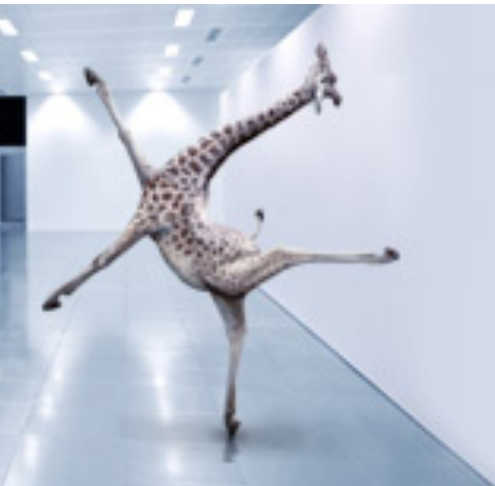


Micro Focus Visual COBOL



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¿Preparado para innovar?
De el paso a Visual COBOL



Objetivos Fundamentales



COSTE

Reducir o evitar el coste del cambio y el plazo de comercialización

CALIDAD

Mejorar la calidad de las competencias y la entrega de servicios

RIESGO

Mitigar el riesgo

AGILIDAD

Mejorar la agilidad y flexibilidad del negocio



¿Como debería ser el entorno de desarrollo ideal ?



Lenguaje Moderno

- Construido sobre la valiosa base de la experiencia
- Sintaxis OO Lightweight
- Despliegue a los principales frameworks
- Funciones de framework faciles de usar
- Facil gestión dentro del framework
- Fácil de aprender

Potentes Soluciones

- Modernos IDEs – Visual Studio & Eclipse
- Set de herramientas integradas
- Asistentes inteligentes



Soluciones de Desarrollo COBOL



Desarrollo para Windows y .NET

- Visual COBOL for Visual Studio 2010 y 2012
- Visual COBOL for Azure



Desarrollo para Windows y Unix

- Visual COBOL for Eclipse
- Visual COBOL Developer Hub
- Visual COBOL Distributed Edition



Plantillas de proyecto disponibles ahora para COBOL



The screenshot displays the Visual Studio interface. On the left, the 'Installed Templates' pane is open, showing a tree view under 'COBOL' with sub-items: Cloud, Database, Managed, Native, WebApp (highlighted), Visual C#, Database, Modeling Projects, Test Projects, and Other Project Types. The main window shows the 'Application' configuration page for a project. The 'Configuration' and 'Platform' dropdowns are both set to 'N/A'. The 'Assembly name' is 'Simple1'. The 'Target framework' dropdown is open, showing options: .NET Framework 4 (selected), .NET Framework 2.0, .NET Framework 3.0, .NET Framework 3.5, .NET Framework 3.5 Client Profile, .NET Framework 4, .NET Framework 4 Client Profile, and Install other frameworks... The 'Default namespace' is 'Simple1' and the 'Output type' is 'Console Application'. An 'Assembly Info' button is visible at the bottom right.



Sintaxis COBOL colorizada, márgenes COBOL

```

method-id. TweetButtonClick final private.
procedure division using by value sender as object e as type "System.Window
    set tweetObj to new CobTweet()

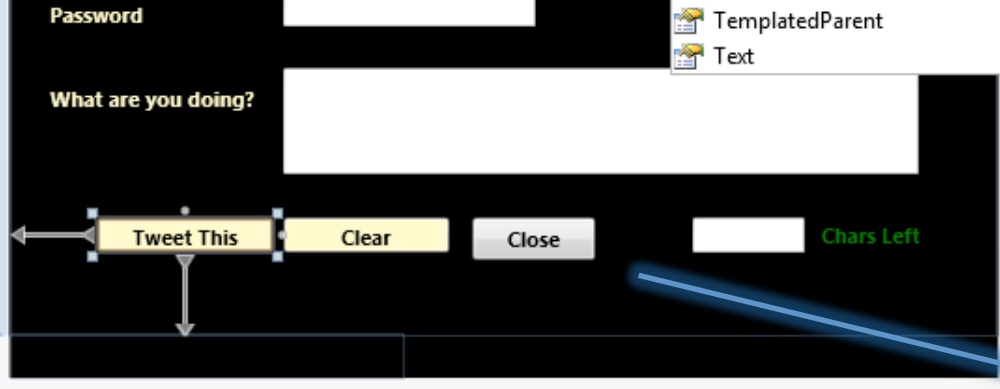
    if self::tbStatusMsg::Text::Length > 140
        set tweetStr to self::tbStatusMsg::Text::Substring(0, 140)
    else
        set tweetStr to self::tbStatusMsg::T
    end-if
    set Result to tweetObj::PostTweet(self:

```

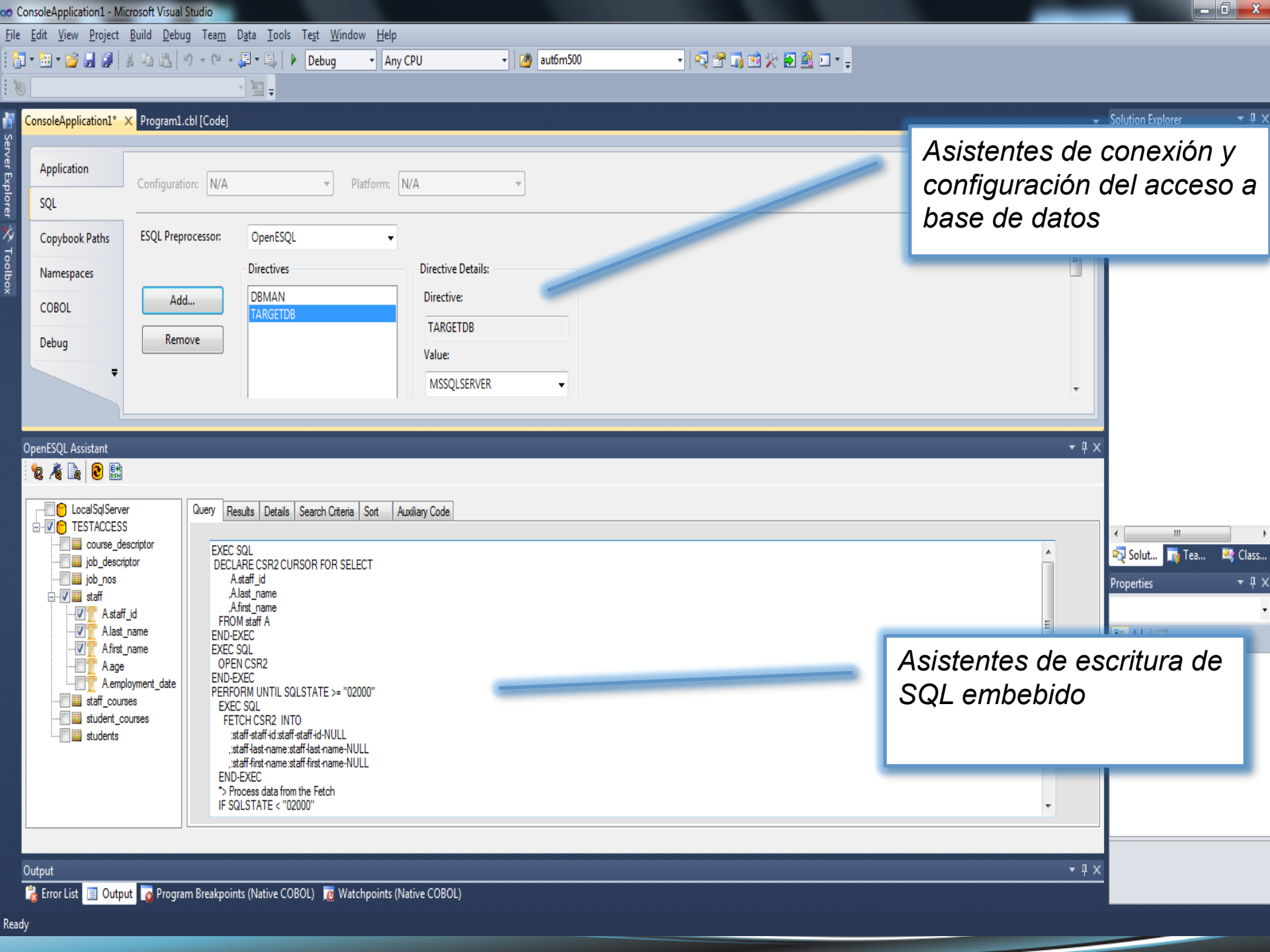
IntelliSense, snippets y comentarios COBOL

- ShouldSerializeTriggers
- SnapsToDevicePixels
- SpellCheck
- Style
- TabIndex
- Tag
- Template
- TemplatedParent
- Text

System.Windows.Controls.Control::TabIndex AS binary-long
The documentation cache is still being constructed. Please try again in a few seconds.



Uso de herramientas standard para generar interfaces WPF



Asistentes de conexión y configuración del acceso a base de datos

Asistentes de escritura de SQL embebido

Modernizando COBOL



De:

```
REPOSITORY.  
CLASS CLASS-STRING AS "System.String"  
CLASS CLASS-FONT AS "System.Drawing.Font"  
ENUM ENUM-FONTSTYLE AS "System.Drawing.FontStyle"  
PROP-FONT AS "Font"  
...  
WORKING-STORAGE SECTION.  
01 Font-String OBJECT REFERENCE CLASS-STRING.  
01 Font-Size COMP-1.  
01 Font-Style OBJECT REFERENCE ENUM-FONTSTYLE.  
...  
SET Font-String TO N"Tahoma"  
MOVE 14 TO Font-Size  
SET Font-Style  
TO FUNCTION ENUM-OR (Bold OF ENUM-FONT-STYLE  
Italic OF ENUM-FONT-STYLE)  
SET PROP-FONT OF textBox1  
TO CLASS-FONT::"NEW"(Font-String, Font-Size, Font-  
Style)
```

A:

```
set textBox1::Font to new Font ("Tahoma", 14, type  
FontStyle::Bold B-OR type FontStyle::Italic)
```

Tradicional	Visual COBOL	Otros lenguajes...
SET PROP-FONT OF TEXT-BOX TO VALUE	set text-box::font to value	text-box.font = value;

Interacción con otros Lenguajes



C# WinForm Book Demo

Stock Number: 1111

Title: LORD OF THE RINGS

Author: TOLKEN

Type: FANTASY

Price: 15.00 On Hand: 4000 Sold: 3444 Stock Value: 60000

Read Add Delete Next Quit

```
Form1.cs    Program.cs    book.cbl [Code]
WindowsFormsApplication1.Form1
buttonNext_Click(object sender, EventArgs e)
/// <param name="sender"></param>
/// <param name="e"></param>
private void buttonNext_Click(object sender, EventArgs e)
{
    Details.Stockno = textBoxStockNo.Text;
    try
    {
        Book.BookLegacy(nextRecord, Details, Status);
        PopulateForm(Details);
    }
    catch (SystemException exception)
    {
        DisplayException(exception);
    }
}
```

```
Microsoft Visual Studio (Administrator)
Debug    Team    Data    Tools    Test    Window    Help
Mixed Platforms
Form1.cs    Program.cs    book.cbl [Code]
BookLegacy
main()
when add-record
    perform do-add-record

when delete-record
    perform do-delete-record

when next-record
    perform do-next-record

end-evaluate
exit program
stop run

do-read-record section.
```

Modernización del Interface de Usuario



```
ACCOUNTS          DETAILS OF ACCOUNT NUMBER 10037

SURNAME       : RANCER           (18 CHRS) TITLE       : (4 CHRS OPTIONAL)
FIRST NAME    : TEX              (12 CHRS) MIDDLE INIT: A   (1 CHR  OPTIONAL)
TELEPHONE     : 4567890123      (10 DIGS)
ADDRESS LINE1: 1000 BALLPARK WAY (24 CHRS)
              LINE2: ARLINGTON, TX (24 CHRS)
              LINE3: 76011         (24 CHRS OPTIONAL)

CARDS ISSUED  : 1              (1 TO 9)      CARD CODE  : I      (1 CHR)
DATE ISSUED   : 07 07 07      (MM DD YY)    REASON CODE: S      (N,L,S,R)
APPROVED BY   : REH           (3 CHRS)

UPTO 4 OTHERS WHO MAY CHARGE (EACH 32 CHRS OPTIONAL)
  01: BIG TEX                02:
  03:                        04:

SPECIAL CODE1: CODE2: CODE3: (EACH 1 CHR OPTIONAL)
NO HISTORY AVAILABLE AT THIS TIME      CHARGE LIMIT 1000.00      STATUS N

NOTE:- DETAILS IN BRACKETS SHOW MAXIMUM NO. CHARACTERS ALLOWED AND IF OPTIONAL

PRESS "CLEAR" OR "ENTER" TO RETURN TO THE MENU WHEN FINISHED

MA* a                                     03/017
```



Mobile



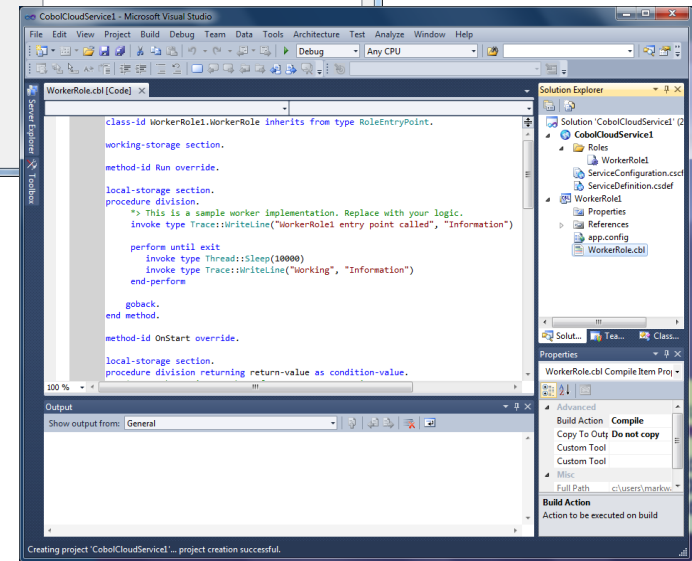
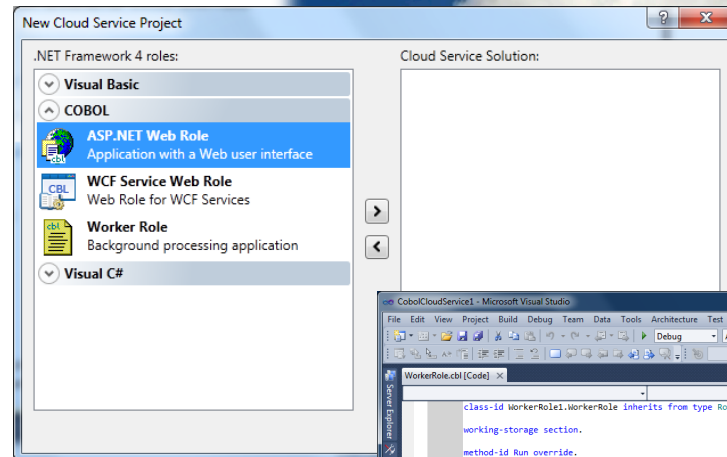
Tablets



Visual COBOL for Windows® Azure™



- Integración con Visual Studio
- Despliegue COBOL en Azure
- COBOL 'web roles' y 'worker roles'
- Plantillas de proyecto específicas
- Integración con las herramientas de desarrollo y despliegue de Azure de Microsoft



Integración con Productos de Terceros

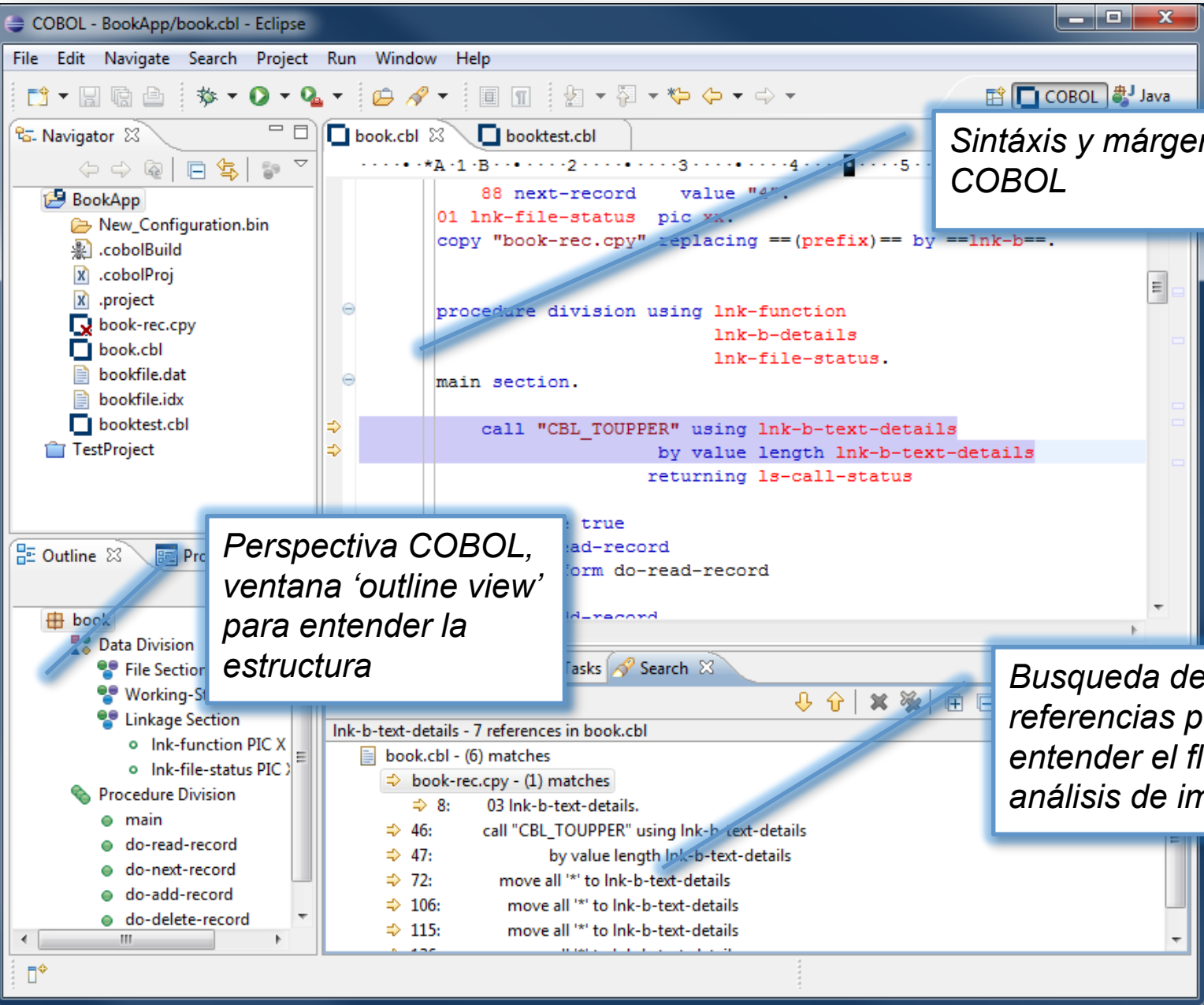


Eclipse Marketplace

The screenshot shows the Eclipse Marketplace website. At the top, it displays the Eclipse logo and the text "856,892 solutions installed directly from Eclipse!". Below this, there is a search bar and a "Spotlight" section featuring "Eclipse Communications Framework - ECF" and "JBoss Tools (Indigo)". The "New and Updated Solutions" section includes "AgileReview 0.7", "EGit - Git Team Provider 1.1.0", and "ECF - Remote Services Indigo 3.5.2". The left sidebar lists various categories like "Tools (1050)", "RCP Applications (131)", and "Training & Consulting (100)".

Visual Studio Gallery

The screenshot shows the Visual Studio Gallery website. At the top, it displays the Visual Studio logo and the text "Products and Extensions for Visual Studio". Below this, there is a search bar and a "RECENTLY ADDED" section featuring "BootstrapMVC Project Template" and "Code Complete Code Generator". The "MOST POPULAR" section includes "NuGet Package Manager" and "VSCommands 2010". The "HIGHEST RATED" section features "VS10x Code Map v2" and "Visual Assist X". The bottom of the page includes a copyright notice: "© 2011 Microsoft. All rights reserved." and a version number: "Version: 2011.9.12.3686".



Sintaxis y márgenes
COBOL

Perspectiva COBOL,
ventana 'outline view'
para entender la
estructura

Busqueda de
referencias para
entender el flujo y
análisis de impacto

Debug - COBJVMProject1/cobjvm1.cbl - Eclipse

File Edit Navigate Search Project Run Window Help

Debug COBOL Java

Debug

Variables Breakpoints

Name	Value
MyItem	fred

cobjvm1 [COBOL JVM Application]
 cobjvm1 at localhost:51240
 Thread [main] (Suspended)
 cobjvm1.cbl line: 21
 cobjvm1.cbl line: not available
 C:\Program Files (x86)\Java\jre6\bin\javaw.exe (18 Oct 2010 12:

cobjvm1.cbl

```

01 Item1          pic x.
01 MyItem         pic x(10).
01 MyItem2        string.
procedure division.
  perform varying LoopCount from 1 by 1 until LoopCount > 10
    move "*" to Item1
  end-perform

  perform until MyItem = "!"
    accept MyItem
    display "Your string is " MyItem

  display MyItem::replace("e", "*")

  end-perform

  goback.
  
```

Console

cobjvm1 [COBOL JVM Application] C:\Program Files (x86)\Java\jre6\bin\javaw.exe (18 Oct 2010 12:28:30)

COBOL y Java en el mismo proyecto

Depuración de COBOL en Eclipse

COBOL JVM: Las cadenas PIC X se convierten automáticamente en objetos



Debug Configurations

Create, manage, and run configurations

Debug a COBOL Program

Name: TICTAC.exe[DEMOSQL]

General Source Environment Common Run-time COBOL Switches >>1

Starts a local debug session using the specified application program and options.

▼ **COBOL Project**

DEMOSQL [Browse...]

Main program or executable to debug:

Program is part of project build configuration: New Configuration

New_Configuration.bin/TICTAC.exe [Browse...]

Application is 64 bit

► **Debug options**

► **Run-time arguments**

► **Working directory**

► **Debugging source viewer**

Apply Revert

Debug Close

type filter text

- COBOL Attach to Local Application
- COBOL Attach to Remote Application
- COBOL Core Dump
- COBOL Local Application
 - DEMOPGM.exe[DEMOSQL]
 - DEMOSQL.exe[DEMOSQL]
 - TICTAC.exe[DEMOSQL]
- COBOL Remote Application
- COBOL Wait for Application Attachment
- COBOL Wait for Remote Application Attachment
- Java Applet
- Java Application
- JUnit
- Remote Java Application
- Task Context Test

Filter matched 15 of 15 items

Multiples opciones de depuración:

- Local
- Remota
- Core Dump
- Attach to local / Remoto
- Wait for attachment

Properties for DEMOSQL

type filter text

- Resource
- Builders
- Micro Focus COBOL
 - Build Configurations
 - Build Precedence
 - Copybook Paths
 - Project Language Settir
 - COBOL
 - Embedded SQL
 - Run-time Configuration
- Project References
- Refactoring History
- Run/Debug Settings
- Task Repository
- Task Tags
- Validation
- WikiText

Embedded SQL

ESQL Preprocessor: DB2

All Directives:

- DB
- FORMAT
- QUALIFIER
- PASS

Directive Details:

Directive: DB

Value: EMPRE

Description: Specifies the name of the Database that the program accesses. If DB is specified without a parameter, the database specified in the environment variable DB2DBDFT is used

Add... Remove

Restore Defaults Apply

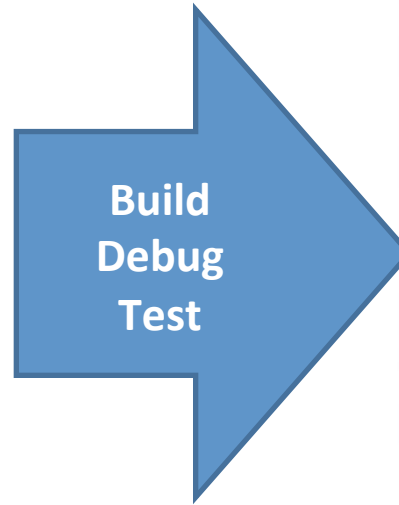
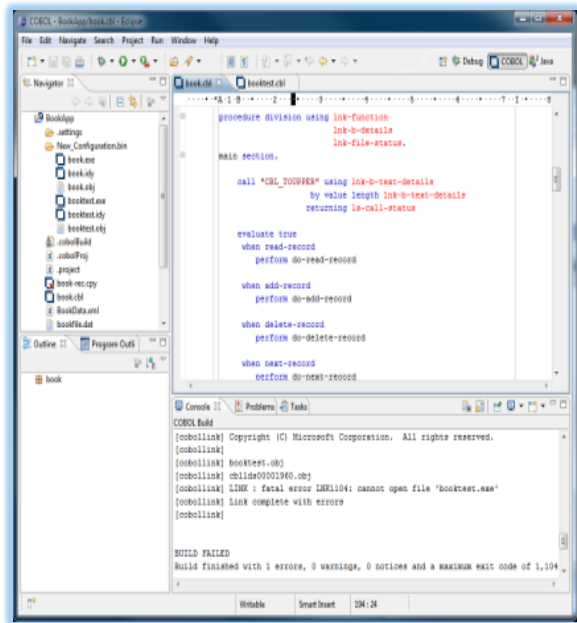
OK Cancel

Asistentes de conexión y configuración del acceso a base de datos

Desarrollo Remoto para UNIX



Desarrolladores



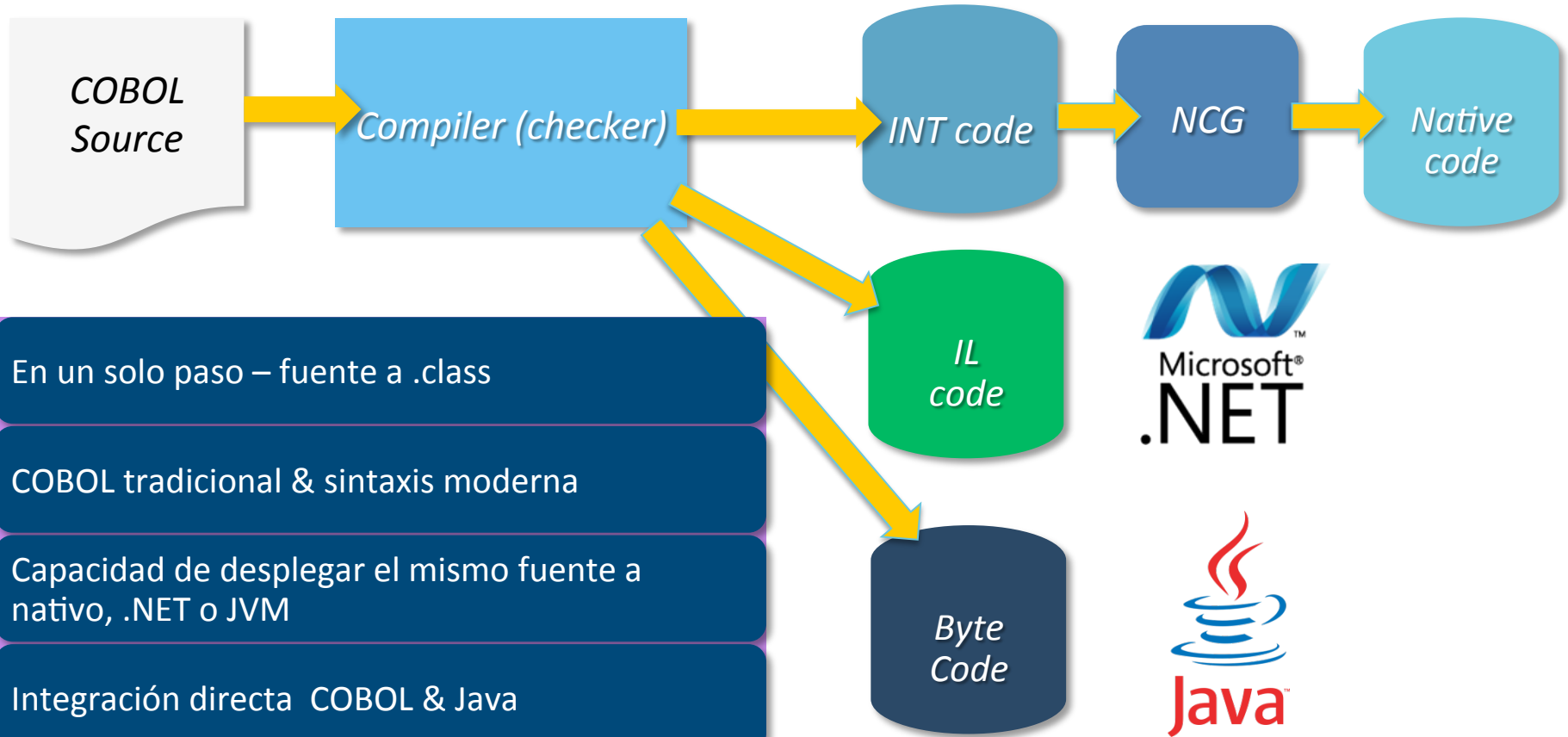
Servidor Unix



- ✓ Código fuente
- ✓ Datos Pruebas
- ✓ 3rd Party Apps
- ✓ Build
- ✓ Debug



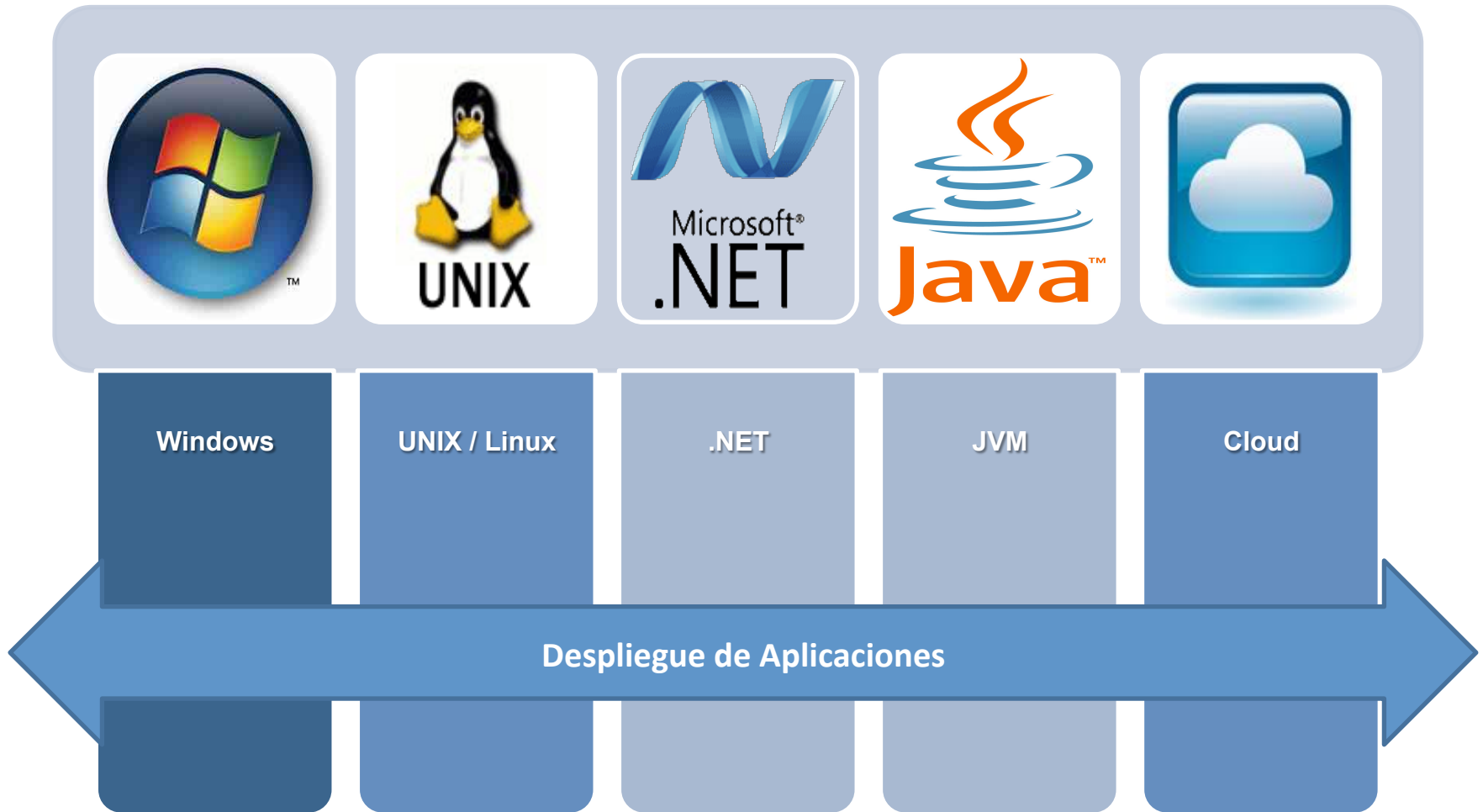
COBOL JVM – Completa las opciones de Despliegue



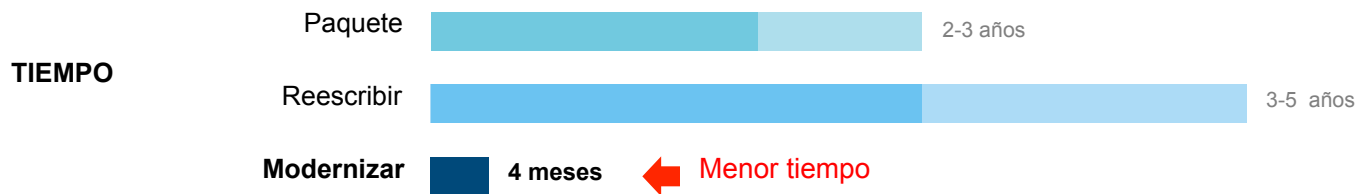
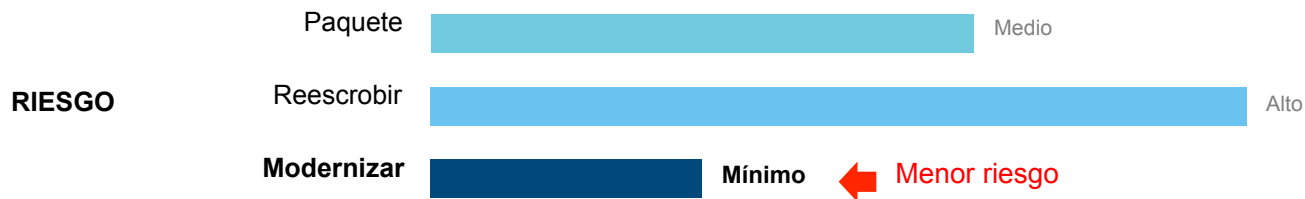
- En un solo paso – fuente a .class
- COBOL tradicional & sintaxis moderna
- Capacidad de desplegar el mismo fuente a nativo, .NET o JVM
- Integración directa COBOL & Java
- Despliegue a cualquier plataforma JVM



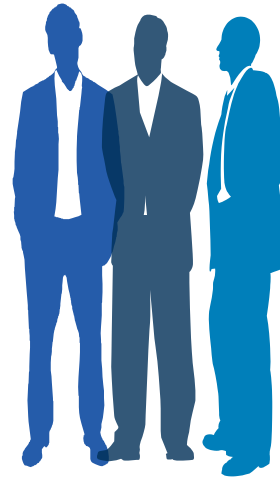
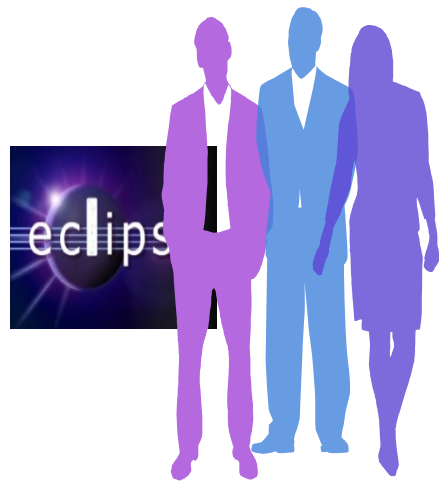
Múltiples Posibilidades de Despliegue



Modernización: La Mejor Opción



Los Mejores Resultados con Visual COBOL



Ventajas

- Regeneración de las competencias de los programadores
- La productividad de los desarrolladores mejora en un 40%
- Mejora la calidad de las aplicaciones
- Llega a nuevos mercados y públicos

Capacidad

- El entorno unificado de Visual Studio o Eclipse ayuda al desarrollo cruzado y a actualizar las competencias profesionales de forma eficaz
- El entorno de desarrollo líder del sector
- La colaboración entre desarrolladores y la mejora de las pruebas compuestas permiten depurar los errores con mayor rapidez
- Los nuevos conjuntos de funciones permiten lanzar nuevas ofertas de servicios: Web, Mobility y la Nube, entre otros.

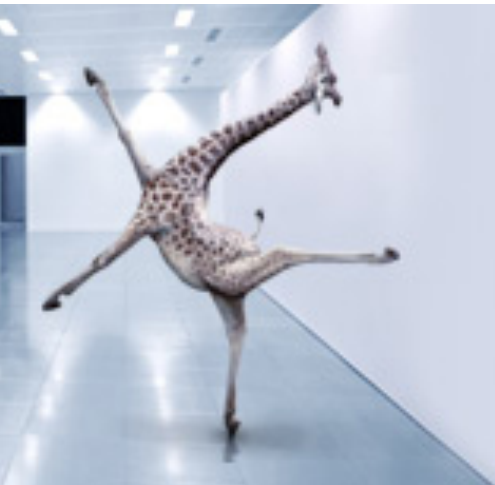


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Preguntas y Respuestas

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