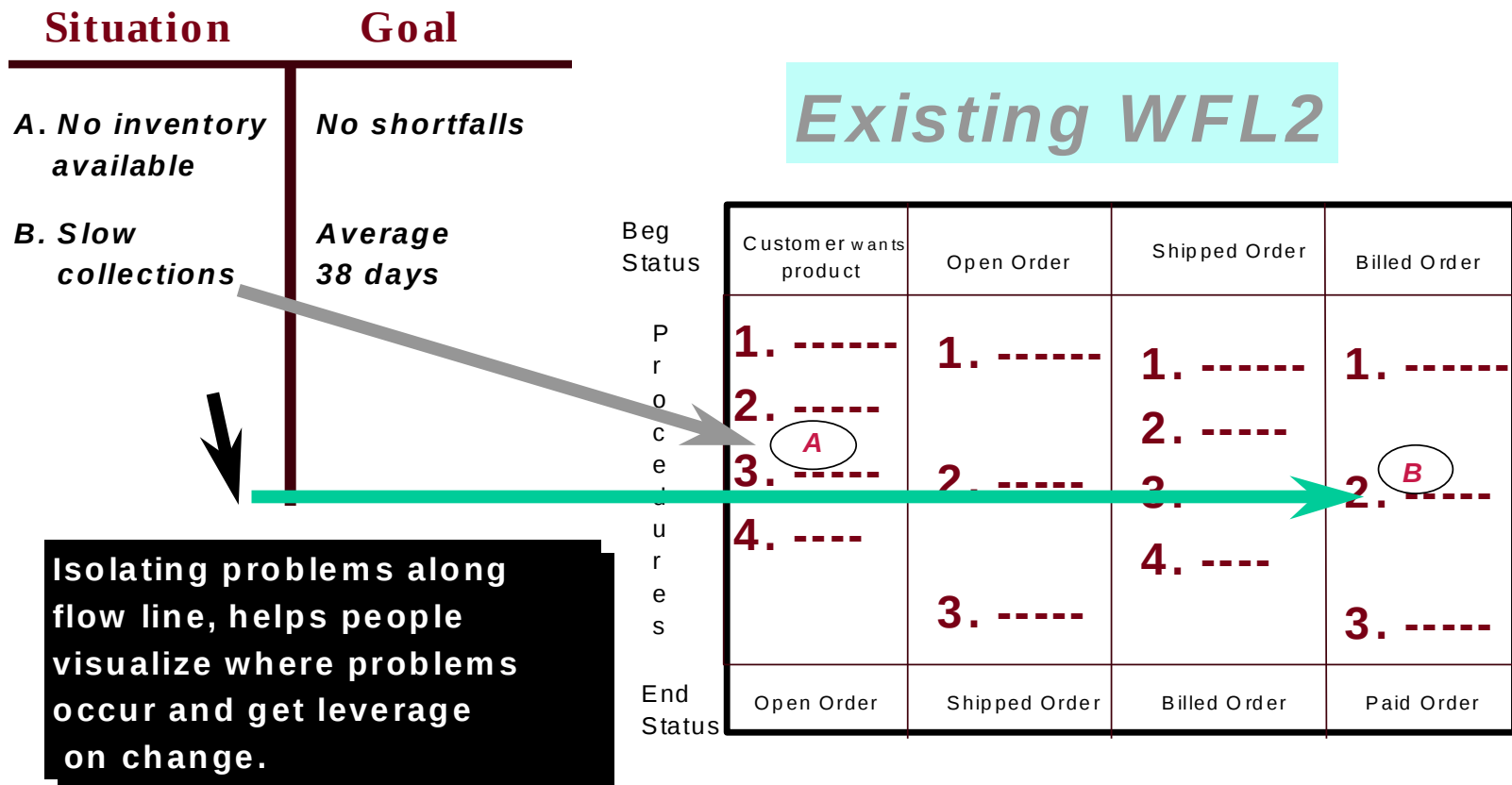
If They Don't Then

- ❑ Does the Current Situation Applies to a different VADS?
 - Will the VADS in Question be Added to the Scope of the Project?
- ❑ Is the EWFL2 Incorrect?
 - WFL2 needs to be Corrected
- ❑ Are Both True?

C5 – Map the CA to the EWFL2

Correlating Situations to Workflow

First Proof of Correctness



The Helix Methodology

C5 – Map the CA to the EWFL2

So Where Do the Situations Map to the EWFL2?

1st Situation

It takes Too Long to Process Sales Orders through Credit

Which procedures cause this process to take too long (45 minutes)?

The Helix Methodology

C5 – Map the CA to the EWFL2

2nd Situation

Inventory is often oversold resulting in slipped delivery dates, poor customer service and/or canceled orders

Not as Straight Forward as 1st Situation – has a Ripple Effect

- ❑ **Error Occurs in Phase A – when order taken**
- ❑ **Goes Undetected Until Phase C – Order Ready for Shipping**
 - **That is 2 days later - Cascading Problems Occur**
 - **More of Same Product being Ordered**
 - **Customers Canceling Orders due to Backorder Situations or Credit Limit Problems**
 - **Purchasing (different VADS) Falling Behind – more fulfillment delays – Over Buying via Over Estimating Demand**

The Helix Methodology

C5 – Map the CA to the EWFL2

3rd Situation

The customer's credit limit is not updated in the computer until the order is approved by Credit

Manifests in Phase B - Procedure B4

BUT

When the Customer Orders – Phase A – Procedure A3/A4

Resulting in

Credit Limit Overstatement

Collection Problems – Phase E - Procedure E2 (customer sends payment to billing)

The Helix Methodology

C5 – Map the CA to the EWFL2

3rd Situation (cont.)

The customer's credit limit is not updated in the computer until the order is approved by Credit

Even More Complications Can Occur

What happens when Credit discovers the problem during a subsequent cycle?

- ❑ **Annoyed Customer**
- ❑ **Embarrassed Customer**
- ❑ **Lost Customer!**

All Defects in Customer Service Levels

The Helix Methodology

C5 – Map the Project Objectives to the EWFL2

1st Project Objective (PO1) –

Improve our customer service levels and beat the competition by reducing the time it takes to process an order from the order desk through shipping from five to two days

Where does the EWFL2 Keep this Objective from being Achieved?

Hmmm Conflict in the Data –

Does it take 5 Days or 3 Days (lapse time of A+B+C) to Process an Order? – Will need more data

From CA mapping it appears PO1 occurs in phases A, B & C

The Helix Methodology

C5 – Map the Project Objectives to the EWFL2

2nd Project Objective (PO2) –

Increase our sales by over \$40 million a year by keeping lost sales resulting from stock shortages to less than two per day

Where can Stock Shortages occur in EWFL2?

- ❑ During the Ordering Process — Overstated Inventory Issue
- ❑ PO2 Maps to A2

The Helix Methodology

C5 – Map the Project Objectives to the EWFL2

3rd Project Objective (PO3) –

Improve our collections by identifying when a customer has a three day change in their paying habits

Where does the customer have the opportunity to pay for the order?

- ❑ Payment Cycle Begins when Customer Receives Invoice
- ❑ How Could Average Time to Pay be Calculated?
- ❑ What Happens when Customers Don't Pay On Time?

PO3 Doesn't Map

Will need to Model the Past Due Collection Process

The Helix Methodology

C5 – Map the Project Objectives to the EWFL2

4th Project Objective (PO4) –

Become the industry leader by increasing sales volume by 30 orders per day

How does PO4 Correlate to the Sales Order VADS?

What Could Keep the Sales Volume from Increasing?

- ❑ Overselling Inventories Promote Lost Sales – 12 a day (PG4 to A3)
Still need 18 More Sales Per Day
- ❑ Are there other VADS that influence sales volume?

Field Sales & Marketing Group (Promotions, Trade Shows, Direct Sales Calls)

Possible Need to Increase Project Scope to Include These VADS

The Helix Methodology EWFL2 After Mapping

	Phase A	Phase B	Phase C
Beg. Status	A customer wanting to order product PO1	Rough sales order pending credit approval S1 PO1	Approved sales order ready for shipping PO1
P R O C E D U R E S	1 The customer calls the order desk with an order. 2 Order desk identifies customer and enters order via order entry screen. S2 PO2 3 Inventory availability and ship dates are verified with customer. PO4 4 Rough order is printed and sent to Credit for approval.	1 Credit receives rough order from the order desk. 2 Credit retrieves order from system and verifies the credit limit. 3 Credit reviews customer's outstanding A/R. 4 Credit approves order on system, stamps it approved and forwards it to warehouse for shipping. S3	1 Warehouse receives order from credit. 2 Warehouse picks order and updates quantities picked on the order form. S2 3 Warehouse packages and ships order to customer. 4 Warehouse sends shipped order to Billing.
End Status	Rough sales order pending credit approval	Approved sales order ready for shipping	Shipped sales order ready for billing
Lapsed Time	5 minutes	2 days	1 day
Effort	5 minutes	45 minutes	1 hour

The Helix Methodology

C6 – Facilitate Proposed Level 2 Workflow (PWFL2)

The Goal - Create a New Workflow that

- ❑ Achieves the Preliminary Goals
- ❑ Contributes to Achieving the Project Objectives

The Helix Methodology

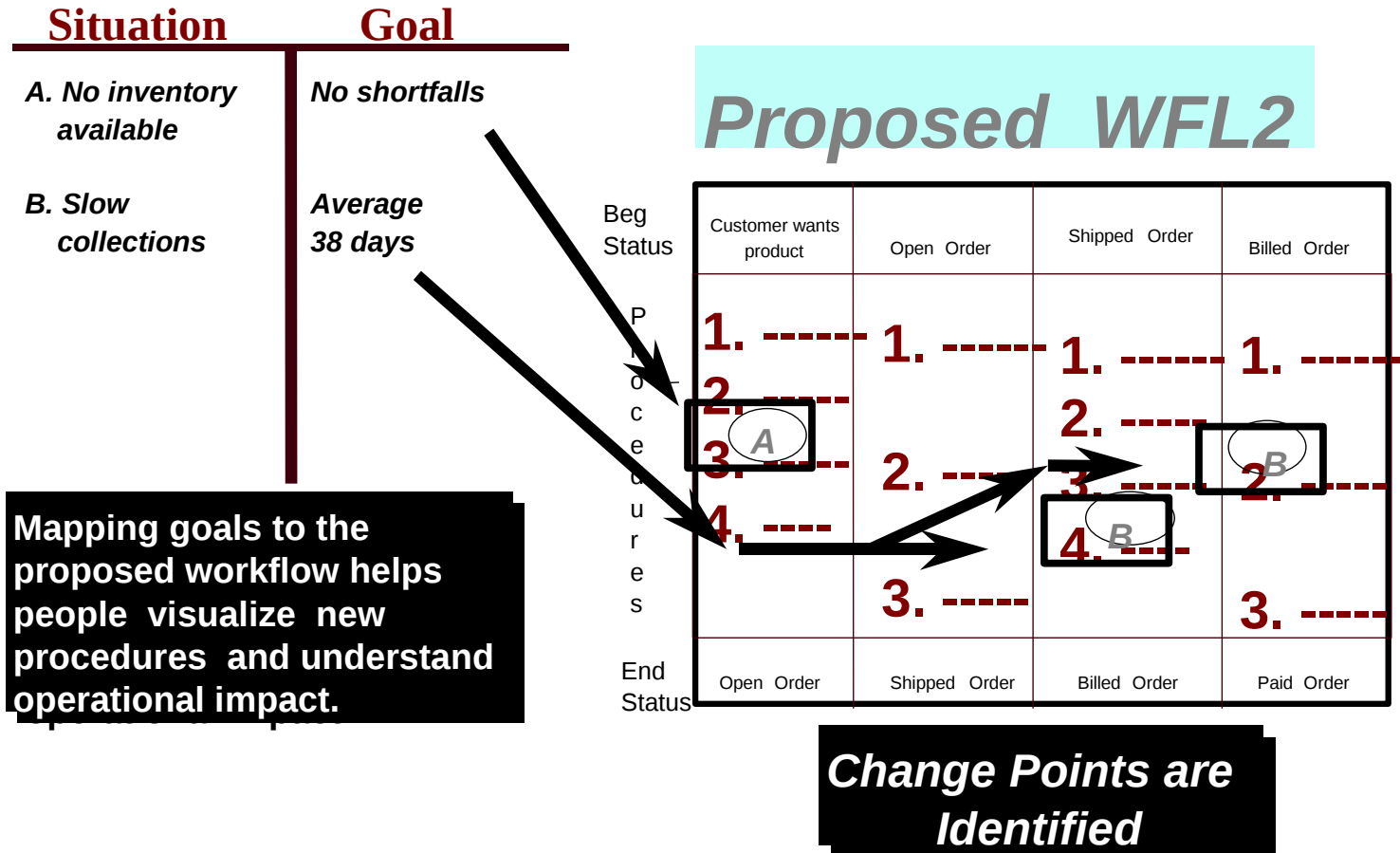
C6 – Facilitate Proposed Level 2 Workflow (PWFL2)

Steps –

1. Rough Out VADS Phases (columns)
2. Talking Through EWFL1
3. For Each Mapping Point Explore
Change Scenarios that could Achieve Related
Goals & Objectives
4. Post New Procedures to PWFL1
5. Walk-thru to Validate Mappings

C7 – Map Project and CA Preliminary Goals to PWFL2

Correlating Goals to Conceptual Workflow Second Proof of Correctness



The Helix Methodology

C7 – Map Project and CA Preliminary Goals to PWFL2

1st Preliminary Goal (PG1)

The ability to print orders directly to the warehouse when the customer's credit line and outstanding balance are okay

- ❑ A2 & A4– Add verification customer's outstanding account status
 - If Good then order is routed directly to W/H –
 - Eliminates Phase B
 - Sets Order Status to Approved
 - Credit Limit Reduced by Value of Order
 - 45 Minutes of Labor Saved on Each Qualifying Order
 - If Not Good then order routed to Credit for handling

The Helix Methodology

C7 – Map Project and CA Preliminary Goals to PWFL2

2nd Preliminary Goal (PG2)

Preliminary Goal #2: The ability to reserve inventory at the time the order is taken

Corresponding Situation Mapped at A3 & C2 – A3 is the Culprit

- ❑ A3 – Update Inventory to Status of “Reserved”
 - Eliminates related C2 Shortfalls
 - Still need to Review other VADS that Transform Inventory

There are IT Implications Here so be Sure there is an Application / Business Analyst Participating

The Helix Methodology

C7 – Map Project and CA Preliminary Goals to PWFL2

3rd Preliminary Goal (PG3)

The ability to update the customer's credit limit at the time they place an order

Resolved in PG1

Just needs PG3 Mapped to PWFL2

The Helix Methodology

C7 – Map Project and CA Preliminary Goals to PWFL2

1st Project Objective (PO1)

Reduce the time it takes to process a new order through shipment from five to two days

- ❑ Printing to the W/H should achieve the objectives
- ❑ Still need to achieve in other Sales VADS

Post PO1 at the top of Phases A, B & C

The Helix Methodology

C7 – Map Project and CA Preliminary Goals to PWFL2

2nd Project Objective (PO2)

Keep lost sales due to inventory shortages to less than two per day

- ❑ PG2 achieves PO2
- ❑ Post PO2 at A4

The Helix Methodology

C7 – Map Project and CA Preliminary Goals to PWFL2

4th Project Objective (PO4)

Increase sales order volume by 30 orders per day

- ❑ PO4 Appears is linked to PO2
- ❑ Post PO4 to A3

The Helix Methodology

C7 – Map Project and CA Preliminary Goals to PWFL2

	Phase A	Phase B	Phase C	Phase D
Beg. Status	A customer wanting to order product	Approved sales order ready for shipping	Shipped sales order ready for billing	Billed sales order pending collection
P R O C E D U R E S	1 The customer calls the order desk with an order. Order Entry Process	1 Warehouse receives order via printer.	1 Billing receives order from warehouse.	1 Customer receives the invoice.
	2 Order desk identifies the customer and verifies that their outstanding balance is current via the order entry screen. The system flags the order as clearing O/S Balance review. PG1	2 Warehouse picks order and updates quantities picked on the order form.	2 Billing retrieves order from the system and enters the actual quantities shipped.	2 Customer sends payment to billing.
	3 For each item ordered, the order desk verifies the inventory is available and confirms ship dates. PO4	3 Warehouse packages and ships order to customer.	3 The system updates inventory, adjusts the customer credit limit and creates the invoice.	3 Billing retrieves the customer's invoice from the system and posts the payment.
	4 Upon completion of the order, the system reserves the inventory being ordered, sets its status to "Approved" and prints it directly to the warehouse printer. PG1 PG2 PG3 PO2	4 Warehouse sends shipped order to billing.	4 Billing prints the invoice and mails to customer.	4 The system updates the customer's credit limit and accounts receivable balance.
End Status	Approved sales order ready for shipping	Shipped sales order ready for billing	Billed sales order pending collection	Collected sales order
Lapsed Time	5 minutes PO1	1 day PO1	2 hours	45 days
Effort	5 minutes	1 hour	10 minutes	10 minutes

The Helix Methodology

Phase C Review

- ❑ Identified opportunities for Improvement
- ❑ Developed Existing Workflow Models (EWFL1 and existing EWFL2)
- ❑ Mapped Situations to EWFL2 as a 1st Proof of Correctness
- ❑ Conceptualized a Proposed Workflow Model PWFL2)
- ❑ Mapped Goals and Objectives to PWFL2 as a 2nd Proof of Correctness

Data Collection Assignments

Develop Accurate Measure of

- ❑ Time it takes to Enter Orders
- ❑ Frequency of Stock Out Surprises (CA2)
- ❑ Frequency of Credit Limit Issues (CA3)

The Helix Methodology

Contribution of VADS to Project Objectives

Contribution of VADS to Project Objectives		
VADS Name: Sales Orders on Account		
Project Objective	Proposed Improvement	Value of Contribution
PO1 - Reduce order processing time (entry through shipping) from 5 to 2 days.	Modify the order entry process so it automatically approves orders for customers with sufficient available credit lines and non-delinquent balances. These approved orders will be electronically transferred directly to the warehouse. This will allow credit-worthy orders to bypass the Credit department. Additionally, this will allow the credit department to focus its attention on problem orders. See Change Concepts.	This change will allow JMI to ship orders that pass the automated credit check within 24 work hours from the point the order was received. In most cases, this will be the next working day. This should apply to 90% of all orders processed. This will also save over \$3,000 in labor a day or over \$750,000 a year.
PO2 - Increase sales by \$40 million a year by keeping lost sales due to stock shortages to less than 2 per day.	Modify the order entry process so it automatically reserves inventory for the quantity ordered. This will ensure that the system accurately reflects the impact of open orders on the inventory and will reduce inadvertent overselling without supporting backorders.	This change is expected to reduce the number of lost sales from 12 per day to 6 per day. Based on the current average sale of \$9,450, this improvement should contribute about \$56,700 a day or about \$18 million a year toward the \$40 million goal.
PO4 - Become an industry leader by increasing sales order volume by 30 per day.	Same as PO2.	This change reduces the number of orders needed to meet the objective to 24 per day.

The Helix Methodology

Phase D - Conducting Post Diagnostic Work - Goals

- ❑ Test Completeness of the Models
- ❑ Ensure Proposed VADS Align to Project Objectives
- ❑ Estimate Time & Cost to Implement Improvements
- ❑ Prepare for Subsequent Facilitation Work Sessions or Presentations

The Helix Methodology

Phase D - Conducting Post Diagnostic Work Sessions #1 (Budget 16 hours - 2 people 8 hours each)

- D1 - Formalize Models into Useable Working Papers
- D2 - Test Models for Integrity & Completeness
- D3 - Develop Change Analysis Part 2 Skeleton
- D4 - Test Alignments (objectives to workflows, workflows to object transformations, etc.)
- D5 - Test & Refine VADS for Stimulus Triggers & Potential Failures
- D6 - Update Models & Prepare for Distribution
- D7 - Develop Questions & Issues for 2nd Facilitation Work Session

The Helix Methodology

D1 - Formalize Models into Useable Working Papers

Output from 1st Facilitation Work Session

- ❑ *Change Analysis (CA) – Gap Analysis*
- ❑ *Existing Level 1 Workflow (WFL1) - Communication View*
- ❑ *Existing Level 2 Workflow (EWFL2) – Phase View*
- ❑ *Current Situations correlated to the WFL1 – 1st Proof of Correctness*
- ❑ *Proposed Level 2 Workflow (PWFL2) - Future View*
- ❑ *Preliminary Goals correlated to the WFL2 – 2nd Proof of Correctness*

D1 – Summarize CA, EWFL1, EWFL2, PWFL2

Work Session Summary

VADS NAME: Sales on Account - Session # 1

REFERENCE: WSS - SA01

FACILITATOR: Michael Wood

MONITOR: Roger Thompson

SESSION LOCATION AND DATE: Main Conference Room - July 7, 1997, 10:00 a.m.

Goal of Session:	The goal of the session was to develop the change analysis and workflow models needed to identify improvements to the Sales on Account VADS that support achieving the project's objectives.
Knowledge Workers Present:	Daryl Sims (order desk), Susan Thomas (Credit department), Tom Drake (warehouse), Bobby Multz (Billing) and Melinda Johnson (MIS - Application Manager)
Discussion:	Participation was slow at first, but by the second change analysis item the dialogued was free flowing. Everyone appeared genuinely excited about the changes identified. Good team.
Team Observation:	Will need to expand group to include software vendor.
Action Items:	Daryl will bring samples of order forms to the team before the next session. Susan will provide copies of the credit review and approval procedures. Bobby will supply samples of reports used in tracking billing and collection efforts. Melinda will bring Sam Trent, vendor's analyst, to support discussions about system changes.
Next Work Session:	Main conference room - July 14, 1997, 10 a.m.

D1 – Summarize CA, EWFL1, EWFL2, PWFL2

Knowledge Summary

VADS NAME: Sales on Account - Session # 1

REFERENCE: KNS - SA01

FACILITATOR: Michael Wood

MONITOR: Roger Thompson

SESSION LOCATION & DATE: Main Conference Room - July 7, 1997 -- 10:00 a.m.

#	OBSERVATION	STATUS
1	It appears that there are additional VADS that transform the inventory object. Need to discuss with management to determine if the scope of the project should be expanded to include these VADS.	
2	In order to compress the project's time frame, may want to consider having two teams working in tandem. This would require some additional time for cross-team debriefing. Maybe let each team do each other's diagnostic work sessions. This would keep everyone up to date and informed.	

The Helix Methodology

D1 - Formalize Models into Useable Working Papers – Change Analysis – Tool WORD or EXCEL

CHANGE ANALYSIS

VADS Name: _____

Reference: CA-_____

#	Current Situation	E WFL2 Ref.	Preliminary Goal	P WFL2 Ref.

The Helix Methodology

D1 - Formalize Models into Useable Working Papers – Change Analysis

Step 1 – Move to Template

Step 2 – Test Current Situations

What is happening / Why it happens / How much it costs / What makes it undesirable / Who is impacted (loses value) because of it happening

Step 3- Test Preliminary Goals

What should happen / When it should happen / What would have to change for it to happen / Why it is better than the way it is done now / How much it will save / Who will benefit (gain value)

The Helix Methodology

D1 - Formalize Models into Useable Working Papers – Change Analysis - Step 1 – Move to Template

CHANGE ANALYSIS

VADS Name: Sales on Account

Reference: CA-SOA

#	Current Situation	EWFL2 Ref.	Preliminary Goal	PWFL2 Ref.
1	It takes too long to process sales orders through Credit. Too Long = more than 45 minutes from the time the Credit Manager receives the order from the order desk until the time the order is released to the warehouse for shipping. This is bad because it means that orders received after 2 p.m. cannot be shipped until the next business day. This results in poor customer service. This would require a change to our order processing system.		The ability to process work orders directly to the warehouse when the customer's available credit line is greater than the order amount and their outstanding balance is current. This would require a change to our order processing system. Specifically, it would require the system to automatically check the order for credit-related data and route it to the appropriate location (credit department or warehouse).	

The Helix Methodology

D1 - Formalize Models into Useable Working Papers – Change Analysis – Step 2 – Test Current Situations

Test #1 - What is Happening?

- ❑ Must NOT be Vague – Quantify Everything
- ❑ “too long” is defined as taking more than 45 minutes in CA1

The Helix Methodology

D1 - Formalize Models into Useable Working Papers – Change Analysis – Step 2 – Test Current Situations

Test # 2 – Why Does it Happen?

Understanding “WHY” Paves the Way Toward Developing Improvement Ideas

Why does it take more than 45 minutes for orders to be processed through the Credit department?

**Order Volume (> 150 / day) + Credit Review and
Approval Steps (how many?)**

The Helix Methodology

D1 - Formalize Models into Useable Working Papers – Change Analysis – Step 2 – Test Current Situations

Test #3 – How Much Does Cost?

2 Types of Cost –

- 1ST - Based on the Data Collected – Easy
 - Cost per order X Time to Review & Approve X # of Orders
 - \$30 and Hour X 45 minutes per Order X ~150 = ~\$3,375
- 2nd - Opportunity Costs – Not So Easy
 - What Business might be lost due to Slow Process?
 - Avoid Conjecture that cannot be supported by hard data

The Helix Methodology

D1 - Formalize Models into Useable Working Papers – Change Analysis – Step 2 – Test Current Situations

Test #4 - What Makes it Undesirable?

Not meeting the Goal

Ship within 24 hours of Order

Currently taking 3 to 5 days

The Helix Methodology

D1 - Formalize Models into Useable Working Papers – Change Analysis – Step 2 – Test Current Situations

Test #5 - Who is Negatively Impacted (Losing Value)?

- ❑ Customers – Waiting too long
- ❑ Owners – Paying too much for the process

The Helix Methodology

D1 - Formalize Models into Useable Working Papers – Change Analysis – Step 2 – Test Current Situations - RESULT

It takes too long to process sales orders through Credit.

Too Long = more than 45 minutes from the time the Credit Manager receives the order from the order desk until the time the order is released to the warehouse for shipping.

This is bad because it means that orders received after 2 p.m. cannot be shipped until the next business day. This results in poor customer service.

This occurs due to the volume of orders (greater than 150 a day) coupled with the number of steps that are taken to review and approve credit and complete the order. Based on an average wage of \$30 an hour and 45 minutes of processing time, the cost to approve a sales order is \$22.50. Given a volume of 150 orders a day, it requires about 14 Credit staff people to keep up with the volume. The average daily cost to process orders through Credit is about \$3,375 a day.

Given the objective to ship orders within 24 hours of receipt, reducing the time required to process orders through the credit department supports this objective and improves customer service levels.

Reducing the time it takes to approve orders will also reduce the cost of order processing providing value to JMI's owners.

The Helix Methodology

D1 - Formalize Models into Useable Working Papers – Change Analysis – Step 3 – Test Preliminary Goals

Test #1 - What Should Happen?

- ❑ Does Goal's 1st Sentence state what should happen in the new process?
 - Begins with "The ability to"
 - Outcome Focused
 - Creates a Vision of the Future State

The ability to process work orders directly to the warehouse when the customer's available credit line is greater than the order amount and their outstanding balance is current (less than 30 days)

The Helix Methodology

D1 - Formalize Models into Useable Working Papers – Change Analysis – Step 3 – Test Preliminary Goals

Test #2 - When Should it Happen?

- ❑ Does the goal Explicitly state the circumstances or criteria for when it should occur??

Immediately upon the order desk completing the entry of the order, the system would “credit check” the order and electronically route it directly to the warehouse (approved) or the Credit department (denied) for the appropriate action. Testing and routing of an order should less than under one minute

(note this represents a 44 minute improvement)

The Helix Methodology

D1 - Formalize Models into Useable Working Papers – Change Analysis – Step 3 – Test Preliminary Goals

Test #3 - What Need to Change for it to Happen?

- ❑ Are there any changes required to processes, technologies, software, policies, etc.?
 - Printers in the Warehouse
 - Changes to Order Entry Programs

This would require a change to the order processing system to support the automatic credit checking process and related electronic transmission of orders to the warehouse and Credit department

Remember - Focus on WHAT not HOW

The Helix Methodology

D1 - Formalize Models into Useable Working Papers – Change Analysis – Step 3 – Test Preliminary Goals

Test #4 - Why is it Better than the Way it is Done Now?

- ❑ What makes this way of doing things better than the current approach?
 - How does it support Business & Project Objectives?

This is good because it reduces the overall order processing time by at least 44 minutes for each order that passes the automatic credit check, and it directly supports the project objective to ship orders within 24 hours of receipt

The Helix Methodology

D1 - Formalize Models into Useable Working Papers – Change Analysis – Step 3 – Test Preliminary Goals

Test #5 - How Much Will it Save?

- ❑ How does the Goal Reduce Costs and/or Increase Revenues?
 - What will it cost to implement?
 - What is the estimated ROI?

Best Guesses are Okay to Start but should Verified and Updated

It is estimated that approximately 91 percent (137 orders per day) of the orders received would clear this credit checking process. Based on the current cost of \$22.50 per order to perform a credit check, this improvement would result in five year savings of over \$3 million (\$739,000 X 5 minus \$605,000). The cost to modify the order processing system and to implement the new process is estimated between \$185,000 and \$605,000. The expected ROI in the first year should range from 22 percent to 300 percent depending on the actual implementation costs

The Helix Methodology

D1 - Formalize Models into Useable Working Papers – Change Analysis – Step 3 – Test Preliminary Goals

Test #6 - Who Will Benefit (Gain Value)?

- ❑ Are Stakeholders Explicitly Identified?
- ❑ Are Benefits Quantified?

The above savings would benefit the company (owners) by providing a net savings of about \$140,000 the first year and \$740,000 a year thereafter. The customer would benefit from this change because they would receive delivery up to 24 hours sooner. With the reduced number of orders flowing to the Credit department, the department can focus its full attention on problem orders and avoid adding new staff in the future.

(This is in line with the company's objective to keep staffing levels at 7,500.)

CHANGE ANALYSIS

VADS Name: Sales on Account

Reference: CA-SOA

#	Current Situation	E WFL2 Ref.	Preliminary Goal	P WFL2 Ref.
1	It takes too long to process sales orders through Credit. Too Long = more than 45 minutes from the time the Credit Manager receives the order from the order desk till the time the order is released to the warehouse for shipping. This is bad because it means that orders received after 2 p.m. cannot be shipped until the next business day. This results in poor customer service. This is bad because it means that orders received after 2pm cannot be shipped until the next business day. This results in poor customer service. This occurs due to the volume of orders (greater than 150 a day) coupled with the number of steps that are taken to review and approve credit and complete the order. Based on an average wage of \$30 and hour and 45 minutes of processing time, the cost to approve a sales order is \$22.50. Given a volume of 150 orders a day, it requires about 14 Credit staff to keep up with the volume. The average daily cost to process orders through Credit is about \$3,375 a day. Given the objective to ship orders within 24 hours of receipt, reducing the time required to process orders through credit supports this objective and improves customer service levels. Reducing the time it takes to approve orders will also reduce the cost of order processing providing value to JMI's owners.		The ability to process work orders directly to the warehouse when the customer's available credit line is greater than the order amount and their outstanding balance is current. This would require a change to the order processing system to support the automatic credit checking process and related electronic transmission of orders to the warehouse and Credit department. Immediately upon the order desk completing the entry of the order, the system would credit check the order and electronically route it directly to the warehouse (approved) or the Credit department (denied) for the appropriate action. Testing and routing of an order should take under one minute to occur. This is good because it reduces the overall order processing time by at least 44 minutes for orders that pass the automatic credit check and it directly supporting the project objective to ship orders within 24 hours of receipt. It is estimated that approximately 91% (137 per day) of the orders received would clear this credit checking process. Based on the current cost of \$22.50 to credit check an order, this improvement would result in five year savings of over \$3 million (739,000 X 5 - 605,000). The cost to modify the order processing system and to implement the new process is estimated between \$185,000 and \$605,000. The expected return on investment in the first year should range from 22% to 300% depending on the actual implementation costs The above savings would benefit the company by providing a net savings of about \$140,000 the first year and \$740,000 a year thereafter. The customer would benefit from this change in that they would receive up to 24 hours sooner. With the reduced number of orders flowing to the Credit department, the department can focus its full attention on problem orders and avoid adding new staff in the future. This is in line with the company's objective keep staffing levels at 7,500.	SOA-A2 SOA-A4

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Should take about 10 to 20 minutes to diagnose and update.

The update will be in either a complete or a proforma format.

Proforma format is when the text leaves blank areas for insertion of specific values.

The Helix Methodology

D3 – Test CA and Workflow Models – Formal Template for WFL1

Level 1 Workflow

VADS Name: _____

Reference: WFL1-_____

Assumption: _____

MODEL	#	Steps

D3 – Test CA and Workflow Models – EWFL1 Diagnostic #1 – Validate the Form is Complete

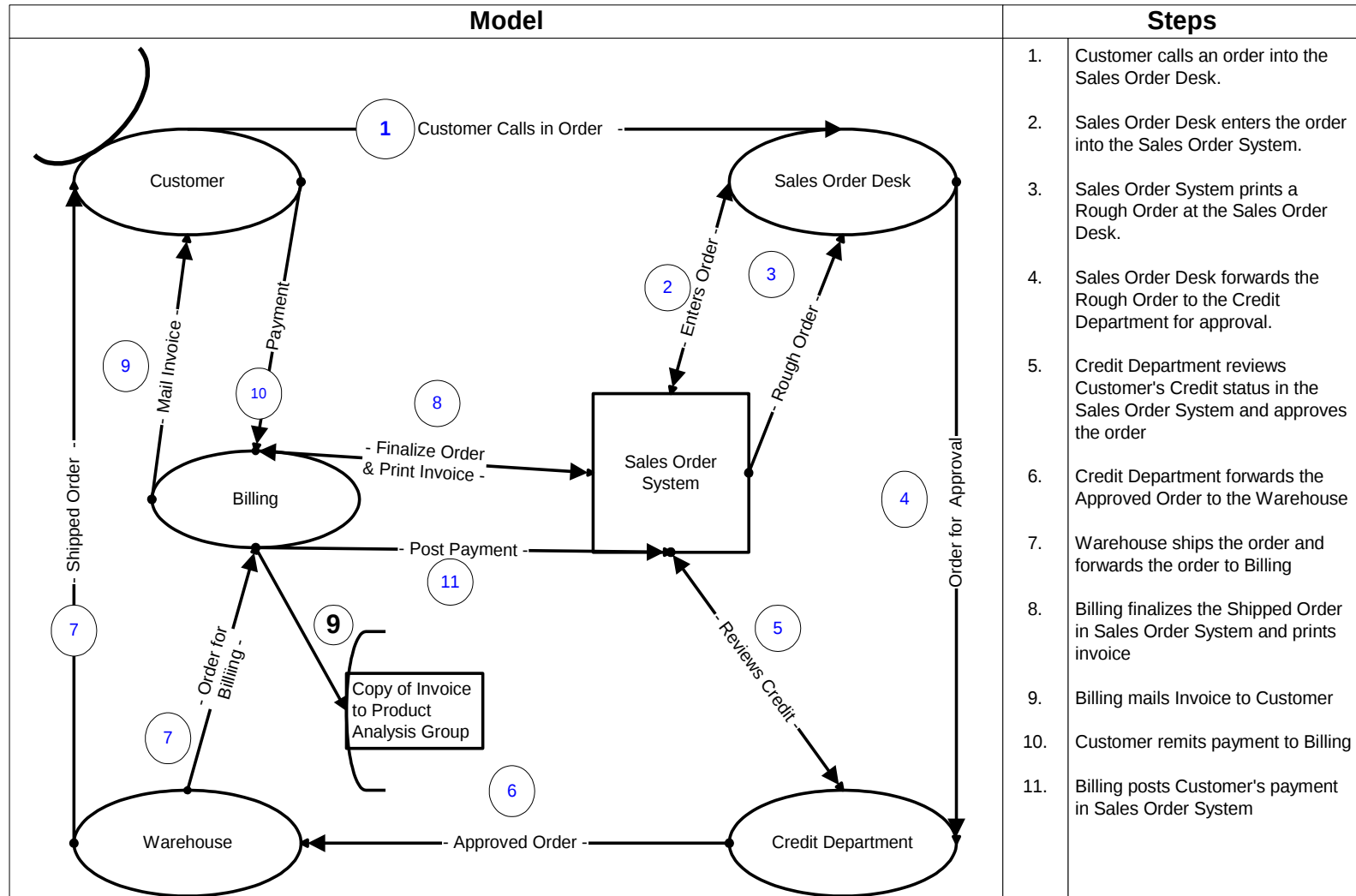
- ❑ VADS Name = Change Analysis VADS Name
- ❑ VADS References Correspond
- ❑ The assumption line clearly indicates the assumptions on which the model is based
- ❑ The model area contains an accurate copy of the diagram per the flip chart
- ❑ The step area (# & Step columns) contains a text version of the model.
 - Each communication line on the model is referenced in the # column.
 - Adjacent to the #, a brief sentence or two describes the communication being shared between the process groups involved.

Level 1 Workflow

VADS Name: Sales Orders on Account

Reference: WFL1-SOA

Assumption: Sales orders on account when the customer's credit limit is good, inventory is available and the customer pays on time.



The Helix Methodology

D3 – Test CA and Workflow Models – EWFL1 Diagnostic #2 – Test for Completeness & Integrity

Rule #1: The model is syntactically correct.

Rule #2: The model has closure (no hanging references and be properly bounded).

Rule # 3: The model is complete (represents the entire life cycle of the VADS).

Rule #4: The model properly references inputs or feeds to/from other VADS.

Rule #5: The model minimizes crossing of communication lines to ensure its ease of reading.

Rule #6: The model contains only the information needed to make the workflow clear and understandable, no more and no less.

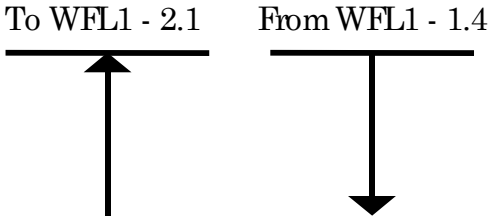
Rule #7: Each process group, file or data store appears only once on the model.

Rule #8: Each communication line is properly labeled with its sequence number, and the object being communicated with its related status.

D3 – Test CA and Workflow Models – **Rule #1** WFL1 Model Syntax

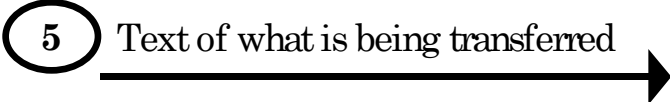
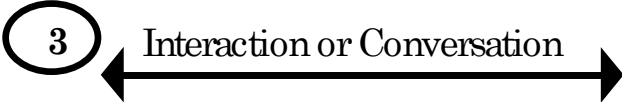
Symbol	Description
	The oval or circle represents a work or process group that participates in the VADS. This group represents one or more people who perform a specific set of procedures on a VADS. This group can be a sub-organization within the organization (division, department, specific job title or specific work area). The group can also represent outside organizations or people (customers, vendors, government, etc.). An icon can be substituted for this symbol. However, if icons are used they should be consistent throughout all models.
	The rectangle represents a file, data store or system. This object can be a file cabinet, ledger card, a computer system or any other non-human repository for storing information. An icon can be substituted for this symbol. However, if icons are used they should be consistent throughout all models

D3 – Test CA and Workflow Models – **Rule #1** WFL1 Model Syntax

Symbol	Description
Scope Constraint Boundary 	The arc represents a constraint or boundary. It denotes an intentional limitation in the scope of the model. The text behind the arc is used to clarify the scope limitation. For instance, in a sales VADS, the model may not reflect how the customer decided to place an order. If this information was not going to be reflected in the VADS, a scope constraint boundary would be placed on the edge of the customer process group to reflect the scope limitation.
To WFL1 - 2.1 From WFL1 - 1.4  Outbound / Inbound “Ts”	The “T” represents a link between two models. This linkage can be inbound (feeding this model) or outbound (feeding another model.) The direction of the connection is indicated by the arrow. Arrows pointing toward the top of the “T” are outbound. Arrows pointing away from the “T” are inbound. The text at the end of the “T” identifies the model being referenced.

The Helix Methodology

D3 – Test CA and Workflow Models – **Rule #1** WFL1 Model Syntax

Symbol	Description
	The arrow and associated numbered text represents the transfer of data between two process groups or a process group and a data store. The arrow points in the direction of the information movement. A two-headed arrow represents an interaction such as a conversation or interface with a system. The number represents the sequence in which the communication takes place in context to the entire model. When the transfer is between two process groups, or from a system to a process group, it represents both information and stimulus trigger (an indication that action is needed).
	

The Helix Methodology

D3 – Test CA and Workflow Models – EWFL1 Diagnostic #2 – Test for Completeness & Integrity

Rule #2: The model has closure (no hanging references and be properly bounded)

- Every process group, file or data store has at least one input and one output

If NOT TRUE – THEN

D3 – Test CA and Workflow Models – EWFL1 Diagnostic #2 – Test for Completeness & Integrity

- ❑ An output (communication line) can be added to the model to correct the deficiency.
- ❑ An outbound “T” can be added to the model to connect it to another model.
- ❑ A scope constraint boundary can be added to the model to indicate that the output is not relevant to the VADS.
- ❑ A clarifying question can be drafted and presented to the knowledge workers before or during the next facilitation work session.

The Same Rules Apply when there are Outputs with No Associated Inputs

- ❑ An input (communication line) can be added to the model to correct the deficiency.
- ❑ An inbound “T” can be added to the model to connect it to another model.
- ❑ A scope constraint boundary can be added to the model to indicate that the input is not relevant to the VADS.
- ❑ A clarifying question can be drafted and presented to the knowledge workers before or during the next facilitation work session.

HOW DOES JMI's EWFL1 Measure UP?

D3 – Test CA and Workflow Models – EWFL1 Diagnostic #2 – Test for Completeness & Integrity

- ❑ How does the Customer Know When to Call?
 - Brochure, Ad, Sales Call?
 - Does / Should JMI Care?
 - Should there be a link to a Marketing VADS?
- ❑ What does the System do with Posted Payment Data (step 11)?
 - Updates?
 - Outputs?

D3 – Test CA and Workflow Models – EWFL1 Diagnostic #2 – Test for Completeness & Integrity

Rule # 3: The Model is Complete

- Represents the Entire VADS Life Cycle?
- Primary Object can No Longer Transform?

How does JMI Measure Up?

D3 – Test CA and Workflow Models – EWFL1 Diagnostic #2 – Test for Completeness & Integrity

Rule #4: The Model Properly References Inputs or Feeds to/from Other VADS

- Is there any data being routed to other applications (Out Bound T's)
 - Data Marts, Business Analysis Data?
 - Exceptions or Alerts?

These should NOT affect the current cycle of the VADS

The Helix Methodology

D3 – Test CA and Workflow Models – EWFL1 Diagnostic #2 – Test for Completeness & Integrity

Rule #5: The Model Minimizes Crossing of Communication Lines

- Model Hygiene Issue
- Promotes Ease of Reading and Understanding

The Helix Methodology

D3 – Test CA and Workflow Models – EWFL1 Diagnostic #2 – Test for Completeness & Integrity

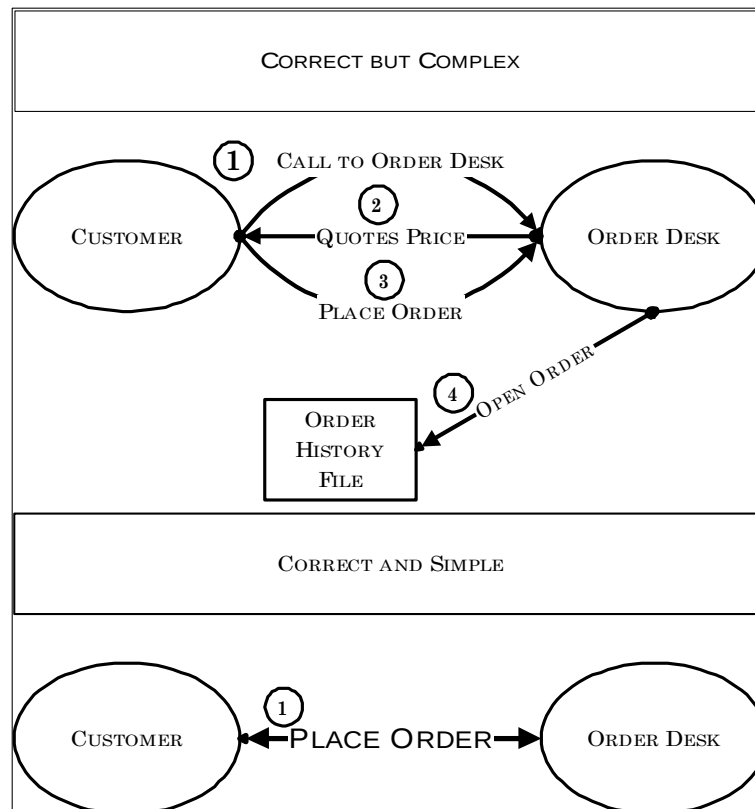
Rule #6: The Model Contains Only the Information Needed to Make the Workflow Clear and Understandable, NO More & NO Less

- Don't confuse Precision with Accuracy
- Depict what Information Objects are Shared Between Process Groups, Data Stores and Files
- Not Insights on how Information is Prepared or Manipulated (i.e., what each process group does with the information internally)
- Don't Clutter it with Needless Details
- Simplify where Appropriate

Models are a Simplified Representation of a Larger Reality

The Helix Methodology

D3 – Test CA and Workflow Models – EWFL1 Diagnostic #2 – Test for Completeness & Integrity



D3 – Test CA and Workflow Models – EWFL1 Diagnostic #2 – Test for Completeness & Integrity

Rule #7: Each Process Group, File or Data Store Appears Only Once on the Model

- Improves Ability to see
 - Workflow Bottlenecks
 - Internal Control Issues (segregation of duties)
 - Workflow Fragmentation

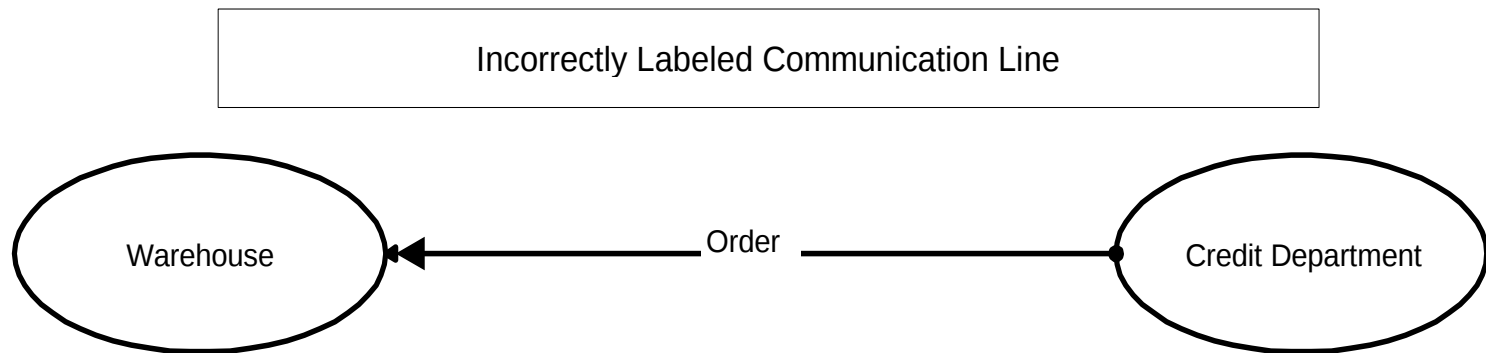
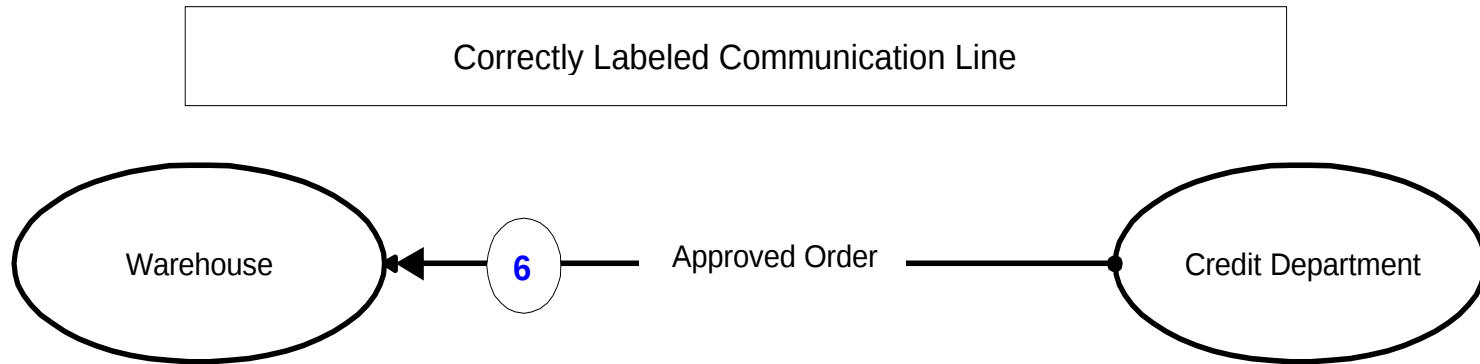
D3 – Test CA and Workflow Models – EWFL1 Diagnostic #2 – Test for Completeness & Integrity

Rule #8: Each Communication Line is Properly Labeled with its Sequence Number, and the Object Being Communicated with its Related Status

- Reflect sequential dependent and/or Parallel Events that Transform the Primary Object from its Original State Through its Final Transformation (end state)
- Give Parallel Communications the Same Sequence #

The Helix Methodology

D3 – Test CA and Workflow Models – EWFL1 Diagnostic #2 – Test for Completeness & Integrity

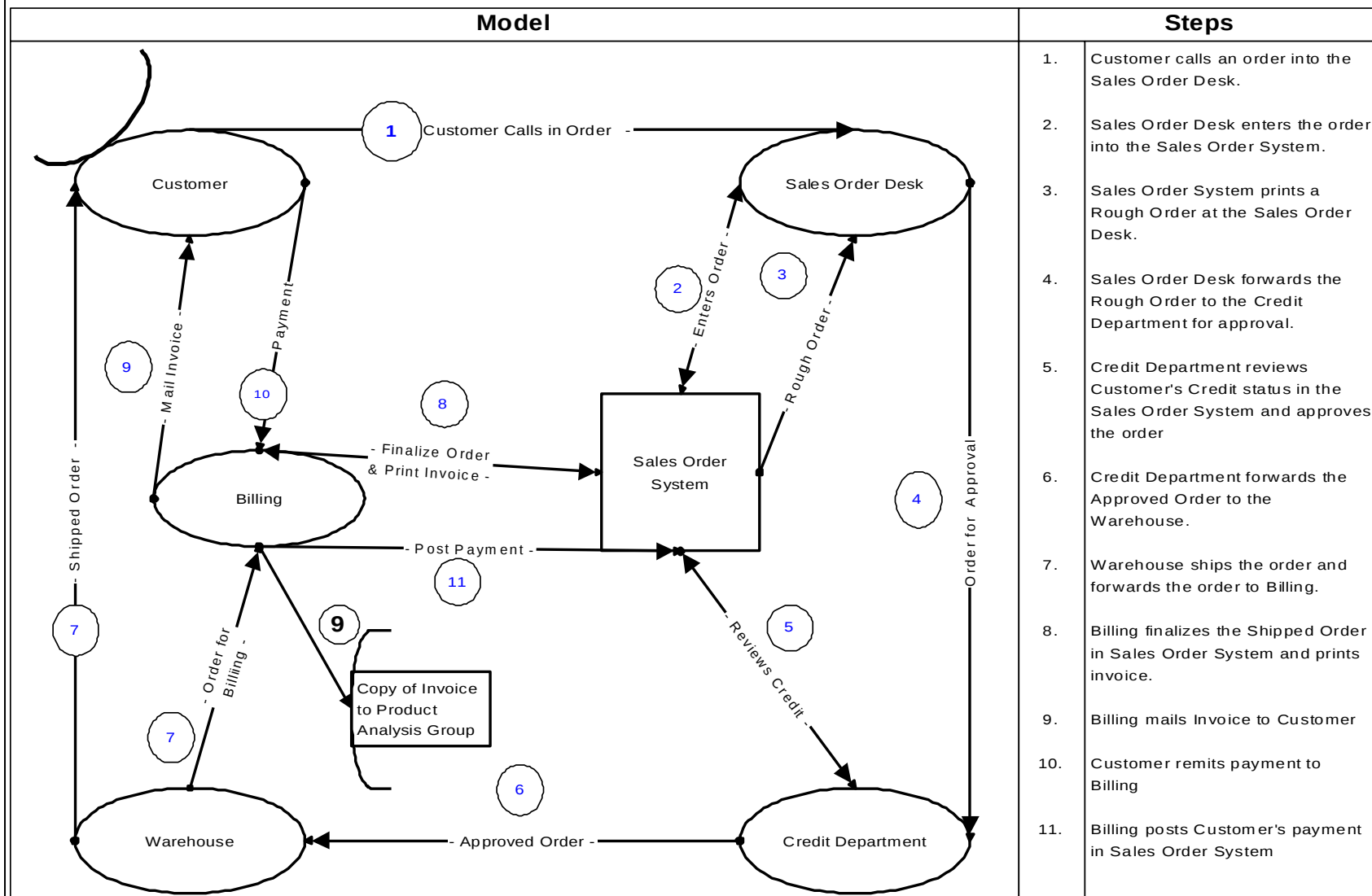


Level 1 Workflow

VADS Name: Sales Orders on Account

Reference: WFL1-SOA

Assumption: Sales Orders on Account when the Customer's Credit limit is Good, Inventory is Available and Customer Pays on Time.



The Helix Methodology

D3 – Test CA and Workflow Models – Diagnostic #3 – Formalizing the Level 2 Workflow

VADS Name: _____ VADS Reference: WFL2 - _____

VADS Cycles per Year: _____ VADS Estimated Annual Cost: _____

Assumptions (from WFL1): _____

	Phase A	Phase B	Phase C
Beg. Status			
P R O C E D U R E S			
End Status			
Lapsed Time			
Effort			

See Page 131
of
Implementer's
Guide

The Helix Methodology

D3 – Test CA and Workflow Models – Diagnostic #3 – Formalizing the Level 2 Workflow

- ❑ The “VADS Name” = VADS name used on the WFL1
- ❑ The “VADS Reference” corresponds the WFL1
- ❑ The “VADS Cycles per Year” contains the estimated number of times the workflow process is repeated annually
- ❑ The “VADS Estimated Annual Cost” is the result of multiplying the VADS Cycles per year times the estimated cost to perform a single VADS cycle
- ❑ The “Assumption” = Assumption on the WFL1
- ❑ The body of the model is an accurate depiction of the flip chart model - Any abbreviations or cryptic data have been clarified

Existing Level 2 Workflow

VADS Name: Sales on Account

VADS Reference: EWFL2 - SOA1

VADS Cycles per Year: 40,000

VADS Estimated Annual Cost:

Assumption [from WFL1]: Sales orders on account when the customer's credit is good,
Inventory is available and the customer pays on time.

\$4.8 million

	Phase A	Phase B	Phase C	Phase D	Phase E
Beg. Status	A customer wanting to order product	Rough sales order pending credit approval	Approved sales order ready for shipping	Shipped sales order ready for billing	Billed sales order pending collection
PROCESS	1 The customer calls the order desk with an order. 2 Order desk identifies customer and enters order via order entry screen. 3 Inventory availability and ship dates are verified with customer. 4 Rough order is printed and sent to credit for approval.	1 Credit receives rough order from the order desk. 2 Credit retrieves order from system and verifies the credit limit. 3 Credit reviews customer's outstanding A/R. 4 Credit approves order on system, stamps it "approved" and forwards it to warehouse for shipping.	1 Warehouse receives order from Credit. 2 Warehouse picks order and updates quantities picked on the order form. 3 Warehouse packages and ships order to customer. 4 Warehouse sends shipped order to Billing.	1 Billing receives order from warehouse. 2 Billing retrieves order from the system and enters the actual quantities shipped. 3 The system updates inventory, adjusts the customer credit limit and creates the invoice. 4 Billing prints the invoice and mails to customer.	1 Customer receives the invoice. 2 Customer sends payment to billing. 3 Billing retrieves the customer's invoice from the system and posts the payment. 4 The system updates the customer's credit limit and accounts receivable balance.
End Status	Rough sales order pending credit approval	Approved sales order ready for shipping	Shipped sales order ready for billing	Billed sales order pending collection	Collected sales order
Lapsed Time	5 minutes	2 days	1 day	2 hours	45 days
Effort	5 minutes	45 minutes	1 hour	10 minutes	10 minutes

See Page 133 of Implementer's Guide

D3 – Test CA and Workflow Models – Diagnostic #3 – Testing the EWFL2 for Completeness & Integrity

Rule 1: Each phase is sequentially dependent on the successful completion of the preceding phase.

Rule 2: Each Phase Reflects All the Communication Steps in the Related WFL1 & the Process Group Actions needed to Transform the Primary Object of the VADS from its Current Status to its New Status.

Rule 3: Each phase contains only one transformation to the primary object.

Rule 4: Each phase contains at least one input, process and output related to the primary object.

Rule 5: Each phase identifies secondary objects (and any transformations taking place on them) within the VADS cycle's phase.

Rule 6: Each phase contains estimates for the lapsed time and actual level of effort needed to complete the phase.

The Helix Methodology

D3 – Test CA and Workflow Models – Diagnostic #3 – Testing the EWFL2 for Completeness & Integrity

Rule 1: Each Phase is Sequentially Dependent on the Successful Completion of the Preceding Phase

- Can procedures be eliminated without disrupting the workflow cycle or subsequent cycles?
- Do all procedures add value to the VADS or other VADS?

The Helix Methodology

D3 – Test CA and Workflow Models – Diagnostic #3 – Testing the EWFL2 for Completeness & Integrity

Rule 2: Each Phase Reflects All the Communication Steps in the Related WFL1 & the Process Group Actions needed to Transform the Primary Object of the VADS from its Current Status to its New Status

- Is each procedure derived from a communication line on the WFL1 or an explanation of what actions the process group perform in order to prepare for a subsequent communication?

What are the implications of not performing Phase D Procedure 3 on the EWFL2?

Will the Customer get Invoiced?

Will JMI get Paid?

The Helix Methodology

D3 – Test CA and Workflow Models – Diagnostic #3 – Testing the EWFL2 for Completeness & Integrity

Rule 3: Each Phase Contains Only One Transformation to the Primary Object

- Transformation = Change in State

**What are the procedures in each Phase of JMI's EWFL2
that transform the primary Object (the order)?**

The Helix Methodology

D3 – Test CA and Workflow Models – Diagnostic #3 – Testing the EWFL2 for Completeness & Integrity

Rule 4: Each Phase Contains at Least One Input, Process & Output Related to the Primary Object

- What is the new information being input?
- What Process Updates the Primary Object?
- What is Output to Signify the Change has Occurred?

Missing Transformations could signify a flawed process that would be evidenced by major operational problems

What are the Inputs, Updates & Outputs in each Phase of JMI's EWFL2?

The Helix Methodology

D3 – Test CA and Workflow Models – Diagnostic #3 – Testing the EWFL2 for Completeness & Integrity

Rule 5: Each Phase Identifies Secondary Objects (and any transformations taking place on them) within the VADS Cycle's Phase

- Missing Transformations - Typical Source of issues, inefficiencies and data corruption
- Breakdowns in Secondary Object Transformations typically manifest themselves in future VADS cycles or Other VADS

What is the impact on not updating inventory for actual shipments

- **On Future Sales Order VADS Cycles?**
- **On Purchasing VADS?**

The Helix Methodology

D3 – Test CA and Workflow Models – Diagnostic #3 – Testing the EWFL2 for Completeness & Integrity

Rule 6: Each Phase Contains Estimates for the Lapsed Time & Actual Level of Effort Needed to Complete the Phase

- Could be annotated for each procedure too if desired
- Large differences between lapsed time and labor can indicate a bottleneck (to much work per person) or wait times (time customer takes to pay)

The Goal –

Streamline the VADS (proposed) as much as possible to minimize the difference (zero being perfect) between lapsed time and level of effort per Phase per VADS cycle

Where Could JMI's Sales Order Process Be Improved?

The Helix Methodology

D3 – Test CA and Workflow Models – Diagnostic #4 - Mapping the Change Analysis to the WFL2 Models

- ❑ Made a 1st Pass During the Facilitation Work Session
- ❑ Now the CA needs to be updated with the WFL2 References (Existing & Proposed)
- ❑ Project Objectives also need to be cross referenced

The Helix Methodology

D3 – Test CA and Workflow Models – Diagnostic #4 - Mapping the Change Analysis to the WFL2 Models

Posting Example – Current Situations to EWFL2 Page 146 - 152 Project Objectives

	Phase A
Beg. Status	A customer wanting to order product PO1
P	1 The customer calls the order desk with an order.
R	2 Order desk identifies customer and enters order via order entry screen. S2 PO2
O	3 Inventory availability and ship dates are verified with customer.
C	4 Rough order is printed and sent to credit for approval. PO4
E	
D	
U	
R	
E	
S	
End Status	Rough sales order pending credit approval
Lapsed Time	5 minutes
Effort	5 minutes

VAD Name: Sales on Account

#	Project Objectives	EWFL2 Ref.	PWFL2 Ref.
1	Improve our customer service and beat the competition by reducing the time it takes to process an order from the order desk through shipping from 5 days to 2 days.	SOA-A	SOA-A
2	Increase our sales by over \$40 million a year by keeping lost sales due to stock shortages to less than 2 a day.	SOA-A2	SOA-A4
3	Improve our collections by identifying when a customer has a 3-day change in their paying habits.		
4	Become the industry sales leader by increasing our sales volume by 30 orders a day.	SOA-A2	SOA-A3

The Helix Methodology

D3 – Test CA and Workflow Models – Diagnostic #4 - Mapping the Change Analysis to the WFL2 Models

Beg. Status	Phase A	
	A customer wanting to order product	
P R O C E D U R E S	1	The customer calls the order desk with an order.
	Order Entry Process	
	2	Order desk identifies the customer and verifies that their outstanding balance is current via the order entry screen. The system flags the order as clearing O/S Balance review. PG1
	3	For each item ordered, the order desk verifies the inventory is available and confirms ship dates. PO4
E S	4	Upon completion of the order, the system reserves the inventory being ordered, sets its status to "Approved" and prints it directly to the warehouse printer. PG1 PG2 PG3 PO2
	End Status	Approved sales order ready for shipping
Lapsed Time	5 minutes	PO1
Effort	5 minutes	

Project Objectives

VAD Name: Sales on Account

#	Project Objectives	EWFL2 Ref.	PWFL2 Ref.
1	Improve our customer service and beat the competition by reducing the time it takes to process an order from the order desk through shipping from 5 days to 2 days.	SOA-A	SOA-A
2	Increase our sales by over \$40 million a year by keeping lost sales due to stock shortages to less than 2 a day.	SOA-A2	SOA-A4
3	Improve our collections by identifying when a customer has a 3-day change in their paying habits.		
4	Become the industry sales leader by increasing our sales volume by 30 orders a day.	SOA-A2	SOA-A3

The Helix Methodology

D3 – Test CA and Workflow Models – Diagnostic #4 - Mapping the Change Analysis to the WFL2 Models

Change Analysis

VADS Name: Sales on Account

Reference: CA-SOA

#	Current Situation	EWFL2 Ref.	Preliminary Goal	PWFL2 Ref.
1	It takes too long to process sales orders through Credit. Too Long = more than 45 minutes from the time the Credit Manager receives the order from the order desk until the time the order is released to the warehouse for shipping. This is bad because it means that orders received after 2 p.m. cannot be shipped until the next business day. This results in poor customer service. This occurs due to the volume of orders (greater than 150 a day) coupled with the number of steps that are taken to review and approve credit and complete the order. Based on an average wage of \$30 and hour and 45 minute of processing time the cost to approve a sales order is \$22.50. Given a volume of 150 orders a day, it requires about 14 Credit staff to keep up with the volume. The average daily cost to process orders through Credit is about \$3,375 a day. Given the objective to ship orders within 24 hours of receipt, reducing the time required to process orders through credit supports this objective and improves customer service levels. Reducing the time it takes to approve orders will also reduce the cost of order processing providing value to JMI's owners.		The ability to process work orders directly to the warehouse when the customer's available credit line is greater than the order amount and their outstanding balance is current. This would require a change to the order processing system to support the automatic credit checking process and related electronic transmission of orders to the warehouse and Credit department. Immediately upon the order desk completing the entry of the order, the system would credit check the order and electronically route it directly to the warehouse (approved) or the Credit department (denied) for the appropriate action. Testing and routing of an order should take under one minute to occur. This is good because it reduces the overall order processing time by at least 44 minutes for orders that pass the automatic credit check, directly supporting the project objective to ship orders within 24 hours of receipt. It is estimated that approximately 91% (137 per day) of the orders received would clear this credit checking process. Based on the current cost of \$22.50 to credit check an order, this improvement would result in five year savings of over \$3 million (739,000 X 5 - 605,000). The cost to modify the order processing system and to implement the new process is estimated between \$185,000 and \$605,000. The expected return on investment in the first year should range from 22% to 300% depending on the actual implementation costs. The above savings would benefit the company by providing a net savings of about \$140,000 the first year and \$740,000 a year thereafter. The customers would benefit from this change because they would receive their order up to 24 hours sooner. With the reduced number of orders flowing to the Credit department, the department can focus its full attention on problem orders and avoid adding new staff in the future. This is in line with the company's objective keep staffing levels at 7,500.	SOA-A2 SOA-A4

Change Analysis

VADS Name: Sales on Account

Reference: CA-SOA

#	Current Situation	EWFL2 Ref.	Preliminary Goal	P FL2 Ref.
2	Inventory is often oversold, resulting in slipped delivery dates, poor customer service and/or canceled orders. This happens because the inventory is not reserved at the time the order is taken. About 12 to 18 orders a day are lost due to inaccurate inventory on the computer.	SOA-A2	The ability to reserve inventory at the time the order is taken. This would make inventory records more accurate and would insure that the stock would be there when the warehouse went to pick it. This would increase sales by about \$ 57,000 a day.	SOA-A4
3	The customer's credit limit is not updated in the computer until the sales order is approved by Credit. This sometimes results in the customer being sold products beyond what their credit limit supports. When this happens, it is a source of embarrassment for the customer and exposes the company to a potential bad debt.		The ability to update the customer's credit limit at the time they place an order. This would allow the order desk to catch potential credit limit problems before the order is taken and a delivery date promised. This would improve customer service and reduce bad debts.	SOA-A4

REMEMBER
The Change Analysis and
Project Objectives
Must Correlate
to the Associated VADS

The Helix Methodology

D3 – Test CA and Workflow Models – Diagnostic #4 - Mapping the Change Analysis to the WFL2 Models

When Goals and Objectives Don't Correlate

- ❑ Project Scope may need to Expanded
- ❑ Project Objectives may need to be Reduced
- ❑ VADS may need to be Updated / Corrected

What do we do about PO3 in JMI?

Where in the workflow can payment habit data be captured?

Improve our collections by identifying when a customer has a 3-day change in their paying habits

The Helix Methodology

D3 – Test CA and Workflow Models - Review

- ❑ Mapping of Project Objectives and Change Analysis Items Provides a “Proof of Correctness” that validates completed work products
- ❑ Through the mapping process new VADS
 - Can be Identified & Project Scope Adjusted
 - Issues & Questions are identified Subsequent Facilitation Work Session.
- ❑ The Documentation Generated Demonstrates the Team’s Understanding of
 - Where & How Goals & Objectives are Achieved in the Proposed Level 2 Workflow

All Good Stuff!

The Helix Methodology

D4 – Advanced Diagnostics

Advanced Diagnostics

- Define Achievable Goals based on Preliminary Goals
- Test the Models Developed for Alignment to the 9 Essential Alignment Factors
- Develop Breakthrough Process Improvements Concepts & Alternatives
- Identify the Stimulus Triggers & Actions Needed to Drive Proposed VADS Procedures
- Identify & Resolve Potential Process Failures in Proposed VADS Procedures
- Provide Input into Performance Score Cards and Leveraging Technology Requirements (Processes & Data Structure)

**D4 – Advanced Diagnostics –
Diagnostic # 5 - Expanding the Change Analysis**

From Preliminary Goals to Achievable Goals
Each Goal Tested for

- Controllable & Uncontrollable Variables
- Imposed Limitations & Constraints

that Affecting Their Achievement

D4 – Advanced Diagnostics – Diagnostic # 5 - Expanding the Change Analysis

Controllable & Uncontrollable Variables

- Controllable Variables are things we can influence (Size of Workforce, Operating Hours, etc.)
- Uncontrollable variables are those that we have little or no domain over (Government Regulations, Weather, etc.)

Generally Speaking

The Greater the Uncontrollable Variables the Greater the Risk

The Helix Methodology

D4 – Advanced Diagnostics – Diagnostic # 5 - Expanding the Change Analysis

Change Analysis - Part 2

VADS Name: _____

VADS Reference: CA2 - _____

#	Project Objective or Preliminary Goal	Risk Variables	Uncontrollable Aspects	Imposed Limitations & Constraints	Realistic Objectives & Goals

See Page 163

**D4 – Advanced Diagnostics –
Diagnostic # 5 - Expanding the Change Analysis**

Imposed Limitations & Constraints

- Artificial Boundaries We Create for a Given Goal or Objective
- Negotiable Points – Items we can chose to change

D4 – Advanced Diagnostics – Diagnostic # 5 - Expanding the Change Analysis

Diagnostic Steps – For Each Preliminary Goal & Project Objective

1. Identify the explicit and implicit expectations associated with each
2. Identify the variables that could negatively affect their pursuit or achievement
3. Assess the level of control that the organization has over those variables
4. Identify if the variables are being imposed by the organization or are, in fact, uncontrollable in their nature
5. **For uncontrollable variables:** identify their impact on success as well as the actions that would be taken if the variables' behaviors were not in accordance with the organization's expectations
6. **For imposed limitations and constraints:** evaluate the latitude or flexibility the organization or knowledge workers have to change the boundaries being imposed

D4 – Advanced Diagnostics – Diagnostic # 5 - Expanding the Change Analysis

Based on the Analysis

Assess the Goal's Feasibility

- ❑ If Feasible – Keep it the way it is
- ❑ If Not Feasible
 - Explore Alternatives that can be Achieved
 - Update Models and Mappings

Update Part 2 of Change Analysis Form

D4 – Advanced Diagnostics – Diagnostic # 5 - Expanding the Change Analysis

Typical Questions to Explore

- ❑ What regulatory issues might be encountered?
- ❑ What cultural challenges will come into play?
- ❑ What are the technology complications related to the Goal (applications, infrastructure, etc.)
- ❑ Can the cost of the improvement be accurately estimated?
- ❑ How much will it cost to deploy the improvement
- ❑ How will the results be monitored and measured?
- ❑ Is that cost worth the benefits to be derived (i.e., what is the ROI)?
- ❑ How long will the change take to implement?

D4 – Advanced Diagnostics – Diagnostic # 5 - Expanding the Change Analysis

Expand PG01 of the JMI Change Analysis

Risk Variable	Uncontrollable Aspects	Imposed Limitation Aspects
Feasibility of changing the order processing system to perform automatic credit checks and routing to the warehouse or Credit.	Availability of source code. Quality of program design. Quality of database design.	Amount of money & time JMI is willing to spend to assess the feasibility.
Cost and time needed to implement the changes.	Quality of program design. Quality of database design.	Amount of money & time JMI is willing to spend to achieve the changes. Quality of talent JMI is willing to assign to the effort.
Efficiency of changes once implemented.	Quality of program design. Quality of database design.	JMI's definition of what efficient is.
Reliability of the changes once implemented.	Quality of program design. Quality of database design.	Quality of the changes made. Quality of the equipment used to support the change. Accuracy of the credit data maintained.
Speed of the changes once implemented.	Quality of program design. Quality of data base design.	5-minute goal set for the process to check and route the order.

Change Analysis - Part 2

VADS Name: _____

VADS Reference: CA2 - _____

#	Project Objective or Preliminary Goal	Risk Variables	Uncontrollable Aspects	Imposed Limitations & Constraints	Realistic Objectives & Goals
PG1	The ability to process work orders directly to the warehouse when the customer's available credit line is greater than the order amount and their outstanding balance is current. This would require a change to our order processing system. Specifically, it would require the system to automatically check the order for credit-related data and route it to the appropriate location (credit department or warehouse).	Feasibility of changing the processing system to perform automatic credit checks and routing to the warehouse or Credit.	Availability of source code. Quality of program design. Quality of database design.	Amount of money and time JMI is willing to spend to assess the feasibility.	The ability to process work orders directly to the warehouse when the customer's available credit line is greater than the order amount and their outstanding balance is current. This would require a change to our order processing system. Specifically, it would require the system to automatically check the order for credit-related data and route it to the appropriate location (credit department or warehouse).
		Cost and time needed to implement the change.	Quality of program design. Quality of database design.	Amount of money and time JMI is willing to spend to achieve the changes. Quality of talent JMI is willing to assign to the effort.	
		Efficiency of changes once implemented.		JMI's definition of what is efficient.	
		Reliability of changes once implemented.		Quality of the changes made. Quality of the equipment used to support the change. Accuracy of the credit	
		Speed of the changes once implemented.		5 minute goal set for the process to check and rout the order.	

D4 – Advanced Diagnostics – Diagnostic # 6 - Testing the High Level Alignments

High Level Alignments – Via the Alignment Matrix

- Vision
- Business Objectives
- Stakeholder Needs
- Project Objectives

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D4 – Advanced Diagnostics – Diagnostic # 6 - Testing the High Level Alignments

Original Alignment Matrix – Update & Validate

Project Objective	Supports		Value-added to		
	Vision	Plan	Customers	Owners	Employees
Improve our customer service and beat the competition by reducing the time it takes to process an order from the order desk through shipping from 5 days to 2 days.	Better sales & service levels improves industry leadership position.	Supports 20% growth objective	Improved service levels.	Better service levels improves sales.	Reduced frustration and customer complaints.
Increase our sales by over \$40 million a year by keeping lost sales due to stock shortages to less than 2 a day.	Increased sales makes JMI more attractive to investors.	Supports 20% Growth objective. Improves cash position.	Improved service levels.	Better service levels improves sales.	Reduced frustration and customer complaints.
Improve our collections by identifying when a customer has a 3-day change in their paying habits.	Better sales & service levels improves industry leadership position.	Supports cash flow objective and reduces bad debts.	Avoids embarrassing bad debt situations.	Improves value of company.	Moves them closer to ownership.

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D4 – Advanced Diagnostics – Diagnostic # 6 - Testing the High Level Alignments

Create VADS Summary

VADS SUMMARY

VADS NAME: _____

VADS REF.: VS_____

VOLUME AND COST

Cycles Per Year	Cost Per Cycle	Total Annual Cost

PURPOSE OF VADS

VALUE-ADDED OUTCOMES

Stakeholder	Outcome	Benefit

PROCESS GROUPS

PRIMARY OBJECT: _____

SECONDARY OBJECTS:

VADS SUMMARY

VADS NAME: Sales on Account

VADS REF.: VS-SOA

VOLUME AND COST

Cycles Per Year	Cost Per Cycle	Total Annual Cost
39,000	\$120	\$4,680,000

PURPOSE OF VADS

Selling product to customers “on account” is JMI’s primary means of generating revenue. It comprises over 90% of its overall business. The purpose of the “Sales on Account” VADS is to provide JMI’s customers with the products they need at competitive prices and terms while providing JMI with an appropriate profit.

VALUE-ADDED OUTCOMES

Stakeholder	Outcome	Benefit
Customer	Ordered Product(s)	Supports their need
Owner	Sold Product	Increased profitability

PROCESS GROUPS

Sales Order Desk	Credit Department	Billing
Warehouse / Shipping		

PRIMARY OBJECT: SALES ORDER

SECONDARY OBJECTS:

Inventory	Customers	
-----------	-----------	--

D4 – Advanced Diagnostics – Testing the Lower Level Alignments

- ❑ Stimulus Triggers to Workgroup Actions
- ❑ Process Failures to VADS Impediment

**D4 – Advanced Diagnostics –
Diagnostic # 7 - Stimulus Triggers/Action Analysis**

Stimulus Triggers - Cues that Inform Knowledge
Workers to Take Action

Typically to Transformation the VADS' Primary Object

Analysis Provides a Framework for Developing
Breakthrough Improvement Concepts to Increase
Value & Reduce Process Failures

D4 – Advanced Diagnostics – Diagnostic # 7 - Stimulus Triggers/Action Analysis

Key Questions

1. What is the expected response time between the stimulus trigger occurring and action being taken?
2. What is the action to be taken?
3. How will the performance against the response time expectation be tracked, measured and communicated?
4. What is the maximum amount of time that will be allowed to pass before the process will considered to be in failure mode?
5. Where in the VADS will a failure be detected?
6. What stimulus trigger will communicate that a process is in a failure mode?

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D4 – Advanced Diagnostics – Diagnostic # 7 - Stimulus Triggers/Action Analysis

STIMULUS TRIGGER DIAGNOSTIC FORM

VADS NAME: _____

VADS REF.: VS _____

VADS Phase	Process Group	Stimulus Trigger	Action and Timing

**D4 – Advanced Diagnostics –
Diagnostic # 7 - Stimulus Triggers/Action Analysis**

**What are the Stimulus Triggers in Phase A & B
of the JMI Sales Order Process**

Phase A & B Before Stimulus Trigger Analysis

	Phase A	Phase B
Beg. Status	A customer wanting to order product	Approved sales order ready for shipping
P R O C E D U R E S	1 The customer calls the order desk with an order. 2 Order Entry Process Order desk identifies the customer and verifies that their outstanding balance is current via the order entry screen. The system flags the order as clearing O/S balance review. PG1 3 For each item ordered, the order desk verifies the inventory is available and confirms ship dates. PO4 4 Upon completion of the order, the system reserves the inventory being ordered, sets its status to "Approved" and prints it directly to the warehouse printer. PG1 PG2 PG3 PO2	1 Warehouse receives order via printer. 2 Warehouse picks order and updates quantities picked on the order form. 3 Warehouse packages and ships order to customer. 4 Warehouse sends shipped order to billing.
End Status	Approved sales order ready for shipping	Shipped sales order ready for billing
Lapsed Time	5 minutes PO1	1 day PO1
Effort	5 minutes	1 hour

Phase A & B After Stimulus Trigger Analysis

	Phase A	Phase B
Beg. Status	A customer wanting to order product	Approved sales order ready for shipping
P R O C E D U R E S	1 The customer calls the order desk with an order.	1 Warehouse receives order via printer and pages the warehouse staff via the automated paging system.
	Order Entry Process 2 Order desk identifies the customer and verifies that their outstanding balance is current via the order entry screen. The system flags the order as clearing O/S balance review. PG1	2 Warehouse staff retrieves the order and enters its PIN # into the order processing system. picks order. The system updates the order to retrieved. PG1 PO1
	3 For each item ordered, the order desk verifies the inventory is available and confirms ship dates. PO4	3 Warehouse staff picks the order and updates quantities picked on the order form.
	4 Upon completion of the order, the system reserves the inventory being ordered, sets its status to "Approved", assigns PIN# and prints it directly to the warehouse printer. PG1 PG2 PG3 PO2	4 Warehouse packages and ships order to customer. 5 Warehouse sends shipped order to Billing.
End Status	Approved sales order ready for shipping	Shipped sales order ready for billing
Lapsed Time	5 minutes PO1	1 day PO1
Effort	5 minutes	1 hour

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D4 – Advanced Diagnostics – Diagnostic # 7 - Stimulus Triggers/Action Analysis

STIMULUS TRIGGER DIAGNOSTIC FORM

VADS NAME: Sales Orders on Account

VADS REF.: VS-SOA

VADS Phase	Process Group	Stimulus Trigger	Action and Timing
A customer wanting to order product	Sales Order Desk	Telephone ringing	Answer telephone within 3 rings
Approved sales order ready for shipping	Warehouse	Beep from paging system	Pick up order and update system with order PIN # within 30 minutes of page

**D4 – Advanced Diagnostics –
Diagnostic # 7 - Stimulus Triggers/Action Analysis**

Change Concepts
More than just a Narrative

A Complete Executive Summary

Overview of Warehouse Paging Concept

Introduction

One of the preliminary goals established by the project participants (the team) was to reduce the time it takes to process an order from its point of entry into the order processing system to the point it is available for picking in the warehouse. To achieve this goal, the team developed a concept that would print creditworthy orders directly to the warehouse simultaneously paging a warehouse person that the order is available.

This new process would allow the Credit department to save over \$3,000 a day in labor costs. Additionally, the new process would cut the time a typical order takes to arrive in the warehouse by about two days. This will increase customer service levels and support the company's objective of shipping orders within 24 hours of receipt.

The Process

The process is as follows:

As sales orders are entered into the system, they would go through an automated credit check. This credit check process would verify that the customer had an available credit limit sufficient to support the order and was current on any outstanding balances due.

Orders passing this automated credit check would be routed to and printed directly in the warehouse. Simultaneous to the printing process, a warehouse person would receive a page via a beeper system. The goal would be to have the page responded to within 30 minutes of the printing taking place.

The system would track the response time from page to order pickup and provide daily performance reports to each warehouse staff person and his or her supervisor.

The team recommends that incentives be put in place to reward warehouse staff for performances that consistently exceed the 30 minute goal.

Orders not picked up within 30 minutes would be escalated to the warehouse supervisor for expedition.

Implementation Requirements

In order to implement this new process the following will need to occur:

1. Receive management's approval and supporting budget;
2. Modify the existing order entry process to include an automated credit check function;
3. Cable the warehouse for a printer;
4. Purchase a printer for the warehouse;
5. Acquire a paging (beeper) system and interface it to the order processing system;
6. Train the warehouse staff on the new procedures; and,
7. Test new process and authorize production use.

Cost of Implementation

The cost to implement this new process ranges between \$ 87,500 to \$ 139,750 as follows:

	Low	High
1. Modification of order entry module to include automatic credit checking (assumes outsourcing at \$1,000 a day);	\$ 25,000	\$ 50,000
2. Cabling of warehouse for printer;	1,500	2,000
3. Warehouse printer;	500	750
4. Paging system;	8,000	12,000
5. Interfacing of Paging system to Order Processing system (assumes outsourcing at \$1,000 a day);	37,500	55,000
6. Training (two days for each of 25 warehouse staff); and,	12,000	15,000
7. Testing.	3,000	5,000
Total	\$ 87,500	\$ 139,750

Return on Investment

Based on the above estimates of savings and costs, this new process will provide the following savings to the company in the first 12 months following implementation:

Annual savings in Credit department	\$ 780,000
Cost of implementation	139,750
1st Year Savings	\$ 640,250
Return on Investment (1st year)	458.14%

See Page 184

**D4 – Advanced Diagnostics –
Diagnostic # 7 - Stimulus Triggers/Action Analysis**

True alignment is achieved when the performance expectations of an organization are manifested in the actions people take

**D4 – Advanced Diagnostics –
Diagnostic # 8 – Failure Analysis**

Types of Process Failures

- Failures that impact the current VADS cycle
- Failures that impact future VADS cycles
- Failures that impact other VADS cycles

D4 – Advanced Diagnostics – Diagnostic # 8 – Failure Analysis

Integrating Early Warning & Detection Monitoring Systems can Reduce Risks and Impact of Process Failures

- Real-time Feedback to Employees
- Rapid Escalation Based on Lapsed Time or Severity

Benefits

- Improve Employees Performance
- Avoid Service Level Delays
- Be More Responsive to Process Breakdowns

D4 – Advanced Diagnostics – Diagnostic # 8 – Failure Analysis

Key Questions for Analyzing Potential Failures in Secondary Object Transformations

1. What is the secondary object(s) being transformed?
2. What procedures transform the secondary object(s)?
3. What are the requirements for transforming the secondary object(s)?
4. What is the outcome (lost value) of the secondary objects' failure to transform (cost, time, service level, etc.)?
5. What are the transformation rules and safeguards needed to ensure that failure is minimized and quickly resolvable?
6. What is the ROI related to the implementation of the rules and safeguards identified?

Failure Analysis Form

VADS NAME: _____

VADS REF.: FA-_____

Where Failure Occurs

VADS Phase:			
VADS Procedure:			
Object(s) Failing to Transform:			
Description of Failure			

Where Failure is Realized

VADS Phase:			
VADS Procedure:			
Object(s) Failing to Transform:			
Description of Failure:			

Lost Value Due to Failure

Stakeholder	Value Lost			
	Cost	Time	Service Level	Other
Total				

Resolution Concept

Description:				
Implementation Cost:				
	Labor	Materials	Capital	Total
Annual Ongoing Support Cost:				
	Labor	Materials	Capital	Total
Time Needed to Implement:				

Return on Investment

	1st Year	3 Years	5 Years	
Revenue Generated				
Cost Savings				
Total Improvement				
Implementation Cost				
Ongoing Cost				
Total Cost				
Net Improvement				
Return on Investment:				

See Page 188

Failure Analysis – 1st Pass – Setup

Summary of Secondary Object Transformation Failures

VADS NAME: Sales Orders on Account

VADS REF.: OTR-SOA

#	VADS Phase	Secondary Object	#	Procedure	Rule	Impact of Failure	Safeguard
C	Shipped sales order ready for billing	Customer	3	The system updates inventory, adjusts the customer credit limit and creates the invoice	The customer's credit limit should be increased for the amount of the original order and decreased for the value of the invoice.		
C	Shipped sales order ready for billing	Inventory	3	The system updates inventory, adjusts the customer credit limit and creates the invoice	The inventory available for sale should be increased for the original quantity reserved and decreased for the actual quantity shipped to the customer. This should be done for each item shipped.		
D	Billed sales order pending collection	Customer	4	The system updates the customer's credit limit and accounts receivable balance.	The customer's credit limit should be increased for the value of payments received (posted).		

High-impact failures are those where
the value lost is greater than the cost to safeguard against that loss

Failure Analysis – 2nd Pass – Impact Analysis

Summary of Secondary Object Transformation Failures

VADS NAME: Sales Orders on Account

VADS REF.: OTR-SOA

#	VADS Phase	Secondary Object	#	Procedure	Rule	Impact of Failure	Safeguard
C	Shipped sales order ready for billing	Customer	3	The system updates inventory, adjusts the customer credit limit and creates the invoice.	The customer's credit limit should be increased for the amount of the original order and decreased for the value of the invoice.	Failure to decrease the customer's credit limit would result in a overstatement of their credit limit. This could lead to a bad debt situation as future orders are accepted erroneously.	
C	Shipped sales order ready for billing	Inventory	3	The system updates inventory, adjusts the customer credit limit and creates the invoice.	The inventory available for sale should be increased for the original quantity reserved and decreased for the actual quantity shipped to the customer. This should be done for each item shipped.	Failure to correctly update inventory for the actual quantity shipped would result in inventory being misstated. This could lead to over- or under-stocking conditions and could affect purchasing's actions.	
D	Billed sales order pending collection	Customer	4	The system updates the customer's credit limit and accounts receivable balance.	The customer's credit limit should be increased for the value of payments received (posted).	Failure to increase the customer's credit limit for payments received could result in a customer erroneously failing to pass the credit check. This could result in a lost order or even a lost customer.	

Failure Analysis – 3rd Pass – Safeguard Identified

VADS NAME: Sales Orders on Account

VADS REF.: OTR-SOA

#	VADS Phase	Secondary Object	#	Procedure	Rule	Impact of Failure	Safeguard
C	Shipped sales order ready for billing	Customer	3	The system updates inventory, adjusts the customer credit limit and creates the invoice.	The customer's credit limit should be increased for the amount of the original order and decreased for the value of the invoice.	Failure to decrease the customer's credit limit would result in a overstatement of their credit limit. This could lead to a bad debt situation as future orders are accepted erroneously.	A procedural failure to enter the data into the system or lost paperwork could cause the process to breakdown. A safeguard should be implemented to identify orders that have been picked up for shipping but not invoiced. This safeguard could take the form of a daily status report that lists orders that have been in the warehouse for over 24 hours.
C	Shipped sales order ready for billing	Inventory	3	The system updates inventory, adjusts the customer credit limit and creates the invoice.	The inventory available for sale should be increased for the original quantity reserved and decreased for the actual quantity shipped to the customer. This should be done for each item shipped.	Failure to correctly update inventory for the actual quantity shipped would result in inventory being misstated. This could lead to over- or under-stocking conditions and could affect purchasing's actions.	Same as above.
D	Billed sales order pending collection	Customer	4	The system updates the customer's credit limit and accounts receivable balance.	The customer's credit limit should be increased for the value of payments received (posted).	Failure to increase the customer's credit limit for payments received could result in a customer erroneously failing to pass the credit check. This could result in a lost order or even a lost customer.	A procedural failure to enter the payments into the system would cause the process to breakdown. A safeguard should be implemented to identify orders that have been invoiced but not collected within the customer's paying habit time period. This safeguard could take the form of a daily status report that lists invoices that have been paid within the customer's normal paying habit time period.

See Page 193

VADS NAME: Sales on Account		VADS REF.: FA-SOA-C3		
Where Failure Occurs				
VADS Phase:	Shipped sales order ready for billing			
VADS Procedure:	The system updates inventory, adjusts the customer credit limit and creates the invoice.			
Object(s) Failing to Transform:	<u>Customer</u> <u>Inventory</u>			
Description of Failure	Failure to decrease the customer's credit limit would result in an overstatement of their credit limit. This could lead to a bad debt situation as future orders are accepted erroneously.			
	Failure to correctly update inventory for the actual quantity shipped would result in inventory being misstated. This could lead to over or under-stocking conditions and could affect purchasing's actions.			
Where Failure is Realized				
VADS Phase:	<u>A - future cycles</u>			
VADS Procedure:	2 - Order desk identifies the customer and verifies that their outstanding balance is current via the order entry screen. The system flags the order as clearing O/S Balance review.			
	3 - For each item ordered, the system verifies that inventory is available and confirms ship dates.			
Object(s) Failing to Transform:	<u>Customer</u> <u>Inventory</u>			
Description of Failure:	Due to failures in phase C of a prior VADS cycle, the customer's credit limit is misstated. Additionally, the inventory does not accurately reflect actual shipment information. This can result in a customer's order being refused because of an understated credit limit or wrongly accepted because of an overstated credit limit. Since in this mode the inventory is also misstated, the order might be accepted when there is insufficient product to fill the order. This type of failure can adversely impact customer service levels.			
Lost Value Due to Failure				
	Value Lost			
Stakeholder	Cost	Time	Service Level	Other
Customer - Value of order or Customer			Poor customer service	
Owners - Lost revenue - Assumes one lost customer a year.	\$119,700	Labor to resolve		Reduced reputation
Total	\$119,700			
Resolution Concept				
Description:	A procedural failure to enter the data into the system or lost paperwork could cause the process to breakdown. A safeguard should be implemented to identify orders that have been picked up for shipping but not invoiced. This safeguard could take the form of a daily status report that lists orders that have been in the warehouse for over 24 hours.			
Implementation Cost:	Labor	Materials	Capital	Total
	\$25,000	-	-	\$25,000
Annual Ongoing Support Cost:	Labor	Materials	Capital	Total
Review time and paper	\$10,800	\$18	-	\$10,818
Time Needed to Implement:	2 months			
Return on Investment				
	1st Year	3 Years	5 Years	
Revenue Generated (assumes 1 lost customer per year)	\$119,700	\$718,200	\$1,795,500	
Total Improvement	\$119,700	\$718,200	\$1,795,500	
Implementation Cost	\$25,000	\$25,000	\$25,000	
Ongoing Cost	\$10,818	\$32,454	\$54,090	
Total Cost	\$35,818	\$57,454	\$79,090	
Net Improvement	\$83,882	\$660,746	\$1,716,410	
Return on Investment:	234.19%	1150.04%	2170.20%	

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D4 – Advanced Diagnostics – Diagnostic # 1 - 8 –Review

Step #	Diagnostic	Purpose
1	Formalizing the Change Analysis	Provides specific tests that will ensure that the change analysis is complete and measurable.
2	Formalizing the Level 1 Workflow	Provides a set of 8 tests that will ensure that the WFL1 makes sense from a business and technical point of view.
3	Formalizing the Level 2 Workflow	Applies 6 rules to the existing WFL2 to ensure that it is correct and complete. Provides the team with a list of issues and questions to be addressed at the next facilitation work session.
4	Mapping the Change Analysis to the WFL2 Model	Provides the team with a "proof of correctness" that the work completed to date correlates. Mapping process provides the team with a method to identify new VADS that need to be added to the project. Provides team with additional issues and questions for the next facilitation work session. The documentation generated during this diagnostic provides the team the ability to demonstrate their understanding of where and how the goals and objectives are achieved in the proposed level 2 workflow.
5	Expanding the Change Analysis	Part 2 of the change analysis provides assurances that the project objectives and preliminary goals established are realistic and achievable, given the uncontrollable variables and organizational imposed limitations and constraints. Where the goals or objectives are not realistic, the analysis provides the team with a framework for proposing to management alternatives that can be achieved. Provides a confirmation that the VADS is properly aligned with higher level factors (vision, business objectives, stakeholder needs and project objectives).
6	Testing the Alignments	The level 1 and 2 workflows provide confirmation that some of the lower level alignment factors are properly aligned. The level 1 workflow depicts the workgroups participating in the VADS and the information being shared and moved through the process. The level 2 workflow provides proof that there is alignment between the sequence of the processes being performed and the actions taken to complete those processes. Provides assurance that the proposed VADS is logically sound. By using the models, the team can prove that the proposed VADS:
7	Stimulus Trigger / Action Analysis	1. Achieves the project objectives and preliminary goals 2. Progresses logically through all its phases 3. Ensures process breakdowns due to stimulus trigger/action failures are properly managed and resolved. In most cases, the team develops some breakthrough improvement concepts that often exceed the original value expectations on management.
8	Refining VADS for Potential Failures	Identifies potential failure scenarios that could keep the secondary objects from properly transforming. Provides proposed safeguards that could be implemented in order to minimize the impact of process failures during a VADS cycle. Each scenario and related ROI information was posted to a Failure Analysis form. Provides team with a thorough understanding of the VADS. Tests the VADS for breakdowns and failures to ensure that all primary and secondary objects transform properly.

See Page 196

D4 – Advanced Diagnostics – Documentation Set Organization

Project Report

1. Executive Summary
2. Findings and Improvement Recommendations
3. Implementation Costs and ROI
4. Implementation Plan
5. Authorization to Proceed

D4 – Advanced Diagnostics – Documentation Set Organization

Project Level Information

1. Project Scope and Objectives
2. Project Objectives Alignment Matrix
3. Project Cost and Time Line for Completion
4. Project Work Schedule and Status
5. Project Kick Off and Authorization to Proceed

The Helix Methodology

D4 – Advanced Diagnostics – Documentation Set Organization

VADS Level Information

1. VADS Summary
2. Contribution of VADS to Project Objectives
3. Change Analysis – part 1
4. Change Analysis – part 2
5. Level 1 Workflow Model
6. Existing Level 2 Workflow Model
7. Proposed Level 2 Workflow Model
8. Stimulus Trigger Diagnostic Form
9. Overview of Change Concepts
10. Failure Analysis Form
11. Secondary Object Transformation

The Helix Methodology

D4 – Advanced Diagnostics – Documentation Set Organization

Appendix

1. Knowledge Summaries
2. Outstanding Questions and Issues

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D4 – Advanced Diagnostics – Documentation Set Organization

HINT - Use a Color-Coded Scheme

- Completed Items – white paper
- Items Pending Knowledge Worker Review– yellow paper
- Sections Not Started – red paper

This allows the Project Notebook Documentation to be Quickly Reviewed and Status Observed

D4 – Advanced Diagnostics – Documentation Set Organization

See Pages 199 through 211
for Documentation Developed through
Diagnostic Work Session #1

Phase E – Facilitation Work Session #2

To Be Completed

1. Review/revise the updated change analysis;
2. Review/revise the proposed WFL2;
3. Review/revise the change concept for warehouse paging system;
4. Review/revise the stimulus trigger and failure analysis data; and,
5. Resolve open questions and issues

Phase E – Facilitation Work Session #2

General Process

1. Model/document walkthru
2. Discussion on model/document completeness
3. Update / Create New Models
4. Revisions to the documentation
5. Acceptance of the revised model/documentation by the knowledge workers

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Phase E – Facilitation Work Session #2 – Revised Change Concept

Overview of Downloading Sales Orders to Picking Carts

Introduction

One of the preliminary goals established by the project participants (the team) was to reduce the time it takes to process an order from the point of entry into the order processing system to the point it is available for picking in the warehouse. To achieve this goal, the team developed a concept that would electronically transmit credit-worthy orders directly to a warehouse picking cart. The cart selected would be the one with the least number of orders pending picking.

This new process would allow the Credit department to save over \$3,000 a day in labor costs. Additionally, the new process would cut the time a typical order takes to arrive in the warehouse by about two days. This will increase customer service levels and supports the company's objective of shipping orders within 24 hours of receipt.

The Process

The process is as follows:

As sales orders are entered into the system, they would go through an automated credit check. This credit check process would verify that the customer had an available credit limit sufficient to support the order and was current on any outstanding balances due.

Orders passing this automated credit check would be routed to the next available picking cart in the warehouse. The goal would be to have the order picked within 1 hour of the download taking place.

The system would track the response time from order download to order update for items picked and provide daily performance reports to each warehouse staff person and supervisor. The system would also allow an orders status to be determined within the warehouse to the item picked level. As each item is picked, the warehouse person would update the order on the cart system for the actual yardage. Once all the items were picked, the warehouse person would release the order for billing. A bill of lading would also be printed at the shipping dock and matched to the order when it arrived for packaging and shipping. Daily, about 4:30 p.m., the billing department would review the billable orders. The orders would then be printed and mailed to the customer.

The team recommends that incentives be put in place to reward warehouse staff for performances that consistently exceed the 1 hour download to pick goal. Orders not picked within 1 hour would be escalated to the warehouse supervisor for expedition.

Implementation Requirements

In order to implement this new process, the following will need to occur:

1. Receive Management's approval and supporting budget;
2. Modify the existing order entry process to include an automated credit check function;
3. Cable the warehouse for a bill of lading printer and wireless communications;
4. Purchase and install printer in the warehouse;
5. Purchase and install wireless communications system;
5. Purchase and install on-board computers for picking carts (available from picking cart manufacturer);
6. Train the warehouse staff on the new procedures; and,
7. Test new process and authorize production use.

Cost of Implementation

The cost to implement this new process ranges between \$ 340,500 to \$ 460,750 as follows:

	Low	High
1. Modification of order entry module to include automatic credit checking (assumes outsourcing at \$1,000 a day)	\$ 25,000	\$ 50,000
2. Cabling of warehouse for printer and wireless communications	18,000	25,000
3. Warehouse printer	500	750
4. Wireless communications system	65,000	90,000
5. Picking cart on-board computer systems (20 carts)	120,000	150,000
5. Interfacing of Order Processing system to picking cart on-board computers (assumes outsourcing at \$1,000 a day)	85,000	105,000
6. Training (two days for each of 25 warehouse staff)	12,000	15,000
7. Testing	15,000	25,000
Total	\$ 340,500	\$ 460,750

Return on Investment

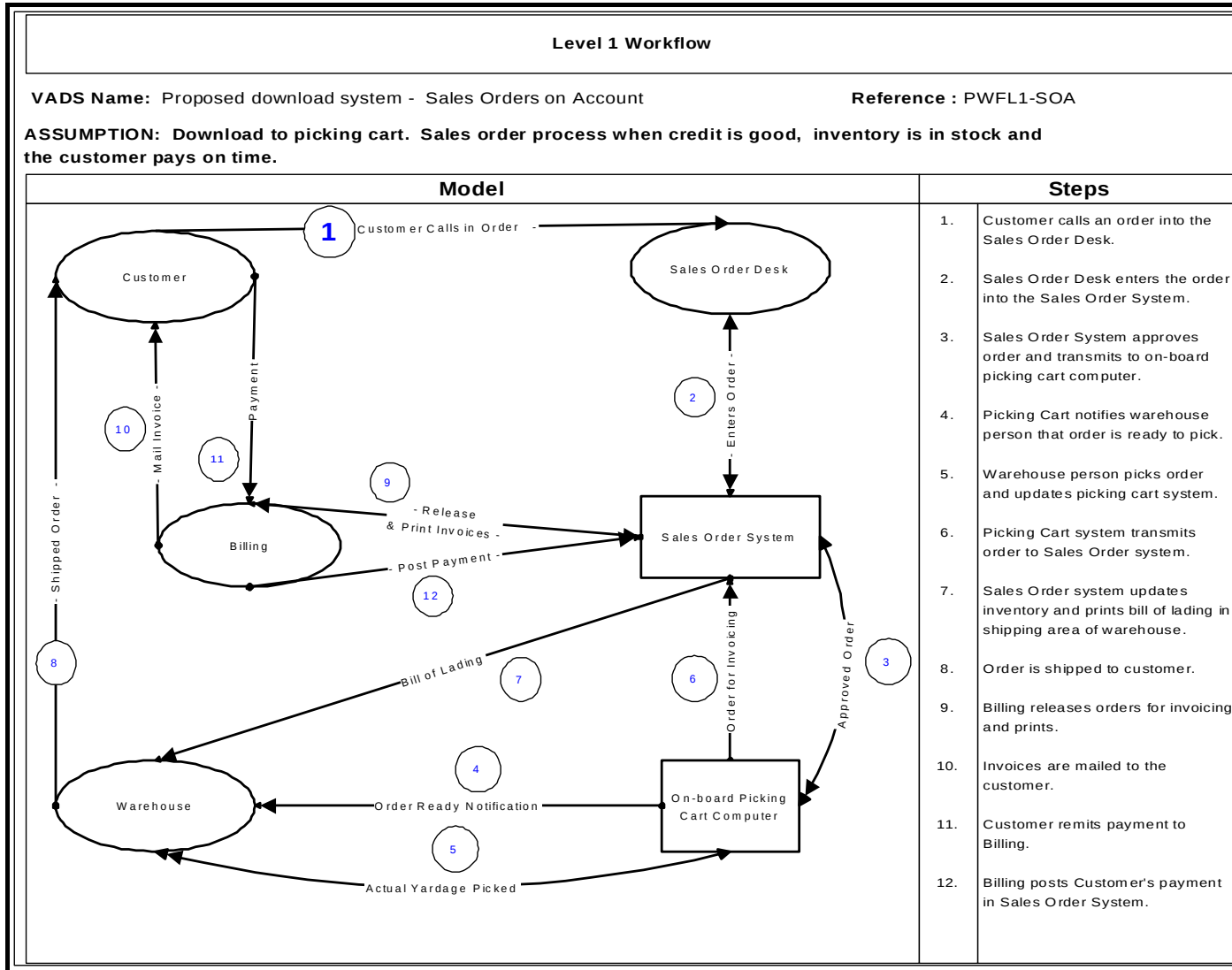
Based on the above estimates of savings and costs this new process will provide the following savings to the company in the first 12 months following implementation:

Annual savings in Credit department	\$ 780,000
Cost of implementation	460,750
1st Year Savings	\$ 319,250
Return on Investment (1st year)	69.29%

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Phase E – Facilitation Work Session #2 – Proposed PWFL1



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Phase E – Facilitation Work Session #2 – Revised Proposed PWFL2

Proposed Level 2 Workflow				
VADS Name: Sales on Account		VADS Reference: PWFL2 - SOA1-A		
VADS Cycles per Year: 42,000		VADS Estimated Annual Cost: \$1.6 million		
Assumption: Download approved sales orders to picking cart. Sales orders on account when the customer's credit is good, inventory is available and the customer pays on time.				
	Phase A	Phase B	Phase C	Phase D
Beg. Status	A customer wanting to order product	Approved sales order ready for fulfillment	Shipped sales order ready for billing	Billed sales order pending collection
P R O C E S S	1 The customer calls the order desk with an order.	1 Warehouse picking cart receives order and starts warehouse tracking timer.	1 Billing reviews billable order report releases the orders for invoicing.	1 Customer receives the invoice.
	Order Entry Process 2 Order desk identifies the customer and verifies that their outstanding balance is current via the order entry screen. The system flags the order as clearing O/S balance review. PG1	2 Warehouse person retrieves the sales order and picks the items displayed.	2 The system updates the customer's credit limit, prints the invoice and sets the status to billed.	2 Customer sends payment to billing.
	3 For each item ordered, the order desk verifies the inventory is available and confirms ship dates.	3 The warehouse person updates the arder via the on-board cart computer with the actual yardage cut.		3 Billing retrieves the customer's invoice from the system and posts the payment.
	4 Upon completion of the order, the system reserves the inventory being ordered, sets its status to "Approved" and transmits order directly to next available picking cart.	4 The order is transmitted back to the order processing system for billing and inventory update.		4 The system updates the customer's credit limit and accounts receivable balance.
		5 The order processing system updates inventory and prints a bill of lading in shipping. The order is packaged and shipped to the customer.		
End Status	Approved sales order ready for shipping	Shipped sales order ready for billing	Billed sales order pending collection	Collected sales order
Lapsed Time	5 minutes PO1	1 day PO1	2 hours	45 days
Effort	5 minutes	1 hour	1 minute	10 minutes

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Phase E – Facilitation Work Session #2 – Revised Stimulus Trigger Analysis

STIMULUS TRIGGER DIAGNOSTIC FORM			
VADS NAME: Sales Orders on Account		VADS REF.: VS-SOA	
VADS Phase	Process Group	Stimulus Trigger	Action and Timing
A customer wanting to order product	Sales Order Desk	Telephone ringing	Answer telephone within 3 rings.
Approved sales order ready for shipping - Paging Scenario	Warehouse	Beep from paging system	Pick up order and update system with order PIN # within 30 minutes of page.
Approved sales order ready for shipping - Download Scenario	Warehouse	Alert from Cart Computer	Pick order and update cart computer with yardage cut for each item. Complete picking process in 1 hour.

Phase F – Diagnostic Work Session #2

- ❑ Finalize Improvement Recommendations
- ❑ Finalize Working Papers
- ❑ Develop VADS Level Implementation Plan
- ❑ Develop VADS Level Cost Estimates
- ❑ Prepare Presentation to Management
- ❑ Present Findings to Management

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Phase F – Diagnostic Work Session #2 - Finalize Improvement Recommendations

Summary of Improvement Recommendations					
VADS Name: Sales Orders on Account					
Project Objective / CA Goal	Proposed Improvement	Value of contribution	Cost to Implement	Annual Contribution	Time Frame to Implement
PO1 - reduce order processing time (from entry through shipping) from 5 to 2 days. CA-SOA1 - the ability to process work orders directly to the warehouse when the customer's credit is good. CA-SOA3 - the ability to update the customer's credit limit at the time the order is placed.	Phase 1 - Warehouse Pacing Concept - Modify the order entry process so it automatically approves orders for customers with sufficient available credit lines and non-delinquent balances. These approved orders will be electronically transferred directly to the warehouse. This will allow credit-worthy orders to bypass the Credit department. Additionally, this will allow the Credit department to focus its attention on problem orders. See Change Concepts.	This improvement will allow JMI to ship orders that pass the automated credit check within 24 work hours from the point the order was received. In most cases, this will be the next working day. This should apply to 90% of all orders processed. This will also save over \$3,000 in labor a day or over \$750,000 a year.	139,750	750,000	6 months
	Phase 2 - Sales Order Download to Picking Cart - Replace the paging system with the ability to download sales orders directly to on-board computers on each picking cart. This will allow the warehouse staff to stay with the picking carts and provide improved tracking of orders that are in the process of being picked. The system will also streamline the billing and bill of lading process. Under this approach, each warehouse person will be able to ship 8 to 10 orders per day. This represents an improvement of 2 to 4 orders per warehouse person per day.	This improvement will allow JMI to have an order ready for shipping within 1.5 hours of receipt in the warehouse. Additionally, this improvement will increase daily shipping capacity from 160 orders to about 220 orders. Finally, this improvement will reduce the time to review an order for invoicing from 5 minutes to under 1 minute, a savings of 10 (\$250) hours of labor per day or 2,500 hours a year (\$62,500). The total annual savings in the credit and billing departments is over \$810,000.	460,750	810,000	1 year
PO2 - Increase sales by \$40 million a year by keeping lost sales due to stock shortages to less than 2 per day. CA-SOA2 - the ability to update inventory at the time the order is taken.	Modify the order entry process so it automatically reserves inventory for the quantity ordered. This will insure that the system accurately reflects the impact of open orders on the inventory and will reduce inadvertent overselling without supporting backorders.	This change is expected to reduce the number of lost sales from 12 per day to 6 per day. Based on the current average sale of \$9,450, this improvement should contribute about \$56,700 a day or about \$18 million a year toward the \$40 million goal.	Included in phase 1 above	18,000,000	4 months
PO4 - Become an industry leader by increasing sales order volume by 30 per day.	Same as PO2.	This change reduces the number of orders needed to meet the objective to 24 per day.	Included in phase 1 above		
Total			600,500	19,560,000	

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Phase F – Facilitation Work Session #3

- ❑ Conduct Final Review of Models
- ❑ Conduct Final Review of Improvement Recommendations
- ❑ Develop Rough Implementation Plan

Phase F – Diagnostic Work Session #3

- ❑ Package Documentation Set
- ❑ Finalize Implementation Plan
- ❑ Finalize Report to Management
- ❑ Finalize Presentation
- ❑ Rehearse Presentation
- ❑ Schedule Presentation

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Phase F – Diagnostic Work Session #3

Implementation Plan

VADS Name: **Sales Orders on Account - Phase 1 - Sales Order Processing Improvements and Paging System**

Proposed Start Date: **October-98**

Proposed End Date: **September-99**

Total Cost: **\$139,750**

Total Contribution: **\$780,000**

Task Group	Task Seq.	Task Description	Task Type	Task Leader	Support Staff	Level of Effort (hours)	Lapsed Time (weeks)	Start Week	End Week	Costs
Project Initiation	1	Obtain approval from Management	Approval	Project Manager	Cynthia Mills	1	0.5	49	48	
Project Initiation	2	Form project team	Proj. Mgmt.	Project Manager	Dept. Heads	4	1	48	47	
Project Initiation	3	Project Kickoff	Proj. Mgmt.	Project Manager	Steven Ethridge/Brad Crenshaw	4	2	47	45	
Requirements	4	Review change requirements	Technical	Project Manager	Brad Crenshaw/Team	30	6	45	39	
Requirements	5	Develop detailed requirements specifications - Inventory Reserve	Technical	MIS	Team	40	3	39	36	
Requirements	6	Develop detailed requirements specifications - Auto Credit Check	Technical	MIS	Team	40	3	36	33	
Requirements	7	Develop detailed requirements specifications - paging system	Technical	MIS	Team	40	3			
Requirements	8	Review / Revise time and cost estimates	Proj. Mgmt.	MIS	Project Manager	4	0.5	33	33	
Requirements	9	Obtain approval for increases over estimate	Proj. Mgmt.	Project Manager	Steven Ethridge/Brad Crenshaw	1	0.5	33	32	
Design	10	Develop Design Specifications - Auto Credit Check	Technical	MIS	Team	40	3	32	29	
Design	11	Develop Design Specifications - Inventory Reserve	Technical	MIS	Team	40	3	29	26	
Construction	12	Contract for Programming	Purchase	Brad Crenshaw	Project Manager/Steven Ethridge	4	2	26	24	
Construction	13	Programming - sales order processing module	Technical	Brad Crenshaw	Vendor	400	6	24	18	50,000
Construction	14	Order paging system	Purchase	Brad Crenshaw	Vendor	4	0.5	18	18	12,000
Construction	15	Programming - paging system interface	Technical	Brad Crenshaw	Vendor	440	8	18	10	55,000
Construction	16	Install paging system	Technical	Brad Crenshaw	Vendor	24	1	10	9	
Construction	17	Test paging system interface	Testing	Project Manager	Team	24	1	9	8	5,000
Construction	18	Order warehouse printer	Technical	Brad Crenshaw	Vendor	1	0.5	8	7	750
Construction	19	Cable warehouse for printer and paging system	Technical	Brad Crenshaw	Vendor	24	1	7	6	2,000
Construction	20	Unit testing	Testing	Brad Crenshaw	Vendor/Team	40	2	6	4	
Construction	21	User Testing	Testing	Project Manager	Users/Team	40	2	4	2	
Implementation	22	Training - Sales order desk	Training	Project Manager	Users/Team	64	0.5	2	2	
Implementation	23	Training - Warehouse	Training	Project Manager	Users/Team	1,000	0.5	2	1	15,000
Implementation	24	Implementation	Go Live	Project Manager	Users/Team	32	1	1	0	
Project Total						2,341				139,750

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Phase F – Diagnostic Work Session #3 – Formalizing the Report

1. Executive Summary (1 page)
2. Findings and Improvement Recommendations (1 to 2 pages)
3. Implementation Costs and ROI (1 page)
4. Implementation Plan (1 page)
5. Authorization to Proceed (1 page)

Phase F – Diagnostic Work Session #3 – Preparing for the Presentation -- The Reveal

What Management will Focus on

- Alignment with overall strategic direction
- Value added to stakeholders
- ROI
- Cultural impact
- Viability (is it believable)
- Timing in context to other projects and activities

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Phase F – Diagnostic Work Session #3 – Preparing for the Presentation -- The Reveal

Presentation Guidelines – All in Under 15 Min.

- ROI
- Alignment with overall strategic direction
- Value added to stakeholders
- Cultural impact
- Implementation Plan

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Implementing Improvement Recommendations

What's Been Achieved

- Quantified the benefits to be realized by moving forward with the recommendations
- Obtained consensus and buy-in for the desired and workable changes to VADS, policies and procedures
- Designed new VADS that will promote and achieve better alignment throughout the organization
- Developed an implementation plan for going forward
- Received Management's Authorization to Proceed

Implementing Improvement Recommendations

What's Left To Do

- Designs for new and/or changes to existing technology and systems;
- Policies and procedures needed to support the new VADS;
- Training plans and collateral to support the implementation effort;
- Detailed project plans for implementation; and
- Tactical plans needed to migrate to the new VADS
- Performance or Value Delivery Scorecards

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Implementing Improvement Recommendations Creating System Requirements and Design Specifications

The Documentation Produced Identifies the

- System Requirements at the Work Procedure Level
- Identifies the Primary Data Objects to be Modeled
- Identifies the Object Tracking Requirements
- Identifies the Process Workflow Requirements

The Helix Methodology ® provides the framework for

- Rapid Application Requirements & Design
- Functional Data Modeling
- Package Evaluation & Selection
- Construction
- Testing & Training
- Deployment

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Implementing Improvement Recommendations - How the Discovery Documentation Helps IT

Description of Support	JMI Example	
	JMI Ref.	Description
The Change Analysis identifies any system changes required to support improvement goals	CA-SOA1	The preliminary goal states that a change to the order processing system would need to be made to support the goal of bypassing credit for orders that were credit worthy. Specifically, the system would need to be changed to perform a credit check on the customer based on their available credit limit and currency of their outstanding balances. Additionally, the system would need to be modified to print sales orders directly in the warehouse.
The WFL1 model identifies potential data sets required by the system. These data sets take the form of primary and secondary objects that are used by the VADS. These data relationship of these data sets to each other form the basis of the data model.	WFL1-SOA	The WFL1 identifies the following data sets: Customers, Inventory and Orders (invoices). By normalizing the relationship of these data sets to each other, a data model can begin to be developed. The following data set relationships are discernable from the WFL1. 1. Customers have many orders. 2. Inventory can link to many orders. Order line items can only have one associated product.
The PWFL2 model identifies each automated process used within a specific VADS. Additionally, the model identifies the transformations required to objects (data sets) to maintain the integrity of the process and the supporting data base.	PWFL2 - SOA	The PWFL2 identifies each point in the VADS cycle where the sales order processing system is used. Additionally, it identifies what the system process is and what inputs and outputs are produced. For example, in phase A, the system identifies an order entry process that results in reserving inventory for the quantity ordered, reduces the customer's credit limit for the value of the order, validates the customer's credit worthiness and transmits the order to the warehouse (or credit) based on the outcome of the automated credit check.
The Change Concepts provide a detailed description of any major changes to workflows and any related technologies.	Paging Concept	The Change Concept describes how a paging system interfaced to the sales order processing system could be used to expedite the processing of sales orders. The CC also provides an outline of the implementation requirements along with an implementation cost estimate.
The Stimulus Trigger Diagnostic Form provides the rules needed to transform primary objects to new status' within the VADS and supporting systems.	STD-SOA	The STD identifies a requirement for the sales order processing system to assign a PIN# to each order so that the system can begin tracking orders that have been picked up in the warehouse for picking and shipping.
The Failure Analysis identifies changes needed in systems to prevent, detect and resolve process breakdowns in a VADS.	FA-SOA-C3	The Failure Analysis identifies a requirement for the system to reduce the inventory for the actual quantities shipped to the customer, adjust the customer's credit limit for the actual value of the order and to generate an invoice. Additionally, the FA identifies the need for a daily status report of all orders that have been in the warehouse for more than 24 hours (same as OTR-SOA). Finally, the FA provides an estimate of the cost and ROI related to implementing this report.
Summary of Secondary Object Transformation Failures provides rules needed to prevent, detect and resolve process breakdowns related to properly transforming secondary objects within a VADS.	OTR-SOA	The summary identifies rules related to how secondary objects must transform in each phase of a VADS cycle for the system to maintain its integrity. Potential process failures and safeguard requirements are outlined to ensure the process and system perform properly. For example, in phase C, procedure 3 of the SOA VADS, a requirement is identified to produce a daily status report of all orders that have been in the warehouse for more than 24 hours.

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