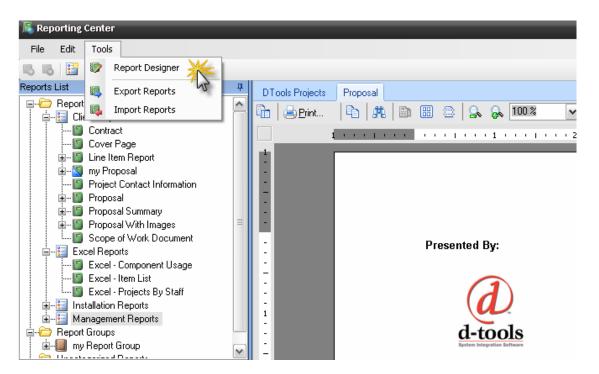
Report Designer

Pro users have the ability to create custom reports using the Report Designer. To open the report designer interface, go to **Tools > Report Designer** in the menu bar of the Reporting Center.





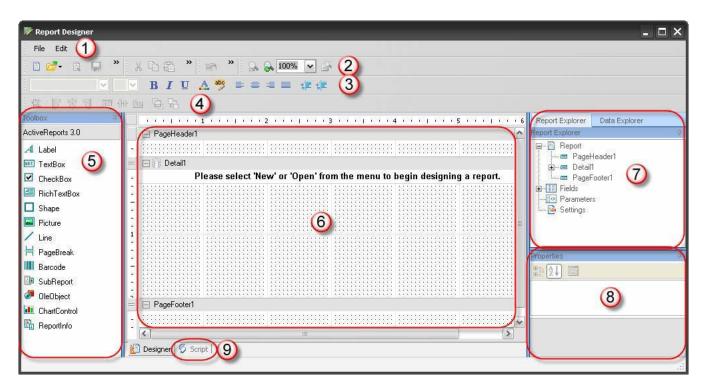
Creating custom reports is for advanced users only. It is the sole responsibility of the user to debug any custom reports.



The D-Tools Report Designer is based on ActiveReports for .Net 3.0 by Data Dynamics. For a complete user guide on this interface, see the <u>ActiveReports User</u> <u>Guide</u> located at

http://www.datadynamics.com/forums/72/ShowForum.aspx.

The Report Designer interface will open:



This interface consists of these parts: 1) menu bar, 2) shortcut toolbar, 3-4) formatting toolbars, 5) toolbox, 6) design pane, 7) data and report explorer, 8) properties, and 9) script tab.

Menu bar

File > New (New Report Wizard)

To create a new custom report, go to File... New. The New Report Wizard will open



Select **New Report Based on Existing Report** to create a custom version of an existing report, or **New Blank Report** to create a report from scratch.

If you chose New Report Based on Existing Report, you should then select which report you wish to modify.

Ν	lew Report Wizard			
	•			
	/e will create a new report based on an exist	ing report.		
	lease select a report below that you want to ick 'Next' to begin modifying the new report.	base this new n	eport on ar	nd
Reports available to base you Report Name	r new report on Description	Category	Data	
Line Item Report	Line Item Report that supports Dynami	Client Repo	DTool	i i
Purchase Order Request 7	Purchase Order Request Document	Manageme	DTool	1
Purchase Order Request (P.		Manageme	DTool	
Pick List	Pick List	Manageme	DTool	
Proposal Summary	Project Summary Information showing	Client Repo	DTool DTool	
Contract Contract Payment	D Tools Standard Contract Document Subreport for payment periods	Client Repo	DTool	
Contract Phases	Subreport for price by phase periods		DTool	
Cover Page	DTools Standard Cover Page	Client Repo	DTool	
Project Contact Information	List of all contacts for a project.	Client Repo	DTool	
Scope of Work Document	List of all contacts for a project.	Client Repo	DTool	
Misc. Costs	Subreport for Project Misc. Costs	Client Repo	DTool	
ProjectTaxDetail	Summary of taxes for a project	Client Repo	DTool	
Project Summary Detail	Breakdown of labor price for a project	Client Repo	DTool	
Project Install Summary Deta		Client Repo	DTool	
	Gross profit of project grouped by phase	Manageme	DTool	
Gross Profit By Phase	Gross profit of project grouped by cate	Manageme Manageme	DTool DTool	G
Gross Profit By Category				- 12
	Items in a project with values of zero f	manageme		

The next screen allows you to set the report name, enter a description, and determine which report category the report will appear in. It also allows you to mark this report as a Sub-Report or a Business Manager report.

💐 New Report Wizard	Σ
	New Report Wizard
	How should we identify this new report?
	In order to find this report in the Reporting Center, we will need to give it a name, description, category and the data source it will use to render the report.
This is a Sub Report	List this report in the Business Manager
Report Name:	
my Custom Line Item Rep	hore
Description:	5
Line Item Report that sup	ports Dynamic Grouping and Filtering with item quantities aggregated.
Category:	
my Custom Category	Ň
Data Source:	N2
DTools Report Data	▼
	Previous Next Cancel



From here on, just hit "**Next**" at every screen to duplicate the report you are modifying.

Notel

Note 1: **Sub-reports** do not appear in your reports list. They are generally smaller reports which are included in other reports. An example is the Miscellaneous Costs sub-report.

Note 2: The Report Name is the name that will appear in the Reports List

Note 3: The "Data Source" field should always say "D-Tools Report Data". For future compatibility.

In the next screen, set the page orientation and margins.

📉 New Report Wiza	rd		×
	New Repor How will this report print? You can set up the oriental	t Wizard	
Page Setup: Orientation	 Portrait Landscape 		
Margins	Top 1.00 🔶	Bottom 1.00 🐑 Right 1.00 🐑	

Next, choose whether the report will support sorting, filtering, and dynamic grouping. Also, choose which fields are available to be grouped and/or sorted by.

New Report Wizard		×
	New Report Wizard	
	Does this new report support sorting, filtering and grouping?	
	If you want this report to have the ability to sort, filter and group your data, select the appropriate options below. If your report will support Dynamic Grouping, you will also be required to select the properties on which your report will be allowed to group.	
Support Sorting Support Dynamic Group Available Properties: AccountingVendorName AssignedResource CategoyType ExpectedInstalDate HeadEnd InstalDate HeadEnd Keyword1 Keyword2 LocationDetail Manufacture Model	- Assigned Properties:	



Only some of the standard reports are set up to support Dynamic Grouping, regardless of whether this checkbox is checked. See the "

Report Options" on page 559 to see which reports are.

It does not always make sense to group or sort by all fields, depending on the report. Experiment and see which fields work with which reports.

The next step is to define the required groupings. In Line Item reports this determines how data is aggregated. Just click 'Next' if you are uncertain. The example below would be good for creating a BOM where you want a quantity followed by the Manufacturer and Model. This process would group all like Products together. Other useful groups could include, Category, Location, Phase and Zone.

💦 New Report Wizard	×
	New Report Wizard
	Does this report require a specific grouping?
	If this report requires specific groupings in order to sum up totals correctly or break on certain values, please assign the approriate properties to the required groupings list box.
Required Groupings: Available Properties:	Assigned Properties:
AccountingItemID AccountingVendorName	Manufacturer
AssignedResource Category	
CategoryType Cost EquipmentType	
ExpectedInstallDate HeadEnd	>>> •
InstallDate Installed	
Keyword1 Keyword2	<<
Keyword3 Location LocationDetail	
OwnerFurnishedEquipme PackageID	nt 🧹 🧹
PackageName Phase	
	Previous Next Cancel

Next choose a required sorting option, if desired

MC V	v Report Wizard		
		New Report Wi	zard
		Does this report require a specific so	rt order?
	N	If this report requires that your data i your sort order here.	s sorted in a specific way, you can define
_	uired Sorting: rt Order		Direction
`₩	Price		
*			43
			•

Now, set any required filters, if desired.

New Rep	oort Wizard			>
		N	ew Re	port Wizard
		Will	this report req	uire filters at run time?
	Ì	the	can define a output. You c s here.	set of data filters that this report will run prior to rendering an exclude certain records from the report by setting up the
Required F				
	Field Phase		Operator	Value
*	Phase	3	Equal To	Finish

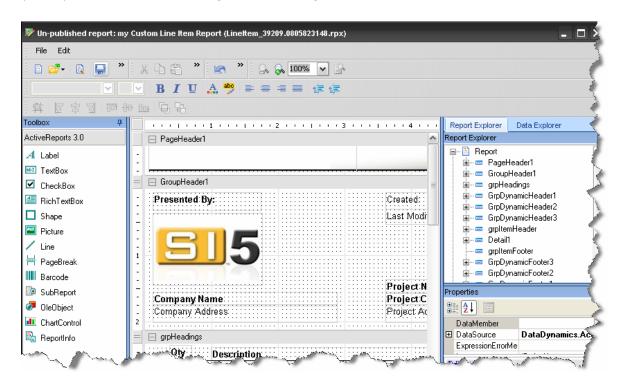
The next screen allows you to save report parameters.

		New Report	Wizar	d		
		Will this report support parar				
		You can control how a repo consuming parameters. For parameter and have the rep if it should be a detail report	example, you o port look at that	an define a "Sl parameter at ru	how [Details''
Rep Na	ort Parameters:	Description	Data Type	Valid Values	4	Default Value
) NO	LaborByPhase	Show labor by phase in the	21	valiu values		
	ShowPageHeader	Show Page Headers and F				
*						

The final screen is a review of your report definition. Click Finish to save and start editing the report.



The report opens and is now an **Unpublished Report** that can be edited.



File > Open

File... Open allows you to open a custom report that you have already created.

💦 Reporting Center		
File Edit Tools		÷
15 15 1 🗄 🛃 📳 🕑 19 15 1	4)
Reports List		
	Un-published report: my Custom Line	Item Report (LineItem_39209.0805823148.rp*
Contract Cover Page Line Item Report	New	Open Existing Report
Project Contact Information Project Contact Information Proposal	Edit DTools Report Information Edit Report Definitions	Open Unpublished Report
iar and the second sec	Tc 🔯 Preview	1
Scope of Work Document	Ar Save for Later	Header1
Excel - Item List	Exit	Header1

Existing reports are published custom reports that appear in your Reports List

Unpublished reports are custom reports that you are still working on. They do not appear in the reports list until you publish them

File > Publish

File > Publish will publish the report you have open so that it will appear in your Reports List. Choose this when you are satisfied and want to start using your custom report. Note that this will close the report for editing.

File > Edit D-Tools Report Information

To change the report information you entered during the New Report Wizard, use **File > Edit D-Tools Report Information**. This will re-open the wizard and allow you to change the settings, including report name, grouping/sorting/filtering settings, and other options.

File > Edit Report Definitions

If you want to create some custom report definitions for your report, go to **File > Edit Report Definitions**. Report definitions created here will appear in the Reports List beneath the report name.

File > Preview

File > Preview will allow you to preview your report vs. a sample project without having to publish the report or exit the report designer.

File > Save

Use File > Save to save an **unpublished** copy of your report for future editing. You will need to publish your report later if you wish to see it in your Reports List.

Edit

The Edit menu has an assortment of commands which are helpful when editing your custom report: **Undo**, **Redo**, **Cut**, **Copy**, **Paste**, **Delete**, and **Select All**.

Toolbars

There are two sets of toolbars. The first has one-click shortcuts for most of the items in the Menu Bar: New/Open/Save/Preview Report, Cut/Copy/Delete, Undo/Redo, and Zoom In/Out.

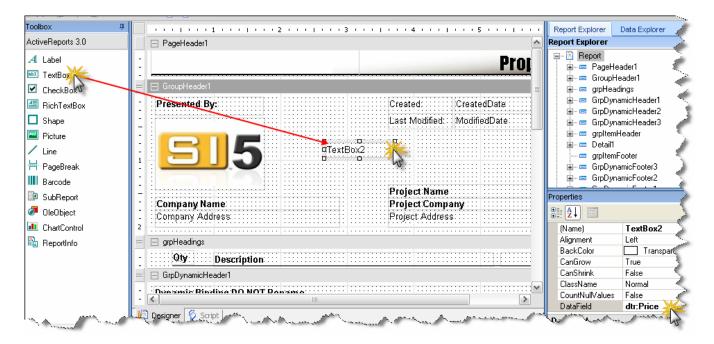


The second set of toolbars is used for editing textboxes and other objects within your report: Font settings, Colors, Alignment, Indentation, and Grouping. Use these to set the properties of report objects when you have one or more objects selected in the Design Pane.



Toolbox

The Toolbox contains a selection of objects that you can drag onto the Design Pane: Labels, Text Boxes, Lines, and Pictures are the most common. Text Boxes in particular can be bound to a data field for display in your report.





To bind the text in a TextBox to a data field, select the TextBox, then go to the Properties area and select DataField. Type in the name of the data field (e.g. dtr:Price) you wish to bind to the Text Box. D-Tools Report data field names are found in the Data Explorer.

Design Pane

The Design Pane, located in the center of the Report Designer, is where you go to modify the layout of your report. You can drag and drop objects from the Toolbox or Data Explorer onto the design pane for display on your reports.

Page Headers and Footers

Objects in the Page Header or Page Footer sections will appear at the top or bottom of each page, respectively.

Group Headers and Footers

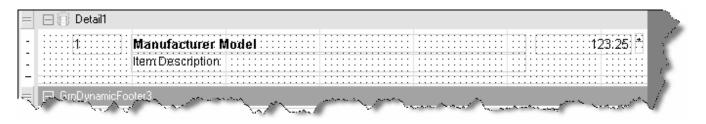
Group headers affect the way the data is iterated over. Most often, groups are linked to a data field, such as dtr:Location or dtr:Category. This causes this section of the report to repeat itself once for every member of the group.



Some reports come with special groups named **GrpDynamicHeader1**, **2 or 3.** DO NOT RENAME THESE as they are used to implement dynamic (run-time) grouping. Similarly, the group name is in a textbox with name **txtDynamicHeader1**, **2 or 3**, which should also not be renamed.

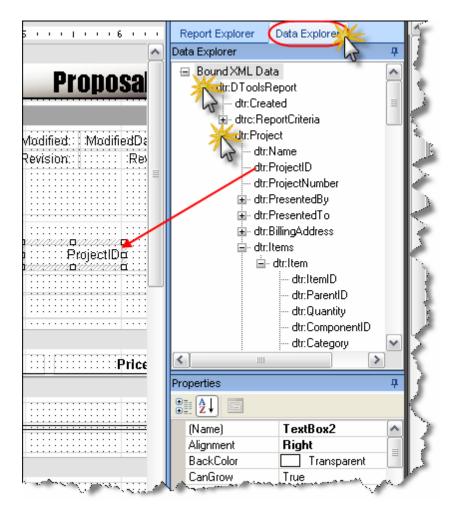
Detail

The Detail section shows what happens for each member of the data set. Use this section to add or remove data fields for each item in your report.



Data Explorer

The Data Explorer is where you go to find data fields for your report. It is initially located on the right, as a tab behind the Report Explorer. Use the Data Explorer to browse through the XML structure, then drag-and-drop data fields onto the Design Pane.



The Data Explorer is where you go to find data fields for your report. It is initially located on the right, as a tab behind the Report Explorer. Use the Data Explorer to browse through the XML structure, then drag-and-drop data fields onto the Design Pane.



Most of the information you will be looking for can be found under **dtr:Project**. Data fields for specific items are found under **dtr:Items/dtr:Item**.

D-Tools XML Structure

D-Tools report data is based on an XML schema that is defined here:

http://www.d-tools.com/schemas/si5/reports/dtoolsreport.xsd

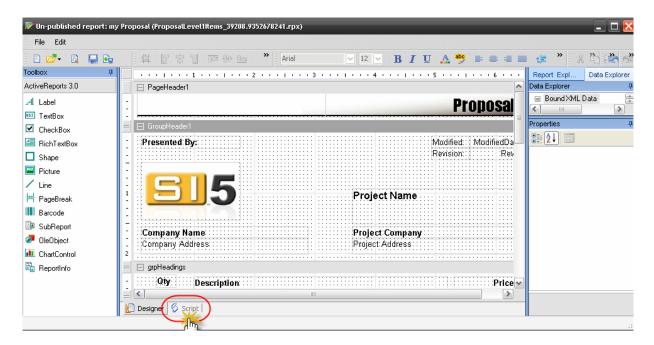
Properties

The properties window is where you go to change fonts, alignments, and any other properties of objects in your Design Pane. Select an object in the design pane first, then go to properties to modify the behavior of the object.

(Name) txtProjectName Alignment Left BackColor □ Transparent CanGrow True CanShrink False ClassName Normal CountNullValues False DataField ///dtr:Project/dtr:Name DistinctField	0	₽ ↓ □	
BackColor ☐ Transparent CanGrow True CanShrink False ClassName Normal CountNullValues False DataField //.dtr:Project/dtr:Name DistinctField //dtr:Project/dtr:Name Image: DistinctField //dtr:Project/dtr:Name Image: DistinctField ///dtr:Project/dtr:Name Image: DistinctField ////dtr:Project/dtr:Name Image: DistinctField /		(Name)	txtProjectName
CanGrow True CanShrink False ClassName Normal CountNullValues False DataField //./dtr:Project/dtr:Name DistinctField		Alignment	Left
CanShrink False ClassName Normal CountNullValues False DataField //.tr:Project/dtr:Name DistinctField		BackColor	
ClassNameNormalCountNullValuesFalseDataField//./dtr:Project/dtr:NameDistinctFieldImage: PontArial, 12pt, style=BoldForeColorImage: BlackHyperLinkBlackImage: Pont3.625, 0.938 inImage: PontTrueOutputFormatTrueOutputFormatFalseSize2.688, 0.563 inStylefont-weight: bold; font-size: 12pt;SummaryFuncSumSummaryFuncSumSummaryFuncSumSummaryFuncNoneTagTextTextProject NameVerticalAlignmentTopVisibleTrue			
CountNullValuesFalseDataField//dtr:Project/dtr:NameDistinctFieldImage: ProteolorArial, 12pt, style=BoldForeColorImage: BlackHyperLinkImage: ProteolorImage: Proteolor3.625, 0.938 inImage: ProteolorTrueOutputFormatTrueOutputFormatSizeSize2.688, 0.563 inStylefont-weight: bold; font-size: 12pt;SummaryFuncSumSummaryFuncSumSummaryFuncSumSummaryFuncNoneTagTagTextProject NameVerticalAlignmentTopVisibleTrue			
DataField//dtr:Project/dtr:NameDistinctFieldArial, 12pt, style=BoldFortArial, 12pt, style=BoldForeColorBlackHyperLinkBlackLocation3.625, 0.938 inMultiLineTrueOutputFormatFalseRightToLeftFalseSize2.688, 0.563 inStylefont-weight: bold; font-size: 12pt;SummaryFuncSumSummaryGroupSumTagTextTextProject NameVerticalAlignmentTopVisibleTrue			
DistinctField Arial, 12pt, style=Bold ForeColor Black HyperLink Black Location 3.625, 0.938 in MultiLine True OutputFormat False RightToLeft False Size 2.688, 0.563 in Style font-weight: bold; font-size: 12pt; SummaryFunc Sum SummaryGroup SummaryType Tag Text Text Project Name VerticalAlignment Top Visible True		CountNulValues	False
Image: Solution of the system of the sys		DataField	///dtr:Project/dtr:Name
ForeColor ■ Black HyperLink 3.625, 0.938 in ■ Location 3.625, 0.938 in MultiLine True OutputFormat False BightToLeft False Size 2.688, 0.563 in Style font-weight: bold; font-size: 12pt; SummaryFunc Sum SummaryGroup Sum SummaryType None Tag Text VerticalAlignment Top Visible True		DistinctField	
HyperLink Image: Size style Size Style SommaryFunc SummaryFunc Sum SummaryFunc None SummaryFunc None Tag Top VerticalAlignment Top Visible True	Ð		
Location 3.625, 0.938 in MultiLine True OutputFormat False RightToLeft False Size 2.688, 0.563 in Style font-weight: bold; font-size: 12pt; SummaryFunc Sum SummaryGroup SummaryGroup SummaryType None Tag Text VerticalAlignment Top Visible True			Black
MultiLineTrueOutputFormatFalseRightToLeftFalseSize2.688, 0.563 inStylefont-weight: bold; font-size: 12pt;SummaryFuncSumSummaryGroupSummaryRunningSummaryTypeNoneSummaryTypeNoneTagTextVerticalAlignmentTopVisibleTrue		HyperLink	
OutputFormat False RightToLeft False Size 2.688, 0.563 in Style font-weight: bold; font-size: 12pt; SummaryFunc Sum SummaryGroup Sum SummaryRunning None SummaryType None Tag Text VerticalAlignment Top Visible True	Ð	Location	3.625, 0.938 in
RightToLeft False Size 2.688, 0.563 in Style font-weight: bold; font-size: 12pt; SummaryFunc Sum SummaryGroup SummaryRunning SummaryType None Tag Text VerticalAlignment Top Visible True			True
Size 2.688, 0.563 in Style font-weight: bold; font-size: 12pt; SummaryFunc Sum SummaryGroup SummaryGroup SummaryRunning None SummaryType None Tag Text VerticalAlignment Top Visible True		•	
Stylefont-weight: bold; font-size: 12pt;SummaryFuncSumSummaryGroup			
SummaryFunc Sum SummaryGroup Image: SummaryType SummaryType None Tag Image: SummaryType Text Project Name VerticalAlignment Top Visible True	Ð		
SummaryGroup SummaryRunning None SummaryType Tag Text VerticalAlignment Top Visible		-	font-weight: bold; font-size: 12pt;
SummaryRunning None SummaryType None Tag Text VerticalAlignment Top Visible True		•	Sum
SummaryType None Tag Text Text Project Name VerticalAlignment Top Visible True		• •	
Tag Text Project Name VerticalAlignment Top Visible True		SummaryRunning	
Text Project Name VerticalAlignment Top Visible True			None
VerticalAlignment Top Visible True		-	
Visible True			-
		VerticalAlignment	
WordWrap True			True
		WordWrap	True

Script

The Script tab, located behind the Design Pane, is where you go to enter in .Net code. This allows you to take programmatic control of your reports. Either C# or VB.NET can be used. Note that all D-Tools reports have some amount of script code in them already.

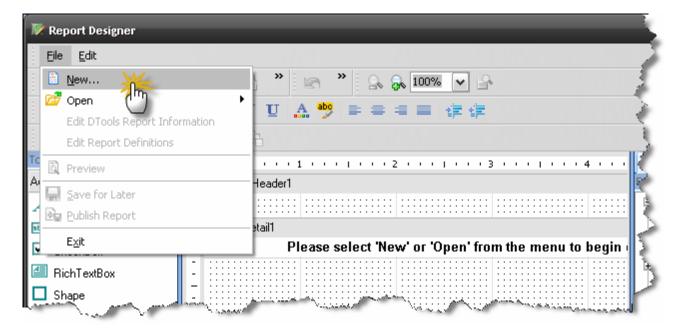


Custom Report Example

To give a simple example of how to customize a report, let's change the page header on a proposal. Here's how:

Step 1: Create a custom report based on an existing report

- 1) In the Reporting Center, go to Tools > Report Designer.
- 2) In the Report Designer, go to File > New...



3) Choose "New Report Based on Existing Report" and click Next

💦 New Report Wizard		F
	New Report Wizard	è
	How do you want to create a new report?	1
	Please select one of the options below and click 'Next' to start creating your new report	$\left \right\rangle$
		Ł
		3
New Report Bas	ed on Existing Report	2
elect this optio	n if you want to create a report that is based on a currently defined ort designer will start with the layout of the report that you select and to change the design on the new report.	$\sum_{i=1}^{n}$
Land Same and see	and the second second second	

4) Select "Proposal" from the list and click Next

Report Name	Description	Category	Data	^
Check List	Equipment Checklist	Manageme	DTool	11
Wire Checklist	Wire Checklist. This report is dynamic	Installation	DTool	
Wire Connections	Wire Connections	Installation	DTool	
Wire Termination Report	Wire Termination Report	Installation	DTool	
Wire Labels By Wire Number	Wire Labels By Wire Number	Installation	DTool	
Wire Labels By Head End	Wire Labels By Head End	Installation	DTool	
Wire Labels By Location	Wire Labels By Location	Installation	DTool	
Avery WalkThru - 5263	Avery Labels	Installation	DTool	
Item Accessory Report	Sub report used to show the detail (or	Client Repo	DTool	
Item Accessory Report With	Sub report used to show the detail (or	Client Repo	DTool	
Proposal -	Proposal that allows showing of packa	Client Repo	DTool	
Proposal Level3 Items 7 m	Accessory items of equipment where t		DTool	
Proposal Level2 Items 🖵	equipment items in a package or acce		DTool	=
Proposal With Images	Proposal that allows showing of packa	Client Repo	DTool	
Proposal Level3 Items With i	Accessory items of equipment where t		DTool	
Proposal Level2 Items With I	equipment items in a package or acce		DTool	
Proposal with Skin 1	Proposal that allows showing of packa	Client Repo	DTool	
Proposal with Skin 2	Proposal that allows showing of packa	Client Repo	DTool	\mathbf{v}

5) Name the report "my Proposal" and enter a description

\sim	and a second	°~~~~~
🔲 This is a Sub Report	List this report in the Business Manager	
Report Name:		
my Proposal		
Description:		
Custom proposal with my pag	e header	
Category:		
Client Reports		~
Data Source:		
DTools Report Data		*
	Previous Next	Cancel
	i i c nodo	0011001

6) Click 'Next' at all further screens until you get to 'Finish', then click that as well.

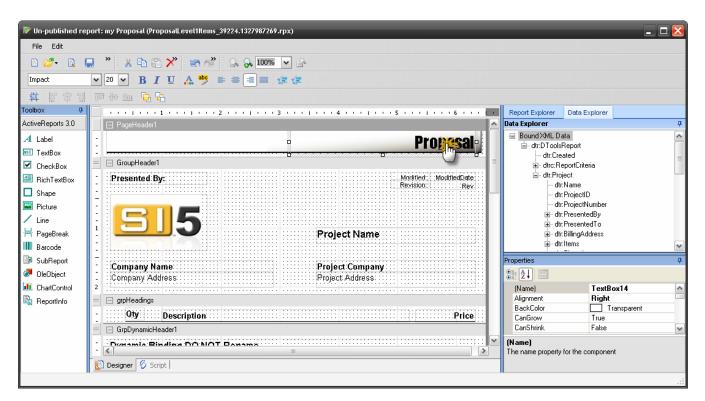


At this point the report has been created and can be edited.

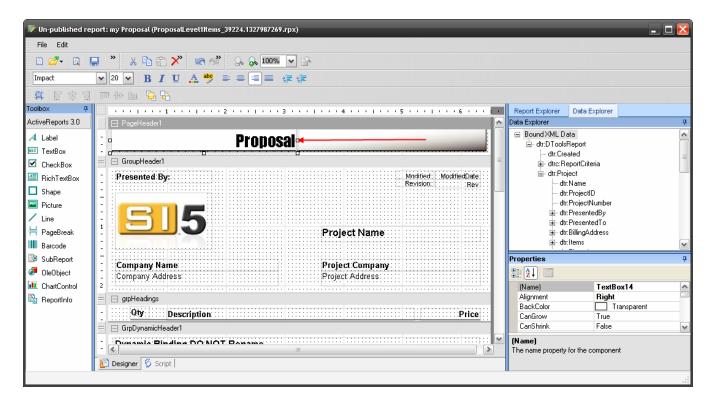
🕅 Un-published rep	oort: my Proposal (ProposalLevel1Items_39224.1327987269.rpx)			
File Edit				
i 🗈 📂 - 🔯 🐧	, * X 🗅 🛱 🗡 🔄 🖓 😡 🙀 100% 🔽 🗗			
	▼ BIUA *** = = = ##			
「「「「」」」				
Toolbox 4		Report Explorer	Data Explorer	
ActiveReports 3.0	PageHeader1	Data Explorer		
A Label	Proposal	😑 Bound XML Da 🚊 dtr:DToolsF		^
■ TextBox		dtr:D i ooish		_
CheckBox	= GroupHeader1	i⊞-dtrc:Re	eportCriteria	=
🕮 RichTextBox	Presented By: ModifiedDate	i⊒- dtr:Proj		
🗖 Shape	Revision:		:Name :ProjectID	
Picture			:ProjectNumber	
/ Line			:PresentedBy	
			PresentedTo	
💾 PageBreak	Project Name	±dtr: ±dtr:	:BillingAddress Items	
Barcode		T .		×
Discrete SubReport	Company Name Project Company	Properties		
OleObject	Company Name Project Company Company Address Project Address	8≣ ĝ↓ 🖾		
💷 ChartControl	2	(Name)	GrpDynamicHeader	1 🔺
🛅 ReportInfo	= 🔄 grpHeadings	BackColor	Transparent	
	- Oty Description Price	CanGrow CanShrink	True True	
	E GrpDynamicHeader1	ColumnGroupKee		~
		(Name)		
Commits Bindles DONOT Boxess (*ame) The name property for the component The name property for the component			for the component	
	🔁 Designer 🚫 Script			
		1		.:

Step 2: Modify the Page Header

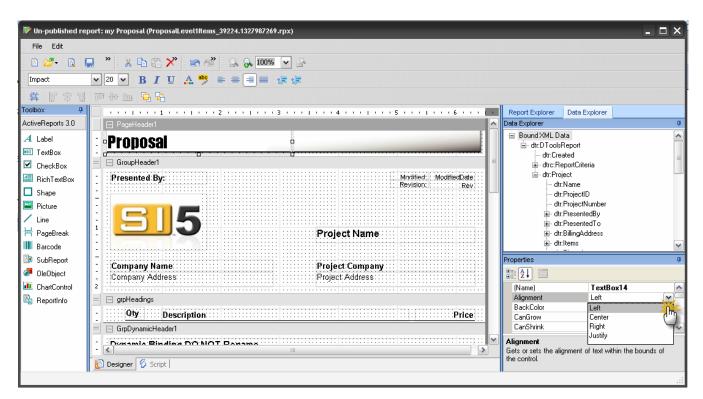
1) In the design pane, in the PageHeader1 section, click on the text that says "Proposal".



2) With the mouse, move this textbox (TextBox14) until it is aligned with the left side of the page



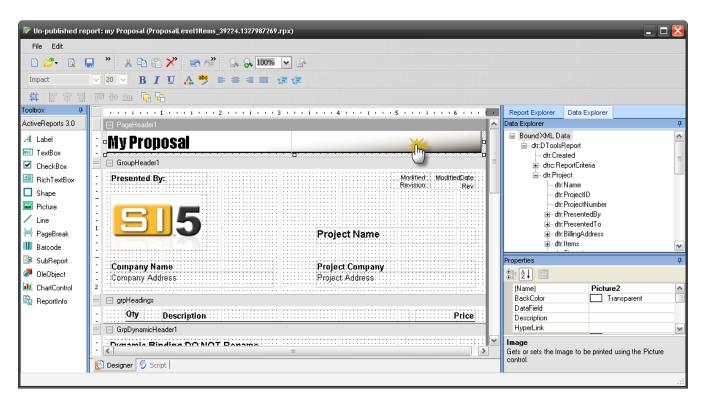
3) With the textbox still selected, go to the Properties window and set Alignment = Left



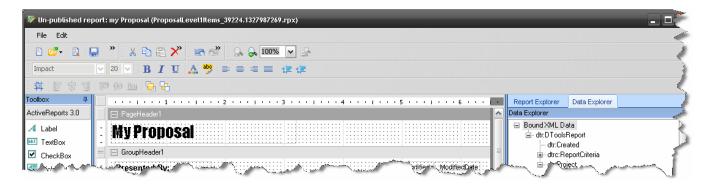
4) With the textbox still selected, go to the Properties window, scroll down to the Text property, and replace "Proposal" with "My Proposal"

File Edit	ort: my Proposal (ProposalLevel1Items_39224.1327987269.rpx)	
Impact	20 ▼ B I U A ** = = = # #	
[中 월 국 및		
Toolbox 4		Report Explorer Data Explorer
ActiveReports 3.0	🖻 🖻 PageHeader1 🔼	Data Explorer
↓ Label Image: TextBox ↓ CheckBox ↓ RichTextBox ↓ Shape ↓ Picture ↓ Line ↓ PageBreak ↓ Barcode	My Proposal GroupHeader1 Presented By: Revision: Modified Modified Revision: Rev Project Name	Bound XML Data dtr.DToolsReport dtr.Created dtr.Created dtr.Croject dtr.ProjectD dtr.ProjectNumber
 SubReport OleObject ChartControl ReportInfo 	Company Name Project Company Company Address Project Address grpHeadings Qty: Description Price GrpDynamicHeader1 Company Address Project Address	Properties Properties Tag Tag Text VerticalAlignment Top Visible True WordWrap True WordWrap True WordWrap True VerticalAlignment Top Visible True VerticalAlignment Top VerticalAlignment Top VerticalAlignment VerticalAlignment Top VerticalAlignment VerticalAlignment Top VerticalAlignment Top VerticalAlignment Top VerticalAlignment VerticalAlignme

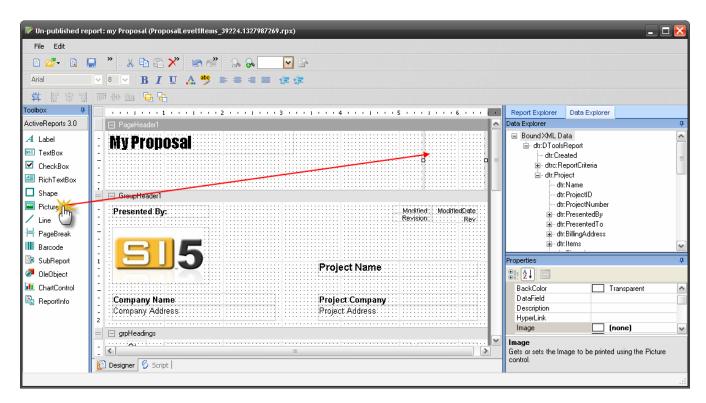
5) To change the image in the header, first select it with the pointer



6) Now hit Delete to remove the image



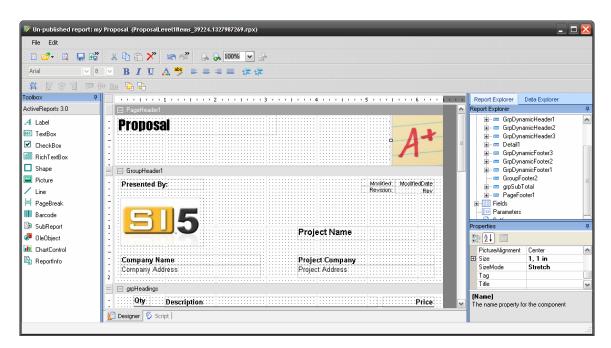
7) To add a new image, drag and drop the Picture icon from the toolbox to the PageHeader1 section



8) In the properties window, click on the image property and browse to the desired image file on your hard drive

dDate::: Rev	i∎- dtr:Pre	esentedBy esentedTo lingAddress ms	~
	Properties		д
	8 ≣ 2 ↓ 🖻		
	HyperLink		~
	Image	(none)	- P
	LineColor	Transparent	վեր_
	LineStyle	Transparent	\cup
	LineWeight	0	×
>	Image Gets or sets the Image control.	ure	

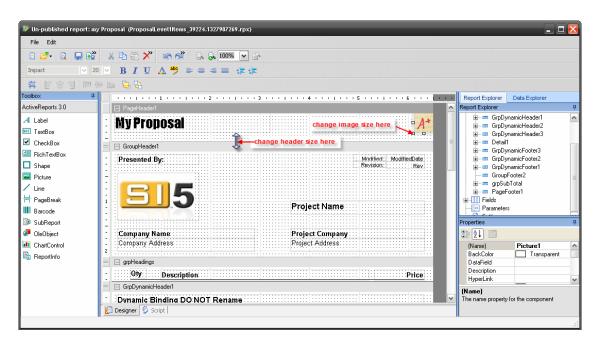
9) At this point you will see the image in the design pane



10)You may also need to set the SizeMode and Picture Alignment properties to see all of the picture

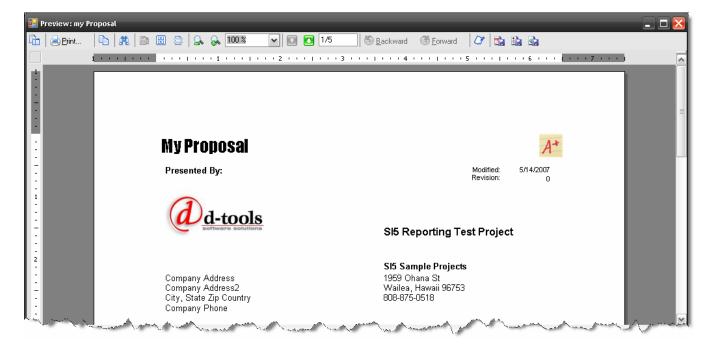
Properties		д
₿ ₽ ↓ 🖻		
LineWeight	0	~
	5 <u>5</u> 0 in	
PictureAlignment	Center	
표 Size	1, 1 in	
SizeMode	Stretch	× •

11)Resize the image using the handles on the image. You may need to adjust the size of the Header area before or after you do this.



Step 3: Preview and Publish the Report

1) Go to File > Preview to preview the report vs. a sample project. Close the window when done.



2) When satisfied, go to File > Publish. Click 'Yes' at the prompt. You will be returned to the reporting center and your custom report will appear in your reports list.

