# Welcome to the **Crystal Reports: Tips and Tricks**

The presentation will begin shortly. Please note that all attendees are in listen only mode. A recording of this webinar will be sent out to all attendees.



#### **1** Inquiries may be submitted using the **Questions** window.

<ul> <li>Questions</li> </ul>					Ľ
Show Answered	d Questions				
X Q	uestion 🔺	Asker	Rec'd 🕨	Answer	
					^
					¥
Send Privately					$\odot$



#### **San About eMedApps**

eMedApps is a Healthcare Information Technology Services company providing practices, clinics and hospitals with a full range of services, as well as a suite of products designed to increase efficiency and facilitate communication.

- Founded in 1999
- Working as partner with NextGen since 2001
- Worked as subcontractor for NextGen
- Serving healthcare clients across USA
- Services and Products for NextGen clients



#### **Follow Us!**

Be sure to follow us on Facebook, Instagram, Twitter and LinkedIn and Subscribe to our YouTube Channel! Just search eMedApps





#### **Salar Content Content**

Victoria (Vicky) Wieronski has been with eMedApps since 2013 She is a Senior Application Specialist and has over thirty years of experience in healthcare. She loves boating, jet skiing, being outdoors and playing with her English Mastiffs, Norris and Steve.







#### **Preparing the Report**

# Data Connections

- Identify the data connections
  - Browsing your data source
  - My Connections
  - Create New Connection
- Data source types
  - Tables
  - Views
  - Stored Procedures
  - Commands

Databele Expert					×
An Gries					
Increase their data assures for the Note: to edit the also for a table, sel- ensitive F2 key? Vocatelier Data Sciences			ected Tables		
Addite Data Stances Data Stances Data Stances Face (DW1) Scances Face (DW1) Scances Face (DW1) Scances Face (DW1) Scances Face Scances	Additis Taport Mais Very Correction Internet From Taport Purpeties Dates Correction Status Correction States Correction States Correction	~	 MG/hod     MG/hod     Mg patert     patert     patert     patert     person     person     COBE: (RDG)     COBE: (RDG)	nfed lan ar space of the cite of the barrans (when	×
	Optione Refrech		SelectData Source		
			Den fransvirene Franklike Stern Hen Competen forg Store werkling	Constraint Mid Acres Dargans Mid Near Mid Near O	
			(Back West	D Total Canal	149

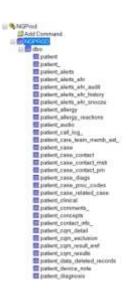


#### Data Connections, cont.

- Options
  - Data explorer filters
  - Advanced options
    - Automatic smart linking
- Refresh

Detabone	
Tables and Fields Show Norve Show Description Show bath	Sert Tables Alphabetically
Data Esplorer Tables Verso System Tables System Stored Procedures	Table name LKE: Pite (%_) Owner LKE: (%_)
Advanced Options Use Indexes or Server for St Hertern Grauging De Server Database Server is Case-line Select Distinct Date for Inve Perform Query Aprodrumes Verify Diriter Rafnesh Verify David Procedures One Verify Were Dytabase Drive Verify Were Dytabase Drive Verify Automatic Breat Liniting	enstive ong Shy Fritt Rafrash

Data Explorer		
✓ Tables	Table name LIK	E:
Views	Patient%	(%)
System Tables	Owner LIVE:	

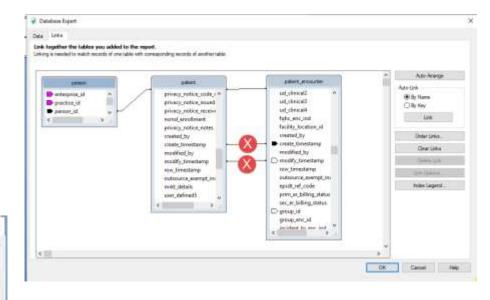




# Link Options

- Smart Linking vs. Manual
- Join Type
- Enforce Join

senson.modify_timestamp> patie	nt_encounter.modify_timestamp	
Join Type	Enforce Join	Link Type
🛞 kner Jon	Not Enforced	
C Left Outer Join	C Enforced From	0+
Right Outer Join	O Enforced To	O>+
O Full Outer Join	C Enforced Both	0*
		0
		OF.





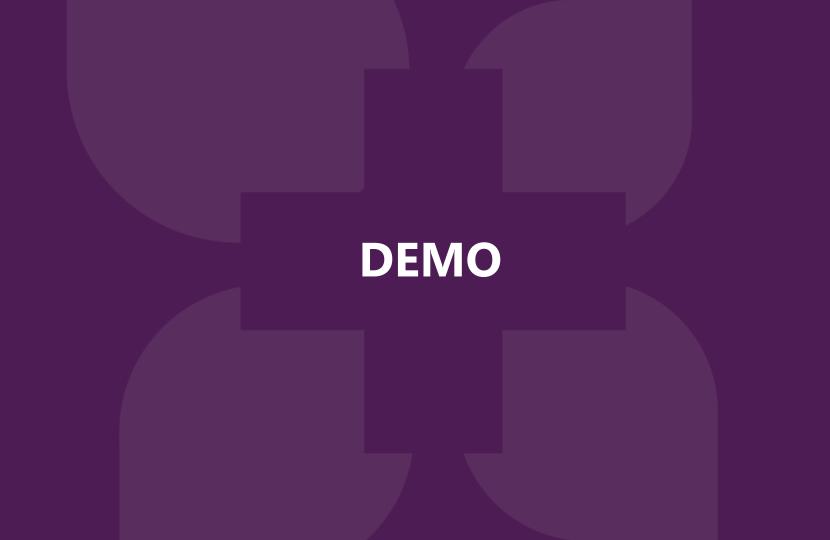
# Link Options, cont.

- Not enforced default option
  - Link will only apply if explicitly in the "Select " statement
- Enforced From
  - Link is used when the 'to' table is used by the "Select" and join is enforced.
- Enforced To
  - Link is used when the 'from' table is used by the "Select" and join is enforced.
- Enforced Both
  - Link is enforced whether you use the 'to' or 'from' tables



#### SQLQuery1.sql - EM...PS\wieronskiv (73))\* → × □ --Person - Table A [ --Patient\_encounter - Table B □ Select a.first\_name, a.last\_name, a.person\_nbr from person a join patient\_encounter b on b.person\_id = a.person\_id where b.billable\_ind = 'Y' --Without the enforce join you may end up with this: Select a.first\_name, a.last\_name, a.person\_nbr from person a





#### **Report Body**

#### **Defaults and Section Expert**

Report. Wind Select Expe Selection F

Fic Formula We

fill Record Sort

Check Dep C Hefreih Heg

Report Ban R. Settin far Grinup Expe

- Report Section Defaults
  - **Report Header**
  - Page Header \_
  - Details
  - **Report Footer**
  - Page Footer
- Forced or Conditional Suppression
- Additional Sections

elect Expert				
Verta 🔸				
eport Bursting Indexes.				
enten Espert. Imp Espert. Imp Soft Expert. Record Soft Expert. emplate Espert.	Design   Preview ReportHeader		1 y	1
AR Delay Warris Investigation of Strategy	Page Header Detaks	Section Expert	Common Paging Cater	×
heck Dependencies	Certata	Page Header Page Header Details	Divide (Onli-Down OK)	
et Print Date and Time - erformance Information	Hupert Forther	Plage Footer Report Poster	Suppress (No. Drill-Down) 21	
	Page Footer	8	Keep Together 21	
			Read-only	



#### **Defaults and Section Expert, cont.**

• Cross tabs

Report Header	Comparative A	nalysis For the l	Period : ?@begin_d	?@end_date
Page Header	URRYW_CARRIER_10/	URRYW/FAC/NM/////ACA	tive_rot////test//////	
Details	. URRAW CARRIER ID///	DRRADW_FAC_NM///////	TIVE_TOT ////#1951	///////////////////////////////////////
Report Footer a		Admissions Su	mmary For Top 10 Hosp	itals By Group
		Column #1 Name	Total	
		Admits Day		
	Row #2 Name	@Admit_date"N_S	STAY @Admit_date /W_LEN_S	TAY
	1 Name	@Admit date N S	STAY @Admit_date W_LEN_S	TAY
	Total		STAY @Admit_date W_LEN_S	
Report Footer b	. <u>A</u> c	tive Members By Group	2 ]	
		Active Tota	al]	
	Total	] Sum of #te	est	
	Rov	w #1 Name ] [ Sum of #te	esť	



#### **Defaults and Section Expert, cont.**

- Paging
  - Breaks and conditions
- Color
  - Formula conditions

Common Paging Color	Common Paging Color
New Page Before     ***       Reset Page Number After     ***       New Page After     ***	Color Background Color
	Silver V
Orientation:	
Default     (Portrait)	
OPortrait	

if {person.last\_name} = "TEST" then crRed else if {person.last\_name} <> "TEST" then crGreen



#### **Defaults and Section Expert, cont.**

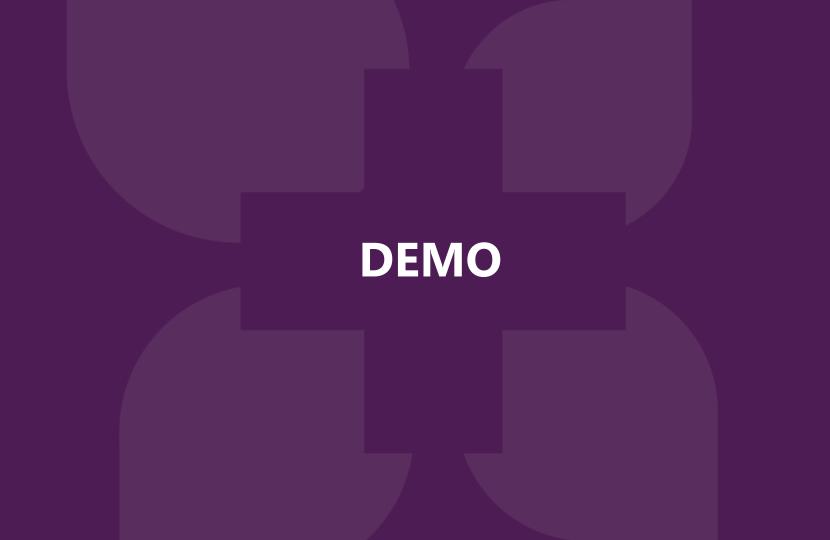
- Formatting Very similar to other application formatting
  - Can Grow
  - Conditional Section vs.
     Field

URgest Names	frational	
Teel Tip Test:		22
Read-only	Casis Postan and File	-
Dispress .		1
happens & Dagitore	el .	컶
Cari Grav	Manager of the film of the little of the lit	21
Test Ratellany	8 - ingree	
venezatel Algement	Default	븠
Beapley Dring		12
CSS Class None		10
Feperat on Horstonia		-
Rang Object Togethe		-
Close tracter on Pog	a Breat	21
	000000000000000000000000000000000000000	

Generated store Salare	0-50/1	×(π =  # #			
# # A   + 3	3 8 8 2 1 1 1 0 million -	Exceptions For Notes - W			
Degent Comment Function     Degent Comment Function     Degentation Content     Degentation Content     Degentation     D	<pre># Popuffults</pre>	Pi     Image       Anothy Mit       Christ Noi       Image       <	Constraints (L) Constraints	-y) ag(=) dam	· · · ·
	4				. 1

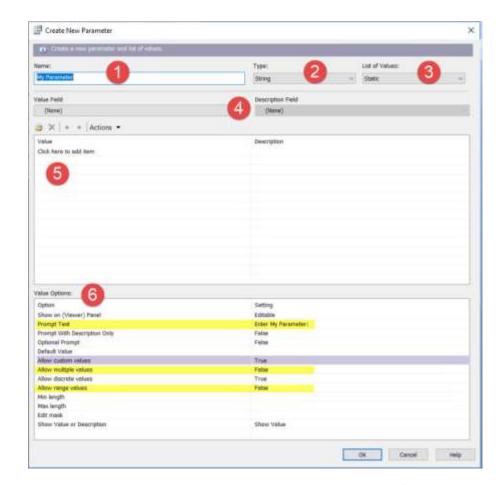
(1.55	Ager	Office
	Ader	
then.		
	Finistian	Distance





# **Parameters**

- 1. Name
- 2. Type Define
- 3. List of Values (Static or Dynamic)
- 4. Value or Description Field
- 5. Value
- 6. Value Options
  - a) Prompt text
  - b) Multiple values
  - c) Range values





### Parameters, cont.

- Static vs. Dynamic What do I choose?
  - Multiple and Range values

lanai	Text:	List of Valuesia	
1222.13	2 Mary	- Oyani	4
hangti Group Text:			
Doces a Date Source:	#Daths	U presider jit - Prompt Group	
8 × + +	arme 3	in businger "re - Haubt Aurth	
Silve:	Description	Parameters	
am preide_pl	un destator	171 Provider	
c			
alue Options - Level 1 (previder_st))			
Daten Show on (Never) Fand Hrongt Test Sert Oxfe Hrangt With Description Only Dational Hrongt Allow multiter wites		ie provide name: ding by Description	

Name:	Type:		List of Values:	
- Constant	Date Time	Ý	Static	
Www.Freid		Description Field		
0ione) 🤓 💥   + →   Actions →	۷	(None)		
Value		Description		
Click here to add item				
🖗 Edit Paramater: EncDateEnd				
Edit Parameter: EncDeteEnd	Type:		Lat of Values:	
Edit Parameter: EncDateEnd	Type: Date Time		List of Values: Stats:	
Edit Parameter: EncDateEnd O Sector December 2010 (Sector) Name:		Description Field		,
C Edit Parameter: EncDateEnd				~

[patient\_encounter.enc\_timestamp] in {?EncDateBeg} to {?EncDateEnd} and {patient\_encounter.rendering\_provider\_id} = {?Provider}



# Parameters, cont.

Edit Parameter: Enter The i

Type:

String

v

Description

Description

(None)

• Embedding a parameter into a formula

Edit a parameter and lat of values.

🎽 🗶 🔶 🔶 Actions 🔹

Name:

Value Field

Value

SMS Phone Email

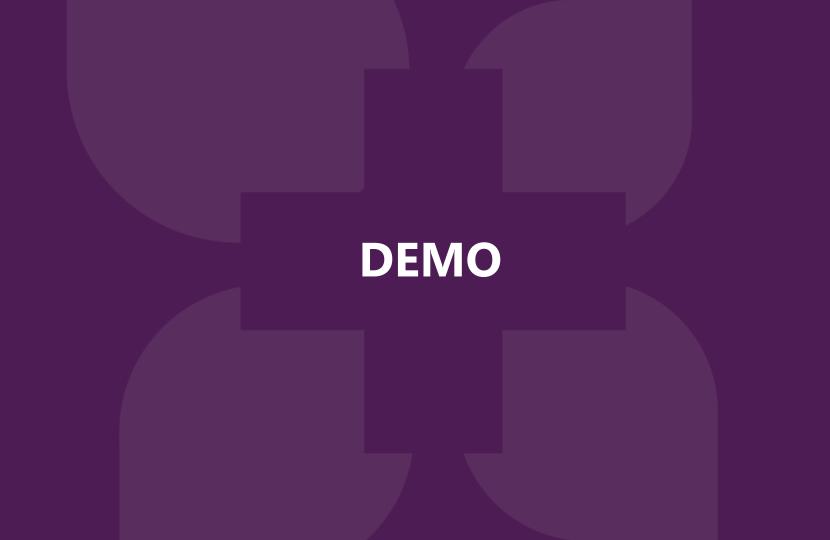
(None)

Click here to add item

Enter The File Type

		4		<b>D</b>					ormula		or - FileDate	1411	him have
			rve and close	122.20.20	a start a	1.00			2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	100	Erystal Syntax	-	Exceptions For Null
			Report Custom Repository Cus Formula Fields APT_TIME Cal_Time X1 FielDate X1 FielDate X1 FielDate	Functions tom Functions		_	7x AF 7x Ca 111 Er 111 Er 111 Er	T_TIM I_Time Iei The	E_24 Clinic I File T <sub>3</sub> Provid	*	Const Syntax		In Constants
ype			Selection Form Formalting Form			curi curi	rentda	te+1 7Ente te+3	er The		e) = 'SMS' th : Type) = 'Ph		then
	List of Values:												
*	Static												
					<	Ш.							
			Y										



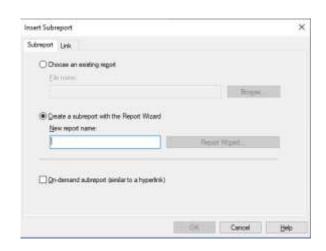


#### Sub-Reports

# Linserting a Sub-Report

- Unlinked sub-report
  - Report is unrelated to the parent report tables/fields, independent. No tables are even needed on parent report.
  - Great for month end summaries and management reports
- Linked sub-report
  - Report is related and dependent on the parent report tables/field
  - Great for showing related detail in various ways

Inse	rt Format Database R			
Aa	Text Object			
Σ	Summary			
	Field Heading			
	Sort Control			
(8	Group			
#₽	OLAP Grid			
œ,	Cross-Tab			
Ľ)	Subreport			
$\sim$	Line			
	Box			
	Picture			
<u>.</u>	Chart			
Ð	Map			
8	Flash			
	OLE Object			
	Template Field Object			





### **Unlinked sub-report**

Unrelated objects not linked

:	Unlinked Sub Reports
·	
ם י	
	Medications
Ð	
	Immunizations
÷	· · · · · · · · · · · · · · · · · · ·
D	>

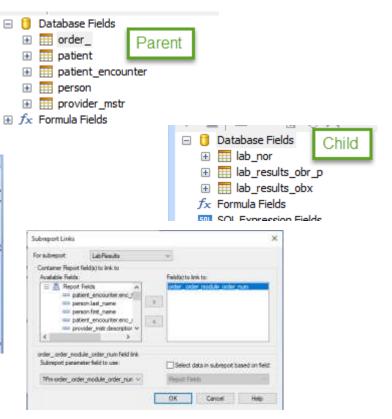
For subreport:	Medications	*	For subreport Immunizations	Ŷ
Available Reids			Container Report fieldig) to link to Available Fields Z. Pethame 109 Provider 109 EncDateBeg 109 EncDateEnd	Faildja) to Ink. to:
	[	OK Canoel Help		OK Cancel Help



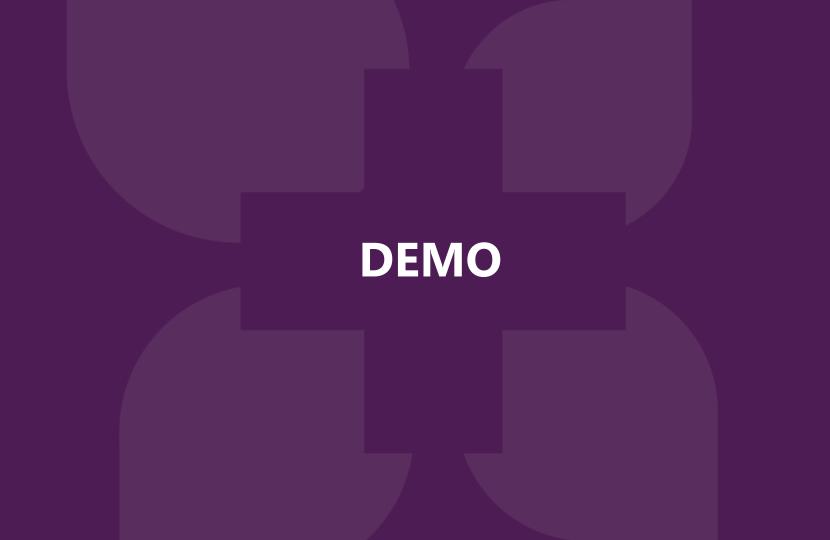
### Linked sub-report

Related objects linked together

RH	-	P 1 +	1 🕁 - 1 - 3 - 1		- TOT-	o Reports		'₩ + - # +
PH GH1	A NUMBER OF STREET	Group #1: MRN. WRN	PatName PatName	: enc_mbć : enc_mbč	onc timestame	description (description	jectText	3
GFTA	A DESCRIPTION OF TAXABLE PARTY.	LabResults						







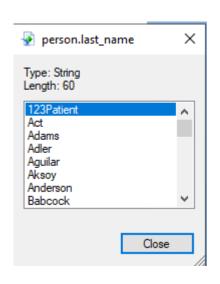
- Browse Data
- Preview and Zoom
  - Magnification Factor
  - Fit One Dimension
  - Fit whole page
- Options and Report Options
- Customized formatting
- Data links up to date
- Data links Never assume they are valid
- Working with Null or Blank Values
- Formula Values
- Show SQL
- Select Distinct Records



Browse Data

Browsing data is accessible in many places within your report

	Field: person.last_name
•	Find in Field Explorer
	Find in Formulas
	Format Field
1	Format Painter
	Change To Barcode
Ŷ	Highlighting Expert
ø	Browse Field Data
	Select Expert Record
	Select Expert Record Select Expert Group
	Select Expert Group
	Select Expert Group Select Expert Saved Data
	Select Expert Group Select Expert Saved Data Insert
*	Select Expert Group Select Expert Saved Data Insert Move
	Select Expert Group Select Expert Saved Data Insert Move Size and Position
D	Select Expert Group Select Expert Saved Data Insert Move Size and Position Cut





• Preview and Zoom

View	Inset Fornat	Database	R
	Design	Ctri+i	D
1	Preview	Ctrl+I	R
10	Pinel, Pinelant		-
	Preview Sample		
-	HTML Preview		
×	Close Current View		
	Reid Explorer		
-	Report Explorer		
1	Repository Explorer		
21	Dependency Check	er	
-	Workbench		
	Toobas		
V	Status Bar		
回	Preview Panel	-	
C	Zoom		
	Rulers		
	Guidelines		٠
	Grd		
	Tootipe		
	Product Locale		
	Preferred Viewing Lo	scale	

Design Preview	>
-	
Groups	
Report Links	
Groups	
(2) Reconstance	
(2) Parameters	
Confrib C Marcal	
P Find	
P Find	
P Find	



Report Title			
-	BALLING.	Designation of the local distance of the loc	



- Options
  - Short Section Names
- Report Options
  - Save Data with Report Uncheck
  - Use Indexes or Server for Speed Check

Farts	Smet T Database	ag & HTML Prevent Formula Editor	Dependency Reporting	Checker Reich
Gird options Gird State (2.003)	s con Names Sen Sections Ged	Fages So MA OR V OR 7	ines in Names Boaks in Wide Pe at With Size (100 12) Wath	çan

<ul> <li>Report Options</li> </ul>	,
Omenal Settings	
Convert Database MULL Values to Cerfa	at: Sens Deg mit Report
Convert Offer MAL Values to Default	Tugeres Pering If the Recents
Share 48 Headers On Drill Down	Perform Query Assessments
Weeys Sort Lossly	ElShave Prevany Penal
Cababase Derver is Case-Desmethie	Chader Alerte an Refreds
Perform Grouping On Service	□Read-cety
Use Indexes Or Server For Saved	Estern Central Resords
Waithy see Paral Rachaels	Select Detroit Data for the very
Winfy Stared Procedures on Prist Refe	an Interian Original Intege Color Depth.
Report Nep Group Together On Profil	Page Prompt For Hyperleks
Genetusk Report Design	Legacy VM. Expert
India Report Part Setlings Parts the Report Part Ink.	<b>R</b>
Object Neme:	
Date Context:	
Preview Pages Start 1000 - 100	See



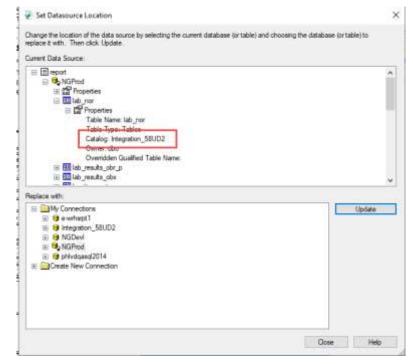
- Customize Formatting
  - Specific symbols
  - Negatives
  - Conditional formatting

121 End of Lock Annual - 1,123,50 - 1,123 - 1,123 - 1,123 - 1,123 - 1,123 - 1,123 (1000) - 1,123 (1000) (1120) (1120) (1123)	Currency symbol (system default)		
(1123.00) (1,121.00) (1123.00000	Custom Style		
(1.123.0000)	Currency Symbol Number		
	Enable Currency Symbol     O Fixed     Draw Symbol Per Page	(#) Floating	22 22
Curtinize .	Postavi :	4123 ~	202
	Gurrency Symbol.	(s )	
Sergiet			
	Segle		55.565



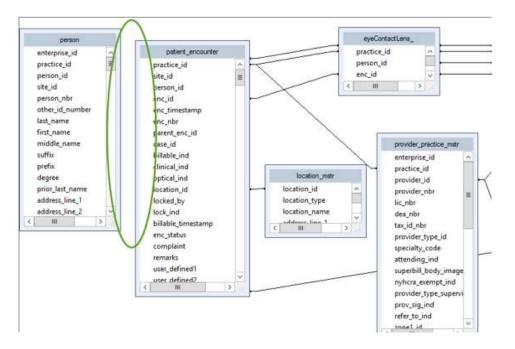
#### Ensure the crystal report's database data link is up to date

Data	abase	Report	Window	Help
0	Datab	ase Exper	t	
	Set Da	atasource	Location	
	Log O	n or Off Se	erver	
ø	Brows	e Data		
	Set O	AP Cube	Location	
	Verifie	Database		
	venry	Database		
	Show	SQL Quer	у	
	Perform Grouping On Server			r
	Select Distinct Records			
	Query			
		R	emove Tabl	e
			he databasi emove this t	
			enove this t	able fro



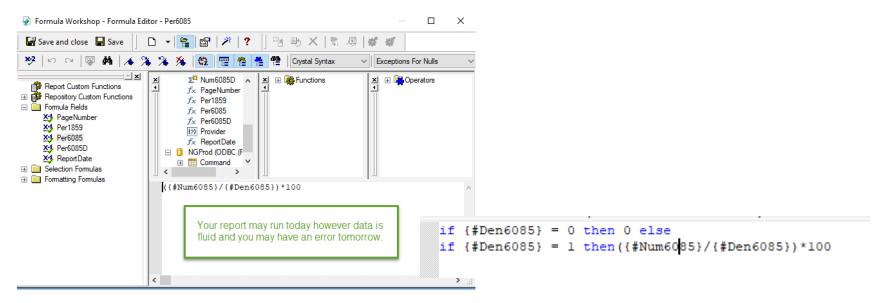


#### Ensure the table links are valid



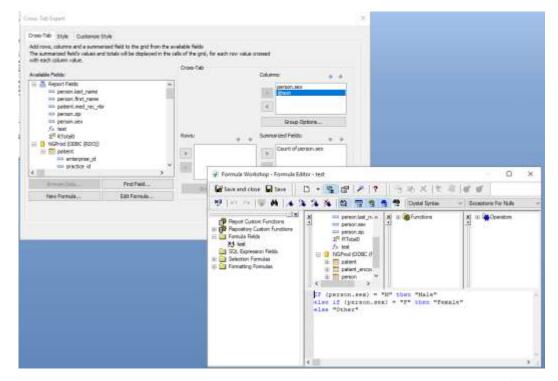


#### Working with NULL or blank values



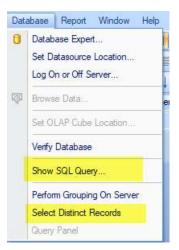


#### Formula Values



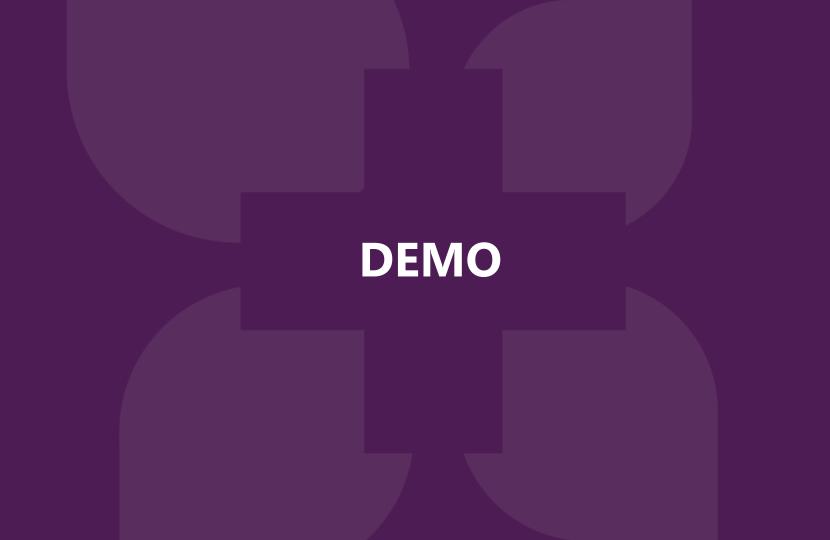


#### Show SQL Select Distinct Records



	e		1 2 1	· · · 64 · · · ·	1	
-	med rec nbr	; [ast_name	: <u>b</u> e	st. name	2	
	Group #1: zip med_rec_nbr	ast_name	; ]e	st_name		
-	#RTotal0	Total	Čoluma #1: sex	1	Shaw SQL Query	
	-	. a	jom j	$\xi$ olumn $t_i^{\gamma}$	SELECT 'person'. Test_runne', 'person'. 'first_runne', 'peters'. 'tred_res_rds'', 'person'. 'sp', 'person'.'sex'	-
110	Jotai	i int of person sev	int of person sex,	jerson sevj	PROM "NOPROD', "do: "person" (tenson" (NRER JOIN "NEPROD', "do: "patent" (astern" OI (conson: "person, "de" patent", "person, Id") AVD ("person", "practice_d", "patent", "practice_d") VMERE "person", "aet, "parame" LNE Teathy ORDER SY "person", "bp"	









# A recording of this webinar will be sent out to all attendees.



847-490-6869 info@emedapps.com