



VARCHART

XGantt Workshop 1

**New Data Structures and
New Graphical Features
in Version 4.0**

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New Data Structures

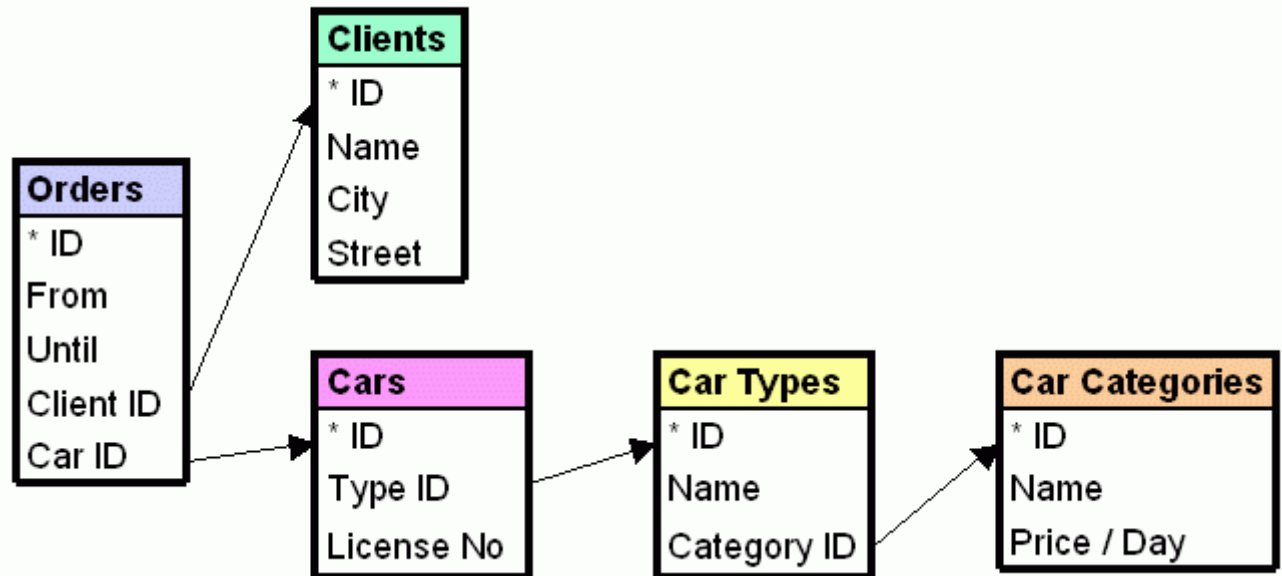
New Data Structures

New Graph. Features

- **The Model “Relational Data Base”** ▶▶
- **Declaring data tables and data fields** ▶▶
- **Loading data into data tables** ▶▶
- **Using (related) data fields** ▶▶
- **Groups created by own group data table(s)** ▶▶
- **Modifying data records** ▶▶
- **Survey: New classes, calls, events** ▶▶



Data tables in Sample „Car Rental“



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Objects for (new) data structures

Up to now:

VcDataDefinition

VcDataDefinitionTable

VcDataDefinitionField

Now additionally:

VcDataTableCollection

VcDataTable

VcDataTableFieldCollection

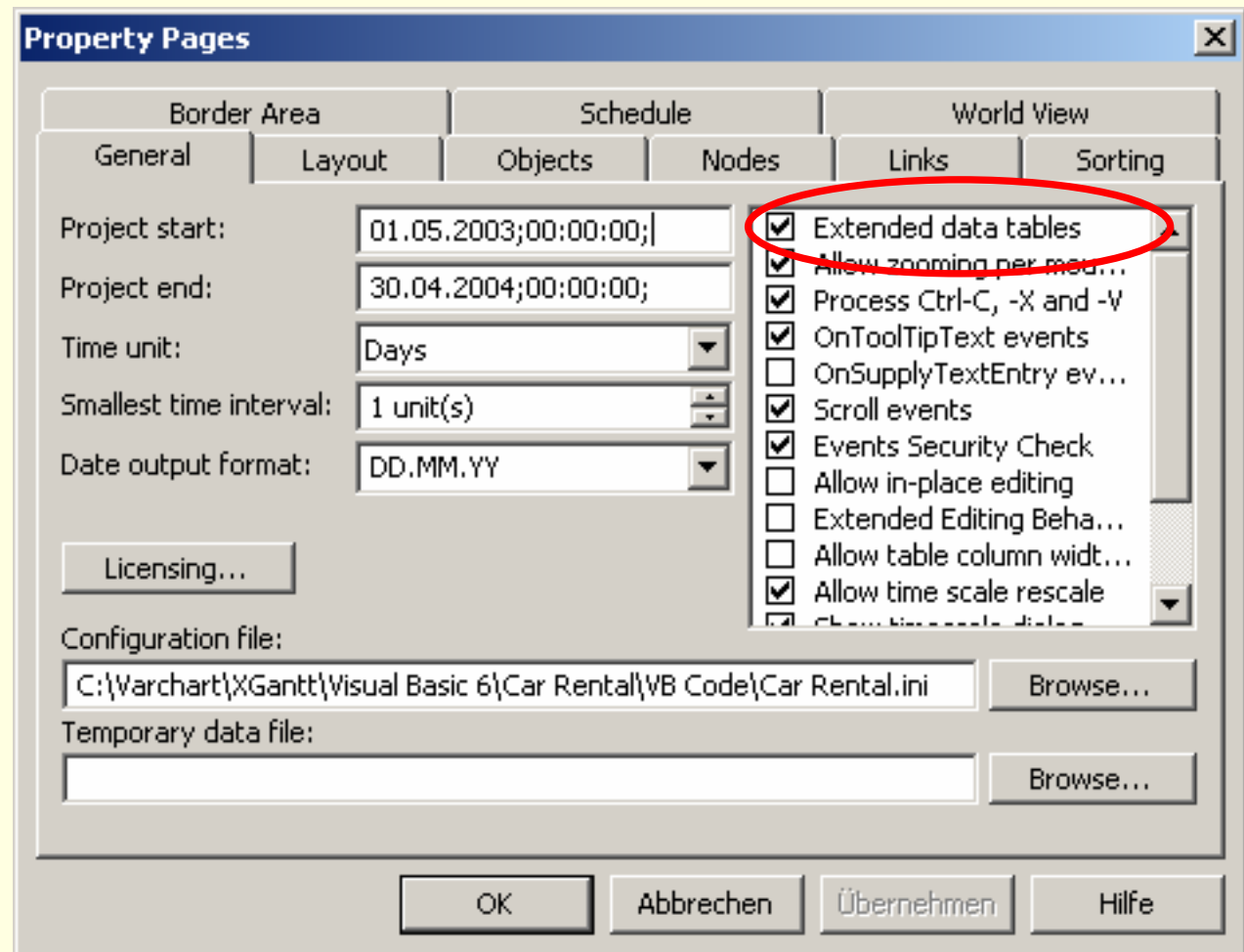
VcDataTableField

VcDataRecordCollection

VcDataRecord

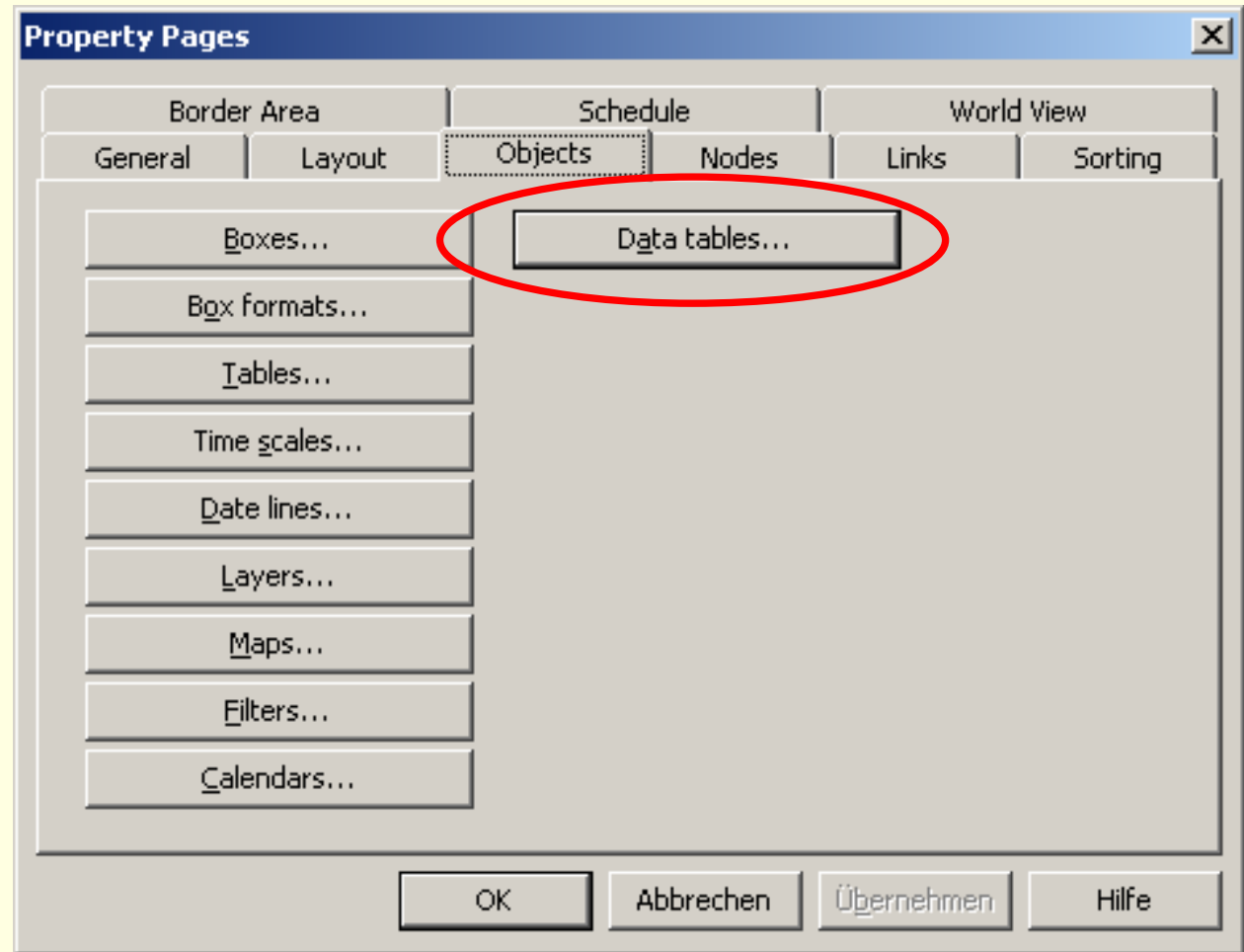
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„General“ Property Page



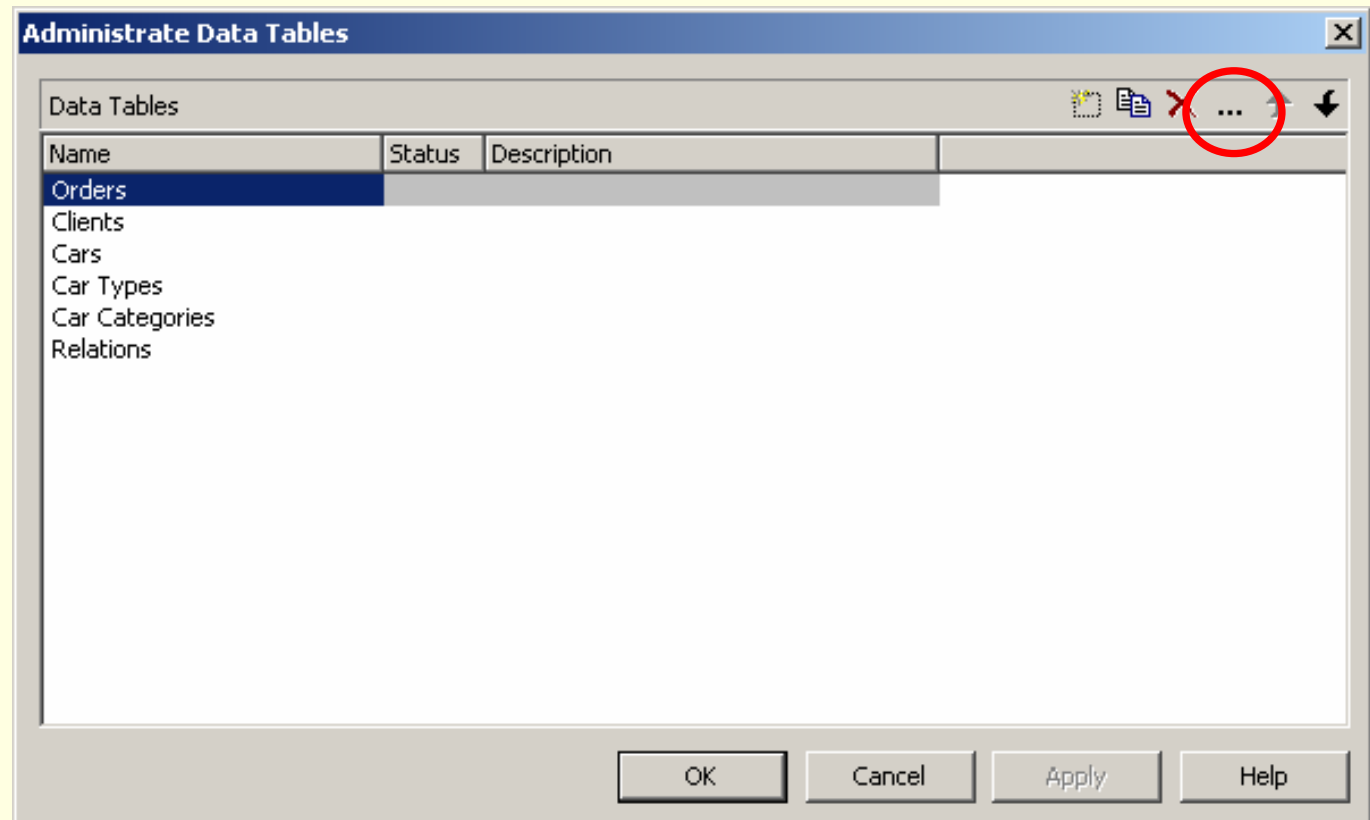
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„Objects“ Property Page



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Administrate Data Tables



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Edit Data Table

Edit Data Table "Orders"

Data Table Fields

Index	Name	Primary key	Type	Date format	Editable	Hidden	Relationship
0	ID	<input checked="" type="checkbox"/>	Alphanumeric		<input type="checkbox"/>	<input type="checkbox"/>	
1	From	<input type="checkbox"/>	Date/Time	DD.MM.YY	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
2	Until	<input type="checkbox"/>	Date/Time	DD.MM.YY	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3	Client ID	<input type="checkbox"/>	Alphanumeric		<input checked="" type="checkbox"/>	<input type="checkbox"/>	Clients:ID
4	Car ID	<input type="checkbox"/>	Alphanumeric		<input checked="" type="checkbox"/>	<input type="checkbox"/>	Cars:ID

OK Cancel Help

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„Nodes“ Property Page

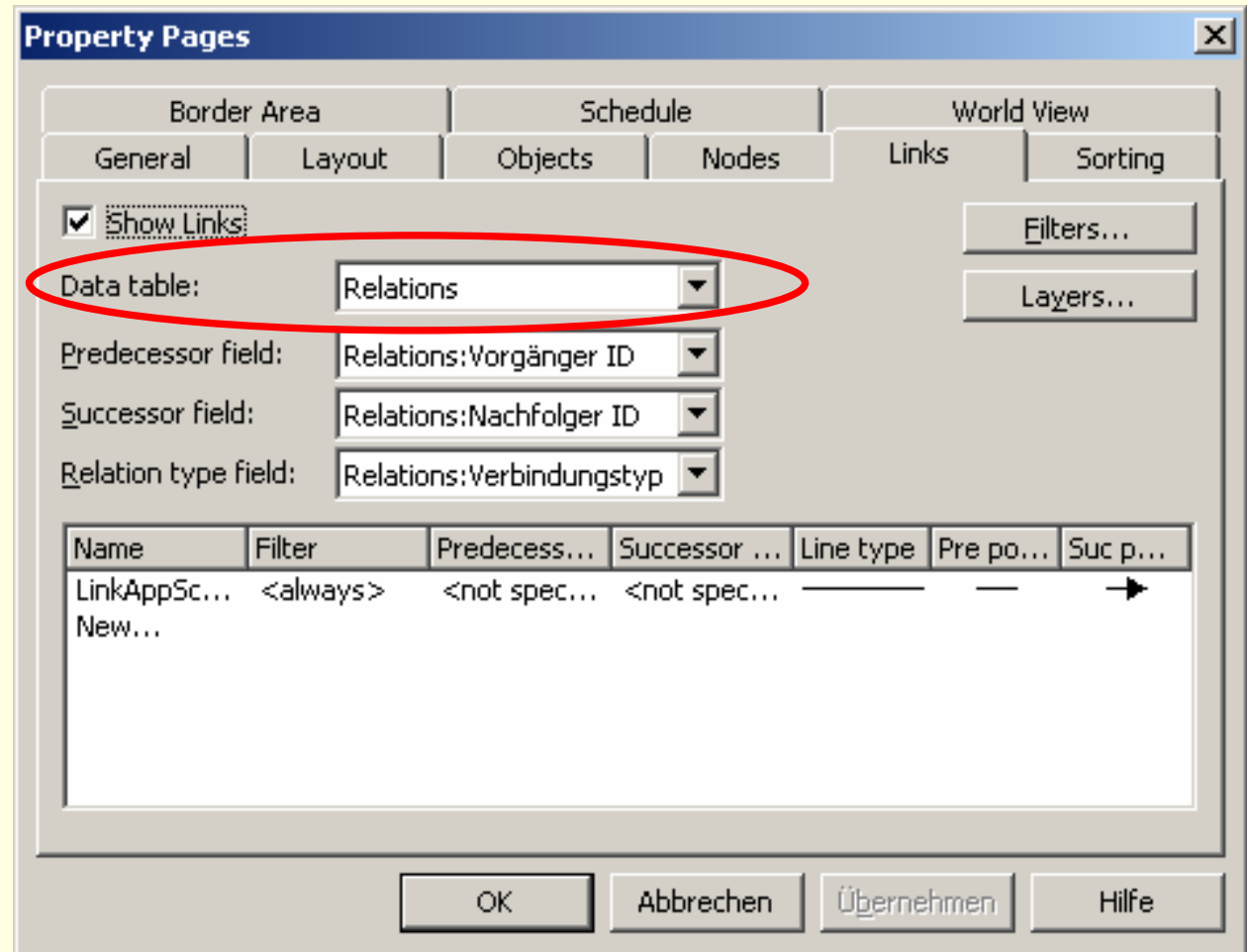
The screenshot shows the 'Property Pages' dialog box with the 'Nodes' tab selected. The 'Data table' dropdown is highlighted with a red circle and contains the value 'Orders'. Other fields include 'Start date field' (Orders:From), 'End date field' (Orders:Until), 'Duration field', 'Calendar name field', and 'Tooltip text field'. A 'Mark types for nodes' section contains 'in table' (Surround inside) and 'in diagram' (Surround). A list of checkboxes is on the right, with 'Allow new nodes' and 'Move node when marked' checked. Buttons at the bottom are 'OK', 'Abbrechen', 'Übernehmen', and 'Hilfe'.

Property	Value
Data table:	Orders
Start date field:	Orders:From
End date field:	Orders:Until
Duration field:	
Calendar name field:	
Tooltip text field:	
in table:	Surround inside
in diagram:	Surround

- Edit new node
- Allow new nodes
- New nodes via doubleclick
- Assign calendar to nodes
- Show non work interval
- Move all selected nodes
- Move node when marked

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„Links“ Property Page



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Load data into data tables

'Load data into data table "Car Categories"

```
Set dataTblCltn = VcGantt1.DataTableCollection
```

```
Set dataTbl = dataTblCltn.DataTableByName("Car Categories")
```

```
Set dataRcdCltn = dataTbl.DataRecordCollection
```

...

```
dataRcdCltn.Add ("S;Small;40")
```

```
dataRcdCltn.Add ("M;Medium;50")
```

```
dataRcdCltn.Add ("L;Large;60")
```

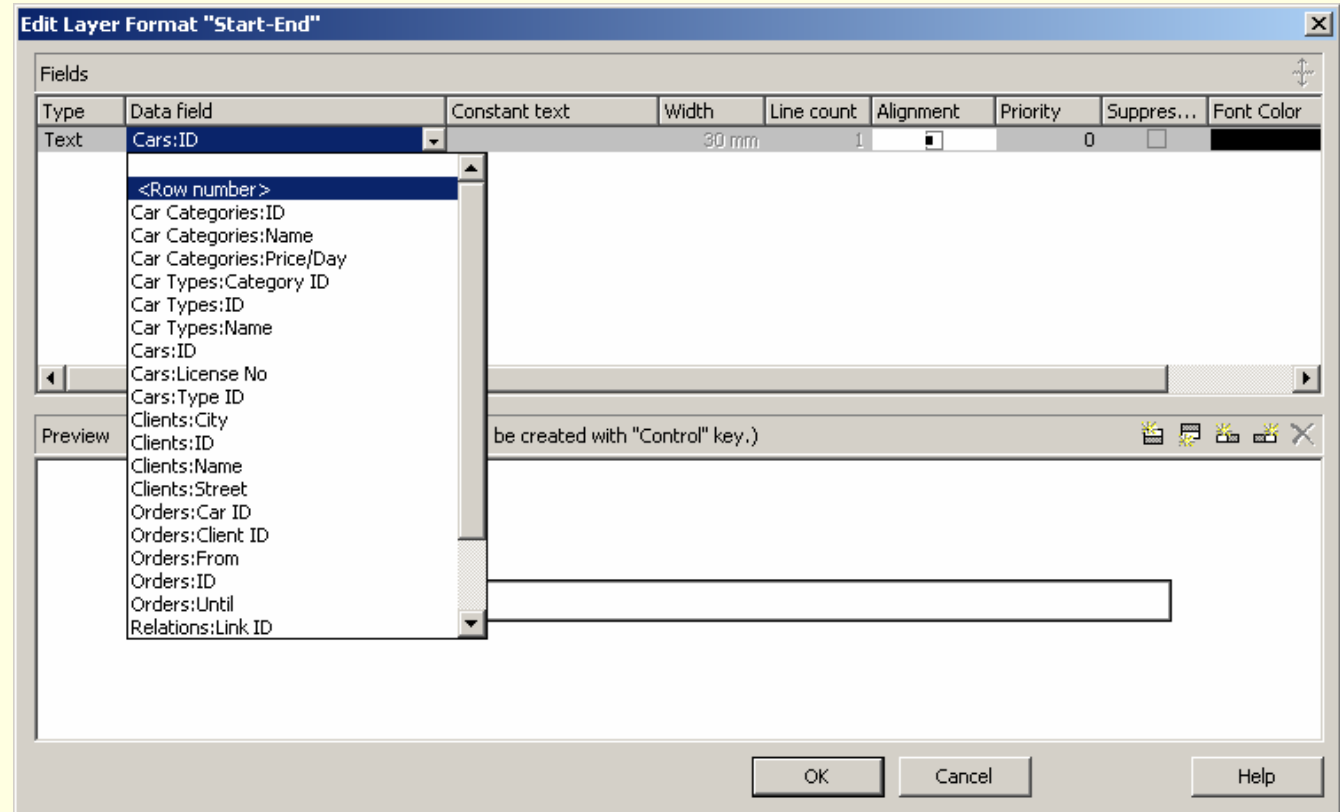
```
dataRcdCltn.Add ("F;Fun;150")
```

...

```
VcGantt1.EndLoading
```

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Using (related) data fields



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New Graphical Features

New Data Structures

New Graph. Features

- **Color gradients & new patterns** [▶▶](#)
- **Improved legend** [▶▶](#)
- **Fill print pages** [▶▶](#)
- **Row Area Grid** [▶▶](#)
- **Histogram Autoscaling** [▶▶](#)
- **User drawn layers by ObjectDraw events** [▶▶](#)

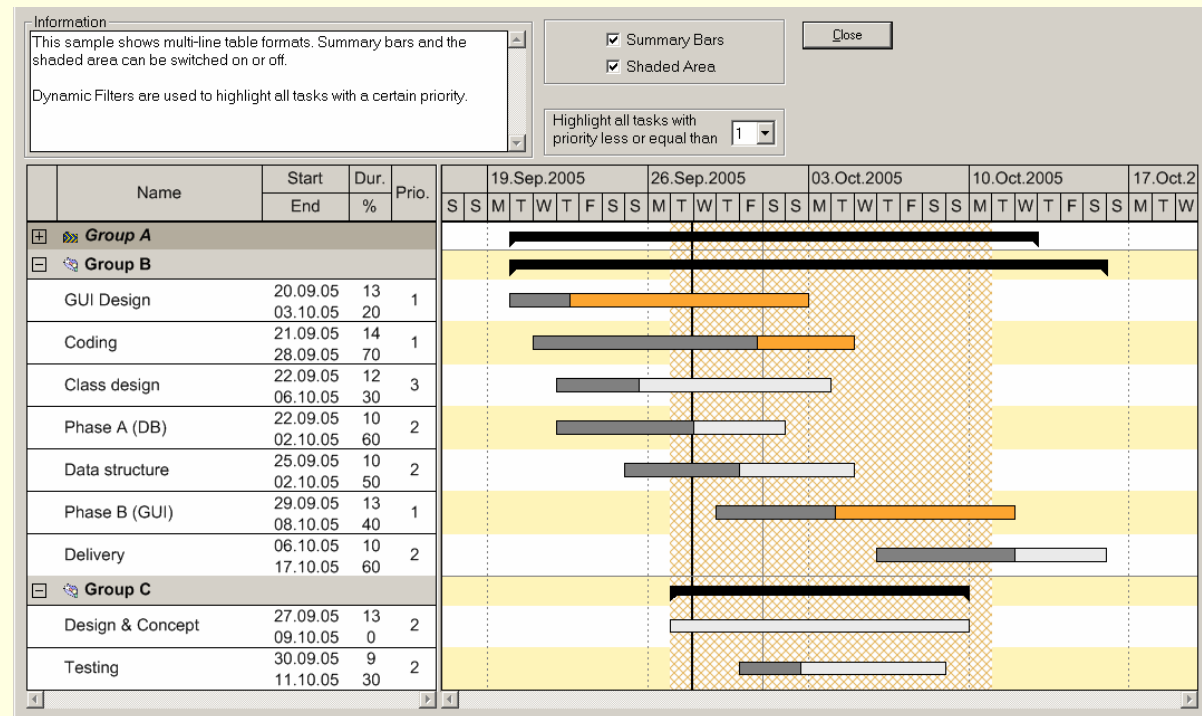
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Alternating Horizontal Grid

' *Set alternating background colors for the chart*

VcGantt1.DiagramBackColor = RGB(255, 255, 255)

VcGantt1.DiagramAlternativeBackColor = RGB(255, 244, 185)

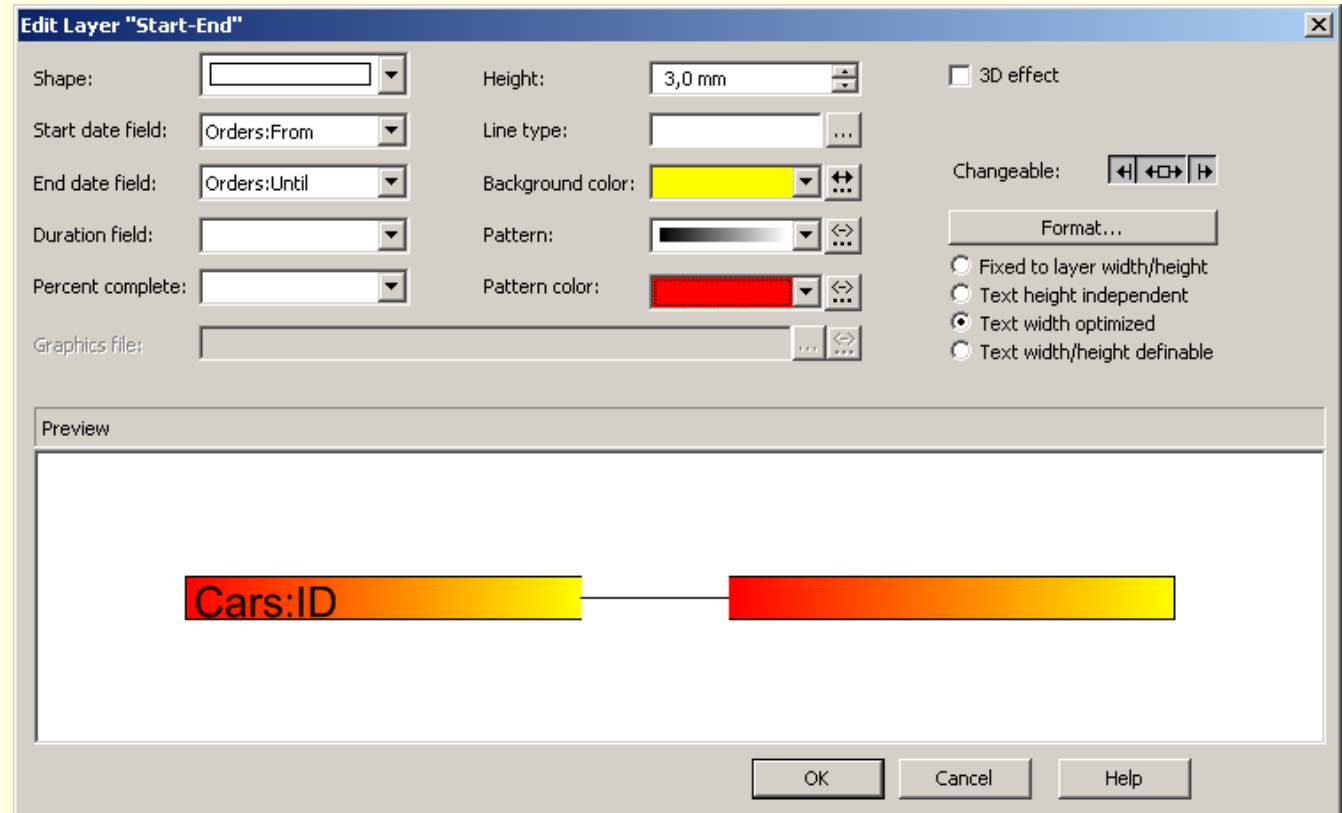


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Color gradients (design time)

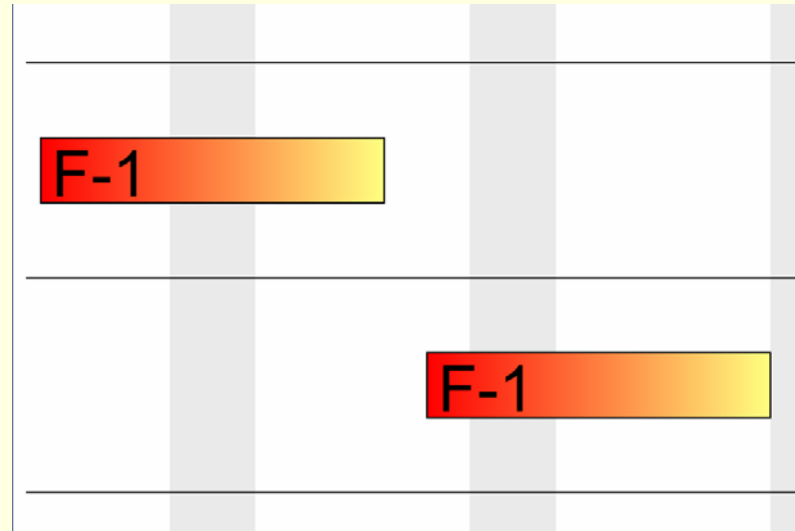


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Color gradients (run time)



```
layer.Pattern = vcHorizontalGradientPattern
```

```
layer.PatternColor = RGB(255, 0, 0) ' From red...
```

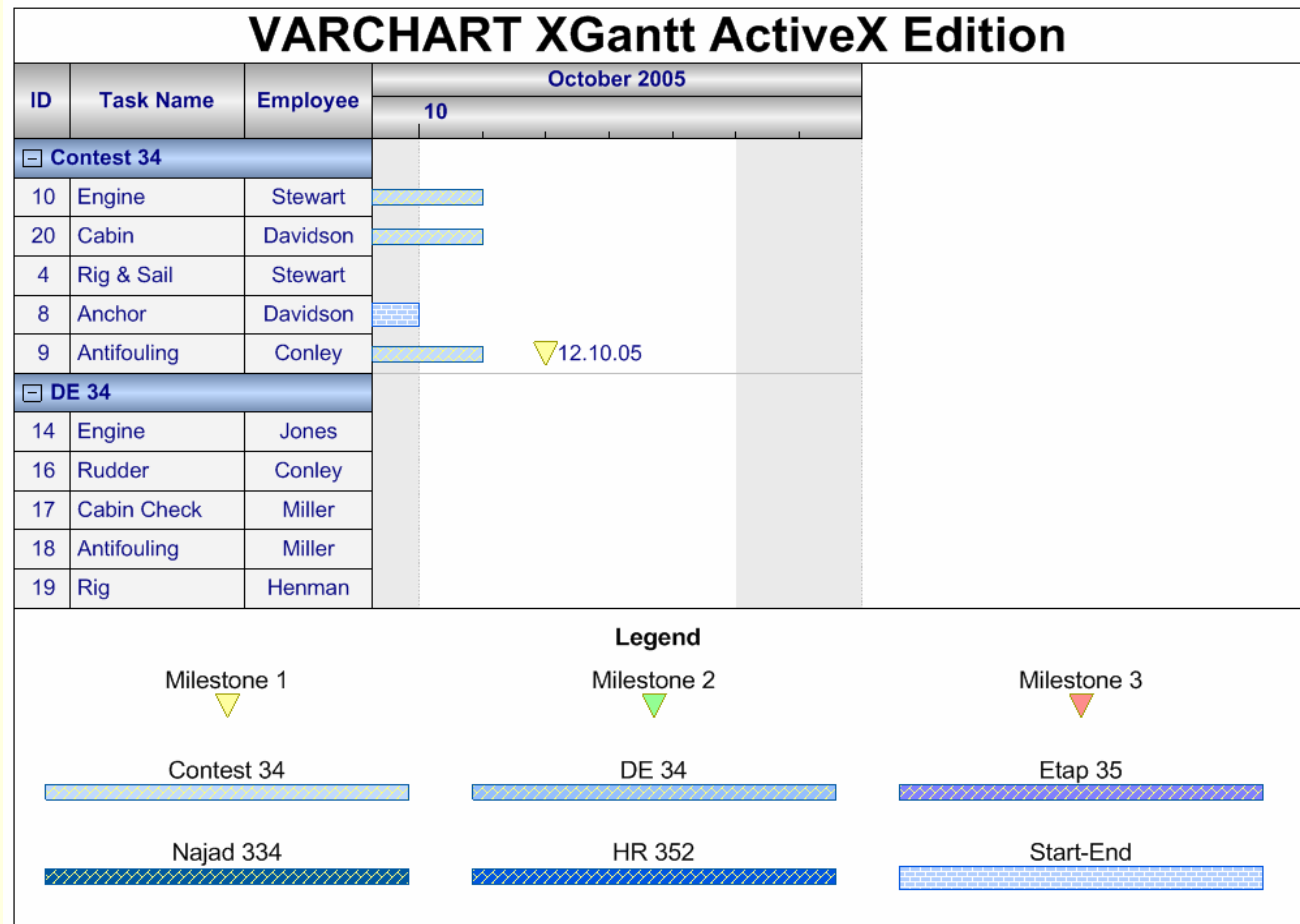
```
layer.BackColor = RGB(255, 255, 0) ' ...to yellow
```

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Fill print pages (before)

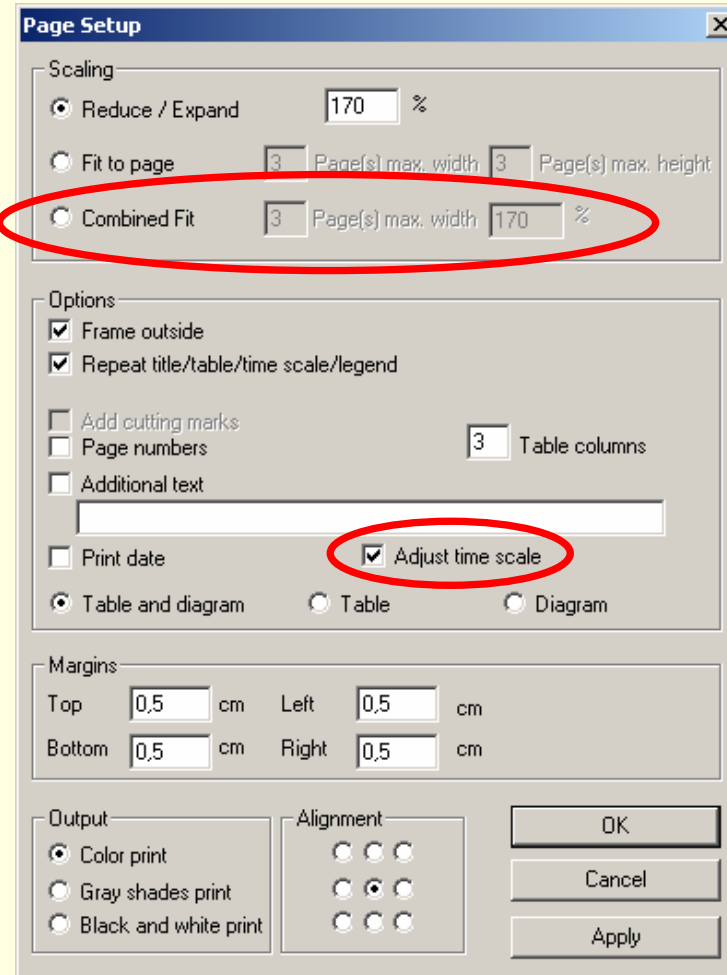


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Fill print pages (page setup)

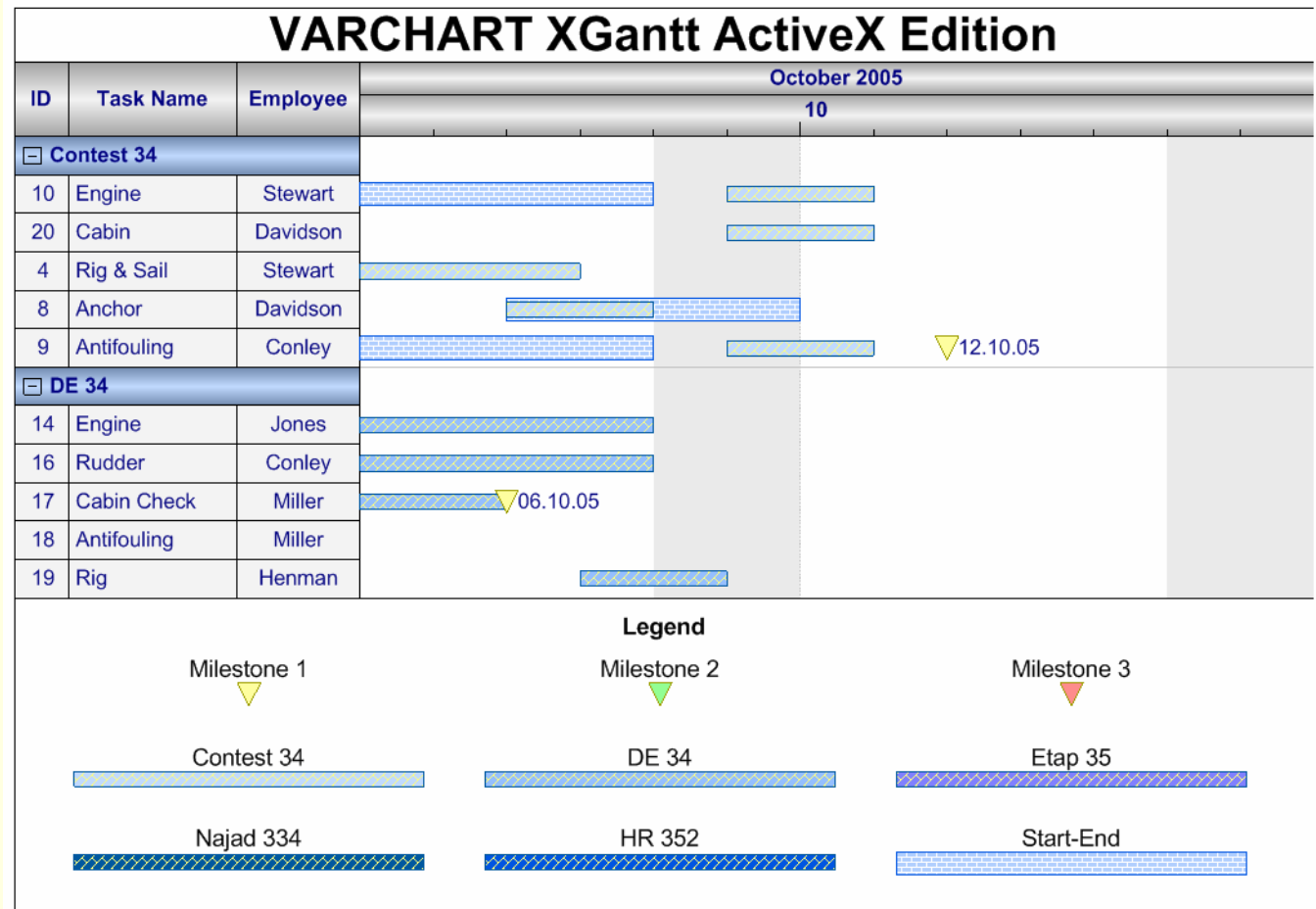


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Fill print pages (after)



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Layer Legend Matrix

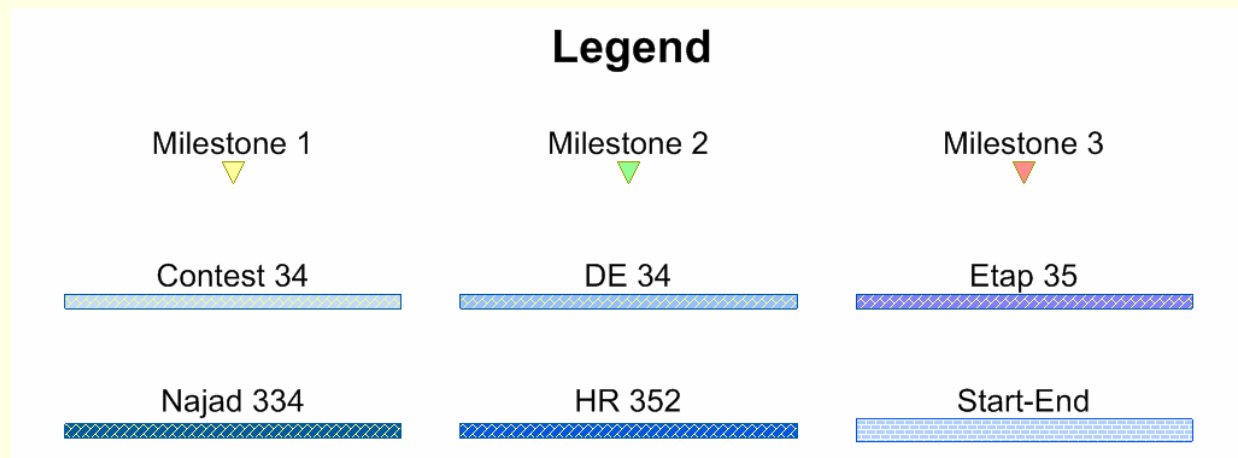
Extended legend attributes ✕

Arrangement

Fixed to rows 2
 Fixed to columns 3
 Fixed to rows and columns

Margins

Top margin: 5,0 mm
 Bottom margin: 5,0 mm

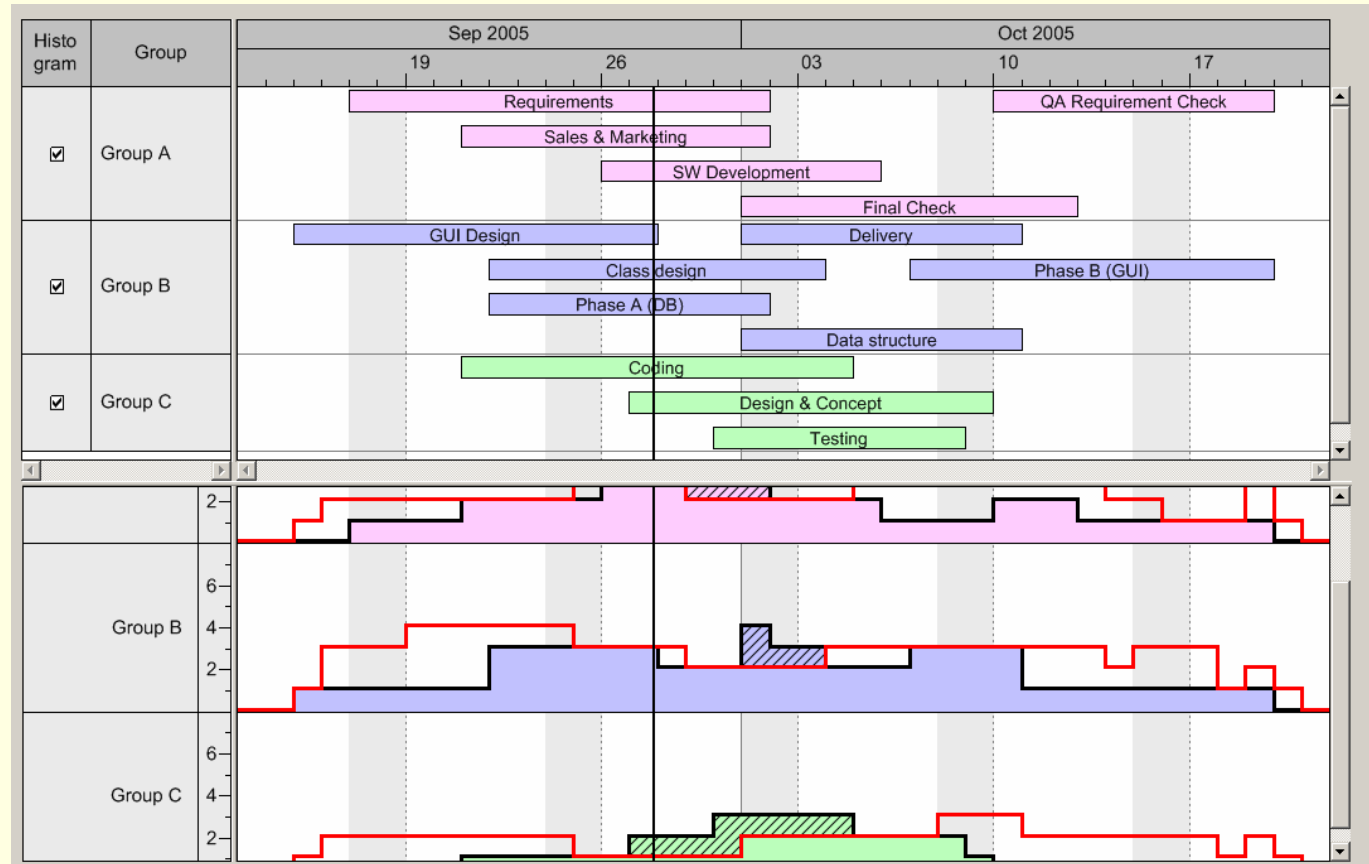


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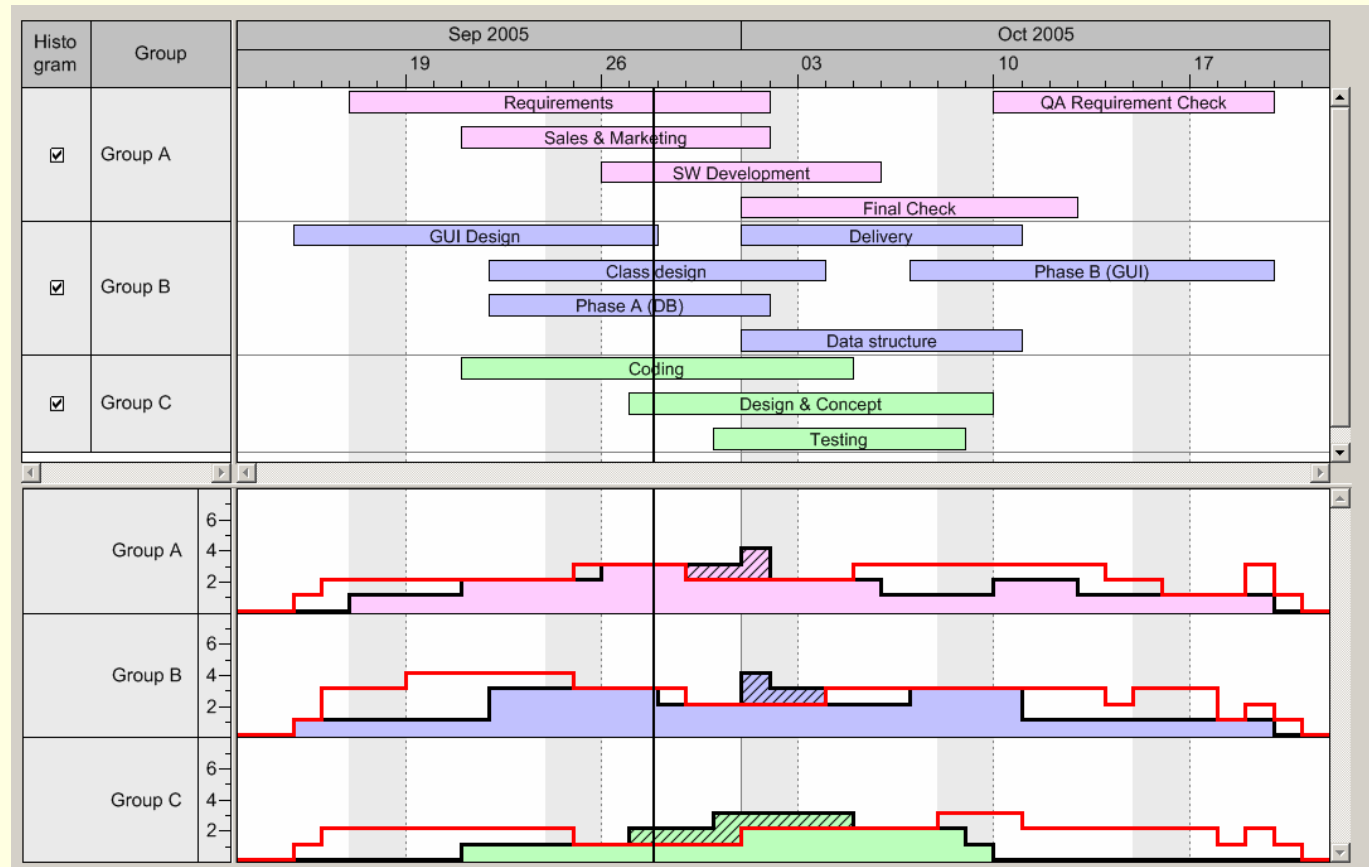
Histogram autoscaling (before)



VcGantt1.FitHistogramsIntoView ►

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Histogram autoscaling (after)



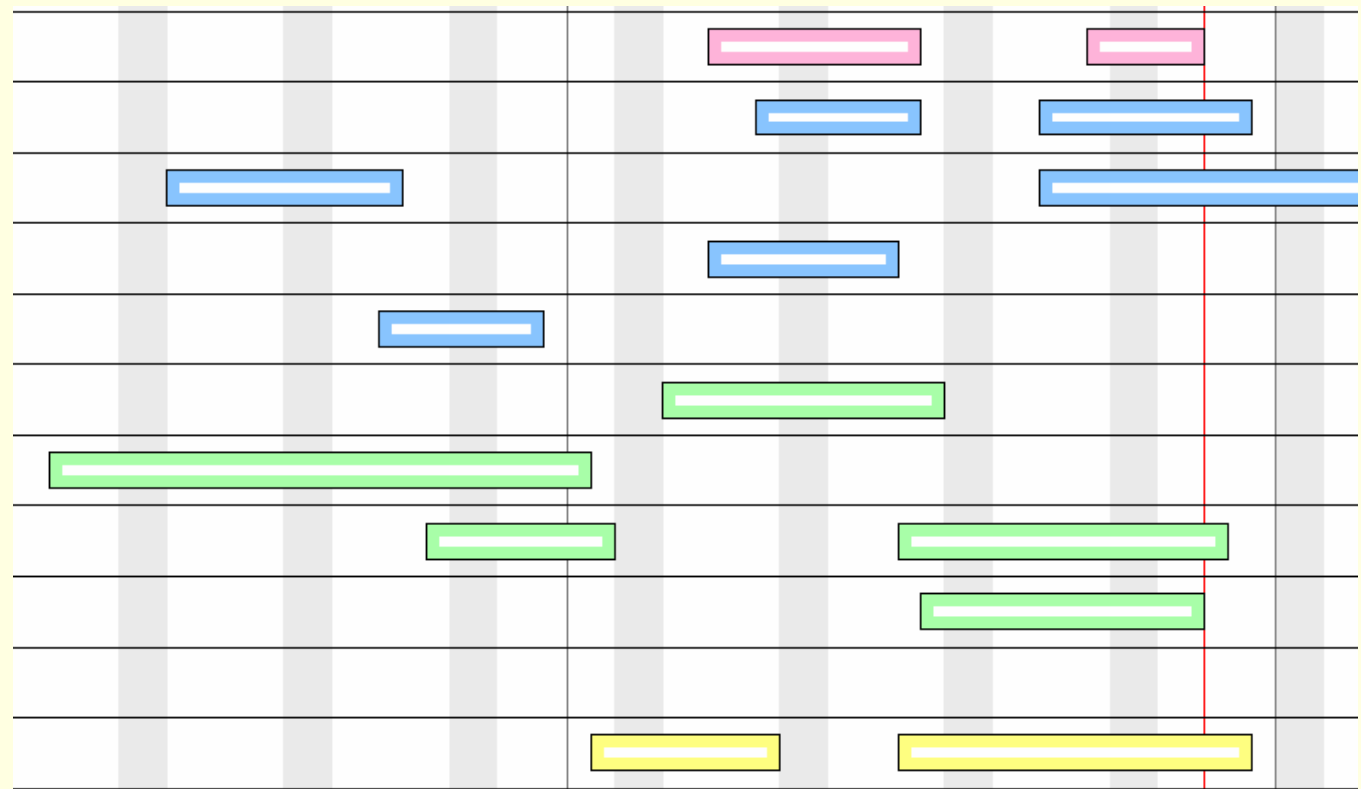
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User drawn layer (result)

Example: Embed a white rectangle into each layer



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User drawn layer (VB6 code)

```
Layer.ObjectDrawEventsEnabled = True
```

```
Private Sub VcGantt1_OnObjectDrawComplete (ByVal hdc As Long,  
ByVal Object As Object, ByVal objectType As VcObjectTypeEnum,  
ByVal subObject As Object, ByVal subObjectType As VcObjectTypeEnum,  
ByVal completeRect As VcRect, ByVal updateRect As VcRect)
```

```
    Dim smallRect As RECT
```

```
    Dim hBrush As Long
```

```
    hBrush = GetStockObject(WHITE_BRUSH)
```

```
    smallRect.Left = completeRect.Left + 8
```

```
    smallRect.Top = completeRect.Top + 8
```

```
    smallRect.Right = completeRect.Right - 8
```

```
    smallRect.Bottom = completeRect.Bottom - 8
```

```
    FillRect hdc, smallRect, hBrush
```

```
End Sub
```

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VARCHART



Additional slides

Events for new data structures

OnDataRecordCreate
OnDataRecordCreateComplete
OnDataRecordDelete
OnDataRecordDeleteComplete
OnDataRecordModify
OnDataRecordModifyComplete

OnDataRecordNotFound

VcDataRecord

Properties

- AllData
- DataField
- DataTableName

Methods

- DeleteDataRecord
- RelatedDataRecord
- UpdateDataRecord

VcDataRecordCollection

Properties

- `_NewEnum`
- `Count`

Methods

- `Add`
- `DataRecordByID`
- `FirstDataRecord`
- `GetNewUniqueID`
- `NextDataRecord`
- `Remove`

VcDataTable

Properties

- DataRecordCollection
- DataTableFieldCollection
- Description
- Name

VcDataTableCollection

Properties

- `_NewEnum`
- `Count`

Methods

- `Add`
- `Copy`
- `DataTableByIndex`
- `DataTableByName`
- `FirstDataTable`
- `NextDataTable`
- `Update`

VcDataTableField

Properties

- DataTableName
- DateFormat
- Editable
- Hidden
- Name
- PrimaryKey
- RelationshipFieldIndex
- Type

VcDataTableFieldCollection

Properties

- _NewEnum
- Count

Methods

- Add
- Copy
- DataTableFieldByIndex
- DataTableFieldByName
- FirstDataTableField
- NextDataTableField