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#### How to convert your UNV to UNX like a pro





# PREACE



## " It is high time you migrate your UNV to UNX ,

**Grégory Botticchio, Director,** Analytics Product Management at SAP.

SAP BusinessObjects Semantic layer is the core technology developed by Business Objects back in the 1990s. At that time, the objective was to provide the ability for Business Objects users to receive their data, analyze it, and share it in the manner of their choice. To achieve this vision, the Business Objects universe was created.

With the release of BI4.0 in 2011, a new application to create universes was provided: the Information Design Tool, with the ambition to promote its usage to create universes and other things such as shared queries which can be reused in other SAP BusinessObjects client tools.

The objective was clear: replace the original Universe Designer tool by providing the same capabilities, and more, and an easy migration path to this new Information Designer Tool. With the releases of SAP BusinessObjects BI4.1 and BI4.2, we have continuously supported both universe applications. The difference is that the semantic layer innovations were only provided in the Information Design Tool, creating a greater value proposition compared to the Universe Designer Tool. However, with the recent release of the SAP BusinessObjects BI4.3, we decided it was time to streamline and focus our investments on the core SAP BusinessObjects products so that they benefit most of our customers.

As a result, we intend to stop supporting the Universe Designer Tool and «.unv» type universes in order to focus on the Information Design Tool and «.unx» type universes. This end of support is scheduled for 2027 and we believe this leaves enough time for our customers to make the inventory of their «.unv» universes and plan the best conversion path for them.

Far from being a trivial exercise, the census of ".unv" universes, determining which ones remain active, the number of associated Web intelligence documents, and the best migration path, can prove to be perilous, especially if they are closely linked to your decision-making processes. This is why this ebook, offered by our partner 360Suite, exists. It is there to help you by offering a methodology and the solutions to make this possible while minimizing risks, with a limited timeframe and budget.

As you will understand, far from being dead, the Universe Designer Tool application and the «.unv» universes are coming to their end of maintenance. Now is the time to consider a conversion to the Information Design Tool application and «.unx» type universes, in order to prepare for the future and to benefit from all the new innovations they contain.

**Grégory Botticchio** 

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The message is clear: UNV are dead. SAP officially announced that by the end of BI 4.3 in 2027, UNV will no longer exist. This may be in the all too distant future but converting your UNV to UNX simply doesn't happen overnight. Imagine you have 15 years of UNV on your SAP BusinessObjects platform, them alone probably include a few hundred tables with high levels of maintenance meaning a project such as this will take time. UNX was first introduced way back in BI 4.0, so it's not something new. We understand that universes are an important asset to SAP BusinessObjects customers and there will be a reluctance to decommission them, but since the recent announcement, it's time to put your UNV fully to rest.

Therefore, with the upcoming retirement of UNV, we have put together the important steps to take to convert to UNX, tips on how to facilitate the project with the 360Suite solutions, as well as a real-life example of how our customers carry out such a project.

UNV are a thing of the past and now is the time to modernize your SAP BusinessObjects platform by converting to UNX. Not only will it allow you to adopt multiple features to design more advanced universes, but it can also be a requirement if your organization plans to move its SAP BusinessObjects platform to the Cloud, such as Snowflake, which is now supported by SAP.

#### SOME OF THE MOST NOTABLE BENEFITS OF UNX ARE:

Any new database support is only added in the Information Design Tool (IDT) (e.g. Snowflake, Google BigQuery).

The IDT has a much more powerful and modern interface compared to the Universe Design Tool (UDT).

Dynamic default values are in the Universe Parameter.

#### Make the move to UNX to get access to all these features:

New Features of BI 4.0	XI3.1 Functional area	XI3.1(UNV)	BI4.0 (UNX)	<b>BI4.0 Functional area</b>
Project		8	0	Project
Shared Project		8	0	Project
Data Foundation		8	0	Universe
Context	Universe	•	0	DF
Calculated column		8	Ø	DF
Data Foundation view		8	Ø	DF
List of Values as standalone and shareable metadata		8	Ø	DF/BL
Prompts as standalone and shareable metadata		8	0	DF/BL
DF advanced search		8	Ø	DF
View data	Universe	0	0	DF
Comment		8	0	DF
Family		8	0	DF
Business Layer		8	0	Universe
Universe view		8	0	BL
Attribute	Universe outline	•	Ø	BL
Folder	Universe outline	0	Ø	BL
Query		8	Ø	BL
Navigation Paths	Hierarchies	0	0	BL

Source: SAP SCN Wiki

On top of the new features available in the IDT, it's also useful to understand the new terminology to use when converting to UNX:

UDT TERMINOLOGY	IDT TERMINOLOGY
Classes	Folders
Detail Objects	Attributes
Hierarchy	Navigation Path
Self-restricting join	Filter
@Prompt	Parameter

Converting UNV to UNX may seem like a challenging and daunting project, but it will allow you to modernize your SAP BusinessObjects platform and access new functionalities, to at the end of the day improve productivity in your environment.

#### CONVERT YOUR UNV TO UNX IN A FEW SIMPLE STEPS

The only way to perform this today is by using the SAP BusinessObjects Information Design Tool. It allows you to take your existing UDT UNV format and convert it to the IDT UNX format. The .unv universe(s) to be converted must be stored in a repository compatible with the IDT. If the .unv universe was created with a design tool version earlier than SAP BusinessObjects BI 4.0, you first need to upgrade the universe using the upgrade management tool. More information can be found in the SAP BusinessObjects Upgrade Guide.

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#### HERE WE'LL EXPLAIN THE STEPS TO CONVERT YOUR UNV TO UNX:

Open Information Design Tool (IDT)

Select File > Convert .unv Universe

Select From a repository...

<del>4</del>						Information Design 1	ool
File	Edit Actions Window Help						
	New	+		8 🗗 🎦 🔓 Ma			
3	New Universe		360	eyes_CMS.blx 🛛 💥 360eyes_0	COMPLIANCE.blx	🔆 360eyes_REPORTS.blx	2 3
3	Open Project						
9	Recent Resources	+					
	Close	Ctrl+W	-				
	Close All C	trl+Shift+W					
H	Save	Ctrl+S	-				
R	Save All	Ctrl+Shift+S					
	Publish	+					
	Retrieve a Published Universe	•					
	Convert .unv Universe	+		From a repository			
8	Print		6	From a local folder			
	E.da						

Open a session on the repository where the .unv universe is saved.

A conversion dialog box appears. NB: You can convert a single or multiple .UNV universes to .UNX universe format.

In the left side pane, browse to the folder that contains one or more .unv universes to convert. Select one or more universes, click the right arrow to move the selected universes to the right-side panel. Once all Universes to be converted are in the right-side panel, click OK.

A conversion options box appears. The selected universes are listed with the repository file paths. You will have several conversion options, select the conversion option you prefer.

#### Click Convert to start the conversion.

	Сог	vert .unv Universe
onvert .unv Universe		
Convert a .unv universe stored in the local fi	ile system, or in a repository.	
File name	Path	Status
<ul> <li>Activity</li> <li>GBS sales</li> </ul>	/Activity/Activity /GBS sales/GBS sales	
360eyes_UNIVERSE	/TestConn/360eyes_UNIVERSE	
	·····	
<	Ш	>
		Double-click on a converted universe to retrieve it
Destination		✓ Automatically convert @Prompt expressions into universe named parameters
<ul> <li>Keep the same destination folder</li> </ul>		Include core universes with converted universe
O Change the destination folder		Overwrite existing file(s)
	Browse.	
9		Convert Close

This conversion process in the IDT is very straightforward -- just remember that verification checks will need to be put in place to check everything in the UNV was converted over to UNX.

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#### TIPS AND TRICKS FOR A SMOOTHER CONVERSION

The real challenge for many organizations of converting Universes is due to the number of Webl documents that are pointing towards those Universes. However, there are solutions that can help make the process go a lot smoother, thanks to automation and bulk processes. Here we will provide you the 360Suite solutions available to facilitate the project workload. **PUT IN PLACE A BACKUP** 

**BULK REPOINT WEBI REPORTS FROM UNV TO UNX** 

**REGRESSION TEST TO COMPARE THE BEFORE AND AFTER** 

**UNIVERSE IMPACT ANALYSIS** 



First things first, make sure you have a backup in place. During any migration project, anything could happen, good or bad, and so this step is essential.

**360Suite** allows you to easily restore your entire platform or any specific individual objects in just a few clicks in case anything goes wrong.



Watch how to put in place a backup with 360Plus.





#### BULK **REPOINT WEBI REPORTS FROM** UNV TO UNX



Having all your Webl reports pointing towards the old UNV Universe means that you will have to manually open each document and perform a Change Source in order to repoint each data provider to the new UNX Universe. This can be extremely time-consuming if you have thousands of Webls. Ensuring you have a reliable backup is essential because once your Webl documents have been repointed you cannot go back, whether you repoint manually, or with 360Suite.

**Our Repoint Webl feature in 360Suite** allows you to do this repointing in bulk, with a scheduling option included.

Watch how to bulk repoint Webl reports with 360View.



#### REGRESSION TEST TO COMPARE THE BEFORE AND AFTER

Whenever you migrate universes, reports, prompts, etc from an old to a new environment it's imperative to carry out regression testing to check that everything has migrated across correctly. This works the same when converting UNV to UNX. It's especially needed to verify that universe prompt filters are working properly (typically done by generating sample reports) and yielding correct data.

Our solution allows you to do automated regression testing when converting your UNV to UNX.

Learn how to carry out automated regression testing with 360Bind.

#### UNIVERSE IMPACT ANALYSIS

Carrying out an impact analysis of your SAP BusinessObjects environment will allow you to better understand what universe objects are used by documents, not just WebI but also Crystal Reports and Deski. If you want to go further and clean up your various UNX, an impact analysis will also show you the objects that are used or not used.

**360Suite** allows you to analyze the usage of your documents to avoid repointing those that are not being used.

Document Path	Document Cuid	Document Name	Action Count	Last Action Date	Days since last action date
/Root Folder/Seb/	Aal.euTrBhOrnEPp7tzWOc	Test	0	NO ACTION	NO ACTION
/User Folders/Admin/	Aff3_vjMRONMrGPEXIpuu8s	Universe Usage	0	NO ACTION	NO ACTION
/User Folders/Tony/	AfDWFKz_uxFNtubVuWC0ezs	Contact Status	12	05/27/2019	0
/Root Folder/360Bind/	ASOmKYUk.nZKvj8kAXeXIc	Sales Report	5	05/25/2019	2
/Demo Yasmina/	AfLS7IDzpmJKS4819ThaC2Y	Demo 360Eyes	8	05/25/2019	2
/Demo Remi/	Ac5yUMKEmdRLodwKutk13DI	Demo 360Plus	7	05/22/2019	5



Example of document usage report in 360Eyes.

#### Example of unused Universe objects using 360Eyes:

Universe	Class Full Name	Object Name	Object Count
/360eyes universes/360eyes_CMSView on Demand	Eye Snapshot	Last Snapshot (mono CMS)	2
	Eye Snapshot	Last Snapshot (multi CMS)	Not Used
	Eye Snapshot	Snapshot BOE Version	1
	Eye Snapshot	Snapshot Cms	43
	Eye Snapshot	Snapshot Date	48
	Eye Snapshot	Snapshot Id	117
	Eye Snapshot	Snapshot Name	47
	Eye Snapshot	Snapshot User	1
	Eye User	Database Credential Account	Not Used
	Eye User	Month of User Creation Date	Not Used
	Eye User	Month of User Last Login	Not Used
	Eye User	Month of User Update Date	Not Used
	Eye User	Quarter of User Creation Date	Not Used



## BULK UPDATE UNIVERSE OBJECTS



Looking to better organize your documents and universes? Keep your SAP BusinessObjects platform organized with our **time-saving solution that helps organize and document your universes** in the business layer, in particular, bulk updating your universe objects, including:

- Bulk update object descriptions
- Tag objects containing sensitive content
- Change Object Select
- Update object properties



#### Example of replacing a table to a view in excel:

Home Insert Draw Page Layout Formulas Data Review	/iew 🖻 Share 🖓 Comments
$\begin{array}{c c} & & & \\ & & & \\ & & & \\ Paste \end{array}  \begin{array}{c c} & & \\ & & \\ \end{array}  \begin{array}{c c} & & \\ \end{array}  \begin{array}{c c} & & \\ & & \\ \end{array}  \begin{array}{c c} & & \\ & & \\ \end{array}  \begin{array}{c c} & & \\ & & \\ \end{array}  \begin{array}{c c} & & \\ \end{array} $	
	Example & Center * \$ * 70 7 100 -30 Formatting as Table Styles X * Filter Select
Office Update To keep up-to-date with security updates, fixes, and improvements, ch	Replace Check for Updates
J1 $\ddagger$ X $\checkmark$ fx SELECT	Find what:
	Fild what:
1 SELECT	Outlet_Lookup I
2	Within: Sheet 🖸 Match case
3 @Aggregate_Aware(Agg_yr_qt_rn_st_ln_ca_sr.Yr,Agg_yr_qt_mt_mn_wk_rg_cy_sn_sr_qt_ma.)	
4 Calendar_year_lookup.Fiscal_Period	Search: By Rows Search: By Rows
5 @Aggregate_Aware(Agg_yr_qt_rn_st_ln_ca_sr.Qtr,Agg_yr_qt_mt_mn_wk_rg_cy_sn_sr_qt_ma	
6 @Aggregate_Aware(Agg_yr_qt_mt_mn_wk_rg_cy_sn_sr_qt_ma.Mth,Calendar_year_lookup.Mt	
7 @Aggregate_Aware(Agg_yr_qt_mt_mn_wk_rg_cy_sn_sr_qt_ma.Month_name,Calendar_year_l	
8 @Aggregate_Aware(Agg_yr_qt_mt_mn_wk_rg_cy_sn_sr_qt_ma.Wk,Calendar_year_lookup.We	Replace with:
9 Calendar_year_lookup.Year_Week	
10 ucase(Calendar_year_lookup.Holiday_Flag) 11	VW_Outlet_Lookup
12 @Aggregate_Aware(Agg_yr_qt_rn_st_In_ca_sr.State,Outlet_Lookup.State)	Replace Replace All Close Find Next
13 @Aggregate_Aware(Agg_yr_qt_mt_mn_wk_rg_cy_sn_sr_qt_ma.City,Outlet_Lookup.City)	
14 Outlet_Lookup.City_Long	
15 Outlet_Lookup.City_Lat	
16 @Aggregate_Aware(Agg_yr_qt_mt_mn_wk_rg_cy_sn_sr_qt_ma.Store_name,Outlet_Lookup.Sho	p_name)
17 Outlet_Lookup.Zip_code	
18 Outlet_Lookup.Address_1	
19 20 Outlet_Lookup.Long_opening_hours_flag	
20 Outlet_Lookup.tong_opening_nours_mag 21 Outlet_Lookup.Manager	
22 Outlet_Lookup.manager 22 Outlet_Lookup.Date_open	
23 Outlet_Lookup.Owned_outright_flag	
	loor_space>=3000, lif(Outlet_Lookup.Floor_space>=4000, lif(Outlet_Lookup.Floor_space>=5000, '5000 +','4000-4999'),'3000-3999'), '2000-2999'),'1000-1999') ,'0-999')
25 Outlet_Lookup.Floor_space	
<ol> <li>@Aggregate_Aware(Agg_yr_qt_rn_st_ln_ca_sr.Line,Article_lookup.Family_name,Article_Color_L</li> </ol>	.ookup.Family_name)
28 @Aggregate_Aware(Agg_yr_qt_rn_st_ln_ca_sr.Category,Article_lookup.Category,Article_Color_L	
29 @Aggregate_Aware(Article_lookup.Article_id,Article_Color_Lookup.Article_id)	
30 {fn concat{Article_Lookup_Criteria.Criteria_type_label,{fn concat{': ',Article_Lookup_Criteria.Crite	ria_label)))}
31 @Aggregate_Aware(Article_lookup.Article_label,Article_Color_Lookup.Article_label)	
32 Article_Color_Lookup.Color_Jabel	
33 Article_Color_Lookup.Color_code	
34 @Aggregate_Aware(Article_lookup.Sale_price,Article_Color_Lookup.Sale_price) 35	
35 36 promotion_lookup.Promotion_flag	
37 promotion lookup Print flag	6
Classes     Dimensions     Measures     Filters     +	
	Count: 42 🖽 🗐 🛄 – ——— + 110%



#### The results log in 360Univ after bulk importing updated descriptions:

Export Import Delete objects				
	Import	9/23/20 5:48:23 PM	> Product	
Source	mpore	9/23/20 5:48:23 PM	Extended price updated.	
Source Kind: File System 💙		9/23/20 5:48:23 PM	Sold at (unit price) updated.	
Source Kind. Prie System		9/23/20 5:48:23 PM	> Promotions	
Uploaded File Shared File		9/23/20 5:48:23 PM	Promotion Cost USD updated.	
+ Upload a file		9/23/20 5:48:23 PM	> Transactions Details	
+ optoat a me		9/23/20 5:48:23 PM	Transaction Amount updated.	
		9/23/20 5:48:23 PM	Quantity per Transaction updated.	
Uploaded file : univ.export (22).xlsx		9/23/20 5:48:23 PM	> Measures	
		9/23/20 5:48:23 PM	Sales revenue updated.	
Delete mode		9/23/20 5:48:23 PM	Quantity sold updated.	
		9/23/20 5:48:23 PM	Margin updated.	
		9/23/20 5:48:23 PM	Discount updated.	
		9/23/20 5:48:23 PM	> Filters	
		9/23/20 5:48:23 PM F		
		9/23/20 5:48:23 PM	> Time period	
		9/23/20 5:48:23 PM	Last year updated.	
	*	9/23/20 5:48:23 PM	This year updated.	
		9/23/20 5:48:23 PM	Christmas period updated.	
		9/23/20 5:48:23 PM	Holiday period updated.	
		9/23/20 5:48:23 PM	> Store	
		9/23/20 5:48:23 PM	Sales floor size? updated.	
		9/23/20 5:48:23 PM	Owned stores updated.	
		9/23/20 5:48:23 PM	Stores with long opening hours updated.	
		9/23/20 5:48:23 PM	> Store details	
		9/23/20 5:48:23 PM	> Product	
		9/23/20 5:48:23 PM	Prompt for a line item? updated.	

**D** Suite

#### HOW ARE 360SUITE CUSTOMERS CONVERTING UNV TO UNX?

One of our customers duplicates a set of Universes on a weekly basis, copying them to different folders and replacing the existing Universes. This changes the CUID of the Universes, affecting any WebI documents pointing to those Universes. It used to be a manual process for them to repoint documents to the updated/new Universes.

Fortunately, by implementing 360Suite, they have been able to automate this process, doing the updates in bulk, thus reducing the time it takes to update their documents. It has also allowed them to create a seamless process when replicating Universes. This feature also helps to mitigate the risks of missing one Universe or a set of WebI documents, therefore ensuring user confidence.



### MAKE THE MOVE TO UNX TODAY

We can't keep saying it enough, it's time to move your UNV to UNX today. SAP has announced that UNV will retire in the next few years and it's now as important as ever to start planning your UNV to UNX conversion project. With the help of the 360Suite solutions, you can save time and money, and have complete reassurance that the conversion will go smoothly.

If you need help on converting your UNV to UNX, get in touch and one of our experts will help you out.



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360Suite is a suite of **agile governance solutions** for SAP BusinessObjects developed by Wiiisdom.

At Wiiisdom, we transform your **Analytics landscape** into a **reliable** place to make **better, trusted decisions** every day and maximize your data assets.

360Suite is a set of solutions to ensure **quality, reliability, performance, and efficiency** of SAP BusinessObjects through testing, auditing, monitoring, cataloging, and scheduling methodologies. 360Suite is designed for large organizations looking to **mitigate data risks**, automate operations, and is the solution of choice for any migration project.

Visit https://wiiisdom.com/fr/360suite/

## - USEFUL RESOURCES

**Repoint Your Webl Reports With Ease Thanks To 360Suite** 

Webinar: Convert Your UNV Universes To UNX Like A Pro

Best Practices Before Migrating SAP BusinessObjects

Conversion Of The Relational Universes In BI 4.x, From UNV To UNX (SAP)

Convert UNV to UNX (AZBOCUG - Conférence Infosol)

UNV To UNX Universe Conversion Steps (SAP)

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