

# **SESSION SKL04**

## **Managing the Application Development Process**

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# Session Goals

- ◆ **Comprehensive Outline for Specifications**
- ◆ **Put Specifications into Perspective**
- ◆ **Describe Methodology for Costing**
- ◆ **Types of Metrics**
- ◆ **Pros and Cons**

# Who...

- ◆ **Independent Xbase Developer since '83**
- ◆ **Hentzenwerke Corp - Current Projects**
- ◆ **Four Books, including DevGuide '97**
- ◆ **Editor of FoxTalk**
- ◆ **Wonderful Wife & 3 Kids (so far)**

# Session Requirements

- ◆ **Programming Experience Not Required**
- ◆ **Corporate or Independent**
- ◆ **An “Open Mind”**

# Why Specifications?

- ◆ **An Argument for Fixed Price Work**
- ◆ **An Argument against Fixed Price Work**
- ◆ **What to Program**
- ◆ **Testing**
- ◆ **Delivery and Acceptance**

# Specification Audience

- ◆ Customer - User
- ◆ Customer - Manager
- ◆ Developer
- ◆ QA

# Engagement Letter

- ◆ **Spells out terms for FS**
- ◆ **Deliverables**
- ◆ **Payment**
- ◆ **Software Development Issues**

# Cover Letter

- ◆ **Description**
- ◆ **Price**
- ◆ **Delivery Timeframe**
- ◆ **Explanation of Fixed Price**
- ◆ **Terms and Conditions**
- ◆ **Acceptance**



# Executive Overview

- ◆ **General Description**
- ◆ **Functionality**
- ◆ **Definitions and Processes**

# General Interface

- ◆ Code Maintenance
- ◆ Maintenance Screens
- ◆ Buttons and Toolbars
- ◆ List boxes
- ◆ Pick lists
- ◆ Mover Boxes
- ◆ Notes button

# Specific Interface

- ◆ INTL
- ◆ Custom Controls
- ◆ Colors, Fonts, Captions, Backgrounds

# Application Load

- ◆ Log On
- ◆ Application Launcher
- ◆ Main Menu

# Menu Structure

- ◆ File
- ◆ Edit
- ◆ Operations
- ◆ Reports
- ◆ Tools
- ◆ Help

# Typical Form

- ◆ Purpose
- ◆ Access
- ◆ Usage
- ◆ Screen Objects
- ◆ Rules

# Typical Process

- ◆ Purpose
- ◆ Access
- ◆ Usage
- ◆ File Formats
- ◆ Rules

# Typical Report

- ◆ Purpose
- ◆ Detail Entity
- ◆ Filter
- ◆ Order/Group
- ◆ Fields/Objects
- ◆ Calculated Fields
- ◆ Additional Notes
- ◆ General Report Disclaimer



# Typical Tools

- ◆ **User Preferences**
- ◆ **Data Sets**
- ◆ **Password Maintenance**
- ◆ **User Maintenance**
- ◆ **Data Maintenance**
- ◆ **System Maintenance**

# Technical Issues - I

- ◆ Environment
- ◆ Operating System
- ◆ Hardware Requirements
- ◆ Third Party Software
- ◆ Interaction with Environment

# Technical Issues - II

- ◆ Interaction with Environment
- ◆ Directory Structure
- ◆ File Structures
- ◆ Table Summary
- ◆ Original Data
- ◆ Data Set Size and Throughput Analysis

# Implementation - I

- ◆ Test Methodology
- ◆ Test Plan
- ◆ Test Data Set Requirements

# Implementation - II

- ◆ Deliverables
- ◆ Training
- ◆ Installation
- ◆ Milestones and Delivery Schedule

# Implementation - III

- ◆ **Modifications**
- ◆ **Error Handling**
- ◆ **Application Feedback**

# Session Requirements

- ◆ Attendance at Functional Specification Session Helpful
- ◆ Programming Experience Not Required
- ◆ Corporate or Independent
- ◆ An “Open Mind”

# Estimating Methods

- ◆ Why Estimates?
- ◆ Method 1: Guessing Randomly
- ◆ Method 2: WAG
- ◆ Method 3: SWAG
- ◆ Method 4: Price/Page
- ◆ Method 5: Double & Increment
- ◆ Method 6: HMDILY



# Cost vs. Price

- ◆ Looking at Custom Software as a Widget
- ◆ Cost of a Widget
- ◆ Price of a Widget
- ◆ Difference (IANAA)

# Why is Cost vs. Price Important - I

- ◆ Making Money

# Why is Cost vs. Price Important - II

- ◆ Making Lots of Money

# Scenario

- ◆ Sales Call
- ◆ Engagement Letter
- ◆ Functional Specification
- ◆ Costing is the Final Step in the FS Process

# The General Idea

- ◆ Function Points (FPA)
- ◆ FPA Lite: Action Points
- ◆ Counting “Things”
- ◆ Weighting “Things”
- ◆ Multiply # of “Things” \* Cost/”Thing”
- ◆ Price > Cost

# Things to Count - Forms

- ◆ Dumb Objects
- ◆ Action Objects
- ◆ Data Objects
- ◆ Rules
- ◆ Multipliers (not Weights)

# Things to Count - Processes

- ◆ What is a Process?
- ◆ Match
- ◆ Lookup
- ◆ Insert
- ◆ Create/Delete Table
- ◆ Assign
- ◆ Write an Exception

# Things to Count - Reports

- ◆ Dumb Objects
- ◆ Fields
- ◆ Calculated Fields
- ◆ Groups/Orders
- ◆ Rules
- ◆ Foxfire! Objects



# Things to Count - Foundation

- ◆ **Setup**
- ◆ **Menu/Security**
- ◆ **Data Dictionary**
- ◆ **Help**
- ◆ **Testing Data**

# Things to Count - NEC

- ◆ E.G. OLE Automation Server, OCXs
- ◆ Identify Types of “Things”
- ◆ Weight Things
- ◆ Count Things
- ◆ R&D
- ◆ Gut Feel

# Cost/Action Point

- ◆ An Action Point is Uniform (e.g. Sq.Ft.)
- ◆ We Use History
- ◆ Time for a Project
- ◆ # of Action Points for a Project
- ◆ Cost/Action Point
- ◆ Factoring in Developer Skill Level

# If You Don't Have History

- ◆ Why Not (It's OK!)
- ◆ Getting Started with Metrics
- ◆ Gather Something!
- ◆ Do It All the Time!
- ◆ Gathering Direct vs. Indirect Time
- ◆ Our Breakdown - CPMT

# Determining Price

- ◆ **Can't Make Up Cost > Price with Volume**
- ◆ **What is Their Pain?**
- ◆ **What is the Value?**

# Dealing With Customers

- ◆ **Selling Advantage of Fixed Price**
- ◆ **“Not to Exceed”**
- ◆ **Changes**

# Getting Paid

- ◆ **Break Project Down to Deliverable Modules**
- ◆ **Deliver and Get Acceptance**
- ◆ **Size of Modules**

# More Info

- ◆ **Samples on  
[www.hentzenwerke.com](http://www.hentzenwerke.com)**
- ◆ **Books - MSPress, DevGuide**