



*"Does anyone remember 'why'  
we did this?"*

## The Challenge to Recover 15 Years of "Why" Behind a Product Design

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# *Business Overview*

- Property Management solution for owners, managers and tenants of real estate world wide.  
(North America, Europe, Asia, Australia)
- Investors in and/or managers of commercial (retail, office, industrial) and/or residential real estate.
- Companies who use a substantial number of real estate locations in conducting their primary business.



# *Applications Overview*

## Business Applications

*General  
Ledger*

*Accounts  
Payable*

*Commercial  
Management*

*Residential  
Management*

*Budgeting*

*Opportunity  
Management*

*Project  
Management  
/ Job Cost*

## Framework & Tools

*Workflow*

*Customization*

*Portal*

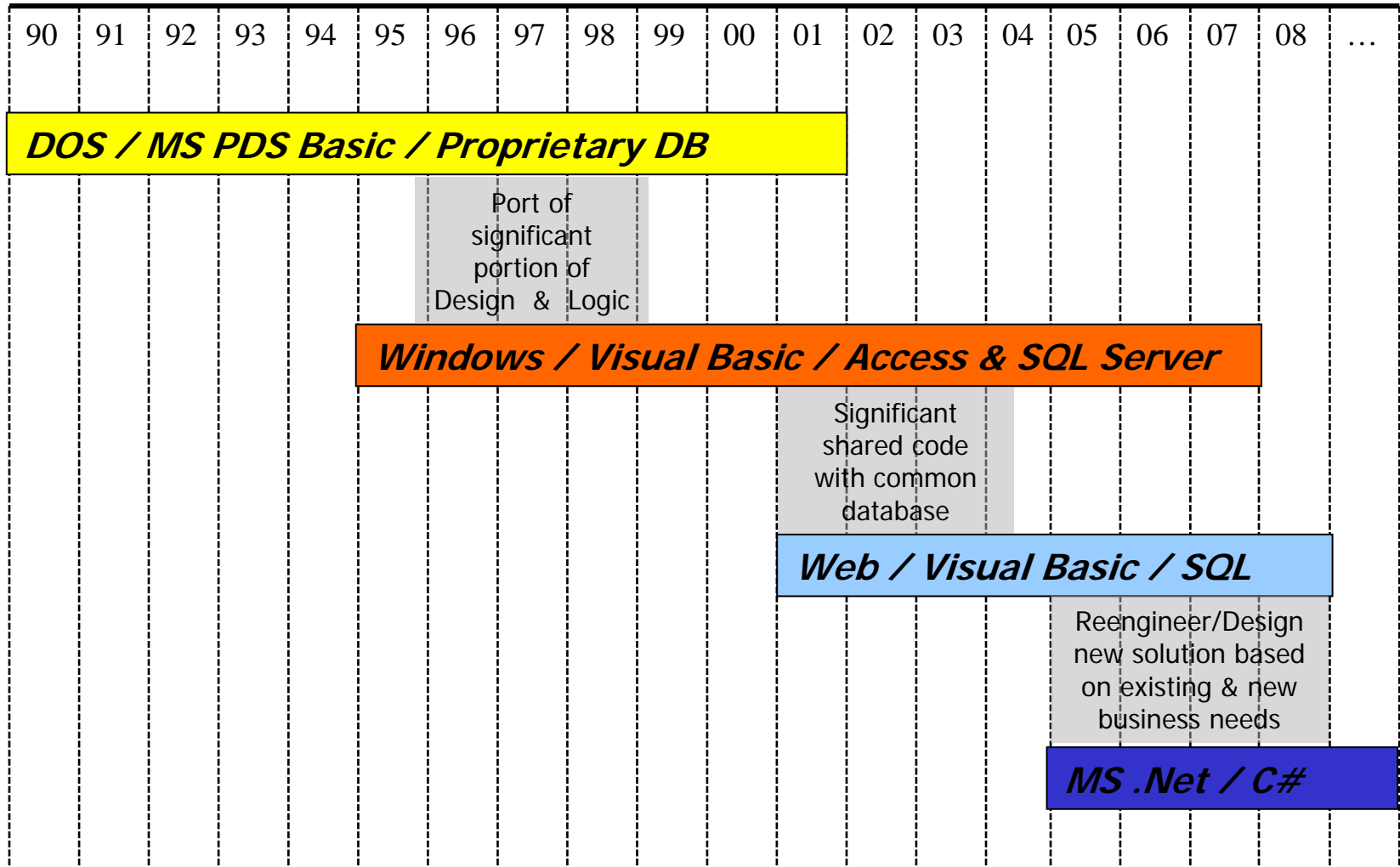
*Reporting*

*User  
Interface*

*Data Access*

*Security*

# Product History





## *Existing Product*

- Over 2,000,000 lines of code (99 % VB)
- Approximately 250 objects/components
- Product includes object and meta data (no source)
- Highly adaptable/extensible application (through meta data)
- Business logic being implemented in a combination of code and meta data.



# *Issues*

- Aging Technical Platform
- Heavily Modified / Enhanced Design (spaghetti effect)
- Talent / Experience Loss
- Limited Requirements / Design Documentation (last 3-4 years only)
- Heavily Configurable Product (used differently by locale and business)



# *The Challenge*

- Shift to .Net Platform
- Rediscover Requirements satisfied by the Existing Product Offering
- Validate those requirements with existing client / market needs
- Create New Designs to satisfy identified requirements
- Re-Implement



## *Example 1 / Sales Taxes*

Currently Implemented requirements:

- Multiple Sales Taxes
- Transferred Sales Taxes
- Recoverable / Non-recoverable Taxes
- Tax Election
- Subcontractor Withholding Taxes
- Tax on Tax
- Tax by Item vs Tax by Totals
- Tax Point Date
- Inclusive Tax



# Example 2 / Entering Invoices

**:: Invoice Entry Detail**

<b>Vendor ID: *</b>	<input type="text"/>	<b>Invoice Session ID:</b>	<input type="text" value="000008"/>	<a href="#">Attach Documents</a>	
<b>Invoice Number: *</b>	<input type="text"/>	<b>Expense Period: *</b>	<input type="text" value="11/04"/>	<b>Invoice Amount:</b>	<input type="text" value="0.00"/>
<b>Invoice Date:</b>	<input type="text" value="11/3/2005"/>	<b>Separate Check?:</b>	<input type="text" value="N"/>	<b>Tax Amount:</b>	<input type="text" value="0.00"/>
<b>Due Date:</b>	<input type="text"/>	<b>Discount:</b>	<input type="text" value="0.00"/>	<b>Amount Paid:</b>	<input type="text" value="0.00"/>
<b>P.O. Number: *</b>	<input type="text"/>	<b>Net Due:</b>	<input type="text" value="0.00"/>		
<b>Expense Control Note:</b>	<input type="text"/>				
<b>Status:</b>	<input type="text"/>				

	Entity ID	Cash Type *	Account Number *	Department *	Job Code	Reference	Original Item Amount	Item Amount	Disc Am
<input type="checkbox"/>				@			0.00	0.00	
							0.00	0.00	

**Current Session ID:**

# Example 2 / Behind the page

**:: Invoice Entry Detail**

Vendor ID: \*  Invoice Session ID: 000008 [Attach Documents](#)

Invoice Number: \*  Expense Period: \* 11/04 Invoice Amount: 0.00

Invoice Date: 11/3/2005 Separate Check?: N Tax Amount: 0.00

Due Date:  Discount: 0.00

P.O. Number: \*  Amount Paid: 0.00

Expense Control Note:  Net Due: 0.00

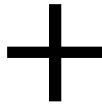
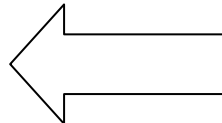
Status:

Entity ID	Cash Type *	Account Number *	Department *	Job Code	Reference	Original Item Amount	Item Amount	Disc Am
<input type="checkbox"/>			@			0.00	0.00	

Buttons: Add, Delete, Apply Allocation, Calculate Tax, Apply Proration, Expense Overview

Current Session ID: 000008  Change Session Save and New Save Cancel Close

Metadata



Coded Logic

**AP Invoice**

**Invoice Entry Detail**

Vendor ID: \* H\_VENDID H\_VENDNME1 Invoice Session ID: H\_SESSION Attach Documents

Invoice Number: \* H\_INVOICE Expense Period: \* H\_EXPED Invoice Amount: H\_INVCAMT H\_ECURCODE

Invoice Date: H\_INVCDATE Separate Check?: SEPC Tax Amount: H\_ATAXAMT H\_ECUR1

Due Date: H\_DUEDATE Discount: H\_DISCAMT H\_ECUR2

P.O. Number: \* H\_PONUM Amount Paid: H\_PAIDAMT H\_ECUR3

H\_DESCRIPTN Net Due: NETDUE H\_ECUR4

Status: MSG

Entity ID	Cash Type *	Account Number *	Department *	Job Code	Reference	Original Item Amount	Item Amount
DE 2 2	2 3	2 4	2 5	2 6	2 7	2 8	2 9
3 3 2	3 3	3 4	3 5	3 6	3 7	3 8	3 9
4 4 2	4 3	4 4	4 5	4 6	4 7	4 8	4 9
5 5 2	5 3	5 4	5 5	5 6	5 7	5 8	5 9
6 6 2	6 3	6 4	6 5	6 6	6 7	6 8	6 9
7 7 2	7 3	7 4	7 5	7 6	7 7	7 8	7 9
8 8 2	8 3	8 4	8 5	8 6	8 7	8 8	8 9
9 9 2	9 3	9 4	9 5	9 6	9 7	9 8	9 9
10 10 2	10 3	10 4	10 5	10 6	10 7	10 8	10 9
11 11 2	11 3	11 4	11 5	11 6	11 7	11 8	11 9
12 12 2	12 3	12 4	12 5	12 6	12 7	12 8	12 9
13 13 2	13 3	13 4	13 5	13 6	13 7	13 8	13 9
14 14 2	14 3	14 4	14 5	14 6	14 7	14 8	14 9
15 15 2	15 3	15 4	15 5	15 6	15 7	15 8	15 9

Buttons: Add, Delete, Apply Allocation, Calculate Tax, Apply Proration, Expense Overview, P.O. Billing

Microsoft Visual Basic (Design) - [WebID (Code) (Read Only)]

```

Public Function ExecCommand(ByVal objdb As DBIO, _
    ByVal nCmd As Integer, _
    ByVal sId As String, _
    ByVal xmlData As DOMDocument, _
    ByVal xmlResults As DOMDocument) As Boolean

    Dim bExec As Boolean, sErrMsg As String

    Set db = objdb
    Set mci = db.NRI_parent

    Call InitResults(xmlResults)
    Call InitOptionValues

    Select Case nCmd
        Case Exec_PostLoad
            Select Case UCASE$(Trim$(sId))
                Case "APINVOICE"
                    bExec = True
                    Call InvoicePostLoad(xmlData, xmlResults)
            End Select
        Case Exec_PreSave
            Select Case UCASE$(Trim$(sId))
                Case "APINVOICE"
                    Call APInvoicePreSave(xmlData, xmlResults, False, bExec)
                Case "APRECC"
                    Call APInvoicePreSave(xmlData, xmlResults, True, bExec)
                Case "PRAPINVOICE"
                    Call PRAPInvoicePreSave(xmlData, xmlResults, bExec)
                Case "POENTRY"
                    Call POEntryPreSave(xmlData, xmlResults, bExec)
                Case "APRANPAYP"
                    Call APInvoiceNManPay(xmlData, xmlResults, False)
                    bExec = True
            End Select
    End Select
    
```

Properties - WebID

WebID ClassModule

Alphabetic | Categorized

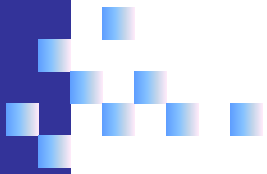
(Name)	Return the name used in code to identify a form, control, or data access
WebIO	
Application (APInDoc)	
APSPICUS (APSPICUS)	
APTas (APTas.cls)	
gAttachment (gAttachment)	
Attachments (Attachments)	
InvDisc (InvDisc.cls)	
Messages (Message.c)	
MinClient (CLIENT.CLS)	
Ngrader (Ngrader)	
SMTMMsg (SMTMMsg.c)	
WebIO (WebIO.cls)	



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*Questions?*