## IFS Business Reporter Designer's Guide







## IFS Business Reporter Designer's Guide Version -22.1.0

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## 1. Designing a Basic Report

When you start IFS Business Reporter and log in, the IFS Business Reporter client opens in the **Report Mode**. To design a report, you should switch to the **Design Mode** by clicking on **Go to** 

Design in either the Document Actions pane or in IFS Business Reporter ribbon



Figure 1.1

Document Actions									
B Run <sup>D</sup> Go to Design	REPORT MODE       n Parameters     Image: Writeback     Image: General sector								

Figure 1.2

## **1.1 Selecting Information Sources**

When you click on Go to Design, the dialog box for selecting Information Sources will appear.

Select one or more Information Sources as required and then click OK.



Figure 1.3



You can opt to click on cancel to move to design mode without selecting an Information Source. However, a new report cannot be created without selecting an Information Source. Once in the design mode, you can select a new Information Source or add/remove Information Sources in sheet or grid level using **Select Information Sources** is icon.

Document Actions		- ×
🖻 Run 者 Go to Report		DESIGN MODE
	🖆 Report Book	🖹 Sheet 🗏 🖽 Grid
Report Sheet - Sheet1		
<ul> <li>Information Sources:</li> </ul>		ন
GL Balance		¥ .
Search		



You can customize an Information Source folder by selecting an item folder or an item and right clicking to hide or show items. This customization will be applied only to the current report.



Figure 1.5

Note:

The **Select Information Sources** dialog box may appear empty or displaying only a subset of available Information Sources. The reason can be one of the following.



- Current user has not been granted access to some or all the non-visible Information Sources.
- *IFS Business Reporter Client Navigator* has not been properly configured. In most cases the navigator is configured during installation/upgrade. For more information, please refer **Setup BR Client Navigator** in the Technical Documentation.

## 1.2 Data Access Types

The data access type specifies whether Information Source related data should be fetched Online or from a Data Mart, where Data Mart means snapshot data. This can be selected from the dropdown menu in the **Design Options** section in the *IFS Business Reporter* ribbon. When there is more than one Information Source, *Customize Data Access Type* window (Obtained by clicking on **Access Type** in BR ribbon) can be used to specify different data access types for each Information Source.



*	Customize Data Access Type	×	
C	Common Data Access Type: OnLine ~		
	Information Source	Data Access	
Þ	GL Balance	OnLine 💦 🚿	1
	Business Planning Transaction - All Versions	DataMart 📃 🚿	/
	Budget Template Transaction	OnLine	4
	OK	Cancel	1
	UK	Galicei	

Figure 1.6

Figure 1.7



## 1.3 Creating a Design Row/ Column

Design rows and columns are fundamental design elements in any report created using IFS Business Reporter. They are used to define how the data should be categorized by adding Dimension Items or even Light Items to data sets. One design row/column can consist of one or more Microsoft Excel rows and columns.









Creating a **Design Row** or a **Design Column** with one or several Excel rows or columns can be done using the procedure below.

- 1) Drag and drop the display items into the rows and columns in the Excel sheet as required for the report design.
- 2) Select the number of Excel rows or columns that need to be repeated.



3) Click on the **New Design Row/Column** icon in the **Document Actions** pane. Another method to do the same would be to use available RMB options.









4) The action leads to creation of a design row/column, and the repeaters will be displayed in the *Document Actions* pane under the **Design Row Options** section. The display items, which the Design row/column will be repeated on and the repeater range will be automatically selected based on the selected range in Microsoft Excel and the dimension items in this range. The first dimension item in a row is automatically selected to create the repeater. However, these can be modified manually as well.



	А	В	С	D	E	F	G			
1									Document Actions	×
2								-	DESIGN MOD	DE
					[Year Period]			-	Desired Work	
5					[rearrenou]					
6		[Company	[Name]						Report Grid - Sheet1	.ell
7		[Account]	[Account Description]		[Balance]				<ul> <li>Information Sources:</li> </ul>	ন
8								.	GL Balance V	R
9								-	Search	
11									E-L2 Company	
12									- Company	
13										
14								.	- Country Code	
15									Association No	
17								-	Parent Company	
18									- Parallel Currency	~
19									<ul> <li>Design Row Ontions:</li> </ul>	
20 -								.		-
21									Design Row: Row #1 🗡 🖽	<b>*</b>
22								-	Filter Criteria Advanced Repeater Options	
24									Display Item Sel Start Stop All Sort A	Ad
25									► DIM_COMPANY.CODE 6 7 A • .	
26									DIM_ACCOUNT.CODE	
27									•	
28										



5) Selecting the **All** check box indicates that all basic display items, given the actual filter condition, will be used for repetition. Otherwise only the items represented in the item table will be used for repetition.

**Note:** The **All** check box is enabled only if the repeater is based on an item from a dimension. If more than one repeater is applied to a single design row and if the **All** check box is selected for these repeaters it will result in an error. In order to correct this error, go to **IFS Solution Manager** and set the necessary parameter(s) to TRUE.

<ul> <li>Design Row Options:</li> </ul>	ALL che	×	Sort list box							
Design Row: Row #1	L			~	」	Þ			1	
Filter Criteria Advanced Repeate	Options					×		L I	Adv	ancod
Display Item	Display Item				All	Sort	Ad	-	Auvo	tton
DIM_COMPANY.CODE			6	7		A -			bu	tton
DIM_ACCOUNT.CODE			7	7		A •				
						-				



- 6) Select the sorting order from the **Sort** list box. Ascending (**Asc**) is selected by default.
- 7) To display a text when the repeater result is null, click the Adv button (Advanced) and go to Advanced Repeater Settings window. You can enter the relevant text which you want to display in the Empty Repeater Null Value field of the General tab.



8) It is also possible to add an inner repeater to the design, drag display items from the *Display Items* pane into a new line within the repeater range applied in step 4.

Note: Created repeater will be saved by the system automatically.

- 9) If you want to add an extended repeater to the design, click Adv button (Advanced) and go to Extended Repeater Connection tab of the Advanced Repeater Settings window. Enter the item you want to add as the extended repeater in the Repeater Item ID field. List of Values can be used to select the relevant item.
- 10) Execute the report.

## 1.4 Inserting a new repeater level

Inserting a new repeater level is important to allow easy change of the report design without redesigning it from the beginning. A new repeater level can be added by following the steps below.

The report shown in the diagram below has a design row with two Excel rows. The repeater levels are from 4 to 5 and 5 to 5.

1	А	В	С	D	E	F	C Document Actions
2 3 4		[Company]	[Name]				Run <sup>4</sup> Go to Report      DESIGN MODE      Sept      Gid
5			[Account]	[Account Description]		[Balance]	Report Grid - Sheet1 Row T Column C Cell
8							<ul> <li>Design Row Options:</li> </ul>
10 11							Design Row: Row #1 Vita Vita
12 13 14 15 16 17							Display Item         Sel         Start         Stop         All         Sort         Add           DIM_COMPANY.CODE        4         5        4         *            DIM_ACCOUNT.CODE        5         5        4         *



Suppose we need to add a new repeater level in between these two.

Then select the repeater level DIM\_ACCOUNT.CODE and right click on it. Select Insert.



~	Design Ro	w Options:												
De	Design Row: Row #1													
Filt	Filter Criteria Advanced Repeater Options													
	Display It	em		5	Sel	Start	Stop	All	Sort	Ad				
	DIM_COM	IPANY.COD	E				4	5		A -				
Þ	DIM_ACC	OUNT.CODE					5	5		Α -				
			Inse	ert		J.Fi				-				
			Dele	ete	N	Ì								
			Cha	nge ordei	·									

An empty row will be added inbetween the previous two repeater levels.

~ [	<ul> <li>Design Row Options:</li> </ul>												
Des	ign Row:		Row #	1							/	錮	×
Filte	r Criteria	Adv	anced	Repeater	Options								
	Display It	em					Sel	Start	Stop	All	Sc	ort	Ad
	DIM_CON	1PAN	Y.COD	E				4	5		A	•	
۱.								5	5		A	•	
	DIM_ACC	OUN	T.COD	E				5	5		A	•	
												•	

#### Figure 1.16

Now you can do two things. One is adding a new **Display Item** to the same repeater level. That is 5 to 5.

~	<ul> <li>Design Row Options:</li> </ul>													
De	sign Row:	Row #	1						~		Ħ	×		
Filt	Filter Criteria Advanced Repeater Options													
	Display It	em				Sel	Start	Stop	All	So	rt	Ad		
	DIM_COM	IPANY.COD	E				4	5		А	•			
×.	DIM_ACC	OUNT.ACCC	OUNT_GROU	UP			5	5		A	• [			
	DIM_ACC			5	5		Α	•						
											• [			

Figure 1.17

And then add it to the report design (if that is the intention).



	А	В	С	D	E	F	G
1							
2							
3							
4		[Company]	[Name]				
5			[Account]	[Account Description]	[Account Group]	[Balance]	
6							
7							
8							

Another possibility is to add a new repeater level to a new Excel row. To do that, select the row 5 in this example, right click on it and add a new Excel row.

A	В	<ul> <li>Design Row</li> </ul>	w Options:								cumer
2 3 4 5	[Compa	Design Row: Filter Criteria	Row #1	Repeater Opt	ions		~	r ta	×	A`\$ - % ୨ ∃ - 50 - 30 ≪	Go t
7 8 9		Display It	em IPANY.CODE	Sel	Start 4	Stop 6	All	Sort A •	Ad <sup>,</sup>		nformation S alance
10 11 12 13 14		Insert     Dild Accor			6	6		A •		6	ch Account ⊡ Account ⊡ Account □ Account
15 16 17		Cnan	ge order			r	Cle	ear Co <u>n</u> t	tents		vesign Row (
18 19 20 21							<u>Eor</u> <u>Ro</u> Hic	rmat Ce w Heigl de	ht		gn Row: r Criteria Ac
22 23 24					. 1		<u>U</u> n IFS	hide Busine	ss Rep	orter Options 🕨	Display Item DIM_COMPA DIM_ACCOU
	Sheet1	heet2   Sheet3	(+)		(						

Figure 1.19

Then a new Excel row will be inserted in between row 4 and 5. Also notice that the start and stop rows in the repeater levels have automatically changed into 4 to 6 and 6 to 6.

1 2	А	В	С	D	E	F	G	Document Actions • ×
3								Run <sup>4</sup> Go to Report DESIGN MODE
4		[Company	[Name]					🗟 Report Book 📑 Sheet 🗮 Grid
5			[Account]	[Account Description]	[Account Group]	[Balance]		Report Grid - Sheet1   Image: Row   Image: Column   Image: Cell
7			[Account]	[Account Description]	[Account Group]	[Dalarice]		> Information Sources:
8								<ul> <li>Design Row Options:</li> </ul>
9								Design Row: Row #1 🗸 🗃 🗃
11								Filter Criteria Advanced Repeater Options
12								Display Item Sel Start Stop All Sort Ad
14								► DIM_COMPANY.CODE 4 6 A •
15								DIM_ACCOUNT.CODE 6 6 A •
16 17								•

#### Figure 1.20

Next select the DIM\_ACCOUNT.CODE repeater, right click on it and click on **Insert**. A new empty row will be added above the selected repeater level.



<ul> <li>Design Row Options:</li> </ul>						
Design Row: Row #1				~	/ 插	×
Filter Criteria Advanced Repeate	er Op	tions				
Display Item	Sel	Start	Stop	All	Sort	Ad
► DIM_COMPANY.CODE		4	6		A -	
		6	6		A •	
<ul> <li>Insert</li> </ul>				$\square$	-	
Delete						
Change order						

Figure 1.21

If needed, add the required display item to the new repeater level. In our example, it is DIM\_ACCOUNT.ACCOUNT\_GROUP. Manually edit the **Start** and **Stop** of repeater levels

appropriately. In our case the start number should be changed from 5 to 6.

Also, drag and drop the necessary display items into the report design as well. In this case, the

Account Group should be dragged and dropped onto the line 5 in the report design.

Now the report design will look like the below diagram.

Now you can execute the report with newly inserted repeater level.

	А	В	С	D	E	F	( 🔺	
1								Document Actions • • ×
2								
3								Run Go to Report DESIGN MODE
4		[Company]	[Name]				_	🛱 Report Book 📑 Sheet 🔲 Grid
5			[Account Group]			10 1 1		Report Grid - Sheet1 🔤 Row 🗉 Column 🖃 Cell
6			[Account]	[Account Description]	[Account Group]	[Balance]		> Information Sources:
1								
8								<ul> <li>Design Row Options:</li> </ul>
9								Row #1
10								Design Row:
11								Filter Criteria Advanced Repeater Options
12								Display Item Sel Start Stop All Sort Adv
13								
14								
15								► DIM_ACCOUNT.ACCOUNT_G 5 6 A
16								DIM_ACCOUNT.CODE 6 6 A ·
17								•
18								



### 1.5 Change the order or repeaters

The order of the repeaters can be changed as follows.

• Right-click on the repeater pane and select Change Order.



<ul> <li>Design Row Options:</li> </ul>							
Design Row: Row #1				~	1	龃	×
Filter Criteria Advanced Repeate	r Op	tions					
Display Item	Sel	Start	Stop	All	Sc	ort	Ad
DIM_COMPANY.CODE		4	6		А	•	
G		5	6		A	• [	
Delete		6	6		Α	•	
*		]				•	
Change order							

Figure 1.23

• Change Repeater Order dialog box will open.

1	А	В	С	D	E	F (	Document Actions
2 3 4 5 6 7		[Company]	[Name] [Account Group] [Account]	[Account Description]	[Account Group]	[Balance]	<ul> <li>Run <sup>4</sup>8 Go to Report</li> <li>DESIGN MODE</li> <li>Beport Book <sup>©</sup> Sheet <sup>™</sup> Grid</li> <li>Report Grid - Sheet1 <sup>™</sup> Row <sup>™</sup> Column <sup>™</sup> Cell</li> <li>Information Sources: <sup>™</sup></li> </ul>
8 9 10		Chang Displ	ge Repeater Order lay Item COMPANY.CODE	Display Name Company		К	✓ Design Row Options: Design Row: Row #1
12 13 14		DIM_	ACCOUNT.ACCOUNT ACCOUNT.CODE	GRC Account Group		Cancel	Filter Criteria Advanced Repeater Options       Display Item     Sel     Start     Stop     All     Sort     Advance       DIM_COMPANY.CODE    4     6    4        DIM_ACCOLINT 6    5     6
16 17 18						Down	DIM_ACCOUNT.CODE 6 6 A ·
19 20 21 22							
23	Þ	Sheet1 S	heet2 Sheet3	÷	4	•	•

Figure 1.24

- Change the order of repeater items by pressing **Up** and **Down** buttons.
- Here in our example, suppose we want the DIM\_COMPANY.CODE and DIM\_ACCOUNT.ACCOUNT\_GROUP to be inter-changed. Then select DIM\_COMPANY.CODE and click on the **Down** button. Then the order or repeaters will be changed as follows.



	А	В	С	D	E	F	(▲		
1							Document Actions	*	×
3							🖻 Run 🌁 Go to Report	DESIGN MOD	DE
4		[Company]	[Name]				<b>(</b>	Report Book 📄 Sheet 🔳 Gri	id
5			[Account Group]				Report Grid - Sheet1	🖩 Row 🔳 Column 🔳 Ce	ell
6			[Account]	[Account Description]	[Account Group]	[Balance]	Information Sources:	1	R
8		Chang	je Repeater Order			×	<ul> <li>Design Row Options:</li> </ul>		
9 10		Displ	ay Item	Display N	ame	OK	Design Row: Row #1	~ 福 着	<b>.</b>
11		► DIM_	ACCOUNT.ACCOUNT	_GROUP Account C	àroup		Filter Criteria Advanced Repeate	[ Ontions	
12		DIM_	COMPANY.CODE	Company	_	Cancel	Display Itom	Sol Start Stop All Sort A	
13		DIM_	ACCOUNT.CODE	Account	_		DIM COMPANY CODE		
14		-				Up	DIM ACCOUNT.ACCOUNT G		٦I
16						Davia	DIM_ACCOUNT.CODE	6 6 A •	1
17						Down	•	··· · · ·	1
18									
19									
20		-							
21									
23									
24	•	Sheet1 S	heet2 Sheet3	(+)	4				

Figure 1.25

• Once the order has been changed accordingly, press the **OK** button to confirm the changes.

## 1.6 Removing a Design Row/Column

Use of one the methods mentioned below to remove a Design Row/Column:

 Select the Excel rows related to the Design Row/Column in the report design. Then the Repeater tab will automatically appear with the repeater levels. Then select the Remove Design Row/Column icon marked in the image below.

•	~	Design Row Options:
	De	ign Row: Row #1 🗸 🖆 🛅
I	Filt	er Criteria Advanced Repeater Options
		Display Item Sel Start Stop All Sort Ad
	۱.	DIM_COMPANY.CODE 4 5 A
		DIM_ACCOUNT.CODE 5 5 A •



 Select the rows or columns in the Microsoft Excel sheet defined as Start and Stop in the Design Row/Column, and then right click and select Remove Design Row option under the IFS Business Reporter Options.



	А	В	С	D		F F	<u> </u>	
1					Aria	$A^{*} A^{*} S - \%$		Document Actions
3					В	$I \equiv \bigtriangleup \cdot \underbar{A} \cdot \amalg \cdot \underbar{00} \overset{00}{\rightarrow} \overset{00}{\rightarrow} \overset{00}{\checkmark} \checkmark$		Run <sup>4</sup> Go to Report     DESIGN MODE
4		[Company]	[Name]		N			🗟 Report Book 📑 Sheet 🔲 Grid
5			[Account]	[Account Descript	Å	Cu <u>t</u>		Report Grid - Sheet1   Report Grid - Sheet1  Report Grid - Sheet1  Report Grid - Sheet1
7					L	Сору		→ Information Sources:
8					Ľů	Paste Options:		<ul> <li>Design Row Options;</li> </ul>
9								
11						Paste Special		Design Row: 🛛 💙 🗃 🗃
12						Insert		Filter Criteria Advanced Repeater Options
13						Delete		Display Item Sel Start Stop All Sort Ad
14						<u>D</u> elete		DIM_COMPANY.CODE 4 5 A +
16						Clear Contents		
17					- -	<u>F</u> ormat Cells		
18						Row Height		
20						<u>H</u> ide		
21						<u>U</u> nhide		
22					Г	IFS Business Reporter Options	Copy Desig	in Row
23							Pasto Dosio	n Pow
25							Faste Desig	
26							Create Des	gn Row
27							Remove De	esign Row
29							Add Desigi	n Row Grouping
30							Remove De	sign Row Grouping
21	•	Sheet1 S	heet2 Sheet3	(+)				
_	_				_			



3. Select the line/lines from the *Repeater* tab (the same way a row or column is selected in Microsoft Excel) in the *Design Row Options* section in the *Document Actions* pane. Then click on it and select **Delete** option in the context menu. You can also just press the <Delete> key on the keyboard after selecting the line/lines on the *Repeater* tab.

<ul> <li>Design Row Options:</li> </ul>						
Design Row: Row #1					一個	×
Filter Criteria Advanced Repeater	Opt	tions				
Display Item	Sel	Start	Stop	All	Sort	Ad
DIM_COMPANY.CODE		4	5		۰A	
		5	5		۸·	
<ul> <li>Insert</li> </ul>	]				-	
Delete				1		
Change order						

Figure 1.28

## 1.7 Copying a Design Row/ Column

Select the Excel rows/columns specific to the design row/column and right click on it. Then select the **Copy Design Row/Column** option under the **IFS Business Reporter Options** and the selected design row/column will be copied. Now you can select to the Excel row/column that



you want the copied design row/column to be pasted in and right click on it. Then select **Paste Design Row/Column** option under **IFS Business Reporter Options** and then the copied design row/column will be pasted there.

	А	В	С		D	E	F	G	
1 2 3				Aria B	al - 10 - A^ A \$ - % 9 I ≡ ⊉ - A - H - ‰ % ≪				_
4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20		[Company]	[Name] [Account]		Cut Copy Paste Options: Paste Special Insert Delete Clear Contents Format Cells Row Height Hide		[Balance]		
21 22 23 24					Unhide IFS Business Reporter Options	Co	py Design Row	L.	2
25 26 27 28						Cre	eate Design Row move Design Rov	v	
29 30 21	•	Sheet1 S	heet2 Shee	et3	÷ : 4	Ad Rer	d Design Row Gr move Design Rov	ouping v Grouping	-

Figure 1.29

## 1.8 Design a Basic Report

A report design is created by selecting a combination of Measure, Light and/or Dimension Items and arranging them in a desired and a meaningful manner. Now let's see how to create a simple BR Report.

Suppose we want to display the list of accounts in a company and their respective balances. The expected result is similar to the report in the below image.



	A	B	C	D	E
1					
2				and the second sec	
3		Account	Account Description	Balance	
4		1010	Expenses carried forward	-100	
5		1510	Accounts receivable	1,693,138	
6		1910	Cash	-164,456	
7		2450	Preliminary supplier invoices	-1,678	
8		2610	Output VAT, not reduced	0	
9		2611	Output VATon sales in Sweden, not reduced	-156,928	
10		2910	Accrued wages and salaries	0	
11		3011	Sales, taxable	-37,785,032	
12		3012	Racing Suites, Pyrotech test	-12,036,956	
13		3013	Racing Suites, Impact	-6,598,844	
14		3014	Sales, not taxable	-555,410	
15		3022	Balaclavas, Nomex	-2,217,893	
16		3732	Volume discounts	1,276,348	
17		4021	Cost of goods sold	18,547,134	
18		5010	Rent for premises	14,880,100	
19		5800	Travel costs	68,991	
20		5810	Tickets	61,263	
21		6070	Business entertainment	107,468	
22		6200	Telecommunication and post (control account)	1,169,976	
23		6211	Telephone	32,063	
24		7000	Wages to blue-collar employees (control account)	11,424,288	
25		7200	Wages to managers and white-collar employees	4,077,588	
26		7300	Cost remuneration and benef in kind (control account)	2,139	
27		7999	Voucher rounding	6,176,801	
28		100000000		0.0000000000000000000000000000000000000	
29					
30					

The following step-by-step instructions will show how to create the above sample report. Start by making sure to be in the **Design Mode** of IFS Business Reporter.

- In the Select Information Sources dialog, select GL Balance Information Source and click OK.
- 2. Now the **GL Balance** Information Source will load in the **Document Actions** pane.
- 3. To start creating the report, first expand the **Account** dimension from the **Information Sources** section in the **Document Actions** pane.



Document Actions	<b>▼</b> X
🖹 Run 👫 Go to Report	DESIGN MODE
Report Grid - Sheet1	Report Book Sheet Grid
<ul> <li>Information Sources:</li> </ul>	স
GL Balance	~ <b>同</b>
Search	
<ul> <li>Measure Items</li> <li>Light Items</li> <li>Company</li> <li>Comp</li></ul>	

- 4. Drag and drop the display items **Account** to cell **B4** and **Account Description** to cell **C4** in the Microsoft Excel worksheet. You may adjust the width of the columns to match the item length.
- 5. Now expand the **Measure Items** folder from the **Information Sources** section in the **Document Actions** pane.
- 6. Drag and drop the display item **Balance** to cell **D4**.
- Add column titles to cells B3, C3 and D3 as desired. Titles added in the example report are Account, Account Description and Balance. You can also format these cells with Excel Bold, Underline and Fill Color.



1	A	В	С	D	E
1					
2					
3		Account	Account Description	Balance	
4		[Account]	[Account Description]	[Balance]	
5		- 197	42		
6					

8. The next step is to add a repeater to create a design row. Details about Design Rows can be found in the section 1.3 of this chapter.

Desig	gn Row:	Row #1	8						~	福 ?
Filter	Criteria A	dvanced	Repeater	Options						
	Display I	tem			Sel	Start	Stop	All	Sort	Ad
•	DIM_ACC	OUNT.CO	DE			4	4		A	
									-	·

#### Figure 1.33

9. Now you have created the basic report design.

10. The next step is to run the report. To do this, either click the **Run Report** ( $\bigcirc$ ) icon in the *BR* ribbon or the **Run** ( $\bigcirc$ ) icon in the *Document Actions* pane.

File	ome Insert	Page Layout	Formulas Data	Review	View	Developer	Help	IFS Busi	iness Reporter	✓ Search	
Run Go Report Rep	Load New Report - Report	Save Publish Report Report	C Manage Report	Structure 🕅 epublish Validate	Manage E	kport Archive	Highlight	Report Options	C Refresh All Validate Rep	OnLine ort	• Q Find
	File	Save		Manage Repo	rts		Highlight 🖪		Desig	n Options	

Figure 1.34

Document Actions	- ×
🖻 Run 🌁 Go to Report	DESIGN MODE
	🗟 Report Book 📄 Sheet 🔲 Grid
Report Grid - Sheet1	🔤 Row 🔳 Column 🗏 Cell
<ul> <li>Information Sources:</li> </ul>	সা
GL Balance	~ Ę

Figure 1.35



## **1.9 Sheet Repeaters**

**Sheet Repeaters** are used to repeat Microsoft Excel sheets based on a specific data item. Consider the report design below (Figure 1.36), where Account details and their balances are listed. If you execute this report, account details related to all the companies will be listed in the resulting report. Suppose you need to have the account details specific to each company in a separate sheet. This is where **Sheet Repeaters** come into play. Follow the below steps to create a sheet repeater.

After creating the report design, select the **Sheet** tab in the **Document Actions** pane. Then select the **Sheet Repeater** tab in the **Report Sheet Options** section.

1	A	В	С	D	E		Document Actions 🔹 🗙
2 3 4	Account [Account]	Account Description [Account Description]	]	Balance [Balance]			☑ Run <sup>1</sup> Go to Report <b>DESIGN MODE</b> ☑ Report Book <sup>1</sup> Sheet <sup>1</sup> Grid
5 6 7							Report Sheet - Sheet1
89							GL Balance V
10 11							Search
12 13							a Light terms
15 16							B-L2 Account
17 18							Keport Sheet Options: Filter Criteria Advanced Sheet Repeater Options Sheet Slicer
19 20 21							Display Item     Op     Condition     LoV       •     •     •     •
22 23							
24	•	Sheet1 Sheet2 S	hee (+)	: •		•	

#### Figure 1.36

Next, drag and drop the display item that you need to use as the sheet repeater. In our example, **Company** will be the sheet repeating display item.



	А	В	С	D	E		1
1						Document Actions	
2		A (B ) (C					d
3	Account	Account Description		Balance			4
4	[Account]	[Account Description]		[Balance]		🛱 Report Book 📮 Sheet 📕 Grid	I
5						 Report Sheet - Sheet1	1
7						 ✓ Information Sources:	
8						GL Balance V	
9							1
10						Search	
11						Company	
12						- Company	
13							
14						Country Code Description	
15							
16						Association No     Berent Company	
17							
18						<ul> <li>Report Sheet Options:</li> </ul>	I
19						Files Oritoria Advanced Cheet Depender Oritigns Cheet Clines	1
20						Filter Criteria Advanced Sheet Repeater Options Sheet Slicer	I
21						🔀 Remove Sheet Repeater	1
22						Display Item Sel. Sort	1
23						DIM_COMPANY.CODE	ł
24							1
25							

Figure 1.37

Now execute the report and you will see a result similar to the one shown in the below image.

	А	В	С	D	Е	F	G	Н	1	J	К	L		-
1														
2														
3	Account	Account Description		Balance										
4	1000	Cash- general checking	g acct.	15190954.96										
5	1005	Car		72533.87										
6	1010	Expenses carried forw	ard	-778.79										
7	1011	Expenses for research	and devel	-28348.61										
8	1012	Expenses for compute	r software	0										
9	1020	Concessions		1507										
10	1040	Licenses		0										
11	1049	Accumulated amortizat	tion of licen	9340.6										
12	1060	Renting rights		2380										
13	1110	Buildings		3959.5										
14	1130	Land		922.12										
15	1210	Machinery and other te	10055											
16	1211	Machinery		1191836										
17	1219	Accumulated depr on	mach and	-659923.37										
18	1400	Inventory (control acco	ount)	6.22867E+14										
19	1405	Transfer between sites	S	357.6										
20	1440	Products in progress		-19683.12										
21	1441	WIP shipped to supplie	er	1589.18										
22	1443	WIP at supplier		0										
23	1470	Work in progress	<b>.</b> .	8883										
24	14/1	Work in progress, paid	COSIS	65/92.78										
25	1478	VVORK IN progress, Invo	licing	-26344.7										
20	1480	Advances for goods an	na services	15000										
21	1485	Unpaid advances for g	oods and s	23039										
20	1510	Accounts receivable		318123320.1								<u></u>	-	
29	ISTUA	Accounts receivable	622	1006504.49	6	CLUM	<b>C</b>		6	LIDO4	6			-
		Company 10 Compa	any 622	Company 900	Company	CMW	Company H	IOGWARTS	Comp	any HR01	Comr	(+) : ◀		

Figure 1.38

Here you can see that the report has many sheets and they are named based on the company names. A separate Excel sheet is created for each company with company specific details.



## 1.10 Filter Criteria

This feature enables users to execute reports by filtering out only the required data. A filter can be defined for a report book, design sheet, design row, design column, design cell and pivot table. A filter criterion applied to an upper level will automatically be defaulted to its lower levels. For example, a filter criterion applied to the report sheet will be applicable to design rows in the sheet as well. It is recommended to use filter criteria when designing a IFS Business Reporter report to ensure that correct data is retrieved as quickly as possible. If you need to view the complete filter criteria for any given level in the report click the *Advanced* tab and select *Advanced Criteria*. The *Advanced* tab also allows you to write SQL commands directly to the application in order to assign a filter criterion. See chapter 2 to read about *Advanced Filter Criteria*.

## Applying a Filter Criteria

1. Select the design section (**Report Book**, **Sheet** or **Grid (Row/Column/Cell))** that you need to apply the filter to.

Document Actions	- ×
🖻 Run 🌁 Go to Report	DESIGN MODE
	🗊 Report Book 📑 Sheet 🖽 Grid
Report Grid - Sheet1	📼 Row 🔳 Column 💷 Cell
<ul> <li>Information Sources:</li> </ul>	<u>א</u>



Suppose we need to apply a filter to the design row shown in the report below. Select the design row and then the Grid & Row tabs will be highlighted meaning that we are applying the filter to a row.

1	A	В	С	D	E	F	Document Actions	- ×
23	Account	Account Description		Balance			🖹 Run 🏄 Go to Report	
5				[Dalance]			Report Grid - Sheet1	Report Book
7							<ul> <li>Information Sources:</li> </ul>	ন



 Select the *Filter Criteria* tab, and drag the required display item from the **Display** Items pane into the *Filter Criteria* tab.



In our example we will add a filter to the design row based on the Co	ompany.
---	---------

1	Α	В	С	D	E	F		Document Actions	
2								Document Actions	
3	Account	Account Description		Balance				Run de Go to Report DESIGN MODE	
4	[Account]	[Account Description]		[Balance]				🛱 Report Book 📑 Sheet 💷 Grid	
5								Report Grid - Sheet1 🔤 Row 💷 Column 🖾 Cell	
6								✓ Information Sources:	
8								GL Balance	
9									
10								Search	
11									
12									
14								Country code Description	
15									
16								<ul> <li>Design Row Options:</li> </ul>	
1/								Design Row: Row#1 V # #	
10									
20								Filter Citteria Advancen Repeater Options	
21								Display Item Op Condition LoV	
22									
23							-		
-	•	Sheet1 Sheet2 She	et3	+		: •	}		

Figure 1.41

3. Click **Op** (Operator) and select an operator from the **Select Operator** list.

	А	ВС		D	E	F		Document Actions	~
1								Document Actions	
3	Account	Account Description		Balance				In Bun the Base of the Bas	IODE
4	[Account]	[Account Description]		[Balance]				🛱 Report Book 📑 Sheet 📑	🗉 Grid
5								Report Grid - Sheet1 🔤 Row 🗷 Column	🗉 Cell
7								<ul> <li>Information Sources:</li> </ul>	ন
8								GL Balance	× R
9								Search	
10							-	는 L Company	_
12								- Company	
13				Select Operator			×		
14				= equa	s			Country Code	~
16				<> does > great	not equal er than			<ul> <li>Design Row Options:</li> </ul>	
17				>= great	er than or eq	ual		Row #1	×-
18				<= less	than or equal			Design Row:	-
20				not in				Filter Criteria Advanced Repeater Options	
21				between				Display Item Op Condition	LoV
22				like				• DIM_COMPANY.CODE	
23				not like					
	•	Sheet1 Sheet2 She	eet3	is not null					

Figure 1.42

- 4. Click LoV (List of Values) to open the List of Values dialog box.
- 5. If parameters are defined for the display item, they will be listed in the *Parameters* tab of the *List of Values* dialog box.
- 6. If there are any global parameters defined matching the data type of the display item, they will be listed in the *Parameters* tab of the *List of Values* dialog box. Global



Parameters will be listed below the Standard Parameters and Context Substitution Variables only if available.

- 7. Select a value, parameter, context substitution variable or global parameter.
- 8. Click OK.
- 9. The filter has now been applied and will be applied next time the report is executed.



# 2. Designing an Advanced Report

This chapter covers the following advanced design features in IFS Business Reporter:

- Advanced Filter Criteria
- Report Parameters
- Zoom-In
- Drill Down
- Interactive Filtering
- Find
- Highlight
- Extended Repeater Connector

## 2.1 Advanced Filter Criteria

Filter criteria are used to make sure that only required data is retrieved when executing a report. However, the basic filter criteria only support the **AND** operator.

The example below shows a report where two filter conditions have been applied. When switching to the *Advanced* tab, the filter criteria that apply in the current context will be displayed. As you can see in Figure 2.1, the two filters defined in the *Filter Criteria* tab, appear in the *Advanced* tab as two filter conditions separated by the AND operator. Adding more filters in the *Filter Criteria* tab leads to further conditions separated by the AND operator.

<ul> <li>Cell Options:</li> </ul>												
Design Cell: B2 ~												
Filter Criteria Advanced Writeback Zoom I						In	Drill Down	Options				
		Displ	ay Item			Ор	Condition				LoV	
	DIM_COMPANY.CODE					= '10'						
•	DIM_ACCOUNT.ACCOUNT_TYPE				= 'EXPENSE'							
	• •											

Figure 2.1



<ul> <li>Cell Option</li> </ul>	ns:									
Design Cell:	B2		×.	~						
Filter Criteria	Advanced	Writeback	Zoom In	Drill Down	Options					
Advance	d Criteria									
DIM_COMPANY.CODE = '10' AND DIM_ACCOUNT.ACCOUNT_TYPE = 'EXPENSE'										

#### Figure 2.2

However, using only statements with the **AND** operator will not be sufficient when creating advanced reports. In order to enter more advanced filter criteria, switch to the **Advanced** tab under **Cell Options** and select the **Advanced Criteria** check box to enable advanced criteria editing.

<ul> <li>Cell Options:</li> </ul>									
Design Cell:	B2 ×								
Filter Criteria	Advanced Writeback Zoom In Drill Down Options								
Advance	ed Criteria								
DIM_COMPANY.CODE = '10' AND DIM_ACCOUNT.ACCOUNT_TYPE = 'EXPENSE'									

#### Figure 2.3

Usually, filter criteria applied for a higher level will be automatically applied to lower levels. For example, a filter applied to a report book will be applied to sheets, rows, columns and cells. When an advanced filter criterion is defined on a lower level, that level will stop inheriting criteria applied to higher levels. The *Filter Criteria* tab will be disabled for the level as soon as advanced filters are enabled. Therefore, it is recommended to enter the simple filters first and then switch to the advanced filter criteria.



An example for an advanced filter condition is shown below.

<ul> <li>Cell Options:</li> </ul>										
Design Cell: B2 ~										
Filter Criteria	Advanced	Writeback	Zoom In	Drill Down	Options					
Advance	d Criteria									
(DIM_COMP, DIM_ACCOL (DIM_COMP, DIM_ACCOL	(DIM_COMPANY.CODE = '900' AND DIM_ACCOUNT.ACCOUNT_TYPE = 'LIABILITIES') OR (DIM_COMPANY.CODE = '900' AND DIM_ACCOUNT.ACCOUNT_TYPE = 'ASSETS')									



## **2.2 Report Parameters**

Filter criteria are used to filter out only the required information when executing a report. For example, we can use a filter so that only the information related to a certain company (e.g. Company = 10) is shown in the report. Filters defined in the report design cannot be affected by end user. Thus, a filter on a specific company always applies and is not very practical for the end user, since it is likely that he wants to run the same report for another company. This is where the **Report Parameters** come into play. When a parameter is applied, the end user can execute the report for any value in the List of values of the specific parameter. After creating a parameter, it should be used as a filter condition value in the design. Parameters are more like dynamic filters where the value can be changed in the report mode.

There are three types of parameters.

- 1) Standard Parameters
- 2) Function Parameters
- 3) Global Parameters

### How to add a Standard Parameter?

- 1. Select the **Editable** checkbox if you want the parameter value to be editable in the parameter dialog before the report is executed.
- Select the Multi Value check box if you want to enter multiple values for a parameter. Multi value parameters can be used as a condition for a Filter Criteria with operator IN or NOT IN.



3. By default, a parameter is **Mandatory**, i.e. it must be supplied at report execution to ensure a meaningful report execution. Especially important when a publishing a BR report to IFS.

Document	Actions		~ ×			
🖻 Run 🏻 🕆 Go to F	Report	🖻 Report Book	DESIGN MODE			
Report Book Standard Parameter	rs Function Parameters	ন্ধি Parameters	Filter Criteria			
<ul> <li>Parameter Defin</li> </ul>	nition:					
Company		~	18 B 18		Remove Parameter	
Visible 🗸 B	Editable 🗌 Multi Value	✓ Mandatory		L L		
Parameter Type:	DisplayItem		×	$\sim$	Save Parameter	
Parameter Name:	Company					
Description:	Company				New Parameter	
Prompt Text:	Company			L		
Display Item:	DIM_COMPANY.CODE					
Default Value:	10					
Display Order:	1		0			
Copy Value From:			×			
Optional Display Ite	em					
			~			
						_
<ul> <li>Created Parame</li> <li>Display Parame</li> </ul>	eters:		-		Display Parameters	
Display Parameters	; rameters				Section	
E 🕅 Company						
<ul> <li>Parame</li> <li>Parame</li> </ul>	eter Name eter Value					



- 4. The parameter type will be set to **DisplayItem** by default but can be changed according to the needs. Selecting **DisplayItem** means the parameter is connected to a display Item. The parameter value can also be represented by:
  - I. a constant string value by selecting StringConstant
  - II. a constant number value by selecting NumberConstant



- III. a constant date value by selecting DateConstant. Note that this type can be used to define a parameter that provides the date and time when the report was executed. Define the Default Value as #NOW# (Context Substitution Variable).
- 5. Enter a name for the parameter. Once the user enters a name for the **Parameter**, **Description** and **Prompt Text** fields will be automatically set to the **Parameter Name** which was entered.
- 6. Select a **Display Item** to represent the parameter.
- 7. Select a value, parameter, context substitution variable or global parameter from the List of Values dialog box for the Default Value, if required.
- 8. Select a value for the **Copy Value From** field to use a value of another parameter, if required. When a value is entered to this field, the **Default Value** which has been set to the parameter currently will be removed.
- 9. Save the added parameter by clicking Save Parameter
- 10.If you need to remove a parameter, select the specific parameter from the Standard parameters list and click on **Remove Parameter**.

When a parameter is saved it becomes visible in the *Display Parameters* section. By expanding the parameter, it is possible to drag and drop the parameter name, parameter value and any additional display items into the design sheet.

### About function parameters

Function parameters allow definition of parameter values based on calculations. There are simple and advanced functions. The simple ones are predefined and can be used to perform simple calculations, e.g. adding a number to another parameter to get a new value. If the user supplies the value 2020 for the parameter **Year**, we can calculate the function-based parameter **PrevYear** as **Year** – 1 and **NextYear** as **Year** + 1.

Advanced functions are normally related to business logic. Some advanced functions are provided in the Finance area, e.g. to returning the accounting year based on a company and a date, returning the current accounting year period for a company.



### How to add a function parameter?

- 1. Click Report Book.
- 2. Click Parameters.
- 3. Select Function Parameters tab.
- 4. Click **New Parameter** to create a new parameter.
- 5. Supply the Parameter Name for the newly created parameter.
- 6. Select a Function Id from the available functions. If the Advanced Function check box is not selected, you will only get the available simple functions in the List of Values dialog box. If the Advanced Function check box is selected, you will also get set of advanced functions in the list as well.
- 7. Function Argument section will be updated after selecting the Function Id and will contain all possible function arguments.
- 8. Provide suitable values for function arguments. They can be a context substitution variable, other parameter or a direct value.

**NOTE:** It is recommended to test each function-based parameter by using the **Evaluate** button below *Created Parameters*. Supply values for prompted parameters and then examine the output in the **Value** column and make sure that all function-based parameters give the expected value.

Please refer the below example on Simple Function Parameter. IFS Business Reporter has provided you with a list of **Simple Functions**. You can use any of these functions to create a Simple Function Parameter.

List Parameter	Functions	- 🗆 X	
Function Type	Function Id	Description	^
Simple Functi	ons		
SimpleFunction	ABS	Returns the absolute value of a number	
SimpleFunction	ADD	Adds given numbers and returns the result	
SimpleFunction	ADD_DAYS_TO_DATE	Adds Ndays to a Date and returns the result	
SimpleFunction	ADD_MONTHS	Adds nM months to a date an returns a date	
SimpleFunction	ASCII	Returns the NUMBER code that represents the specified chara	1
SimpleFunction	ASSIGN_DATE_VALUE	Returns the value defined as input	
SimpleFunction	ASSIGN_NUM_VALUE	Returns the value defined as input	
SimpleFunction	ASSIGN_VALUE	Returns the value defined as input	
SimpleFunction	BUILD_IN_STRING	Builds an IN string based on From/To arguments	
SimpleFunction	BUILD_IN_STRING2	Builds an IN string based on From/To arguments of string type	
SimpleFunction	CHR	Return the character based on the NUMBER code	
SimpleFunction	CONCATENATE	Returns a string by combining two strings.	
SimpleFunction	DATE_TO_CHAR	Converts a Date to a String based on the optional format mask	
SimpleFunction	DIVIDE	Divide Number1 from Number2 and return the result	
SimpleFunction	GREATEST	Returns the largest value of two numbers	
SimpleFunction	IF_NUM	Returns the value of an IF-THEN-ELSE expression	
SimpleFunction	IF_STR	Returns the value of an IF-THEN-ELSE expression	~
<		>	
		Select Cancel	



In this example, a parameter is created to obtain the value of last year based on this year. SUBSTRACT is selected as the function Id. #NUMBER\_OF\_THIS\_YEAR# (2022) and Number 1 are given as the first and second function arguments respectively. Save the created parameter and then evaluate the parameter before applying it as a filter criteria.

🗈 Run 🏻 者 Go to Re	port	DESIGN MODE
Report Book	tepon tepon	rameters I Filter Criteria
Standard Parameters	Function Parameters	
✓ Parameter Definiti	on:	
Year	~	· 행 방 행
Advanced Function	1	
Parameter Name:	Year	
Function Id:	SUBTRACT	
Data Type:	Number	
Description:	Deduct Number2 from Number1 and return the re	esult
- Function Argumen	ts	
Number1*	#NUMBER_OF_THIS_YEAR#	= Number
Number2*	1	= Number
✓ Created Paramete	rs:	
Parameter Name	Syntax	Value
Year	SUBTRACT( #NUMBER OF THIS YEAR#, 1	2021
Evaluate		



Likewise, you can create an Advance Function Parameter by enabling the Advance Function check box.



## About global parameters

In general, global parameters are used when there are large number of reports to be filter out to a certain parameter value. Here the user will only need to change the global parameter value in IFS Cloud rather than changing the parameter values for each report individually.

### How to add a global parameter?

 In prior to the application of a global parameter in a report, it needs to be created in the IFS Cloud. This can be created by following the below given path. In this example a global parameter is created to filter out data to a particular company.

Solution N	Solution Manager > Reporting and Analysis > Business Reporter > Global BR Parameters										
Global	Global BR Parameters										
	E ~ + /				<b></b>						
🗸 : Par	ameter Name	Description	Data Type	Parameter Value							
GP	_COMPANY	Global Company	String	10							

Figure 2.8

2. Once the global parameter is created or any update is done to the existing parameters, ensure to refresh IFS Business Reporter using the Refresh All icon in BR ribbon





3. Then, the defined parameter can be used in the report design by selecting from the filter criteria.



## 2.3 Zoom-In

This feature enables the user to get more details about the underlying data related to a specific cell in an executed report. **Zoom-In** performs a detailed breakdown within the **same data source**. The functionality is available only at cell level and applies to measure items that have been enabled for **Zoom-In** in the Information Source configuration (metadata).

Defining cells that should support **Zoom-In** is done when designing the report, i.e. in **Design Mode**.

The following example below shows how zoom-in can be applied to a report.

To give the end user a possibility to view detailed information related to e.g. the Gross Amount in cell F4, enable **Zoom-In** for the cell. Go to the cell F4 and click on the **Zoom In** tab under **Cell Options**.

	А	В	С	D	Е	F		D	
1								Document Actions	÷ X
2	Customer ID	Customer Name				Gross Amount per Customer		- I	
3		Series ID	Invoice Number	Status	Due Date	Gross Amount per Invoice		🖻 Run 🏻 🖞 Go to Report	DESIGN MODE
4	[Customer ID]	[Customer Name]				[Gross Amount]		🗗 F	Report Book 🕒 Sheet 💷 Grid
5		[Series ID]	[Invoice No]	[Status]	[Date]	[Gross Amount]	- 1	Report Grid - Sheet1	🖩 Row 🔳 Column 🔳 Cell
7								<ul> <li>Information Sources:</li> </ul>	<b>N</b>
8								Customer Invoice	~ B
9							- 1	<ul> <li>Cell Ontions:</li> </ul>	
11									
12							- 1	Design Cell: <u>14</u> ~	_
13							- 1	Filter Criteria Advanced Writeback Zoon	n In Drill Down Options
15								Enable Zoom In	
16								Name Zoo	om In Display Item
17							- 1		12
18									
19							-		
	Sheet	t1 Sheet2 Shee	et3 (+)		-				



Select the check box **Enable Zoom In**. A list of display items will be shown, and it is possible to select which of the listed attributes that should be displayed when performing **Zoom-In** on the specific cell (Gross Amount).



	А	В	С	D	E	F			
1								Document Actions	▼ X
2	Customer ID	Customer Name				Gross Amount per Customer			
3		Series ID	Invoice Number	Status	Due Date	Gross Amount per Invoice		Run 🌁 Go to Report	DESIGN MODE
4	[Customer ID]	[Customer Name]				[Gross Amount]			🗟 Report Book 🗦 Sheet 🔲 Grid
5		[Series ID]	[Invoice No]	[Status]	[Date]	[Gross Amount]		Report Grid - Sheet1	🖩 Row 🔳 Column 🔳 Cell
7								Information Sources:	স
8								<ul> <li>Cell Options:</li> </ul>	
9								Design Cell: F4	
11									
12								Filter Criteria Advanced Writeback	Zoom In Drill Down Options
13								Enable Zoom In	
14									
15								Name	Zoom In Display Item
16								Date	
17								Company	
18								Customer ID	
19								Customer Name	$\checkmark$
20								Series ID	$\checkmark$
21								Invoice No	$\checkmark$
22								Status	$\checkmark$
23								Invoice Date	$\checkmark$
24								Pay Term Base Date	
25							_	Currency Rate	$\checkmark$
26							_	Self-Billing Ref	
2/							-	Invoice Version	
28							-	Advance/Prenavm Invoice	
29								Is Correction Invoice	
21							-	is correction involce	× ×
-	Sheet	t1 Sheet2 Shee	t3 (+)				•	L offortion Mitt	

#### Figure 2.11

Execute the report by clicking on the **Run** button. Go to any cell in the **Gross Amount per Customer** column and click on right mouse button to open the context menu. Select **Zoom In** under **IFS Business Reporter Options**.

	А	В	С	D	E	F						
1							Aria	I - 10 - A^ A \$ - %	•	⇒;		
2	Customer ID	Customer Name				Gross Amount per Custome	ь	$\tau = \Lambda$ $\Lambda$ $(0,00)$	Å			
3		Series ID	Invoice Number	Status	Due Date	Gross Amount per Invoice	Р		8			- 1
4	1000	Customer 1000				8016083	3.23			<b>F</b> 2	Paramete	ers
5		AD	40000001 - 400	PostedAuth -	4/6/2018 -	430	X	Cut				
6		CD	970000001 - 97	PaidPosted -	10/25/200	174621		Contraction				- 1
7		CI	123123 - TEST-	PaidPosted -	10/27/200	21	旧	Сору				- 1
8		CR	979920001	Printed	4/26/2018	-1320	Ľĥ.	Paste Options:				- 1
9		II	9720001 - 9720	PostedAuth ·	4/13/2003	2594	4	r£1				
10		PD	4000001	Printed	4/26/2018	139	1					
11		PJ	20010001 - 200	PaidPosted -	4/27/2018			Paste <u>S</u> pecial				- 1
12		PR	201669 - 20244	Preliminary	4/6/2018 -	624697	1 👝	6 H I				- 1
13	1010	Swedish Customer				82265	$\sim$	Smart <u>L</u> ookup				- 1
14		CD	970200008 - 97	PaidPosted -	- 4/23/2015	820493	1	Insert				- 1
15		CI	CCM1 - TAX2	PaidPosted -	- 9/1/2001 -	21		Delete				- 1
16	11000	American Airlines				1		<u>D</u> elete				- 1
17		CD	970200060	Printed	#########			Clear Co <u>n</u> tents				- 1
18		PR	209088	Preliminary	#########	1	۶a	Quick Applysic				- 1
19	3000	Pulp and Paper Mil				155						- 1
20		CD	970200002 - 97	PostedAuth	4/23/2015	155		Filt <u>e</u> r				- 1
21	400	Continental Retaile	r			171		Sort	•			- 1
22		PR	103 - 99	Preliminary	5/17/2000	171		5010				- 1
23	4000	Asiri					ţ	New Co <u>m</u> ment				
24		CD	970000001	PostedAuth	##########		17	New Note				
25		PR	209421	Preliminary	*****							
26	410	Continental Retaile	r East			76	- -	<u>F</u> ormat Cells				
27		PR	100 - 95	Preliminary	5/17/2000	76		Pick From Drop-down List				
28	420	Continental Retaile	r West		014 410000 1	58						
29	100	PK	112 - 200555	Preliminary	2/14/2001	58		Define N <u>a</u> me				
30	430	Continental Retaile	r NY	Destination	014 4/0004	100	B	L <u>i</u> nk	۱.			
1	> Sheet	1 Sheet2 Shee	t3 (+)	(Polipsipor)	: •			IFS Business Reporter Options	)	a 7	Zoom In	
_												

#### Figure 2.12

You will be directed to another sheet (Figure 2.9) where detailed information related to the **Gross Amount** source cell is displayed.


	А	В	С	D	E	F	G	н	1	J	к	L	
1	Date	Company	Customer ID	Customer Name	Series ID	Invoice No	Status	Invoice Date	Pay Term Base Date	<b>Currency Rate</b>	Self-Billing Ref	Invoice '	
2	10/25/2001 0:00	20	1000	Customer 1000	CD	97000001	PostedAuth	9/25/2001 0:00	9/25/2001 0:00	1			
3	10/27/2001 0:00	10	1000	Customer 1000	CI	CP 1	PostedAuth	9/27/2001 0:00	9/27/2001 0:00	1			
4	10/27/2001 0:00	10	1000	Customer 1000	CI	CP 2	PostedAuth	9/27/2001 0:00	9/27/2001 0:00	1			
5	10/27/2001 0:00	10	1000	Customer 1000	CI	CP 3	PostedAuth	9/27/2001 0:00	9/27/2001 0:00	1			
6	10/27/2001 0:00	10	1000	Customer 1000	CI	CBC 1	PostedAuth	9/27/2001 0:00	9/27/2001 0:00	1			
7	10/27/2001 0:00	10	1000	Customer 1000	CI	CBC 2	PostedAuth	9/27/2001 0:00	9/27/2001 0:00	1			
8	12/5/2001 0:00	70	1000	Customer 1000	CD	970100001	PostedAuth	11/15/2001 0:00	11/15/2001 0:00	1			
9	12/10/2001 0:00	70	1000	Customer 1000	CD	970100003	PostedAuth	11/20/2001 0:00	11/20/2001 0:00	1			
10	12/10/2001 0:00	70	1000	Customer 1000	CD	970100002	PostedAuth	11/20/2001 0:00	11/20/2001 0:00	1			
11	4/13/2003 0:00	20	1000	Customer 1000	11	9720001	PostedAuth	3/14/2003 0:00	3/14/2003 0:00	1			
12	12/25/2003 0:00	20	1000	Customer 1000	11	9720002	PostedAuth	11/25/2003 0:00	11/25/2003 0:00	1			
13	4/4/2018 0:00	10	1000	Customer 1000	CD	970200003	Printed	4/4/2018 0:00	4/4/2018 0:00	1			
14	4/4/2018 0:00	10	1000	Customer 1000	CD	970200001	Printed	4/4/2018 0:00	4/4/2018 0:00	1			
15	4/6/2018 0:00	10	1000	Customer 1000	AD	40000001	Printed	4/6/2018 0:00	4/6/2018 0:00	1			



## 2.4 Drill Down

**Drill Down** performs a detailed breakdown of a cell from one source to another. The requirement is that there exists a relation between a source and a target Information Source. Some examples:

- From Customer Payment to Customer Payment Transactions
- From GL Balance to GL Transactions

Applying the **Drill Down** to a cell in a report is similar to applying **Zoom-In** as described in the previous section 4.3.

Defining cells that should support **Drill Down** is done when designing the report, i.e. in **Design Mode**. The **Drill Down** tab under **Cell Options** is only enabled if the source measure belongs to an Information Source that has a relation to a detailed Information Source.

An example is given below.

In the example, the source will be the Information Source GL Balance and the detail target is GL Transaction.



1	А	В	С	D	E	-	Document Actions		- x
2							Document Actions		
3		Company	[Name]				🖻 Run 🍈 Go to Report	DESIGN	MODE
4			[Account]		[Balance]			Report Book	🔲 Grid
5							Report Grid - Sheet1	Bow Column	
6							Report ond - Sheet1		Cen
7						_	Information Sources:		K
8						_	<ul> <li>Cell Options:</li> </ul>		
9						_	Paris C.H. 🛃		_
10							Design Cell:		
12							Filter Criteria Advanced Writeback Zoom In Drill Do	own Options	
13							Enable Drill Down		
14								n Dianlau Itam	
15							Name Dhil Dow	n Display item	^
16							Compony		- 21
17							Company		
18							Year Period		
19							Account	$\checkmark$	
20							Code B	$\checkmark$	
21							Code C	$\checkmark$	
22							Code D		
23							Code E	$\checkmark$	
24						-	Code F	$\checkmark$	~



- Create a report, e.g. by displaying account balances per company. We want to make it possible to drill down from a cell to the corresponding transaction details.
- Go to the E4 cell and click on *Drill Down* tab under **Cell Options** section in the *Document Actions* pane.
- Select the **Enable Drill Down** check box. A list of available drill down display items will appear.
- Untick the items that you do not want to see when drilling down.
- Execute the report.
- Go to any balance call and click on right mouse button to open the context menu. Select **Drill Down** under **IFS Business Reporter**.



	А	В	С	DE					J	к	L	м	
1					Aria	al - 10 - A A \$ - 9	69	$\leftrightarrow$					
2					В	$I \equiv \diamond \cdot A \cdot H \cdot \diamond \circ \circ$	0 🖋						
3		10	IFS Racing	USA	-		· ·						
4			1000	48137	8.								
5			1005	4	δ. ).	Cu <u>t</u>							
6			1010	-210	7 []]	Copy							
7			1011	-1	4 👝	Prote Outlines							
8			1012	3	IC 🗖	Paste Options:							
9			1020	4	C	<sup>Ch</sup>							
10			1040	5194	5								
11			1049	564	9.	Paste <u>S</u> pecial							
12			1060	46	i1 🕡	Smart Lookup							
13			1110	3	3								
14			1130	869	9	Insert							
15			1400	736063	1	Delete							
16			1405	3	3								
17			1440	-1086	1	Clear Co <u>n</u> tents							
18			1441	330	4 🛵	Quick Analysis							
19			1470	893	3.	51							
20			1471	33793	2	Filt <u>e</u> r	•						
21			1478	-658	4.	Sort	•						
22			1510	3.13E+	0								
23			1611	2223	8 5-1	New Co <u>m</u> ment							
24			1660		2 🞝	New Note							
25			1700			5							
26			1910	-5847	B. 🗉	Format Cells							
27			1939	-10	C	Pick From Drop-down List							
28			1940	11264	3	Define Name							
29			1941	-3	3	Denne Name							
30			2290	-150	ഹ	Link	►		_				
31			2425	-436	1	IES Rusiness Reporter Option	e )).	da Dell	Down				
32			2440	-2193	ç	in 5 business reporter Options	5 1		Down				+
22	h.	Sheet1	Sheet2 She	e147									-
-	P	sneet1	Sheetz She				1					· · ·	

### Figure 2.15

• You will be directed to a new sheet-Sheet1(1) where the transaction details related to the balance in the source cell will be displayed.

1	A	В	С	D	Е	F	G	н	1	J	K	L	М	N	0	Р	Q	R 🔺
1	Name	Company	Year Period	Account	Code B	Code C	Code E	Code F	Code G	Code H	Code	Code J	Accounting Project ID	Voucher Type	Currency	Process Code	Tax Code	Project
2	IFS Racing USA	10	201805	1000										RP	EUR			
3	IFS Racing USA	10	201805	1000										RP	EUR			
4	IFS Racing USA	10	201805	1000										RP	EUR			
5	IFS Racing USA	10	201805	1000										RP	EUR			
6	IFS Racing USA	10	201805	1000										RP	EUR			
7	IFS Racing USA	10	201805	1000										RP	EUR			
8	IFS Racing USA	10	201805	1000										RP	EUR			
9	IFS Racing USA	10	201805	1000										RP	EUR			
10	IFS Racing USA	10	201805	1000										RP	EUR			
11	IFS Racing USA	10	201805	1000										RP	EUR			
12	IFS Racing USA	10	201805	1000										RP	EUR			
13	IFS Racing USA	10	201805	1000										RP	EUR			
14	IFS Racing USA	10	201805	1000										RP	EUR			
45	Sheet1	(1) Sheet	t1 Sheet2	Sheet3	+								: •	00	CUD			b T



 In addition, you can navigate to IFS Cloud to obtain more details about a particular transaction. Right-click on a transaction row in the new sheet- Sheet1(1) and then select the required page in IFS Cloud from the given options under IFS Business Reporter Options.



	1	Α	В	С	N		0	Т	U	V	W	X	Y
1	Co	mpany Ye	ar Period /	Account	Voucher	Туре	Currency	Amount	Debit Amount	<b>Credit Amount</b>	<b>Currency Amount</b>	<b>Currency Debit Amount</b>	Currency Credit Amount An
2		10	200109	2440			USD	-1000	0	1000	-1000	0	1000
3	Arial	~ 10	~ A^ A*	\$~%	9 🚍		MXN	-1300	0	1300	-724.23	0	724.23
4	В	$I \equiv \Diamond$	• A • 🖽	✓ €0	20 🖪		MXN	-1300	0	1300	-2333.51	0	2333.51
5	_			.00 -	0 🗸		USD	-100	0	100	-100	0	100
6		10	202110	2440	N		USD	100	100	0	100	100	0
7	X	Cu <u>t</u>											
8	۲ı	Conv											
g	니크	Coby											
1	ĽÖ	Paste Opti	ons:										
		n0n n0n											
1		Paste Speci	al										
1		Faste <u>speci</u>	ai										
1		Insert											
1		Delete											
1		Delete											
1!		Clear Conte	ents										
2													
2	<b>B</b> +	Eormat Cell	S										
2:		Row Heigh	t										
2:													
2.		<u>H</u> ide											
2		Unhide											
2		-											
2		IFS Busines	s Reporter Op	otions >	Que	ery Vou	cher Rows G	L - Account	t				
29					Oue	Prv Vou	cher Rows G						
30					-	.,,							
_									_				
•	> Fina	ancials > Genera	l Ledger > GL Vo	ucher Rows A	nalysis 🖯								
			_										
G	L١	/ouche	er Row	s Ana	lysis								
ſ	:= \		×										
		v 11											
	,	/ Tax co	ode Vo	oucher Type	Function	Group	Voucher	No Row No	Voucher Dat	e Year	Period Year	Entered E period key Entry Date Group	ly User Ap Entered By Gr
												,, alloop	
		Ø	Ν	4	Ν		20210000	01 2	10/22/20	21 2021	10	202110 10/12/2021 AC	AP ALAIN A
	_												



## **2.5 Interactive Filtering**

IFS Business Reporter facilitates interactive filtering in **Report Mode** by using the MS Excel feature called slicers. The following types of slicers are available in BR:

- Workbook Slicers
- Sheet Slicers
- Structure Slicers

Structure slicers will be discussed in the chapter: Structure Reports.

## Workbook Slicers

When a slicer is applied to workbook level, it will affect all the sheets in the workbook. Below is an example on how to add a workbook slicer to a simple BR report.



1	A	В	С	D	E	F 🔺	Document Actions	×
2	Company	Name					Document Actions	
3	company	Account	Account Description		Balance		Run d Go to Report DESIGN MO	DDE
4	[Company]	[Name]					🛱 Report Book 📮 Sheet 🖽 G	Grid
5		[Account]	[Account Description]		[Balance]		Peport Grid - Sheet1	Call
6	[							Cen
7							<ul> <li>Information Sources:</li> </ul>	ik
8	-						GL Balance	~ Ę
9							Search	
11 12 13 14 15 16 17 18							E Measure Items     d Balance     d Balance     d Credit Balance     d Credit Balance     d Credit Balance     d Currency Balance     d Currency Debit Amount     d Currency Credit Balance     d Amount in Paralel Currency     d Debit Amount in Paralel Currency	<b>~</b>
19 20							<ul> <li>Design Row Options:</li> </ul>	
21							Design Row: Row #1 🗸 🗸 🖄	*=
22							Filter Criteria Advanced Repeater Options	
23							Display Item Sel Start Stop All Sort	Adv
25							► DIM COMPANY CODE	
26								
27							•	H
28							· · · ·	
29	She	et1 Sheet2 St	neet3 (I) : [	4		▼		

### Figure 2.18: Sheet 1 of the report



#### Figure 2.19: Sheet 2 of the report

The above simple BR report has been created using the GL Balance Information Source. In Sheet 1 of the workbook, one design row with two MS Excel rows has been added and repeated on Company and Account as shown in the Figure 2.13 above. Sheet 2 contains another design row with one MS Excel row which is repeated on Company and Logical Account Type (Figure 2.14). After creating the report, go to the *Report Book* tab in the Design Mode and click on Filter Criteria (next to Parameters). In Report Book Options, select the tab *Workbook Slicer*. This tab can be used to define the slicer attributes on the workbook level.



AA	В	С	D E	F Document Actions
2 Company	Name			
3	Account	Account Description	Balance	E Run B Go to Report DESIGN MODE
	[Name]	[Assessment Descentional	(Delever)	🖾 Report Book 🔍 Sheet 🖾 Grid
5	[Account]	[Account Description]	(Balance)	Report Book 👘 Parameters 🖉 Filter Criteria
7				<ul> <li>✓ Information Sources:</li> </ul>
8				GL Balance v
10				Search
11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28				
29 Sh	eet1 Sheet2 S	heet3 (+)	•	

### Figure 2.20

In our example, DIM\_COMPANY.CODE is used as the attribute for the slicer. Drag and drop it to the *Workbook Slicer* section. One or more attributes can be selected depending on your design requirements. Now a Workbook slicer has been added to this report. Next, execute the report and the report will switch to the **Report Mode**. In the IFS Business Reporter ribbon, click on the button called **Slicer** to open the dialog named **Slicer**. In our example, there are eight companies, and all are selected by default.

F	le Hom	e Insert	Page Layout F	ormulas Data	Review	View De	veloper H	Help IFS Busin	ess Reporter	𝒫 Search		ß	P
Rej	un Go to	Load Order Report - Report	Structure Slicer	Writeback	teback All Data iew Collected D	ata 📑 Imp	rt Report Option	Access Type OnLine	Document Actions	Settings () About () Help P	Alain rost •		
		File	Slicers	Writ	eback	Manage Re	ports	Design Info		Settings			^
G8		- : × .	f <sub>x</sub>				Ľ			1			~
	А	В	С	: D	E	F	licer						
1					_	Co	npany (Wo	rkbook Slicer)				*	×
234	Company	Name Account	Account Des	scription	Balance	✓ 1 ✓ 6 ✓ 9	) 22 )0				REPO	RT MO	DE
5	10	1000	Cash- gener	ral checking acct.	15190955		MW			arameters 🤍 w	птераск	l ≝ Deb	Jug
6		1005	Car		72533.87		R01						
/   8		1010	Expenses ca	arried forward	-438.79 velc -28348.6		M COMPANY R COMPANY L'	TD					
9		1012	Expenses for	or computer softwa	are ( 0								
10		1020	Concessions	s	<b>1</b> 507	'							
11		1040	Licenses		0								
12		1049	Renting right	d amortization of il	2380 2380								
14		1110	Buildings		3959.5	5							
15		1130	Land		922.12	2							
16		1210	Machinery a	and other technical	con 10055								_
17		1211	Accumulate	d depr on mach a	nd c -659923		elect All						
19		1400	Inventory (c	ontrol account)	6.23E+14		0.000.7.00						
20		1405	Transfer bet	tween sites	357.6	Work	book Slicer: Ap	plies to all the sheets					
21		1440	Products in	progress	-19683.1	Shee	t Slicer: Applies	only to current sheet					
22		1441	WIP at supr	a to supplier	1589.18								
	→ S	heet1 Sheet2	Sheet3 +	: •	Ŭ			Refresh	Close			1	0 📃



Select the companies that you want to slice on. Then click on the **Refresh** button. Since we have selected only the 622 and HR01 companies, only the data related to those companies are shown in the report.

	A	В	С	D	E	F A December 14 A diana
1						
2	Company	Name				
3		Account	Account Description		Balance	Company (Workbook Slicer) REPORT MODE
4	622	FR Société Franç	aise 2			Parameters 🔊 Writeback 🖻 Debug
5		0000	Compte par défaut (à m	odifier)	-400	
6		335001	Travaux en cours		-50	900
7		401000	Fournisseurs		-32292	CMW
8		411000	Clients		1989.1	HOGWARTS
9		428500	Notes de Frais		-150	HR01
10		445661	Tva déduc.débit 19.6%		5292	
11		445719	Tva collectée 19.6%		-289.1	
12		486000	Charges constat. d avan	nce	19500	
13		602100	Achats Stockés - Matièr	res Conso	500	
14		607000	Achats Stockés - March	andises	7600	
15		624000	Frais		0	
16		704110	Travaux France		-225	
17		706000	Prestations de services		-135	
18		706110	Prestations France		-1100	
19		707000	Ventes de marchandises	s	-240	
20	HR01	Human Resource	Company 01			
21		1211	Machinery		250000	Workbook Slicer: Applies to all the sheets
22		1220	Equipment and tools		10000	
23		1910	Cash		-810	Sheet Sheet Sheet Sheet
24		1940	Bank accounts (other ac	counts)	-260000	
25		2820	Payables to employees		810	Refresh Close
26						
27						

### Figure 2.22

Next, if you go the Sheet 2 of the report, there also you will notice that only the data related to the selected two companies are shown.

	А	В	С	D	E	F G A Desumeent Actions	
1							· ^
2		0	A	Delever			PT MODE
3		Company		Balance 26221 1		Company (Workhood Slicer)	
5		622	COST	20331.1		Parameters Viriteback	🖼 Debug
6		622		-32731.1			_
7		622	REVENUES	-1700		900	
8		HR01	ASSETS	-810			
9		HR01	LIABILITIES	810		HOGWARTS	_
10						KM COMPANY	_
11						RR COMPANY LTD	
12							
13							
14							
15							
10						-	
18							
19							
20						Select All	
21							_
22						Workbook Slicer: Applies to all the sheets	
23						Sheet Slicer: Applies only to current sheet	
24							
25						Refresh Close	
26							
27							
28							
29	. I	Sheet1 Sh	Sheet3	(H) : (4	T		0 🕕 👳
	-	Sheeti SI	Silects		1		

### Figure 2.23

This procedure can be done as many times as you want by selecting different companies and clicking on **Refresh** button. As you can see from the example, the slicer applied to the workbook level applies to all the sheets in the workbook.



## **Sheet Slicers**

Slicers applied to a sheet will only affect that specific sheet. The same example previously used will be used to show how a sheet slicer is applied.

In the sheet 1 of the workbook, click on the **Sheet** button in **Design Mode**. Under **Report Sheet Options** you will find the tab **Sheet Slicer**. Use the tab to define the attributes to be used as slicers in this specific sheet. In our example, DIM\_ACCOUNT.LOGICAL\_ACCOUNT\_TYPE is used as the sheet slicer attribute. Thus, the workbook has a workbook slicer on Company and sheet 1 has a sheet level slicer on Logical Account Type.

1	Α	В	С	DE	F Document Actions - ×
23	Company	Name Account	Account Description	Balance	Run to Go to Report
4	[Company]	[Name]			🗊 Report Book 🧧 Sheet 🖉 Grid
5		[Account]	[Account Description]	[Balance]	Report Sheet - Sheet1
6					<ul> <li>✓ Information Sources:</li> </ul>
8					GL Balance V
9 10					Search
11 12 13 14 15 16 17 18 19 20 21					Count     C
22					<ul> <li>Report Sheet Options:</li> </ul>
24					Filter Criteria Advanced Sheet Repeater Options Sheet Slicer
25					Display Item Sel.
26					<ul> <li>DIM_ACCOUNT.LOGICAL_ACCOUNT_TYPE</li> </ul>
27 28 29					
	> She	et1 Sheet2 S	heet3 (+) :	•	

Figure 2.24

Run the report and click on the **Slicer** button in the *IFS Business Reporter* ribbon and a slicer dialog as shown below will appear.



F	ile Hoi	me Insert	Page Layout Fo	ormulas Data	Review	View D	eveloper	Help	IFS Busine	ss Reporter	,	:h	Ċ	P
R Rej	un Go to	Load Order Report - Report	Structure Slicer	Write Writeback	back All Data w Collected D	ata 📑 Im	oort   oort   Re Op	Port otions	Access Type ine 🔹	Document Actions	Settings () About (?) Help	Alain Prost	•	
		File	Slicers	Writeb	ack	Manage	Reports	Design	1 Info		Settings			^
G2	9	• : × •	f <sub>x</sub>										1	~
	Δ	В	C	D	F	S S	icer			-		×		
1	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~					Cor	pany (W	/orkbook Sli	cer) l	ogical Account.	Туре		•	×
23	Company	Name Account	Account Des	cription	Balance		2			A C	t		PORT M	ODE
4 5 6 7	10	1000 1005 1010	Cash- genera Car Expenses ca	al checking acct. Irried forward	15190955 72533.87 -438.79		0 MW DGWARTS R01 I COMPANY			R S	t Slicer		ack   ≌ De	bug
9 10 11		1012 1020 1040	Expenses for Expenses for Concessions Licenses	r computer software	e ( 0 1507		COMPANT			Onee	CONCEP	2		
12 13 14		1049 1060 1110	Accumulated Renting right Buildings	l amortization of lice s	n: 9340.6 2380 3959.5									
15 16 17		1130 1210 1211	Land Machinery ar Machinery	nd other technical c	922.12 on 10055 1191836	√s	elect All			Select All				
18 19		1219 1400	Accumulated Inventory (cc	depr on mach and ontrol account)	1 c -659923 6.23E+14	Work Shee	ook Slicer: A Slicer: Appli	Applies to all t ies only to cur	the sheets rent sheet					
20 21 22		1405 1440 1441	Products in p WIP shipped	progress to supplier	-19683.1 1589.18		_			Refres	sh Clo	ose		
23	) 	1443 1470 Sheet1 Sheet2	WIP at suppl Work in pro-	lier : 1	0000		•							) 🕕 🛓

### Figure 2.25

Now select the companies and the Logical Account Types that you wish to see in the executed report.

G2	9	- : ×	$\checkmark f_x$				~
	٨	Р	0	D	E	Slicer – 🗆 🗙	
1	A	D	C	U	E	Company (Workbook Slippr) Logical Account Type	- x
2	Company	/ Name					
3	company		Account Description		Balance		ORT MODE
4	10	IES Racino	USA		Dalarioo	900 L	C Debug
5		1000	Cash- general checkin	a acct.	15190955		. 📲 Debug
6		1005	Car	<b>3</b>	72533.87	HOGWARTS	
7		1010	Expenses carried forw	/ard	-438.79		
8		1011	Expenses for research	n and develo	-28348.6	RR COMPANY LTD	
9		1012	Expenses for compute	er software	<b>،</b> 0		
10		1020	Concessions		1507		
11		1040	Licenses		0		
12		1049	Accumulated amortiza	tion of licen	9340.6		
13		1060	Renting rights		2380		
14		1110	Buildings		3959.5		
15		1130	Land		922.12		
16		1210	Machinery and other to	echnical cor	n 10055	Select All	ß
17		1211	Machinery		1191836	Workbook Slicer: Applies to all the sheets	
18		1219	Accumulated depr on	mach and o	-659923	Sheat Slicer: Applies only to surrent sheat	
19		1400	Inventory (control acco	ount)	6.23E+14	Sheet Sheet. Applies only to current sheet	
20		1405	I ranster between site	s	357.0		
21		1440	WID objects in progress	or	-19083.1	Refresh Close	
22		1441	WIP snipped to supplie	er	1569.18		
23		1445			0000		0 0
-	- F	Sheet1 Sheet2	2 Sheet3 (+) :	4			

### Figure 2.26

We will select the companies 622 and HR01 and the Logical Account Type=A (Assets). Next click on **Refresh** and the following output is shown in the report.



G29	(	: × 🗸 .	fx					· ·
	А	В	С	D	F	Slicer	- 🗆 X	
1		_		_	_	Company (Workbook Slicer)	Logical Account Type	× Slicer
2 (	Company	Name Account	Account Description		Balance	10 ✓ 622		PORT MODE
4 5 6 7 8	522	FR Societe Franc 0000 335001 411000 445661	caise 2 Compte par défaut (à i Travaux en cours Clients Tva dédus débit 19.6%	modifier)	-400 -50 1989.1	GMW HOGWARTS HR01 KM COMPANY	R S	ack
9	HR01	486000 Human Resource	Charges constat. d ava	ance	19500			
10 11 12 13		1211 1220 1910	Machinery Equipment and tools Cash		250000 10000 -810			
14 15 16		1940	Bank accounts (other a	accounts)	-260000	Select All	Select All	
17 18 19						Workbook Slicer: Applies to all the sheets Sheet Slicer: Applies only to current sheet		
20 21 22							Refresh Close	43
23	> Shee	t1 Sheet2 Sh	eet3 (+) :	4		•		() () <sub>-</sub>

Figure 2.27

Since the Sheet 1 has both a workbook slicer on Company and a sheet slicer on Logical Account Type, it will only show the selected two companies and data related to the Logical Account Type =A (Assets) (Figure 2.22).

1	А	В	С	D	E	F	G		Document Actions	- X
3		Company	Account Type	Balance					🖻 Run 📑 Go to Design	REPORT MODE
4		622	ASSETS	26331.1						🖞 Parameters 🖉 Writeback 🦉 Debug
5		622	COST	8100						3
6		622	LIABILITIES	-32731.1						
7		622	REVENUES	-1700						
8		HR01	ASSETS	-810						
9		HR01	LIABILITIES	810						
10										
11									~0	
12										
13								- 1		
14								- 1		
15								- 1		
16								- 1		
17								- 1		
18								- 1		
19								- 1		
20								- 1		
21								- 1		
22										
23								-		0 0
	•	Sheet1 Sh	eet2 Sheet3	+ :	(			Þ		

## Figure 2.28

However, if you look at the Sheet 2, it shows data related to all logical account types since Sheet 2 does not have a sheet slicer (Figure 2.23). However, since Sheet 2 is affected only by the workbook level slicer, it shows data related to only the two selected companies.



## Workbook Slicer combined with Sheet Repeaters

Workbook slicers can also be used in combination with the **Sheet Repeaters**. The example below shows how this works.

	А	В	С	D	E	F 🔺	Desument Actions
1							Document Actions
2					[Year Period]		
3		FA 13			(D. ).		Run 6 Go to Report DESIGN MODE
4		[Account]	[Account Description]	[Account Type]	[Balance]		🖻 Report Book 📑 Sheet 🖷 Grid
5							Report Book 👘 Parameters 🖉 Filter Criteria
7							✓ Information Sources:
8							GL Balance
9							
10							Search
11							E Light Items
12							E Company
13							Company
14							Country Code Description
15							- Country Code
16							- Association No
17							Parent Company
18							
20							Master Company for Group Consolidation Description
21							Master Company for Group Consolidation
22							× Report Book Ontions:
23							The official Markhards Clines
24							Filter Criteria Advanced Workbook Silcer
25							Display Item Sel.
26							DIM_COMPANY.CODE
27							
28							
29						-	
	•	Sheet1	Sheet2 Sheet3	+ : •		•	

### Figure 2.29

The above BR report contains a **Workbook Slicer** on Company. Sheet 1 also has a **Sheet Repeater** as shown below which is also on Company.

	Α	В	С	D	E	F 🔺	
1							Document Actions
2					[Year Period]		
3							Run <sup>#5</sup> Go to Report     DESIGN MODE
4		[Account]	[Account Description]	[Account Type]	[Balance]		🗟 Report Book 📑 Sheet 🗐 Grid
5							Report Sheet - Sheet1
0							× Information Sources: 下
0							
0							GL Balalice V
10							Search
11							E Light Items
12							E Company
13							Company
14							
15							- Country Code
16							Association No
17							Parent Company
18							Accounting Currency
19							Parallel Currency      Master Company for Group Consolidation Description
20							
21							<ul> <li>Report Sheet Options:</li> </ul>
22							Filter Criteria Advanced Sheet Repeater Options Sheet Slicer
24							Remove Sheet Repeater
25							Display Item Sel. Sort
26							DIM_COMPANY.CODE Asc 🗸
27							
28							
29						-	Prefix
	•	Sheet1	Sheet2 Sheet3	+ : •		Þ	



When you run this report, it will output one sheet per retrieved company as shown in Figure 2.26 below.



-
¥
Document Actions 🔹 🗙
🗈 Run 🍱 Go to Design 🥢
🕯 Parameters 🕫 Writeback 🕤 Debug
12
N I I I I I I I I I I I I I I I I I I I
0 D .
0

Figure 2.31

Now if you click on the **Slicer** button in the IFS Business Reporter ribbon, the **Slicer** dialog will appear.



Figure 2.32

If we select only the two companies 622 and HR01 and click on **Refresh**, the output will have only two sheets for those two companies.



File	Hor	me Ins	ert Page Layout	Formulas Data	Review View	Develop	er Help IFS Business Reporter	,∕⊂ Searc	:h	🖻 Share	Comments
Run Repor	Go to t Design	Load Report +	Order Report	Writeback	ck All Data G	Export	Report Options	<ul> <li>Settings</li> <li>About</li> <li>Help</li> </ul>	Alain Prost *		
		File	e Slicers	Writebacl	< Ma	nage Reports	Slicer —	□ ×			^
F25		• : :	$\times \checkmark f_x$				Company (Workbook Slicer)				*
	Α	в	C	D	F	F					
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16		0000 335001 401000 411000 428500 445661 4456719 486000 602100 602100 602100 602000 704110 706000	Compte par défaut (à Travaux en cours Fournisseurs Clients Notes de Frais Tva deduc debit 19.6' Tva collectée 19.8% Charges constat. d a Achats Stockés - Mat Achats Stockés - Mat Achats Stockés - Mat Prais Travaux France Prestations de service	ASSETS ASSETS LIABILITIES ASSETS LIABILITIES ASSETS COST COST COST COST COST COST COST CO	201112 -400 -50 -32292 1999.1 -150 5292 -299.1 19505 500 7600 0 -225 -135 -135		V 622 900 CMW HOOT KMCCMPANY RCCMPANY RCCMPANY LTD			Document Action	ns ▼ X ≫ pack
17 18 19 20 21 22 23		706110 707000	Prestations France Ventes de marchandis	REVENUES REVENUES	-133 -1100 -240		Select All Workbook Slicer: Applies to all the sheets Sheet Slicer: Applies only to current sheet			4 <sup>5</sup>	
24 25		Company	622 Company HR01	Sheet2 Sheet3	+		Refresh	Close	· · · · · · · · · · · · · · · · · · ·		I 🕐 🔳 🚌

Figure 2.33

This procedure can be done as many times as you want.

## 2.6 Find

This option is available only in the **Design Mode**. The **Find** button in IFS Business Reporter ribbon provides the following functionality; **Find**, **Replace** and **Remove**.

ſ	File Home I	ert Page Layout	Formulas Data Review View Dev	eloper Help	IFS Business Reporter 🖉 Search		습 Share 🛛 🖓 Comments
	Run Go to Report Report	New Save Publish Report Report Report	Co Manage Report Structure 🛛 Manage Export Au 🗟 Bulk Save and Republish ว Download and Validate	Highlight	Report	Find Document Actions	Settings About Help Prost -
l		e Save	Manage Reports	Highlight 🕫	Design Options	Find S	ettings ^
l	A1 - :	$\times \checkmark f_x$				Cal Replace	~
l	A B	C D	E F G H I	J	K L M 🔺	🔀 Remove	

Figure 2.34

Using the Find option, you can either find a Data Item or a Parameter in the report design.





If you need to search for a data item in the report design, click on **Find** and select **Data Item** from the drop-down menu. Next select the data item to be searched from the list of values given under that and click on **Find**.

J24		• : ×	$\checkmark f_x$									
	Α	В	С	D	Е	F	G	н	I.	J	К	L
1												
2		10										
3		[Company]	[Name]									
4			[Account]	[Account Description]		[Balance]						
5												
6												
6				Find								
				Find Repla	ce Remove						-	
10									N			
11				Find what:	Data Ite	m	$\sim$		63			
12					DIM 00							
13					DIM_CO	MPANT.CODE						
14												
15												
16												
17									Find	1 Clo	ose	
18												
19												
20												
21												

Figure 2.36

All places in the report design where the selected data item is used will be shown in a table along with their location references.

A	В	С	D	E	F	G	Н	1	J	K	L	
1												
2												
3	[Company]	[Name]										
4		[Account]	[Account Descrip	otion]	[Balance]							
5		_						_				
6			Find				×					
7						45						
8			Find Replace Remov	e								
9			Find what:									
10			Data I	tem	$\sim$							
11			DIM (									
12			DIM_C	OMPANT.CODE								
13												
14												
15												
16						Find	Close					
17			0 D I T		1	D.(		_				
18			Occurence Design Type		Location	n Reference						
19			1 Display Item		<u>!B3</u>							
20			2 Row Repeater		: Design	Row:						
21			3 Standard Para	meter	Standar	d Parameter	: Company					
22												
23												
24			3 Items found									
25												-
	Sheet1 Shee	et2 Sheet	3 +								Þ	

Figure 2.37

In the same manner, you can search for parameters applied in the report by selecting **Parameter** and then choosing the required parameter from the drop-down menu (Figure 2.33).



	Α	В	С	D	Е	F	G	Н	1
1									
2		[Company]	[Name]						
4		[company]	[Account]	[Account Description]		[Balance]			
5				• • •					
6									
7			Find						×
8									
9			Find R	leplace Remove		_			
11			Find what	at: Parameter	~	]			
12						J			_
13				Company					~
14									
15									
16							-	in al	Olara
17							F	ina	Close
19									
20									



The *Replace* tab allows us to replace an existing **Data Item** or a **Parameter** with a new one. In order to replace a **Data Item**, from the specific list of values select the data item that you need to change and the data item that you need to replace the existing one with. Next click on **Find**. The dialog will provide a **Location Reference** to all places in the design where the selected item is found. If you need to proceed with the replacing, click on **Replace** button.

1	А	В	С	D	E F	G	Н	1	J	K	L	-
2												-
3		[Company]	[Name]						÷			
4			[Account]	[Account Description]	[Balanc	e]						
j										_		-
) 7				Replace						×		-
8				Find Replace	Pomovo							-
ý				Tind Hopdoo	Tremove							
0				Find what:	Data Item	$\sim$						
1						E						
2						'E						
13				Replace with:	DIM_COMPANY.COU	NTRY_CODE						_
4												
6				Replace				Find	Clos	e		-
17												-
8				✓ Occurenc D	esign Type		Location F	Reference				
9				✓1 Di	splay Item		<u>!B3</u>					1
20				🗹 2 🛛 Ro	w Repeater		<u>: Design R</u>	low:				
21				✓ 3 St	andard Parameter		Standard F	Parameter: C	ompany			
22												_
23				3. Items found						_		_
24				5 items lound								-

Figure 2.39



A pop-up message will appear saying that the replacement is completed and the data item in the report design will also be changed at the same time. It is also possible to select the specific locations where the replace should take place.

K13		• : ×	√ fx										
	А	В	С	D	E	F	G	Н	1	J	K	L	
1													-
2		[Country Code]	[Name]										
4			[Account]	[Account Desc	cription]	[Balance]							
5							Deperter				~		
6				Replace	e	IFS business	Reporter				^	_	-
8				Find	Replace Remov	re.							
9				Findu	what		5 Business Re	eporter has c	ompleted th	e search and	made 3		
10				Find w	Data I	tem 🕛 rej	placements.						
11					DIM_0	CON							
12				Popla	o with:						01/		
14				Replac	DIM_C	CON					UK		
15													
16				Rep	lace				Find	Clos	e		-
1/				✓ Occ	urenc Design Ty	ре		Location R	eference				-
19				1	Display Ite	m		<u>!B3</u>					
20				2	Row Repe	ater		: Design R	ow:				
21				✓ 3	Standard F	arameter		Standard P	arameter: C	ompany			
22													-
23				3 Items	sfound								
25													-
-	•	Sheet1 Sheet	2 Sheet3	+			: •					►	•

Figure 2.40

Replacing a parameter can also be done in the similar manner. Note that you first need to make sure that a replacement parameter is available.

**Remove** option allows you to easily remove a **Data Item** or a **Parameter** that is used in the report design.

1		-	D	E	F	G	н		J	ĸ	L _
2 3 [C 4 5	Company] [N [A	Name] Account]	[Account Description]		[Balance]						
6 7 8 9 10 11		Find	Replace Remove what: Data Item		~			>			
12 13 14 15		١.	DIM_COMPAN	IY.CODE		Select D GL Balanc	isplay Item œ		×		
17 17 18 19 20 21 22 23 24 25 Sh	eet1 Sheet2	Sheet3	(+)			Search Σ Mea Ligh L Com L Accc L Accc L Accc L Cod L Cod	sure Items t Items upany ounting Perioc ount e B e C e C e C e E e E e F e G	1	^		



	А	В	С	D	E	F	G	н	1	J	
1											
2											
3		[Company]	[Name]								
4			[Account]	[Account Description	]	[Balance]					
5											
6			Find						>	<	
7				D I Demour							
8			Find	Replace Remove							
9			Find	what: Data Item		~					
10											
11				DIM_COMP/	ANY.CODE						
12											-
13											
14							_				
15			R	emove				Find	Close		
16											
17			<b>○</b> 0	ccurenc Design Type			Location Ref	erence			
18				Display Item			!B3				
19				Bow Repeater			: Design Roy	v:		_	
20			✓ 2	Standard Param	otor		Standard Por		nany		
21			~ 3	Stanuaru Parami	5161		Stanuaru Fai	ameter, COII	ipany	-	
22											
23			3 Ite	ms found						-	
25											
25		Chaot1 Chao	+2 Shoot2				· 4				_
		sneet1 shee	sneet3	(+)			: 4				

Select the data item or parameter to be removed as shown above and click on Find.

### Figure 2.42

Then the dialog box will show a **Location Reference** to all the places where the selected data item/parameter was found in the report design. If you still wish to proceed with the removal, click on **Remove** and the item/parameter will be removed. It is also possible to select the specific locations where the removal should take place

## 2.7 Highlight

This is one of the features added to IFS Business Reporter to enhance the user experience for the Designer. The functionality enables the user to highlight the design elements added in a report design and is only available in the Design Mode.

The report below contains three design rows in the rows 7,9 and 11 and two design columns in the columns E and G. It also has a filter condition defined for the cell G9.



	А	В	С	D	E	F	G	Н	•	
1										Document Actions
2										Pup 4 Co to Peport
3										
4					[Vear Period]		[Period]			🖹 Report Book 🛛 🖻 Sheet 🕅 Grid
6					[Tear Tenou]		[i enou]			Report Grid - Sheet1   Row Column Column  Cell
7		[Account]	[Account Description]		[Currency Balance]		[Balance]			<ul> <li>✓ Information Sources:</li> </ul>
8										GL Balance 🗸 🖼
9		[Account]	[Account Description]		[Currency Balance]		[Balance]			Convolu
10										Search
11		[Account]	[Account Description]		[Currency Balance]		[Balance]			Company ^
12										Name
13										□ Country Code Description
14										Country Code
15										C Association No
10										E E Darant Company
19										<ul> <li>Cell Options:</li> </ul>
10										Discu Ex
20										Design Cen:
21										Filter Criteria Advanced Writeback Zoom In Drill Down 0 4 >
22								•		Display Item On Condition LoV
23							1	7		• •
24		_						r)	-	
-	•	Sheet1 S	Sheet2 Sheet3 (+	)				•		

Figure 2.43

Now if you click on the **Highlight** button in the IFS Business Reporter ribbon, the design rows, design columns and the cell criteria will get highlighted in different colors. Only these three get highlighted by the default settings.

File	Hon	ne Inse	ert Page Layout	Formulas	Data Review	View	Developer	Help	IFS Busi	ness Report	er 🔎	Search	🖻 Share 🛛 🖓 Comments
Run Report	Go to Report	Load Report •	New Report Report Report	🕞 Mana 🔒 Bulk S	ge Report Structure 🛛 🙀 ave and Republish load and Validate	Manage Exp	ort Archive	Highlight	Design F     Cell Crite     Cell Opti	Row 🗹 Designation Designations 🗌 Zoon	gn Column back Cell n In/Drill D	) own O	Design pptions *
		File	: Save		Manage Repor	6			Highi	gni Design			
H23		• E _ 2	$\times \checkmark f_x$										~
1	Α	В	С	D	E	F	G	н	1	J	к	LA	Document Actions 🔹 👻
2 3 4													Run B Go to Report     DESIGN MODE     Report Book Sheet Grid
5					[Year Period]		[Period]						Report Grid - Sheet1  Report Grid - Sheet1  Report Grid - Sheet1
6		[Account]	[Account Description]		[Currency Balance]		[Balance]						✓ Information Sources:
8		procearity	[/ loodant Dependant]		[ouriency bulance]		[Dalarice]						GL Balance V E
9		[Account]	[Account Description]		[Currency Balance]		[Balance]						Search
10 11 12 13 14 15 16 17		[Account]	[Account Description]		[Currency Balance]		[Balance]						Lc Company     -@ Company     -@ Company     -@ Aame     -@ County Code Description     -@ County Code     -@ Association No     -@ Parent Company     -@ Countien Oursecs
18 19 20													<ul> <li>✓ Cell Options:</li> <li>Design Cell:</li></ul>
21													Filter Criteria Advanced Writeback Zoom In Drill Down O + +
23 24 25								÷.					Display Item Cp Condition Lov
	S	Sheet1 S	Sheet2 Sheet3 (	+)								•	

Figure 2.44

However, you have three more options that can be highlighted; **Writeback Cell, Cell Options** and **Zoom In/Drill Down**. Selections go back to default upon closing the *Highlight* design menu (by clicking on the **Highlight** button again).



File	Но	me Inse	ert Page Lay	out Formula	s Data Review	View	Developer	Help IF	S Busine	ss R	eporter 🔎 Search	🖻 Share 🛛 🖓 Comments
Run Repo	Go to rt Report	Load Report +	New Save Report Report	Publish Report □ Dov	nage Report Structure 🗍 Save and Republish 🚦 vnload and Validate 🔒	Manage E Export Import	xport Archive	Highlight □ C	esign Row cell Criteria cell Option	v 🗸	Design Column Writeback Cell Zoom In/Drill Down Options +	Settings
		File	e Sav	ve	Manage Rep	orts			Highlight	t Desig	gn ti	^
G7		- = )	$\times  \checkmark  f_x$	=IFSREPITEM	"FACT_GL_BALANCE.	BALANCE"	')					¥
1	А	В	С	D	E	F	G	н	I	<b>^</b>	Document Actions	~ ×
2											Run <sup>1</sup> Go to Report	DESIGN MODE
4 5 6					[Year Period]		[Period]				Report Grid - Sheet1	Report Book     ■ Sheet     ■ Grid       ■ Row     ■ Column     ■ Cell
7		[Account]	[Account Descr	iption]	[Currency Balance]		[Balance]				<ul> <li>Information Sources:</li> </ul>	त्र
8		[Account]	[Account Descr	intion	[Currency Balance]		[Balance]				GL Balance	~ 同
10		[Account]	[Account Desci	iptionj	[currency balance]		[Dalance]				Search	
11 12 13 14 15 16 17 18 19 20 21 22 22		[Account]	[Account Descr	iption]	[Currency Balance]		[Balance]					~
23 24 25 26	<i>}</i>	Sheet1	Sheet2 Sheet3	; (+)		•			Þ	•	Filter Criteria Advanced Writeback	Zoom In Drill Down Options

### Figure 2.45

The Figure 2.40 above shows how the cells where **Zoom In/Drill Down** is applied are highlighted in a report (Purple color).

If the default colors given for highlighting are not good enough, a designer can set colors according to his own preferences by using the *Global Color Settings* dialog which can be opened as shown below.



File	Hor	ne Ins	sert Page La	yout Formu	las Data	Review	View	Developer	Help	IFS Business Report	er 🔎 Search
Run Repor	Go to t Report	Load Report •	New Save Report Report	Publish Report	anage Report St Ilk Save and Rep ownload and Val	ructure 🛛 🙀 N oublish lidate	Manage E	xport Archive	Highlight	Design Row      Desig     Cell Criteria     Cell Options     Zoon	yn Column back Cell n In/Drill Down
		Fil	e S	ave	1	Manage Repor	ts			Highlight Design	E.
G11		•	$\times \checkmark f_x$	=IFSREPITEN	/I("FACT_GL_B	ALANCE.BA	LANCE"	)			
	А	В	С	D	E		F	G	н		
1								Global Color Se	ttings		×
2 3 4 5					[Year Perio	dl		Design Row:	~	Design Column:	Y
6 7		[Account]	Account Desc	ription]	[Currency B	alance]		Cell Criteria:	~	Writeback Cell:	~
9 10		[Account]	Account Desc	ription]	[Currency B	alance]		Cell Options:	~	Zoom In / Drill Do	wn:
11 12 12		[Account]	Account Desc	ription]	[Currency B	alance]		Use Default		Save Settings	ОК
14											
15											
17											
18											
20											
21											
23											
24 25							2				<b></b>
	•	Sheet1	Sheet2 Sheet	3 (+)			6	: •			



The user set colors can be changed back to default colors by clicking on the **Use Default** button in the same dialog box.

# 2.8 Extended Repeater Connection

A design row/column can be created with more than one Information Source if there are common dimensions available within the selected Information Sources. However, there can be instances where there are no common dimensions available but there can be related information items within selected Information Sources. This is where Extended Repeater Connection comes into play. Extended Repeater Connection will enable you to create design rows/columns with Information Sources which does not have common dimensions.

Refer the below given example

 Suppose information relating to customer invoices is available in Customer Invoice Information Source. Information related to the payments made for these invoices are available in the Customer Payment Transaction Information Source.



- You need to use both Customer Invoice and Customer Payment Transaction Information Sources, in order to see the gross invoice amount of the invoices and the payments made for these invoices.
- Assume that there are no common dimensions within these Information Sources. Hence, we
  need to identify a related information item to connect these Information Sources. In this
  example Invoice number from Customer Invoice Information Source and Inv/Prepayment
  number from Customer Payment Transaction Information Source are related to each other,
  thus have the same values.
- Using the Extended Repeater Connection feature we can command the system to equate the invoice number from Customer Invoice Information Source to the Inv/Prepayment number from Customer Payment Transaction Information Source.
- Accordingly, Invoice No is given as the Repeater Item and Inv/Prepayment number is given as the Connected Repeater Item.

Advanced Repeater S	Settings			$\times$
Repeater Item ID	FACT_CUSTOMER_IN	VOICE.INVOICE_NO		
Repeater Item Name	Invoice No			
General Extended Repeate	er Connection			
Information Source		Connected Repeater Item ID	LoV Connected Repeater Item Name	
<ul> <li>Customer Payment Tra</li> </ul>	nsaction	FACT_CUST_PAYMENT_TRANS.LEDGER_ITEM_ID	Inv/Prepaym No	
			OK Cance	I

Figure 2.47

Now you can create a design row to show the gross amount of the invoices and the payments made for the respective invoices.



	А	В	С	D
1				
2	Invoice No	Gross Amount	Total Amount Paid	
3	[Invoice No]	[Gross Amount]	[Pay Amount in Pay (	Curr]
4				
5				
6				
7				

	Α	В	С	D
1				
2	Invoice No	Gross Amount	Total Amount Paid	
3	20010053	100	10.5	
4	20010054	1500	157.5	
5	20010055	142.5	14.96	
6				

Figure 2.48



# 3. Save, Publish & Access Reports

# 3.1 Saving a Report

Saving a report to the database can be done only in the **Design Mode**. After creating the report design, click on the **Save Report** icon in the **Save** group in the **IFS Business Reporter** ribbon to launch the **Save Report** dialog box.



### Figure 3.1

The dialog will display a tree structure with folders and included reports.

To create a new folder for the report to be saved, click on **Add Root Folder**. In the *New Folder* dialog, add the folder name and click **OK** to create the new folder.

Save Report		_		$\times$
Save report in:	0YaSiLK			
Search  Search	Report Id       Report Title       Published       Modified On       Modified By         Bugs       CERT       CERT       CLIENT_RELEASES       SAFA       faaf       Yes       3/2/2020 8:51:29 AM       ALAIN         GUI_Test       MISC       OpenXML       Ves       3/2/2020 8:51:29 AM       ALAIN         Folder Name:       New Folder       OK       Cancel			
Add Root Folder				/
Report Id:	Revision:			
Report Title:	Revision Comment:			
		Save	Can	cel

Figure 3.2



Select the newly created folder from the tree structure and fill in the fields **Report Id**, **Report Title**, **Revision** and click on **Save**. If the report is successfully saved the below message will be prompted.

IFS Business Reporter	$\times$
Report saved successfully	
ОК	
Figure 3.3	

A report can also be saved to a folder using standard Excel save operations. This can be done in both **Design Mode** and **Report Mode**.

# 3.2 Publish a Report

**Design Mode** provides an option to publish a IFS Business Reporter report. Publishing a report means that it will be made available as an end user report in IFS, i.e. it can be ordered and scheduled using standard reporting functionality in the same way as any other report. A report can have many versions/revisions but only one of them can be published.

There are two ways of publishing a report:

- 1. Publish the report while saving
- 2. Publish a previously saved report

# Publishing a BR Report While Saving

- Note that this is a non-standard option since it is not rather common to design a report and to directly both save and publish it.
- When the design of the report is done, click on the **Save Report** icon in the **Save** group in the *IFS Business Reporter* ribbon.
- Enter the necessary details in the **Save Report** dialog. Note that there is a check box at the bottom of the dialog named **Publish the report after saving**.
- Select the check box to make sure that the report is both saved and published.



餐 Save Report					- 0	×	(
Save report in:	TU						
Search		Report Id	Report Title	Published	Modified On	Modified	^
SPIE Nederland BV		CERT_3_NBA	CERT_3_NBA	Yes	8/15/2019 3:36:21 PM	ALAIN	
in terret in the second secon	`   🖻	CERT_PDF	CERT_PDF	Yes	8/16/2019 3:41:53 PM	ALAIN	
E TU		CERT TEST1	CERT TEST1	Yes	7/10/2019 2:27:12 PM	ALAIN	
E CERT_3_NBA		CL513	CL513	Yes	2/17/2020 3:11:44 PM	ALAIN	
- CERT_PDF	B	CLIENTRELEASE 1	CLIENTRELEASE 1	Yes	11/22/2019 10:24:01 AM	ALAIN	
- CERT_TEST1		CLIENTRELEASE5 10	CLIENTRELEASE5 10	Yes	11/25/2019 11:31:34 AM	ALAIN	
🖻 CL513	B	CR TEST	CR TEST	Yes	8/27/2019 11:31:50 AM	ALAIN	
CLIENTRELEASE_1		CUSTOMER BALANCE	CUSTOMER BALANCE	Yes	7/18/2019 9:12:54 AM	ALAIN	
CLIENTRELEASE5_10	B	CUSTOMER INVOICE REPORT	CUSTOMER INVOICE REPORT	Yes	4/25/2019 10:54:46 AM	ALAIN	
	B	DG FX 1	DG FX 1	No	9/22/2019 11:43:40 PM	ALAIN	
CUSTOMER_BALANCE		DG1	DG1	No	4/2/2020 10:54:18 AM	ALAIN	
		EIZBR 293	EIZBR 293	Yes	1/29/2020 1:31:03 PM	ALAIN	
		EIZBR 293NEW	EIZBR 293NEW	Yes	1/29/2020 4:15:51 PM	ALAIN	
EIZBR 293		EIZBR 507	EIZBR 507	Yes	11/22/2019 11:24:07 AM	ALAIN	
EIZBR 293NEW		HIGHLIGHT11	HIGHLIGHT11	Yes	2/14/2020 5:08:25 AM	ALAIN	
- EIZBR_507		INVOICE REPORT	Invoice Report	Yes	6/25/2019 8:51:20 AM	ALAIN	
- HIGHLIGHT11		INVOICE TEST	INVOICE TEST	Yes	6/25/2019 11:41:27 AM	ALAIN	
- Invoice_Report		NEWSLICERS	NEWSLICERS	Yes	2/12/2020 10:39:47 AM	ALAIN	
- INVOICE_TEST		NO BR	NO BR	Yes	7/12/2019 10:46:29 AM	ALAIN	
- INEWSLICERS		NOO BR	NOO BR	Yes	7/12/2019 10:54:06 AM	ALAIN	
- ■ NO_BR		POLISH PIVOT	POLISH PIVOT	No	8/26/2019 3:15:05 PM	ALAIN	
		PUBLISHEDEROM32BITEXCEL		Yes	11/25/2019 3:22:57 PM	ALAIN	
		PUBLISHEDEROM64BIT	PUBLISHEDEROM64BIT	Yes	11/25/2019 3:33:13 PM		$\checkmark$
< >	<					>	
Add Root Folder							
Report Id: TEST1234			Revision: 1				
Denest Title, TEST1234			Povision Commont:				ור
Report Title: 1204			Revision Comment.				-
Publish the	report	after saving					
	_					<u> </u>	
					Save	Cancel	



• Click on Save.

The following dialog will be displayed.





If the check box Publish for BR Access Only is selected, the publishing leads to that the report is NOT available in IFS but it will be possible to run it from Order Report dialog in IFS Business Reporter Report Mode and to utilize server functionality to investigate number of data sets, timings etc.



• If the purpose is to publish the report to IFS, click **OK**. If the publishing is successful, the below message will be displayed.

IFS Business Reporter $\times$			
Report publish	ned successfully		
	ОК		
Figure 3.6			

## Publishing a Previously Saved BR Report

- This is the standard publishing option. When designing a BR report, it is rather common to develop several versions of the report and saving them and finally pick the one that should be published for the end users.
- Click on the Publish Report icon in the Save group in the IFS Business Reporter ribbon.





In the *Publish Report* dialog, select the report version to be published, decide if the published report should only be accessible by Business Reporter or not and finally click *Publish*.



Publish Report							-	_		×
Select the report and the version	to pub	lish:								
Search		Report Id TEST1234	Report Title TEST1234	Revision 1	Published Yes	BR Access Only No	Modified On 4/2/2020 7:32:54 PM	Modifi ALAIN	ed By I	
SAVEONLY     SLICERS2     SLICERSFORDOC     SLICERSFORDOC     SLICERSTEST     TEST_REP     TEST_SUP_BUG2     TEST123     TEST123     TESTEX     TRAINING1     TU1     TU2     WBSLICERSWITHS     WINDOWS_TEST1     Winteback Aagregate     X		TEST1234	TEST1234	2	No	No	4/2/2020 7:38:00 PM	ALAIN	•	>
	Repo	rt ld:	TEST1234				Revision: 2			
[	Pi	ublish for BR	Access Only	]			Publisl	h	Canc	el

Figure 3.8

To Unpublish or Delete a published/saved report, use the Publish Report dialog.

🔮 Publish Report									_		×
Select the report and the version	to p	ublis	n:								
Search			Report Id	Report Title	Revision	Published	BR Access Only	Modified On	Modified By		
	~		TEST1234 TEST1234	TEST1234 TEST1234	1 2	Yes No	No No RMB opti	Publish Delete Unpublish	Iected report		
	Re	port le	d: TE	ST1234				Revision: 1			
	Re	port T	itle: TE	ST1234							
		Publi	sh for BR Ac	cess Only					Publish	Cance	əl

Figure 3.9



- Select the report version to be deleted or unpublished. If the report version is published it will not be possible to delete it.
- When unpublishing a report version, it will be necessary to confirm that the action is ok since unpublishing will affect already created schedules based on the report.

# 3.3 Loading a Report

A BR report can be loaded either from the database or from a folder or drive.

## Loading a saved report



### Figure 3.10

Click in the Load Report icon in the File group in the *IFS Business Reporter* ribbon. Load **Report** is available in **Report Mode** as well as in **Design Mode** for users with report designer authorization. In the *Load Report from Database* dialog, select the report version/revision to load and then click on Load.



Load Report from Database		-		×
Load report in:	TU			
	Report Title V			
Search   Search  Network  Search  Network  Search  Network  Noo_BR  Noo_BR  Polish_Pivot  PublishedFRom328  PublishedFRom328  SAVEONLY  SAVEONLY  SAVEONLY  SUICERSFORDOC  SLICERSFORDOC  SLICERSFORDOC  SLICERSFORDOC  SLICERSFORDOC  TEST_REP  TEST_SUP_BUG1  TEST_SUP_BUG2  TEST123  TEST123  TEST123  TEST123  TEST123  TEST2  WBSLICERSWITHSHT WINDOWS_TEST1	Report Id     Report Title     Revision     Published     BR Access Only     Modified On     M       TEST1234     TEST1234     1     Yes     No     4/2/2020 11:28:36 AM     A       TEST1234     TEST1234     TEST1234     2     No     No     4/2/2020 12:42:34 PM     A	Vodified By ALAIN ALAIN		
View Folder Structure				
Report Id: TEST1234	Revision: 2			
Report Hile: 1204	Revision Comment			
		Load	Cance	1

Figure 3.11

## Loading a report from folder/drive

Opening a IFS Business Reporter report previously saved in a folder/drive can be done in two ways. Either use the standard file browser to locate the report or use **Open** option in Excel to browse and locate the report. Once located, open the report by clicking on it. If not already logged on to an environment it will be necessary to provide connection details, i.e. user account and environment.

## **3.4 Refresh Information Sources**

When loading a previously saved or published report from the database, there is a chance that the metadata of Information Sources used in the report (as stored in the BR client) is not in synced with the current installed metadata for the same Information Sources. To refresh a report with the Information Source metadata, click on **Refresh Information Sources** available under **Refresh All** in the **Design Options** group in the *IFS Business Reporter* ribbon.

Refreshing Information Source specific metadata can only be made in **Design Mode**.



IFS Busi	ness	Reporter $>$ Search		
	ØF	Refresh All - OnLine -	5	ſ
L <b>☆</b> Report	5	Refresh Information Sources		Document
Options	C	Refresh IFS Business Reporter Settings	5	Actions
	i <u>↓</u>	Refresh Global Parameters		



# **3.5 Order Reports**

The **Order Report** option provides the possibility to execute a published report. The report has either been published for BR access only or published to be available for end users in IFS. The option is available only in **Report Mode** and can be found in the **File** group in the *IFS Business Reporter* ribbon.



Figure 3.13

Clicking on Order Report opens the Order Report dialog box that displays all published reports.



ኛ Order Report					- 🗆	X
Order report in:	TU					
	Dep	at Titla				
	керс	Sit nue 🗸	àr			
Search		Report Id	Report Title	Published	Modified On	Modifie 🔺
⊞-© 0YaSiLK		NOO_BR	NOO_BR	Yes	7/12/2019 10:54:06 AM	ALAIN
		PUBLISHEDFROM32BITEXCEL	PUBLISHEDFROM32BITEXCEL	Yes	11/25/2019 3:22:57 PM	ALAIN
⊞ <sup>™</sup> BR_DEMO		PUBLISHEDFROM64BIT	PUBLISHEDFROM64BIT	Yes	11/25/2019 3:33:13 PM	ALAIN
⊞		SLICERS2	SLICERS2	Yes	2/13/2020 10:55:33 PM	ALAIN
		SLICERSFORDOC	SLICERSFORDOC	Yes	2/13/2020 10:40:13 PM	ALAIN
Example Reports		SLICERSTEST	SLICERSTEST	Yes	2/11/2020 3:43:38 PM	ALAIN
		TEST_REP	TEST_REP	Yes	5/31/2019 9:39:59 AM	ALAIN
		TEST_SUP_BUG1	TEST_SUP_BUG1	Yes	8/8/2019 3:27:09 PM	ALAIN
		TEST_SUP_BUG2	TEST_SUP_BUG2	Yes	8/8/2019 10:42:34 AM	ALAIN
		TEST111	TEST111	Yes	2/28/2020 10:36:27 AM	ALAIN
n ⊂ Praticial Control		TEST123	TEST123	Yes	6/24/2019 2:37:19 PM	ALAIN
H- C SJavLK		TEST1234	TEST1234	Yes	4/2/2020 11:28:36 AM	ALAIN
⊞-© TFT		TESTEX	TESTEX	Yes	2/28/2020 10:44:37 AM	ALAIN
🗄 🖻 TU		TRAINING1	TRAINING1	Yes	4/11/2019 11:26:36 AM	ALAIN
Hara Beports ⊡		TU1	TU1	Yes	2/14/2020 6:52:56 AM	ALAIN
		TU2	TU2	Yes	2/14/2020 6:56:58 AM	ALAIN
		WBSLICERSWITHSHTREP	WBSLICERSWITHSHTREP	Yes	2/13/2020 11:06:08 PM	ALAIN
		WINDOWS TEST1	WINDOWS TEST1	Yes	8/15/2019 2:07:55 PM	ALAIN
		WRITEBACK AGGREGATED	Writeback Aggregated	Yes	10/31/2019 3:36:36 PM	CFO
		WRITEBACK TEST	WRITEBACK TEST	Yes	7/26/2019 2:03:23 PM	CFO
		WRITEBACK TRANSACTIONAL	Writeback Transactional	Yes	10/31/2019 9:21:12 AM	amjali 🗡
	<					>
View Folder Structure						
Report Id: TEST1234			Revision: 1			
TECT1004			Devision Operand			
Report Title: TEST 1234			Révision Comment:			
					Order	Cancel



Select the report to be ordered and click on **Order** to start the execution. If the report has parameters, the *Enter Parameter Values* dialog box will be opened to support parameter input. The report will open in a separate Microsoft Excel Workbook.

# 3.6 Schedule & Order Reports

A published BR report can be either ordered or scheduled. Ordering a report means that the report is executed right away, and the resulting report will be made available for the end user when the execution has finalized.

Scheduling a report means that an execution schedule is defined that will start at a given time. The schedule can be set to execute on any calendar day, week or month or at regular intervals along with time stamping. After a scheduled report is executed, it can be viewed through the *Report Archive* in IFS Clouds. Scheduling provides the possibility to define an E-mail to which the completed report should be sent to.



## Scheduling a BR Report

- Login to IFS Clouds.
- Go to Order Report form.
- Select the report that you need to schedule.

● > Reporting > Order Report 🔁								
Or	de	r Report			4			
:=		♡ 🖻 ∨ Order Re	Schedule Report					
~	:	Report Id	Report Name	Lu Name	Report Type	Domain		
	÷	017_CHARTS_LINE_REP	017_Charts_Line	XlrTemplateUtil	Business Reporter			
	:	10UPD2_PDFBA_REP	10UPD2_PDFBA	XlrTemplateUtil	Business Reporter			
$\Box$	÷	10UPD2_PDFNONBA	10UPD2_PDFNONBA	XlrTemplateUtil	Business Reporter			
	:	10UPD2_STDBA_REP	10UPD2_STDBA	XIrTemplateUtil	Business Reporter			

Figure 3.15

• Next, the **Schedule Report** will get enabled. Click on that. You can alternatively click on the three dots next to the check box to find the **Schedule Report** option.

• >	● > Reporting > Order Report 🛱								
Order Report									
	IE     V     IE     ∨       Order Report     Schedule Report								
~	: Report Id			Report Name	Lu Name	Report Type			
	÷	017_CHARTS_LII	NE_REP	017_Charts_Line	XlrTemplateUtil	Business Reporter			
	Ac	ld to Favorites	REP	10UPD2_PDFBA	XlrTemplateUtil	Business Reporter			
	Order Report NBA		NBA	10UPD2_PDFNONBA	XlrTemplateUtil	Business Reporter			
C Schedule Report REP		REP	10UPD2_STDBA	XlrTemplateUtil	Business Reporter				
	÷	10UPD2_STDNC	NBA_R	10UPD2_STDNONBA	XlrTemplateUtil	Business Reporter			

Figure 3.16

- You will be directed to the Schedule Report form.
- If the report contains any Parameters, enter them and click on Next.



Reporting > Order Report > Schedule Report - 028_StdParan	neter							
Schedule Report - 028_StdParameter								
Parameters — Schedule — Schedule Options — Distribution — Settings								
Report Parameters								
Year 2018								



Then you will be directed to Schedule dialog where the Recurrence Pattern (Daily, weekly, monthly etc. and the Time) and the Range of Recurrence (Start and End Dates) must be entered. Click on Next to proceed to the next dialog.

Reporting > Order Report > Schedule Report - 028_StdParameter									
Schedule Name									
Scheduled Report - 028_StdParameter									
This schedule has never been executed.									
Recurrence Pattern									
Options	Time								
Daily	12:00 AM 🕒								
Weekly									
OMonthly									
Olate									
Custom									
Range of Recurrence									
Start Date	End Date								
4/2/2020	Ē								

### Figure 3.18

• Next dialog is **Schedule Options.** Here you can select the language code, set the report schedule to active or inactive state and send a stream notification upon the execution of the report at the scheduled time.



Reporting > Order Report > Schedule Report - 028_StdParameter							
Schedule Report - 028_StdParameter							
Parameters - Schedule -	Schedule Options — Distribution — Settings						
Options							
Set as Active	Language Code en - English						
Streams							
Send Stream Notification							
Image: Previous         Image: Next         Finish         Cancel							

### Figure 3.19

Click on Next and you will be directed to the *Distribution* dialog. By default, only the
person who creates the schedule will get access to the report after it is executed and
saved to the *Report Archive*. However, if you need other users/user groups also to
access the report, you can set it here. Click on Next to proceed to the final step.



> Reporting > Order Report > Schedule Report - 00	9_Zoom_IN		
Parameters - Schedule -	- Schedule Options	Distribution      Setting	ngs
Distribution Users			
Find	С	FO	=
00001	<u> </u>		-
00003	»	$\backslash$	
101001	«	The user CFO also will have	
101002		access to this report in Report Archive	<b>x</b>
144082			
202021	•		
Distribution Groups			
Find			
	>		

Figure 3.20

Final step is the Settings dialog.
 When the scheduled report is executed, you can send an Email notification to a specific address by typing the address under the Email to option under the When Scheduled Report is finished section.

When scheduled report is finished	
<ul> <li>Do nothing</li> <li>Print using</li> <li>E-Mail to</li> </ul>	Address



If you need to receive an e-mail with the report attached, set the E-mail to toggle button to Yes and type in an e-mail address in the box in front of it.
 If you need to save the report to Document Management, set the Archive the report as a document toggle button to yes and type in a Document number.



Report Archive	
E-Mail to	Address
Archive the report as a document	Document No

Figure 3.22

• Finally click on **Finish** and you will see a message as shown below if your report was scheduled successfully.

Reporting > Order Report > Schedule Report - 028_StdParameter			
Schedule Report - 028_StdParameter			
Report 028_StdParameter assigned with the Schedule Id 157749 successfully scheduled.			
<i>C</i> Run Again            Show in Scheduled Reports			

Figure 3.23

# 3.7 Save Report Options

There are two special options users can go for when saving an IFS Business Reporter report. You can find them by clicking on the **Report Options** icon in the *IFS Business Reporter* ribbon. These options are explained in detail below.

## Converting to PDF

An IFS Business Reporter report can be converted to a PDF file when ordering it from IFS Clouds. To handle this, it is necessary to do a configuration in **Design Mode**.

• Click on **Report Options** in the **Design Options** group in the *IFS Business Reporter* ribbon to open the **Report Options** dialog.


File	Hon	ne Insert	Page Layout	Formulas Dat	a Review	View	Developer	Help	IFS Busi	iness Reporter	𝒫 Search	
Run Repo	Go to rt Report	Load New Report - Report	Save Publish Report Report	C Manage Repo	rt Structure 🦷 Republish d Validate	Manage E	xport Archive	Highlight	Report Options	<ul> <li>♂ Refresh All →</li> <li>I Validate Report</li> <li>Access Type</li> </ul>	OnLine	•
		File	Save		Manage Repo	orts		Highlight 🗔		Design C	Options	

Figure 3.24

• Go to the Save tab.

Report Options		Х
Execution Save Writeback	IFS Business Reporter - Save and Publish Options	
Debug	Save/Publish Options          Remove Connection to IFS Business Reporter when using BR Execution Server         Convert to PDF when ordering through IFS Cloud	
	OK Cancel	



- Select the check box Convert to PDF when ordering through IFS Clouds and click OK.
- Save and Publish the report.
- Next go to the **Order Report** page.
- Select the report previously saved with the option of converting to PDF and complete the ordering.
- When the report is ready, open it and it will be converted to a PDF document. The same thing happens if the executed report is opened from the *Report Archive*.



### Remove connection to IFS Business Reporter

The other Save Report Option is Remove Connection to IFS Business Reporter when using the **Execution Server**. This can also be found under the **Report Options** button in the **IFS Business Reporter** ribbon.

File	e Hon	ne Insert	Page Layout	Formulas Data	Review	View	Developer	Help	IFS Busi	ness Reporter	✓ Search	
Run Repo	Go to ort Report	Load New Report - Report	Save Publish Report Report	C Manage Report Stru Bulk Save and Repu Download and Valie	ucture 🛛 🙀 N Iblish date	Manage Ex	port Archive	Highlight	Report Options	<ul> <li>∂ Refresh All →</li> <li>I Validate Repor</li> <li>Access Type</li> </ul>	OnLine	*
		File	Save	N	lanage Report	ts		Highlight 🕞		Design (	Options	

Figure 3.26

🌼 Report Options		×
Execution Save Writeback	IFS Business Reporter - Save and Publish Options	
Debug	Save/Publish Options          Remove Connection to IFS Business Reporter when using BR Execution Server         Convert to PDF when ordering through IFS Cloud	

#### Figure 3.27

This option is used to save a BR report in standard MS Excel file format when ordered through the **IFS Business Reporter Execution Server**. When the executed report is viewed from the *Report Archive* it will open as a MS Excel worksheet which will not require IFS Business Reporter.



# 4. Report Manager

The *Report Manager* in IFS Business Reporter is part of **Manage Reports** related functionality and handles the following actions:

- Download and Validate
- Bulk Save and Republish

# 4.1 Benefits of the Report Manager

- Provides the possibility to download one or many saved/published BR reports to a folder.
- Provides the possibility to validate one or many saved/published BR reports.
- Downloaded BR reports can be saved or republished as a bulk action.

# The actions related to the Report Manager can be found in Business Reporter ribbon in the

## Manage Reports group.

	File	Hom	ne Insert	: Page Lay	vout Fo	ormulas	Data	Review	View	Developer	Help	IFS Busi	ness Reporter	✓ Search
	Run Report	Go to Report	Load N Report • Re	lew Save port Report	Publish Report	🕞 Manage 🔒 Bulk Sav 🔁 Downloa	Report Str e and Rep ad and Val	ructure 🗔 ublish idate	Manage Ex	port Archive	Highlight	Report Options	C Refresh All - Validate Report	OnLine •
l			File	Sa	ive		1	Manage Repo	orts		Highlight 🗔		Design (	Options

Figure 4.1

# 4.2 Downloading and Validating Reports

# Prerequisites

• Saved or Published BR reports must exist.

### Validate Reports

- The Validate action can be used to validate if the Information Source metadata in a BR report matches the metadata as currently stored in the database.
- The **Validate** action can be used to validate several reports. However, the validation time will increase with increased number of reports.
- If any metadata mismatches are found, the validation process will indicate an error status for the affected reports.
- Reports with error status should preferably be investigated and corrected. Downloading them to a folder is one option.



Report Manager wnload and Validate Reports Bulk Save and	Republish Reports		-		×
Report Id	Revision	Report Title	Excel Version	Publisł	Statu
PARA1	2	PARA1	2007 or A		
PIVOT	2	PIVOT	2007 or A		
UPD2_PIVOT	1	UPD2_PIVOT	2007 or A	$\checkmark$	
UPD2_CLK	1	UPD2_CLK	2007 or A	$\checkmark$	
APPS10UPD6_1	2	APPS10UPD6_1	2007 or A	$\checkmark$	
UPD5_PARA1	2	UPD5_PARA1	2007 or A		
REP1	1	REP1	2007 or A	$\checkmark$	
UPD3_SLICER	1	UPD3_SLICER	2007 or A		
REP2_PDF	2	REP2_PDF	2007 or A		
REP3_NBA	1	REP3_NBA	2007 or A		
10UPD5_SF_GP1	V1	10UPD5 SF GP 1	2007 or A	$\checkmark$	
10UPD5_SF_GP2	V1	10UPD5 SF GP 2 - GP as Param def val	2007 or A	$\checkmark$	
APPS10UPD6_1_NEW	3	APPS10UPD6_1_NEW	2007 or A	$\checkmark$	
UPD3_PIVOT_IN_UPD4_FIXSHT	1	UPD3_PIVOT_IN_UPD4_FIXSHT	2007 or A		
UPD4_CLK	1	UPD4_CLK	2007 or A	$\checkmark$	
10UPD5_SF_BR	V1	10UPD5 SF BR	2007 or A	$\checkmark$	
NESTED_REPEATER	1	NestedRepeater	2007 or A	$\checkmark$	
UPD6_TEST3	1	UPD6_TEST3	2007 or A	$\checkmark$	
DRILL_DOWN	1	Drill_Down	2007 or A	$\checkmark$	
PDF_CONFIGURED	1	PDF_Configured	2007 or A	$\checkmark$	
REMOVE_BR	1	Remove_BR	2007 or A		
EIZBR469	1	EIZBR469	2007 or A		
APPS10UPD7	1	APPS10UPD7	2007 or A		
10UPD6 SF PDF	V1	10UPD6 SF PDF	2007 or A		

Figure 4.2

# After the validation:

Report la	Revision	Report Title	Excel Version	Publish	Stat
PARA1	2	PARA1	2007 or A		
PIVOT	2	PIVOT	2007 or A		
UPD2_PIVOT	1	UPD2_PIVOT	2007 or A	$\checkmark$	
UPD2_CLK	1	UPD2_CLK	2007 or A	$\checkmark$	
APPS10UPD6_1	2	APPS10UPD6_1	2007 or A	$\checkmark$	
UPD5_PARA1	2	UPD5_PARA1	2007 or A		
REP1	1	REP1	2007 or A	$\checkmark$	
UPD3_SLICER	1	UPD3_SLICER	2007 or A		
REP2_PDF			2007 or A		
REP3_NBA	IFS Business Reporter	X	2007 or A		
10UPD5_SF_GP1			2007 or A	$\checkmark$	
10UPD5_SF_GP2	The validation ope	ration is complete. Check the Status column	2007 or A	$\checkmark$	
APPS10UPD6_1_NEW	for validation resul	ts.	2007 or A	$\checkmark$	
UPD3_PIVOT_IN_UPD4_FIXSH			2007 or A		
UPD4_CLK			2007 or A	$\checkmark$	
10UPD5_SF_BR		ОК	2007 or A	$\checkmark$	
NESTED_REPEATER			2007 or A	$\checkmark$	
UPD6_TEST3	1	UPD6_TEST3	2007 or A	$\checkmark$	
DRILL_DOWN	1	Drill_Down	2007 or A	$\checkmark$	
PDF_CONFIGURED	1	PDF_Configured	2007 or A	$\checkmark$	
REMOVE_BR	1	Remove_BR	2007 or A	$\checkmark$	
	1	FIZBR469	2007 or A		

Figure 4.3



# Download Reports

- The **Download** action is used to download one or many BR reports to a folder.
- The download might be time consuming depending on number of selected reports.
- Download is typically made after having found validation errors in reports, thus downloading a set of reports in one go. Downloaded reports can then be analyzed, corrected and tested.
- Download can of course also be made in order to save reports in a folder or to be able to zip and send them to a receiving part.

# Usage

- Use the check box to the left of the **Report Id** to select reports you want to validate/download.
- If you click **Download**, it will be required to select the target download folder.
- If you click **Validate**, Information Source metadata in all selected reports will be validated and the status will change to red to indicate any found errors.

# 4.2 Bulk Save and Republish

# Prerequisites

- Saved or Published BR reports must exist.
- The *Report Manager* must previously have been used to download the BR reports to be re-saved/re-published.

# Bulk Save and Republish

Re-saving/Re-publishing BR reports is not a frequently used action, but it can be useful in some cases e.g.:

- Validation of saved/published BR reports has reported errors to be investigated.
- An upgrade of BR version might require that all saved and/or published reports are resaved/re-published.
- A bug correction requires re-save/re-publishing of reports.

# Usage

• The *Bulk Save and Republish Reports* tab displays all Excel reports found in the selected folder.



- If a selected report is NOT a previously saved/published BR report it will be indicated with error status.
- The **Published** check box is indicated for reports that exist as published reports in the database.
- Use the check box to the left of the **File Name** to select reports to be resaved/republished.
- The action is started by clicking **Save/Republish** button.
- Once a report is resaved/republished, the report status indicates whether the action was successful or if any errors have occurred.

\$	Report Manager						_		X
Dow	nload and Validate Reports	Bulk Save and Republish	Reports						
									_
Fil	e Path: C:\Users\THUPLK\	Documents\Open XML Tes	iting\tt					Browse	
	File Name	Report Id	Revision	Report Title	Published	Scheduled	Status	Message	
	DRILL_DOWN_1.xlsx	DRILL_DOWN	1	Drill_Down	$\checkmark$				
	SIMPLE_FILTER_1.xlsx	SIMPLE_FILTER	1	SimpleFilter	$\checkmark$				
	SHEETREPEATER_1.x	SHEETREPEATER	1	SheetRepeater	$\checkmark$				
	NESTED_REPEATER	NESTED_REPEATER	1	NestedRepeater	$\checkmark$				
	ZOOM_IN_1.xlsx	ZOOM_IN	1	Zoom_In					
<									>
	Soloot All Rublishod Dopo	ute							
	Joelect All Published Repo	115							
	) Select All Saved Reports					Save/R	epublish	Clos	е

Figure 4.4



# 5. Writeback

Writeback is a generic function in IFS Business Reporter. In order to perform this function, relevant information source needs to support the writeback configurations. There are two types of writeback:

- Complete writeback
- Modified writeback

# 5.1 Complete Writeback

Complete writeback is where all the values in writeback enabled cells will be written back to the database regardless of them being modified or not. This option can be selected from the Report Options pane.

File	Home	e Insert Pa	ige Layout Fo	rmulas	Data	Review	View	Developer	Help	IFS Busines	s Reporter	
Rur Repo	Go to rt Report	Load New Report ~ Report	Save Publish Report Report	ि Man 🔒 Bulk 🔁 Dow	age Repor Save and mload and	t Structure Republish Validate	💽 Manage	Export Archive	Highlight	Report Options	♂ Refresh All ~ OnLine ♥ Validate Report ➡ Access Type	~
		File	Save			Manage F	Reports		Highlight F	2	Design Options	

Figure 5.1



Figure 5.2



A complete writeback can be performed by following the below given steps.

- First, go to the design mode and select the required information source. For this example, Business Planning Drivers-All Versions Information source is selected. In this example the target is to writeback sales quantity per product per year period.
- 2) Drag and drop the display items to the Excel sheet as required and create the necessary design rows and columns.

K25		-	X V	fx						<ul> <li>Design Row Options:</li> </ul>
1	A	В	С	D	E	F	G	Н	1	Design Row: Row #1 🗸 🛗 🚟
2										Filter Criteria Advanced Repeater Options
3										Display Item Sel Start Stop All Sort Adv
4										► DIM_PLANNING_DRIVER.CODE 5 6 A
5			[Driver ID]	[Year Period]						
6			[Code D]	[Transaction	Currency A	mount]				
7										
8										<ul> <li>Design Column Options:</li> </ul>
10										
11										Design Column: Column #1 🛛 🗸 🛅
12										E'll o'll i bla d'Denester o'll
13										Filter Criteria Advanced Repeater Options
14										Display Item Sel Start Stop All Sort Ad
15										► DIM_ACCOUNTING_PERIOD.CODE D D A
16										
17	-									

Figure 5.3

3) Select the display item that needs to be written back from the excel sheet and select the writeback icon under cell options

B	C	D	E	F						
					-1					
	Sales quantity plan for 2021									
	[Driver ID]	[Year Perio	od]		-					
	[Code D]	[Transactio	on Currency	Amoun	t]					
	•				_					
		-								
> Cell Opti	ons:									
Design Cell:	D6			<b>**</b> 1						
Filter Criteria	Advanced	Writeback	Zoom In Dri	ll Down	Option	s				
Display Iten Keys:	n:									
Display Ite	m	Value		LoV	Ref	Mandatory				

Figure 5.4



- 4) Using the list of values, select the item that needs to be written back as the Display item. In this example it will be Transaction Currency Amount.
- 5) To enable writeback, there are some mandatory fields that must be filled in. These fields will be automatically captured, if they are used in a repeater or a filter in the report, if not they can be entered manually.

🖻 Run 🔺 Go to Report			DESIGN MODE								
	🗐 Repor	t Book	🖹 Sheet 🗏 Grid								
Report Grid - Sheet1	<b>=</b>	Row	Column 📼 Cell								
<ul> <li>Information Sources:</li> </ul>		'	ন								
<ul> <li>Cell Options:</li> </ul>											
Design Cell: D6		~									
		- ''									
Filter Criteria Advanced Wri	teback Zoom In Drill Down	Options									
Display Item: FACT_PLAN	Display Item: FACT_PLANNING_DRIVER_TRANS.CURRENCY_AMOUNT										
Keys:											
Display Item	Value	LoV Re	f Mandatory 🔨								
Company	= 'PR USD'										
Business Plan ID	= '2021'	🖪									
Planning Unit ID	= 'PU1'	🖪									
Unit Version ID	= 'VERSION1'	🖪									
Transaction ID	=-999	🖪									
Currency											
Currency											
Year Period	=!\$D\$5	5									

Figure 5.5

- 6) Ensure that the check box to Allow Complete Writeback is ticked in Report Options.
- 7) Execute the report. Report will be generated as below.

Α	В	С	D	E	F	G	Н		J	K	L	М	Ν	0
	Sales Quantity	Plan for 2	021											
	SALES QTY	202101	202102	202103	202104	202105	202106	202107	202108	202109	202110	202111	202112	
	А	300	300	300	300	300	300	300	300	300	300	300	300	
	В	500	500	500	500	500	500	500	500	500	500	500	500	
	С	600	600	600	600	600	600	600	600	600	600	600	600	
	D	700	700	700	700	700	700	700	700	700	700	700	700	

Figure 5.6



8) In the report mode, change the values of as per the requirement. In the example Sales quantity values of Product A is changed from 300 units to 400 units.

В	С	D	E	F	G	Н		J	K	L	М	N	0	Р
	Sales quantity plan for 2021													
	SALES QTY	202101	202102	202103	202104	202105	202106	202107	202108	202109	202110	202111	202112	_
	Α	400	400	400	400	400	400	400	400	400	400	400	400	
	В	500	500	500	500	500	500	500	500	500	500	500	500	
	С	600	600	600	600	600	600	600	600	600	600	600	600	
	D	700	700	700	700	700	700	700	700	700	700	700	700	

Figure 5.7

9) Then click writeback icon Writeback from the document action pane and select Get All icon
Writeback icon Get All icon
Get All .The resulting data set includes all the values regardless of being modified or not.

🖻 R	B Run B Go to Design REPORT MODE													
			4	Paramete	ers 🛡 Wi	riteback <sup>o</sup>	🖻 Debu	ıg						
Wri	teb	ack	🖗 Get Me	odified 🛛	Get All	Save	Expo	rt						
~ \	Nrite	eback Data Sets	5:											
< Data	<< Writeback Data Set 1 >> Data Set: Business Planning Drivers - All Versions •													
		Reference	Transactio Currency	Company	Business Plan ID	Planning Unit ID	Unit Versio	^						
		Sheet1!M6	400	PR USD	2021	PU1	VERSIC							
		Sheet1!N6	400	PR USD	2021	PU1	VERSIC							
		Sheet1!O6	400	PR USD	2021	PU1	VERSIC							
		Sheet1!D7	500	PR USD	2021	PU1	VERSIC							
		Sheet1!E7	500	PR USD	2021	PU1	VERSIC							
		Sheet1!F7	500	PR USD	2021	PU1	VERSIC	~						



- 10) Click save icon  $^{\square$  Save to update the values to the database.
- 11) Execute the report again, to see the updated values.
- 12) Another way to writeback the values to the database is by using the following icons in the report ribbon.





Figure 5.9

# **5.2 Modified Writeback**

In modified writeback only the modified values will be written back to the database. This is also enabled from the Report Options pane.

**Note:** The modified writeback option compares the values that are on the writeback cells with the values that you retrieved when executing the report. Please note that, it does not compare with the values that are there in the database tables.

A modified writeback can be performed by following the below given steps.

- 1) Follow up to the 5th step in the above given example
- 2) Ensure the check box to Allow Modified Writeback is ticked in Report Options.



Report Options		×
Execution Save	IFS Business Reporter - Writeback Options	
Writeback Debug	Writeback Settings       Allow Complete Writeback       Allow Modified Writeback	
	Writeback Options	- 1
	<ul> <li>Writeback Zero Values</li> <li>Writeback NULL Values</li> <li>Compare with Database Values</li> <li>Auto Add New Transaction Row</li> </ul>	
	OK Can	cel

Figure 5.10

3) Execute the report and change the values as per the requirement. In the given example sales quantity values of Product A is changed from 400 units to 450 units for the period 202101 and 202102.

В	С	D	E	F	G	Н		J	K	L	М	N	0	Р
	6 L													
	Sales quan	tity plan for	2021											
	ALES OTV 202101 202102		000100	202404	2024.05	2024.00	2024.07	2024.00			202444	202442		
	SALES QTY	202101	202102	202103	202104	202105	202106	202107	202108	202109	202110	202111	202112	
	А	450	450	400	400	400	400	400	400	400	400	400	400	
	В	500	500	500	500	500	500	500	500	500	500	500	500	
	С	600	600	600	600	600	600	600	600	600	600	600	600	
	D	700	700	700	700	700	700	700	700	700	700	700	700	



4) Then click writeback icon <sup>♥</sup> Writeback from the document action pane and select Get Modified icon <sup>♥</sup> Get Modified. The resulting data set includes only the modified values.



🖻 Run 🖻 Go to Design 🛛 🛛 🛛 🛛 🛛 🛛 🗛														
			-[2]	Paramete	rs 🛡 Wri	teback 🦻	Debug							
Write	back		🦻 Get Mo	dified	Get All	Save	Export							
~ Writ	teback Data Sets	:												
< <	<< Writeback Data Set 1 >>													
Data Se	et: Business	Planning Di	rivers - All V	ersions	•									
	Reference	Transactio Currency	Company	Business Plan ID	Planning Unit ID	Unit Version	Transacti ID							
	Sheet1!D6	450	PR USD	2021	PU1	VERSION	-999							
	Sheet1!E6	450	PR USD	2021	PU1	VERSION	-999							

#### Figure 5.12

- 5) Click save icon  $\blacksquare$  Save to update the values directly to the database.
- 6) Execute the report again, to see the updated values.

# 5.3 Writeback zero and null values

IFS Business Reporter cater to writeback zero values and null values. These features can be enabled by following the below steps.

1) Design a report enabling the writeback option to a selected cell

2) Tick the check box to enable **Writeback Zero Values** and **Writeback NULL Values** in the Report Options pane in the design mode.



淡 Report Options		×
Execution Save Writeback	IFS Business Reporter - Writeback Options	
Debug	Writeback Settings	
	Writeback Options         Writeback Zero Values         Writeback NULL Values         Compare with Database Values         Auto Add New Transaction Row	
	OK Can	icel

Figure 5.13

3) Execute the report and change the values to zero and to null (Blank) as required. In this example sales quantity values of product A are changed to 0 units and null for the periods 202101 and 202102 respectively.

	С	D	Е	F	G	Н		J	K	L	М	N	0	
	Sales quantity plan for 2021													
	SALES QTY	202101	202102	202103	202104	202105	202106	202107	202108	202109	202110	202111	202112	
	Α	0		400	400	400	400	400	400	400	400	400	400	
ľ	В	500	500	500	500	500	500	500	500	500	500	500	500	
	С	600	600	600	600	600	600	600	600	600	600	600	600	
	D	700	700	700	700	700	700	700	700	700	700	700	700	

Figure 5.14



4) Then click writeback icon <sup>w</sup> Writeback from the document action pane and select Get Modified icon <sup>w</sup> Get Modified . The resulting data set includes the zero value and the null value.

B Run B Go to Design REPORT MODE														
		<b>4</b> 51	Paramete	rs 🛡 Writ	teback 🕤	Debug								
Writeback		🦻 Get Mo	dified	Get All	Save	Export								
<ul> <li>Writeback Data Sets</li> </ul>	:													
<< W	<< Writeback Data Set 1 >>													
Data set: Dusiness	Fianning Di	livers - All v	ersions	•		1								
Reference	Transactio Currency	Company	Business Plan ID	Planning Unit ID	Unit Version	Transacti ID								
Sheet1!D6	0	PR USD	2021	PU1	VERSION1	-999								
Sheet1!E6		PR USD	2021	PU1	VERSION1	-999								



# 5.4 Insert New Values for Writeback

This functionality assists users to insert new records via Business Reporter itself without navigating to IFS Cloud. However, users can only insert values that is already defined as basic data in IFS Clouds.

To insert new values for writeback in the report mode. **Enable Insert of New Values for Writeback** check box needs to be selected for the relevant repeater item.

✓ Design Row Options:
Design Row: Row #1 🗸 🕍
Filter Criteria Advanced Repeater Options
Display Item Sel Start Stop All Sort Ad
DIM_PLANNING_DRIVER.CODE 5 6 A +
▶ DIM_CODE_D.CODE 6 6 A •
*
Advanced Repeater Settings ×
Repeater Item ID     DIM_CODE_D CODE       Repeater Item Name     Code D
General Extended Repeater Connection
Repeater Item Null Value
OK Cancel

Figure 5.16



In the Report Mode, select the row/column for which the new value needs to be inserted. Right click and Select Insert New Rows/Columns for BR Writeback to insert new rows/columns to Writeback.

Calib		F	F	G	Н		-	h	nsert New Values fo	r Writeback			×
B		<b>V</b>							Driver ID	Code D			
4								•	SALES QTY	В			
- X	Cu <u>t</u>	201	202103	202104	202105	202106	T		SALES QTY				
[]	<u>С</u> ору	201	.  301	.  500	000	/00	-						
Ê	Paste Options:												
:													
:	Paste <u>S</u> pecial												
:	Insert												
	Delete												
:	Clear Contents												
:	Eormat Cells												
2	<u>R</u> ow Height												
4	<u>H</u> ide												
2	<u>U</u> nhide	×+2	$\bigcirc$					Ŀ	Fetch dimension d	etails	C	Ж	Cancel
1	IFS Business Reporter Options $>$	In	sert New Rov	ws for BR Wr	iteback			-					



The new row will be displayed as below

	В	С	D	Е	F	G	Н	I	J	К	L	М	N	0	Р
1															
2															
3		Sales quan	tity plan for	2021											
4															
5		SALES QTY	202101	202102	202103	202104	202105	202106	202107	202108	202109	202110	202111	202112	
6		А	100	201	301	500	600	700	800	900	1000	1100	1200	1300	
7		В	0	0	0	0	0	0	0	0	0	0	0	0	
8															
9															
10															
11															
12															
13															



# 5.5 Levels of Writeback

There are two types of levels of writeback namely.

- Transaction Level detail level writeback
- Aggregate Level higher level writeback

Relevant writeback level needs to be supported by the information source. This can be viewed in Solution Manager, under information source details. Below given is an example for such



configuration. You can configure the information source to enable either one of the writeback levels or both.

Solution Manager > Reporting and Analys	Solution Manager > Reporting and Analysis > Information Sources > Information Source										
Sort by 🔻		Writ	ebad	k Information							
FACT_PLANNING_TRANSACTION		:=			1						
Module: BUSPLN					Supported Writeback		Writeback Supports Storage of	Stop Writeback Processing	Modified Writeback		
		~	-	Writeback Category	Aggregation Level	Writeback Interface	File	on Error	Supported		
			:	General Write Back	All	PLANNING_UNIT_TRANSACTION_API.PROCESS_WRITE_BACK	No	No	Yes		



# 5.6 Transaction level Writeback

Transaction level writeback enables to view the information on aggregate level and enter or update information on detail level.

Below given is the procedure to execute a transaction level writeback.

1) Design a report enabling the writeback option to a selected cell.

2) Transaction level writeback can be performed in design column or row level. It is enabled when the design cell is configured for writeback and the information source supports transaction level writeback. Select the row/column which you have enabled the writeback function. Under design row/column options, Transaction level writeback can be enabled under the "Options" category.

	А	В	С	D	E	F	G	Н
1								
2								
3			Sales quan	tity plan foi	2021			
4			(D.) (D)	IV D I				
5			[Driver ID]	Transactio		Amountl		
				וומוואמכנוכ	in currency	Amountj		
						7		
Doc	umer	nt Actic	ons		<b>-</b> X			
_	1 -			_				
🖻 Rur	n 🌁 Go	to Report		DESIG	N MODE			
		Ē	Report Boo	ok 🖹 Shee	t 🗉 Grid			
Repo	ort Grid -	Sheet1	📼 Row	🖉 🗉 Colum	n 🗉 Cell			
> Inf	formation	Sources:						
∽ De	esign Row	Options:						
Desig	in Row:	Row #1		N	/ 抽 🔠			
Filter	Criteria A	dvanced Re	peater Optio	ons				
Writ	teback Opt	tions						
	Transactio	n Level Write	back					
Cel	l Style Indi	cation for Mo	dified Transad	tions				
Ac	cent1			~				

Figure 5.20



3) A cell style can be applied to indicate the modified transactions. All the excel cell styles are available in the combo box and cell style can also be customized. This function is only available for transaction level writeback.

4) Once the transaction level writeback option is enabled a new checkbox column will appear in the writeback configuration pane. This can be used to control the additional items that can be included and edited in transaction level.

<ul> <li>Cell Options:</li> </ul>			
Design Cell: D6	×	]	
Filter Criteria Advanced Write	back Zoom In Drill Down Opt	tions	
Display Item: FACT_PLANNI Keys:	NG_DRIVER_TRANS.CURRE	NCY_AMOUN	T
Display Item	Value	Mandatory	Detail Item
Transaction Currency Amount	=!D6		$\checkmark$
Comments			
Accumulated Transaction			
Price			
Quantity			
Factor			
Currency Type			
Company		$\checkmark$	$\checkmark$
Pusiness Dian ID			

#### Figure 5.21

5) Execute the report. Underlying transactions of an aggregate level transaction can be viewed via a separate dialog box by clicking on any writeback enabled cell. Transactions can be modified, deleted, and added using this dialog box. When editing the transactions on detail level, it will be reflected in the report and the cell style used for modified cells will be displayed in the report. Further, it is possible to move the focus on other cells in the report while keeping the dialog box open.



ALES QTY	2021		pany	Business Plan ID	Planning Unit ID	Unit Version ID	Transaction ID	Year Period	Driver ID	Code D	Transaction Currency Amount
	4900	•	🛃 SD	2021	PU1	VERSION1	10041	202106	SALES QTY	В	1000
	6500		SD	2021	PU1	VERSION1	10061	202107	SALES QTY	В	500
	7200		SD	2021	PU1	VERSION1	10130	202101	SALES QTY	В	500
	8400	_	SD	2021	PU1	VERSION1	10131	202102	SALES QTY	В	500
		-	SD	2021	PU1	VERSION1	10132	202103	SALES QTY	В	500
		-	SD	2021	PU1	VERSION1	10133	202104	SALES QTY	В	500
			SD	2021	PU1	VERSION1	10134	202105	SALES QTY	В	500
			SD	2021	PU1	VERSION1	10135	202108	SALES QTY	В	500
			SD	2021	PU1	VERSION1	10136	202109	SALES QTY	В	500
			SD	2021	PU1	VERSION1	10137	202110	SALES QTY	В	500
			SD	2021	PU1	VERSION1	10138	202111	SALES QTY	В	500
			SD	2021	PU1	VERSION1	10139	202112	SALES QTY	В	500
		<									>

Figure 5.22

Configuration of writeback transaction dialog box

Please note that the column configuration will only be available to the users who have the design privileges.

	Colum	n Configuration		×
		Column	Display Name	
Þ	$\checkmark$	Year	Year	OK
	$\checkmark$	Company	Company	
	$\checkmark$	Business Plan ID	Business Plan ID	Cancel
	$\checkmark$	Planning Unit ID	Planning Unit ID	
	$\checkmark$	Unit Version ID	Unit Version ID	
	$\checkmark$	Transaction ID	Transaction ID	Up
	$\checkmark$	Year Period	Year Period	· · ·
	$\checkmark$	Driver ID	Driver ID	Down
	$\checkmark$	Code D	Code D	
	$\checkmark$	Transaction Currency Amount	Transaction Currency Amount	Reset

Figure 5.23



# 5.7 Auto add new transaction row

This option is used along with the transaction level writeback. In some instances, initially there will be no values for transactions. In such situation, when the **Auto Add New Transaction Row** option is selected, system will automatically add a new transaction with the basic details in the writeback transaction dialog box. Accordingly, user will only need to add the value for the particular transaction.

Below given is the procedure to execute a report with Auto Add New Transaction Row option.

**Note:** Since this option is used when there are zero values for transaction, it is required to have a dataset with transactions with zero values.

1) Design a report enabling the Transaction Level writeback option.

2) Tick the check box to enable **Auto Add New Transaction Row** in the Report Options pane in the design mode.

濑 Report Options		×
Execution Save Writeback	IFS Business Reporter - Writeback Options	
Dahur	Writeback Settings	
Debug	☐ Allow Complete Writeback ☑ Allow Modified Writeback	
	Writeback Options	
	Writeback Zero Values	
	Writeback NULL Values	
	Compare with Database Values	
	Auto Add Ivew Iransaction Row	
	OK Car	cel

Figure 5.24



3) Execute the report. In this example, there is no value for Product A for the period 202101.

	А	В	С	D	Е	F	G	Н		J	К	L	М	Ν	0
1															
2															
3		SALES QTY	202101	202102	202103	202104	202105	202106	202107	202108	202109	202110	202111	202112	
4		А	0	200	300	400	500	600	700	800	900	1000	1100	1200	
5		В	2000	1400	1500	1600	1700	1000	1900	2000	2100	2200	2300	2400	
6		С	7200	2600	2700	2800	2900	1000	3100	3200	3300	3400	3500	3600	
7		D	9600	3800	3900	4000	4100	1000	4300	4400	4500	4600	4700	4800	
8															

#### Figure 5.25

4) Click on the cell which as has a zero value. You'll be able to see an automatically added transaction in the writeback transaction dialog box.

*	) w	/riteback Tran	isactions - [C	ell:C4]				×
		Transaction ID	Year Period	Driver ID	Code D	Transaction Currency Amount		
Þ.	+	-999	202101	SALES QTY	Α	O		
	<b>ta</b> /	Add 🚈	Remove	E List	S Configure	re 🖻 U	ndo	Close

Figure 5.26

For further understanding execute the report without the Auto Add New Transaction Row option. You will get a blank writeback transaction dialog box.

# **5.8 Design Limitations**

- Compare with database value option is not supported when Transaction level writeback is enabled.
- When the Transaction level writeback is enabled, **Insert New Rows for BR Writeback** function is not allowed.
- Below interactive features are not supported if the report output is generated by the BR execution server. In that case users needs to execute the report again from Business Reporter client to perform these operations.
  - Transaction level writeback
  - Any of the writeback options with Structure repeaters
  - Insert New Rows for BR Writeback option



# 6. Structure Reports

Structures are used to group data in multiple ways. Below given are some of the examples for structures supported by Information Sources in Business Reporter

- Accounting structures in IFS Financials
- Project structures in IFS Engineering

A Structure can have levels, nodes and leaves. Nodes and leaves are mandatory. Use of levels in a structure is optional.

In the given example structure levels, nodes and leaves can be identified as below.

- levels: Company, Department and Group
- Nodes: Company ABC, Dep 1, Group 1 etc
- Leaves: 102, 103, 104, 202, etc





A structure repeater can be designed in two ways.

- 1. Static Structure Repeater
- 2. Dynamic Structure Repeater



# 6.1 Static Structure Repeater

A report with a Static Structure Repeater will have a fixed format with specific number of levels in the structure. Any change required for the output of the structure report will need to be done in the design mode.

Below given is the procedure to include a static structure in a report.

- 1) First, go to the design mode and select the information source as per the requirement. In this example GL Balance information source is selected.
- Next step is to create design rows with structure repeater items. Structure repeater items are included in dimensions. These are added to a folder named "Structure Repeater Items". Structure ID, Structure description, Node ID and Node description are mandatory items that needs to be included in a dimension

In this example, we are using an accounting structure, therefore Account dimension is selected.



Figure 6.2



3) Drag and drop the display items into the rows and columns in the Excel sheet as required for the report design.

In this example we are creating a report with three structure levels, therefore Node is set as the first, three repeater items. Account is selected as the fourth repeater. Further, Balance is selected as the measure item.

	A	В	С	D	E	F	G			
1				Account	Account Balance			Docu	ment Actions	- × ×
2	[Node]									
3		[Node]						🖻 Run	🕆 Go to Report	DESIGN MODE
4			[Node]							🗊 Report Book 📑 Sheet 🔳 Grid
5				[Account Description]	[Balance]			Report	Grid - Sheet1	Bow Column Cell
6									nation Sources:	
7								. Desir	- D O-ti	
8								♥ Desig	n Kow Options:	
9								Design R	low: Row #1	~ 福 福
10								Filter Crit	oria Advanced Repeater	Ontions
11								Filler Chi	ena Auvanceu Nepeater	Options
12								Disp	lay Item	Sel   Start   Stop   All   Sort   Ad
13								► DIM	ACCOUNT.SRI_NODE_ID	2 5 A •
14								DIM,	ACCOUNT.SRI_NODE_ID	
15								DIM.	ACCOUNT.SRI_NODE_ID	
16								DIM,	ACCOUNT.CODE	
17										
18										
19										
20										
21								Structu	ire Details	Dynamic structures
22										Dynamic Structure Expansion
23										Structure Level Styles
24								-		
-										



Note: Structure Repeaters can be added to both design columns and rows.

- 4) Once you create the design rows and columns Structure Details will be separately displayed in the document action pane. By clicking on the Structure Details, required structure can be selected. For this example, we have selected the BSTEMPLATE structure.
- 5) Execute the report. Final report will be displayed as below.



	A	В	С	D	E	F
1				Account	Account Balance	
2	BALANCE SHEET NET					
3		ASSETS				
4			CURRENT ASSETS			
5				Inventory (control account)	\$ 157,361,432.47	
6				Transfer between sites	\$ 679.17	
7				Products in progress	\$ 10,092.61	
8				WIP shipped to supplier	\$ 3.80	
9				WIP at supplier	\$ 1.00	
10				Work in progress, paid costs	\$ 2,259.60	
11				Work in progress, invoicing	\$ (1,050.00)	
12				Accounts receivable	\$ 2,598,898.55	
13				Travel advances	\$ 2,397.12	
14				Cash	\$ (2,782.12)	
15				Bank accounts (other accounts)	\$ 5,310.00	
16			NON-CURRENT ASSETS			
17				Expenses carried forward	\$ 715.00	
18				Concessions	\$ 205.00	
19				Trademarks	\$ 977.50	
20		EQUITY & LIABILITIES				
21			CURRENT LIABILITIES			
22				Unpaid advances from customers	\$ (102.50)	
23				Accounts payable - trade	\$ (3,016.80)	
24				Preliminary supplier invoices	\$ 1,000.00	
25				Delivered, not invoiced	\$ (47,314.48)	
26				Delivered, not invoiced (non inventory)	\$ 12.00	
27				Acc. payable - trade, subsidiaries	\$ (2,000.00)	
28				Output VAT, not reduced	\$ (968.99)	
29				Input VAT	\$ 301.18	
30				Charged input VAT	\$-	
31				Contra Acc. Output Tax, Adv. Paym	\$-	
32				Payables to employees	\$ (569,175.87)	
33				Travel claims	\$ (4,485.90)	

#### Figure 6.4

#### Configuration options available for Static Structures Repeaters

### 1. Selection of the entry point

Entry point is the starting point of a structure level. You have the option to select the entry point as:

- Structure Level
- Structure Node
- Level or Node Parameter

## Structure Level

A structure level can be selected by highlighting a node that represent a level of the structure. In this example, Balance Sheet Net is selected as the highest level of the structure. When you select the entry point for the first structure level, entry points for the following structure levels will be automatically captured.



Select Node/Level - Structure: BSTEMPLATE - Repeater: 2-5	Structure Details ×
Leaves Included: All ~	Rep No         Structure Id         St         Entry Point         St
Include selected node only	2:5 BSTEMPLATE Level - 1
	3:5 BSTEMPLATE Level - 2
Selection Parameters	4:5 BSTEMPLATE Level - 3
Selected Level: 1  BALANCE SHEET NET  ASSETS  CURRENT ASSETS  NON-CURRENT ASSETS  EQUITY & LIABILITIES	
	Exclude non-connected OK Cancel
NON CURR LIABILITIES	
Node as the Entry-Level specification	
Criteria >> OK Cancel	

Figure 6.5

### > Structure Node

A structure node can be selected by highlighting a node and enabling "Node as the Entry-level specification". As given below the node, Assets is selected for the first level of the structure. Likewise, you can select nodes as the entry points for the rest of the structure levels in the report design as well.

Select Node/Level - Structure: BSTEMPLATE - Repeater:	: 2-5 ×	S	tructure Details	×
Leaves Included: All	~		o Structure Id	Se Entry Point Se
Include selected node only		2:	5 BSTEMPLATE	Node - ASSETS
Selection Parameters		3:	5 BSTEMPLATE	··· Node - CURRENT ··· ASSETS ···
Selected Node: ASSETS		4:	5 BSTEMPLATE	Node - CA10
BALANCE SHEET NET				
		L 1		
		[	Exclude non-connected	OK Cancel
Node as the Entry-Level specification				
Criteria >>	OK Cancel			



## > Parameter

A parameter can be created for a structure level or a node. First a parameter needs to be created. Then, the created parameter needs to be selected as the entry point from the parameter tab. The benefit of using a parameter as the entry point is that the same report design can be used to generate reports starting at different levels and nodes.

In the below example, a parameter is created for a level in a structure, and it is selected as the entry point of the structure. Since the structure level is parameterized, you are able to select different structure levels at the execution of the report.

🖻 Run 1 🕆 Go to R	DESIGN MODE	Select Node/Level - Structure: BSTEMPLATE - Repeater: 2-5
Dava ant Davala	Report Book Sheet Grid	Leaves Included: All
Standard Parameter	The Parameters Are Filter Criteria	
<ul> <li>Parameter Defini</li> </ul>	ition:	Include selected node only
LevelParameter	- to to to	Selection Parameters
Visible VE	ditable 🗌 Multi Value 🖌 Mandatory	Parameter Settings
Parameter Type:	DisplayItem	Use Parameters
Parameter Name:	LevelParameter	Node Parameter:
Description:	Level Parameter	Level Parameter: &LevelParameter
Prompt Text:	Level Parameter	
Display Item:	DIM_ACCOUNT.SRI_LEVEL_ID	
Default Value:		
Display Order:	1	
Copy Value From:	~	
		Criteria >> OK Cancel
	Structure Details	×
	Rep No Structure Id	Se Entry Point Se
	2:3 BSTEMPLATE	Level
	Exclude non-connected	OK Cancel

Figure 6.7



## 2. Indicating empty repeater items

In some instances, not all the repeater items will have data. In such situation, you can indicate these empty repeater items by using **Repeater Item Null Value** option in the **Advance Repeater Settings**. You can decide on how these items need to be indicated. In the below example, "-" symbol is used as the Repeater Item Null Value.

<ul> <li>Design Row Options:</li> </ul>	Advanced Repeater Settings
Design Row: Row #1 🗸 🖾 🖆 Filter Criteria Advanced Repeater Options	Repeater Item ID DIM_ACCOUNT.SRI_NODE_ID
Display Item     Sel     Start     Stop     All     Sort     Adv       DIM_ACCOUNT.SRI_NODE_ID      3     7      A	Repeater Item Name Node General Extended Repeater Connection
DIM_ACCOUNT.SRI_NODE_ID        4       7       A          DIM_ACCOUNT.SRI_NODE_ID        5       7       A          DIM_ACCOUNT.SRI_NODE_ID        6       7       A	Repeater Item Null Value -
DIM_ACCOUNT.CODE          7         7         A            •	Enable Insert of New Values for Writeback
Structure Details Dynamic structures	
Structure Level Styles	OK Cancel

Figure 6.8



The executed report will be displayed as below

Figure 6.9



In a dynamic structure repeater if there are empty repeater items, these rows will be hidden in the report output.

	Α	В	С	D
1				
2				
3	ACME			
4	ADMIN			
7		1000	\$ 450.00	
8		1010	\$ 715.00	
9		1011	\$ 927.50	
10		1012	\$ (100.00)	
11	PURCHASE			
13		1441	\$ 3.80	
14		1443	\$ 1.00	
15		4021	\$ 13,561.40	
16	PETER			
17		1611	\$ 2,397.12	

Figure 6.10

# 3. Selection of which leaves need to be included in the report

User will come across requirements, where it is needed to view the leaves entailed to a certain structure level/node directly and indirectly. To cater this requirement, IFS Business Reporter has provided the option to choose the leaves included in the reports from the below given options available in the Select Node/Level dialog box.

- All
- Only attached to the current level
- Only attached to the levels below



Consider the below given example, there are accounts that are directly connected to higher level nodes.

	Α	В	С	D	E	F	G
1							
2					Account	Balance	
3	ACME						
4		ADMIN					
5			-				
6				-			
7					1000	450	
8					1010	715	
9					1011	927.5	
10					1012	-100	
11			PURCHASE				
12				-			
13					1441	3.8	
14					1443	1	
15					4021	13561.4	
16				PETER			
17					1611	2397.12	
18		SALES					
19			-				
20				-			
21					1020	205	
22					1050	977.5	
23					1400	157361432	
24					1405	679.17	
25					1440	10092.61	
26			OTHER				
27				-			
28					1471	2259.6	
29					1478	-1050	
30				KATE			
31					2440	-3016.8	
32					2450	1000	
33					2455	-47314.48	
34					2456	12	
35					2462	-2000	
36					3011	-3716	

Figure 6.11



If the option "All" is selected then, all the leaves entailed to the selected node will be displayed. In this example, the node Admin is selected. Thus, all the leaves entailed to the Admin node are displayed.

	Α	В	С	D	E	F	G
1							
2					Account	Balance	
3	ACME						
4		ADMIN					
5			-				
6				-			
7					1000	450	
8					1010	715	
9					1011	927.5	
10					1012	-100	
11			PURCHASE				
12				-			
13					1441	3.8	
14					1443	1	
15					4021	13561.4	
16				PETER			
17					1611	2397.12	
18							



If the option "Only attached to the current level" is selected, leaves connected to the selected node will be displayed. If we consider the Admin node again, only the leaves connected to the Admin node are displayed.

	Α	В	С	D	E	F	G
1							
2					Account	Balance	
3	ACME						
4		ADMIN					
5			-				
6				-			
7					1000	450	
8					1010	715	
9					1011	927.5	
10					1012	-100	
11							
12							

#### Figure 6.13

If the option "Only attached to the levels below" is selected, leaves connected to levels below the selected node will be displayed. In the example, levels below the Admin node are Purchase node and the node representing Peter. Accordingly, leaves connected only to these two nodes are displayed.



	Α	В	С	D	E	F	G
1							
2					Account	Balance	
3	ACME						
4		ADMIN					
5			PURCHASE				
6				-			
7					1441	3.8	
8					1443	1	
9					4021	13561.4	
10				PETER			
11					1611	2397.12	
12							
12							



## 4. Selection of which nodes need to be included in the report

It is possible to include or exclude specific nodes in a structure. This dialog box will appear when you click on the criteria box.

In the below example, only the Current Assets, Non-Current Assets and Current Liabilities nodes are selected from the third structure level.

Select Node/Level - Structure: BSTEMPLATE - Re	peater: 5-7	×		
Leaves Included: All		$\sim$		
Include selected node only				
Selection Parameters				
Selected Level: 3	Include Ex	Clude		
URRENT ASSETS	Node			
NON-CURRENT ASSETS     EQUITY & LIABILITIES	CURRENT ASSETS	$\checkmark$		
	NON-CURRENT ASS	ETS 🗸		
	CURRENT LIABILITIE	s 🗸		
	EQUITY			
	NON CURR LIABILITIES			
Node as the Entry-Level specification				
<< Criteria	ОК	Cancel		

Figure 6.15



The executed report will be displayed as below

	A	В	С	D	E	F
1						
2				Account	Balance	
3	BALANCE SHEET NET					
4		ASSETS				
5			CURRENT ASSETS			
6				1400	\$ 157,361,432.47	
7				1405	\$ 679.17	
8				1440	\$ 10,092.61	
9				1441	\$ 3.80	
10				1443	\$ 1.00	
11				1471	\$ 2,259.60	
12				1478	\$ (1,050.00)	
13				1510	\$ 2,598,898.55	
14				1611	\$ 2,397.12	
15				1910	\$ (2,782.12)	
16				1940	\$ 5,310.00	
17			NON-CURRENT ASSET	s		
18				1010	\$ 715.00	
19				1020	\$ 205.00	
20				1050	\$ 977.50	
21		EQUITY & LIABILITIES				
22			CURRENT LIABILITIES			
23				2425	\$ (102.50)	
24				2440	\$ (3,016.80)	
25				2450	\$ 1,000.00	
26				2455	\$ (47,314.48)	
27				2456	\$ 12.00	
28				2462	\$ (2,000.00)	
29				2610	\$ (968.99)	
30				2640	\$ 301.18	
31				2641	\$-	
32				2679	\$-	
33				2820	\$ (569,175.87)	
34				2822	\$ (4,485.90)	
35						

Figure 6.16

**Include selected node only** option can also be used to include a specific node in the structure report. This option is mainly used when a parameter is selected as the entry point.

Consider the below given structure. In this structure there are two nodes in the first level as Assets and Equity & Liability.

	А	В	С	D
1				
2			Account	Balance
3	ASSETS			
4		CURRENT ASSETS		
5			1510	32788.75
6			1940	-1100
7		NON-CURRENT ASSETS		
8			1020	-4640
9	EQUITY & LIABILITIES			
10		CURRENT LIABILITIES		
11			2425	-8.75
12			2440	-3600
13			2444	1000
14			2456	2600
15			2610	0
16			2640	174.19
17			2641	0
18			2679	0
19			2822	-2788

Figure 6.17



Suppose you have set a parameter for a node as the entry point of the structure, and it is only required to see the Assets node in the report outcome. Excluding the Equity & Liability from the structure will not give you the expected result. In such situation, first select the required node from the structure and then enable the **Include selected node only** option. Next, set the created parameter as the entry point of the structure.

Once the report is executed, only the selected node will be displayed.

Select Node/Level - Structure: BSTEMPLATE - Repeater: 5-7	×	Select Node/Level - Struc	ture: BSTEMPLATE - Repeater: 5-7	×
Leaves Included: All		Leaves Included:	All	
✓ Include selected node only		Include selected node o	nly	
Selection Parameters		Selection Parameters		
Selected Node: ASSETS		Parameter Settings		
		Use Parameters		
		Node Parameter:	&Node	
		Level Parameter:		
Control Contro				
Criteria >> OK Cancel		Criteria >>	OK Cance	1

	А	В	С	D	E
1					
2			Account	Balance	
3	ASSETS				
4		CURRENT ASSETS			
5			1510	32788.75	
6			1940	-1100	
7		NON-CURRENT ASSETS			
8			1020	-4640	
9					

Figure 6.18



# 6.2 Dynamic Structure Repeater

By enabling the Dynamic Structure Expansion feature, you can create a Dynamic Structure Repeater. Dynamic Structure Expansion feature is a new design capability introduced to overcome the complexities in designing a static structure repeater. This allows you to expand and collapse a structure in the report mode, enabling you to view information in both aggregate and detail level.

Follow the below steps to create a dynamic structure

- 1) Go to the design mode, select the required information source.
- 2) When creating a dynamic structure, it is not necessary for you to add multiple structure repeaters. These are automatically added by the system, and you will be able to view the full structure in the report mode.

Thus, drag and drop the structure repeater items as the first repeater and the relevant dimension items as the second repeater.

In this example, an accounting structure is created. Account and account description are included as the second repeater. Account balance is selected as the measure item. Sum of the account balances is calculated in structure level.



#### Figure 6.19

3) Now, select the required the structure by clicking on Structure Details. At this point you can also configure the structure as per requirement by changing the entry points of the structure, including and excluding leaves and nodes etc.



4) Then, tick the check box below Dynamic Structures to enable the function Dynamic Structure Expansion.

<ul> <li>Design Row Options:</li> </ul>		
Design Row: Row #1	✓ 描 描	
Filter Criteria Advanced Repeater	Options	
Display Item	Sel Start Stop All Sort Ad	
DIM_ACCOUNT.SRI_NODE_ID	4 5 A •	
DIM_ACCOUNT.CODE	5 5 A •	
Structure Details Dynami	ic structures	
Dynamic Structure Expansion		
Structure Level Styles		



5) Select the structure level styles to apply predefined Excel styles for each level of the structure. Excel grouping function support only eight levels in a structure. Therefore, Business Reporter has enabled you to apply styles up to eight levels.

🖋 Stru	acture Level Styles $ \Box$ $ imes$	
Select the cell style for each level		
1.	Accent1 ~	
2.	Accent2 ~	
3.	Accent3 ~	
4.	Accent4 ~	
5.	Accent5	
6.	Accent6 ~	
7.	~	
8.	~	
	OK Cancel	



6) Execute the report. Final report will be displayed as below. Structure can be expanded and collapsed using the + icon and the number boxes given in the left side of the report.


1 2 3 4 5		Α	В	С	D	Е	F	G	Н	I
	1									
	2									
+	3			ACME	Acme stor			-7155823		
	31									
	32									
	33									
	34									
	35									
	36									
	37									
	38									
	39									
	40									
	41									
	42									
	12									

## Figure 6.22

## Expanded report will be displayed as below.

	1 2	3 4 5	5	Α	В	С	D	E	F	G
			2							
Ļ	-		3			ACME	Acme sto	re		-7155822.66
	Ē		4			ADMIN	Administ	ration		50206554
		-	5			ESTATES				16050076
		-	6			IAN	lan			16050076
		.	7				5010	Rent for premises		14880100
			8				6200	Telecommunication and post (control account)		1169976
		-	9			PAYROLL	Payroll			15501876
		-	10			MARY	Mary			15501876
			11				7000	Wages to blue-collar employees (control account)		11424288
			12				7200	Wages to managers and white-collar employees		4077588
		무.	13			PURCHASE	Purchase			18654602
			15				4021	Cost of goods sold		18547134
		-	16			PETER	Peter			107468
	L		17				6070	Business entertainment		107468
	Ļ	J .	18			SALES	Sales			-57362376.66
			21				3732	Volume discounts		1276348
		-	22			OTHER	Other			-37785032
		-	23			KATE	Kate			-37785032
			24				3011	Sales, taxable		-37785032
		-	25			RACING	Racing			-20853692.66
			27				3022	Balaclavas, Nomex		-2217892.66
		-	28			JOHN	John			-18635800
		.	29				3012	Racing Suites, Pyrotech test		-12036956
	. L		30				3013	Racing Suites, Impact		-6598844

#### Figure 6.23

8) Once the designed structure report is executed, for further analysis Structure Slicer function is available in the report mode. This function enables you to select parts of the structure and analyze the structure more interactively.

File Hom	ie Insert F	Page Layout	Formulas	Data	Review	View	Developer	Help
Run Go to Report Design	Load Order Report ~ Report	Structure Slicer	Slicer Writeb	Wack	riteback All [ eview Collecte	Data ed Data	Export	Report Options



#### Figure 6.24

## Following options are available in the structure slicer dialog



Figure 6.25



In the below example, structure slicer dialog box is used to display only the sales node and **Expand the report** option is selected to automatically expand the report upon refresh.

Structure Slicer Dialog	-		×
Structure Selector			
Node: SALES Level: DEPARTMEN	NT		
Expand only the selected node     Show all the levels down to better level			
Select only down to level:			~
Expand the report	Refresh	Clo	ose

Figure 6.26

Report will be displayed as below

1 2 3 4		А	В	С	D	E	F	G
	1							
	2							
<b>_</b> .	3			SALES	Sales			-57362376.66
	6				3732	Volume dis	scounts	1276348
	7			OTHER	Other			-37785032
	8			KATE	Kate			-37785032
	9				3011	Sales, taxa	able	-37785032
	10			RACING	Racing			-20853692.66
	12				3022	Balaclavas	s, Nomex	-2217892.66
	13			JOHN	John			-18635800
	14				3012	Racing Su	ites, Pyrotech test	-12036956
	15				3013	Racing Su	ites, Impact	-6598844
	16							

## Figure 6.27

If it is needed to display only up to a certain level in the structure, specific level can be selected using the combo box in the structure slicer dialog box. In the below example "Department" is selected as the bottom level.



Structure Slicer Dialog	_		×
Structure Selector			
ACME			
Node: SALES	Level:	DEPARTM	IENT
Expand only the selected n	ode		
Show all the levels down to	bottom level		
Select only down to level: D	EPARTMENT		~
Expand the report	Refresh	Cl	ose

Figure 6.28

Report will be displayed as below

1 2 3		А	В	С	D	E	F	G
	1							
	2							
-	3			SALES	Sales			-57362376.66
	5				3732	Volume discounts		1276348
	6			OTHER	Other			-37785032
	7				3011	Sales, taxable		-37785032
-	8			RACING	Racing			-20853692.66
· ·	9				3012	Racing Suites, Pyrotech test		-12036956
	10				3013	Racing Suites, Impact		-6598844
	11				3022	Balaclavas, Nomex		-2217892.66
	12							

Figure 6.29



Dynamic Structure Expansion function is supported to add another structure in parallel. In such instances, repeater items are needed to be arranged as below;

	Α	В	С	D	E	F	G	Н	 J	K	L	М			
1														Document Actions	Ý X
2	[Node]														
3		[Node]												E Run   <sup>™</sup> Go to Report	DESIGN MODE
4			[Account]	10 L D1	0										🛱 Report Book 📑 Sheet 🔳 Grid
5				[Code B]	[Balance]									Report Grid - Sheet1	🔤 Row 🔳 Column 💷 Cell
														Information Sources:	ন
8														<ul> <li>Design Row Options:</li> </ul>	
9														Design Row: Row #1	✓ 描
11														Filter Criteria Advanced Repeat	options
12														Display Item	Sel Start Stop All Sort Ad-
13														DIM_ACCOUNT.SRI_NODE_ID	2 5 A •
14														DIM_CODE_B.SRI_NODE_ID	
15														DIM_ACCOUNT.CODE	
16														DIM_CODE_B.CODE	
18														be:	
19															
20															
21															
22														Structure Details	Dynamic structures
23															Upnamic Structure Expansion
24															Structure Level Styles
25													Ŧ		

#### Figure 6.30

Row 2 to 5- dynamic structure expansion based on Account Structure

Row 3 to 5- dynamic structure expansion based on Code B Structure

Row 4 and 5- repeated on Account and Code B

# 6.3 Design Limitations

- It is not allowed to use more than two structures in single design row when dynamic structure expansion is enabled.
- A design sheet can only have one design row along with dynamic structure expansion.
- Microsoft Excel supports only eight levels of grouping. If a structure has more than eight levels, the additional levels will get grouped together with the 7th level.
- Dynamic structure expansion is not supported for designed columns.
- Any of the writeback options and structure slicer option are not supported for an ordered report from IFS Cloud with **structure repeaters**. As a work around you can execute the ordered report to perform writeback.



# 7. Using Microsoft Excel functions in IFS Business Reporter

IFS Business Reporter is an add-on to Microsoft Excel. Thus, majority of the features of Microsoft Excel can be used to design reports via IFS Business Reporter. Configuring your report design with Microsoft Excel function could slightly vary when using IFS Business Reporter. This chapter will guide you on how to use some of the commonly used Microsoft Excel functions in IFS Business Reporter.

## 7.1 Array in Excel

An array in Excel is a collection of values. It can be a row of values, a column of value or a combination of rows and columns with values. Arrays are referred in the format of First Cell:Last Cell in excel. Below given is an example of two vertical arrays.

J3	J3 → : × ✓ <i>f</i> x =A4:A8,B4:B8												
	A	В	С	D	E	F							
1													
3	Account	Balance											
4	1010	-500	Ī										
5	1040	-100											
6	2450	400											
7	3034	30											
8	5011	1000											
9													

## Figure 7.1

**Note:** When incorporating such arrays in formulas, it is recommended to provide them as a **Name Range** in IFS Business Reporter. This would result in reducing the time spent on rendering results in IFS Business Reporter.

Name Range in excel is a range that has been given a name for future reference. Name ranges can be created by selecting the Define Name icon in Excel Formulas tab.

File	Home	Insert	Page	e Layout	t F	ormulas	Data	Revie	ew View	Developer H	Help I	IFS Bu	siness Reporter
fx Insert Function	AutoSum	Recently Used ~	Financial Č	Cogical	A Text ř	Date & Time ~	Lookup & Reference ~	⊕ Math & Trig ∽	More Functions Y	Vame Name Manager ♥ Create	Name Formula   • from Sele	ction	End of the second s
	Function Library										Defined Names Formula Auditing		



## Figure 7.2

SU	SUM $\cdot$ : $\times$ $\checkmark$ $f_x$ =Account,Balance										
	A	В	С	D	E						
1											
2											
3	Account	Balance									
4	1010	-500									
5	1040	-100									
6	2450	400									
7	3034	30									
8	5011	1000									

Below image depicts how the array is displayed when Name Ranges are given for the vertical arrays in the above example.

#### Figure 7.3

Name Ranges can be applied for repeaters as well. In the below example, a Name Range is defined as Account, including the values of Account and Balance. Here A9 and B9 is selected as the first and the last cell of the range in report design.

	А	В	С	D	E	F	G	Н	1	J	K	L
1			_									-
2			Name M	lanager							?	×
3					- 15					[	-11	
4			Ne	w	<u>E</u> dit		<u>D</u> elete				<u>F</u> ilter ▼	
5			Name		Value		Refers To		Scope	Comment		
6			Acco	unt	{"[Account]	]","[Balance]"}	=Sheet1!\$A	\$9:\$B\$9	Workbook			
1	<u> </u>	D.I.										
0	Account	Balance	-									
9	[Account]	[Balance]	-									
11												
12			-									
13												
14												
15												
16												
17												
18												
19												
20			Refers to									
21				-Shoot118	A \$0.8P\$0							*
22				-sneet1:\$/	499.9099							
23											Close	
24												
25												



Once the report is executed, specified range will get expanded only up to the row with data. IFS Business Reporter repeater expansion logic is designed in such way. As you can see, the Name Range Account has expanded from A9 to B30 (expanded up to the 30th row which is the last row with data).

	Α	В	С	D	E	F	G	Н	1	J	K	L		Μ
1				Name Mar	nager							?	×	
2														
3				<u>N</u> ew		<u>E</u> dit	1	<u>D</u> elete				<u>F</u> ilter	•	
4				Name		Value		Refers To		Scope	Comment			
5				Accoun	t	{"1000"."93.8	":"1019"."	=Sheet1!\$A\$	9:\$B\$30	Workbook				
0														-
/ 8	Account	Palanco		-										
0	1000													
10	1010	201.1												
11	1019	-4640		-										
12	1510	32788.75												
13	1940	-1100												
14	2425	-8.75		-										
15	2440	-3600												
16	2444	1000												
17	2456	2600												
18	2610	0		1										
19	2640	174.19												
20	2641	0		Refers to:										
21	2679	0		$\times$	=Sheet1!\$A	\$9:\$B\$30							Î	
22	2822	-2788												
23	3014	-28140										Clos	e	
24	4021	100												2
25	5011	1000												
26	5490	0												
27	5500	12115												
28	5590	-12115												
29	5800	2318.91												
30	8313	0												
31														



# 7.2 LOOKUP Function

It is possible to perform LOOKUP functions within IFS Business Reporter. These functions can be used within the same sheet, between worksheets and between workbooks.

**Note:** When you execute a report, the values will be displayed within inverted commas in the report mode. Therefore, when you look up for such value in the LOOKUP function, you will not get the expected result. In order to overcome this issue, select the lookup items and then convert them to **absolute values**. You can select this option under **cell options** in the document action pane.

A2		- : >	< 🗸	<i>fx</i> ="1	000"
	А	В	C	D	Е
1	Account	Balance			
2	1000 🦳	450			
3	1011	927.5			
4	1012	-100			
5	2012	651			

Document Actions		•	×
🖻 Run 🜁 Go to Report	l l	DESIGN N	IODE
	🗊 Report Book	🛚 Sheet 📔	Grid
Report Grid - Sheet1	Row 🔳	Column 📗	Cell
<ul> <li>Information Sources:</li> </ul>			<b>N</b>
✓ Cell Options:	_		
Design Cell:			
Filter Criteria Advanced Writeback Zoom In	Drill Down Options		
Display absolute value			
Presentation options for numeric values			
Switch sign between storage and pres	entation		
Switch sign in writeback window			

Figure 7.6



## a) Lookup for a fixed table within the same sheet using VLOOKUP

VLOOKUP is an Excel function to look up data in a table organized vertically. In the below example, the objective is to obtain the budgeted values for the respective accounts from a fixed table to a separate table with a repeater within the same sheet.

SU	M	• : × •	fx =VLO	OKUP(A12,	Budget_Ta	ble,2,FALSE	E)
	А	В	С	Þ	Е	F	G
1							
2							
3	Account	<b>Budgeted Value</b>					
4	1010	1000					
5	1040	2000		/			
6	2450	3000		/			
7			/				
8			/				
9			/				
10			/				
11	Account	Balance	Budgeted Value				
12	[Account]	[Balance]	FALSE)				
10							
				7			
	A	В	C	D	E	F	G
1	A	В	С	D	E	F	G
1 2	A	В	C	D	E	F	G
1 2 3	A	B Budgeted Value	С	D	E	F	G
1 2 3 4	A Account 1010	B Budgeted Value 1000	С	D	E	F	G
1 2 3 4 5	A Account 1010 1040	B Budgeted Value 1000 2000	С	D	E	F	G
1 2 3 4 5 6	A Account 1010 1040 2450	B Budgeted Value 1000 2000 3000	С	D	E	F	G
1 2 3 4 5 6 7	A Account 1010 1040 2450	B Budgeted Value 1000 2000 3000	С	D	E	F	G
1 2 3 4 5 6 7 8	A Account 1010 1040 2450	B Budgeted Value 1000 2000 3000	С	D	E	F	G
1 2 3 4 5 6 7 8 9	A Account 1010 1040 2450	B Budgeted Value 1000 2000 3000	C	D	E	F	G
1 2 3 4 5 6 7 8 9 10	A Account 1010 1040 2450	B Budgeted Value 1000 2000 3000	C	D	E	F	G
1 2 3 4 5 6 7 8 9 10 11	A Account 1010 1040 2450 Account	B Budgeted Value 1000 2000 3000 Balance	C Budgeted Value	D	E	F	G
1 2 3 4 5 6 7 8 9 10 11 12	A Account 1010 1040 2450 Account 1010	B Budgeted Value 1000 2000 3000 3000 Balance -500	C Budgeted Value 1000	D	E	F	G
1 2 3 4 5 6 7 8 9 10 11 12 13	A Account 1010 1040 2450 Account 1010 1040	B Budgeted Value 1000 2000 3000 3000 - 500 -500 -100	C Budgeted Value 1000 2000	D	E	F	G
1 2 3 4 5 6 7 8 9 10 11 12 13 14	A Account 1010 1040 2450 Account 1010 1040 2450	B Budgeted Value 1000 2000 3000 3000 -00 -00 -00 -00 400	C Budgeted Value 1000 2000 3000	D	E	F	G
1 2 3 4 5 6 7 8 9 10 11 11 12 13 14 15	A Account 1010 1040 2450 Account 1010 1040 2450 3034	B Budgeted Value 1000 2000 3000 3000 3000 9 0 9 0 9 0 100 -500 -100 400 30	C Budgeted Value 1000 2000 3000 #N/A	D	E	F	G
1 2 3 4 5 6 7 8 9 10 11 11 12 13 14 15 16	A Account 1010 1040 2450 Account 1010 1040 2450 3034 5011	B Budgeted Value 1000 2000 3000 3000 3000 - 0 - 0 - 100 - 100 400 30 1000	C Budgeted Value 1000 2000 3000 #N/A #N/A	D	E	F	G

Figure 7.7



## b) Lookup for a repeater within the same sheet using VLOOKUP

In this example we will be looking up for a repeater. Objective is to obtain balances of the respective accounts from a repeater to a fixed table.

SU	SUM · : × · fx =VLOOKUP(A4,Balance,2,FALSE)								
	А	В	С	D	Е	F	G		
1									
2									
3	Account	Balance							
4	1010	Balance,2,FALSE)/							
5	1040	#N/A							
6	2450	#N/A							
7									
8									
9									
10									
11	Account	Balance							
12	[Account]	[Balance]							
13									



	Α	В	С	D	E	F	G
1							
2							
3	Account	Balance					
4	1010	-500					
5	1040	-100					
6	2450	400					
7							
8							
9							
10							
11	Account	Balance					
12	1010	-500					
13	1040	-100					
14	2450	400					
15	3034	30					
16	5011	1000					
17							



## c) Lookup for a repeater in a different sheet using HLOOKUP

HLOOKUP is an Excel function to look up data in a table organized horizontally. In this example we will look up for a repeater in a different sheet to get the account type of the given accounts.

sum 🔹 🗄 🗙 🗸	fx =HLOOKUP(B2,	Account_Details,2,FALSE)	Account_Details	• : X V	fx =	IFSREPITEM("DIM_	ACCOUNT.
A         B         C           1         1         1           2         Account         1510         2440           3         Account Type         FALSE)         #N/A           4         5         5         5	D E F 3014 5011 #N/A #N/A	G H	A 2 3 Account 4 Account Type 5 Balance 6	B C [Account] ccount Type] [Balance]	D	E F	G
Sheeti Sheets Sheets	(+) ; 4			I Sheetz Sheets		: [٩]	
	H2	• : × •	fx				
	Δ	B C	DE	F G			
	1						
	2 Account	1510 2440	3014 5011				
	4 5	ASSETS LIABILITIES RE					
	Sheet1	Sheet2 Sheet3	+				

Figure 7.9

## 7.3 OFFSET Function

OFFSET is used to get the values in a row, a column, or a range of cells by specifying the row and the column number with reference to a particular cell value. This function will start counting the rows and the columns considering the reference cell as the starting point.

In IFS Business reporter, OFFSET function is executed just as in Microsoft Excel. It can be given to a fixed table or a repeater.

Note: The reference cell of the formula needs to be a cell outside the design row/column.



In the given example, objective is to find out the average gross amount of customer invoices based on the number of years. Here OFFSET function is used to create a dynamic range. i.e. formula is created in a way that number of years is variable.

Accordingly, B5 is the reference cell. Number of rows is set as 1, therefore one row should be moved down from the starting point and number of columns is set as zero, since there is no column change. E2 is given as the height and 1 is given as the width.



## Figure 7.10

Once the report is executed, you can change the number of years (E2 cell) and calculate the average accordingly.

	Α	В	С	D	E
1				No of years	6
				Average gross	
2				amount	\$115,154,271.24
3					
		Gross amount of customer			
4	Year	invoices			
5	2000	\$ 318,644,027.00			
6	2001	\$ 371,440,103.05			
7	2002	\$ 2,400.00			
8	2003	\$ 2,500.00			
9	2004	\$ 2,350.00			
10	2005	\$ 834,247.40			
11	2006	\$ 862,695.10			
12	2007	\$ 2,790.63			
13	2008	\$ 1,200.00			
14	2011	\$ 1,989.10			
15	2012	\$ 52,758.09			
16	2015	\$ 200.47			
17	2018	\$ 10,880,250.08			
18	2020	\$ 24,000.00			
19	2021	\$ 214,374.96			
20	2022	\$ 24,836,246.48			

	Α	В	С	D	E
1				No of years	5
				Average gross	
2				amount	\$138,018,276.01
3					
		Gross amount of customer			
4	Year	invoices			
5	2000	\$ 318,644,027.00			
6	2001	\$ 371,440,103.05			
7	2002	\$ 2,400.00			
8	2003	\$ 2,500.00			
9	2004	\$ 2,350.00			
10	2005	\$ 834,247.40			
11	2006	\$ 862,695.10			
12	2007	\$ 2,790.63			
13	2008	\$ 1,200.00			
14	2011	\$ 1,989.10			
15	2012	\$ 52,758.09			
16	2015	\$ 200.47			
17	2018	\$ 10,880,250.08			
18	2020	\$ 24,000.00			
19	2021	\$ 214,374.96			
20	2022	\$ 24,836,246.48			
21					



# 7.4 MATCH Function

The MATCH function searches for a specified item in a range of cells, and then returns the relative position of that item. This is used to identify the position of an item either in one row or one column. Therefore, this function cannot be used in a range that includes more than one row or a column. i.e. if the report is designed in a manner that a measure item is used in both row repeater and column repeater, MATCH function will not give the expected result.

MATCH Function is often used with the INDEX function as an alternative to LOOKUP functions. INDEX function will return the value of a cell at a given position in a range or an array and the MATCH Function is used to search a specific item in a range and then return the relative position of that item.

In the following example, MATCH and the INDEX function is used to lookup for the gross amount of the customers. Here the MATCH function is used to create a dynamic lookup item. You can change the customer name in F2 cell and get the respective gross amount on to F3 cell.

SU	SUM $\cdot$ : $\times$ $f_x$ =INDEX(Table,MATCH(F2,Customer_Name,0),2)									
	А	В	С	D	E	F	G	Н	I	J
1 2 3					Customer Name Gross Amount	Mercedes =INDEX(Ta	ble,MATCH	F2,Custome	er_Name <b>,0)</b> ,	.2)
456	Customer Name	Gross Amount								
7 8										
9 10										



F3	¥	• : $\times$ $f_x$ =INDEX(Table,MATCH(F2,Customer_Name,0),2)									
	А	В	С	D	F	F	G				
1					_						
2					Customer Name	Mercedes					
3					Gross Amount	171281054.3					
4											
5	Customer Name	Gross Amount									
6	CUST123	276.12									
7	Customer 1000	15840037056									
8	Ferrari	112254857.7									
9	Harley Davidson	13285750									
10	Hendrick Motorsports	14723875									
11	Honda	17969750									
12	Internal Customer (MIT) - Sweden	25000									
13	McLaren	165950990.4									
14	Mercedes	171281054.3									
15	Newman/Haas Racing	14691125									
16	NJ-1020	11.8									
17	NJ-1020(COPY1)	3602.68									
18	Robert Yates Racing	163526532.2									
19	Swedish Customer	37925									
20	Team Rahal	16359250									
21											

#### Figure 7.12

**Note:** In the design mode, when MATCH function is used with inner repeaters, the lookup array of the formula needs to capture the immediate row above and below the design row.

In the below example objective is to locate the position of the exact account balance \$1000. However, in this example, an inner repeater is used (design exists from row 3 to row 4), thus the lookup array should contain immediate rows above and below the design row (row 2 to row 5). Name range Balance\_1 is created to capture the range D\$2:\$D\$38.



SUM $\rightarrow$ : $\rightarrow$ $f_x$ =MATCH(1000,Balance_1,0)										
1	Α	В	С		D	Е	F	G	Н	I
2	Account Group	Account	Description		Balance		Position	=MATCH(10	000,Balance	1,0)
3	[Account Group]									
4		[Account]	[Account Description]		[Balance]					
5										
6										
7										

# ┛

	A	В	С	D	Е	F	G	Н
1								
2	Account Group	Account	Description	Balance	1	Position	13	
3	100				2			
4		1000	Cash- general checking acct.	\$ 93.80	3			
5		1019	Accumulated amortization. of ca	\$ 201.10	4			
6		1020	Concessions	\$ (4,640.00)	5			
7	150				6			
8		1510	Accounts receivable	\$ 32,788.75	7			
9	190				8			
10		1940	Bank accounts (other accounts)	\$ (1,100.00)	9			
11	240				10			
12		2425	Unpaid advances from custome	\$ (8.75)	11			
13		2440	Accounts payable - trade	\$ (3,600.00)	12			
14		2444	Not specified supplier payment	\$ 1,000.00	13			
15		2456	Delivered, not invoiced (non inv	\$ 2,600.00	14			
16	260				15			
17		2610	Output VAT, not reduced	\$-	16			
18		2640	Input VAT	\$ 174.19	17			
19		2641	Charged input VAT	\$-	18			

## Figure 7.13

In IFS Business Reporter, data will be automatically sorted based on how the repeater items are included. Therefore, it is not possible to give further ascending/descending sorting instructions for columns/rows in the design mode. Accordingly, only "exact matching" is facilitated via the design mode. If the requirement is to search for a value less than or more than the lookup value, data set is required to be sorted into ascending/descending order. This can be executed in the report mode.



# 7.5 SUBTOTAL function

25

26

30

32 33 2820

2822

3011

3014

27 Total of account type

31 Total of account type

28 REVENUES

-1085.38

-2793.5

-9000

-16954.54

-179204967.3

The SUBTOTAL function is used to return an aggregate result for a defined range of cells. This function allows users to create groups and then perform various other Excel functions such as SUM, COUNT, AVERAGE, PRODUCT, MAX, etc. In IFS Business Reporter, the SUBTOTAL function can be used in the design mode, but the formula needs to be given in a way that it will only include one cell as the reference cell of the formula. When executed, the referred cell will expand appropriately and will display the correct ranges. In the below example, subtotal for each account type is obtained. "C3" is the reference cell and row repeaters are configured as below.

				0			1			Deserter	Denseter o l		Democratic de la Democratica de la	Demostra o u					Denostra o u	Desertes o la	Departure of the	Departure of the				
C4		· ·	×	$\checkmark f x = S$	UBTOTA	L(9,C3)		Filter Crite	Filter Criteria Advanced	Filter Criteria Advanced Repeater	Filter Criteria Advanced Repeater Options															
1 2		Α	В	С	D	F		Displ	Display Item	Display Item	Display Item	Display Item Sel	Display Item Sel Start	Display Item Sel Start Stop	Display Item Sel Start Stop All	Display Item Sel Start Stop All So	Display Item Sel Start Stop All Sort	Display Item Sel Start Stop All Sort A	Display Item Sel Start Stop All Sort A	Display Item Sel Start Stop All Sort A						
	1				5	-		► DIM_	DIM_ACCOUNT.ACCO	► DIM_ACCOUNT.ACCOUNT_TYPE	DIM_ACCOUNT.ACCOUNT_TYPE	DIM_ACCOUNT.ACCOUNT_TYPE	► DIM_ACCOUNT.ACCOUNT_TYPE 2	► DIM_ACCOUNT.ACCOUNT_TYPE 2 4	► DIM_ACCOUNT.ACCOUNT_TYPE 2 4	► DIM_ACCOUNT.ACCOUNT_TYPE 2 4 A	▶ DIM_ACCOUNT.ACCOUNT_TYPE 2 4 A -	▶ DIM_ACCOUNT.ACCOUNT_TYPE 2 4 A •	▶ DIM_ACCOUNT.ACCOUNT_TYPE 2 4 A -	► DIM_ACCOUNT.ACCOUNT_TYPE 2 4 A -	DIM_ACCOUNT.ACCOUNT_TYPE 2 4 A -	DIM_ACCOUNT.ACCOUNT_TYPE 2 4 A •	DIM_ACCOUNT.ACCOUNT_TYPE 2 4 A •	DIM_ACCOUNT_ACCOUNT_TYPE 2 4 A -	▶ DIM_ACCOUNT_ACCOUNT_TYPE 2 4 A • .	▶ DIM_ACCOUNT.ACCOUNT_TYPE 2 4 A •
	2	[Account Ty	leav					DIM	DIM ACCOUNT.COD				DIM ACCOUNT.CODE 3	DIM ACCOUNT.CODE 3 3	DIM ACCOUNT.CODE 3 3			DIM ACCOUNT.CODE 3 3 A •	DIM ACCOUNT.CODE 3 3 A •	DIM ACCOUNT.CODE 3 3 A +	DIM ACCOUNT.CODE 3 3 A •				DIM ACCOUNT.CODE 3 3 A + .	DIM ACCOUNT.CODE 3 3 A •
ſ.	3		[Accou	nt] [Balance]																						
	4	Total of ac	ount type	0								· · · ·	·	·												
-	5																									
	_						_		_	_					_											
1 2		A		В	С	D																				
	1																									
	2	ASSETS																								
+	7	COST																								
+	18	B LIABILITI	ES																							
+	28	<b>B</b> REVENU	ES																							
+	33	2																								
		-																								
			-	-	_																					
1 2	1	A	В	C																						
	2	ASSETS																								
Γ· Ϊ	3		1510	179213992.9																						
· ]	4		1611	100																						
· .	5		1910	-2518.12																						
L·	6	Total of acco	unt type	179211574.8																						
	7	COST	4000	50																						
	0 9		4992 5011	50																						
	10		5061	3000																						
	11		5064	3000																						
•	12		5500	399753																						
•	13		5590	-399753																						
•	14		5800	6297																						
· ·	15		6110	1000																						
•	16		6210	2000																						
L'	1/	Total of acco	unt type	19347																						
Γ.	10	LIABILITIES	2425	25.66																						
	20		2425	-23.00																						
	21		2450	182.75																						
	22		2455	230																						
•	23		2641	12.33																						
	24		2679	0																						



# 7.6 INDIRECT Function

This function is used to obtain the value stored in the Excel address of a cell. INDIRECT function accepts a text string entered as an argument and converts it into a valid cell address. Then, it goes to the given cell address and returns its value.

To obtain the address of a cell, you can use the ADDRESS function. The ADDRESS function returns the absolute address of a cell based on a specified row and a column number.

As the repeaters gets expanded at report execution, it is difficult to specify a row and a column number of a cell when designing a report. Thus, a dynamic approach needs to be taken to use ADDRESS function in IFS Business Reporter. Accordingly, you can use the ROW and the COLUMN function to obtain the row number and the column number of a cell reference.

In the below given example, ROW, COLUMN, ADDRESS, and INDIRECT functions are used to obtain the aggregate value for each Accounting Period.

In C4 cell, a formula is formed using ADDRESS, ROW and COLUMN functions. Objective is to obtain the address of the cell which contains the aggregated balance, as the balance for the period gets repeated for each accounting period.

C4			• I	$\times \checkmark f_x$	=ADDRESS(R	OW(D4),CC	UMN(D4)	-2)
	А	В	С	D	E	F	G	н
1				Period				
2				[Period]				
				Balance for the	Aggregated			
3	Account		Reference cell	period	Balance			
4	[Account]		\$B\$4	[Balance]	0			
5								

#### Figure 7.15

In E4, SUM function is used to obtain the total of the balance for the respective accounting period and aggregated balance of the previous period. INDIRECT function would refer to C4 which contains the Excel address of the reference cell and then it will go to the given cell address and returns its value.



E4				$\times \checkmark f_x$	=SUM(D4,INI	VI(D4,INDIRECT(C4))					
	А	В	С	D	Е	F	G	Н			
1				Period							
2				[Period]							
				Balance for the	Aggregated						
3	Account		Reference cell	period	Balance						
4	[Account]		\$B\$4	[Balance]	0						
5											

## Figure 7.16

Once the report is executed, the outcome will be shown as below.

	Α	В	С	D	E	F	G	Н	J J		К
1				Period			Period				
2				1			2			3	
				Balance for the	Aggregated		Balance for the	Aggregated		Balance for the	Aggregated
3	Account		Reference cell	period	Balance	Reference cell	period	Balance	Reference cell	period	Balance
4	5010		\$B\$4	1240000	1240000	\$E\$4	1240000	2480000	\$H\$4	1240000	3720000
5	5800		\$B\$5	7931	7931	\$E\$5	5320	13251	\$H\$5	7014	20265
6	5810		\$B\$6	6583	6583	\$E\$6	4670	11253	\$H\$6	6333	17586
7	6070		\$B\$7	10368	10368	\$E\$7	9592	19960	\$H\$7	7872	27832
8	6200		\$B\$8	84192	84192	\$E\$8	90336	174528	\$H\$8	93828	268356
9	6211		\$B\$9	2550	2550	\$E\$9	2537	5087	\$H\$9	2671	7758
10	7000		\$B\$10	977340	977340	\$E\$10	994220	1971560	\$H\$10	1004896	2976456
11	7200		\$B\$11	360020	360020	\$E\$11	357376	717396	\$H\$11	354632	1072028
12	7300		\$B\$12	1157	1157	\$E\$12	0	1157	\$H\$12	982	2139
13	7999		\$B\$13	604744	604744	\$E\$13	655332.66	1260076.66	\$H\$13	605352	1865428.66
14											