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Database Relations

Relations are links between tables that contain related data. We talk about "many-to-one" relations and this means that **many** records from **one** table can be related to **one** record in another table. Think of this as a mother-child relationship: each mother can have many children, but each child can have only one (birth) mother. Examples of relations include:

- Companies and Products (one company makes many products)
- Parents and Children (one mother or father has one or more children)
- Authors and Books (one author has written many books)

It is also possible to have a many-to-many relationship. For example, many products might be made up of many parts – one part might be used in a number of different products, and one product might use a number of different parts. Think about a teacher-student relationship: Each teacher has many students, and each student has a number of teachers.

In CatBase, both types of relation are possible.

How Relations are created in CatBase

You create relations between tables in the <u>Table and Field Setup</u> section.

To illustrate, we will look at the Sweet Tooth Fairy project in our Demo Database, which contains data on Products (cakes and cookies) and Variants (options available).

If you open, for example, the Chocolate Chip Cookies product record and go to the Variants tab, you'll see that this product has a few options available:

Variants					
Variant	size	Description	Price each	Pack Qty	SortOrder
1 large co	0.00	1 serving	0.40	0	22
Bos of 6	0.00	2 each for 3	2.80	0	23
Box of 12	0.00	2 each for 6	15.00	0	24

This is a list of records from the Variants table that are related to this Product record. You can double-click on one of the Variants to open up its record.

To add a new Variant record for this Product, right-click or Ctrl-click on the Variant list area (the striped area). A pop-up menu appears, with various options:

Add a column Delete column Add a new Variants record Add an existing Variants record Delete the selected record Allow drag to re-order records De-Duplicate Save the column settings for this view Show related

- Choose Add a new Variants Record if the record isn't already in the database, or Add an existing Variants record if you want to add a Variants record that already exists in the database). (Of course, your database will probably have different names for these tables).
- If you chose to create a new record, you'll then see the data entry window for that table. Enter the details and save the record, and it will be added to the included list.
- If you chose to add an existing record, CatBase will then ask you which record you want to add; enter the record's key data (eg its name, SKU, Part Number, etc.) and click OK. CatBase will look for records that match what you entered and if it finds one, will add it to the included list. If it finds more than one, it will show you a list and ask you to select the appropriate record. Note that you can enter a partial record name and CatBase will find any close matches.

Another way to view related records is from the list view. This option can be handy if you want to see all the related records belonging to a group of "parent" records. Suppose, for example, you want to see all Variants belonging to a selection of Products. You would:

- 1. Go to the Products table.
- 2. Find and select the Products that you want to use.
- 3. Right-click (or ctrl-click) on the list and choose Show Related Variants records.

CatBase will find all the Variants related to all the selected Products and display them in a new window. (The table names in your own database will probably be different).

How to Publish Related Data

When you are ready to publish your data, you can include related records by using the <u>Relation</u> Element type in a <u>Publishing Style Sheet</u>. As an example we will look at the "Catalog for Word" Publishing Style Sheet in the Demo database.

- This style sheet creates a catalogue listing Products, with a list of each product's Variants.
- Select the **Publishing** tab at the top of the window.
- Expand the **Publishing Stylesheets** topic on the left.
- Select Catalog for Word.
- The Publishing Style Sheet is displayed. It comprises 5 Paragraphs

		Paragraphs	Preferences	Web	Text	XML	Layout Manager	Category	Settings	
	Publishing Sty	le Sheet Nan	10:	_	Base	table:			Manage Grouped E	lement
About Publishing	Catalog for W	lord			Prod	lucts		2		
Character Styles	Paragraphs:	Expand All	Collapse All			P	review the complete	record		
Colours										
Hyperlink Styles Paraoranh Styles	► St Par	oraph 1: pro	duct name							
PDF Styles		Groph T. bio	and the free							
Publishing Projects	EC.									
Publishing Stylesheets	Para Para	igraph 2: Pro	duct picture							
Catalog for InDesign	-									
Catalog for InDesign la	▶ St Para	graph 3: De	scription							
Catalog for Word	100									
Cross-Refs example		area ha to the	lastr							
excel export	P S Par	igraph 9: vai	ancs							
InCatalog Price Updatin	East									
Price list by SKU	► Para	igraph S: Spi	cial offer							
New Publishing Styles										
Table Styles										
Save 😘										

- Expand Paragraph 4, "Variants"
- This Paragraph consists of one **<u>Element</u>**. Double-click on it and you'll see that the selected **Element Type** is **Relation**:

		Element 1 for Paragraph: Var	iants	
	Element	Preferences Tables Hyperlinks	s and Cross-Refs	
Element type:	Relation Expand All	Related Table:	Products -> Variants	
 Paragra Paragra 	ph 1: table heading ph 2: variants table			Inactive
Sort Order: SK Related Data 1 Put Related	U Text Box: Data into a Text Box	New Sort Format Text Box Settings		Save 😋 Cancel



The **Related Table**: popup menu contains a list of all possible relations for the Products table.

The Relation area shows a list of Paragraphs for the related table; in this example, there are two Paragraphs..

- Expand Paragraph 2: variants table.
- The Paragraph opens up. It comprises five Elements:

Element 1 for Paragraph: Variants
Element Preferences Tables Hyperlinks and Cross-Refs
Element type: Relation S Related Table: Products -> Variants
Expand All Collapse All Inactive
So, when CatBase publishes the data using this Publishing Style Sheet, it will:
1. Publish the required details for each Product (Product Name, Description, etc.).
2. Find all the related Variants records for that Product.
3. Sort those Variants as specified in the Sort Order for the relation (by SKU)
4. Create a table containing the required details for each Variant (Variant name, Description, and Price each.)
Here's an example illustrating now the details for the Chocolate Chip Cookles will look when the data is published
Element: Punctuation (Tab)
Chocolate Chip Cookies
A REAL OF THE REAL
A LONG THE REAL PROPERTY OF TH
Save 😋
Cancel
Another classic! Buttery, chewy cookies with
We use only the finest incredients - you
won't find a better cookie than these!
Option Description Price
1 large cookie 1 serving 0.40
Bos of 6 2 each for 3 2.80
Box of 12 2 each for 6 15.00

There are 3 Variants available for our Chocolate Chip cookies.

Learn More

Find out more about <u>Publishing Style Sheets</u> See examples of some <u>actual projects that were published with CatBase</u> <u>Download a free, fully functional Trial version</u> and try CatBase for yourself Got a question? <u>Contact us!</u> <u>Order your copy of CatBase now!</u>

