

Yerli MapBasic Editörü

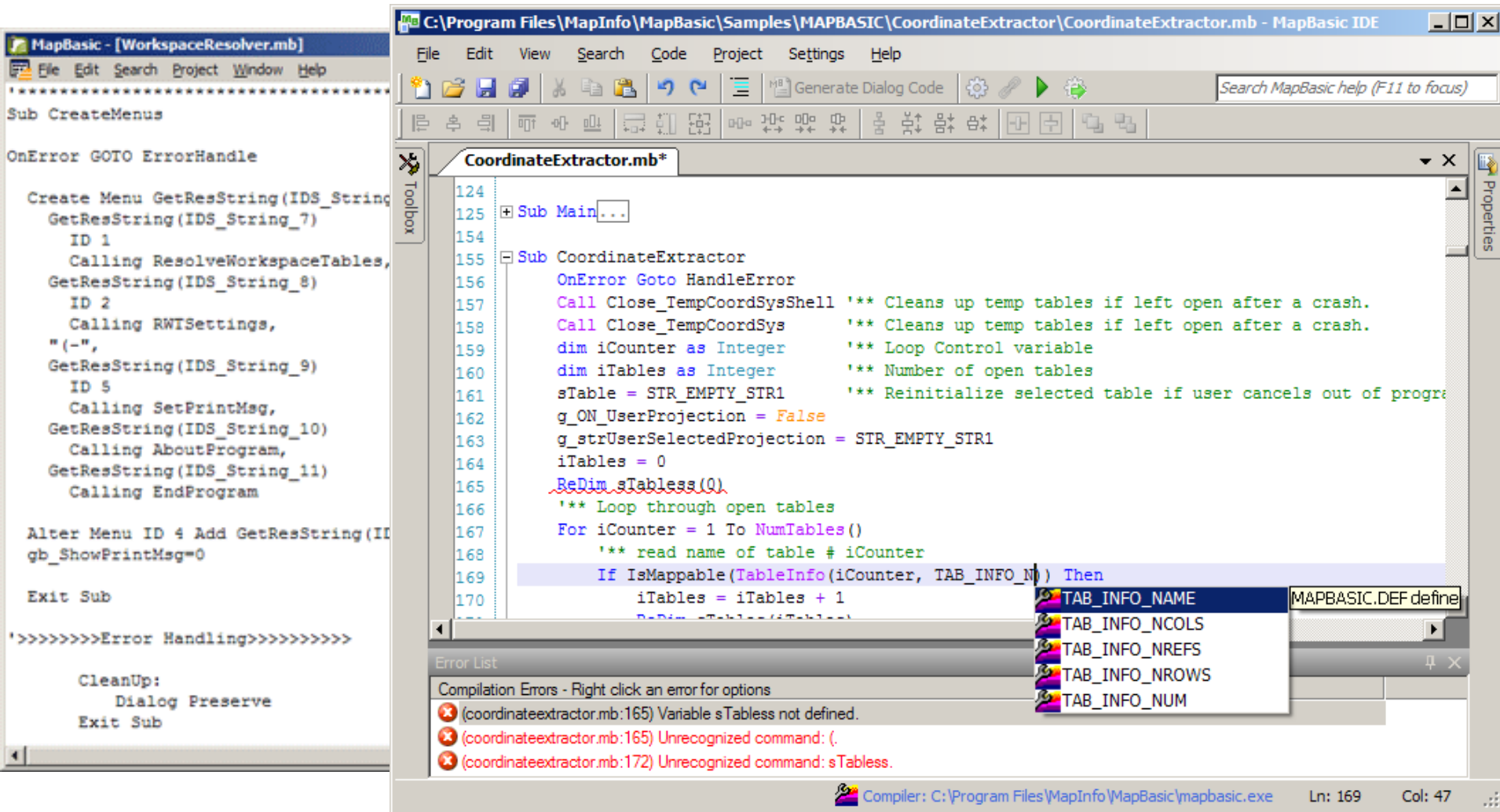
MapBasic IDE

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TÜBİTAK İleri Teknolojiler Araştırma Enstitüsü

- MapBasic IDE Projesi nasıl doğdu?
 - MapBasic editörünün yetersizliği
 - Alternatif editörler (UltraEdit, Notepad++ vb.)
 - Yeni editör ihtiyacı
- MapBasic IDE = MapBasic Entegre Geliştirme Ortamı
- Microsoft Visual Studio 2010 ve C# ile geliştirildi
- Kod editörü olarak SharpDevelop TextEditor kullanıldı
- Temel amaç: Programcının hızını ve verimliliğini artırmak
- Visual Studio arayüzü ve deneyimi



The screenshot displays the MapBasic IDE interface. The main window shows a VBA script for 'CoordinateExtractor.mb'. The script includes a 'Sub Main' and a 'Sub CoordinateExtractor' with various error handling and table management logic. A dropdown menu is open over the 'TAB_INFO_NUM' property, showing options like 'TAB_INFO_NAME', 'TAB_INFO_NCOLS', 'TAB_INFO_NREFS', 'TAB_INFO_NROWS', and 'TAB_INFO_NUM'. The 'Error List' at the bottom shows three compilation errors: 'Variable sTableless not defined.', 'Unrecognized command: (', and 'Unrecognized command: sTableless.'

```

124
125 Sub Main...
154
155 Sub CoordinateExtractor
156   OnError Goto HandleError
157   Call Close_TempCoordSysShell  '** Cleans up temp tables if left open after a crash.
158   Call Close_TempCoordSys      '** Cleans up temp tables if left open after a crash.
159   dim iCounter as Integer      '** Loop Control variable
160   dim iTables as Integer       '** Number of open tables
161   sTable = STR_EMPTY_STR1     '** Reinitialize selected table if user cancels out of progr
162   g_ON_UserProjection = False
163   g_strUserSelectedProjection = STR_EMPTY_STR1
164   iTables = 0
165   ReDim sTableless(0)
166   '** Loop through open tables
167   For iCounter = 1 To NumTables()
168     '** read name of table # iCounter
169     If IsMappable(TableInfo(iCounter, TAB_INFO_N)) Then
170       iTables = iTables + 1
171       ReDim sTableless(iTables)

```

Compiler: C:\Program Files\MapInfo\MapBasic\mapbasic.exe Ln: 169 Col: 47

Önemli Tarihler

- 19 Eylül 2011: Proje başlangıcı
- 21 Kasım 2011: v1.0 yayınlandı (Türkçe)
- 22 Şubat 2012: v1.2 yayınlandı (İngilizce)
- 26 Nisan 2012: v1.3 yayınlandı (Yeni özellikler)
- 24 Eylül 2012: v1.4 yayınlandı (Dialog designer)

- Dialog designer
- Kod renklendirme
- Kod tamamlama
- Yazarken kod kontrolü
- Kod katlama
- Kod çevreleme
- Hazır kod parçaları
- Parantez eşleştirme
- Tek tuşla MapBasic yardımı
- Renkli editör temaları
- 64-bit Windows desteği
- Prosedürlere hızlı erişim
- Tanıma gitme
- Kod yorumu açma-kapama
- Yer imleri
- Çoklu doküman arayüzü
- Dosya sistemi izleme
- Kısayol tuşları

The screenshot shows the MapBasic IDE interface. The main window displays a code editor for 'CoordinateExtractor.mb'. The code is as follows:

```

124
125 Sub Main...
154
155 Sub CoordinateExtractor
156   OnError Goto HandleError
157   Call Close_TempCoordSysShell '** Cleans up temp tables if left open after a crash.
158   Call Close_TempCoordSys '** Cleans up temp tables if left open after a crash.
159   dim iCounter as Integer '** Loop Control variable
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161   sTable = STR_EMPTY_STR1 '** Reinitialize selected table if user cancels out of progr
162   g_ON_UserProjection = False
163   g_strUserSelectedProjection = STR_EMPTY_STR1
164   iTables = 0
165   ReDim sTableless(0)
166   '** Loop through open tables
167   For iCounter = 1 To NumTables()
168     '** read name of table # iCounter
169     If IsMappable(TableInfo(iCounter, TAB_INFO_N)) Then
170       iTables = iTables + 1
171       ReDim sTableless(iTables)

```

The error list at the bottom shows the following messages:

- (coordinateextractor.mb:165) Variable sTableless not defined.
- (coordinateextractor.mb:165) Unrecognized command: (.
- (coordinateextractor.mb:172) Unrecognized command: sTableless.

A dropdown menu is open over the code, showing the following options:

- TAB_INFO_NAME
- TAB_INFO_NCOLS
- TAB_INFO_NREFS
- TAB_INFO_NROWS
- TAB_INFO_NUM

The status bar at the bottom indicates: Compiler: C:\Program Files\MapInfo\MapBasic\mapbasic.exe Ln: 169 Col: 47

Properties

MapBasicControlCategory	
Id	0
Name	MapBasicCheckBox1
Position	12; 67
Width	230
AutoSize	True
Title	Hızlandırmak için Anir
Calling	
Disable	False
Hide	False
Value	
Into	

Id
Unique integer value; cannot be the same as the Id of another control in the dialog box.

Compiler: C:\Program Files\MapInfo\MapBasic\mapbasic.exe

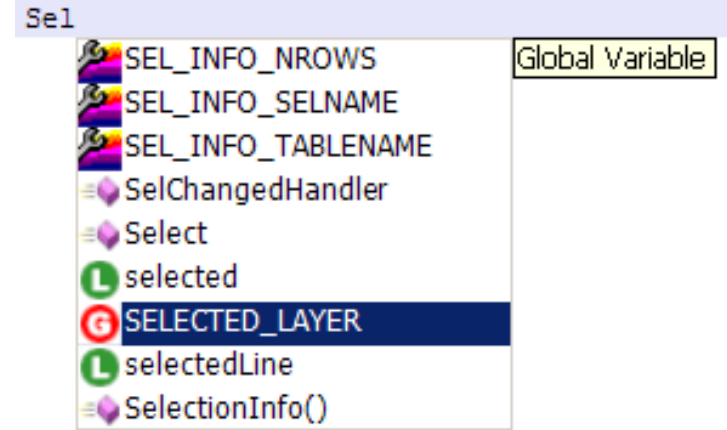
- Farklı kod elemanları farklı renkle gösterilir
- Renkler özelleştirilebilir

```
53
54 '*****
55 ' PREPARE_ANIMATION: this procedure opens (or, if necessary, creates) a table
56 ' that will act as the animation layer.
57 '
58 Sub prepare_animation
59     Dim poly As Object           'this will contain the object the user selected
60     Dim animation_table As String 'used to hold the name of the table to create
61     Dim i_row_id As Integer      'the row number of the point object we're adding.
62     Dim i_table_count As Integer 'the number of open tables
63     Dim drop_afterwards As Logical 'TRUE means: delete table when we're done
64     Dim point_var As Object      'a point object which we'll move around the map
65     Dim i_start, i_elapsed As Integer 'used to calculate elapsed time
66     If SelectionInfo(SEL_INFO_NROWS) <> 1 Then
67         Note "You must select one polyline or one region before you choose Show Animation."
68         Exit Sub
69     End If
70
```



- **Ctrl+Space ile:**
 - MapBasic *.def sabitleri
 - Anahtar kelimeler
 - Ön tanımlı sub/fonksiyonlar
 - MapBasic ifadeleri
 - Kullanıcı tanımlı sub/fonksiyonlar
 - Kullanıcı tanımlı tipler
 - Tüm değişkenler

otomatik tamamlanabilir





- Tab ile:

- if : If-End If
- dc : Do-Case
- for : For-Next
- dw : Do-While
- ww : While-Wend
- typ : Type
- sub : Sub-End Sub
- func : Function-End Function

```
16 Sub Test ()  
17   if  
18 End Sub
```

Tab →

```
15  
16 Sub Test ()  
17   If <condition> Then  
18  
19     End If  
20 End Sub
```

blokları otomatik eklenebilir



Yazarken Kod Kontrolü

- Kod yazarken yazım ve derleme hataları denetlenir
- Hatalı satırın altı kırmızı renkle çizilir
- İmleç satırda iken hata tanımı durum çubuğunda gösterilir

```
163     g_strUserSelectedProjection = STR_EMPTY_STR1
164     iTables = 0
165     ReDim sTabless(0)
166     '** Loop through open tables
167     For iCounter = 1 To NumTables()
```

Variable sTabless not defined.

- Uzun programlarda görünümü sadeleştirir

```
1026 Sub EndProgram
1027     OnError Goto HandleError
1028     Close Table Selection
1029     End Program
1030     Exit Sub
1031 HandleError:
1032     Note STR_FN_END_PROG
1033     Resume Next
1034 End Sub
```

→

```
1025
1026 Sub EndProgram...
1035
```

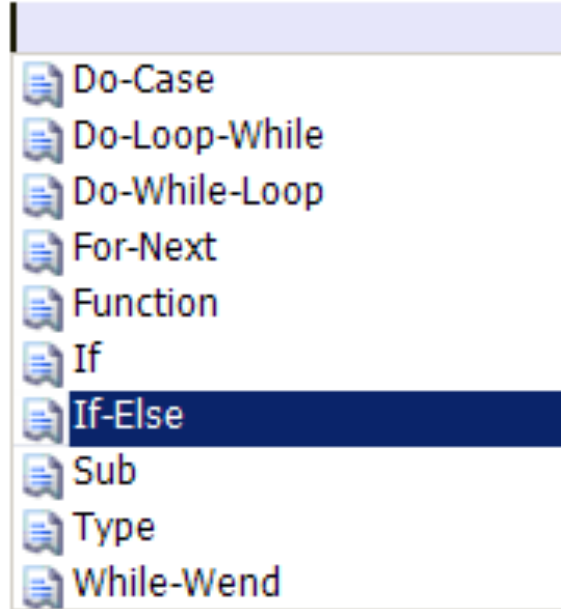
```
3399 Function ListGetElement(ByVal inlist As String,Byval choice As SmallInt) As String...
3428
3429 Function GetDrives() As String... GetDrives() As String
3459
3460 Function ExtractDrive(Dstr_Char As Integer) As String... ExtractDrive(Dstr_Char As Int
3486
3487 Sub DLG_GetDirectory_SelectDrive... DLG_GetDirectory_SelectDrive
3518
3519 Sub KillRWT(ByVal path_to_RWT As String) '*Funtion to delete temporary file in tool di:
```



Ön Tanımlı Kod Parçaları

- Sık kullanılan program yapılarını kolayca eklemeyi sağlar

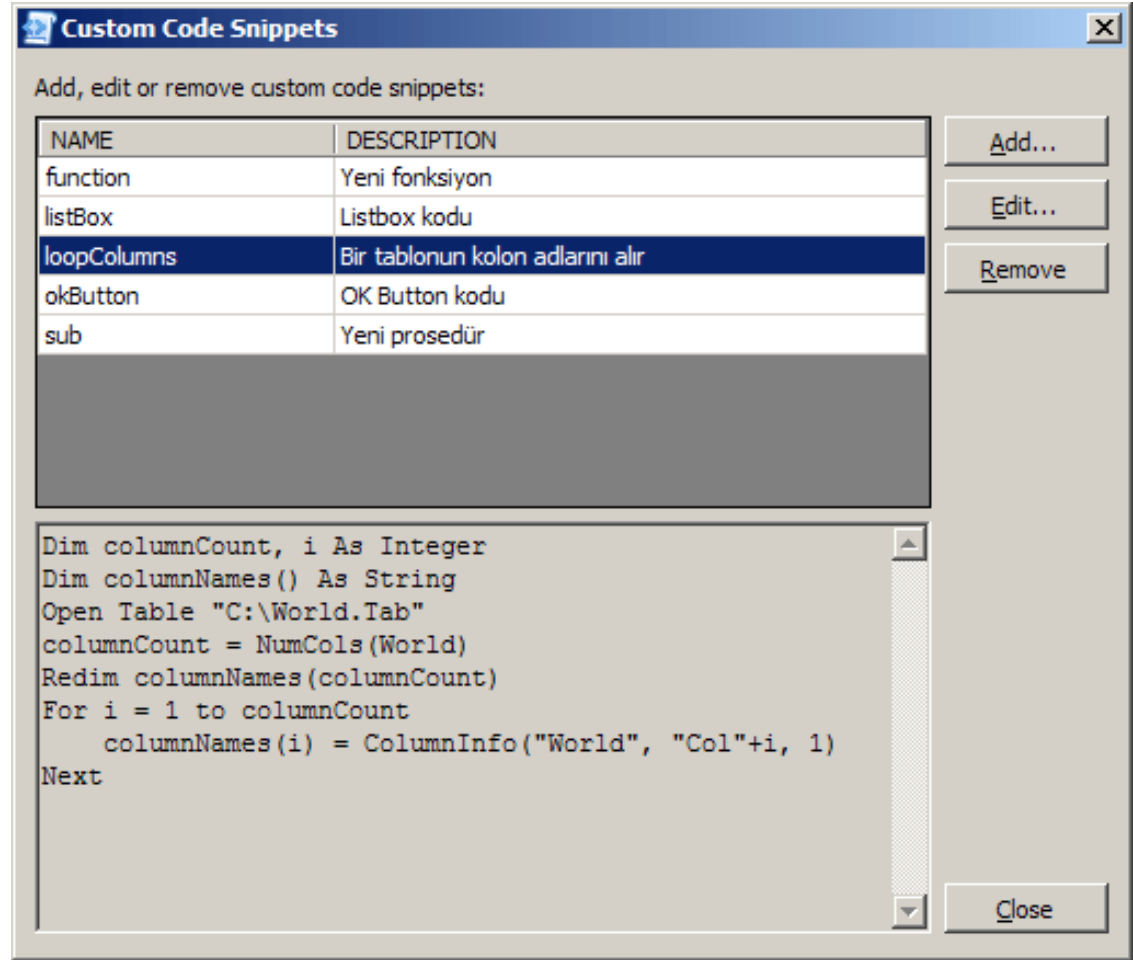
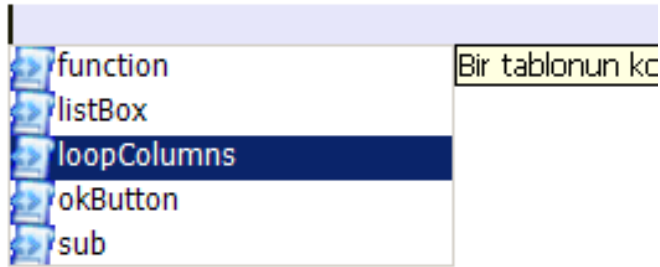
Alt+Insert



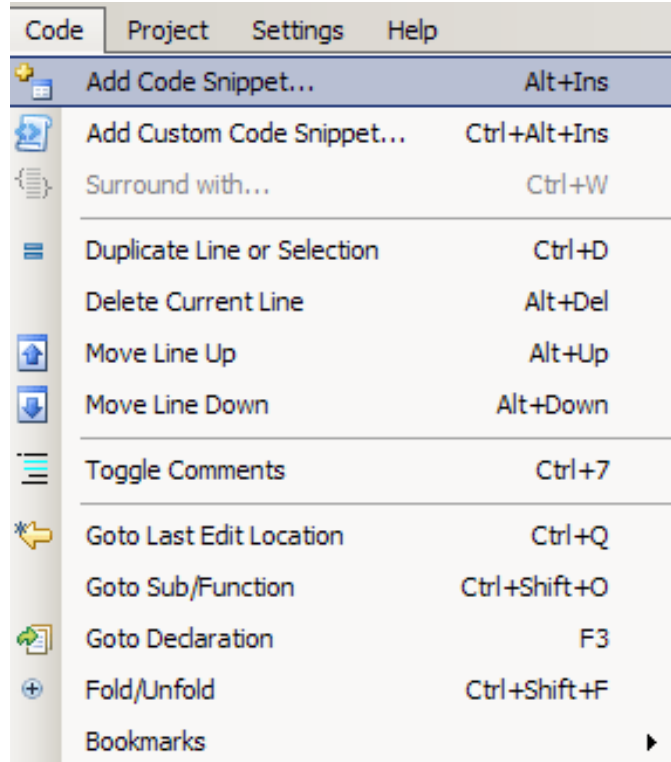
Enter

```
If <condition> Then  
Else  
End If
```

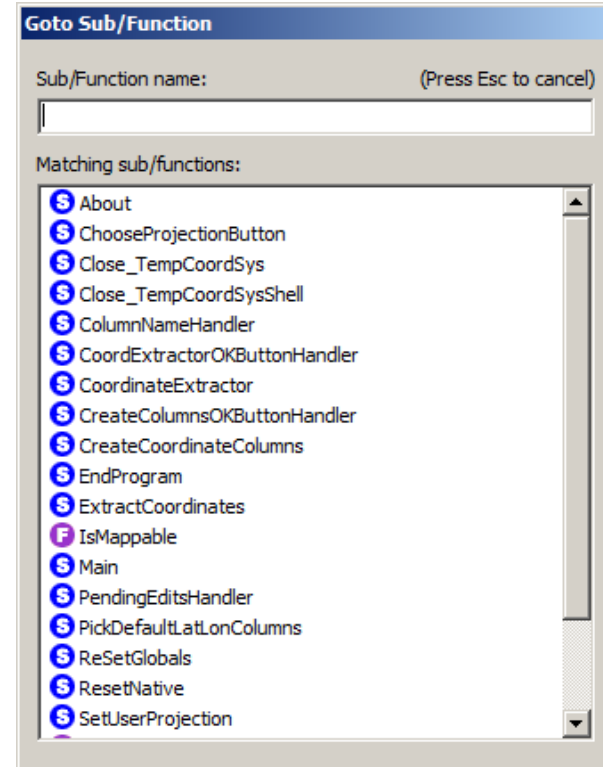
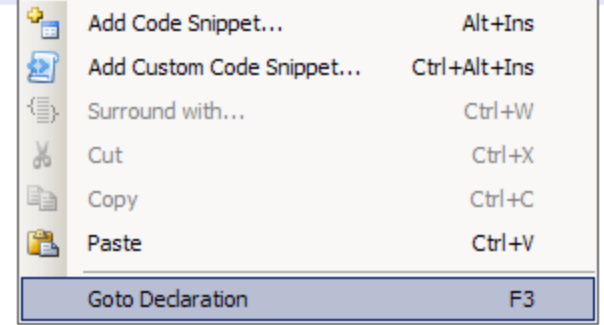
- Kullanıcı sık kullandığı kod kalıplarını tanımlayabilir
- Ctrl+Alt+Insert ile kolayca eklenebilir



- Daha kolay ve hızlı kod yazmayı sağlar



Call do animation(poly, i row id)



`Dim x as Integer` | Ctrl+D → `Dim x as Integer`
`Dim x as Integer` | **Satır çoğaltma**

`Control StaticText`
`Title "İlçe"`
`Position 10, 32` | Ctrl+D → `Control StaticText`
`Title "İlçe"`
`Position 10, 32`
`Control StaticText`
`Title "İlçe"`
`Position 10, 32` | **Seçim çoğaltma**

`Dim y As Integer`
`Dim x As Integer` | Alt+Down → `Dim x As Integer`
`Dim y As Integer` | **Satır taşıma**

`Sub OpenTable ()`
`Open Table ILCE`
`End Sub` | Ctrl+W → `Sub OpenTable ()`
`If <condition> Then`
`Open Table ILCE`
`End If`
`End Sub` | **Kod çevreleme**




- Do-Loop-While
- Do-While-Loop
- For-Next
- If**
- While-Wend

Kodu blok olarak kapatma

```
If ObjectInfo(poly, OBJ_INFO_TYPE) <> OBJ_PLINE And  
    ObjectInfo(poly, OBJ_INFO_TYPE) <> OBJ_REGION Then  
    Note "You must select one polyline or one region."  
    Exit Sub  
End If
```

```
'If ObjectInfo(poly, OBJ_INFO_TYPE) <> OBJ_PLINE And  
'    ObjectInfo(poly, OBJ_INFO_TYPE) <> OBJ_REGION Then  
'    Note "You must select one polyline or one region."  
'    Exit Sub  
'End If
```

Yer İmleri

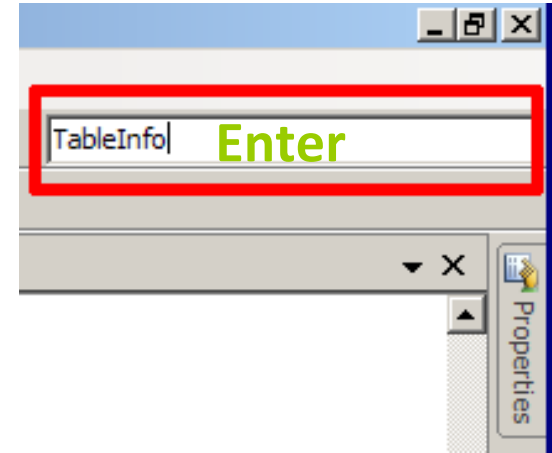
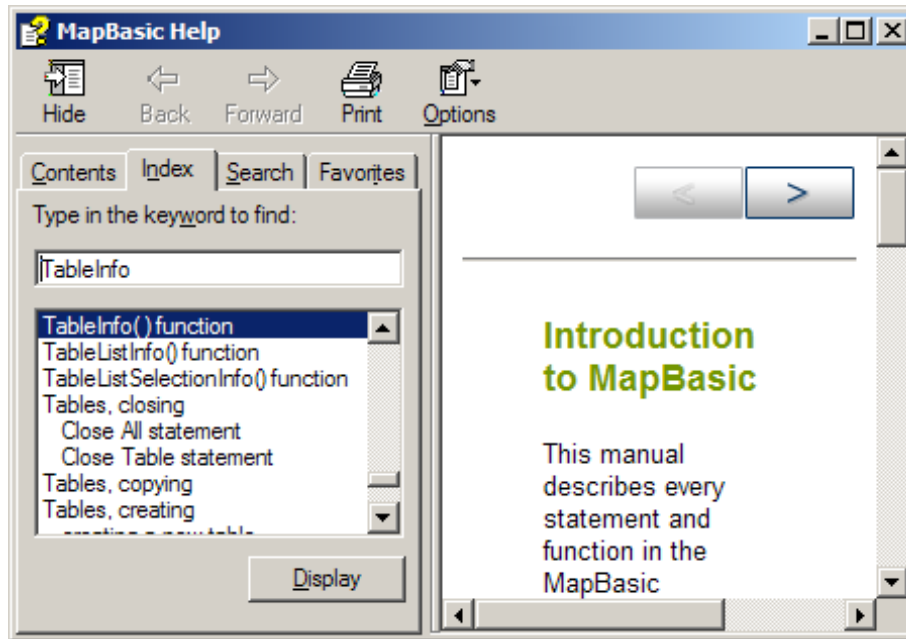
	Toggle Bookmark	F8
	Next Bookmark	Ctrl+Shift+Down
	Previous Bookmark	Ctrl+Shift+Up

```
3484 |  
3485 | End Function ExtractDrive(Dstr_Char As Integer) As String  
3486 |  
3487 | Sub DLG_GetDirectory_SelectDrive  
3488 |  
3489 | OnError GOTO ErrorHandler  
3490 |
```

- Kelime duyarlı yardım ile konulara hızlı erişim

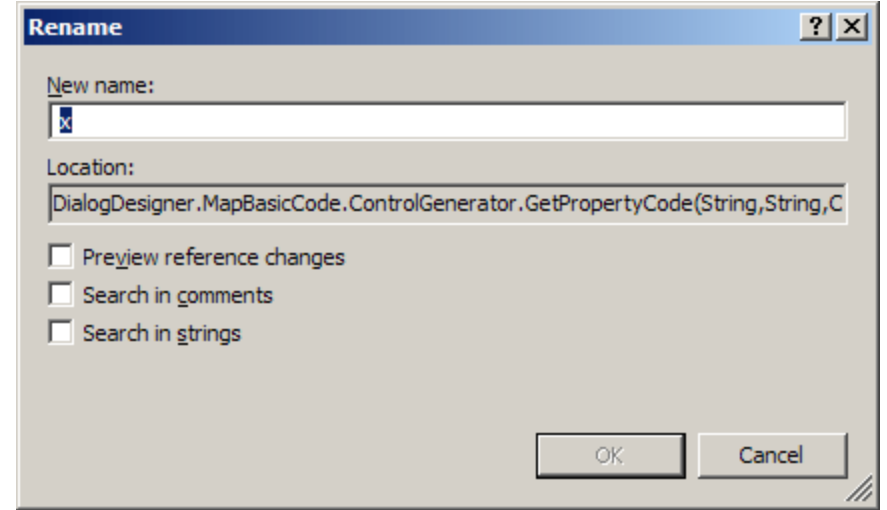
```
196: Insert Into tmp_demo (Obj) Values ( point_var )  
197: i_row_id = TableInfo("tmp_demo", TAB_INFO_NROWS)
```

F1





- Tek tuşla proje build etme
- Code refactoring araçları
- Method insight
- Plug-in desteği
- Entegre debugger



String.Compare(

▲ 1 of 10 ▼ int string.Compare(**string strA**, string strB)
Compares two specified System.String objects
strA: The first string to compare.

```

14 public class DialogGenerator {
15
16     private const String CONTROLS_NAMESPACE = "DialogDesigner.ToolboxLib.MapBasicControls.";
17
18     private static Dictionary<int, Point> dicInnerControlAbsPositions;
19
20     /// <summary>
21     /// Dialog (*.dlg) dosyasını parse ederek aynı dosya adıyla, diyalog kodlarını içeren .mb dosyasını
22     /// Dosya zaten varsa dosyanın içinde sadece diyalog kodlarını yeniden oluşturur, diğer kısımlara (:
23     /// </summary>
24     /// <param name="dlgPath">XML tabanlı Diyalog dosyasının yolu</param>
25     /// <param name="hostForm">Host form</param>
26     public static bool GenerateDialogCode(String dlgPath, Form hostForm) {
27         IEnumerable<Control> allControls = DialogGenerator.GetControls(hostForm);
28         if (!DialogGenerator.ValidateIdUniqueness(allControls)) {
29             // TODO: Lokalleştirilecek
30             String message = "There are controls having the same control ID. All controls must have a ui
31             MessageBox.Show(message, "MapBasic IDE", MessageBoxButtons.OK, MessageBoxIcon.Exclamation);
32             return false;
33         }
34         // REFACTOR: DialogGenerator metotları non-static yapılabilir.
35         // GroupBox içindeki kontrolleri dictionary ye at
36         DialogGenerator.SetInnerControlAbsPositions(hostForm);
37         String dialogCode = DialogGenerator.GetDialogCode(dlgPath);
38         //String mbPath = xmlPath.Replace(".xml", ".mb");
39         String mbPath = GetDialogSourceFilePath(dlgPath);
40         // LATER: MapBasic IDE nin IO.cs sınıfındaki yazma metodu kullanılabilir.

```

Kod Metrikleri

- **3 alt proje:**
 - MapBasicIDE
 - DialogDesigner
 - MapInfo
- **Metrikler:**
 - Satır Sayısı: 16703
 - Sınıf Sayısı: 162
 - Metot/Sınıf: 7.07
 - Statement/Metot: 4.46

İstatistikler: *SourceMonitor* Yazılımı

<http://www.campwoodsw.com/sourcemonitor.html>

- MapBasic IDE 34 proje arasında 4. oldu



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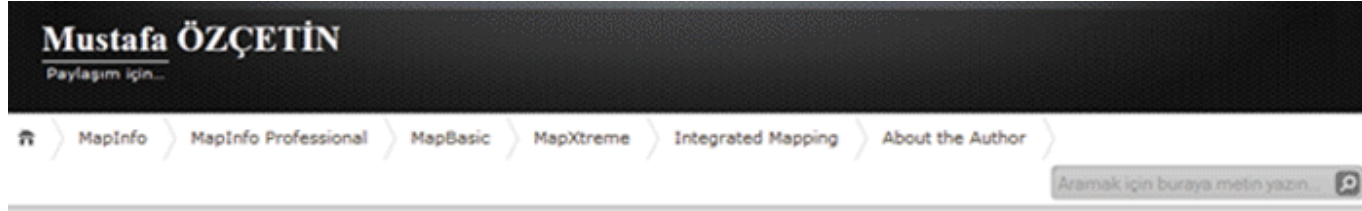
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A-MAP Can Be Worth 1000 Words	1101
New MapBasic Editor: MapBasic IDE	307

view all entries and vote ➤

<http://mustafaozctin.wordpress.com/mapbasic/mapbasicide-en/>



MapBasic IDE 1.4 Beta2 Has Been Released

[Yorumlara git](#) [Yorum yapın](#)

Last update: September 29, 2012



productivity.

Although being an important language, MapInfo (now PB) interestingly made almost no improvements to the MapBasic Editor. To see that, look at the older versions of MapBasic, say 10 years ago, and unfortunately you will see no improvements for developer convenience or productivity.

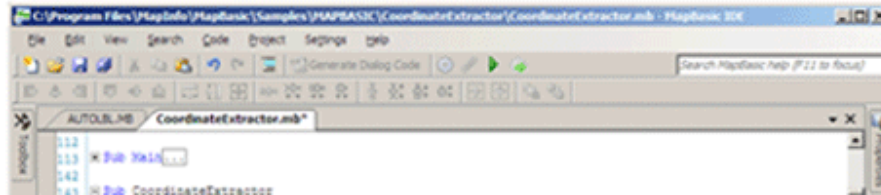
Therefore, as a developer who is used to utilize and likes great IDEs like Eclipse and Visual Studio (Eclipse is absolutely #1 for me!), I have decided to write a new editor for MapBasic to boost developer productivity. I made MapBasic IDE inherit and inspire a lot of handy features (form designer, syntax highlighting, code completion, syntax check, code snippets, shortcuts etc.) from Eclipse and Visual Studio.

By the way, the funny thing is that I currently cannot use MapBasic IDE on my work because I am using a non-MapInfo product in my project.

☹️ Anyway, maybe later...

I have written MapBasic IDE using Visual Studio 2010 and C#. The code editor is SharpDevelop's text editor component.

MapBasic IDE looks like a mini Visual Studio:





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